University of Vermont Medical Center Laboratory Test Catalog

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Alphabetical Test Listing

VECST *Ecstasy MDMA Screen, Urine*

Aspenti Health Laboratory

Important Note

Routine drug screen for inpatients and ambulatory clinics.
Ecstasy MDMA Screen, Urine, test information.

Additional Test Codes

Primary ID	Epic Code	Aspenti Test Code
VECST	LAB3722	VBL2260

Test Schedule / Analytical Time / Test Priority

Monday - Friday / 24 Hours / Not Available STAT

Performing Location

Aspenti Health Laboratory

BBTYP *ABO & Rh BLOOD TYPE*

University of Vermont Medical Center

Important Note

Labeling Instructions: Please provide patients full name (NO abbreviations or cut-off letters), University of Vermont Medical Center medical record number and/or date of birth, date and time sample collected and the signature of the person collecting the Blood Bank sample is required on specimens used to prepare blood products.
Specimen Transport: Specimens must be received in the laboratory within 24-hours of collection accompanied by a completed order form.
ABO Typing Requirements: Patients receiving blood transfusions for the first time at UVM Medical Center Blood Bank will require two ABO typings from separately drawn specimens. The second determination of ABO may come from a historic record on file in the Blood Bank or may come from a second, current specimen. Until the ABO group has been determined twice, only group O uncrossmatched RBC units will be issued. This policy does not apply to neonates (under the age of 4 months).

Additional Test Codes

Primary ID	Epic Code	Mayo Access ID
BBTYP	LAB895	FAH5141

Test Schedule / Analytical Time / Test Priority

Daily / 24 Hours / Available STAT

Method

Agglutination by tube test or Gel Methodology

CPT(s)

Description	CPT Code
ABO	86900
Rh Factor	86901

Instrumentation

Manual Method or Grifois Erytra

Reference Range

Blood type

Section

Blood Bank

Performing Location

University of Vermont Medical Center

Is the UVMMC lab NY State Certified to perform this testing? Yes/No

No

Order Code LOINC

Order Code	Reporting Name	LOINC Code
BTYP	Blood Type	882-1

Result Code LOINC(s)

Result Code	Reporting Name	LOINC Code
BTYP	Blood Type	882-1

Specimen Information — ABO & Rh BLOOD TYPE

Container	Specimen	Temperature	Collect Vol	Submit Vol	Minimum vol
Pink Top Tube	Whole Blood	Refrigerate	6 mL	6 mL	6 mL

A red top tube is acceptable (NO gel tubes) and a lavender top tube also acceptable. Three capillary tubes (red or lavender) are acceptable for neonates only. Submit capillary tubes unseparated.

TOTCD3 *ABSOLUTE CD3*

University of Vermont Medical Center

Important Note

Add Important Note: Hemagram and differential (CBCDF) is required for total CD3 count (absolute). Outside clients may submit a hemagram with differential from their own intrumentation with the sample or place and order for a CBCDF and also submit a lavender top tube (EDTA) for testing. If the CBCDF will not be tested within 12 hours, also submit a properly labelled smear. A CBCDF must be performed within 24 hours of the total CD3, however a CBCDF drawn at the same time is optimal.

Additional Test Codes

Primary ID	Epic Code	Mayo Access ID
TOTCD3	LAB2326	N/A

Test Schedule / Analytical Time / Test Priority

Monday – Saturday / 3 days / Not available STAT

Method

Flow Cytometry

CPT(s)

Description	CPT Code
T cells; total count	86359

Instrumentation

Beckman Coulter FC500 and Beckman Coulter Navios

Reference Range

In newly transplanted patients, therapeutic depletion of CD3+ cells is considered to correspond to 25 - 50 CD3+ cells/µL. Pediatric patients are known to have higher CD3 lymphocyte levels and may require progressively higher dosages of muromonab-CD3 to achieve therapeutic depletion.

Section

Immunology

Performing Location

University of Vermont Medical Center

Is the UVMMC lab NY State Certified to perform this testing? Yes/No

Yes

Specimen Information — ABSOLUTE CD3

Container	Specimen	Temperature	Collect Vol	Submit Vol	Minimum Vol	Stability
Purple Top (EDTA)	Whole Blood	Ambient	4 mL	2 mL	1 mL	30 hours
Sodium Heparin Tube	Whole Blood	Ambient	4 mL	2 mL	1 mL	48 hours

ACE *ACETAMINOPHEN, QUANTITATIVE*

University of Vermont Medical Center

Important Note

Toxicity is best measured 4 hours post dose/ingestion.

Additional Test Codes

Primary ID	Epic Code	Mayo Access ID
ACE	LAB43	FAH262

Test Schedule / Analytical Time / Test Priority

Daily / Same day / Available STAT

Method

Colorimetric

CPT(s)

Description	CPT Code
Acetaminophen Quant	80329

Instrumentation

Ortho Vitros 5600

Reference Range

Therapeutic: 10 – 30 ug/mL
Possible Toxicity: 150 – 200 ug/mL
Probable Toxicity: >200 ug/mL
Toxicity is best measured 4 hours post dose/ingestion.

Performing Location

University of Vermont Medical Center

Division

Chemistry-1

NYS Approved

Yes

Order Code LOINC

Order Code	Reporting Name	LOINC Code
ACE	Acetaminophen	3298-7

Result Code LOINC(s)

Result Code	Reporting Name	LOINC Code
ACE	Acetaminophen	3298-7

Specimen Information — ACETAMINOPHEN, QUANTITATIVE

Container	Specimen	Temperature	Collect Vol	Submit Vol	Minimum Vol	Stability
SST	Serum	Refrigerate	4 mL	0.5 mL	0.25 mL	14 days
Lithium Heparin (green top)	Plasma	Refrigerate	4 mL	0.5 mL	0.25 mL	14 days
*Green Microtainer		Refrigerate	0.6 mL			14 days

*While a microtainer is an optional tube type in rare circumstances, it is **not recommended.**

ACHE_ *Acetylcholinesterase, Amniotic Fluid (AChE-AF), Amniotic Fluid*

Mayo Clinic Laboratories in Rochester

Additional Test Codes

Primary ID	Epic Code	Mayo Access ID
ACHE_	LAB3244	ACHE_

Reporting Name

Acetylcholinesterase, AF

Useful For

Diagnosing open neural tube defects and, to a lesser degree, ventral wall defects

Specimen Type

Amniotic Fld

Additional Testing Requirements

If chromosome studies are also requested, see CHRAF / Chromosome Analysis, Amniotic Fluid for specimen requirements. When requested with chromosome analysis, the specimen cannot be frozen.

Necessary Information

Gestational age at amniocentesis is required.

Specimen Required

Container/Tube: Amniotic fluid container
Specimen Volume: 1 mL
Collection Instructions: A specimen from the 14 to 18 week gestational period of pregnancy is preferred. Amniotic fluid from the 14 to 21 week gestational period is acceptable.

Specimen Minimum Volume

0.3 mL

Specimen Stability Information

Specimen Type	Temperature	Time	Special Container
Amniotic Fld	Refrigerated (preferred)	365 days	
	Frozen	365 days	
	Ambient	14 days	

Special Instructions

- Second Trimester Maternal Screening Alpha-Fetoprotein (AFP)/Quad Screen Patient Information
- Biochemical Genetics Patient Information

Reference Values

Negative (reported as negative [normal] or positive [abnormal] for inhibitable acetylcholinesterase)

Reference values were established in conjunction with alpha-fetoprotein testing and include only amniotic fluids from pregnancies between 14 and 21 weeks gestation.

Day(s) and Time(s) Performed

Tuesday, Thursday; 8 a.m. (not reported on Saturday and Sunday)

Test Classification

This test was developed and its performance characteristics determined by Mayo Clinic in a manner consistent with CLIA requirements. This test has not been cleared or approved by the U.S. Food and Drug Administration.

CPT Code Information

82013

LOINC Code Information

Test ID	Test Order Name	Order LOINC Value
ACHE_	Acetylcholinesterase, AF	30106-9

Result ID	Test Result Name	Result LOINC Value
9287	Acetylcholinesterase, AF	30106-9
GACHE	Gestational Age (ACHE)	18185-9

Analytic Time

4 days

Specimen Retention Time

60 days

Reject Due To

Gross hemolysis	OK
Gross icterus	OK

NY State Approved

Yes

Method Name

Polyacrylamide Electrophoresis

Forms

1. **Second Trimester Maternal Screening Alpha-Fetoprotein (AFP)/QUAD Screen Patient Information (T595) is required;** see Special Instructions.
2. Biochemical Genetics Patient Information (T602) in Special Instructions.

LAB2410 *Adenosine Deaminase, Pleural Fluid*

ARUP Laboratories

Additional Test Codes

Epic Code	Mayo Access ID
LAB2410	FADPL

Method Name

Quantitative Spectrometry

Reporting Name

Adenosine Deaminase Pleural Fld

Specimen Type

Pleural Fluid

Specimen Required

Specimen Type: Pleural Fluid
Sources: Pleural Fluid
Container/Tube: Standard Transport Tube
Specimen Volume: 0.3 mL

Collection Instructions: Collect Pleural fluid in a leak proof container; centrifuge specimen at room temperature, transfer 0.3 mL to standard tube and freeze. Ship frozen.

Note: 1.Source is required.
2. Specimen must remain frozen until received at performing lab.

Specimen Minimum Volume

0.1 mL

Specimen Stability Information

Specimen Type	Temperature	Time	Special Container
Pleural Fluid	Frozen (preferred)	30 days	
	Refrigerated	7 days	
	Ambient	2 hours	

Reject Due To

Hemolysis	NA
Lipemia	NA
Icterus	NA
Other	Whole blood, Bronchoalveolar lavage (BAL) specimens, Turbid specimen

Reference Values

0.0-9.4 U/L

Day(s) and Time(s) Performed

Sunday, Tuesday, Thursday

Analytic Time

1 - 4 days

Test Classification

This test was developed and its performance characteristics determined by ARUP Laboratories. The U. S. Food and Drug Administration has not approved or cleared this test; however, FDA clearance or approval is not currently required for clinical use. The results are not intended to be used as the sole means for clinical diagnosis or patient management decisions.

CPT Code Information

84311

LOINC Code Information

Test ID	Test Order Name	Order LOINC Value
FADPL	Adenosine Deaminase Pleural Fld	35704-6

Result ID	Test Result Name	Result LOINC Value
Z4379	Source	31208-2
Z4380	Adenosine Deaminase Pleural Fld	35704-6

NY State Approved

Yes

TC *AFB CULTURE*

University of Vermont Medical Center

Important Note

Please specify specimen and collection site with order.
Cultures with organisms growing are maintained in the laboratory for 90 days after finalization.

When organisms are detected on culture, a preliminary result is available via the computer and the clinician is called with a verbal report.

AFB Culture on urine is indicated for patients on BCG Therapy for bladder cancer.
Pathology approval is required.

Additional Test Codes

Primary ID	Epic Code	Mayo Access ID
TC	LAB877	FAH5915

Test Schedule / Analytical Time / Test Priority

Monday – Friday / Reported when positive. Negative final at 56 days / AFB Smear NOT available STAT

Method

Culture

CPT(s)

Description	CPT Code
AFB Culture	87116
Concentration for Infectious Agents	87015

Testing includes culture, identification, (additional charges/CPT codes may apply) and if culture results warrant, susceptibility testing (at an additional charge) of all indicated organisms.

Instrumentation

Biomerieux Bact/Alert

Reference Range

Negative: No acid-fast bacilli isolated, final at 8 weeks

Section

Microbiology-2

Performing Location

University of Vermont Medical Center

Is the UVMMC lab NY State Certified to perform this testing? Yes/No

Yes

Result Code LOINC(s)

Result Code	Reporting Name	LOINC Code

In process

Specimen Information — AFB CULTURE

Container	Specimen	Temperature	Collect Vol	Submit Vol	Minimum Vol
Sterile Container	Fluid	Refrigerate	15 mL	15 mL	10 mL
Sterile Container	CSF*	Ambient	10 mL	10 mL	3.0 mL
Sterile Container	Aspirated Pus	Refrigerate	5 mL	5 mL	1.0 mL
Sterile Container	Tissue	Refrigerate	2 mm	2 mm	1 mm
Sterile Container	**Sputum	Refrigerate	5 mL	5 mL	3 mL
Sterile Container	Aspirate	Refrigerate	N/A	N/A	N/A
Sterile Container	Respiratory Biopsy	Refrigerate	N/A	N/A	N/A
Sterile Container	Lung Tissue	Refrigerate	2 mm	2 mm	1 mm
Sterile Container	***Urine	Refrigerate	40 mL	40 mL	10 mL

*10 mL of CSF is recommended if Mycobacteria is strongly suspected.
The sample must be received within 48 hours of collection.
The sample must be sealed in a leakproof container.
**Sputum (3 first morning specimens on different days is recommended, however 3 specimens collected 8 hours apart is acceptable as long as one specimen was collected as a first morning specimen.)

***AFB Culture on urine is indicated for patients on BCG Therapy for bladder cancer.
First morning specimen preferred. 24 hour collection not accepted.

AFB smear is recommended with culture.
*Pathology Approval is required

TCS *AFB CULTURE & SMEAR*

University of Vermont Medical Center

Important Note

Please specify specimen and collection site with order.
Samples must be received within 48 hours of collection.
Cultures with organisms growing are maintained in the laboratory for 90 days after finalization.
When organisms are detected on culture, a preliminary result is available via the computer and the clinician is called with a verbal report.
This test is subject to reflex testing, see Laboratory Reflex Testing Policy, you have the option to decline reflex testing if you believe it is not medically necessary. For first time positive AFB smear a *M. tuberculosis* PCR will be performed (culture will be performed regardless of AFB smear result).

Additional Test Codes

Primary ID	Epic Code	Mayo Access ID
TCS	LAB2513	FAH5913

Test Schedule / Analytical Time / Test Priority

Monday – Friday / Reported when positive. Negative final at 56 days / AFB Smear available STAT

Method

Culture & Smear

CPT(s)

Description	CPT Code
AFB Culture	87116
AFB Smear	87206
Concentration for Infectious Agents	87015

Testing includes culture, identification, (additional charges/CPT codes may apply) and if culture results warrant, susceptibility testing (at an additional charge) of all indicated organisms.

Instrumentation

Biomerieux Bact/Alert

Reference Range

Negative: No acid -fast bacilli isolated, final at 8 weeks

Section

Microbiology-2

Performing Location

University of Vermont Medical Center

Is the UVMMC lab NY State Certified to perform this testing? Yes/No

Yes

Result Code LOINC(s)

Result Code	Reporting Name	LOINC Code
In process		

Specimen Information — AFB CULTURE & SMEAR

Container	Specimen	Temperature	Collect Vol	Submit Vol	Minimum Vol
Sterile Container	*Sputum	Refrigerate	5 mL	5 mL	3 mL
Sterile Container	Aspirate	Refrigerate	N/A	N/A	3 mL
Sterile Container	Respiratory Biopsy	Refrigerate	N/A	N/A	3 mL
Sterile Container	Tissue	Refrigerate	2 mm	2 mm	1 mm
CSF Tube	CSF**	Ambient	10 mL	10 mL	3 mL
Sterile Container	Fluid	Refrigerate	15 mL	15 mL	10 mL
Sterile Container	Abscess	Refrigerate	3 mL	3 mL	1 mL
Sterile Container	*Feces	Refrigerate	1 gram	1 gram	1 gram

Samples must be received within 48 hours of collection.
Samples must be sealed in a leakproof container.
*Sputum (3 first morning specimens on different days is recommended, however 3 specimens collected 8 hours part is acceptable as long as one specimen was collected as a first morning specimen, aspirates, biopsies from respiratory tract, lung tissues.
**Pathology approval required for CSF. 10 mL of CSF is recommended if Mycobacteria is strongly suspected.

CFRTCS *AFB CULTURE & SMEAR, CF PATIENTS ONLY*

University of Vermont Medical Center

Additional Test Codes

Primary ID	Epic Code	Mayo Access ID
CFRTCS	LAB2729	N/A

Test Schedule / Analytical Time / Test Priority

Monday – Friday / Reported when positive. Negative final at 8 weeks / AFB Smear NOT available STAT

Method

Culture

CPT(s)

Description	CPT Code
AFB Culture	87116
AFB Smear	87206
Concentration for Infectious Agents	87015

Testing includes culture, identification, (additional charges/CPT codes may apply) and if culture results warrant, susceptibility testing (at an additional charge) of all indicated organisms.

Instrumentation

Manual Method

Reference Range

No Mycobacterium isolated

Section

Microbiology-2

Performing Location

University of Vermont Medical Center

Is the UVMMC lab NY State Certified to perform this testing? Yes/No

Yes

Order Code LOINC

In process

Result Code LOINC(s)

Result Code	Reporting Name	LOINC Code
SDES	Specimen Description	31208-2
AF	Acid Fast	11545-1
CULT	Result	41852-5
RPT	Report Status	N/A

Specimen Information — AFB CULTURE & SMEAR, CF PATIENTS ONLY

Container	Specimen	Temperature	Collect Vol	Submit Vol	Minimum Vol
Sterile Container	Respiratory Biopsy	Refrigerate	*	*	*
Sterile Container	Lung Tissue	Refrigerate	*	*	*
Sterile Container	Sputum	Refrigerate			
Sterile Container	BAL	Refrigerate			
Sterile Container	Broncial Washings	Refrigerate			

*Submit as much tissue as possible in 2-3 mL of sterile saline.
Sample must be received within 48 hours of collection.
Sample must be sealed in a leakproof container.

BTC *AFB CULTURE, BLOOD*

University of Vermont Medical Center

Important Note

Use for isolation of M. Avium/M. Intracellulare/MAI complex, and other Mycobacteria. Testing includes culture, identification, (additional charges/CPT codes may apply) and if culture results warrant, susceptibility testing (at additional charge) of all indicated organisms.

Additional Test Codes

Primary ID	Epic Code	Mayo Access ID
BTC	LAB246	FAH5267

Test Schedule / Analytical Time / Test Priority

Daily / Reported when positive. Negative final at 56 days / Not available STAT

Method

Culture

CPT(s)

Description	CPT Code
AFB Culture	87116

Instrumentation

Manual Method

Reference Range

Negative: No acid-fast bacilli isolated, final at 8 weeks
Positive: When organisms are detected, a preliminary result is available via computer and the clinician is called with a verbal report. Cultures with organisms growing are maintained in the laboratory for 90 days after finalization.

Section

Microbiology-2

Performing Location

University of Vermont Medical Center

Is the UVMMC lab NY State Certified to perform this testing? Yes/No

Yes

Order Code LOINC

Order Code	Reporting Name	LOINC Code
BTC	AFB Culture, Blood	533-0

Result Code LOINC(s)

Result Code	Reporting Name	LOINC Code
SDES	Specimen Description	31208-2
CULT	Result	41852-5
RPT	Report Status	N/A

Specimen Information — AFB CULTURE, BLOOD

Container	Specimen	Temperature	Collect Vol	Submit Vol	Minimum Vol
Adult Isolator Tube	Whole Blood	Ambient	10 mL	10 mL	8 mL
Pediatric Isolator Tube	Whole Blood	Ambient	1.5 mL	1.5 mL	1.0 mL

Adult patient samples drawn in pediatric isolator tubes will be rejected as quantity NOT sufficient for testing.

Collection of Blood Cultures

1. Do not collect from a site that shows signs of possible infection such as swelling, redness, hardness, or heat because organisms may already be established in the subcutaneous tissue, which could contaminate the blood cultures.
2. Clean the venipuncture site using a Blood Culture ChloroPrep Kit supply #59183. Squeeze the handle of the scrubber once to release the isopropyl alcohol. Use the scrubber to vigorously cleanse the site for 30 seconds and then allow it to air dry; do not use gauze to wipe off the site. Squeeze the center of the iodine ampule and use the swab end to apply it to the site, starting in the center and working out in concentric circles, to cover an area about 5cm. in diameter. A double application of alcohol may be used if the patient is sensitive to iodine. Wait several minutes for the site to air dry.
3. Once the puncture area is prepared, do not palpate the site again. If the puncture area is touched, it must be thoroughly prepped again.
4. If an Isolator™ tube is used, a vacutainer set up may be used, but care must be taken to keep the tube below the level of the vein so that the lysing solution does not flow back into the arm of the patient. The sample must be sealed in a leakproof container.

Blood Culture, Fungal (Pediatric) (Pedi Isolator® supply # 59186): Inject 1.5 mL of blood into an alcohol-swabbed tube.

1. Label bottles or tube with patient's full name, date of birth and UVM Medical Center Medical Record number if available. The label must contain two unique identifiers, UVMMC medical record number (MRN) or patient's date of birth along with the patient's full name.
2. Deliver immediately (samples must be recieved within 24 hours of collection) to the laboratory. Do not place blood cultures samples in the refrigerator. The sample must be sealed in a leakproof container.

AFSM *AFB SMEAR ONLY, OTHER*

University of Vermont Medical Center

Important Note

AFB Smear must be ordered in conjunction with AFB Culture.
This test is subject to reflex testing, see Laboratory Reflex Testing Policy, you have the option to decline reflex testing if you believe it is not medically necessary. For a first time positive AFB smear a *M. tuberculosis* PCR will be performed.

Additional Test Codes

Primary ID	Epic Code	Mayo Access ID
AFSM	LAB266	FAH5115

Test Schedule / Analytical Time / Test Priority

Monday – Friday / 1 day / NOT available STAT

Method

Smear

CPT(s)

Description	CPT Code
AFB Smear	87206

Instrumentation

Manual Method

Reference Range

Negative: No Acid Fast Bacilli seen/identified
Positive: Clinicians will be notified of all positive acid-fast bacilli seen.

Section

Microbiology-2

Performing Location

University of Vermont Medical Center

Is the UVMMC lab NY State Certified to perform this testing? Yes/No

Yes

Order Code LOINC

Order Code	Reporting Name	LOINC Code
AFSM	AFB Smear Only, Other	11545-1

Result Code LOINC(s)

Result Code	Reporting Name	LOINC Code
SDES	Specimen Description	31208-2
AF	Acid Fast	11545-1
RPT	Report Status	N/A

Specimen Information — AFB SMEAR ONLY, OTHER

Container	Specimen	Temperature	Collect Vol	Submit Vol	Minimum Vol
Sterile Container	*Sputum	Refrigerate	5 mL	5 mL	1 mL
Sterile Container	Aspirate	Refrigerate	N/A	N/A	N/A
Sterile Container	Respiratory Biopsy	Refrigerate	N/A	N/A	N/A
Sterile Container	Tissue	Refrigerate	N/A	N/A	N/A

The sample must be received within 48 hours of collection.
Samples must be sealed in a leakproof container.
*Sputum: 3 first morning specimens on different days is recommended, however, 3 specimens collected 8 hours apart is acceptable as long as one specimen was collected as a first morning specimen. Due to the low sensitivity of the AFB smear, smear-only requests are not accepted.

AFPTMR *AFP TUMOR MARKER*

University of Vermont Medical Center

Important Note

Test subject to Medicare National Coverage Determination (NCD) policy 190.25 Alpha-fetoprotein.

Additional Test Codes

Primary ID	Epic Code	Mayo Test ID
AFPTMR	LAB559	N/A

Test Schedule / Analytical Time / Test Priority

Monday, Wednesday, and Friday run starts at 8 am / 3 days / Not available STAT

Method

Chemiluminescence Immunoassay

CPT(s)

Description	CPT Code
Alpha Fetoprotein, Tumor Repeat	82105

Instrumentation

Siemens ADVIA Centaur XP

Reference Range

> 2 Years: <8.1 ng/mL
< 2 years: Contact Laboratory Customer Service for assistance (847-5121/800-991-2799)

Section

Chemistry-2

Performing Location

University of Vermont Medical Center

Is the UVMMC lab NY State Certified to perform this testing? Yes/No

Yes

Order Code LOINC

Order Code	Reporting Name	LOINC Code
AFPTMR	AFP Tumor Marker	53962-7

Specimen Information — AFP TUMOR MARKER

Container	Specimen	Temperature	Collect Vol	Submit Vol	Minimum Vol	Stability
Serum Separator Tube	Serum	Refrigerate	4 mL	2 mL	1 mL	6 days
*2 Yellow Microtainers		Refrigerate	1.2 mL			6 days

*While a microtainer is an optional tube type in rare circumstances, it is **not recommended.**

ALB *ALBUMIN*

University of Vermont Medical Center

Important Note

While a microtainer is an optional tube type in rare circumstances, it is **not recommended.**

Additional Test Codes

Primary ID	Epic Code	Mayo Access ID
ALB	LAB45	FAH4973

Test Schedule / Analytical Time / Test Priority

Daily / 24 Hours / Available STAT

Method

Colorimetric

CPT(s)

Description	CPT Code
Albumin	82040

Instrumentation

Ortho Vitros 5600

Section

Chemistry-1

Performing Location

University of Vermont Medical Center

Is the UVMMC lab NY State Certified to perform this testing? Yes/No

Yes

Result Code LOINC(s)

Result Code	Reporting Name	LOINC Code
ALB	Albumin	1751-7

Specimen Information — ALBUMIN

Container	Specimen	Temperature	Collect Vol	Submit Vol	Minimum Vol	Stability
SST	Serum	Refrigerate	4 mL	0.6 mL	0.3 mL	5 days
Lithium Heparin (Green Top)	Plasma	Refrigerate	4 mL	0.6 mL	0.3 mL	5 days
*Green Microtainer		Refrigerate	0.6 mL			5 days

*While a microtainer is an optional tube type in rare circumstances, it is **not recommended.**

Reference Range — ALBUMIN

Age	Sex	Physiological Status	Low	High	Units
0 - 8 days	Male		2.3	3.8	g/dL
8 days - 1 month	Male		2.0	4.5	g/dL
1 - 3 months	Male		2.0	4.8	g/dL
3 - 6 months	Male		2.1	4.9	g/dL
6 months - 1 year	Male		2.1	4.7	g/dL
1 - 4 years	Male		3.4	4.2	g/dL
4 - 7 years	Male		3.5	5.2	g/dL
7 - 10 years	Male		3.7	5.6	g/dL
10 - 18 years	Male		3.7	5.6	g/dL
≥18 years	Male		3.4	4.9	g/dL
0 - 8 days	Female		1.8	3.9	g/dL
8 days - 1 month	Female		1.8	4.4	g/dL
1 - 3 months	Female		1.9	4.2	g/dL
3 - 6 months	Female		2.2	4.4	g/dL
6 months - 1 year	Female		2.2	4.7	g/dL
1 - 4 years	Female		3.4	4.2	g/dL
4 - 7 years	Female		3.5	5.2	g/dL
7 - 10 years	Female		3.7	5.6	g/dL
10 - 18 years	Female		3.7	5.6	g/dL
≥18 years	Female		3.4	4.9	g/dL

CSALB *ALBUMIN, CSF*

University of Vermont Medical Center

Additional Test Codes

Primary ID	Epic Code	Mayo Access ID
CSALB	LAB177	FAH5717

Test Schedule / Analytical Time / Test Priority

Monday, Wednesday, and Friday / 3 days / Not available STAT

Method

Nephelometry

CPT(s)

Description	CPT Code
Albumin, CSF	82042

Instrumentation

Binding Site Optilite

Section

Chemistry-2

Performing Location

University of Vermont Medical Center

Is the UVMMC lab NY State Certified to perform this testing? Yes/No

Yes

Result Code LOINC(s)

Result Code	Reporting Name	LOINC Code
CALB	CSF Albumin	1746-7

Order Code LOINC

Order Code	Reporting Name	LOINC Code
CSALB	Albumin, CSF	1746-7

Specimen Information — ALBUMIN, CSF

Container	Specimen	Temperature	Collect Vol	Submit vol	Minimum Vol	Stability
CSF Tube	CSF	Refrigerate	1 mL	0.5 mL	0.3 mL	7 days

Reference Range — ALBUMIN, CSF

Age	Sex	Physiological Status	Low	High	Units
≥18	All			≤25.1	mg/dL

FALB *ALBUMIN, FLUID*

University of Vermont Medical Center

Important Note

Only pleural or peritoneal fluid is acceptable.
Best interpreted in the context of a paired serum albumin vallue.

Additional Test Codes

Primary ID	Epic Code	Mayo Access ID
FALB	LAB3106	FAH5722

Test Schedule / Analytical Time / Test Priority

Daily / 24 Hours / Available STAT

Method

Colorimetric

CPT(s)

Description	CPT Code
Albumin	82042

Instrumentation

Ortho Vitros 5600

Reference Range

None

Section

Chemistry-1

Performing Location

University of Vermont Medical Center

Is the UVMMC lab NY State Certified to perform this testing? Yes/No

Yes

Order Code LOINC

Order Code	Reporting Name	LOINC Code
FALB	Albumin, Fluid	1747-5

Result Code LOINC(s)

Result Code	Reporting Name	LOINC Code
FALB	Albumin, Fluid	1747-5

Specimen Information — ALBUMIN, FLUID

Container	Specimen	Temperature	Collect Vol	Submit Vol	Minimum Vol	Stability
Sterile Container	Pleural Fluid	Refrigerate	2 mL	1 mL	0.2 mL	5 days
Sterile Container	Peritoneal Fluid	Refrigerate	2 mL	1 mL	0.2 mL	5 days

UMALBU *ALBUMIN, URINE*

University of Vermont Medical Center

Important Note

This test includes Urine Albumin, Urine Creatinine, and Albumin/Creatinine Ratio.

Additional Test Codes

Primary ID	Epic Code	Mayo Access ID
UMALBU	LAB743	FAH5821

Test Schedule / Analytical Time / Test Priority

Daily / Same day / Not available STAT

Method

Immunoturbidometric

CPT(s)

Description	CPT Code
Creatinine, Random Urine	82570
Microalbumin	82043

Instrumentation

Ortho Vitros 5600

Reference Range

Normal: < 30 ug/mg Creatinine
Moderately Increased Albuminuria: 30-300 ug/mg Creatinine
Severly Increased Albuminuria: >300 ug/mg Creatinine

Section

Chemistry-2

Performing Location

University of Vermont Medical Center

Is the UVMMC lab NY State Certified to perform this testing? Yes/No

Yes

Order Code LOINC

Order Code	Reporting Name	LOINC Code
UMALB	Albumin, Urine	in process

Result Code LOINC(s)

Result Code	Reporting Name	LOINC Code
UCRR	Creatinine, Urn Random	35674-1
UALB	Albumin, Urine	14957-5
UAB	Alb ug/mg Cr, Urine	14959-1

Specimen Information — ALBUMIN, URINE

Container	Specimen	Temperature	Collect Vol	Submit Vol	Minimum Vol	Stability
Sterile Container	Urine	Refrigerate	10 mL	10 mL	3 mL	7 days

VALC *Alcohol Metabolite (EtG) Screen, Urine*

Aspenti Health Laboratory

Important Note

Routine drug screen available for inpatients and ambulatory clinics.
Alcohol Metabolite (EtG) Screen, Urine, test information.

Additional Test Codes

Primary ID	Epic Code	Aspenti Test Code
VALC	In process	VB2110

Test Schedule / Analytical Time / Test Priority

Monday - Friday / 24 Hours / Not Available STAT

Performing Location

Aspenti Health Laboratory

ALKP *ALKALINE PHOSPHATASE*

University of Vermont Medical Center

Important Note

While a microtainer is an optional tube type in rare circumstances, it is **not recommended.**

Additional Test Codes

Primary ID	Epic Code	Mayo Access ID
ALKP	LAB112	FAH4842

Test Schedule / Analytical Time / Test Priority

Daily / 24 Hours / Available STAT

Method

Colorimetric

CPT(s)

Description	CPT Code
Alkaline Phosphatase	84075

Instrumentation

Ortho Vitros 5600

Section

Chemistry-1

Performing Location

University of Vermont Medical Center

Is the UVMMC lab NY State Certified to perform this testing? Yes/No

Yes

Order Code LOINC

Order Code	Reporting Name	LOINC Code
ALKP	Alkaline Phosphatase	6768-6

Result Code LOINC(s)

Result Code	Reporting Name	LOINC Code
ALKP	Alkaline Phosphatase	6768-6

Specimen Information — ALKALINE PHOSPHATASE

Container	Specimen	Temperature	Collect Vol	Submit Vol	Minimum Vol	Stability
SST	Serum	Refrigerate	4 mL	0.6 mL	0.3 mL	5 days
Lithium Heparin (Green Top)	Plasma	Refrigerate	4 mL	0.6 mL	0.3 mL	5 days
*Green Microtainer		Refrigerate	0.6 mL			5 days

*While a microtainer is an optional tube type in rare circumstances, it is **not recommended.**

Reference Range — ALKALINE PHOSPHATASE

Age	Sex	Physiological Status	Low	High	Units
0 - 8 days	Male		77	265	U/L
8 days - 1 month	Male		91	375	U/L
1 - 4 months	Male		60	360	U/L
4 - 7 months	Male		55	325	U/L
7 months - 1 year	Male		60	300	U/L
1 - 4 years	Male		129	291	U/L
4 - 7 years	Male		134	346	U/L
7 - 10 years	Male		156	386	U/L
10 - 12 years	Male		120	488	U/L
12 - 14 years	Male		178	455	U/L
14 - 16 years	Male		116	483	U/L
16 - 18 years	Male		58	237	U/L
≥ 18 years	Male		38	126	U/L
0 - 8 days	Female		65	270	U/L
8 days - 1 month	Female		65	365	U/L
1 - 4 months	Female		80	425	U/L
4 - 7 months	Female		80	345	U/L
7 months - 1 year	Female		60	330	U/L
1 - 4 years	Female		129	291	U/L
4 - 7 months	Female		134	346	U/L
7 months - 1 year	Female		60	330	U/L
1 - 4 years	Female		129	291	U/L
4 - 7 years	Female		134	346	U/L
7 - 10 years	Female		156	386	U/L
10 - 12 years	Female		116	515	U/L
12 - 14 years	Female		93	386	U/L
14 - 16 years	Female		62	209	U/L
16 - 18 years	Female		45	116	U/L
≥ 18 years	Female		38	126	U/L

AATS *ALPHA 1 ANTITRYPSIN*

University of Vermont Medical Center

Additional Test Codes

Primary ID	Epic Code	Mayo Access ID
AATS	LAB810	FAH5819

Test Schedule / Analytical Time / Test Priority

Monday – Friday / 3 days / Not available STAT

Method

Immunoturbidometric

CPT(s)

Description	CPT Code
Alpha 1 Antitrypsin	82103

Instrumentation

Binding Site Optilite

Section

Chemistry-2

Performing Location

University of Vermont Medical Center

Is the UVMMC lab NY State Certified to perform this testing? Yes/No

Yes

Order Code LOINC

Order Code	Reporting Name	LOINC Code
AAT	A1 Antitrypsin	1825-9

Result Code LOINC(s)

Result Code	Reporting Name	LOINC Code
AAT	A1 Antitrypsin	1825-9

Specimen Information — ALPHA 1 ANTITRYPSIN

Container	Specimen	Temperature	Collect vol	Submit vol		Minimum Vol	Stability
Serum Separator Tube	Serum	Refrigerate	5 mL	0.5 mL		0.2 mL	7 days
*Yellow Microtainer		Refrigerate	0.6 mL				7 days

*While a microtainer is an optional tube type in rare circumstances, it is **not recommended.**

Reference Range — ALPHA 1 ANTITRYPSIN

Age	Sex	Physiological Status	Low	High	Units
≥ 18 Year	All	N/A	90	200	mg/dL

ALT *ALT (SGPT)*

University of Vermont Medical Center

Important Note

While a microtainer is an optional tube type in rare circumstances, it is **not recommended.**

Additional Test Codes

Primary ID	Epic Code	Mayo Access ID
ALT	LAB132	FAH264

Test Schedule / Analytical Time / Test Priority

Daily / 24 Hours / Available STAT

Method

Rate Reflectance Spectrophotometry

CPT(s)

Description	CPT Code
ALT (AGPT)	84460

Instrumentation

Ortho Vitros

Section

Chemistry-1

Performing Location

University of Vermont Medical Center

Is the UVMMC lab NY State Certified to perform this testing? Yes/No

Yes

Order Code LOINC

Order Code	Reporting Name	LOINC Code
ALT	ALT (SGPT)	1742-6

Result Code LOINC(s)

Result Code	Reporting Name	LOINC Code
ALT	ALT (SGPT)	1742-6

Specimen Information — ALT (SGPT)

Container	Specimen	Temp	Collect Vol	Submit Vol	Minimum Vol	Stability
Serum Separator Tube	Serum	Refrigerate	4 mL	0.6 mL	0.3 mL	7 days
Lithium Heparin (Green Top)	Plasma	Refrigerate	4 mL	0.6 mL	0.3 mL	7 days
*Green Microtainer		Refrigerate	0.6 mL			7 days

*While a microtainer is an optional tube type in rare circumstances, it is **not recommended.**

Reference Range — ALT (SGPT)

Age	Sex	Physiological Status	Low	High	Units
0 - 8 days	Male			<41	U/L
8 days - 1 month	Male			<41	U/L
1 - 4 months	Male		13	39	U/L
4 - 7 months	Male		12	42	U/L
7 months - 1 year	Male		13	45	U/L
1 - 4 years	Male			<46	U/L
4 - 7 years	Male			<26	U/L
7 - 10 years	Male			<36	U/L
10 - 12 years	Male			<36	U/L
12 - 14 years	Male			<56	U/L
14 - 16 years	Male			<46	U/L
16 - 18 years	Male			<41	U/L
≥18 years	Male			<50	U/L
0 - 8 days	Female			<41	U/L
8 days - 1 month	Female			<33	U/L
1 - 4 months	Female		12	47	U/L
4 - 7 months	Female		12	37	U/L
7 months - 1 year	Female		12	41	U/L
1 - 4 years	Female			<46	U/L
4 - 7 years	Female			<26	U/L
7 - 10 years	Female			<36	U/L
10 - 12 years	Female			<31	U/L
12 - 14 years	Female			<31	U/L
14 - 16 years	Female			<31	U/L
16 - 18 years	Female			<36	U/L
≥18 years	Female			<35	U/L

AMMON *AMMONIA*

University of Vermont Medical Center

Important Note

TESTING CANNOT BE ADDED ONTO PREVIOUSLY COLLECTED SPECIMENS
While a microtainer is an optional tube type in rare circumstances, it is **not recommended.**

Additional Test Codes

Primary ID	Epic Code	Mayo Access ID
AMMON	LAB47	FAH281

Test Schedule / Analytical Time / Test Priority

Daily / 24 Hours / Available STAT

Method

Colorimetric

CPT(s)

Description	CPT Code
Ammonia	82140

Instrumentation

Ortho Vitros 5600

Section

Chemistry-1

Performing Location

University of Vermont Medical Center

Is the UVMMC lab NY State Certified to perform this testing? Yes/No

Yes

Result Code LOINC(s)

Result Code	Reporting Name	LOINC Code
AMON	Ammonia	16362-6

Order Code LOINC

Order Code	Reporting Name	LOINC Code
AMMON	Ammonia	16362-6

Specimen Information — AMMONIA

Container	Specimen	Temp	Collect Vol	Submit Vol	Min. Vol	Stability
Green Top Tube (Lithium Heparin)	Plasma	On Ice	3 mL	0.5 mL	0.2 mL	3 hours
Green Top Tube (Lithium Heparin)	Plasma	Frozen	3 mL	0.5 mL	0.2 mL	24 hours
*Green Microtainer		On ice	0.6 mL			3 Hours

Green Top tube (Lithium heparin) must be spun and separated from the cells within **15 minutes**. Transport plasma to lab on ice. Test must be performed within 3 hours of collection. Any degree of hemolysis will cause rejection of specimen.
*While a microtainer is an optional tube type in rare circumstances, it is **not recommended.**

Reference Range — AMMONIA

Age	Sex	Physiological Status	Low	High	Units
0 - 8 days	All		54	94	µmol/L
8 days - 1 month	All		47	80	µmol/L
1 month - 1 year	All		15	47	µmol/L
1 - 16 years	All		22	48	µmol/L
≥16 years	All			<34	µmol/L

VAMPHC *AMPHETAMINE CONFIRMATION, URINE*

Aspenti Health Laboratory

Additional Test Codes

Primary ID	Epic Code	Aspenti Test Code
VAMPHC	LAB2415	VBL7071

Test Schedule / Analytical Time / Test Priority

Monday - Friday / 3 days / Not available STAT

Performing Location

Aspenti Health

Specimen Information — AMPHETAMINE CONFIRMATION, URINE

Container	Specimen	Temperature	Collect Vol	Submit Vol	Minimum Vol
Clean Container	Random Urine	Refrigerate	50 mL	50 mL	30 mL

UAM2 *AMPHETAMINE SCREEN, URINE*

University of Vermont Medical Center

Important Note

Restricted to Emergency Department and Labor and Delivery use only.
This screen is intended for use in clinical monitoring or management of patients.
This test is subject to Medicare National Coverage Determination (LCD) L36037-Urine Drug Testing.

Additional Test Codes

Primary ID	Epic Code	Mayo Access ID
UAM2	LAB364	FAH5766

Test Schedule / Analytical Time / Test Priority

Daily / Same day / Available STAT

Method

Immunochromatography

CPT(s)

Description	CPT Code
Amphetamine Screen	80306

Instrumentation

MedTox Scan

Reference Range

This screen is intended for use in clinical monitoring or management of patients.

Section

Chemistry-1

Performing Location

University of Vermont Medical Center

Is the UVMMC lab NY State Certified to perform this testing? Yes/No

Yes

Order Code LOINC

Order Code	Reporting Name	LOINC Code
UAM2	Amphetamine Screen, Urine	19343-3

Result Code LOINC(s)

Result Code	Reporting Name	LOINC Code
UAM2	Amphetamine Screen, Urine	19343-3

Specimen Information — AMPHETAMINE SCREEN, URINE

Container	Specimen	Temperature	Collect Vol	Submit Vol	Minimum Vol	Stability
Sterile Container	Urine	Refrigerate	50 mL	50 mL	30 mL	2 days
Sterile Container	Urine	Frozen	50 mL	50 mL	30 mL	30 days

VAMP *Amphetamines Screen, Urine*

Aspenti Health Laboratory

Important Note

Routine drug screen available for inpatients and ambulatory clinics.
Amphetamines Screen, Urine, test information.

Additional Test Codes

Primary ID	Epic Code	Aspenti Test Code
VAMP	LAB3728	VBL2010

Test Schedule / Analytical Time / Test Priority

Monday - Friday / 24 Hours / Not Available STAT

Performing Location

Aspenti Health Laboratory

AMY *AMYLASE*

University of Vermont Medical Center

Important Note

While a microtainer is an optional tube type in rare circumstances, it is **not recommended.**

Additional Test Codes

Primary ID	Epic Code	Mayo Access ID
AMY	LAB48	FAH246

Test Schedule / Analytical Time / Test Priority

Daily / 24 Hours / Available STAT

Method

Colorimetric

CPT(s)

Description	CPT Code
Amylase	82150

Instrumentation

Ortho Vitros 5600

Section

Chemistry-1

Performing Location

University of Vermont Medical Center

Is the UVMMC lab NY State Certified to perform this testing? Yes/No

Yes

Order Code LOINC

Order Code	Reporting Name	LOINC Code
AMY	Amylase	1798-8

Result Code LOINC(s)

Result Code	Reporting Name	LOINC Code
AMY	Amylase	1798-8

Specimen Information — AMYLASE

Container	Specimen	Temp	Collect Vol	Submit Vol	Min Vol	Stability
SST	Serum	Refrigerate	4 mL	0.6 mL	0.3 mL	30 days
Lithium Heparin (Green Top)	Plasma	Refrigerate	4 mL	0.6 mL	0.3 mL	30 days
*Green Microtainer		Refrigerate	0.6 mL			30 days

*While a microtainer is an optional tube type in rare circumstances, it is **not recommended.**

Reference Range — AMYLASE

Age	Sex	Physiological Status	Low	High	Units
≥18 years	All	N/A	30	110	U/L

Plasma Concentrations are 20 U/L higher than serum concentrations.

FAMY *AMYLASE, FLUID*

University of Vermont Medical Center

Important Note
Best interpreted in the context of a paired serum amylase value

Additional Test Codes

Primary ID	Epic Code	Mayo Access ID
FAMY	LAB3107	FAH5661

Test Schedule / Analytical Time / Test Priority
Daily / 24 Hours / Available STAT

Method
Colorimetric

CPT(s)

Description	CPT Code
In process	

Instrumentation
Ortho Vitros 5600

Reference Range
No Reference Range available.

Section
Chemistry-1

Performing Location
University of Vermont Medical Center

Is the UVMMC lab NY State Certified to perform this testing? Yes/No
Yes

Order Code LOINC

Order Code	Reporting Name	LOINC Code
FAMY	Amylase, Fluid	1795-4

Result Code LOINC(s)

Result Code	Reporting Name	LOINC Code
FAMY	Amylase, Fluid	1795-4

Specimen Information — AMYLASE, FLUID

Container	Specimen	Temp	Collect Vol	Submit Vol	Min Vol	Stability
Sterile Container	Pleural Fluid	Refrigerate	2 mL	1 mL	0.2 mL	30 Days
Sterile Container	Peritoneal Fluid	Refrigerate	2 mL	1 mL	0.2 mL	30 Days
Sterile Container	JP Drain Fluid	Refrigerate	2 mL	1 mL	0.2 mL	30 Days

ACS *ANAEROBIC CULTURE (INCLUDES AEROBES), & SMEAR*

University of Vermont Medical Center

Important Note

Please specify specimen and collection site with order.
Deliver to laboratory immediately.
Collection tubes are available from the laboratory (847-5121). Swabs are **NOT** acceptable for anaerobic culture.

Additional Test Codes

Primary ID	Epic Code	Mayo Access ID
ACS	LAB897	FAH5116

Test Schedule / Analytical Time / Test Priority

Daily / Reported when positive. Negative final at 5 days / Gram smear is available STAT

Method

Culture & Smear

CPT(s)

Description	CPT Code
Anaerobic Culture Isolation and ID	87075
Gram Smear and Interpretation	87205
Routine Culture Aerobic Isolation and ID	87070

Instrumentation

Manual Method

Reference Range

No growth

Section

Microbiology-1

Performing Location

University of Vermont Medical Center

Is the UVMMC lab NY State Certified to perform this testing? Yes/No

Yes

Order Code LOINC

Order Code	Reporting Name	LOINC Code
In process		

Testing includes culture, identification, (additional charges/CPT codes may apply) and if culture results warrant, susceptibility testing (at an additional charge) of all indicated organisms.

Result Code LOINC(s)

Result Code	Reporting Name	LOINC Code
In process		

Specimen Information — ANAEROBIC CULTURE (INCLUDES AEROBES), & SMEAR

Container	Specimen	Temperature	Collect Vol	Submit Vol	Minimum Vol	Stability
Anaerobic Transport Vial	Aspirate	Ambient	N/A	N/A	3 mL	*
Anaerobic Transport Vial	Fluid	Ambient	10 mL	10 mL	1 mL	*
Anaerobic Transport Vial	Tissue	Ambient	1 mm	2 mm	1 mm	*
Anaerobic Transport Vial	Bone	Ambient	N/A	N/A	N/A	*
Sterile Container	Ventricular Shunt, CSF	Ambient	3 mL	3 mL	1 mL	*
Anaerobic Transport Vial	Bronchial Brush	Ambient	N/A	N/A	N/A	*
Anaerobic Transport Vial	Bronchoalveolar Lavage (BAL)	Ambient	N/A	N/A	N/A	*
Anaerobic Transport Vial	Implant Related**	Refrigerate	N/A	N/A	N/A	*

*Deliver to laboratory immediately. Collection tubes are available from the laboratory 847-5121. Swabs are NOT acceptable for culture.
**Explanted hardware is acceptable, but infected tissue surrounding foreign material is preferred.

TPAP *ANAL PAP TEST, THINPREP*

University of Vermont Medical Center

Important Note

This test is subject to Medicare frequency limitations. See Lab Service Directory, Special Instructions, Pap Test Guidelines for Medicare.
HPV Testing: Anal Pap tests have not been approved by the FDA for HPV testing therefore, our laboratory will not perform HPV testing on this type of sample. There is no FDA-approved HPV test for anal or oral samples, therefore we do not perform this testing and will not forward to a reference lab. Outside clients submit a manual order.

Additional Test Codes

Primary ID	Epic Code	Mayo Access ID
TPAP	LAB4	N/A

Specimen Information

ThinPrep Anal Pap Test
There is no preparation necessary before obtaining anal cytology.
Lubricates should not be used prior to the anal pap test.

1. Moisten the swab with sterile or non-sterile water.
2. The anus is spread with the index and thumb of the non-dominant hand so that the anoderm pouts out.
3. Gently insert the swab into the anal canal about 5 to 6 cm in order to past the anal verge with the goal of sampling the squamocolumnar transition zone. Samples are often collected unvisualized, although the use of an anoscope may assist in visualization.
4. Move the swab slowly in and out without completely withdrawing it, while rotating it in a spiral motion. This should be done with mild pressure on the anal wall.
5. After several rotations, withdraw the swab and place immediately into a PreservCyt Solution Vial. For cell transfer, vigorously agitate the swab several times in the solution. Discard the swab. Note: Traces of feces or blood should not affect the outcome.
6. Tighten the cap of the PreservCyt vial so that the torque line on the cap passes the torque line on the vial.
7. Record the patient's full name and a second unique identifier on the vial. Place the vial and requisition in a specimen bag for transport to the laboratory.

ThinPrep Anal Pap Test
The Bethesda System for Reporting Cervical Cytology is used when reporting results of Anal Paps. The presence of anal transformation cells is included (rectal columnar cells and/or squamous metaplastic cells.) Adequate specimen cellularity consists of a minimum of 1-2 nucleated squamous cells per high power field. A sample composed predominately of anucleate squames or mostly fecal material is unsatisfactory for evaluation.

HPV Testing
Anal Pap tests have not been approved by the FDA for HPV testing therefore, our laboratory will not perform HPV testing on this type of sample.

Test Schedule / Analytical Time / Test Priority

Monday – Friday / 7 days / Not available STAT

Method

Modified Papanicoloau

CPT(s)

Description	CPT
Cytopathology	88112

Instrumentation

Manual Method

Reference Range

Negative for intraepithelial lesion or malignancy.

Section

Cytology

Performing Location

University of Vermont Medical Center

Is the UVMMC lab NY State Certified to perform this testing? Yes/No

Yes

ANECAS *ANEMIA CASCADE*

University of Vermont Medical Center

Important Note

This test is intended for patients over 18 years old with unexplained anemia.

The cascade begins with a complete blood count (CBC), differential, and reticulocyte count. If the patient's hemoglobin is below the reference interval, additional testing will be performed as determined by the mean corpuscular volume (MCV). See the table below for a description of the additional testing that may be performed on the sample based on the MCV and other parameters.

Microcytic	Normocytic	Macrocytic
Iron studies: • Iron Saturation • Ferritin If red cell count >5 million and Iron Studies Normal Hemoglobin/Thalassemia Evaluation	If r**eticulocyte count is low:** • Iron studies If **Iron studies normal:** • Creatinine If **reticulocyte count is high:** • LDH and Haptoglobin If LDH is high and haptoglobin **low** • DAT (Coombs)	If **reticulocyte count is low:** • Vitamin B12 If **B12 normal:** • TSH • ALT, AST If r**eticulocyte count is high:** • LDH and Haptoglobin If **LDH is high and haptoglobin low** • DAT

Additional Test Codes

Primary ID	Epic Code	Mayo Access ID
ANECAS	LAB9895	N/A

Test Schedule / Analytical Time / Test Priority

Monday - Friday / 3 days / Not available STAT

Performing Location

University of Vermont Medical Center

Is the UVMMC lab NY State Certified to perform this testing? Yes/No

Yes

Specimen Information — ANEMIA CASCADE

Container	Specimen	Temperature	Collect Vol	Submit Vol	Minimum Vol
Serum Separator Tube	Serum	Refrigerate	8 mL	3 mL	3 mL
*Lavender Top Tube	Whole Blood	Refrigerate	4 mL	4 mL	4 mL
*Pink Top Tube	Whole Blood	Refrigerate	6 mL	6 mL	6 mL

*Invert tube gently 10 times.

DNA *ANTI DNA (DOUBLE STRANDED)*

University of Vermont Medical Center

Additional Test Codes

Primary ID	Epic Code	Mayo Access ID
DNA	LAB 648	FAH178

Test Schedule / Analytical Time / Test Priority

Tuesday and Thursday / Same day / Not available STAT

Method

ELISA

CPT(s)

Description	CPT Code
Anti Dna (2 Stranded)	86225

Instrumentation

Dynex DSX

Reference Range

All Ages:
Negative: <30.0 IU/mL
Borderline Positive: 30.0-75.0 IU/mL
Positive: >75.0 IU/mL

Section

Immunology

Performing Location

University of Vermont Medical Center

Is the UVMMC lab NY State Certified to perform this testing? Yes/No

Yes

Order Code LOINC

Order Code	Reporting Name	LOINC Code
DNA	Anti DNA (DS)	5130-0

Result Code LOINC(s)

Result Code	Reporting Name	LOINC Code
DNA	Anti DNA (DS)	5130-0

Specimen Information — ANTI DNA (DOUBLE STRANDED)

Container	Specimen	Temperature	Collect Vol	Submit Vol	Minimum Vol	Stability
Serum Separator Tube	Serum*	Refrigerate	4 mL	0.5 mL	0.4 mL	7 days
Serum Separator Tube	Serum	Frozen	4 mL	0.5 mL	0.4 mL	21 days

*Refrigerated samples are only stable for 7 days if separated within 4 hours of collection.
Samples that will not reach us within 4 hours of collection MUST be sent frozen. Separate serum from clotted blood within 4 hours of collection and freeze to ≤ minus 20 C.

ANCAIF *ANTI NEUTROPHIL CYTOPLASMIC ANTIBODY, IFA*

University of Vermont Medical Center

Important Note

This test includes reporting of P-ANCA (perinuclear), C-ANCA (cytoplasmic) and A-ANCA (atypical ANCA) patterns.
This test is subject to reflex testing, see Laboratory Reflex Testing Policy. You have the option to decline reflex testing if you believe it is not medically necessary. If ANCAIF is positive at the screening dilution, an Anti Neutrophil Cytoplasmic Antibody Titer (CPT: 86256) will be performed. If a pattern is reported as P-ANCA or C-ANCA, a Myeloperoxidase Antibody and a Proteinase 3 Antibody will be sent to MML.

Additional Test Codes

Primary ID	Epic Code	Mayo Access ID
ANCAIF	LAB458	FAH5733

Test Schedule / Analytical Time / Test Priority

Monday – Friday run starts at 8 am / 5 days / Not available STAT

Method

Immunofluorescence

CPT(s)

Description	CPT Code
Anti Neutrophil Cytoplasmic Ab-if pos add Titer	86255

Instrumentation

Inova QUANTA-Lyser and NOVA View

Reference Range

All Ages: Negative

Section

Immunology

Performing Location

University of Vermont Medical Center

Order Code LOINC

Order Code	Reporting Name	LOINC Code
ANCAIF	ANCA, IFA	51924-9

Result Code LOINC(s)

Result Code	Reporting Name	LOINC Code
ANCAI	ANCA Interpretation	in process
ANCAP1	ANCA Titer Pattern	in process
ANCAP2	ANCA Titer Pattern 2	in process

Specimen Information — ANTI NEUTROPHIL CYTOPLASMIC ANTIBODY, IFA

Container	Specimen	Temperature	Collect Vol	Submit Vol	Minimum Vol	Stability
SST	Serum	Refrigerate	4 mL	0.5 mL	0.4 mL	7 days

AT3VMX *ANTI THROMBIN 3, FUNCTIONAL*

University of Vermont Medical Center

Additional Test Codes

Primary ID	Epic Code	Mayo Access ID
AT3VMX	LAB311	FAH195

Test Schedule / Analytical Time / Test Priority

Monday – Friday run in am / 1 day / Not available STAT

Method

Chromogenic Assay

CPT(s)

Description	CPT Code
Antithrombin 3, Functional	

Instrumentation

ACL TOP 500

Section

Coagulation

Performing Location

University of Vermont Medical Center

Is the UVMMC lab NY State Certified to perform this testing? Yes/No

Yes

Order Code LOINC

Order Code	Reporting Name	LOINC Code
AT3VMX	Anti Thrombin 3, Functional	27812-7

Result Code LOINC(s)

Result Code	Reporting Name	LOINC Code
AT3VMX	Anti Thrombin 3, Functional	27812-7

Specimen Information — ANTI THROMBIN 3, FUNCTIONAL

Container	Specimen	Temperature	Collect Vol	Submit vol	Minimum Vol	Stability
Blue Top Tube	Plasma	See below	To fill line	1 mL plasma	0.5 mL plasma	6 months

Refer to Coagulation Specimen Handling before collecting. Submit one 1.0 mL frozen aliquot for this test. Draw blood in light blue top tube(s). Spin down, remove plasma, spin plasma again, and place citrate platelet-poor plasma in required number of plastic vials (Glass vials cannot be accepted.) Freeze specimen at ≤ -40°, if possible. Send specimen frozen on dry ice. Each coagulation assay requested should have its own vial. Deliver to lab within 3 hours of collection.

Reference Range — ANTI THROMBIN 3, FUNCTIONAL

Age	Sex	Physiological Status	Low	High	Units
All	All		85	125	%

SCRN *ANTIBODY SCREEN*

University of Vermont Medical Center

Important Note

If the Antibody Screen is positive, the following tests may be performed to identify the antibody(ies): Antibody Panel(s), Red Blood Cell Antigen (s), prepare red blood cells, Pretreatment of serum/cells, DAT, differential DAT, Absorption(s) and /or an elution. For all tests performed to identify the antibody (ies), additional charges will apply.
Submit a manual order.
For infants up to 4 months old, call the Blood Bank (847-5121).
Labeling Instructions: Please provide patients full name (NO abbreviations or cut-off letters), University of Vermont Medical Center medical record number and/or date of birth, date and time sample collected and the signature of the person collecting the Blood Bank sample is required on specimens used to prepare blood products.
Specimen Transport: Specimens must be received in the laboratory within 24-hours of collection accompanied by a completed order form.

Additional Test Codes

Primary ID	Epic Code	Mayo Access ID
SCRN	LAB2297	FAH5142

Test Schedule / Analytical Time / Test Priority

Daily / 24 Hours / Available STAT

Method

Agglutination by Tube Test or Gel Methodology

CPT(s)

Description	CPT Code
Antibody Screen	86850

Instrumentation

Manual Method or Grifois Erytra

Reference Range

Negative

Section

Blood Bank

Performing Location

University of Vermont Medical Center

Is the UVMMC lab NY State Certified to perform this testing? Yes/No

No

Order Code LOINC

Order Code	Reporting Name	LOINC Code
SCRN	Antibody Screen	890-4

Result Code LOINC(s)

Result Code	Reporting Name	LOINC Code
SCRN	Antibody Screen	890-4

Specimen Information — ANTIBODY SCREEN

Container	Specimen	Temperature	Collect Vol	Submit Vol	Minimum Vol
Pink Top Tube	Whole Blood	Refrigerate	6 mL	6 mL	6 mL

Submit whole blood sample. Plain red top tube is acceptable. Serum gel tube is NOT acceptable. Three capillary tubes (red or lavender) are acceptable. Two-4.0 mL lavender top tubes are acceptable – submit unseparated.

ANAIFA *ANTINUCLEAR ANTIBODY, IFA*

University of Vermont Medical Center

Important Note

This test is subject to reflex testing, see Laboratory Reflex Testing Policy. You have the option to decline reflex testing if you believe it is not medically necessary. If ANA is positive an Antibody Titer (CPT: 86039) will be performed.

Additional Test Codes

Primary ID	Epic Code	Mayo Access ID
ANAIFA	LAB148	FAH5728

Test Schedule / Analytical Time / Test Priority

Monday – Friday, run starts at 8 am / 5 days / Not available STAT

Method

Immunofluorescence

CPT(s)

Description	CPT Code
Anti Nuclear Antibody (if pos add Titer)	86038

Instrumentation

Inova QUANTA-Lyser and NOVA View

Reference Range

All ages: Negative

Section

Immunology

Performing Location

University of Vermont Medical Center

Is the UVMMC lab NY State Certified to perform this testing? Yes/No

Yes

Order Code LOINC

Order Code	Reporting Name	LOINC Code
ANAIFA	Anti Nuclear Ab, IFA	5048-4

Result Codes LOINC(s)

Result Code	Reporting Name	LOINC Code
ANAIF	ANA Interpretation	in process
ANAT2P	ANA Titer Pattern 2	in process
ANAT3P	ANA Titer Pattern 3	in process

Specimen Information — ANTINUCLEAR ANTIBODY, IFA

Container	Specimen	Temperature	Collect Vol	Submit Vol	Minimum Vol	Stability
SST	Serum	Refrigerated	4 mL	0.5 mL	0.4 mL	7 days

AID *ARTHROPOD IDENTIFICATION*

University of Vermont Medical Center

Additional Test Codes

Primary ID	Epic Code	Mayo Access ID
AID	LAB2515	FAH5882

Test Schedule / Analytical Time / Test Priority

Daily / 1 day / Not available STAT

Method

Microscopic Examination

CPT(s)

Description	CPT Code
Arthropod Identification	87168

Instrumentation

Manual Method

Reference Range

A descriptive report is provided.

Section

Microbiology-2

Performing Location

University of Vermont Medical Center

Is the UVMMC lab NY State Certified to perform this testing? Yes/No

Yes

Order Code LOINC

Order Code	Reporting Name	LOINC Code
AID	Arthropod Identification	10644-3

Result Code LOINC(s)

Result Code	Reporting Name	LOINC Code
SDES	Specimen Description	31208-2
CULT	Result	41852-5
RPT	Report Status	N/A

Specimen Information — ARTHROPOD IDENTIFICATION

Container	Specimen	Temperature	Collect Vol	Submit Vol	Minimum Vol
Sterile container	Bug, Tick, or insect	Ambient	N/A	N/A	N/A

Submit bug, tick or insect in a sterile container. Submit in 70% Ethanol if possible or for suspected scabies see the following procedure.
Laboratory diagnosis of scabies is determined by demonstration of the mites, eggs or fecal pellets (scybala) in skin scrapings. The most common areas where mites can infect are the webbing of the fingers, folds of the wrist, knee or elbow, genital, buttock area, breast or abdominal region. The mite tends to burrow in warm areas of the body. To make a laboratory diagnosis of Scabies the following is the recommended procedure that the physician use to collect a skin scrapings

1. Using a sterile scalpel blade, place a drop of mineral oil on the blade. Mineral oil is preferred over potassium hydroxide or water. The mites will adhere to the oil and the oil will not dissolve the fecal pellets, whereas potassium hydroxide will dissolve the fecal pellets from the mites.

2. Allow some of the mineral oil to enter the papule or burrow while you scrape the infected area. The mites will usually be found at the ends of the burrow tracks.

3. Scrape the infected sites vigorously to remove the top of the burrow. There should be tiny flecks of blood produced.

4. Transfer the oil and skin scrapings to a clean glass microscope slide.

5. Send the glass microscope slide in a sterile container to the laboratory for examination.

AST *AST (SGOT)*

University of Vermont Medical Center

Important Note

While a microtainer is an optional tube type in rare circumstances, it is **not recommended.**

Additional Test Codes

Primary ID	Epic Code	Mayo Access ID
AST	LAB131	FAH263

Test Schedule / Analytical Time / Test Priority

Daily / 24 Hours / Available STAT

Method

Colorimetric

CPT(s)

Description	CPT Code
AST (SGOT)	84450

Instrumentation

Ortho Vitros 5600

Section

Chemistry-1

Performing Location

University of Vermont Medical Center

Is the UVMMC lab NY State Certified to perform this testing? Yes/No

Yes

Order Code LOINC

Order Code	Reporting Name	LOINC Code
AST	AST (SGOT)	1920-8

Result Code LOINC(s)

Result Code	Reporting Name	LOINC Code
AST	AST (SGOT)	1920-8

Specimen Information — AST (SGOT)

Container	Specimen	Temp	Collect Vol	Submit Vol	Min Vol	Stability
SST	Serum	Refrigerate	4 mL	0.6 mL	0.3 mL	7 days
Lithium Heparin (Green Top)	Plasma	Refrigerate	4 mL	0.6 mL	0.3 mL	7 days
*Green Microtainer		Refrigerate	0.6 mL			7 days

*While a microtainer is an optional tube type in rare circumstances, it is **not recommended.**

Reference Range — AST (SGOT)

Age	Sex	Physiological Status	Low	High	Units
0 - 8 days	Male		30	100	U/L
8 days - 1 month	Male		20	70	U/L
1 - 4 months	Male		22	63	U/L
4 - 7 months	Male		13	65	U/L
7 months - 1 year	Male		25	55	U/L
1 - 4 years	Male		20	60	U/L
4 - 7 years	Male		15	50	U/L
7 - 10 years	Male		15	40	U/L
10 - 12 years	Male		10	60	U/L
12 - 14 years	Male		15	40	U/L
14 - 16 years	Male		15	40	U/L
16 - 18 years	Male		15	45	U/L
≥18 years	Male		15	46	U/L
0 - 8 days	Female		24	95	U/L
8 days - 1 month	Female		24	72	U/L
1 - 4 months	Female		20	64	U/L
4 - 7 months	Female		20	63	U/L
7 months - 1 year	Female		22	63	U/L
1 - 4 years	Female		20	60	U/L
4 - 7 years	Female		15	50	U/L
7 - 10 years	Female		15	40	U/L
10 - 12 years	Female		10	40	U/L
12 - 14 years	Female		10	30	U/L
14 - 16 years	Female		10	30	U/L
16 - 18 years	Female		5	30	U/L
≥18 years	Female		15	46	U/L

RCS *BACTERIAL CULTURE & SMEAR (C + S)*

University of Vermont Medical Center

Important Note

Please specify specimen and collection site.
The best specimens for culture are tissue, fluids, aspirates, or curettings.

Additional Test Codes

Primary ID	Epic Code	Mayo Access ID
RCS	LAB2523	FAH5295

Test Schedule / Analytical Time / Test Priority

Daily / Reported when positive. Negative final at 2 - 5 days / Gram smear available STAT

Method

Culture & Smear

CPT(s)

Description	CPT Code
Gram Stain	87205
Routine Culture	87070

Instrumentation

Manual Method

Reference Range

No growth

Section

Microbiology-1

Performing Location

University of Vermont Medical Center

Is the UVMMC lab NY State Certified to perform this testing? Yes/No

Yes

Order Code LOINC

Order Code	Reporting Name	LOINC Code
In process		

Result Code LOINC(s)

Result Code	Reporting Name	LOINC Code
In process		

Specimen Information — BACTERIAL CULTURE & SMEAR (C + S)

Container	Specimen	Temperature	Collect Vol	Submit Vol	Minimum Vol	Stability
Bacterial/Yeast Collection Kit	Variable*	Refrigerate	Swab	Swab in collection kit	Swab in collection kit	
Sterile Container	Tissue**	Refrigerate	2mm	2 mm	1 mm	**
Sterile Container	Fluid**	Ambient	10 mL	10 mL	1 mL	**
Sterile Container	Bone***	Ambient	N/A	N/A	N/A	***

*Samples must be received in lab within 24 hours. Please specify site and source with the laboratory order.
**Deliver to lab immediately, specify site.
***Deliver to lab immediately, swabs are **NOT** acceptable.

RRCS *BACTERIAL CULTURE RESPIRATORY & SMEAR (C + S)*

University of Vermont Medical Center

Important Note

The sample must be received in the laboratory within 24 hours.
Specimen quality can be assessed by applying quantitative criteria to the number of squamous epithelial cells. Ten or more squamous epithelial cells per low power field, indicate the sample is contaminated with oral secretions and not suitable for testing.

Additional Test Codes

Primary ID	Epic Code	Mayo Access ID
RRCS	LAB900	FAH5111

Test Schedule / Analytical Time / Test Priority

Daily / Sputum cultures 48 hours, other respiratory cultures 5 days / Gram smear available STAT

Method

Culture & Smear

CPT(s)

Description	CPT Code
Gram Stain	87205
Routine Culture	87070

Instrumentation

Manual Method

Reference Range

Usual oropharyngeal flora

Section

Microbiology-1

Performing Location

University of Vermont Medical Center

Is the UVMMC lab NY State Certified to perform this testing? Yes/No

Yes

Order Code LOINC

Order Code	Reporting Name	LOINC Code
In process		

Result Code LOINC(s)

Result Code	Reporting Name	LOINC Code
In process		

Specimen Information — BACTERIAL CULTURE RESPIRATORY & SMEAR (C + S)

Container	Specimen	Temperature	Collect Vol	Submit Vol	Minimum Vol	Stability
Sterile Container	Sputum	Refrigerate	5 mL	5 mL	1 mL	24 hours
Sterile Container	Protected catheter brushings	Refrigerate	N/A	N/A	N/A	24 hours
Sterile Container	Bronchoalveolar lavages (BAL)	Refrigerate	N/A	N/A	N/A	24 hours
Sterile Container	Lung Aspirate	Refrigerate	N/A	N/A	N/A	24 hours
Sterile Container	Lung Tissue	Refrigerate	1 gram	1 gram	0.2 gram	24 hours
Sterile Container	Expectoration	Refrigerate	10 mL	10 mL	1 mL	24 hours
Sterile Container	Bronchoscopy	Refrigerate	10 mL	10 mL	1 mL	24 hours
Sterile Container	Tracheal aspiration	Refrigerate	10 mL	10 mL	1 mL	24 hours
Sterile Container	Transtracheal aspiration	Refrigerate	10 mL	10 mL	1 mL	24 hours
Sterile Container	Biopsy	Refrigerate	10 mL	10 mL	1 mL	24 hours
Bacterial/Yeast Collection Kit	Throat*	Refrigerate				24 hours

Specimens should originate from the lungs or bronchial tree. Saliva and postnasal drip materials are not suitable for testing. Specimens may be obtained by expectoration, bronchoscopy, tracheal aspiration, transtracheal aspiration, or biopsy. Submit the sample in a sterile screw-capped container, syringe, or leukens tube. All containers must be leak proof. Deliver the specimen to the laboratory as soon as possible.
*If swab is received a smear will not be performed.

BRC *BACTERIAL CULTURE, BLOOD/BONE MARROW*

University of Vermont Medical Center

Important Note

Deliver to the lab immediately.
A single culture should not be ordered.

Additional Test Codes

Primary ID	Epic Code	Mayo Access ID
BRC	LAB2516	FAH5264

Test Schedule / Analytical Time / Test Priority

Daily / Reported when positive, negative final at 5 days / Not available STAT

Method

Culture

CPT(s)

Description	CPT Code
Bacterial Culture, Blood/Bone Marrow	87040

Testing includes culture, identification, (additional charges/CPT codes may apply) and if culture results warrant, susceptibility testing (at an additional charge) of all indicated organisms.

Instrumentation

Virtuo

Reference Range

No Growth

Section

Microbiology-1

Performing Location

University of Vermont Medical Center

Is the UVMMC lab NY State Certified to perform this testing? Yes/No

Yes

Order Code LOINC

Order Code	Reporting Name	LOINC Code
BRC	Bacterial Culture, Blood	600-7

Result Code LOINC(s)

Result Code	Reporting Name	LOINC Code
SDES	Specimen Description	31208-2
CULT	Result	41852-5
RPT	Report Status	N/A

Specimen Information — BACTERIAL CULTURE, BLOOD/BONE MARROW

Container	Specimen	Temperature	Collect Vol	Submit vol	Minimum Vol	Stability
Blood Culture, Adult	Whole Blood	Ambient	20 mL	20 mL	10 mL	*
Blood Culture, Pedi	Whole Blood	Ambient	4 mL	4 mL	0.5 mL	*
Bone Marrow Culture Tube (SPS)	Bone Marrow	Refrigerate	3 mL	3 mL	1 mL	*

*Deliver to the lab immediately.

Collection of Blood Cultures

Order Bacterial Culture, Blood. A separate specimen is collected into a Bone Marrow Culture Tube stored at ambient temperature. The stopper should be well sterilized first with betadine and then alcohol first before injection. Approximately 1 mL of bone marrow should be injected through the rubber stopper. If the specimen is clotted, remove stopper and place the clotted specimen directly into the culture tube. Use caution to avoid contamination.

1. Draw two sets of blood cultures with two separate venipunctures. Cultures should be collected before the administration of antimicrobial therapy if possible.
2. Remove the dust caps from the blood culture bottles. Clean the rubber stoppers with 70% alcohol and allow the alcohol to dry. Choose the venipuncture site carefully. Avoid close proximity to previous puncture sites. Do not enter through an area that shows signs of possible infection such as swelling, redness, hardness, or heat because organisms may already be established in the subcutaneous tissue, which could contaminate the blood cultures.
3. Clean the venipuncture site using a Blood Culture ChloroPrep Kit. Squeeze the handle of the scrubber once to release the isopropyl alcohol. Use the scrubber to vigorously cleanse the site for 30 seconds and then allow it to air dry; do not use gauze to wipe off the site.
4. Once the puncture area is prepared, do not palpate the site again. If the puncture area is touched, it must be thoroughly prepped again.
5. Draw 20 mL of blood using a syringe. Studies have shown that the ability to reliably detect septicemia/bacteremia is related to volume of blood collected. It is recommended that 20 ml of blood should be collected with each venipuncture on adult patients. If an Isolator™ tube is used, a vacutainer set up may be used, but care must be taken to keep the tube below the level of the vein so that the lysing solution does not flow back into the arm of the patient.

Blood Culture Set, Adult (Adult BacT/Alert bottles): Inject 10 mL of blood into each bottle through the alcohol-swabbed rubber stopper. If less than 20 mL are obtained, equally distribute the volume in the two-bottle set. If less than 10 mL is collected, inject the total volume into the aerobic bottle. Do not inject more than 10 mL into each bottle.

Blood Culture (Pedi) (Pedi-BacT/Alert bottles): Inject up to 4 mL of blood into a prepared pedi blood culture bottle. A minimum volume of 0.5 mL can be used. Pedi BacT/Alert bottles are available for pediatric patients only. The volume collected in this bottle may not be adequate to detect bacteremia/septicemia in adults.

6. Label bottles or tube with patient's full name, date of birth and UVM Medical Center medical record number if available. The label must contain two unique identifiers, UVMMC medical record number (MRN) or patient's date of birth along with the patient's full legal name.

7. Deliver immediately to the laboratory. **Do not place blood culture samples in the refrigerator**.

SORC *BACTERIAL CULTURE, SOLID OBJECT*

University of Vermont Medical Center

Important Note

Samples must be received in the lab within 24 hours.

Additional Test Codes

Primary ID	Epic Code	Mayo Access ID
SORC	LAB2518	N/A

Specimen Information

Container	Specimen	Temperature	Stability
Sterile Container	Varies	Refrigerate	24 hours

Intravascular catheter tips (A-line, groshong, etc)
Distal 5 cm should be aseptically removed and submitted in a urine container. Explanted hardware is acceptable, but infected tissue surrounding foreign material is preferred. Foley catheter tips are not suitable for culture.

Test Schedule / Analytical Time / Test Priority

Daily / Catheter tips 48 hours, orthopedic hardware, etc. 5 days / Not available STAT

Method

Culture

CPT(s)

Description	CPT Code
Bacterial Culture, Solid Object	87070

Instrumentation

Manual Method

Reference Range

Negative*:* No growth. Less than 15 colonies on the blood agar plate suggest that the bacteria are not causing catheter related sepsis. Isolates are identified by gram morphology only. Final results are available in 2 days.
Positive: More than 15 colonies on the blood agar plate correlates best with catheter-associated sepsis. Results are usually available in 2 days. (Three or more organisms may be reported as “Mixed organisms”).

Section

Microbiology-1

Performing Location

University of Vermont Medical Center

Is the UVMMC lab NY State Certified to perform this testing? Yes/No

Yes

Order Code LOINC

Order Code	Reporting Name	LOINC Code
SORC	Bacterial Culture, Solid Object	6463-4

Result Code LOINC(s)

Result Code	Reporting Name	LOINC Code
SDES	Specimen Description	31208-2
CULT	Result	41852-5
RPT	Report Status	N/A

URC *BACTERIAL CULTURE, URINE*

University of Vermont Medical Center

Important Note

Deliver to lab immediately.
Test subject to Medicare National Coverage Determination (NCD) 190.12 Urine Culture, Bacterial.

Additional Test Codes

Primary ID	Epic Code	Mayo Access ID
URC	LAB239	FAH5109

Test Schedule / Analytical Time / Test Priority

Daily / Reported when positive. Negative final at 48 hours / Not available STAT

Method

Culture

CPT(s)

Description	CPT Code
Bacterial Culture, Urine	87086

Instrumentation

Manual Method

Reference Range

No growth or usual urogenital flora

- Colony counts are done using a calibrated loop. Colony counts are reported based on 2 reference points: 10,000 CFU/mL and 100,000 CFU/mL.
- Organisms are identified and susceptibility testing is done (when indicated), when more than 10,000 CFU/mL of 1 or 2 pathogens are present.
- A sample with 3 or more potential pathogens is reported as:Mixed organisms, Interpretation difficult. Multiple gram positive organisms representing skin flora or vaginal contamination will be reported as usual urogenital flora.
- No growth reports are available at 24 hours. Organism identification and susceptibility testing results are completed within 48 hours.

Section

Microbiology-1

Performing Location

University of Vermont Medical Center

Is the UVMMC lab NY State Certified to perform this testing? Yes/No

Yes

Order Code LOINC

Order Code	Reporting Name	LOINC Code
URC	Bacterial Culture, Urine	630-4

Result Code LOINC(s)

Result Code	Reporting Name	LOINC Code
SDES	Specimen Description	31208-2
CULT	Result	41852-5
RPT	Report Status	N/A

Specimen Information — BACTERIAL CULTURE, URINE

Container	Specimen	Temperature	Collect Vol	Submit Vol	Minimum Vol	Stability
Sterile Container	Clean Catch Urine	Refrigerate	20 mL	10 mL	1 mL	*

*Deliver to lab immediately. If the specimen cannot be processed within one hour, refrigerate the specimen at 4^{O}C. Bacterial counts will remain stable at 4^{O}C for 24 hours. Culture will not be performed on urine samples that are refrigerated greater than 24 hours.

UBAR2 *BARBITURATE SCREEN, URINE*

University of Vermont Medical Center

Important Note

Restricted to Emergency Department and Labor and Delivery use only.
This screen is intended for use in clinical monitoring or management of patients.
This test is subject to Medicare National Coverage Determination (LCD) L36037-Urine Drug Testing.

Additional Test Codes

Primary ID	Epic Code	Mayo Access ID
UBAR2	LAB364	FAH5767

Test Schedule / Analytical Time / Test Priority

Daily / Same day / Available STAT

Method

Immunochromatograph

CPT(s)

Description	CPT Code
Barbiturate Screen	80306

Instrumentation

MedTox Scan

Reference Range

Negative Screen

Section

Chemistry-1

Performing Location

University of Vermont Medical Center

Is the UVMMC lab NY State Certified to perform this testing? Yes/No

Yes

Order Code LOINC

Order Code	Reporting Name	LOINC Code
UBAR2	Barbiturate Screen, Urine	19270-8

Result Code LOINC(s)

Result Code	Reporting Name	LOINC Code
UBAR2	Barbiturate Screen, Urine	19270-8

Specimen Information — BARBITURATE SCREEN, URINE

Container	Specimen	Temperature	Collect Vol	Submit Vol	Minimum Vol	Stabiility
Sterile Container	Random Urine	Refrigerate	50 mL	50 mL	30 mL	3 days
Sterile Container	Random Urine	Frozen	50 mL	50 mL	30 mL	60 days

VBAR *Barbiturates Screen, Urine*

Aspenti Health Laboratory

Important Note

Routine drug screen available for inpatients and ambulatory clinics.
Barbiturates Screen, Urine , test information.

Additional Test Codes

Primary ID	Epic Code	Aspenti Test Code
VBAR	LAB3731	VBL2020

Test Schedule / Analytical Time / Test Priority

Monday - Friday / 24 Hours / Not Available STAT

Performing Location

Aspenti Health Laboratory

BMP *BASIC METABOLIC PANEL*

University of Vermont Medical Center

Important Note

Tests included are: BUN, Calcium, Chloride, CO2, Creatinine, Glucose, Potassium and Sodium
While a microtainer is an optional tube type in rare circumstances, it is **not recommended.**

Additional Test Codes

Primary ID	Epic Code	Mayo Access ID
BMP	LAB15	FAH5194

Test Schedule / Analytical Time / Test Priority

Daily / 24 Hours / Available STAT

Method

See individual tests.

CPT(s)

Description	CPT Code
Basic Metabolic Panel	80048

Instrumentation

Ortho Vitros

Reference Range

See individual tests.

Section

Chemistry-1

Performing Location

University of Vermont Medical Center

Is the UVMMC lab NY State Certified to perform this testing? Yes/No

Yes

Result Code LOINC(s)

Result Code	Reporting Name	LOINC Code
NA	Sodium	2951-2
K	Potassium	2823-3
CL	Chloride	2075-0
CO2	CO2	2028-9
BUN	BUN	3094-0
CREA	Creatinine	2160-0
CGFR	GFR, Calculated	50210-4
CAL	Calcium	17861-6
CALC2	Calculated Calcium	46099-8
SGL	Glucose, Serum	2345-7
FASTN2	Fasting?	49541-6

Order Code LOINC

Order Code	Reporting Name	LOINC Code
BMP	Basic Metabolic Panel	in process

Specimen Information — BASIC METABOLIC PANEL

Container	Specimen	Temperature	Collect Vol	Submit Vol	Minimum Vol	Stability
SST	Serum	Refrigerate	4 mL	1 mL	0.3 mL	5 days
Lithium Heparin (green top) Tube	Plasma	Refrigerate	4 mL	1 mL	0.3 mL	5 days
*Green Microtainer			0.6 mL	N/A	N/A	5 days

*While a microtainer is an optional tube type in rare circumstances, it is **not recommended.**

VBENZ *BENZODIAZEPINE CONFIRMATION*

Aspenti Health Laboratory

Additional Test Codes

Primary ID	Epic Code	Aspenti Test Code
VBENZ	LAB368	VBL7046

Test Schedule / Analytical Time / Test Priority

Monday - Friday / 3 days / Not available STAT

Performing Location

Aspenti Health

Specimen Information — BENZODIAZEPINE CONFIRMATION

Container	Specimen	Temperature	Collect Vol	Submit Vol	Minimum Vol
Clean Container	Random Urine	Refrigerate	50 mL	50 mL	30 mL

UBNZ2 *BENZODIAZEPINE SCREEN, URINE*

University of Vermont Medical Center

Important Note

Restricted to Emergency Department and Labor and Delivery use only.
This screen is intended for use in clinical monitoring or management of patients.
This test is subject to Medicare National Coverage Determination (LCD) L36037-Urine Drug Testing.

Additional Test Codes

Primary ID	Epic Code	Mayo Access ID
UBNZ2	LAB367	FAH5768

Test Schedule / Analytical Time / Test Priority

Daily / Same day / Available STAT

Method

Immunochromatograph

CPT(s)

Description	CPT Code
Benzodiazepine Screen	80306

Instrumentation

MedTox Scan

Reference Range

Negative Screen

Section

Chemistry-1

Performing Location

University of Vermont Medical Center

Is the UVMMC lab NY State Certified to perform this testing? Yes/No

Yes

Order Code LOINC

Order Code	Reporting Name	LOINC Code
UBNZ2	Benzodiazepine Screen, Urine	14316-4

Result Code LOINC(s)

Result Code	Reporting Name	LOINC Code
UBNZ2	Benzodiazepine Screen, Urine	14316-4

Specimen Information — BENZODIAZEPINE SCREEN, URINE

Container	Specimen	Temperature	Collect Vol	Submit Vol	Minimum Vol	Stability
SterileContainer	Random Urine	Refrigerate	50 mL	50 mL	30 mL	2 days
Sterile Container	Random Urine	Frozen	50 mL	50 mL	30 mL	30 days

VBNZ *Benzodiazepines Screen, Urine*

Aspenti Health Laboratory

Important Note

Routine drug screen for inpatients and ambulartory clinics.
Benzodiazepines Screen, Urine, test information.

Additional Test Codes

Primary ID	Epic Code	Aspenti Test Code
VBAR	LAB3727	VBL2030

Test Schedule / Analytical Time / Test Priority

Monday - Friday / 24 Hours / Not Available STAT

Performing Location

Aspenti Health Laboratory

HCGTUM *BETA HCG QUANTITATIVE, NON PREGNANCY*

University of Vermont Medical Center

Important Note

Test subject to Medicare National Coverage Determination (NCD) 190.27 - Human Chorionic Gonadotropin.

The results of this assay can be **falsely lowered** due to the consumption of Biotin. Please instruct patients to discontinue the use of vitamins or supplements that contain Biotin 12 hours before blood collection.

Additional Test Codes

Primary ID	Epic Code	Mayo Test ID
HCGTUM	LAB3190	FAH5511

Test Schedule / Analytical Time / Test Priority

Daily / 24 Hours / Not available STAT

Method

Immunoturbidometric

CPT(s)

Description	CPT Code
HCG, Tumor Marker	84702

Instrumentation

Ortho Vitros 5600

Reference Range

For non-pregnant females: <5 mIU/mL
This assay has not been FDA cleared for use as a tumor marker. The results of this assay cannot be interpreted as absolute evidence for the presence or absence of malignant disease. The VITROS total Beta hCG II immunoassay detects the intact hormone, nicked forms of hCG, hyperglycosylated hCG, the beta-core fragment, and the free beta-subunit. Results obtained with different assay methods or kits may be different and cannot be used interchangeably.

Section

Chemistry-1

Performing Location

University of Vermont Medical Center

Is the UVMMC lab NY State Certified to perform this testing? Yes/No

Yes

LOINC Code Information

Result Code	Reporting Name	LOINC Code
HCGTUM	HCG Tumor Marker	53959-3

Specimen Information — BETA HCG QUANTITATIVE, NON PREGNANCY

Container	Specimen	Temperature	Collect Vol	Submit Vol	Minimum Vol	Stability
SST	Serum	Refrigerate	4 mL	2 mL	1 mL	5 days

HCGS *BETA HCG QUANTITATIVE, PREGNANCY*

University of Vermont Medical Center

Important Note

Test subject to Medicare National Coverage Determination (NCD) 190.27 - Human Chorionic Gonadotropin.

The results of this assay can be **falsely lowered** due to the consumption of Biotin. Please instruct patients to discontinue the use of vitamins or supplements that contain Biotin 12 hours before blood collection.

Additional Test Codes

Primary ID	Epic Code	Mayo Access ID
HCGS	LAB143	FAH5500

Test Schedule / Analytical Time / Test Priority

Daily / 24 Hours / Available STAT

Method

Immunoturbidometric

CPT(s)

Description	CPT Code
HCGS	84702

Instrumentation

Ortho Vitros 5600

Reference Range

Pregnancy:
Negative = Less than 5 MIU/mL
Indeterminate, recommend repeat in 48 hours = 5-25 MIU/mL
Positive = Greater than >25 MIU/mL
The results of this assay can be **falsely lowered** due to the consumption of Biotin. Please instruct patients to discontinue the use of vitamins or supplements that contain Biotin 12 hours before blood collection.

Section

Chemistry-1

Performing Location

University of Vermont Medical Center

Is the UVMMC lab NY State Certified to perform this testing? Yes/No

Yes

Specimen Information — BETA HCG QUANTITATIVE, PREGNANCY

Container	Specimen	Temperature	Collect Vol	Submit Vol	Minimum Vol	Stability
Serum Separator Tube	Serum	Refrigerate	4 mL	2 mL	1 mL	5 days
*Yellow Microtainer			0.6 mL			5 days

*While a microtainer is an optional tube type in rare circumstances, it is **not recommended.**

BHOB *BETA HYDROXYBUTYRATE*

University of Vermont Medical Center

Important Note

While a microtainer is an optional tube type in rare circumstances, it is **not recommended.**

Additional Test Codes

Primary ID	Epic Code	Mayo Access ID
BHOB	LAB3208	FAH5506

Test Schedule / Analytical Time / Test Priority

Daily / 24 Hours / Available STAT

Method

Colorimetric

CPT(s)

Description	CPT Code
Beta Hydroxybuterate	82010

Instrumentation

Ortho Vitros 5600

Reference Range

All ages: < 0.4 mmol/L

Section

Chemistry-1

Performing Location

University of Vermont Medical Center

Is the UVMMC lab NY State Certified to perform this testing? Yes/No

Yes

Order Code LOINC

Order Code	Reporting Name	LOINC Code
BHOB	Beta Hydroxybutyrate	6873-4

Result Code LOINC(s)

Result Code	Reporting Name	LOINC Code
BHOB	Beta Hydroxybutyrate	6873-4

Specimen Information — BETA HYDROXYBUTYRATE

Container	Specimen	Temperature	Collect Vol	Submit Vol	Minimum Vol	Stability
SST	Serum	Refrigerate	4 mL	1 mL	0.5 mL	7 days
*Yellow Microtainer			0.6 mL	N/A	N/A	7 days

*While a microtainer is an optional tube type in rare circumstances, it is **not recommended.**

BETHA *BETHESDA ASSAY*

University of Vermont Medical Center

Additional Test Codes

Primary ID	Epic Code	Mayo Access ID
BETHA	LAB1116	FAH5030

Test Schedule / Analytical Time / Test Priority

Monday – Friday, run in am / 1 day / Not available STAT

Method

Photo Optical Clot Detection

CPT(s)

Description	CPT Code
Bethesda Assay	85335

Instrumentation

ACL TOP500

Reference Range

0.0 Bethesda units, inhibitor to factor

Section

Coagulation

Performing Location

University of Vermont Medical Center

Is the UVMMC lab NY State Certified to perform this testing? Yes/No

Yes

Result Code LOINC(s)

Result Code	Reporting Name	LOINC Code
BETH	Bethesda Assay	3204-5

Order Code LOINC

Order Code	Reporting Name	LOINC Code
BETHA	Bethesda Assay	in process

Specimen Information — BETHESDA ASSAY

Container	Specimen	Temperature	Collect Vol	Submit Vol	Minimum Vol	Stability
Blue Top Tube	Plasma	*	To fill line	2 mL plasma	2 mL plasma	6 months

*Refer to Coagulation Specimen Handling before collecting. Submit 2 × 1.0 ml frozen plasma aliquots for this test. Please specify if the patient is receiving heparin or drawn through a heparinized port. Draw blood in light blue top tube(s). Spin down, remove plasma, spin plasma again, and place citrate platelet-poor plasma in required number of plastic vials (Glass vials cannot be accepted.) Freeze specimen at less than or equal to minus 40° C, if possible. Send specimen frozen on dry ice. Each coagulation assay requested should have its own vial.

DBIL *BILIRUBIN, DIRECT & INDIRECT*

University of Vermont Medical Center

Important Note

This test should not be used for neonates < 30 days old.

Additional Test Codes

Primary ID	Epic Code	Mayo Access ID
DBIL	LAB168	FAH5244

Test Schedule / Analytical Time / Test Priority

Daily / 24 Hours / Available STAT

Method

Colorimetric

CPT(s)

Description	CPT Code
Bilirubin, Direct/Indirect	82248

Instrumentation

Ortho Vitros 5600

Reference Range

Conjugated (Direct): Greater than 1 month old: 0.0 - 0.3 mg/dL
Unconjugated (Indirect): Greater than 1 monthold: 0.0 – 1.1 mg/dL

Section

Chemistry-1

Performing Location

University of Vermont Medical Center

Is the UVMMC lab NY State Certified to perform this testing? Yes/No

Yes

Result Code LOINC(s)

Result Code	Reporting Name	LOINC Code
BILC	Conjugated Bili	15152-2
BILU	Unconjugated Bili	1971-1

Order Code LOINC

Order Code	Reporting Name	LOINC Code
DBIL	Bilirubin, Direct & Indirect	in process

Specimen Information — BILIRUBIN, DIRECT & INDIRECT

Container	Specimen	Temperature	Collect Vol	Submit Vol	Minimum Vol	Stability
SST	Serum	Refrigerate	4 mL	1 mL	0.1 mL	7 days
Lithium Heparin (Green Top)	Plasma	Refrigerate	4 mL	1 mL	0.1 mL	7 days
*Green Microtainer			0.6 mL	N/A	N/A	7 days

*While a microtainer is an optional tube type in rare circumstances, it is **not recommended.**

NBIL *BILIRUBIN, NEONATAL*

University of Vermont Medical Center

Important Note

This test should be used for infants <30 days old.

Additional Test Codes

Primary ID	Epic Code	Mayo Access ID
NBIL	LAB51	FAH5247

Test Schedule / Analytical Time / Test Priority

Daily / 24 Hours / Available STAT

Method

Colorimetric

CPT(s)

Description	CPT Code
Bilirubin, Neonatal	82248

Instrumentation

Ortho Vitros 5600

Reference Range

Conjugated (0 day - 1 month): 0.0-0.6 mg/dL
Unconjugated (0 day - 1 month): 0.6-10.5 mg/dL

Section

Chemistry-1

Performing Location

University of Vermont Medical Center

Is the UVMMC lab NY State Certified to perform this testing? Yes/No

Yes

Result Code LOINC(s)

Result Code	Reporting Name	LOINC Code
BILC	Conjugated Bili	15152-2
BILU	Unconjugated Bili	1971-1
CTBIL	Calc. Total Bili	1975-2

Order Code LOINC

Order Code	Reporting Name	LOINC Code
NBIL	Bilirubin, Neonatal	in process

Specimen Information — BILIRUBIN, NEONATAL

Container	Specimen	Temperature	Collect Vol	Submit Vol	Minimum Vol	Stability
Green Top Microtainer	Plasma	Refrigerate	0.2 mL	0.1 mL	0.1 mL	7 days
Gold Top Microtainer	Serum	Refrigerate	0.2 mL	0.1 mL	0.1 mL	7 days

TBIL *BILIRUBIN, TOTAL*

University of Vermont Medical Center

Important Note

This test should not be performed on neonates <30 days old.

Additional Test Codes

Primary ID	Epic Code	Mayo Access ID
TBIL	LAB50	FAH5243

Test Schedule / Analytical Time / Test Priority

Daily / 24 Hours / Available STAT

Method

Colorimetric

CPT(s)

Description	CPT Code
Bilirubin, Total	82247

Instrumentation

Ortho Vitros 5600

Section

Chemistry-1

Performing Location

University of Vermont Medical Center

Is the UVMMC lab NY State Certified to perform this testing? Yes/No

Yes

Order Code LOINC

Order Code	Reporting Name	LOINC Code
TBIL	Bilirubin, Total	1975-2

Result Code LOINC(s)

Result Code	Reporting Name	LOINC Code
TBIL	Bilirubin, Total	1975-2

Specimen Information — BILIRUBIN, TOTAL

Container	Specimen	Temperature	Collect Vol	Submit Vol	Minimum Vol	Stability
SST	Serum	Refrigerate	4 mL	0.5 mL	0.1 mL	7 days
Lithium Heparin (Green Top)	Plasma	Refrigerate	4 mL	0.5 mL	0.1 mL	7 days
*Green Microtainer			0.6 mL	N/A	N/A	7 days

*While a microtainer is an optional tube type in rare circumstances, it is **not recommended.**

Reference Range — BILIRUBIN, TOTAL

Age	Sex	Physiological Status	Low	High	Units
1 month-18 years	All		<1.0		mg/dL
≥18 Years	All		<1.4		mg/dL

TDBIL *BILIRUBIN, TOTAL & DIRECT*

University of Vermont Medical Center

Important Note

This test should not be performed on neonates <30 days old.

Additional Test Codes

Primary ID	Epic Code	Mayo Access ID
TDBIL	LAB182	FAH5245

Test Schedule / Analytical Time / Test Priority

Daily / 24 Hours / Available STAT

Method

Colorimetric

CPT(s)

Description	CPT Code
Bilirubin, Direct/Indirect	82248
Bilirubin, Total	82247

Instrumentation

Ortho Vitros 5600

Reference Range

Conjugated: ≥1 month: 0.0 - 0.3 mg/dL
Unconjugated: ≥1 month: 0.0 - 1.1 mg/dL
Total: ≥1 month: 0.0 - 1.4 mg/dL

Section

Chemistry-1

Performing Location

University of Vermont Medical Center

Is the UVMMC lab NY State Certified to perform this testing? Yes/No

Yes

Result Code LOINC(s)

Result Code	Reporting Name	LOINC Code
BILC	Conjugated Bili	15152-2
BILU	Unconjugated Bili	1971-1
CTBIL	Calc. Total Bili	1975-2
TBIL	Bilirubin, Total	1975-2
BILD	Delta Bilirubin	1970-3

Order Code LOINC

Order Code	Reporting Name	LOINC Code
BILC	Conjugated Bili	15152-2
BILU	Unconjugated Bili	1971-1
TBIL	Bilirubin, total	1975-2
BILD	Delta Bilirubin	1970-3

Specimen Information — BILIRUBIN, TOTAL & DIRECT

Container	Specimen	Temperature	Collect Vol	Submit Vol	Minimum Vol	Stability
SST	Serum	Refrigerate	4 mL	0.5 mL	0.1 mL	7 days
Lithium Heparin (Green Top)	Plasma	Refrigerate	4 mL	0.5 mL	0.1 mL	7 days
*Green Microtainer			0.6 mL	N/A	N/A	7 days

*While a microtainer is an optional tube type in rare circumstances, it is **not recommended.**

BBPN *BLOOD BANK PRENATAL STUDY*

University of Vermont Medical Center

Important Note

Tests included are: Blood Type ABO/Rh, Antibody screen (If screen is positive, antibody ID and titer are done).
Labeling Instructions: Please provide patients full name (NO abbreviations or cut-off letters), University of Vermont Medical Center medical record number and/or date of birth, date and time sample collected and the signature of the person collecting the Blood Bank sample is required on specimens used to prepare blood products.
Specimen Transport: Specimens must be received in the laboratory within 24-hours of collection accompanied by a completed order form.

Additional Test Codes

Primary ID	Epic Code	Mayo Access ID
BBPN	LAB2298	N/A

Test Schedule / Analytical Time / Test Priority

Monday – Friday / 1 day / Not available STAT

Method

See individual tests.

CPT(s)

See individual tests.

Instrumentation

See individual tests.

Reference Range

See individual tests.

Section

Blood Bank

Performing Location

University of Vermont Medical Center

Is the UVMMC lab NY State Certified to perform this testing? Yes/No

No

LOINC Code Information

See individual tests.

Specimen Information — BLOOD BANK PRENATAL STUDY

Container	Specimen	Temperature	Collect Vol	Submit Vol	Minimum Vol	Stability
Pink Top Tube	Whole Blood	Refrigerate	6 mL	6 mL	6 mL	1 day

Blood Bank samples must be labeled with the date collected. Specimens must be received in the laboratory within 24-hours of collection. Call Blood Bank (847-5121) if patient has antibody history.

CBCDF *BLOOD COUNT AND DIFFERENTIAL, COMPLETE*

University of Vermont Medical Center

Important Note

Test subject to Medicare National Coverage Decision (NCD) 190.15 - Blood Counts.
This test is subject to laboratory reflex policy.
If, in the opinion of the ordering provider, a blood smear needs to reviewed by a technologist for a specific reason or abnormality, please call UVM Medical Center Laboratory Customer Service (847-5121) and ask for this review. If a pathologist consultation is desired a call must be placed to UVM Medical Center Laboratory Customer Service (847-5121). A reason for the request must be provided.
Test Includes: WBC, RBC, HGB, HCT, indices, PLT, and differential (may be automated or manual). If blood will be refrigerated overnight, submit 2 smears in addition to the lavender top tube.
This test is subject to reflex testing, see Laboratory Reflex Testing Policy, you have the option to decline reflex testing if you believe it is not medically necessary. A pathologist review and written interpretation (CPT: 85060) may be generated. in the presence of certain abnormal findings. You have the option to decline reflex testing if you believe it is not medically necessary.
While an automated differential will be the default method used, there are several flags related to the WBC, PLT and RBC parameters that indicate that a manual differential must be performed. A subset of these findings will be reviewed by a pathologist.

Additional Test Codes

Primary ID	Epic Code	Mayo Access ID
CBCDF	LAB293	N/A

Test Schedule / Analytical Time / Test Priority

Daily / 24 Hours / Available STAT

Method

Cell Count, automated or manual with potential smear review

CPT(s)

Description	CPT Code
Hemagram with Differential	85025

Instrumentation

Sysmex XN 9000

Reference Range

Age and gender specific, see report.

Section

Hematology

Performing Location

University of Vermont Medical Center

Is the UVMMC lab NY State Certified to perform this testing? Yes/No

Yes

LOINC Code Information

Result Code	Reporting Name	LOINC Code
WBC	WBC	6690-2
RBC	RBC	789-8
HGB	HGB	718-7
HCT	HCT	4544-3
MCV	MCV	787-2
MCH	MCH	785-6
HYPOC	Hypochromia	728-6
MCHC	MCHC	786-4
RDWCV	RDW-CV	788-0
RDWSD	RDW-SD	21000-5
ANISO	Anisocytosis	702-1
PLTC	PLT	777-3
MPV	MPV	32623-1
NEUT	Neutrophils	26511-6

Specimen Information — BLOOD COUNT AND DIFFERENTIAL, COMPLETE

Container	Specimen	Temperature	Collect Vol	Submit Vol	Minimum Vol	Stability
Lavender Top Tube	Whole Blood	Refrigerate	2 mL	2 mL	1.5 mL	**
Lavender Microtainer			0.5 mL		0.25 mL	

Mix tube well. **The CBC must be tested within 48 hours of collection.** **If tube will be delayed to the lab more than four hours, make differential smears and forward them with the tube, the CBC must be run within 48 hours of collection.. Directions for making smears can be found here. While a microtainer is an optional tube type in rare circumstances, it is **not recommended.**

*While a microtainer is an optional tube type in rare circumstances, it is **not recommended.**

CBC *BLOOD COUNT, COMPLETE*

University of Vermont Medical Center

Important Note

Includes:WBC, RBC, HGB, HCT, Indices, RDW-CV and PLT. Test subject to Medicare National Coverage Decision (NCD) 190.15 - Blood Counts.

Additional Test Codes

Primary ID	Epic Code	Mayo Access ID
CBC	LAB294	FAH387

Test Schedule / Analytical Time / Test Priority

Daily / 24 Hours / Available STAT

Method

Automated Cell Counter

CPT(s)

Description	CPT Code
Hemagram	85027

Instrumentation

Sysmex XN 9000

Reference Range

Age and gender specific, see report

Section

Hematology

Performing Location

University of Vermont Medical Center

Is the UVMMC lab NY State Certified to perform this testing? Yes/No

Yes

LOINC Code Information

Result Code	Reporting Name	LOINC Code
WBC	WBC	6690-2
RBC	RBC	789-8
HGB	HGB	718-7
HCT	HCT	4544-3
MCV	MCV	787-2
MCH	MCH	785-6
HYPOC	Hypochromia	728-6
MCHC	MCHC	786-4
RDWCV	RDW-CV	788-0
RDWSD	RDW-SD	21000-5
ANISO	Anisocytosis	702-1
PLTC	PLT	777-3
MPV	MPV	32623-1

Specimen Information — BLOOD COUNT, COMPLETE

Container	Specimen	Temperature	Collect Vol	Submit Vol	Minimum Vol	Stability
Lavender Top Tube	Whole Blood	Refrigerate	4 mL	4 mL	1.5 mL	48 hours
*Lavender Microtainer			0.5 mL		0.25 mL	

Mix well. **The CBC must be tested within 48 hours of collection.** While a microtainer is an optional tube type in rare circumstances, it is **not recommended.**
*While a microtainer is an optional tube type in rare circumstances, it is **not recommended.**

ABG *BLOOD GAS, ARTERIAL*

University of Vermont Medical Center

Important Note

This test can only be collected at the Main Campus 111 Colchester Avenue Burlington Vermont. See Special Test considerations.
Remove needle, cap the syringe, and transport sample on ice immediately to the laboratory.
Tests included are pH, pCO2, tCO2, O2 Saturation and Base Excell/Deficit.
Arterial Blood Gas specimens are collected by Respiratory Therapy, Nursing, and Physicians.
The Laboratory recommends that the Modified Allen test be performed to determine that collateral circulation is present from the ulnar artery in the event that thrombosis of the radial artery should occur. Performance of the Modified Allen test should be documented in the patients' chart. For further information about the indications, complications, and collection of arterial blood gas collection please refer to the AARC Clinical Practice Guidelines (Respir Care 1992:37:913-917).

Additional Test Codes

Primary ID	Epic Code	Mayo Access ID
ABG	LAB3031	N/A

Test Schedule / Analytical Time / Test Priority

Daily / Immediately / Available STAT

Method

Ion Selective Electrode, Amperometry and Potentiometry

CPT(s)

Description	CPT Code
Blood Gases, Arterial	82803

Instrumentation

Siemens Rapid Point 500

Reference Range

pH: 0-1 Day: 7.26 – 7.49
pH: 1-7 Days: 7.29 – 7.45
pH: ≥ Days: 7.35 – 7.455

pCO2: 0-1 Day 27 – 40 mmHg
pCO2: 1-7 Days 27 – 41 mmHg
pCO2: ≥7 Days 35 – 45 mmHg
pO2: 0-1 day 55 - 80 mm/Hg
pO2: 1-7 Days 54 -95 mmHg
pO2: ≥7 Dayss 80 – 105 mmHg
tCO2: All ages 23 – 27 mEq/L

Section

Chemistry-1

Performing Location

University of Vermont Medical Center

Is the UVMMC lab NY State Certified to perform this testing? Yes/No

Yes

Result Code LOINC(s)

Result Code	Reporting Name	LOINC Code
PH	pH	11558-4
PCO2	PCO2	11557-6
PO2	PO2	11556-8
TCO2	TCO2	20565-8
TEMP	Temperature	8310-5
OSATR	Oxygen Saturation	2708-6
O2THER	Oxygen Therapy	19941-4
BE	Base Excess	11555-0
BD	Base Deficit	30318-0

Order Code LOINC

Order Code	Reporting Name	LOINC Code
ABG	Blood Gas, Arterial	in process

Specimen Information — BLOOD GAS, ARTERIAL

Container	Specimen	Temperature	Collect Vol	Submit Vol	Minimum Vol	Stability
Syringe	Heparinized Whole Blood	Ice	1 mL	1 mL	0.2 mL	1 hour

Remove the needle and cap the syringe transport on ice immediately to the lab. Samples received in any other container are NOT acceptable and testing will not be performed.
Syringe must be free of air bubbles. The presence of air bubbles will be noted in the laboratory report.
Not drawn by laboratory staff. Outpatients are collected by Respiratory Therapy Beeper #0582.

CBG *BLOOD GAS, CORD BLOOD ARTERIAL*

University of Vermont Medical Center

Important Note

This test can only be collected at the Main Campus 111 Colchester Avenue Burlington Vermont, see Special Test Considerations.
Remove needle, cap the syringe, and transport sample on ice immediately to the laboratory.
Testing includes: pH, pCO2, pO2, TCO2, and Base Excess/Deficit.

Additional Test Codes

Primary ID	Epic Code	Mayo Access ID
CBG	LAB3033	N/A

Test Schedule / Analytical Time / Test Priority

Daily / Immediately / Available STAT

Method

Ion-Selective Electrode, Amperometry and Potentiometry

CPT(s)

Description	CPT Code
Blood Gases, Cord Arterial	82803

Instrumentation

Siemens Rapid Point 500

Reference Range

pH: 7.18 – 7.38
pO2: 6 – 30 mmHg
TCO2: 14 – 22 mEq/L

Section

Chemistry-1

Performing Location

University of Vermont Medical Center

Is the UVMMC lab NY State Certified to perform this testing? Yes/No

Yes

Result Code LOINC(s)

Result Code	Reporting Name	LOINC Code
COPH	pH, cord blood arterial	N/A
COPCO2	PCO2, cord blood	N/A
COPO2	PO2, cord blood arterial	N/A
CTCO2	tCO2, cord	N/A
BE	Base Excess	11555-0
BD	Base Deficit	30318-0

Order Code LOINC

Order Code	Reporting Name	LOINC Code
CBG	Blood Gas, Cord Blood Arterial	51974-4

Specimen Information — BLOOD GAS, CORD BLOOD ARTERIAL

Container	Specimen	Temperature	Collect Vol	Submit Vol	Minimum Vol	Stability
Syringe	Heparinized Whole Blood	*Ice	1 mL	1 mL	0.2 mL	1 hour

*Remove needle, cap the syringe, and transport sample on ice immediately to the laboratory.
Syringe must be free of air bubbles. The presence of air bubbles will be noted in the report.
Sample received in any other containers are not acceptable for testing and testing will NOT be performed.

VCBG *BLOOD GAS, CORD VENOUS*

University of Vermont Medical Center

Important Note

This test can only be collected at the Main Campus 111 Colchester Avenue Burlington Vermont, see Special Test Considerations.
Remove needle, cap the syringe, and transport sample on ice immediately to the laboratory.
Tests included pH, pCO2, pO2, and TCO2.

Additional Test Codes

Primary ID	Epic Code	Mayo Access ID
VCBG	LAB3173	N/A

Test Schedule / Analytical Time / Test Priority

Daily / Immediately / Available STAT

Method

Ion-Selective Electrode, aperometry and Potentiometry

CPT(s)

Description	CPT Code
Blood Gases, Cord Venous	82803

Instrumentation

Siemens Rapid Point 500

Reference Range

Cord Venous pH: 7.25 – 7.45
Cord Venous pO2: 17 – 41 mmHg
Cord Venous TCO2: 14 – 22 mEq/L

Section

Chemistry-1

Performing Location

University of Vermont Medical Center

Is the UVMMC lab NY State Certified to perform this testing? Yes/No

Yes

Result Code LOINC(s)

Result Code	Reporting Name	LOINC Code
CVPH	pH, cord blood venous	N/A
COPCO2	PCO2, cord blood	N/A
CVPO2	PO2, cord blood venous	N/A
CTCO2	tCO2, cord	N/A
BE	Base Excess	11555-0
BD	Base Deficit	30318-0

Order Code LOINC

Order Code	Reporting Name	LOINC Code
VCBG	Blood Gas, Cord Venous	51972-8

Specimen Information — BLOOD GAS, CORD VENOUS

Container	Specimen	Temperature	Collect Vol	Submit Vol	Minimum Vol	Stability
Syringe	Heparinized Whole Blood	*Ice	1 mL	1 mL	0.2 mL	1 hour

*Remove needle, cap the syringe, and transport sample on ice immediately to the laboratory.
Syringe must be free of air bubbles.
Sample received in any other containers are not acceptable for testing and testing will NOT be performed. The presence of air bubbles will be noted in the report.

VBG *BLOOD GAS, VENOUS*

University of Vermont Medical Center

Important Note

This test can only be collected at the Main Campus 111 Colchester Avenue Burlington Vermont, see Special Test Considerations.
Remove needle, cap the syringe, and transport sample on ice immediately to the laboratory.
Test includes: pH, PCO2, PO2, tCO2, O2 Saturation, Base Excess/Deficit.

Additional Test Codes

Primary ID	Epic Code	Mayo Access ID
VBG	LAB3032	N/A

Test Schedule / Analytical Time / Test Priority

Daily / Immediately / Available STAT

Method

Ion Specific Electrode, Amperometry and Potentiometry

CPT(s)

Description	CPT Code
Blood Gases, Venous	82803

Instrumentation

Siemens Rapid Point 500

Reference Range

pH: 7.31 – 7.41
pCO2: 41 – 51 mmHg
TCO2: 24 – 29 mEq/L

Section

Chemistry-1

Performing Location

University of Vermont Medical Center

Is the UVMMC lab NY State Certified to perform this testing? Yes/No

Yes

Result Code LOINC(s)

Result Code	Reporting Name	LOINC Code
VPH	pH, venous	N/A
VPCO2	PCO2, venous	N/A
VPO2	PO2, venous	N/A
VTCO2	tCO2, venous	N/A
TEMP	Temperature	8310-5
OSATV	O2 Saturation, venous	N/A
O2THER	Oxygen Therapy	19941-4
BE	Base Excess	11555-0
BD	Base Deficit	30318-0

Order Code LOINC

Order Code	Reporting Name	LOINC Code
VBG	Blood Gas, Venous	24339-4

Specimen Information — BLOOD GAS, VENOUS

Container	Specimen	Temperature	Collect Vol	Submit Vol	Minimum Vol	Stability
Syringe	*Heparinized Whole Blood	Refrigerate	1 mL	1 mL	0.2 mL	1 hour

*Remove needle, cap the syringe, and transport sample on ice immediately to the laboratory.
Syringe must be free of air bubbles. Samples received in any other container are not acceptable for testing and testing will NOT be performed. The presence of air bubble will be noted on the report.

MAR *BONE MARROW EXAM*

University of Vermont Medical Center

Important Note

Must be scheduled in advance.
This test can only be collected at the Main Campus 111 Colchester Avenue Burlington Vermont. See Special Test considerations.
The bone marrow exam includes evaluation of air dried preparations of peripheral blood, marrow aspirates and imprints, and sections of marrow aspirate and biopsy. Iron stains are done routinely. Additional studies, such as cytogenetic or flow cytometric analysis are done for an additional fee by request or by pathologist following preliminary evaluation.

Additional Test Codes

Primary ID	Epic Code	Mayo Access ID
MAR	LAB2010	FAH254

Specimen Information

Call Hematology (847-5121) for assistance. Technologist assistance is available. Physician collects bone marrow. Pathologist consultation is available.

Bone marrow/peripheral blood: Collect in a or sodium heparin tube. A minimum of 1.0 mL of bone marrow is required. A full 5-10 mL tube of peripheral blood is preferred, with a 2.0 mL the minimum. EDTA tubes are acceptable but are not stable as long. Lithium Heparin, ACD, and clot tubes are not acceptable. All samples should be kept at ambient temperature after collection and during transport.

Test Schedule / Analytical Time / Test Priority

Monday – Friday / Varies / Not available STAT

Section

Hematology

Performing Location

University of Vermont Medical Center

LOINC Code Information

Result Code	Reporting Name	LOINC Code
MAR	Bone Marrow Exam	33721-2

BPPCR *BORDETELLA PERTUSSIS PCR*

University of Vermont Medical Center

Important Note

Cross-reactivity with *Bordetella holmesii* may occur with the Pertussis PCR assay although the prevalence of *Bordetella holmesi*i is relatively low. *Bordetella holmesii* has been associated with pertussis-like symptoms.
Cross-reactivity has also been demonstrated with a limited number of *Bordetella bronchiseptica* isolates. Additional testing should be performed if necessary to differentiate *B. holmesi*i and *B. pertussis.* This assay does not detect *Bordetella parapertussis*.

Additional Test Codes

Primary ID	Epic Code	Mayo Access ID
BPPCR	LAB3216	FAH5903

Specimen Information

Container	Specimen	Temperature	Collect	Submit	Stability
Bordetella Collection Kit	Nasopharyngeal	Refrigerate	Swab	Swab in collection kit	24 hours

Bordetella Collection kit - Blue capped transport container with Amies media and nasopharyngeal swab. After collection insert swab into vial until the red breakpoint is below the lip of the vial and bend to break swab into vial and recap securely. Kit is stored at room temperature until collection.

Bordetella Collection Kit

Bordetella pertussis collection
B. pertussis binds specifically to ciliated respiratory epithelial cells which are found in the nasopharynx, making a nasopharyngeal sample (NP) the specimen of choice for Bordetella PCR testing.

COLLECTION
The Bordetella collection Kit contains Liquid Amies broth and a floqswab
1. Insert the tip of the floqswab swab into a nostril to obtain a specimen from the posterior nasopharynx.
2. Do not force the swab; resistance will be felt when the posterior nasopharynx is reached.
3. Rotate the swab and leave it in place for 10-30 seconds or until the patient coughs.
4. Repeat the process for the second nostril

Test Schedule / Analytical Time / Test Priority
Daily / Same day / Not available STAT

Method
Nucleic Acid Amplification

CPT(s)

Description	CPT Code
Aplified Probe	87798

Instrumentation
Illumigene

Reference Range
Negative

Section
Microbiology-1

Performing Location
University of Vermont Medical Center

Is the UVMMC lab NY State Certified to perform this testing? Yes/No
Yes

Order Code LOINC

Order Code	Reporting Name	LOINC Code
BPPCR	Bordetella pertussis PCR	43913-3

Sample Report
Bordetella pertussis PCR

Result Code LOINC(s)

Result Code	Reporting Name	LOINC Code
SDES	Specimen Description	31208-2
CULT	Result	41852-5
RPT	Report Status	N/A

BUN *BUN*

University of Vermont Medical Center

Additional Test Codes

Primary ID	Epic Code	Mayo Access ID
BUN	LAB140	FAH4985

Test Schedule / Analytical Time / Test Priority
Daily / 24 Hours / Available STAT

Method
Colorimetric

CPT(s)

Description	CPT Code
BUN	84520

Instrumentation
Ortho Vitros 5600

Section
Chemistry-1

Performing Location
University of Vermont Medical Center

Is the UVMMC lab NY State Certified to perform this testing? Yes/No
Yes

Result Code LOINC(s)

Result Code	Reporting Name	LOINC Code
BUN	BUN	3094-0

Order Code LOINC

Order Code	Reporting Name	LOINC Code
BUN	BUN	in process

Specimen Information — BUN

Container	Specimen	Temperature	Collect Vol	Submit Vol	Minimum Vol	Stability
SST	Serum	Refrigerate	4 mL	0.6 mL	0.3 mL	5 days
Lithium Heparin (Green Top)	Plasma	Refrigerate	4 mL	0.6 mL	0.3 mL	5 days
*Green Microtainer		Refrigerate	0.6 mL	N/A	N/A	5 days

*While a microtainer is an optional tube type in rare circumstances, it is **not recommended.**

Reference Range — BUN

Age	Sex	Physiological Status	Low	High	Units
0 - 8 days	Female		<14		mg/dL
8 - 30 days	Female		<16		mg/dL
1 - 4 months	Female		<15		mg/dL
4 - 7 months	Female		<14		mg/dL
7 - 12 months	Female		<14		mg/dL
1 - 4 years	Female		5	17	mg/dL
4 - 7 years	Female		7	17	mg/dL
7 - 10 years	Female		7	17	mg/dL
10 - 12 years	Female		7	17	mg/dL
12 - 14 years	Female		7	12	mg/dL
14 - 16 years	Female		8	21	mg/dL
16 - 18 years	Female		8	21	mg/dL
>18 year	Female		10	26	mg/dL
0 - 8 days	Male		<14		mg/dL
8 - 30 days	Male		<17		mg/dL
1 - 4 months	Male		<13		mg/dL
4 - 7 months	Male		<15		mg/dL
7 - 12 months	Male		<15		mg/dL
1 - 4 years	Male		5	17	mg/dL
4 - 7 years	Male		7	17	mg/dL
7 - 10 years	Male		7	17	mg/dL
10 - 12 years	Male		7	17	mg/dL
12 - 14 years	Male		7	17	mg/dL
14 - 16 years	Male		8	21	mg/dL
16 - 18 years	Male		8	21	mg/dL
>18 year	Male		10	26	mg/dL

BUP *BUPRENORPHINE AND METABOLITES SCREEN, URINE*

University of Vermont Medical Center

Important Note

Restricted to Emergency Department and Labor and Delivery use only.
This screen is intended for use in clinical monitoring or management of patients.
This test is subject to Medicare National Coverage Determination (LCD) L36037-Urine Drug Testing.

Additional Test Codes

Primary ID	Epic Code	Mayo Access ID
BUP	LAB3672	FAH5769

Test Schedule / Analytical Time / Test Priority

Daily / Same day / Available STAT

Method

Immunochromatography

CPT(s)

Description	CPT Code
Buprenorphine Screen	80306

Instrumentation

MedTox Scan

Reference Range

This screen is intended for use in clinical monitoring or management of patients.

Section

Chemistry-1

Performing Location

University of Vermont Medical Center

Is the UVMMC lab NY State Certified to perform this testing? Yes/No

Yes

Result Code LOINC(s)

Result Code	Reporting Name	LOINC Code
BUP	Buprenorphine and Metabolites Screen, Urine	58359-1

Order Code LOINC

Order Code	Reporting Name	LOINC Code
BUP	Buprenorphine and Metabolites Screen, Urine	in process

Specimen Information — BUPRENORPHINE AND METABOLITES SCREEN, URINE

Container	Specimen	Temperature	Collect Vol	Submit Vol	Minimum Vol	Stability
Sterile Container	Random Urine	Refrigerate	50 mL	50 mL	30 mL	2 days
Sterile Container	Random Urine	Frozen	50 mL	50 mL	30 mL	30 days

VBUPUN *BUPRENORPHINE CONFIRMATION*

Aspenti Health Laboratory

Additional Test Codes

Primary ID	Epic Code	Aspenti Test Code
VBUPUN	LAB3040	VBL7091

Test Schedule / Analytical Time / Test Priority

Monday - Friday / 3 days / Not available STAT

Performing Location

Aspenti Health

Specimen Information — BUPRENORPHINE CONFIRMATION

Container	Specimen	Temperature	Collect Vol	Submit Vol	Minimum Vol
Clean Container	Random Urine	Refrigerate	50 mL	50 mL	30 mL

VBUP *Buprenorphine Screen, Urine*

Aspenti Health Laboratory

Important Note

Routine drug screen for inpatients and ambulatory clinics.
Buprenorphine Screen, Urine, test information.

Additional Test Codes

Primary ID	Epic Code	Aspenti Test Code
VBUP	LAB3714	VBL2040

Test Schedule / Analytical Time / Test Priority

Monday - Friday / 24 Hours / Not Available STAT

Performing Location

Aspenti Health Laboratory

CRPP *C-REACTIVE PROTEIN*

University of Vermont Medical Center

Important Note

For assessment of acute inflammation. Not appropriate for cardiac risk assessment.

Additional Test Codes

Primary ID	Epic Code	Mayo Access ID
CRPP	LAB149	FAH5650

Test Schedule / Analytical Time / Test Priority

Daily / Same Day / Available STAT

Method

Enzymatic Immunoassay

CPT(s)

Description	CPT Code
C-Reactive Protein	86140

Instrumentation

Ortho Vitros 5600

Reference Range

Age	Sex	Normal	Units
All ages	All	<10	mg/L

Section

Chemistry-1

Performing Location

University of Vermont Medical Center

Is the UVMMC lab NY State Certified to perform this testing? Yes/No

Yes

Result Code LOINC(s)

Result Code	Reporting Name	LOINC Code
CRPP	C-Reactive Protein	1988-5

Order Code LOINC

Order Code	Reporting Name	LOINC Code
CRPP	C-Reactive Protein	in process

Specimen Information — C-REACTIVE PROTEIN

Container	Specimen	Temperature	Collect Vol	Submit Vol	Minimum Vol	Stability
SST	Serum	Refrigerate	2 mL	0.5 mL	0.3 mL	5 days
Lithium Heparin (Green Top)	Plasma	Refrigerate	2 mL	0.5 mL	0.3 mL	5 days

Hemolysis affects results. Please submit a non-hemolyzed sample.

CDIFBD *C. DIFFICILE, PCR*

University of Vermont Medical Center

Important Note

Sample should arrive at the lab within 24-hours.
Not appropriate for children less than 1-years old as they are frequently colonized with C. difficile.
Due to sensitivity of the assay, only one sample will be run in 7 days.
Potentially interfering substances include calcium carbonate (Tums) as well as magnesium and aluminum hydroxide (Maalox liquid). Mesalamine Rectal Susspension Enema and Gynol II Vaginal Contraceptive have both shown to be slightly inhibitory.
The following substances have no reportable interference with the assay: Nystatin, Hyderm Hydrocortisone, Glycerin Suppositories, Ihle's Paste, Anusol Plus, Preparation H with Bio-Dyne, Major Prep with Phenylephrine, Fleet Mineral Oil Enema, Imodium AD, Pepto Bismol, Ex-Lax, Metronidazole, Vancomycin, Polysporin, Neproxen, Tucks Personal Cleansing Pads, Triglyceride Mix, Palmitic Acid, Stearic Acid, Blood, Mucus.

Additional Test Codes

Primary ID	Epic Code	Mayo Access ID
CDIFBD	LAB3021	FAH5905

Test Schedule / Analytical Time / Test Priority

8 am, 11 am, 2 pm, 5 pm, and 8 pm / 3 Hours / Not available STAT

Method

Nucleic Acid Amplification

CPT(s)

Description	CPT Code
C. Difficile Molecular Detection	87493

Instrumentation

BD Max

Reference Range

Negative for C. difficile toxin by PCR

Section

Microbiology-1

Performing Location

University of Vermont Medical Center

Is the UVMMC lab NY State Certified to perform this testing? Yes/No

No

Order Code LOINC

Order Code	Reporting Name	LOINC Code
CDIFBD	C. difficile, PCR	74822-8

Result Code LOINC(s)

Result Code	Reporting Name	LOINC Code
SDESCD	Specimen Description	in process
RESCD	Result	in process

Specimen Information — C. DIFFICILE, PCR

Container	Specimen	Temperature	Collect Vol	Submit Vol	Minimum Vol	Stability
Sterile Container	Soft or liquid feces	Refrigerate	1 gram	1 gram	1 gram	5 days

Collect soft or liquid stool (sample must take the shape of the container) in a sterile container; formed stools are not acceptable. Specimens should be submitted in a sterile container without preservatives. The sample must be refrigerated until it is delivered to the laboratory. Sample should arrive at the lab within 24-hours. Not appropriate for children less than 1-year old.

C3CS *C3 COMPLEMENT*

University of Vermont Medical Center

Additional Test Codes

Primary ID	Epic Code	Mayo Access ID
C3CS	LAB152	FAH5815

Test Schedule / Analytical Time / Test Priority

Monday – Friday / 3 days / Not available STAT

Method

Immunoturbidometric

CPT(s)

Description	CPT Code
C3 Complement	86160

Instrumentation

Binding Site Optilite

Section

Chemistry-2

Performing Location

University of Vermont Medical Center

Is the UVMMC lab NY State Certified to perform this testing? Yes/No

Yes

Order Code LOINC

Order Code	Reporting Name	LOINC Code
C3C	C3 Complement	4485-9

Result Code LOINC(s)

Result Code	Reporting Name	LOINC Code
C3C	C3 Complement	4485-9

Specimen Information — C3 COMPLEMENT

Container	Specimen	Temperature	Collect Vol	Submit Vol	Minimum Vol	Stability
SST	Serum	Refrigerate	5 mL	0.5 mL	0.2 mL	7 days
Yellow Microtainer		Refrigerate	0.6 mL	N/A	N/A	7 days

Green top tube is **NOT** acceptable. Marked hemolysis or lipemic samples are not acceptable.
*While a microtainer is an optional tube type in rare circumstances, it is **not recommended.**

Reference Range — C3 COMPLEMENT

Age	Sex	Physiological Status	Low	High	Units
≥18 years	All		81	157	mg/dL

C4CS *C4 COMPLEMENT*

University of Vermont Medical Center

Additional Test Codes

Primary ID	Epic Code	Mayo Access ID
C4CS	LAB151	FAH5816

Test Schedule / Analytical Time / Test Priority

Monday – Friday / 3 days / Not available STAT

Method

Immunoturbidometric

CPT(s)

Description	CPT Code
C4 Complement	86160

Instrumentation

Binding Site Optilite

Section

Chemistry-2

Performing Location

University of Vermont Medical Center

Is the UVMMC lab NY State Certified to perform this testing? Yes/No

Yes

Order Code LOINC

Order Code	Reporting Name	LOINC Code
C4C	C4 Complement	4498-2

Result Code LOINC(s)

Result Code	Reporting Name	LOINC Code
C4C	C4 Complement	4498-2

Specimen Information — C4 COMPLEMENT

Container	Specimen	Temperature	Collect Vol	Submit Vol	Minimum Vol	Stability
SST	Serum	Refrigerate	5 mL	0.5 mL	0.2 mL	7 days
*Yellow Microtainer		Refrigerate	0.6 mL	N/A	N/A	7 days

Green top tube is **NOT** acceptable. Marked hemolysis or lipemic saamples are NOT acceptable.
*While a microtainer is an optional tube type in rare circumstances, it is **not recommended.**

Reference Range — C4 COMPLEMENT

Age	Sex	Physiological Status	Low	High	Units
≥18 years	All		13	39	mg/dL

CA125T *CA 125*

University of Vermont Medical Center

Important Note

Test subject to Medicare National Coverage Determination (NCD) 190.28-Tumor Antigen by Immunoassay CA 125.

Additional Test Codes

Primary ID	Epic Code	Mayo Access ID
CA125T	LAB3648	FAH5727

Test Schedule / Analytical Time / Test Priority

Monday – Friday / 3 days / Not available STAT

Method

Chemiluminescence Immunoassay

CPT(s)

Description	CPT Code
CA125	86304

Instrumentation

Siemens Centaur

Reference Range

≥17: < 30 U/mL

Section

Chemistry-2

Performing Location

University of Vermont Medical Center

Is the UVMMC lab NY State Certified to perform this testing? Yes/No

Yes

Result Code LOINC(s)

Result Code	Reporting Name	LOINC Code
CA125T	CA 125	10334-1

Order Code LOINC

Order Code	Reporting Name	LOINC Code
CA125T	CA 125	10334-1

Specimen Information — CA 125

Container	Specimen	Temperature	Collect Vol	Submit Vol	Minimum Vol	Stability
Serum Separator Tube	Serum	Refrigerate	4 mL	1 mL	0.6 mL	7 days

C199T *CA 19-9*

University of Vermont Medical Center

Important Note

Test subject to Medicare National Coverage Determination (NCD) 190.30 tumor Antigen by Immunoassay CA19-9.

Additional Test Codes

Primary ID	Epic Code	Mayo Access ID
C199T	LAB3619	FAH5669

Test Schedule / Analytical Time / Test Priority

Monday Wednesday, Friday / Same day / Not available STAT

Method

Chemiluminescence Immunoassay

CPT(s)

Description	CPT Code
CA 19-9	86301

Instrumentation

Siemens ADVIA Centaur XPT

Reference Range

≥17 years: < 35 U/mL

Section

Chemistry-2

Performing Location

University of Vermont Medical Center

Is the UVMMC lab NY State Certified to perform this testing? Yes/No

Yes

Order Code LOINC

Order Code	Reporting Name	LOINC Code
C199T	CA 19-9	24108-3

Result Code LOINC(s)

Result Code	Reporting Name	LOINC Code
C199T	CA 19-9	24108-3

Specimen Information — CA 19-9

Container	Specimen	Temperature	Collect Vol	Submit Vol	Minimum Vol	Stability
Serum Separator Tube	Serum	Frozen	4 mL	1 mL	0.6 mL	30 days
Serum Separator Tube	Serum	Refrigerate	4 mL	1 mL	0.6 mL	2 days

C2729 *CA 27.29*

University of Vermont Medical Center

Important Note

Test subject to Medicare National Coverage Determination (NCD) 190.29 tumor Antigen by Immunoassay CA15-3/CA 27.29.

Additional Test Codes

Primary ID	Epic Code	Mayo Access ID
C2729	LAB853	FAH5337

Test Schedule / Analytical Time / Test Priority

Monday, Wednesday, Friday / 3 days / Not available STAT

Method

Chemiluminescence Immunoassay

CPT(s)

Description	CPT Code
CA 27.29	86300

Instrumentation

Siemens ADVIA Centaur XPT

Reference Range

≥18 years: <38 U/mL

Section

Chemistry-2

Performing Location

University of Vermont Medical Center

Is the UVMMC lab NY State Certified to perform this testing? Yes/No

Yes

Order Code LOINC

Order Code	Reporting Name	LOINC Code
C2729	CA 27.29	17842-6

Result Code LOINC(s)

Result Code	Reporting Name	LOINC Code
C2729	CA 27.29	17842-6

Specimen Information — CA 27.29

Container	Specimen	Temperature	Collect Vol	Submit Vol	Minimum Vol	Stability
Serum Separator Tube	Serum	Frozen	5 mL	0.5 mL	0.3 mL	30 days
Serum Separator Tube	Serum	Refrigerated	5 mL	0.5 mL	0.3 mL	2 days

CA *CALCIUM*

University of Vermont Medical Center

Important Note

Formula for calculated calcium
Calculated calcium = measured total calcium + (4.0 – albumin) * 0.8

Additional Test Codes

Primary ID	Epic Code	Mayo Access ID
CA	LAB53	FAH4962

Test Schedule / Analytical Time / Test Priority

Daily / 24 Hours / Available STAT

Method

Colorimetric

CPT(s)

Description	CPT Code
Calcium	82310

Instrumentation

Ortho Vitros 5600

Section

Chemistry-1

Performing Location

University of Vermont Medical Center

Is the UVMMC lab NY State Certified to perform this testing? Yes/No

Yes

Result Code LOINC(s)

Result Code	Reporting Name	LOINC Code
CAL	Calcium	17861-6
CALC2	Calculated Calcium	46099-8

Order Code LOINC

Order Code	Reporting Name	LOINC Code
CA	Calcium	in process

Specimen Information — CALCIUM

Container	Specimen	Temperature	Collect Vol	Submit Vol	Minimum Vol	Stability
SST	Serum	Refrigerate	4 mL	0.6 mL	0.3 mL	22 days
Lithium Heparin (Green Top	Plasma	Refrigerate	4 mL	0.6 mL	0.3 mL	22 days
*Green Microtainer		Refrigerate	0.6 mL	N/A	N/A	22 days

*While a microtainer is an optional tube type in rare circumstances, it is **not recommended.**

Reference Range — CALCIUM

Age	Sex	Physiological Status	Low	High	Units
1 - 8 days	Female		7.5	11.3	mg/dL
8 - 30 days	Female		8.4	11.9	mg/dL
1 - 3 months	Female		8.0	11.1	mg/dL
3 - 6 months	Female		7.7	11.5	mg/dL
6 months - 1 year	Female		7.8	11.1	mg/dL
1 - 4 years	Female		8.7	9.8	mg/dL
4 - 7 years	Female		8.8	10.1	mg/dL
7 - 10 years	Female		8.8	10.1	mg/dL
10 - 12 years	Female		8.9	10.1	mg/dL
12 - 14 years	Female		8.8	10.6	mg/dL
14 - 16 years	Female		9.2	10.7	mg/dL
16 - 18 years	Female		8.9	10.7	mg/dL
≥18 years	Female		8.5	10.5	mg/dL
1 - 8 days	Male		7.3	11.4	mg/dL
8 - 30 days	Male		8.6	11.7	mg/dL
1 - 3 months	Male		8.5	11.3	mg/dL
3 - 6 months	Male		8.3	11.4	mg/dL
6 months - 1 year	Male		7.7	11.0	mg/dL
1 - 4 years	Male		8.7	9.8	mg/dL
4 - 7 years	Male		8.8	10.1	mg/dL
7 - 10 years	Male		8.8	10.1	mg/dL
10 - 12 years	Male		8.9	10.1	mg/dL
12 - 14 years	Male		8.8	10.6	mg/dL
14 - 16 years	Male		9.2	10.7	mg/dL
16 - 18 years	Male		8.9	10.7	mg/dL
≥18 years	Male		8.5	10.5	mg/dL

UCA24 *CALCIUM, URINE, 24-HOUR*

University of Vermont Medical Center

Important Note

The 24 hour urine sample should be delivered to the lab within 12 hours of collection completion.

Additional Test Codes

Primary ID	Epic Code	Mayo Access ID
UCA24	LAB814	FAH5870

Test Schedule / Analytical Time / Test Priority

Daily 8 am-4:30 pm / 1 day / Not available STAT

Method

Colorimetric

CPT(s)

Description	CPT Code
Calcium, Urine, 24 Hour	82340

Instrumentation

Ortho Vitros 5600

Reference Range

≥18 years: 100 - 300 mg/24 Hour (Assumes a normal daily intake of calcium between 600 - 800 mg/day)

Section

Chemistry-1

Performing Location

University of Vermont Medical Center

Is the UVMMC lab NY State Certified to perform this testing? Yes/No

Yes

Result Code LOINC(s)

Result Code	Reporting Name	LOINC Code
UCAR	Calcium, Urn Random	35675-8
UCA24C	24 hr Calc	6874-2

Order Code LOINC

Order Code	Reporting Name	LOINC Code
UCA24	Calcium, Urine, 24 Hour	in process

Specimen Information — CALCIUM, URINE, 24-HOUR

Container	Specimen	Temperature	Collect Vol	Submit Vol	Minimum Vol	Stability
Jug A	24-Hour Urine	Refrigerate	24-hour	100 mL	20 mL	35 days

UCAR *CALCIUM, URINE, RANDOM*

University of Vermont Medical Center

Additional Test Codes

Primary ID	Epic Code	Mayo Access ID
UCAR	LAB371	FAH267

Test Schedule / Analytical Time / Test Priority

Daily 8 am-4:30 pm / 1 day / Not available STAT

Method

Colorimetric

CPT(s)

Description	CPT Code
Calcium, Urine, Random	82310

Instrumentation

Ortho Vitros 5600

Reference Range

No established reference ranges.

Section

Chemistry-1

Performing Location

University of Vermont Medical Center

Is the UVMMC lab NY State Certified to perform this testing? Yes/No

Yes

Order Code LOINC

Order Code	Reporting Name	LOINC Code
UCAR	Calcium, Urine, Random	35675-8

Result Code LOINC(s)

Result Code	Reporting Name	LOINC Code
UCAR	Calcium, Urine, Random	35675-8

Specimen Information — CALCIUM, URINE, RANDOM

Container	Specimen	Temperature	Collect Vol	Submit Vol	Minimum Vol	Stability
Sterile Container	Random Urine	Refrigerate	50 mL	10 mL	2 mL	35 days

VTHC *CANNABINOIDS CONFIRMATION*

Aspenti Health Laboratory

Important Note

Confirmation only, cannot be ordered as a stand alone test.

Additional Test Codes

Primary ID	Epic Code	Aspenti Test Code
VTHC	LAB2437	VBL7004

Test Schedule / Analytical Time / Test Priority

Monday - Friday / 3 days / Not available STAT

Performing Location

Aspenti Health

Specimen Information — CANNABINOIDS CONFIRMATION

Container	Specimen	Temperature	Collect Vol	Submit Vol	Minimum Vol
Clean Container	Random Urine	Refrigerate	50 mL	50 mL	30 mL

UCN2 *CANNABINOIDS SCREEN, URINE*

University of Vermont Medical Center

Important Note

Restricted to Emergency Department and Labor and Delivery use only.
This screen is intended for use in clinical monitoring or management of patients.
This test is subject to Medicare National Coverage Determination (LCD) L36037-Urine Drug Testing.

Additional Test Codes

Primary ID	Epic Code	Mayo Access ID
UCN2	LAB447	FAH5770

Test Schedule / Analytical Time / Test Priority

Daily / 1 day / Available STAT

Method

Immunochromatography

CPT(s)

Description	CPT Code
Cannabinoids Screen	80306

Instrumentation

MedTox Scan

Reference Range

This screen is intended for use in clinical monitoring or management of patients.

Section

Chemistry-1

Performing Location

University of Vermont Medical Center

Is the UVMMC lab NY State Certified to perform this testing? Yes/No

Yes

Result Code LOINC(s)

Result Code	Reporting Name	LOINC Code
UCN2	Cannabinoids Screen, Urine	18282-4

Order Code LOINC

Order Code	Reporting Name	LOINC Code
UCN2	Cannabinoids Screen, Urine	in process

Specimen Information — CANNABINOIDS SCREEN, URINE

Container	Specimen	Temperature	Collect Vol	Submit Vol	Minimum Vol	Stability
Sterile Container	Random Urine	Refrigerate	50 mL	50 mL	30 mL	2 days
Sterile Container	Random Urine	Frozen	50 mL	50 mL	30 mL	30 days

CARBAM *CARBAMAZEPINE*

University of Vermont Medical Center

Additional Test Codes

Primary ID	Epic Code	Mayo Access ID
CARBAM	LAB21	FAH5780

Test Schedule / Analytical Time / Test Priority

Daily / 1 day / Available STAT

Method

Chemiluminescence Immunoassay

CPT(s)

Description	CPT Code
Carbamazepine	80156

Instrumentation

Abbott Architect i1000

Reference Range

All ages: Therapeutic Range: 4 – 12.0 ug/mL

Section

Chemistry-1

Performing Location

University of Vermont Medical Center

Is the UVMMC lab NY State Certified to perform this testing? Yes/No

Yes

Result Code LOINC(s)

Result Code	Reporting Name	LOINC Code
CARBAM	Carbamazepine	3432-2

Order Code LOINC

Order Code	Reporting Name	LOINC Code
CARBAM	Carbamazepine	3432-2

Specimen Information — CARBAMAZEPINE

Container	Specimen	Temperature	Collect Vol	Submit Vol	Minimum Vol	Stability
SST	Serum	Refrigerate	2 mL	0.5 mL	0.3 mL	7 days
Lithium Heparin (green top)	Plasma	Refrigerate	2 mL	0.5 mL	0.3 mL	7 days
*Green Microtainer		Refrigerate	0.6 mL	N/A	N/A	7 days

*While a microtainer is an optional tube type in rare circumstances, it is **not recommended.**

CO2 *CARBON DIOXIDE*

University of Vermont Medical Center

Additional Test Codes

Primary ID	Epic Code	Mayo Access ID
CO2	LAB55	FAH4976

Test Schedule / Analytical Time / Test Priority

Daily / 1 day / Available STAT

Method

Colorimetric

CPT(s)

Description	CPT Code
Carbon Dioxide	82374

Instrumentation

Ortho Vitros 5600

Section

Chemistry-1

Performing Location

University of Vermont Medical Center

Is the UVMMC lab NY State Certified to perform this testing? Yes/No

Yes

Result Code LOINC(s)

Result Code	Reporting Name	LOINC Code
CO2	CO2	2028-9

Order Code LOINC

Order Code	Reporting Name	LOINC Code
CO2	Carbon Dioxide	2028-9

Specimen Information — CARBON DIOXIDE

Container	Specimen	Temperature	Collect Vol	Submit Vol	Minimum Vol	Stability
SST	Serum	Refrigerate	4 mL	0.6 mL	0.3 mL	5 days
Lithium heparin (green top)	Plasma	Refrigerate	4 mL	0.6 mL	0.3 mL	5 days
*Green Microtainer		Refrigerate	0.6 mL	N/A	N/A	5 days

*While a microtainer is an optional tube type in rare circumstances, it is **not recommended.**

Reference Range — CARBON DIOXIDE

Age	Sex	Physiological Status	Low	High	Units
All	All		22	32	mEq/L

CHB *CARBOXYHEMOGLOBIN*

University of Vermont Medical Center

Additional Test Codes

Primary ID	Epic Code	Mayo Access ID
CHB	LAB56	FAH189

Test Schedule / Analytical Time / Test Priority

Daily / 1 day / Available STAT

Method

Co-oximetry

CPT(s)

Description	CPT Code
Carboxyhemoglobin	82375

Instrumentation

Siemens Rapid Point 500

Reference Range

All ages:
Non-smoker: <5%
Smoker: <10%

Section

Chemistry-1

Performing Location

University of Vermont Medical Center

Is the UVMMC lab NY State Certified to perform this testing? Yes/No

Yes

Result Code LOINC(s)

Result Code	Reporting Name	LOINC Code
CHB	Carboxyhemoglobin	20563-3

Order Code LOINC

Order Code	Reporting Name	LOINC Code
CHB	Carboxyhemoglobin	20563-3

Specimen Information — CARBOXYHEMOGLOBIN

Container	Specimen	Temperature	Collect Vol	Submit Vol	Minimum Vol	Stability
**Green Top Tube	Whole Blood	Refrigerate	3 mL	3 mL	0.8 mL	7 days
*Syringe	Heparinized Whole Blood	Refrigerate	1 mL	1 mL	0.2 mL	7 days

*Remove the needle from syringe and cap sample immediately.
** Sodium heparin and lithium heparin are bot acceptable. Plasma separator tubes (PST) are acceptable.

Green microtainers are not ideal for this assay and should be used when a vacutainer cannot be obtained and will only be accepted from NICU, NUR, B5 and PICU patients.

CARDLI *CARDIOLIPIN ANTIBODY PANEL, IgG AND IgM*

University of Vermont Medical Center

Important Note

Non-UVMMC clients must send samples frozen. For samples being sent frozen, serum should be separated from clotted blood within 4 hours of collection and frozen at ≤-20 C.

Additional Test Codes

Primary ID	Epic Code	Mayo Access ID
CARDLI	LAB464	FAH5465

Test Schedule / Analytical Time / Test Priority

Monday, Wednesday / 6 days / Not available STAT

Method

ELISA

CPT(s)

Description	CPT Code
Cardiolipin Ab IgG	86147
Cardiolipin Ab IgM	86147

Instrumentation

Dynex DSX

Reference Range

≥18 years all sexes:
IgG Negative: <15 GPL
IgG Indeterminate: 15-20 GPL
IgG Low to Medium Positive: 20-80 GPL
IgG High Positive: >80 GPL
IgM Negative: <12.5 MPL
IgM Indeterminate: 12.5-20 MPL
IgM Low to Medium Positive: 20-80 MPL
IgM High Positive: >80 MPL

Section

Immunology

Performing Location

University of Vermont Medical Center

Is the UVMMC lab NY State Certified to perform this testing? Yes/No

Yes

Result Code LOINC(s)

Result Code	Reporting Name	LOINC Code
CARDG	Cardiolipin IgG	3181-5
CARDM	Cardiolipin IgM	3182-3

Order Code LOINC

Order Code	Reporting Name	LOINC Code
CARDLI	Cardiolipin Ab Panel, IgG and IgM	24319-6

Specimen Information — CARDIOLIPIN ANTIBODY PANEL, IgG AND IgM

Container	Specimen	Temperature	Collect Vol	Submit Vol	Minimum Vol	Stability
Serum Separator Tube	Serum	Frozen	4 mL	0.5 mL	0.4 mL	30 days
Serum Separator Tube	Serum	Refrigerated	4 mL	0.5 mL	0.4 mL	2 days

VCAR *Carisoprodol Screen, Urine*

Aspenti Health Laboratory

Important Note

Routine drug screen for inpatients and ambulatory clinics.
Carisoprodol Screen, Urine, test information.

Additional Test Codes

Primary ID	Epic Code	Aspenti Test Code
VCAR	LAB3716	VBL2060

Test Schedule / Analytical Time / Test Priority

Monday - Friday / 24 Hours / Not Available STAT

Performing Location

Aspenti Health Laboratory

CD1920 *CD19 CD20 STUDY*

University of Vermont Medical Center

Additional Test Codes

Primary ID	Epic Code	Mayo Access ID
CD1920	LAB329	FAH5571

Test Schedule / Analytical Time / Test Priority

Monday – Saturday / 3 days / Not available STAT

Method

Flow Cytometry

CPT(s)

Description	CPT Code
CD19	88184
CD20	88185

Instrumentation

Beckman Coulter FC 500 and Beckman Coulter Navios

Reference Range

Patients being treated with Rituximab should have CD19 and CD20 percentages of <1%.

Section

Immunology

Performing Location

University of Vermont Medical Center

Is the UVMMC lab NY State Certified to perform this testing? Yes/No

Yes

Specimen Information — CD19 CD20 STUDY

Container	Specimen	Temperature	Collect Vol	Submit Vol	Minimum Vol
Sodium Heparin Tube	Whole Blood*	Ambient	4 mL	4 mL	2 mL
Purple Top (EDTA)	Whole Blood	Ambient	4 mL	4 mL	2 mL

* Do not spin tube. Samples collected in sodium Heparin must be tested within 48 hours of collection. Samples collected in EDTA must be tested within 30 hours of collection.

IPBAL *CD4 / CD8 RATIO, BAL*

University of Vermont Medical Center

Additional Test Codes

Primary ID	Epic Code	Mayo Access ID
IPBAL	LAB3104	N/A

Test Schedule / Analytical Time / Test Priority

Monday – Saturday / 3 days / Not available STAT

Method

Flow Cytometry

CPT(s)

Description	CPT Code
CD 3 BAL	86359
CD 4 BAL	86360
CD 8 BAL	86360
RAT BAL	56360

Instrumentation

Beckman Coulter FC500 and Beckman Coulter Navios

Reference Range

RATBAL: 0.9 – 2.5 in patients at least 18 years old. Separate reference ranges for CD3%, CD4%, and CD8% are not noted.

Section

Immunology

Performing Location

University of Vermont Medical Center

Is the UVMMC lab NY State Certified to perform this testing? Yes/No

Yes

LOINC Code Information

Result Code	Reporting Name	LOINC Code

Specimen Information — CD4 / CD8 RATIO, BAL

Container	Specimen	Temperature	Collect Vol	Submit Vol	Minimum Vol
Sterile container	Bronchoalveolar Lavage	Ambient	10 mL	10 mL	5 mL

Specimens should be submitted to the laboratory immediately and tested as soon as possible or same day. Specimens greater than 24 hours may be rejected after consultation with the Attending Hematopathologist.

Refrigerated samples should be cleared with the Attending Hematopathologist prior to analysis, as refrigeration can cause selective loss of CD4+ T-cells.

CEA *CEA*

University of Vermont Medical Center

Important Note

Test subject to Medicare National Coverage Determination (NCD) 190.26 Carcinoembryonic Antigen.
If CSF is submitted, test will be sent to Mayo Clinic Laboratories (Mayo Test Code: CEASF). Pancreatic cyst fluid is sent to Mayo (SQ Test Code: CEAPCF). All other fluid CEA requests must be approved by a supervisor or Pathol**ogist.**

Additional Test Codes

Primary ID	Epic Code	Mayo Access ID
CEA	LAB57	FAH157

Test Schedule / Analytical Time / Test Priority

Monday – Friday / 3 days / Not available STAT

Method

Chemiluminescent Immunoassay

CPT(s)

Description	CPT Code
CEA	82378

Instrumentation

Siemens ADVIA Centaur XPT

Reference Range

≥18 years all sexes:
0 - 2.5 in 98.2% of Nonsmokers and 87.3% of Smokers
2.6 – 5 in 1.8% of Nonsmokers and 8% of smokers
5.1 – 10.1 in 4.7% of Smokers

Section

Chemistry-2

Performing Location

University of Vermont Medical Center

Is the UVMMC lab NY State Certified to perform this testing? Yes/No

Yes

Result Code LOINC(s)

Result Code	Reporting Name	LOINC Code
CEA	CEA	2039-6

Order Code LOINC

Order Code	Reporting Name	LOINC Code
CEA	CEA	2039-6

Specimen Information — CEA

Container	Specimen	Temperature	Collect Vol	Submit Vol	Minimum Vol	Stability
SST	Serum	Refrigerate	4 mL	1 mL	1 mL	7 days
Yellow Microtainer		Refrigerate	0.6 mL	N/A	N/A	7 days

*While a microtainer is an optional tube type in rare circumstances, it is **not recommended.**

RCEA *CEA REPEAT*

University of Vermont Medical Center

Important Note

Test subject to Medicare National Coverage Determination (NCD) 190.26 Carcinoembryonic Antigen.
If CSF is submitted, test will be sent to Mayo Clinic Laboratories (Mayo Test Code: CEASF). Pancreatic cyst fluid is sent to Mayo (SQ Test Code: CEAPCF). All other fluid CEA requests must be approved by a supervisor or Pathol**ogist.**

Additional Test Codes

Primary ID	Epic Code	Mayo Access ID
RCEA	LAB2040	N/A

Test Schedule / Analytical Time / Test Priority

Monday – Friday / 3 day / Not available STAT

Method

Chemiluminescent Immunoassay

CPT(s)

Description	CPT Code
CEA Repeat	82378

Instrumentation

Siemens ADVIA Centaur XPT

Reference Range

0 - 2.5 in 98.2% of Nonsmokers and 87.3% of Smokers
2.6 – 5.0 in 1.8% of Nonsmokers and 8% of smokers
5.1 – 10.1 in 4.7% of Smokers

Section

Chemistry-2

Performing Location

University of Vermont Medical Center

Is the UVMMC lab NY State Certified to perform this testing? Yes/No

Yes

Result Code LOINC(s)

Result Code	Reporting Name	LOINC Code
RCEA	CEA Repeat	19166-8

Order Code LOINC

Order Code	Reporting Name	LOINC Code
RCEA	CEA Repeat	19166-8

Specimen Information — CEA REPEAT

Container	Specimen	Temperature	Collect Vol	Submit Vol	Minimum Vol	Stability
SST	Serum	Refrigerate	4 mL	1 mL	1 mL	7 days
Yellow Microtainer		Refrigerate	0.6 mL	N/A	N/A	7 days

CDP *CELIAC DISEASE PANEL*

University of Vermont Medical Center

Important Note

Testing includes Tissue Transglutaminase Antibody IgA and IgA .

Additional Test Codes

Primary ID	Epic Code	Mayo Access ID
CDP	LAB2736	FAH5797

Test Schedule / Analytical Time / Test Priority

Monday, Wednesday, and Friday / 3 days / Not available STAT

Method

See individual tests.

CPT(s)

See individual tests.

Instrumentation

See individual tests.

Reference Range

If TTAB positive (>10) and IgA normal:
"Celiac disease possible. Consider referral to gastroenterology specialist for consideration for biopsy."

If IgA is age-specific normal and TTAB is equivocal (4-10 U/mL):
"Equivocal serology, celiac disease cannot be excluded. Referral to gastroenterology specialist recommended for additional evaluation."

If IgA is age specific normal and TTAB is negative (<4.0 U/mL):
"Negative Serology. Celiac disease unlikely. Approximately 10% of patient with celiac disease are seronegative. Patients who are already adhering to a gluten-free diet may be seronegative. If celiac disease is highly clinically suspected, referral to gastroenterology for additional evaluation is recommended."

If IgA ≥ 6.7 mg/dl, but lower than age-specific normal and TTAB is negative (<10 U/mL): "Low total serum IgA; Recommend referral to gastroenterology specialist for additional evaluation."

If IgA is below detection (≤ 6.7 mg/dl) and TTAB is negative (<10 U/mL):
"Total serum IgA deficiency; Recommend referral to gastroenterology specialist for additional evaluation."

Section

Immunology and Chemistry-2

Performing Location

University of Vermont Medical Center

Is the UVMMC lab NY State Certified to perform this testing? Yes/No

Yes

Order Code LOINC

Order Code	Reporting Name	LOINC Code
CDP	Celiac Disease Panel	69726-8

Result Code LOINC(s)

Result Code	Reporting Name	LOINC Code
TTAB	Tissue Transglut. Ab	46128-5
IGA	IgA	2458-8
CDPI	Celiac Disease Interpretation	69048-7

Specimen Information — CELIAC DISEASE PANEL

Container	Specimen	Temperature	Collect Vol	Submit Vol	Minimum Vol	Stability
SST	Serum	Refrigerate	4 mL	1 mL	0.6 mL	7 days

CCT *CELL COUNT & DIFFERENTIAL, CSF*

University of Vermont Medical Center

Important Note

Deliver specimen to lab immediately.
This test is subject to reflex testing, see Laboratory Reflex Testing Policy, you have the option to decline reflex testing if you believe it is not medically necessary. If any nucleated cells are present a differential will be performed. You have the option to decline reflex testing if you believe it is not medically necessary.

Additional Test Codes

Primary ID	Epic Code	Mayo Access ID
CCT	LAB212	N/A

Test Schedule / Analytical Time / Test Priority

Daily / 24 Hours / Available STAT

Method

Manual Cell Count

CPT(s)

Description	CPT Code
Cell Count , CSF with differential	89051

Instrumentation

Manual Method

Reference Range

Age and gender specific, see report.

Section

Hematology

Performing Location

University of Vermont Medical Center

Is the UVMMC lab NY State Certified to perform this testing? Yes/No

Yes

Result Code LOINC(s)

Result Code	Reporting Name	LOINC Code
RBCCSF	RBC	792-2
WBCCSF	Nucleated Cells	58906-9
TOTVOL	Total Vol	12254-9
TUBESF	Tube Cntd	19157-7
VOLCSF	Tube Vol	17607-3
CCOM	Comment	59466-3

Order Code LOINC

Order Code	Reporting Name	LOINC Code
CCT	Cell Count & Differential, CSF	in process

Specimen Information — CELL COUNT & DIFFERENTIAL, CSF

Container	Specimen	Temperature	Collect Vol	Submit Vol	Minimum Vol
CSF Tube	CSF	Ambient	2 mL	2 mL	0.5 mL

*Tube provided on lumbar puncture tray. Deliver specimen to lab immediately, cells deteriorate on standing. (Lab Only: If extra count on tube #1 is required, use code CCTX for RBC count only.)

FCT *CELL COUNT, FLUID*

University of Vermont Medical Center

Important Note

Deliver sample to laboratory immediately.
This test is subject to reflex testing, see Laboratory Reflex Testing Policy, you have the option to decline reflex testing if you believe it is not medically necessary. If any nucleated cells are present, a differential (CPT: 89051) will be performed.

Additional Test Codes

Primary ID	Epic Code	Mayo Access ID
FCT	LAB209	FAH5145

(Lab Only: Order synovial fluid cell count (SYNCT) for knee fluids.)

Test Schedule / Analytical Time / Test Priority

Daily / 24 Hours / Available STAT

Method

Manual cell count or automated cell count

CPT(s)

89050

Instrumentation

Manual Method or Sysmex XN 9000

Reference Range

Appearance: Clear, Pale Yellow
Cell Count: 0-8 Lymphocytes/cumm

Section

Hematology

Performing Location

University of Vermont Medical Center

Is the UVMMC lab NY State Certified to perform this testing? Yes/No

Yes

Result Code LOINC(s)

Result Code	Reporting Name	LOINC Code
RBCF	RBC	6741-3
WBCF	Nucleated Cells	55793-4
FCOM	Comment	59466-3

Order Code LOINC

Order Code	Reporting Name	LOINC Code
FCT	Cell Count, Fluid	in process

Specimen Information — CELL COUNT, FLUID

Container	Specimen	Temperature	Collect Vol	Submit Vol	Minimum Vol	Stability
Lavender Top Tube	Fluid	Refrigerate	4 mL	3 mL	3 mL	*

*Deliver to the lab immediately.

SYNCT *CELL COUNT, SYNOVIAL FLUID*

University of Vermont Medical Center

Important Note

This test is subject to reflex testing, see Laboratory Reflex Testing Policy, you have the option to decline reflex testing if you believe it is not medically necessary. If any nucleated cells are present, a differential will be performed.

Additional Test Codes

Primary ID	Epic Code	Mayo Access ID
SYNCT	LAB211	N/A

Test Schedule / Analytical Time / Test Priority

Daily / 24 hours / Available STAT

Method

Manual cell count or automated cell count

CPT(s)

Description	CPT
	89050

Instrumentation

Manual method or Sysmex XN 9000

Reference Range

Nucleated Cell Count: 0-200/cumm
Mono/Macro: 55-75%
Lymphocytes: 10-20%
Neutrophils: 10-24%

Section

Hematology

Performing Location

University of Vermont Medical Center

Is the UVMMC lab NY State Certified to perform this testing? Yes/No

Yes

Result Code LOINC(s)

Result Code	Reporting Name	LOINC Code
RBCSYN	RBC	797-1
WBCSYN	Nucleated Cells	53557-5
SYCOM	Comment	59466-3

Order Code LOINC

Order Code	Reporting Name	LOINC Code
SYNCT	Cell Count, Synovial Fluid	in process

Specimen Information — CELL COUNT, SYNOVIAL FLUID

Container	Specimen	Temperature	Collect Vol	Submit Vol	Minimum Vol
Lavender Top Tube	Synovial Fluid	Refrigerate	4 mL	3 mL	0.5 mL

Submit promptly to the lab, cells deteriorate on standing.

CTGC *CHLAMYDIA & GC AMPLIFIED RNA*

University of Vermont Medical Center

Important Note

This test is Subject to Medicare Preventive Service Coverage policy for Screening for Sexually Transmitted Infections (STI's) and High Intensity Behavioral Counseling (HIBC) to Prevent STI's.
For sites not mentioned here see *Miscellaneous Chlamydia trachomatis and Neisseria gonorrohoeae by Nucleic Acid Amplification* for sample and collection information.

Additional Test Codes

Primary ID	Epic Code	Mayo Access ID
CTGC	LAB2664	FAH5409

Test Schedule / Analytical Time / Test Priority

Monday – Friday / 1 day / Not available STAT

Method

Nucleic Acid Amplification

CPT(s)

Description	CPT Code
Chlamydia Trachomatis Amplified Probe	87491
GC Amplified Probe	87591

Instrumentation

Hologic Panther Fusion

Reference Range

Negative

Section

Microbiology-2

Performing Location

University of Vermont Medical Center

Is the UVMMC lab NY State Certified to perform this testing? Yes/No

Yes

Order Code LOINC

Order Code	Reporting Name	LOINC Code
In process		

Result Code LOINC(s)

Result Code	Reporting Name	LOINC Code
In process		

Specimen Information — CHLAMYDIA & GC AMPLIFIED RNA

Container	Specimen	Temperature	Collect Vol	Submit Vol	Minimum Vol	Stability
Aptima (orange vial)	Vaginal Swab*	Ambient	N/A	N/A	N/A	60 days
Aptima (orange vial)	Vaginal Swab*	Refrigerate	N/A	N/A	N/A	60 days
Aptima (purple vial)	Endocervical Swab	Ambient	N/A	N/A	N/A	60 days
Aptima (purple vial)	Endocervical Swab	Refrigerate	N/A	N/A	N/A	60 days
Aptima (purple vial)	Urethral Swab	Ambient	N/A	N/A	N/A	60 days
Aptima (purple vial)	Urethral Swab	Refrigerate	N/A	N/A	N/A	60 days
Sterile Container	Dirty Urine**	Refrigerate	<30 mL		2 mL	24 hours
Aptima (Yellow Label)	Dirty Urine**	Refrigerate	<30 mL	2 mL	2 mL	30 days

*A vaginal specimen is preferred source for female patients. Aptima vaginal swab specimens have not been evaluated in pregnant women or teenage girls <16 years of age.

****DIRTY URINE:** The patient should not have urinated for at least 1 hour prior to specimen collection. Direct patient to provide a first-catch urine (approximately 20 to 30 mL of the initial urine stream) into a sterile urine collection cup free of any preservatives. Collection of larger volumes of urine may result in rRNA target dilution that may reduce test sensitivity. Any sample submitted with over 30 mls of urine will be rejected.

Female patients should not cleanse the labial area prior to providing the specimen.

Samples must be transported to the lab within 24 hours if it is in a sterile container (2-30° C). If delivery will be >24 hours, transport sample in Aptima urine specimen transport tube available from lab customer service at 847-5121. Must observe exact fill lines on the tube.

TPCTGC *CHLAMYDIA/GC AMPLIFIED RNA, THIN PREP*

University of Vermont Medical Center

Important Note

This test is Subject to Medicare Preventive Service Coverage policy for Screening for Sexually Transmitted Infections (STI's) and High Intensity Behavioral Counseling (HIBC) to Prevent STI's.

Additional Test Codes

Primary ID	Epic Code	Mayo Access ID
TPCTGC	LAB3215	FAH5513

Test Schedule / Analytical Time / Test Priority

Monday – Friday / 1 day / Not available STAT

Method

Transcription Mediated Amplification

CPT(s)

Description	CPT Code
Chlamydia Trachomatis Amplified Probe, Thin Prep	87491
GC Amplified Probe, Thin Prep	87591

Instrumentation

Panther System

Reference Range

Negative

Section

Microbiology-2

Performing Location

University of Vermont Medical Center

Is the UVMMC lab NY State Certified to perform this testing? Yes/No

Yes

Order Code LOINC

Order Code	Reporting Name	LOINC Code
TPCTGC	Chlamydia/GC Amplified Probe, Thin Prep	64017-7

Result Code LOINC(s)

Result Code	Reporting Name	LOINC Code
SDESCT	Specimen Description	31208-2
CHRES	Chlamydia Result	35729-3
GCRES	GC Result	24111-7

Specimen Information — CHLAMYDIA/GC AMPLIFIED RNA, THIN PREP

Container	Specimen	Temperature	Collect Vol	Submit Vol	Minimum Vol	Stability
ThinPrep Vial	Cervical	Ambient	4 mL	1 mL	1 mL	30 days

Collect cervical specimens in ThinPrep PreservCyt (Pap) vials with Broom-type pr cytobrush/spatula collection devices according to the manufacturer's instructions using clean technique. Gonorrhea and Chlamydia PCR testing must be performed PRIOR to other testing being performed on that same vial (such as Pap Test). Do not remove a sample aliquot from the vial.

CL *CHLORIDE*

University of Vermont Medical Center

Additional Test Codes

Primary ID	Epic Code	Mayo Access ID
CL	LAB59	FAH4975

Test Schedule / Analytical Time / Test Priority

Daily / 1 day / Available STAT

Method

Ion Selective Electrode

CPT(s)

Description	CPT Code
Chloride	82435

Instrumentation

Ortho Vitros 5600

Section

Chemistry-1

Performing Location

University of Vermont Medical Center

Is the UVMMC lab NY State Certified to perform this testing? Yes/No

Yes

Order Code LOINC

Order Code	Reporting Name	LOINC Code
CL	Chloride	2075-0

Result Code LOINC(s)

Result Code	Reporting Name	LOINC Code
CL	Chloride	2075-0

Specimen Information — CHLORIDE

Container	Specimen	Temperature	Collect Vol	Submit Vol	Minimum Vol	Stability
SST	Serum	Refrigerate	4 mL	0.6 mL	0.3 mL	28 days
Lithium Heparin (Green Top)	Plasma	Refrigerate	4 mL	0.6 mL	0.3 mL	28 days
*Green Microtainer		Refrigerate	0.6 mL	N/A	N/A	28 days

While a microtainer is an optional tube type in rare circumstances, it is **not recommended.**

Reference Range — CHLORIDE

Age	Sex	Physiological Status	Low	High	Units
	All		96	110	mEq/L

UCL24 *CHLORIDE, URINE, 24 HOUR*

University of Vermont Medical Center

Additional Test Codes

Primary ID	Epic Code	Mayo Access ID
UCL24	LAB375	FAH5879

Test Schedule / Analytical Time / Test Priority

Daily / 1 day / Available STAT

Method

Ion – Specific Electrode

CPT(s)

Description	CPT Code(s)
Chloride, Urine, 24 hour	82436

Instrumentation

Ortho Vitros 5600

Reference Range

≥18 years 24 Hour Sample: 110 - 250 mEq/L

Section

Chemistry-1

Performing Location

University of Vermont Medical Center

Is the UVMMC lab NY State Certified to perform this testing? Yes/No

Yes

Result Code LOINC(s)

Result Code	Reporting Name	LOINC Code
UCLR	Chloride, Urn Random	35676-6
UCLCAL	24h Calc	2079-2

Order Code LOINC

Order Code	Reporting Name	LOINC Code
UCL24	Chloride, Urine, 24 Hour	in process

Specimen Information — CHLORIDE, URINE, 24 HOUR

Container	Specimen	Temperature	Collect Vol	Submit Vol	Min Vol	Stability
Jug A	24-Hour Urine	Refrigerate	Total Volume	0.5 mL	0.2 mL	7 days

UCLR *CHLORIDE, URINE, RANDOM*

University of Vermont Medical Center

Additional Test Codes

Primary ID	Epic Code	Mayo Access ID
UCLR	LAB374	FAH265

Test Schedule / Analytical Time / Test Priority

Daily 8 am-4:30 pm / 1 day / Available STAT

Method

Ion – Selective Electrode

CPT(s)

Description	CPT Code
Chloride, Urine, Random	82436

Instrumentation

Ortho Vitros 5600

Reference Range

No Established Reference Range

Section

Chemistry-1

Performing Location

University of Vermont Medical Center

Is the UVMMC lab NY State Certified to perform this testing? Yes/No

Yes

Result Code LOINC(s)

Result Code	Reporting Name	LOINC Code
UCLR	Chloride, Urine, Random	35676-6

Order Code LOINC

Order Code	Reporting Name	LOINC Code
UCLR	Chloride, Urine, Random	35676-6

Specimen Information — CHLORIDE, URINE, RANDOM

Container	Specimen	Temperature	Collect Vol	Submit Vol	Minimum Vol	Stability
Sterile Container	Urine	Refrigerate	100 mL	0.5 mL	0.2 mL	

CHOL *CHOLESTEROL*

University of Vermont Medical Center

Important Note

Test subject to Medicare national Coverage Decision 190.23 - Lipids Testing and Cardiovascular Screening Blood Tests.

Additional Test Codes

Primary ID	Epic Code	Mayo Access ID
CHOL	LAB60	FAH4958

Test Schedule / Analytical Time / Test Priority

Daily / 1 day / Available STAT

Method

Colorimetric

CPT(s)

Description	CPT Code
Cholesterol	82465

Instrumentation

Ortho Vitros 5600

Reference Range

<18 years all sexes:
Acceptable: <170 mg/dL
Borderline High: 170-199 mg/dL
High: ≥200 mg/dL
≥18 years all sexes:
Acceptable: <200 mg/dL
Borderline High: 200-239 mg/dL
High: ≥240 mg/dL

Section

Chemistry-1

Performing Location

University of Vermont Medical Center

Is the UVMMC lab NY State Certified to perform this testing? Yes/No

Yes

Result Code LOINC(s)

Result Code	Reporting Name	LOINC Code
CHOL	Cholesterol	2093-3

Order Code LOINC

Order Code	Reporting Name	LOINC Code
CHOL	Cholesterol	2093-3

Specimen Information — CHOLESTEROL

Container	Specimen	Temperature	Collect Vol	Submit Vol	Minimum Vol	Stability
SST	Serum	Refrigerate	4 mL	0.6 mL	0.3 mL	5 days
Lithium Heparin (Green Top)	Plasma	Refrigerate	4 mL	0.6 mL	0.3 mL	5 days
*Green Microtainer		Refrigerate	0.6 mL	N/A	N/A	5 days

*While a microtainer is an optional tube type in rare circumstances, it is **not recommended.**

FCHOL *CHOLESTEROL, FLUID*

University of Vermont Medical Center

Important Note
Best interpreted in the context of a paired serum total cholesterol value.

Additional Test Codes

Primary ID	Epic Code	Mayo Access ID
FCHOL	LAB3108	FAH5723

Test Schedule / Analytical Time / Test Priority
Daily / 1 day / Available STAT

Method
Colorimetric

CPT(s)

Description	CPT Code
In process	

Instrumentation
Ortho Vitros 5600

Reference Range
No Established Reference Range

Section
Chemistry-1

Performing Location
University of Vermont Medical Center

Is the UVMMC lab NY State Certified to perform this testing? Yes/No
Yes

Result Code LOINC(s)

Result Code	Reporting Name	LOINC Code
FCHOL	Cholesterol, Fluid	12183-0

Order Code LOINC

Order Code	Reporting Name	LOINC Code
FCHOL	Cholesterol, Fluid	in process

Specimen Information — CHOLESTEROL, FLUID

Container	Specimen	Temperature	Collect Vol	Submit Vol	Minimum Vol	Stability
Sterile Container	Pleural or Peritoneal only	Refrigerate	2 mL	1 mL	0.2 mL	5 days

HDL *CHOLESTEROL, HDL*

University of Vermont Medical Center

Important Note

Test subject to Medicare national Coverage Decision 190.23 - Lipids Testing and Cardiovascular Screening Blood Tests. Patient should be fasting.

Additional Test Codes

Primary ID	Epic Code	Mayo Access ID
HDL	LAB101	FAH243

Test Schedule / Analytical Time / Test Priority

Daily / 1 day / Not available STAT

Method

Colorimetric

CPT(s)

Description	CPT Code
Cholesterol, HDL	83718

Instrumentation

Ortho Vitros 5600

Section

Chemistry-1

Performing Location

University of Vermont Medical Center

Is the UVMMC lab NY State Certified to perform this testing? Yes/No

Yes

Result Code LOINC(s)

Result Code	Reporting Name	LOINC Code
HDL	HDL	2085-9

Order Code LOINC

Order Code	Reporting Name	LOINC Code
HDL	HDL	2085-9

Specimen Information — CHOLESTEROL, HDL

Container	Specimen	Temperature	Collect Vol	Submit Vol	Minimum Vol	Stability
SST	Serum	Refrigerate	4 mL	1.5 mL	0.8 mL	5 days

Reference Range — CHOLESTEROL, HDL

Age	Sex	Physiological Status	Low	High	Units
<18 years	All	Pediatric Low	<40		mg/dL
<18 years	All	Pediatric Borderline	40	45	mg/dL
<18 years	All	Pediatric Acceptable		>45	mg/dL
≥18 years	All	Adult Low	<40		mg/dL
≥18 years	All	Adult Normal	40	60	mg/dL
≥18 years	All	Adult high		>60	mg/dL

NHDLCH *CHOLESTEROL/NON-HDL CALCULATED*

University of Vermont Medical Center

Important Note

This test is not orderable. It is part of the Lipid Profile (LPR).

Section

Chemistry-1

Performing Location

University of Vermont Medical Center

Result Code LOINC(s)

Result Code	Reporting Name	LOINC Code
NHDLCH	Non HDL Cholesterol, Calculated	43396-1

Order Code LOINC

Order Code	Reporting Name	LOINC Code
NHDLCH	Non HDL Cholesterol, Calculated	in process

Reference Range — CHOLESTEROL/NON-HDL CALCULATED

Age	Sex	Physiological Status	Low	High	Units
≥18 years	All	Desirable		<130	mg/dL
≥18 years	All	Borderline High	130	159	mg/dL
≥18 years	All	High	160	189	mg/dL
≥18 years	All	Very High		≥190	mg/dL

LAB9912 *CHROMOSOME ANALYSIS*

University of Vermont Medical Center

Important Note

See **Test Note** below for available probes.
Commercial payors may require preauthorization for this test.
Outside clients submit a manual order. Please use Hem path/Flow Cytometry/Genetic Laboratory Form.
Submission of an order for Cytogenetic testing for congenital disorders constitutes that the ordering physician has, obtained an informed consent of the patient as required by any applicable state or federal laws with respect to the test ordered, and obtained from the patient authorization permitting UVM Medical Center to report results of each test ordered directly to the ordering physician.
FISH Testing can be added to some specimens, and some FISH Testing can be done on lymph tissue specimens, see Test Note below. Call the Cytogenetics laboratory for details 847-5121 or 1-802-991-2799.

Additional Test Codes

Epic Code	Mayo Access ID
LAB9912	N/A

Test Schedule / Analytical Time / Test Priority

Whole Blood - Monday – Saturday / 10 – 28 days / Not available STAT
POC/Placenta/Fetal Tissue - Monday - Saturday / 2 - 6 weeks / Not available STAT
Tissue/Tumor - Monday - Saturday / 10 - 28 days / Not available STAT
Bone Marrow/Neoplastic Blood - Monday - Saturday / 7 - 21 days / Not available STAT

Method

Culture, Microscopy, Karyotype

CPT(s)

Description	CPT Code
Cell Culture, Blood	88230
Chromosome Analysis, Blood	88262
Chromosome Intrp & Report Part B, Blood	88291
Cell Culture, Lymph Node	88237
Chromosome Analysis, Lymph Node	88264
Chromosome Intrp & Report Part B, Lymph Node	88291
Cell Culture, Bone Marrow/Blood Neoplastic	88237
Chromosome Analysis, Bone Marrow/Blood Neoplastic	88264
Chromosome Interpretation & Report Part B, Bone Marrow/Blood Neoplastic	88291
Cell Culture, Solid Tumor	88239
Chromosome Analysis, Solid Tumor	88264
Chromosome Intrp & Report Part B, Solid Tumor	88291
Cell Culture, Fetal Tissue/POC/Placenta	88233
Chromosome Analysis, Fetal Tissue/POC/Placenta	88262
Chromosome Interpretation & Report Part B, Fetal Tissue/POC/Placenta	88291
Cell Culture, Blood Familial Study	88230
Chromosome Analysis, Blood Familial Study	88261
Additional Cells Counted	88285

Instrumentation

Manual Methods

Section

Cytogenetics

Performing Location

University of Vermont Medical Center

Is the UVMMC lab NY State Certified to perform this testing? Yes/No

Yes

Test Note

FISH Testing (Fluorescence In-Situ Hybridization):
- Fluorescent probes can be used to determine chromosomal microdeletions, duplications, translocations, and rearrangements.

- Fluorescent probes can be used to characterize chromosome abnormalities associated with specific hematologic diseases.
- Reporting time is 1 week.
- FISH testing can be done on the same sample submitted for chromosome evaluation or it can be ordered alone.

A list of FISH probes orderable at UVMMC can be found under FISH Testing, Epic Code LAB9913.

LOINC Code Information

N/A

Specimen Information — CHROMOSOME ANALYSIS

Container	Specimen	Temperature	Collect Vol	Submit Vol	Minimum Vol
Sodium Heparin Tube, ***Adult***	Whole Blood	Ambient	6 mL	6 mL	3 mL
Sodium Heparin Tube, ***Pediatric***	Whole Blood	Ambient	3 mL	3 mL	1 mL
Hanks Solution*	POC	Ambient	1 cubic cm	1 cubic cm	0.5 cubic cm
Hanks Solution*	Placenta	Ambient	1 cubic cm	1 cubic cm	0.5 cubic cm
Hanks Solution*	Fetal Tissue	Ambient	1 cubic cm	1 cubic cm	0.5 cubic cm
Hanks Solution*	Tissue/Tumor	Ambient	1 cubic cm	1 cubic cm	0.5 cubic cm
GC Media or Na Heparin	Bone Marrow	Ambient	3 mL	3 mL	0.5 mL

*Sterile containers with sterile saline can be used for transport in cases where the hanks solution is not available

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CK *CK*

University of Vermont Medical Center

Additional Test Codes

Primary ID	Epic Code	Mayo Access ID
CK	LAB62	FAH4907

Test Schedule / Analytical Time / Test Priority

Daily / 1 day / Available STAT

Method

Colorimetric

CPT(s)

Description	CPT Code
CK	82550

Instrumentation

Ortho Vitros 5600

Section

Chemistry-1

Performing Location

University of Vermont Medical Center

Is the UVMMC lab NY State Certified to perform this testing? Yes/No

Yes

Result Code LOINC(s)

Result Code	Reporting Name	LOINC Code
CK	CK	2157-6

Order Code LOINC

Order Code	Reporting Name	LOINC Code
CK	CK	2157-6

Specimen Information — CK

Container	Specimen	Temperature	Collect Vol	Submit Vol	Minimum Vol	Stability
SST	Serum	Refrigerate	4 mL	0.6 mL	0.3 mL	5 days
Lithium Heparin (Green Top)	Plasma	Refrigerate	4 mL	0.6 mL	0.3 mL	5 days
Green Microtainer		Refrigerate	0.6 mL	N/A	N/A	5 days

Hemolysis affects result. Please submit a non-hemolyzed sample.
*While a microtainer is an optional tube type in rare circumstances, it is **not recommended.**

Reference Range — CK

Age	Sex	Physiological Status	Low	High	Units
≥ 18	Female		30	135	U/L
≥ 18	Male		0	251	U/L

CMVONC *CMP, HEME ONC USE ONLY*

University of Vermont Medical Center

Important Note

Test includes. Alkaline Phosphorous, Albumin, ALT, AST, Total Bilirubin, BUN, Calcium, Chloride, CO2, Creatinine, Glucose, Potassium, Total Protein, Sodium, and Magnesium..

Additional Test Codes

Primary ID	Epic Code	Mayo Access ID
CMPONC	LAB950	N/A

Test Schedule / Analytical Time / Test Priority

Daily / 1 day / Available STAT

Method

See individual Tests.

CPT(s)

Description	CPT Code
Comprehensive Metabolic Panel	80053
Magnesium	83735

Instrumentation

Ortho Vitros 5600

Reference Range

See individual Tests.

Section

Chemistry-1

Performing Location

University of Vermont Medical Center

Is the UVMMC lab NY State Certified to perform this testing? Yes/No

Yes

Result Code LOINC(s)

Result Code	Reporting Name	LOINC Code
K	Potassium	2823-3
NA	Sodium	2951-2
CL	Chloride	2075-0
CO2	CO2	2028-9
ALKP	Alkaline Phosphatase	6768-6
TBIL	Bilirubin, Total	1975-2
AST	AST	1920-8
ALT	ALT	1742-6
ALB	Albumin	1751-7
TP	Protein, Total	2885-2
CREA	Creatinine	2160-0
CGFR	GFR, Calculated	50210-4
BUN	BUN	3094-0
CAL	Calcium	17861-6
CALC	Calculated Calcium	46099-8
SGL	Glucose, Serum	2345-7
FASTN2	Fasting?	49541-6
Magnesium		19123-9

Order Code LOINC

Order Code	Reporting Name	LOINC Code
CMP	Comprehensive Metabolic Panel	24323-8

Specimen Information — CMP, HEME ONC USE ONLY

Container	Specimen	Temperature	Collect Vol	Submit Vol	Minimum Vol	Stability
SST	Serum	Refrigerate	4 mL	1 mL	1 mL	5 days
Lithium Heparin (green top)	Plasma	Refrigerate	4 mL	1 mL	1 mL	5 days
*Green Microtainer		Refrigerate	0.6 mL	N/A	N/A	5 days

While a microtainer is an optional tube type in rare circumstances, it is **not recommended.**

CMVIGG *CMV IgG ANTIBODY*

University of Vermont Medical Center

Additional Test Codes

Primary ID	Epic Code	Mayo Access ID
CMVIGG	LAB957	FAH5592

Test Schedule / Analytical Time / Test Priority

Monday, Wednesday, and Friday, run starts at 9 am / 1 day / Not available STAT

Method

Chemiluminescence Immunoassay

CPT(s)

Description	CPT Code
CMV IgG Antibody	86644

Instrumentation

DiaSorin Liaison XL

Reference Range

All ages and sexes:
Negative: Absence of detectable CMV IgG antibodies. A negative result generally indicates that the patient is susceptible to CMV.
Equivocal: Recommend collecting a second sample for testing in no less than one to two weeks.
Positive: Presence of detectable CMV IgG antibodies.

Section

Chemistry-2

Performing Location

University of Vermont Medical Center

Is the UVMMC lab NY State Certified to perform this testing? Yes/No

Yes

Result Code LOINC(s)

Result Code	Reporting Name	LOINC Code
CMVIGG	CMV IgG	22244-8

Order Code LOINC

Order Code	Reporting Name	LOINC Code
CMVIGG	CMV IgG Antibody	in process

Specimen Information — CMV IgG ANTIBODY

Container	Specimen	Temperature	Collect Vol	Submit Vol	Minimum Vol	Stability
Serum Separator Tube	Serum	Refrigerate	4 mL	0.5 mL	0.3 mL	7 days

Samples that are markedly lipemic, markedly hemolyzed or markedly icteric are not acceptable.

VCOC *Cocaine Metabolite (Benzylecgonine) Screen, Urine*

Aspenti Health Laboratory

Important Note

Routine drug screen for inpatients and ambulatory clinics.
Cocaine Metabolite (Benzylecgonine) Screen, Urine, test information.

Additional Test Codes

Primary ID	Epic Code	Aspenti Test Code
VCOC	LAB3729	VBL2070

Test Schedule / Analytical Time / Test Priority

Monday - Friday / 24 Hours / Not Available STAT

Performing Location

Aspenti Health Laboratory

UCOCA2 *COCAINE SCREEN, URINE*

University of Vermont Medical Center

Important Note

Restricted to Emergency Department and Labor and Delivery use only.
This screen is intended for use in clinical monitoring or management of patients.
This test is subject to Medicare National Coverage Determination (LCD) L36037-Urine Drug Testing.

Additional Test Codes

Primary ID	Epic Code	Mayo Access ID
UCOCA2	LAB378	FAH5771

Test Schedule / Analytical Time / Test Priority

Daily / 1 day / Available STAT

Method

Immunochromatography

CPT(s)

Description	CPT Code
Cocaine Metabolites Screen, Urine	80306

Instrumentation

MedTox Scan

Reference Range

This screen is intended for use in clinical monitoring or management of patients.

Section

Chemistry-1

Performing Location

University of Vermont Medical Center

Is the UVMMC lab NY State Certified to perform this testing? Yes/No

Yes

Result Code LOINC(s)

Result Code	Reporting Name	LOINC Code
UCOCA2	Cocaine Metabolites, U	14314-9

Order Code LOINC

Order Code	Reporting Name	LOINC Code
UCOCA2	Cocaine Metabolites, U	in process

Specimen Information — COCAINE SCREEN, URINE

Container	Specimen	Temperature	Collect Vol	Submit Vol	Minimum Vol	Stability
Sterile Container	Urine	Refrigerate	50 mL	50 mL	30 mL	2 days
Sterile Container	Urine	Frozen	50 mL	50 mL	30 mL	30 days

CMP *COMPREHENSIVE METABOLIC PANEL*

University of Vermont Medical Center

Important Note

Test includes. Alkaline Phosphorous, Albumin, ALT, AST, Total Bilirubin, BUN, Calcium, Chloride, CO2, Creatinine, Glucose, Potassium, Total Protein, and Sodium.

Additional Test Codes

Primary ID	Epic Code	Mayo Access ID
CMP	LAB17	FAH5003

Test Schedule / Analytical Time / Test Priority

Daily / 1 day / Available STAT

Method

See individual Tests.

CPT(s)

Description	CPT Code
Comprehensive Metabolic Panel	80053

Instrumentation

Ortho Vitros 5600

Reference Range

See individual Tests.

Section

Chemistry-1

Performing Location

University of Vermont Medical Center

Is the UVMMC lab NY State Certified to perform this testing? Yes/No

Yes

Result Code LOINC(s)

Result Code	Reporting Name	LOINC Code
K	Potassium	2823-3
NA	Sodium	2951-2
CL	Chloride	2075-0
CO2	CO2	2028-9
ALKP	Alkaline Phosphatase	6768-6
TBIL	Bilirubin, Total	1975-2
AST	AST	1920-8
ALT	ALT	1742-6
ALB	Albumin	1751-7
TP	Protein, Total	2885-2
CREA	Creatinine	2160-0
CGFR	GFR, Calculated	50210-4
BUN	BUN	3094-0
CAL	Calcium	17861-6
CALC	Calculated Calcium	46099-8
SGL	Glucose, Serum	2345-7
FASTN2	Fasting?	49541-6

Order Code LOINC

Order Code	Reporting Name	LOINC Code
CMP	Comprehensive Metabolic Panel	24323-8

Specimen Information — COMPREHENSIVE METABOLIC PANEL

Container	Specimen	Temperature	Collect Vol	Submit Vol	Minimum Vol	Stability
SST	Serum	Refrigerate	4 mL	1 mL	1 mL	5 days
Lithium Heparin (green top)	Plasma	Refrigerate	4 mL	1 mL	1 mL	5 days
*Green Microtainer		Refrigerate	0.6 mL	N/A	N/A	5 days

While a microtainer is an optional tube type in rare circumstances, it is **not recommended.**

CORTI *CORTISOL*

University of Vermont Medical Center

Important Note

The results of this assay can be **falsely elevated** due to the consumption of Biotin. Please instruct patients to discontinue the use of vitamins or supplements that contain Biotin 12 hours before blood collection.

Additional Test Codes

Primary ID	Epic Code	Mayo Access ID
CORTI	LAB61	FAH5795

Test Schedule / Analytical Time / Test Priority

Daily / 1 day / Available STAT

Method

Chemiluminescence Immunoassay

CPT(s)

Description	CPT Code
Cortisol	82533

Instrumentation

Ortho Vitros 5600

Section

Chemistry-1

Performing Location

University of Vermont Medical Center

Is the UVMMC lab NY State Certified to perform this testing? Yes/No

Yes

Result Code LOINC(s)

Result Code	Reporting Name	LOINC Code
CORTI	Cortisol	2143-6

Order Code LOINC

Order Code	Reporting Name	LOINC Code
CORTI	Cortisol	2143-6

Specimen Information — CORTISOL

Container	Specimen	Temperature	Collect Vol	Submit Vol	Minimum Vol	Stability
SST	Serum	Refrigerate	4 mL	0.5 mL	0.2 mL	5 days
*Yellow Microtainer		Refrigerate	0.6 mL	N/A	N/A	5 days

*While a microtainer is an optional tube type in rare circumstances, it is **not recommended.**

Reference Range — CORTISOL

Age	Sex	Physiological Status	Low	High	Units
All	All	Before 10 am	4	23	ug/dL
All	All	After 5 pm	2	14	ug/dL

The results of this assay can be **falsely elevated** due to the consumption of Biotin. Please instruct patients to discontinue the use of vitamins or supplements that contain Biotin 12 hours before blood collection.

COR30 *CORTISOL STIMUATION 30 MINUTES*

University of Vermont Medical Center

Important Note

Cortisol Stimulation Tests are performed in Infusion on Shep 4. To Schedule a Cortisol Stimulation Test contact Infusion Scheduling at 847-7788 selection #2. For billing, the baseline and 30-minutes cortisols should be billed CPT code 80400, for the 60-minute cortisol bill CPT 82533.
The results of this assay can be **falsely elevated** due to the consumption of Biotin. Please instruct patients to discontinue the use of vitamins or supplements that contain Biotin 12 hours before blood collection.

Additional Test Codes

Primary ID	Epic Code	Mayo Access ID
COR30	LAB711	FAH5793

Test Schedule / Analytical Time / Test Priority

Daily / 1 day / Available STAT

Method

Chemiluminescence Immunoassay

CPT(s)

Description	CPT Code
Cortisol Stimulation 30 minutes	82533

Instrumentation

Ortho Vitros 5600

Reference Range

See report
The results of this assay can be **falsely elevated** due to the consumption of Biotin. Please instruct patients to discontinue the use of vitamins or supplements that contain Biotin 12 hours before blood collection.

Section

Chemistry-1

Performing Location

University of Vermont Medical Center

Is the UVMMC lab NY State Certified to perform this testing? Yes/No

Yes

Result Code LOINC(s)

Result Code	Reporting Name	LOINC Code
COR30	Cortisol, Stim 30 min	26530-6

Order Code LOINC

Order Code	Reporting Name	LOINC Code
COR30	Cortisol, Stim 30 min	26530-6

Specimen Information — CORTISOL STIMUATION 30 MINUTES

Container	Specimen	Temperature	Collect Vol	Submit Vol	Minimum Vol	Stability
SST	Serum	Refrigerate	4 mL	0.5 mL	0.2 mL	5 days

Cortisol levels are drawn at specific intervals for this test.

COR60 *CORTISOL STIMULATION 60 MINUTES*

University of Vermont Medical Center

Important Note

Cortisol Stimulation T Tests are performed in Infusion on Shep 4. To Schedule a Cortisol Stimulation Test contact Infusion Scheduling at 847-7788 selection #2. For billing, the baseline and 30-minutes cortisols should be billed CPT code 80400, for the 60-minute cortisol bill CPT 82533.
The results of this assay can be **falsely elevated** due to the consumption of Biotin. Please instruct patients to discontinue the use of vitamins or supplements that contain Biotin 12 hours before blood collection.

Additional Test Codes

Primary ID	Epic Code	Mayo Access ID
COR60	LAB2042	FAH5794

Test Schedule / Analytical Time / Test Priority

Daily / 1 day / Available STAT

Method

Chemiluminescence Immunoassay

CPT(s)

Description	CPT Code
Cortisol Stimulation 60 minutes	82533

Instrumentation

Ortho Vitros 5600

Reference Range

See report
The results of this assay can be falsely elevated due to the consumption of Biotin. Please instruct patients to discontinue the use of vitamins or supplements that contain Biotin 12 hours before blood collection.

Section

Chemistry-1

Performing Location

University of Vermont Medical Center

Is the UVMMC lab NY State Certified to perform this testing? Yes/No

Yes

Result Code LOINC(s)

Result Code	Reporting Name	LOINC Code
COR60	Cortisol, Stim 60 min	26528-0

Order Code LOINC

Order Code	Reporting Name	LOINC Code
COR60	Cortisol, Stim 60 min	26528-0

Specimen Information — CORTISOL STIMULATION 60 MINUTES

Container	Specimen	Temperature	Collect Vol	Submit Vol	Minimum Vol	Stability
SST	Serum	Refrigerate	4 mL	0.5 mL	0.2 mL	5 days

Cortisol levels are drawn at specific intervals for this test.

CORB *CORTISOL STIMULATION BASELINE*

University of Vermont Medical Center

Important Note

Cortisol Stimulation Tests are performed in Infusion on Shep 4. To Schedule a Cortisol Stimulation Test contact Infusion Scheduling at 847-7788 selection #2. If three cortisols are performed, 82533 will be billed x 1 and 80400 will be billed x 1.
The results of this assay can be **falsely elevated** due to the consumption of Biotin. Please instruct patients to discontinue the use of vitamins or supplements that contain Biotin 12 hours before blood collection.

Additional Test Codes

Primary ID	Epic Code	Mayo Access ID
CORB	LAB511	FAH5792

Test Schedule / Analytical Time / Test Priority

Daily / 1 day / Available STAT

Method

Chemiluminescence Immunoassay

CPT(s)

Description	CPT Code
Cortisol Stimulation Baseline	82533

If three cortisols are performed, 82533 will be billed x 1 and 80400 will be billed x 1.

Instrumentation

Ortho Vitros 5600

Reference Range

See report
The results of this assay can be **falsely elevated** due to the consumption of Biotin. Please instruct patients to discontinue the use of vitamins or supplements that contain Biotin 12 hours before blood collection.

Section

Chemistry-1

Performing Location

University of Vermont Medical Center

Is the UVMMC lab NY State Certified to perform this testing? Yes/No

Yes

Result Code LOINC(s)

Result Code	Reporting Name	LOINC Code
CORB	Cortisol, Stim Baseline	43215-3

Order Code LOINC

Order Code	Reporting Name	LOINC Code
CORB	Cortisol, Stim Baseline	43215-3

Specimen Information — CORTISOL STIMULATION BASELINE

Container	Specimen	Temperature	Collect Vol	Submit Vol	Minimum Vol	Stability
SST	Serum	Refrigerate	4 mL	0.5 mL	0.2 mL	5 days

Cortisol levels are drawn at specific intervals for this test.

VCOT *Cotinine Screen, Urine*

Aspenti Health Laboratory

Important Note

Routine drugs screen for inpatients and ambulatory clinics.
Cotinine Screen, Urine, test information.

Additional Test Codes

Primary ID	Epic Code	Aspenti Test Code
VCOT	LAB3723	VBL2080

Test Schedule / Analytical Time / Test Priority

Monday - Friday / 24 Hours / Not Available STAT

Performing Location

Aspenti Health Laboratory

CRCL *CREATININE CLEARANCE*

University of Vermont Medical Center

Important Note

Submit both a timed urine sample and serum. Submit serum sample within 24-hours of urine collection. Serum must be collected within 5 days of 24-hour urine collection time period. Collections that are not 22 - 26 hours in length will not have the Creatinine Clearance calculated.

Additional Test Codes

Primary ID	Epic Code	Mayo Access ID
CRCL	LAB4078	FAH5880

Test Schedule / Analytical Time / Test Priority

Daily / 1 day / Available STAT

Method

Colorimetric

CPT(s)

Description	CPT Code
Creatinine Clearance	82575

Instrumentation

Ortho Vitros 5600

Section

Chemistry-1

Performing Location

University of Vermont Medical Center

Is the UVMMC lab NY State Certified to perform this testing? Yes/No

Yes

Result Code LOINC(s)

Result Code	Reporting Name	LOINC Code
CLR	Creatinine Clearance	35593-3
UCRR1	Creatinine, Urn	2161-8

Order Code LOINC

Order Code	Reporting Name	LOINC Code
CRCL	Creatinine Clearance	in process

Specimen Information — CREATININE CLEARANCE

Container	Specimen	Temperature	Collect Vol	Submit Vol	Minimum Vol	Stability
SST	Serum	Refrigerate	4 mL	0.6 mL	0.3 mL	30 days
Jug A	24-Hour Urine	Refrigerate	Total Volume	100 mL	2 mL	5 days

Submit both a timed urine sample and serum. Submit serum sample within 24-hours of urine collection. Serum must be collected within 5 days of 24-hour urine collection time period. Collections that are not 22 - 26 hours in length will not have the Creatinine Clearance calculated.

Reference Range — CREATININE CLEARANCE

Age	Sex	Physiological Status	Low	High	Units
≥18 years	Female		88	128	mL/min
≥18 years	Male		97	137	mL/min

FCREA *CREATININE, FLUID*

University of Vermont Medical Center

Additional Test Codes

Primary ID	Epic Code	Mayo Access ID
FCREA	LAB65	FAH5389

Test Schedule / Analytical Time / Test Priority

Daily / 1 day / Available STAT

Method

Colorimetric

CPT(s)

Description	CPT Code
In process	

Instrumentation

Ortho Vitros 5600

Reference Range

No Established Reference Range

Section

Chemistry-1

Performing Location

University of Vermont Medical Center

Is the UVMMC lab NY State Certified to perform this testing? Yes/No

Yes

LOINC Code Information

Result Code	Reporting Name	LOINC Code
FCREA	Creatinine, Fluid	12190-5

Specimen Information — CREATININE, FLUID

Container	Specimen	Temperature	Collect Vol	Submit Vol	Minimum Vol	Stability
Sterile Container	Pleural, Peritoneal, Retroperitoneal	Refrigerate	2 mL	1 mL	0.2 mL	5 days

CREAT *CREATININE, SERUM*

University of Vermont Medical Center

Additional Test Codes

Primary ID	Epic Code	Mayo Access ID
CREAT	LAB66	FAH5382

Test Schedule / Analytical Time / Test Priority

Daily / 1 day / Available STAT

Method

Colorimetric

CPT(s)

Description	CPT Code
Creatinine, Serum	82565

Instrumentation

Ortho Vitros 5600

Section

Chemistry-1

Performing Location

University of Vermont Medical Center

Is the UVMMC lab NY State Certified to perform this testing? Yes/No

Yes

LOINC Code Information

Result Code	Reporting Name	LOINC Code
CREA	Creatinine	2160-0
CGFR	GFR, Calculated	50210-4

Specimen Information — CREATININE, SERUM

Container	Specimen	Temperature	Collect Vol	Submit Vol	Minimum Vol	Stability
SST	Serum	Refrigerate	4 mL	0.6 mL	0.3 mL	30 days
Lithium Heparin (Green Top)	Plasma	Refrigerate	4 mL	0.6 mL	0.3 mL	30 days
*Green Microtainer		Refrigerate	0.6 mL	N/A	N/A	30 days

*While a microtainer is an optional tube type in rare circumstances, it is **not recommended.**

Reference Range — CREATININE, SERUM

Age	Sex	Physiological Status	Low	High	Units
0 - 2 Months	All		0.31	0.92	mg/dL
2 Months - 1 Year	All		0.16	0.39	mg/dL
1 Year - 3 Year	All		0.17	0.35	mg/dL
3 Year - 5 Year	All		0.26	0.42	mg/dL
5 Year - 7 Year	All		0.29	0.48	mg/dL
7 Year - 9 Year	All		0.34	0.55	mg/dL
9 Year - 11 Year	All		0.32	0.64	mg/dL
11 Year - 13 Year	All		0.42	0.71	mg/dL
13 Year - 15 Year	All		0.46	0.81	mg/dL
15 Year - 18 Year	Male		0.6	1.0	mg/dL
15 Year - 18 Year	Female		0.5	0.9	mg/dL
≥18 Year	Male		0.66	1.25	mg/dL
≥18Year	Female		0.52	1.04	mg/dL

All results reported with an eGFR calculated using CKD-EPI equation for non-African Americans. Multiply eGFR by 1.16 for African Americans. eGFR Reference Range: >60 mL/min/1.73m^2

UCR24 *CREATININE, URINE, 24 HOUR*

University of Vermont Medical Center

Additional Test Codes

Primary ID	Epic Code	Mayo Access ID
UCR24	LAB712	FAH5878

Test Schedule / Analytical Time / Test Priority

Daily 8 am-4:30 pm / 1 day / Available STAT

Method

Colorimetric

CPT(s)

Description	CPT Code
Creatinine, Urine, 24 hour	82570

Instrumentation

Ortho Vitros 5600

Section

Chemistry-1

Performing Location

University of Vermont Medical Center

Is the UVMMC lab NY State Certified to perform this testing? Yes/No

Yes

LOINC Code Information

Result Code	Reporting Name	LOINC Code
UCRR	Creatinine, Urn Rand	35674-1
UCRCAL	24h Calc	2162-6

Specimen Information — CREATININE, URINE, 24 HOUR

Container	Specimen	Temperature	Collect Vol	Submit Vol	Minimum Vol	Storage
Jug A	24-Hour Urine	Refrigerate	24-Hour Urine	0.5 mL	0.2 mL	5 days

Reference Range — CREATININE, URINE, 24 HOUR

Age	Sex	Physiological Status	Low	High	Units
≥18 Years	Female		0.8	1.8	g/24-hour
≥18 Years	Male		1.02	2.0	g/24-hour

UCRR *CREATININE, URINE, RANDOM*

University of Vermont Medical Center

Additional Test Codes

Primary ID	Epic Code	Mayo Access ID
UCRR	LAB384	FAH160

Test Schedule / Analytical Time / Test Priority

Daily 8-4:30 / 1 day / Available STAT

Method

Colorimetric

CPT(s)

Description	CPT Code
Creatinine, Urine, Random	82570

Instrumentation

Ortho Vitros 5600

Reference Range

No Established Reference Range

Section

Chemistry-1

Performing Location

University of Vermont Medical Center

Is the UVMMC lab NY State Certified to perform this testing? Yes/No

Yes

LOINC Code Information

Result Code	Reporting Name	LOINC Code
UCRR	Creatinine, Urine, Random	35674-1

Specimen Information — CREATININE, URINE, RANDOM

Container	Specimen	Temperature	Collect Vol	Submit Vol	Minimum Vol	Storage
Sterile Container	Urine	Refrigerate	50 mL	0.5 mL	0.2 mL	5 Days

CCAG *CRYPTOCOCCAL ANTIGEN, CSF*

University of Vermont Medical Center

Important Note

Fungal cultures are required in addition to the CSF Cryptococcal Antigen Testing. Exception: Fungal cultures of follow-up specimens used for trending the antigen titer are not required.

Additional Test Codes

Primary ID	Epic Code	Mayo Access ID
CCAG	LAB927	FAH5896

Test Schedule / Analytical Time / Test Priority

Daily / 1day / Available STAT on days and evenings

Method

Immunochromatographic

CPT(s)

Description	CPT Code
Cryptococcal Antigen, CSF	87899

Instrumentation

Manual Method

Reference Range

Negative (no Cryptococcal Antigen detected)

Section

Microbiology-2

Performing Location

University of Vermont Medical Center

Is the UVMMC lab NY State Certified to perform this testing? Yes/No

Yes

LOINC Code Information

Order Code	Reporting Name	LOINC Code
CCAG	Cryptococcal Antigen, CSF	31788-3

Specimen Information — CRYPTOCOCCAL ANTIGEN, CSF

Container	Specimen	Temperature	Collect Vol	Submit Vol	Minimum Vol	Stability
Sterile Tube	CSF	Refrigerate	N/A	1 mL	0.5 mL	72 Hours

SCAG *CRYPTOCOCCAL ANTIGEN, SERUM*

University of Vermont Medical Center

Additional Test Codes

Primary ID	Epic Code	Mayo Access ID
SCAG	LAB1194	FAH5893

Test Schedule / Analytical Time / Test Priority

Daily / 1 day / Not available STAT

Method

Immunochromatographic

CPT(s)

Description	CPT Code
Cryptococcal Antigen, Serum	87899

Instrumentation

Manual Method

Reference Range

Negative (No cryptococcal antigen detected)

Section

Microbiology-2

Performing Location

University of Vermont Medical Center

Is the UVMMC lab NY State Certified to perform this testing? Yes/No

Yes

LOINC Code Information

Order Code	Reporting Name	LOINC Code
SCAG	Cryptococcal Antigen, Serum	31790-9

Specimen Information — CRYPTOCOCCAL ANTIGEN, SERUM

Container	Specimen	Temperature	Collect Vol	Submit Vol	Minimum Vol	Stability
Serum Separator Tube	Serum	Refrigerate	4 mL	2 mL	1 mL	72 Hours

FCR *CRYSTAL ANALYSIS, FLUID*

University of Vermont Medical Center

Additional Test Codes

Primary ID	Epic Code	Mayo Access ID
FCR	LAB940	FAH251

Test Schedule / Analytical Time / Test Priority

Daily / 24 Hours / Available STAT

Method

Polarized Light Evaluation

CPT(s)

Description	CPT Code
Crystal Analysis	89060

Instrumentation

Manual Method

Reference Range

No crystals seen

Section

Hematology

Performing Location

University of Vermont Medical Center

Is the UVMMC lab NY State Certified to perform this testing? Yes/No

Yes

LOINC Code Information

Result Code	Reporting Name	LOINC Code
FCR	Crystal Analysis	6825-4

Specimen Information — CRYSTAL ANALYSIS, FLUID

Container	Specimen	Temperature	Collect Vol	Submit Vol	Minimum Vol
Lavender Top Tube	Fluid	Refrigerate	2 mL	1 mL	0.3 mL

Sodium Heparin Tubes are acceptable. Ambient temperature samples are acceptable but not preferred.

CYCLO *CYCLOSPORINE, BLOOD*

University of Vermont Medical Center

Additional Test Codes

Primary ID	Epic Code	Mayo Access ID
CYCLO	LAB874	FAH173

Test Schedule / Analytical Time / Test Priority

Monday, Wednesday, and Friday for outpatients and daily for inpatients, run starts at 11 am / 1 day / Not available STAT

Method

Chemiluminescence Immunoassay

CPT(s)

Description	CPT Code
Cyclosporine, Blood	80158

Instrumentation

Abbott Architect i1000

Reference Range

Therapy dependent

Section

Chemistry-2

Performing Location

University of Vermont Medical Center

Is the UVMMC lab NY State Certified to perform this testing? Yes/No

Yes

LOINC Code Information

Result Code	Reporting Name	LOINC Code
CYCLO	Cyclosporine, Blood	3520-4

Specimen Information — CYCLOSPORINE, BLOOD

Container	Specimen	Temperature	Collect Vol	Submit Vol	Minimum Vol	Stability
Lavender Top (EDTA) Tube	Whole Blood	Refrigerate	4 mL	4 mL	2.5 mL	7 days
Lavender Microtainer		Refrigerate	0.5 mL			7 days

*While a microtainer is an optional tube type in rare circumstances, it is **not recommended.**

LAB9914 *CYTOGENETICS FIBROBLAST CULTURE FOR SEND OUT*

University of Vermont Medical Center

Important Note

IN PROCESS
Commercial payors may require preauthorization for this test.
Must complete an Alternative Laboratory Send Out Request Form and also submit a test request form from the performing laboratory.
Submission of an order for Cytogenetic testing for congenital disorders constitutes that the ordering physician has, obtained an informed consent of the patient as required by any applicable state or federal laws with respect to the test ordered, and obtained from the patient authorization permitting UVM Medical Center to report results of each test ordered directly to the ordering physician.

Additional Test Codes

Epic Code	Mayo Access ID
LAB9914	N/A

Test Schedule / Analytical Time / Test Priority

Monday – Thursday / Varies / Not available STAT

Method

Cell Culture

CPT(s)

Description	CPT Code
Tissue Culture	88233

Instrumentation

Manual Method

Section

Cytogenetics

Specimen Information — CYTOGENETICS FIBROBLAST CULTURE FOR SEND OUT

Container	Specimen	Temperature	Collect Vol	Submit Vol	Minimum Vol
CG Tissue/Tumor Transport Media	Punch/Skin Biopsy, Tissue	Ambient	4 mm*	4 mm	
Hanks Balanced Salt Solution	Punch/Skin Biopsy, Tissue	Ambient	4 mm*	4 mm	
Sterile Saline	Punch/Skin Biopsy, Tissue	Ambient	4 mm*	4 mm	

*Fetal Tissue / POC 1 cubic cm

DDT *D-DIMER*

University of Vermont Medical Center

Additional Test Codes

Primary ID	Epic Code	Mayo Access ID
DDT	LAB313	FAH171

Test Schedule / Analytical Time / Test Priority

Daily / Same day / Available STAT

Method

Photo Optical Latex Agglutination

CPT(s)

Description	CPT Code
D-Dimer	85379

Instrumentation

ACL Top

Reference Range

<230 ng/mL DDU (DDIMER Units)
Any use of the age-adjusted cutoff value is a post-analytic modification of this FDA-approved test and is considered “off-label” use of the test result. UVMMC laboratory does not have literature to support the validity of age-adjusted cutoff for our specific assay.

Section

Coagulation

Performing Location

University of Vermont Medical Center

Is the UVMMC lab NY State Certified to perform this testing? Yes/No

Yes

LOINC Code Information

Result Code	Reporting Name	LOINC Code
DDT	D-Dimer	48065-7

Specimen Information — D-DIMER

Container	Specimen	Temperature	Collect Vol	Submit Vol	Minimum Vol	Stability
Blue Top Tube	Whole Blood	Ambient	To fill line	To fill line	To fill line	4 hours
Blue Top Tube	Plasma	Frozen	To fill line	2 mL plasma	1 mL plasma	6 months

TUBE MUST BE FULL ATCOLLECTION. Refer to Coagulation Specimen Handling before collecting. Deliver whole blood specimens within 4 hours of collection. For delayed delivery, send frozen plasma.

VDEP *Depressants Panel, Urine*

Aspenti Health Laboratory

Important Note

Routine drug screen for inpatients and ambulatory clinics.
Test includes the following tests:
Alcohol Metabolite (EtG) Screen-Urine
Benzodiazepines Screen-Urine
Zolpidem Screen-Urine

Additional Test Codes

Primary ID	Epic Code	Aspenti Test Code
VDEP	LAB3737	VBL2610

Test Schedule / Analytical Time / Test Priority

Monday - Friday / 24 Hours / Not Available STAT

Performing Location

Aspenti Health Laboratory

DEXSPR *DEXAMETHASONE SUPPRESSION TEST*

University of Vermont Medical Center

Important Note

The physician provides Dexamethasone dose to the patient and instructs the patient to take the dose before bed (11 p.m.) the night before they will come into the lab to have their blood collected at 8 a.m. Provider places lab order for Dexamethasone Suppression Test (Test Code LAB2046) in their EMR or writes it on a paper form. Patient can be collected for the test at any location.

Additional Test Codes

Primary ID	Epic Code	Mayo Access ID
DEXSPR	LAB2046	FAH5796

(Lab: Give each specimen a different accession number.)

Test Schedule / Analytical Time / Test Priority

Daily / 1 day / Available STAT

Method

Chemiluminescence Immunoassay

CPT(s)

Description	CPT Code
Dexamethasone Suppression	82533

Instrumentation

Ortho Vitros 5600

Reference Range

Non-suppression: > 5 ug/dL
Suppression (normal): <5 ug/dL

Section

Chemistry-1

Performing Location

University of Vermont Medical Center

Is the UVMMC lab NY State Certified to perform this testing? Yes/No

Yes

LOINC Code Information

Result Code	Reporting Name	LOINC Code
DEXSPR	Dexamethasone Suppression	47851-1

Specimen Information — DEXAMETHASONE SUPPRESSION TEST

Container	Specimen	Temperature	Collect Vol	Submit Vol	Minimum Vol	Stability
Serum Separator Tube	Serum	Refrigerate	4 mL	0.5 mL	0.2 mL	5 days
Lithium Heparin (Green Top)	Plasma	Refrigerate	4 mL	0.6 mL	0.3 mL	5 days

DHESS *DHEA SULFATE*

University of Vermont Medical Center

Important Note

This test should not be ordered on infants 60 days or less.

Additional Test Codes

Primary ID	Epic Code	Mayo Access ID
DHESS	LAB524	FAH5674

Test Schedule / Analytical Time / Test Priority

Monday, Wednesday, and Friday / 1 day / Not available STAT

Method

Chemiluminescence Immunoassay

CPT(s)

Description	CPT Code
DHEA Sulfate	82627

Instrumentation

Abbott Architect i1000

Section

Chemistry-2

Performing Location

University of Vermont Medical Center

Is the UVMMC lab NY State Certified to perform this testing? Yes/No

Yes

LOINC Code Information

Result Code	Reporting Name	LOINC Code
DHES	DHEA Sulfate	2191-5

Specimen Information — DHEA SULFATE

Container	Specimen	Temperature	Collect Vol	Submit Vol	Minimum Vol	Stability
SST	Serum	Refrigerate	4 mL	1 mL	0.5 mL	7 day

Reference Range — DHEA SULFATE

Age	Sex	Physiological Status	Low	High	Units
15-20 years	Female		61	494	ug/dL
20-25 years	Female		134	407	ug/dL
25-35 years	Female		96	512	ug/dL
35-45 years	Female		75	410	ug/dL
45-55 years	Female		56	283	ug/dL
55-65 years	Female		30	182	ug/dL
65-70 years	Female		34	79	ug/dL
15-20 years	Male		45	385	ug/dL
20-24 years	Male		238	539	ug/dL
25-35 years	Male		168	592	ug/dL
35-45 years	Male		140	484	ug/dL
45-55 years	Male		136	448	ug/dL
55-65 years	Male		49	362	ug/dL
65-70 years	Male		228	284	ug/dL

DIALH2 *DIALYSIS HEPATITIS*

University of Vermont Medical Center

Important Note

Testing includes: Hepatitis B Surface Antigen, Hepatitis B Surface Antibody, Hepatitis B Core Antibody, and Hepatitis C Antibody.
This test is subject to reflex testing, see Laboratory Reflex Testing Policy, you have the option to decline reflex testing if you believe it is not medically necessary. Samples testing positive for the Hepatitis B Surface Antigen will have confirmatory testing Hepatitis B Surface Antigen Confirmation done at an additional charge. If Hepatitis C Antibody is low level reactive, Hepatitis C PCR will be performed at an additional charge.

HBSAG is Subject to Medicare Preventive Service Coverage policy for Screening for Sexually Transmitted Infections (STI's) and High Intensity Behavioral Counseling (HIBC) to Prevent STI's.
Test subject to Medicare National Coverage Determination (NCD), see individual tests.

Additional Test Codes

Primary ID	Epic Code	Mayo Access ID
DIALH2	LAB2050	N/A

Test Schedule / Analytical Time / Test Priority

Monday – Friday / 3 day / Not available STAT

Method

Chemiluminescence Immunoassay

Instrumentation

Siemens ADVIA Centaur XPT

Reference Range

See individual tests.

Section

Chemistry-2

Performing Location

University of Vermont Medical Center

Is the UVMMC lab NY State Certified to perform this testing? Yes/No

Yes

CPT's

Description	CPT Code
Hepatitis B Surface Antigen	87340
Hepatitis B Surface Antibody	86706
Hepatitis B Core Antibody	86704
Hepatitis C Antibody	86803

Specimen Information — DIALYSIS HEPATITIS

Container	Specimen	Temperature	Collect Vol	Submit Vol	Minimum Vol	Stability
SST	Serum	Refrigerate	4 mL	2.5 mL	1.5 mL	7 days

DIFFAD *DIFFERENTIAL BLOOD COUNT-HEMATOLOGY USE ONLY*

University of Vermont Medical Center

Important Note

Differential Blood Counts cannot be ordered as a stand-alone test. Must order a Complete Blood Count with Differential. Test subject to Medicare National Coverage Decision (NCD) 190.15 - Blood Counts.
This test is subject to reflex testing, see Laboratory Reflex Testing Policy, you have the option to decline reflex testing if you believe it is not medically necessary. A pathologist review and written interpretation (CPT: 85060) may be generated.

Additional Test Codes

Primary ID	Epic Code	Mayo Access ID
DIFFAD	Reflex order only	N/A

Test Schedule / Analytical Time / Test Priority

Daily / 24 Hours / Available STAT

Method

Automated or manual with potential smear review

Instrumentation

Sysmex XN 9000

Reference Range

MALE and FEMALE		
Age	**Cell Type**	**Absolute Number - x 10^3**
>18 Years	Neutrophil	2.20 - 8.85
>18 Years	Lymphocyte	1.09 - 3.30
>18 Years	Monocyte	0.10 - 0.8*
>18 Years	Eosinophil	0.03 - 0.61
>18 Years	Basophil	0.01 - 0.11
>18 Years	Immature Grans	0.00 - 0.06
>18 Years	Ret	0.5 - 2.5 %

References: MCHV normal value data from Employee Health Samples - 1994 (95% confidence range) - NE-8000 cell counter
Males: N=49
Female N=64
9/3/98 adult Monocyte reference range adjusted for Gen*S (N=37)
Ranges were verified by 2012 study on the Beckman Coulter DxH 800

Section

Hematology

Performing Location

University of Vermont Medical Center

Is the UVMMC lab NY State Certified to perform this testing? Yes/No

Yes

Test Note

If, in the opinion of the ordering provider, a blood smear needs to reviewed by a technologist for a specific reason or abnormality, please call UVM Medical Center Laboratory Customer Service (847-5121) and ask for this review. If a pathologist consultation is desired a call must be placed to UVM Medical Center Laboratory Customer Service (847-5121). A reason for the request must be provided.

While an automated differential will be the default method used, there are several flags related to the WBC, PLT and RBC parameters that indicate that a manual differential must be performed. A subset of these findings will be reviewed by a pathologist.

DIGOX *DIGOXIN*

University of Vermont Medical Center

Important Note

This test is subject to Medicare National Coverage Determination (NCD) 190.24 Digoxin Therapeutic Drug Assay.

Additional Test Codes

Primary ID	Epic Code	Mayo Access ID
DIGOX	LAB23	FAH5781

Test Schedule / Analytical Time / Test Priority

Daily / 1 day / Available STAT

Method

Chemiluminescence Immunoassay

CPT(s)

Description	CPT Code
Digoxin	80162

Instrumentation

Abbott Architect i1000

Reference Range

All ages Therapeutic Range: 0.8 - 2.0 ng/mL

Section

Chemistry-1

Performing Location

University of Vermont Medical Center

Is the UVMMC lab NY State Certified to perform this testing? Yes/No

Yes

LOINC Code Information

Result Code	Reporting Name	LOINC Code
DIGOX	Digoxin	83093-5

Specimen Information — DIGOXIN

Container	Specimen	Temperature	Collect Vol	Submit Vol	Minimum Vol	Stability
SST	Serum	Refrigerate	4 mL	0.5 mL	0.3 mL	2 days
Lithium Heparin (green Top)	Plasma	Refrigerate	4 mL	0.5 mL	0.3 mL	2 days
*Green Microtainer			0.6 mL			

*While a microtainer is an optional tube type in rare circumstances, it is **not recommended.**

DRVV *DILUTE RUSSELL VIPER VENOM TIME*

University of Vermont Medical Center

Important Note
This is a reflex test for lab use only. Please review LA Cascade for more information.

Test Schedule / Analytical Time / Test Priority
Monday – Friday / 1 day / Not available STAT

Method
Clot Based Assay

CPT(s)

Description	CPT Code
Dilute Russell Viper Venom Time	85613

Instrumentation
ACL Top 500

Reference Range
Dilute Russell Viper Venom Time: Varies according to reagent lot. See report.

Section
Coagulation

Performing Location
University of Vermont Medical Center

Is the UVMMC lab NY State Certified to perform this testing? Yes/No
Yes

LOINC Code Information

Result Code	Reporting Name	LOINC Code
DVV	Dilute Viper Venom	6303-2

DONSCR *DONOR SCREENING PANEL, IVF ONLY*

University of Vermont Medical Center

Important Note
This test has restricted use.
Test Includes:
Hepatitis B Surface Antigen, Memorial Blood Center
Hepatitis B Core Antibody, Memorial Blood Center
Hepatitis C Antibody, Memorial Blood Center
SyphilisTP, Memorial Blood Center
HIV 1/2 Antibody Screen, Memorial Blood Center

Additional Test Codes

Primary ID	Epic Code	Mayo Access ID
DONSCR	In process	N/A

Performing Location
Memorial Blood Center

Specimen Information — DONOR SCREENING PANEL, IVF ONLY

Container	Specimen	Temperature	Collect Vol	Submit Vol	Minimum Vol	Stability
Serum Separator Tube	Serum	Refrigerate	12 mL	5 mL	5 mL	7 days
Lavender Tube (EDTA)	Plasma	Refrigerate	7 mL	2 mL	2 mL	5 days

UDS11 *DRUG SCREEN 11, URINE*

University of Vermont Medical Center

Important Note

For the Emergency Department and Labor and Delivery only. This screen is intended for use in clinical monitoring or management of patients. NCD statement.
UDS11 Includes: Amphetamine, Barbiturate, Benzodiazepine, Cannabinoid (THC), Methadone, Opiate, Oxycodone, Cocaine, Buprenorphine, Methamphetamine, and Propoxyphene.
This test is subject to Medicare National Coverage Determination (LCD) L36037-Urine Drug Testing.

Additional Test Codes

Primary ID	Epic Code	Mayo Access ID
UDS11	LAB3117	FAH5779

Test Schedule / Analytical Time / Test Priority

Daily / 1 day / Available STAT

Method

Immunochromatography

CPT(s)

Description	CPT Code
Drug Screen	80306 x 1

Instrumentation

MedTox Scan

Reference Range

This screen is intended for use in clinical monitoring or management of patients.

Section

Chemistry-1

Performing Location

University of Vermont Medical Center

Is the UVMMC lab NY State Certified to perform this testing? Yes/No

Yes

LOINC Code Information

Result Code	Reporting Name	LOINC Code
UAM2	Amphetamine Screen, Urine	19343-3
UBAR2	Barbiturate Screen, Urine	19270-9
UBNZ2	Benzodiazepine Screen, Urine	14316-4
UCN2	Cannabinoids Screen, Urine	18282-4
UMTD2	Methadone Screen, Urine	19550-3
UOP2	Opiates Screen, Urine	19295-5
UOXY2	Oxycodone Screen, Urine	19642-8
UCOCA2	Cocaine Metabolites Screen, Urine	14314-9
BUP	Buprenorphine and Metabolites Screen, Urine	58359-1
MAMP	Methamphetamine Screen, Urine	19554-5
PPX	Propoxyphene Screen, Urine	19429-0

Specimen Information — DRUG SCREEN 11, URINE

Container	Specimen	Temperature	Collect Vol	Submit Vol	Minimum Vol	Stability
Sterile Container	Urine	Refrigerate	50 mL	50 mL	30 mL	2 days
Sterile Container	Urine	Frozen	50 mL	50 mL	30 mL	30 days

EBVPAN *EBV PANEL*

University of Vermont Medical Center

Additional Test Codes

Primary ID	Epic Code	Mayo Access ID
EBVPAN	LAB863	FAH5593

Test Schedule / Analytical Time / Test Priority

Monday, Wednesday, and Friday, run starts at 9 am / 3 days / Not available STAT

Method

Chemiluminescence Immunoassay

CPT(s)

Description	CPT Code
EBNA	86664
EBV IgG	86665
EBV IgM	86665

Instrumentation

DiaSorin Liaison XL

Reference Range

All Ages:
VCA IgG: Negative,
VCA IgM: Negative,
EBNA IgG: Negative Interpretation: Results indicate no previous exposure to Epstein-Barr virus.

VCA IgG: Positive
VCA IgM: Positive
EBNA IgG: Negative Interpretation: Results indicate recent infection with Epstein-Barr virus.

VCA IgG: Positive,
VCA IgM: Negative,
EBNA IgG: Positive Interpretation: Results indicate past infection with Epstein-Barr virus.

VCA IgG: Positive,
VCA IgM: Negative,
EBNA IgG: Negative Interpretation: Indeterminate, result might indicate recent infection with Epstein-Barr virus. Time of infection cannot be definitively determined in absence of EBNA IgG.

VCA IgG: Negative,
VCA IgM: Positive,
EBNA IgG: Negative Interpretation: Result indicates recent infection with Epstein-Barr virus.

VCA IgG: Negative,
VCA IgM: Positive,
EBNA IgG: Positive Interpretation: Result indicates recent infection with Epstein-Barr virus.

VCA IgG: Positive,
VCA IgM: Positive,
EBNA IgG: Positive Interpretation: Result indicates recovery from or recent reactivation with Epstein-Barr virus.

VCA IgG: Negative,
VCA IgM: Negative,
EBNA IgG: Positive Interpretation: Indeterminate, suggest recollection if clinically indicated.

VCA IgG, VCA IgM, and/or EBNA IgG: Equivocal Interpretation: Indeterminate, suggest recollection if clinically indicated.

Section

Chemistry-2

Performing Location

University of Vermont Medical Center

Is the UVMMC lab NY State Certified to perform this testing? Yes/No

Yes

LOINC Code Information

Result Code	Reporting Name	LOINC Code
EBNA	EBNA IgG	7883-2
VCAIGM	VCA IgM	30340-4
VCAIGG	VCA IgG	30339-6
EBVINT	EBV Interpretation	69048-7

Specimen Information — EBV PANEL

Container	Specimen	Temperature	Collect Vol	Submit Vol	Minimum Vol	Stability
SST	Serum	Refrigerate	4 mL	0.6 mL	0.3 mL	7 days

Samples that are markedly lipemic, markedly hemolyzed or markedly icteric are not acceptable.

VECSTC *ECSTACY (MDMA) CONFIRMATION PANEL, URINE*

Aspenti Health Laboratory

Important Note

Routine drug screen for inpatients and ambulatory clinics.
Ecstasy MDMA Confirmation, Urine, test information.

Additional Test Codes

Primary ID	Epic Code	Aspenti Test Code
VECSTC	In process	VBL7073

Test Schedule / Analytical Time / Test Priority

Monday - Friday / 24 Hours / Not Available STAT

Performing Location

Aspenti Health Laboratory

EDFLUR *ED, URGENT CARE INFLUENZA, RSV, PCR*

University of Vermont Medical Center

Additional Test Codes

Primary ID	Epic Code	Mayo Access ID
EDFLUR	LAB3756	N/A

Specimen Information

Container	Specimen	Temperature	Collect Vol	Submit Vol	Minimum Vol	Stability
Viral Collection Kit (M6)	Nasopharyngeal Swab	Refrigerate				7 days

Viral Collection Kit (M6)

COLLECTION
1. Insert the tip of the floqswab swab into a nostril to obtain a specimen from the posterior nasopharynx.
2. Do not force the swab; resistance will be felt when the posterior nasopharynx is reached.
3. Rotate the swab and leave it in place for 10-30 seconds or until the patient coughs.
4. Repeat the process for the second nostril

Test Schedule / Analytical Time / Test Priority

Daily / One day / Available STAT

Method

Nucleic Acid Amplification

CPT(s)

Narrative	CPT
Respiratory Virus	87631 x 1

Instrumentation

Cepheid GeneXpert

Reference Range

No virus detected

Section

Microbiology-2

Performing Location

University of Vermont Medical Center

Is the UVMMC lab NY State Certified to perform this testing? Yes/No

No

LOINC Code Information

In process

LYT *ELECTROLYTES PANEL*

University of Vermont Medical Center

Important Note

Tests included: Sodium, Potassium, Chloride, Carbon dioxide

Additional Test Codes

Primary ID	Epic Code	Mayo Access ID
LYT	LAB16	FAH4974

Test Schedule / Analytical Time / Test Priority

Daily / 1 day / Available STAT

Method

See Individual Tests.

CPT(s)

Description	CPT Code
Electrolytes Panel	80051

Instrumentation

Ortho Vitros

Reference Range

See individual tests.

Section

Chemistry-1

Performing Location

University of Vermont Medical Center

Is the UVMMC lab NY State Certified to perform this testing? Yes/No

Yes

LOINC Code Information

Result Code	Reporting Name	LOINC Code
NA	Sodium	2951-2
K	Potassium	2823-3
CL	Chloride	2075-0
CO2	CO2	2028-9

Specimen Information — ELECTROLYTES PANEL

Container	Specimen	Temperature	Collect Vol	Submit Vol	Minimum Vol	Stability
SST	Serum	Refrigerate	4 mL	0.6 mL	0.3 mL	5 days
Lithium heparin (green top)	Plasma	Refrigerate	4 mL	0.6 mL	0.3 mL	5 days
*Green Microtainer		Refrigerate	0.6 mL	N/A	N/A	5 days

*While a microtainer is an optional tube type in rare circumstances, it is **not recommended.**

ULYT *ELECTROLYTES PANEL, URINE*

University of Vermont Medical Center

Important Note

Tests includes are: Sodium, Potassium, and Chloride.

Additional Test Codes

Primary ID	Epic Code	Mayo Access ID
ULYT	LAB565	N/A

Test Schedule / Analytical Time / Test Priority

Daily / 1 day / Available STAT

Method

Ion Selective Electrode

CPT(s)

Description	CPT Code
Chloride, Urine, Random	82436
Potassium, Urine, Random	84133
Sodium, Urine, Random	84300

Instrumentation

Ortho Vitros 5600

Reference Range

See individual Tests.

Section

Chemistry-1

Performing Location

University of Vermont Medical Center

Is the UVMMC lab NY State Certified to perform this testing? Yes/No

Yes

LOINC Code Information

Result Code	Reporting Name	LOINC Code
UCLR	Chloride, Ur Random	35676-6
UKR	Potassium, Ur Random	35677-4
UNAR	Sodium, Ur Random	35678-2

Specimen Information — ELECTROLYTES PANEL, URINE

Container	Specimen	Temperature	Collect Vol	Submit Vol	Minimum Vol	Stability
Sterile Container	Urine	Refrigerate	10 mL	10 mL	1 mL	7 days

SERPEP *ELECTROPHORESIS, SERUM*

University of Vermont Medical Center

Important Note

This test is subject to reflex testing, see Laboratory Reflex Testing Policy, you have the option to decline reflex testing if you believe it is not medically necessary. Includes Total Protein and Electrophoresis and quantitation of monoclonal protein if present. if a suspicious band is seen which has not been previously detected, then an immunotyping performed (CPT: 86334) at an additional charge.

Additional Test Codes

Primary ID	Epic Codes	Mayo Access ID
SERPEP	LAB119	FAH5911

Test Schedule / Analytical Time / Test Priority

Monday – Friday, run starts at 8:00 am / 3 days / Not available STAT

Method

Capillary Electrophoresis

CPT(s)

Description	CPT Code
Protein Electrophoresis	84165
Protein, Total	84155

Instrumentation

Sebia Capillarys 2 Flex

Reference Range

All ages:
Albumin: 55.8 – 66.1%
Alpha-1: 2.9 – 4.9%
Alpha-2: 7.1 – 11.8%
Beta: 8.4 – 13.1%
Gamma: 11.1 – 18.8%

Section

Chemistry-2

Performing Location

University of Vermont Medical Center

Is the UVMMC lab NY State Certified to perform this testing? Yes/No

Yes

Specimen Information — ELECTROPHORESIS, SERUM

Container	Specimen	Temperature	Collect Vol	Submit Vol	Minimum Vol	Stability
Serum Separator Tube	Serum	Refrigerate	4 mL	0.6 mL	0.3 mL	5 days

Heparin tube (green) is NOT acceptable.

EHEXP2 *EMPLOYEE HEALTH EXPOSURE*

University of Vermont Medical Center

Important Note

This test is Subject to Medicare Preventive Service Coverage policy for Screening for Sexually Transmitted Infections (STI's) and High Intensity Behavioral Counseling (HIBC) to Prevent STI's.
Test includes Hepatitis B Surface Antigen, Hepatitis C Quantification-includes RT, Rapid HIV 1/2 Antibody.
Source patient is tested if there is a needle stick exposure. Patient is tested under their UVMMC Medical Record Number (not anonymous) and UVMMC Employee Health pays for all testing for UVMMC events. Outside accounts will be fiscally responsible for exposure testing. Employee is not tested unless source patient is positive. At that time, employee is tested for the positive assay, anonymously at baseline, 3 months and 6 months.≥

Additional Test Codes

Primary ID	Epic Code	Mayo Access ID
EHEXP2	LAB3030	FAH5745

Test Schedule / Analytical Time / Test Priority

See individual tests

Method

See individual tests.

CPT(s)

Description	CPT Code
Hepatitis B Surface Antigen	87340
Hepatitis C Quantification, includes RT	87522
Rapid HIV 1/2 Antibody	86703

Instrumentation

Siemens Centaur XP

Reference Range

HIVSS2: Negative
HBSAG: Negative
HCVQU: Undetected

Section

Chemistry-2

Performing Location

University of Vermont Medical Center

Is the UVMMC lab NY State Certified to perform this testing? Yes/No

Yes

Specimen Information — EMPLOYEE HEALTH EXPOSURE

Container	Specimen	Temperature	Collect Vol	Submit Vol	Minimum Vol	Stability
Serum Separator Tube	Serum	Refrigerate	7 mL	3 mL	2 mL	6 days

Red top tube NOT acceptable.

EEHIC *EMPLOYEE NEEDLE STICK RECOMMENDATIONS*

University of Vermont Medical Center

Important Note

Source patient is tested if there is a needle stick exposure. Test code below. Patient is tested under their UVMMC Medical Record Number (not anonymous) and UVMMC Employee Health pays for all testing for UVMMC events. Outside accounts will be fiscally responsible for exposure testing. Employee is not tested unless source patient is positive. At that time, employee is tested for the positive assay, anonymously at baseline, 3 months and 6 months.
This test is Subject to Medicare Preventive Service Coverage policy for Screening for Sexually Transmitted Infections (STI's) and High Intensity Behavioral Counseling (HIBC) to Prevent STI's.

Additional Test Codes

Primary ID	Epic Code	Mayo Access ID
EHEXP2	LAB303	FAH5745

Test Schedule / Analytical Time / Test Priority

Monday – Friday / 1 day / Available STAT

Method

Chemiluminescent Immunoassay

CPT(s)

Description	CPT Code
Hepatitis B Surface Antigen	87340
Hepatitis C Quantification, includes RT	87522
Rapid HIV 1/2 Antibody	86703

Instrumentation

Siemens Centaur XP

Reference Range

HIVSS2: Negative
HBSAG: Negative
HCVQU: Target not detected

Section

Chemistry-2

Performing Location

University of Vermont Medical Center

Is the UVMMC lab NY State Certified to perform this testing? Yes/No

Yes

Division

Chemistry-2

LOINC Code Information

Result Code	Reporting Name	LOINC Code

Specimen Information — EMPLOYEE NEEDLE STICK RECOMMENDATIONS

Container	Specimen	Temperature	Collect Vol	Submit Vol	Minimum Vol
SST	Serum	Refrigerate	7 mL	3 mL	2 mL

Red top tube NOT acceptable. Serum must be separated from cells within 24 hours of collection. Specimens must be frozen within 72 hours of collection.

ENAPNL *ENA PANEL*

University of Vermont Medical Center

Important Note

Non-UVMMC clients must send samples frozen. For samples being sent frozen, serum should be separated from clotted blood within 4 hours of collection and frozen at ≤-20 C.Testing Includes: RNP Antibody, Sm (Smith) Antibody, SS-A Antibody, and SS-B Antibody.

Additional Test Codes

Primary ID	Epic Code	Mayo Access ID
ENAPNL	LAB3983	FAH5611

Test Schedule / Analytical Time / Test Priority

Tuesday and Thursday / 6 days / Not available STAT

Method

ELISA

CPT(s)

Decription	CPT Code
RNP Antibody	86235
SM Antibody	86235
SSA Antibody	86235
SSB Antibody	86235

Instrumentation

Dynex DSX

Reference Range

All Ages
Negative: <20 Units
Weak Positive: 20-39 Units
Moderate Positive: 40-80 Units
Strong Positive: >80 Units

Section

Immunology

Performing Location

University of Vermont Medical Center

Is the UVMMC lab NY State Certified to perform this testing? Yes/No

Yes

LOINC Code Information

Result Code	Reporting Name	LOINC Code
SSAA	SSA Ab	33569-5
SSBA	SSB Ab	45142-7
SMAA	Sm Ab	43182-5
RNPA	RNP Ab	51928-0

Specimen Information — ENA PANEL

Container	Specimen	Temperature	Collect Vol	Submit Vol	Minimum Vol	Stability
Serum Separator Tube	Serum	Frozen	4 mL	0.5 mL	0.4 mL	21 days

Serum should be separated from clotted blood and stored at 2 - 8 C within 4 hours of collection. If the assay will not be completed within 48 hours of collection or for shipment of the specimen, freeze at -20 C or lower.

ENVGE *ENTEROVIRUS PCR, CSF*

University of Vermont Medical Center

Additional Test Codes

Primary ID	Epic Code	Mayo Access ID
ENVGE	LAB3752	FAH5847

Test Schedule / Analytical Time / Test Priority

CSF Daily / 1 day / Not available STAT

Method

Nucleic Acid Amplification

CPT(s)

Narrative	CPT
Enterovirus	87498 x 1

Instrumentation

Cepheid GeneXpert

Reference Range

Negative

Section

Microbiology-2

Performing Location

University of Vermont Medical Center

Is the UVMMC lab NY State Certified to perform this testing? Yes/No

No

LOINC Code Information

In process

Specimen Information — ENTEROVIRUS PCR, CSF

Container	Specimen	Temperature	Collect Vol	Submit Vol	Minimum Vol	Stability
Sterile Container	CSF	Refrigerate	2 mL	2 mL	1 mL	3 days
Sterile Container	CSF	Frozen	2 mL	2mL	1 mL	7 days

ESTRA *ESTRADIOL*

University of Vermont Medical Center

Important Note

Estradiol concentration in fulvestrant-treated women should only be measured using an assay that has negligible cross reactivity with fulvestrant such as Liquid Chromatography-Mass Spectrometry (LC-MS/MS) available at Mayo Clinic Laboratories (LAB2482). Estradiol requests on pediatric patients (<18 y) will be sent to Mayo (LAB2482), as they provide reference ranges based on Tanner Stage from age of 14 days-18 years.

Additional Test Codes

Primary ID	Epic Code	Mayo Access ID
ESTRA	LAB523	FAH167

Test Schedule / Analytical Time / Test Priority

Daily / 1 day / Available STAT

Method

Chemiluminescence Immunoassay

CPT(s)

Description	CPT Code
Estradiol	82670

Instrumentation

Siemens ADVIA Centaur XPT

Section

Chemistry-2

Performing Location

University of Vermont Medical Center

Is the UVMMC lab NY State Certified to perform this testing? Yes/No

Yes

LOINC Code Information

Result Code	Reporting Name	LOINC Code
ESTRA	Estradiol	2243-4

Specimen Information — ESTRADIOL

Container	Specimen	Temperature	Collect Vol	Submit Vol	Minimum Vol	Stability
SST	Serum	Refrigerate	4 mL	1 mL	0.4 mL	2 days
SST	Serum	Frozen	4 mL	1 mL	0.4 mL	30 days

Reference Range — ESTRADIOL

Age	Sex	Physiological Status	Low	High	Units
≥18 years	Female	Follicular Phase (-12 to -4 days)	20	144	pg/mL
≥18 years	Female	Mid Cycle (-3 to 2 days)	64	357	pg/mL
≥18 years	Female	Luteal Phase (+4 to 12 days)	56	214	pg/mL
≥18 years	Female	Post Menopausal		<32	pg/mL
≥18 years	Male			<40	pg/mL

VETOH *Ethanol Screen, Urine*

Aspenti Health Laboratory

Important Note

Routine drug screen for inpatients and ambulatory clinics.
Ethanol Screen, Urine, test information.

Additional Test Codes

Primary ID	Epic Code	Aspenti Test Code
VETOH	LAB3715	VBL2121

Test Schedule / Analytical Time / Test Priority

Monday - Friday / 24 Hours / Not Available STAT

Performing Location

Aspenti Health Laboratory

ETOH *ETHANOL, BLOOD*

University of Vermont Medical Center

Additional Test Codes

Primary ID	Epic Code	Mayo Access ID
ETOH	LAB46	FAH4987

Test Schedule / Analytical Time / Test Priority

Daily / 1 day / Available STAT

Method

Colorimetric

CPT(s)

Description	CPT Code
Ethanol Quant, blood	80320

Instrumentation

Ortho Vitros 5600

Reference Range

<10 mg/dL in abstaining adults

Section

Chemistry-1

Performing Location

University of Vermont Medical Center

Is the UVMMC lab NY State Certified to perform this testing? Yes/No

Yes

LOINC Code Information

Result Code	Reporting Name	LOINC Code
ETOH	Ethanol, Blood	5643-2

Specimen Information — ETHANOL, BLOOD

Container	Specimen	Temperature	Collect Vol	Submit Vol	Minimum Vol	Stability
SST	Serum	Refrigerate	4 mL	4 mL	2 mL	14 days
Lithium Heparin (Green Top)	Plasma	Refrigerate	4 mL	4 mL	2 mL	14 days
Green Microtainer			0.6 mL	N/A	N/A	14 days

Do NOT use alcohol prep to cleanse the skin prior to venipuncture, use betadine. Sample must be tightly sealed, do NOT remove tube top.
*While a microtainer is an optional tube type in rare circumstances, it is **not recommended.**

ETHYL *ETHYLENE GLYCOL, QUANTITATIVE*

University of Vermont Medical Center

Important Note

Please call Lab Customer Service at 847-5121 or 1-800-991-2799 to notify us that a sample is on the way. This notification will allow time for us to prepare the instrumentation and ensure an appropriate turnaround time.

Additional Test Codes

Primary ID	Epic Code	Mayo Access ID
ETHYL	LAB714	FAH4935

Test Schedule / Analytical Time / Test Priority

Daily / 1 day / Available STAT

Method

Gas Chromatography with Flame Ionization Detection

CPT(s)

Description	CPT Code
Ethylene Glycol Quant	82693

Instrumentation

Agilent 7890B Gas Chromatograph

Reference Range

None detected

Section

Chemistry-2

Performing Location

University of Vermont Medical Center

Is the UVMMC lab NY State Certified to perform this testing? Yes/No

Yes

LOINC Code Information

Result Code	Reporting Name	LOINC Code
ETHYL	Ethylene Glycol	5646-5

Specimen Information — ETHYLENE GLYCOL, QUANTITATIVE

Container	Specimen	Temperature	Collect Vol	Submit Vol	Minimum Vol	Stability
Serum Separator Tube	Serum	Refrigerate	4 mL	2 mL	1 mL	3 days

Stable 3 days refrigerated as long as the sample remains tightly capped to prevent evaporation of any volatile substances.

FA10 *FACTOR 10 ASSAY*

University of Vermont Medical Center

Additional Test Codes

Primary ID	Epic Code	Mayo Access ID
FA10	LAB758	FAH4905

Test Schedule / Analytical Time / Test Priority

Monday – Friday / 1 day / Available STAT, nights and weekends with pathologist approval

Method

Photo Optical Clot Detection

CPT(s)

Description	CPT Code
Factor 10 Assay	85260

Instrumentation

ACL Top 500

Reference Range

86 – 195%

Section

Coagulation

Performing Location

University of Vermont Medical Center

Is the UVMMC lab NY State Certified to perform this testing? Yes/No

Yes

LOINC Code Information

Result Code	Reporting Name	LOINC Code
FA10	Factor 10 Assay	33984-6

Specimen Information — FACTOR 10 ASSAY

Container	Specimen	Temperature	Collect Vol	Submit Vol	Minimum Vol	Stability
Blue Top Tube	Plasma	Frozen	To fill line	2 mL plasma	1 mL plasma	6 Months
Blue Top Tube	Whole Blood	Ambient	To fill line	To fill line	To fill line	4 Hours

Refer to Coagulation Specimen Handling before collecting. Submit 2 × 0.5 mL frozen plasma aliquots for this test. Draw blood in light blue top tube(s). Spin down, remove plasma, spin plasma again, and place citrate platelet-poor plasma in required number of plastic vials (Glass vials cannot be accepted.) Freeze specimen at less than or equal to minus 40° C, if possible. Send specimen frozen on dry ice. Each coagulation assay requested should have its own vial.

FA11 *FACTOR 11 ASSAY*

University of Vermont Medical Center

Additional Test Codes

Primary ID	Epic Code	Mayo Access ID
FA11	LAB309	FAH4963

Test Schedule / Analytical Time / Test Priority

Monday – Friday / 1 day / Available STAT, nights and weekends with pathologist approval

Method

Photo Optical Clot Detection

CPT(s)

Description	CPT Code
Factor 11 Assay	85270

Instrumentation

ACL Top 500

Reference Range

62 – 145%

Section

Coagulation

Performing Location

University of Vermont Medical Center

Is the UVMMC lab NY State Certified to perform this testing? Yes/No

Yes

LOINC Code Information

Result Code	Reporting Name	LOINC Code
FA11	Factor 11 Assay	3226-8

Specimen Information — FACTOR 11 ASSAY

Container	Specimen	Temperature	Collect Vol	Submit Vol	Minimum Vol	Stability
Blue Top Tube	Plasma	Frozen	To fill line	2 mL plasma	1 mL plasma	6 Months
Blue Top Tube	Whole Blood	Ambient	To fill line	To fill line	To fill line	4 Hours

Refer to Coagulation Specimen Handling before collecting. Submit 2 × 0.5 mL frozen plasma aliquots for this test. Draw blood in light blue top tube(s). Spin down, remove plasma, spin plasma again, and place citrate platelet-poor plasma in required number of plastic vials (Glass vials cannot be accepted.) Freeze specimen at less than or equal to minus 40° C, if possible. Send specimen frozen on dry ice. Each coagulation assay requested should have its own vial.

FA12 *FACTOR 12 ASSAY*

University of Vermont Medical Center

Additional Test Codes

Primary ID	Epic Code	Mayo Access ID
FA12	LAB310	FAH4984

Test Schedule / Analytical Time / Test Priority

Monday – Friday / 1 day / Available STAT, nights and weekends with pathologist approval

Method

Photo Optical Clot Detection

CPT(s)

Description	CPT Code
Factor 12 Assay	85280

Instrumentation

ACL Top 500

Reference Range

52 – 146%

Section

Coagulation

Performing Location

University of Vermont Medical Center

Is the UVMMC lab NY State Certified to perform this testing? Yes/No

Yes

LOINC Code Information

Result Code	Reporting Name	LOINC Code
FA12	Factor 12 Assay	3232-6

Specimen Information — FACTOR 12 ASSAY

Container	Specimen	Temperature	Collect Vol	Submit Vol	Minimum Vol	Stability
Blue Top Tube	Plasma	Frozen	To fill line	2 mL plasma	1 mL plasma	6 Months
Blue Top tube	Whole Blood	Ambient	To fill line	To fill line	To fill line	4 Hours

Refer to Coagulation Specimen Handling before collecting. Submit 2 × 0.5 mL frozen plasma aliquots for this test. Draw blood in light blue top tube(s). Spin down, remove plasma, spin plasma again, and place citrate platelet-poor plasma in required number of plastic vials (Glass vials cannot be accepted.) Freeze specimen at less than or equal to minus 40° C, if possible. Send specimen frozen on dry ice. Each coagulation assay requested should have its own vial.

FA13AG *FACTOR 13 ANTIGEN*

University of Vermont Medical Center

Additional Test Codes

Primary ID	Epic Code	Mayo Access ID
FA13AG	LAB1113	N/A

Test Schedule / Analytical Time / Test Priority

Monday – Friday / 1 day / Not available STAT

Method

Latex Enhanced Immunoassay

CPT(s)

Description	CPT Code
Factor 13 Antigen	85290

Instrumentation

ACL Top 500

Reference Range

Range varies according to reagent lot, see report or call Coagulation at 847-5121.

Section

Coagulation

Performing Location

University of Vermont Medical Center

Is the UVMMC lab NY State Certified to perform this testing? Yes/No

Yes

LOINC Code Information

Result Code	Reporting Name	LOINC Code
FA13AG	Factor 13 Antigen	3239-1

Specimen Information — FACTOR 13 ANTIGEN

Container	Specimen	Temperature	Collect Vol	Submit Vol	Minimum Vol	Stability
Blue Top Tube	Plasma	Frozen	To fill line	2 mL plasma	1 mL plasma	6 Months
Blue Top Tube	Whole Blood	Ambient	To fill line	To fill line	To fill line	4 Hours

Refer to Coagulation Specimen Handling before collecting. Submit 2 × 0.5 mL frozen plasma aliquots for this test. Draw blood in light blue top tube(s). Spin down, remove plasma, spin plasma again, and place citrate platelet-poor plasma in required number of plastic vials (Glass vials cannot be accepted.) Freeze specimen at less than or equal to minus 40° C, if possible. Send specimen frozen on dry ice. Each coagulation assay requested should have its own vial.

FA2 *FACTOR 2 ASSAY*

University of Vermont Medical Center

Additional Test Codes

Primary ID	Epic Code	Mayo Access ID
FA2	LAB303	FAH5276

Test Schedule / Analytical Time / Test Priority

Monday – Friday / 1 day / Available STAT, nights and weekends need pathologist approval

Method

Photo Optical Clot Detection

CPT(s)

Description	CPT Code
Factor 2 Assay	85210

Instrumentation

ACL Top 500

Reference Range

73 – 133%

Section

Coagulation

Performing Location

University of Vermont Medical Center

Is the UVMMC lab NY State Certified to perform this testing? Yes/No

Yes

LOINC Code Information

Result Code	Reporting Name	LOINC Code
FA2	Factor 2 Assay	3289-6

Specimen Information — FACTOR 2 ASSAY

Container	Specimen	Temperature	Collect Vol	Submit Vol	Minimum Vol	Stability
Blue Top Tube	Plasma	Frozen	To fill line	2 mL plasma	1 mL plasma	6 months
Blue Top Tube	Whole Blood	Ambient	To fill line	To fill line	To fill line	4 Hours

Refer to Coagulation Specimen Handling before collecting. Submit 2 × 0.5 mL frozen plasma aliquots for this test. Draw blood in light blue top tube(s). Spin down, remove plasma, spin plasma again, and place citrate platelet-poor plasma in required number of plastic vials (Glass vials cannot be accepted.) Freeze specimen at less than or equal to minus 40° C, if possible. Send specimen frozen on dry ice. Each coagulation assay requested should have its own vial.

FA5 *FACTOR 5 ASSAY*

University of Vermont Medical Center

Additional Test Codes

Primary ID	Epic Code	Mayo Access ID
FA5	LAB304	FAH245

Test Schedule / Analytical Time / Test Priority

Monday – Friday / 1 day / Available STAT, nights and weekends with pathologist approval

Method

Photo Optical Clot Detection

CPT(s)

Description	CPT Code
Factor 5 Assay	85220

Instrumentation

ACL Top 500

Reference Range

63 – 135%

Section

Coagulation

Performing Location

University of Vermont Medical Center

Is the UVMMC lab NY State Certified to perform this testing? Yes/No

Yes

LOINC Code Information

Result Code	Reporting Name	LOINC Code
FA5	Factor 5 Assay	3193-0

Specimen Information — FACTOR 5 ASSAY

Container	Specimen	Temperature	Collect Vol	Submit Vol	Minimum Vol	Stability
Blue Top Tube	Plasma	Frozen	To fill line	2 mL plasma	1 mL plasma	6 Months
Blue Top Tube	Whole Blood	Ambient	To fill line	To fill line	To fill line	4 Hours

Refer to Coagulation Specimen Handling before collecting. Submit 2 × 0.5 mL frozen plasma aliquots for this test. Draw blood in light blue top tube(s). Spin down, remove plasma, spin plasma again, and place citrate platelet-poor plasma in required number of plastic vials (Glass vials cannot be accepted.) Freeze specimen at less than or equal to minus 40° C, if possible. Send specimen frozen on dry ice. Each coagulation assay requested should have its own vial.

FA7 *FACTOR 7 ASSAY*

University of Vermont Medical Center

Additional Test Codes

Primary ID	Epic Code	Mayo Access ID
FA7	LAB305	FAH5269

Test Schedule / Analytical Time / Test Priority

Monday – Friday / 1 day / Available STAT, nights and weekends with pathologist approval

Method

Photo Optical Clot Detection

CPT(s)

Description	CPT Code
Factor 7 Assay	85230

Instrumentation

ACL Top 500

Reference Range

51 – 161%

Section

Coagulation

Performing Location

University of Vermont Medical Center

Is the UVMMC lab NY State Certified to perform this testing? Yes/No

Yes

LOINC Code Information

Result Code	Reporting Name	LOINC Code
FA7	Factor 7 Assay	3198-9

Specimen Information — FACTOR 7 ASSAY

Container	Specimen	Temperature	Collect Vol	Submit Vol	Minimum Vol	Stability
Blue Top Tube	Plasma	Frozen	To fill line	2 mL plasma	1 mL plasma	6 Months
Blue Top Tube	Whole Blood	Ambient	To fill line	To fill line	To fill line	4 Hours

Refer to Coagulation Specimen Handling before collecting. Submit 2 × 0.5 mL frozen plasma aliquots for this test. Draw blood in light blue top tube(s). Spin down, remove plasma, spin plasma again, and place citrate platelet-poor plasma in required number of plastic vials (Glass vials cannot be accepted.) Freeze specimen at less than or equal to minus 40° C, if possible. Send specimen frozen on dry ice. Each coagulation assay requested should have its own vial.

FA8 *FACTOR 8 ASSAY*

University of Vermont Medical Center

Additional Test Codes

Primary ID	Epic Code	Mayo Access ID
FA8	LAB306	FAH220

Test Schedule / Analytical Time / Test Priority

Monday – Friday / 1 day / Available STAT, nights and weekends with pathologist approval

Method

Photo Optical Clot Detection

CPT(s)

Description	CPT Code
Factor 8 Assay	85240

Instrumentation

ACL Top 500

Reference Range

53 – 143%

Section

Coagulation

Performing Location

University of Vermont Medical Center

Is the UVMMC lab NY State Certified to perform this testing? Yes/No

Yes

LOINC Code Information

Result Code	Reporting Name	LOINC Code
FA8	Factor 8 Assay	3209-4

Specimen Information — FACTOR 8 ASSAY

Container	Specimen	Temperature	Collect Vol	Submit Vol	Minimum Vol	Stability
Blue Top Tube	Plasma	Frozen	To fill line	2 mL plasma	1 mL plasma	6 Months
Blue Top Tube	Whole Blood	Ambient	To fill line	To fill line	To fill line	4 Hours

Refer to Coagulation Specimen Handling before collecting. Submit 2 × 0.5 mL frozen plasma aliquots for this test. Draw blood in light blue top tube(s). Spin down, remove plasma, spin plasma again, and place citrate platelet-poor plasma in required number of plastic vials (Glass vials cannot be accepted.) Freeze specimen at less than or equal to minus 40° C, if possible. Send specimen frozen on dry ice. Each coagulation assay requested should have its own vial.

FA9 *FACTOR 9 ASSAY*

University of Vermont Medical Center

Additional Test Codes

Primary ID	Epic Code	Mayo Access ID
FA9	LAB308	FAH244

Test Schedule / Analytical Time / Test Priority

Monday – Friday / 1 day / Available STAT, nights and weekends with pathologist approval

Method

Photo Optical Clot Detection

CPT(s)

Description	CPT Code
Factor 9 Assay	85250

Instrumentation

ACL Top 500

Reference Range

75 – 150%

Section

Coagulation

Performing Location

University of Vermont Medical Center

Is the UVMMC lab NY State Certified to perform this testing? Yes/No

Yes

LOINC Code Information

Result Code	Reporting Name	LOINC Code
FA9	Factor 9 Assay	3187-2

Specimen Information — FACTOR 9 ASSAY

Container	Specimen	Temperature	Collect Vol	Submit Vol	Minimum Vol	Stability
Blue Top Tube	Plasma	Frozen	To fill line	2 mL plasma	1 mL plasma	6 Months
Blue Top Tube	Whole Blood	Ambient	To fill line	To fill line	To fill line	4 Hours

Refer to Coagulation Specimen Handling before collecting. Submit 2 × 0.5 mL frozen plasma aliquots for this test. Draw blood in light blue top tube(s). Spin down, remove plasma, spin plasma again, and place citrate platelet-poor plasma in required number of plastic vials (Glass vials cannot be accepted.) Freeze specimen at less than or equal to minus 40° C, if possible. Send specimen frozen on dry ice. Each coagulation assay requested should have its own vial.

FECBD *FECAL BACTERIAL PATHOGENS BY PCR*

University of Vermont Medical Center

Important Note

The sample must be received in the lab within 2 hours if submitted in a sterile container. Acceptable in Cary Blair media for 4 days.
Microbiology testing for bacterial fecal pathogens (Salmonella, Shigella, Campylobacter,
and Shiga toxin producing E.coli) testing will be performed using the BD Max instrument and results will be available within 24 hours.

Additional Test Codes

Primary ID	Epic Code	Mayo Access ID
FECBD	LAB3625	FAH5693

Test Schedule / Analytical Time / Test Priority

Daily / 1 day / Not available STAT

Method

Nucleic Acid Amplification

CPT(s)

Description	CPT Code
Fecal Bacterial Pathogens PCR	87505

Instrumentation

BD Max

Reference Range

No Salmonella spp. DNA detected.
No Shigella spp. or Enteroinvasive E.coli DNA detected.
No Campylobacter spp. (jejuni or coli) DNA detected.
No shiga toxin producing genes detected.

Section

Microbiology-1

Performing Location

University of Vermont Medical Center

Is the UVMMC lab NY State Certified to perform this testing? Yes/No

Yes

LOINC Code Information

In process

Aliases:

Enteric

Specimen Information — FECAL BACTERIAL PATHOGENS BY PCR

Container	Specimen	Temperature	Collect Vol	Submit Vol	Minimum Vol	Stability
Para-Pak (Carey Blair Media) (**preferred**)	Feces	Ambient	5 grams*	5 grams	0.5 grams	4 days
Sterile Container	Feces	Refrigerate	5 grams*	5 grams	0.5 grams	2 hours

*About the size of a walnut or 2 tablespoons.

FELF *FECAL LACTOFERRIN FOR WBC*

University of Vermont Medical Center

Additional Test Codes

Primary ID	Epic Code	Mayo Access ID
FELF	LAB3281	FAH5901

Test Schedule / Analytical Time / Test Priority

Daily / 24 Hours / Not available STAT

Method

Immunochromatographic

CPT(s)

Description	CPT Code
Fecal Lactoferrin for WBC's	83630

Instrumentation

Manual Method

Reference Range

Absence of elevated lactoferrin

Section

Microbiology-1

Performing Location

University of Vermont Medical Center

Is the UVMMC lab NY State Certified to perform this testing? Yes/No

Yes

LOINC Code Information

In process

Specimen Information — FECAL LACTOFERRIN FOR WBC

Container	Specimen	Temperature	Collect Vol	Submit Vol	Minimum Vol	Stability
Sterile Container	Feces	Refrigerate	1 gram	1 gram	1 gram	2 weeks

FECCX *FECES CULTURE UNUSUAL PATHOGENS*

University of Vermont Medical Center

Important Note

Must be received in lab within 2 hours if submitted in a sterile container. Acceptable in Cary Blair media for 4 days.
This test can be added to Fecal Bacterial Pathogens by PCR for up to 96 hours after collection.
Fecal culture is available for unusual bacterial pathogens (Aeromonas sp.,
Plesiomonas shigelloides , Yersinia enterocolitica, or Vibrio sp.). Testing for these
pathogens should be considered if PCR testing is negative and there is significant travel
history or unresolved diarrhea.

Additional Test Codes

Primary ID	Epic Code	Mayo Access ID
FECCX	LAB3626	FAH5698

Test Schedule / Analytical Time / Test Priority

Daily / 2 days / Not available STAT

Method

Culture

CPT(s)

Description	CPT Code
In process	87046
In process	87046.91

Instrumentation

Manual Method

Reference Range

No Aeromonas sp., Plesiomonas, Yersinia enterocolitica, or Vibrio sp. isolated.

Section

Microbiology-1

Performing Location

University of Vermont Medical Center

Is the UVMMC lab NY State Certified to perform this testing? Yes/No

Yes

LOINC Code Information

In process

Specimen Information — FECES CULTURE UNUSUAL PATHOGENS

Container	Specimen	Temperature	Collect Vol	Submit Vol	Minimum Vol	Stability
Para-Pak (Cary Blair Media) **Preferred**	Feces	Ambient	5 grams*	5 grams	0.5 grams	4 days
Sterile Container		Ambient	5 grams*	5 grams	0.5 grams	2 hours

*About the size of a walnut or 2 tablespoons.

VFENTC *FENTANYL AND METABOLITE CONFIRMATION*

Aspenti Health Laboratory

Additional Test Codes

Primary ID	Epic Code	Aspenti Test Code
UFENTC	LAB393	VBL7035

Test Schedule / Analytical Time / Test Priority

Monday - Friday / 3 days / Not available STAT

Performing Location

Aspenti Health

Specimen Information — FENTANYL AND METABOLITE CONFIRMATION

Container	Specimen	Temperature	Collect Vol	Submit Vol	Minimum Vol
Clean Container	Random Urine	Refrigerate	50 mL	50 mL	30 mL

VFENT *Fentanyl Screen, Urine*

Aspenti Health Laboratory

Important Note

Routine drug screen for inpatients and ambulatory clinics.
Fentanyl Screen, Urine , test information.

Additional Test Codes

Primary ID	Epic Code	Aspenti Test Code
VFENT	LAB3585	VBL1117

Test Schedule / Analytical Time / Test Priority

Monday - Friday / 24 Hours / Not Available STAT

Performing Location

Aspenti Health Laboratory

FER *FERRITIN*

University of Vermont Medical Center

Important Note

Test subject to Medicare National Coverage Determination (NCD) 190.18 Serum Iron Studies.

Additional Test Codes

Primary ID	Epic Code	Mayo Access ID
FER	LAB68	FAH147

Test Schedule / Analytical Time / Test Priority

Monday – Friday / 3 days / Not available STAT

Method

Chemiluminescence Immunoassay

CPT(s)

Description	CPT Code
Ferritin	82728

Instrumentation

Siemens ADVIA Centaur XPT

Section

Chemistry-2

Performing Location

University of Vermont Medical Center

Is the UVMMC lab NY State Certified to perform this testing? Yes/No

Yes

LOINC Code Information

Result Code	Reporting Name	LOINC Code
FER	Ferritin	2276-4

Specimen Information — FERRITIN

Container	Specimen	Temperature	Collect Vol	Submit Vol	Minimum Vol	Stability
SST	Serum	Refrigerate	4 mL	1 mL	0.2 mL	7 days
Yellow Microtainer		Refrigerate	0.6 mL	N/A	N/A	7 days

Marked hemolysis is not acceptable.
*While a microtainer is an optional tube type in rare circumstances, it is **not recommended.**

Reference Range — FERRITIN

Age	Sex	Physiological Status	Low	High	Units
0 - 1 month	Male		25	200	ng/mL
1-2 months	Male		200	600	ng/mL
2-6 months	Male		50	200	ng/mL
6 months - 18 years	Male		10	140	ng/mL
≥18 years	Male		22	322	ng/mL
0 - 1 month	Female		25	200	ng/mL
1-2 months	Female		200	600	ng/mL
2-6 months	Female		50	200	ng/mL
6 months - 18 years	Female		10	140	ng/mL
≥18 years	Female		10	291	ng/mL

RFFN *FETAL FIBRONECTIN*

University of Vermont Medical Center

Additional Test Codes

Primary ID	Epic Code	Mayo Access ID
RFFN	LAB287	FAH5307

Test Schedule / Analytical Time / Test Priority

Daily / 1 day / Available STAT

Method

Immunochromatography

CPT(s)

Description	CPT Code
Fetal Fibronectin	82731

Instrumentation

Hologic rfFN Tli(IQ) System

Reference Range

Negative
A Positive fFN result may be observed in patients who have experienced cervical disruption caused by, but not limited to, events such as sexual intercourse, digital cervical examination, and/or vaginal probe ultrasound.

Section

Chemistry-2

Performing Location

University of Vermont Medical Center

Is the UVMMC lab NY State Certified to perform this testing? Yes/No

Yes

LOINC Code Information

Result Code	Reporting Name	LOINC Code
FFN	FFN Result	48039-2
FFNAPP	Appearance	33511-7

Specimen Information — FETAL FIBRONECTIN

Container	Specimen	Temperature	Collect Vol	Submit Vol	Minimum Vol	Stability
*		Refrigerate				3 days

Must be assayed within 3-days of collection. Only acceptable specimen is a *Fetal Fibronectin Specimen Collection Kit. Sample should not be centrifuged. Bring sample to Chemistry-2.

FIB *FIBRINOGEN*

University of Vermont Medical Center

Additional Test Codes

Primary ID	Epic Code	Mayo Access ID
FIB	LAB314	FAH4910

Test Schedule / Analytical Time / Test Priority

Daily / 24 Hours / Available STAT

Method

Photo Optical Clot Detection

CPT(s)

Description	CPT Code
Fibrinogen	85384

Instrumentation

ACL Top 500

Reference Range

Varies according to reagent lot. See report or call, if needed.

Section

Coagulation

Performing Location

University of Vermont Medical Center

Is the UVMMC lab NY State Certified to perform this testing? Yes/No

Yes

LOINC Code Information

Result Code	Reporting Name	LOINC Code
FIB	Fibrinogen	3255-7

Specimen Information — FIBRINOGEN

Container	Specimen	Temperature	Collect Vol	Submit Vol	Minimum Vol	Stability
Blue Top Tube	Whole Blood	Ambient	To fill line	To fill line	To fill line	4 hours
Blue Top Tube	Plasma	Frozen	To fill line	2 mL plasma	1 ml plasma	6 months

**TUBE MUST BE FULL AT COLLECTION. Refer to Coagulation Specimen Handling before collecting. Submit frozen plasma if the sample will be delayed more than 4 hours.

LAB9913 *FISH TESTING (FLUORESCENCE IN SITU HYBRIDIZATION)*

University of Vermont Medical Center

Important Note

Commercial payors may require preauthorization for this test.
Outside clients please use Hem path/Flow Cytometry/Genetic Laboratory Form.
See **Test Note** below for available probes.
Submission of an order for Cytogenetic testing for congenital disorders constitutes that the ordering physician has, obtained an informed consent of the patient as required by any applicable state or federal laws with respect to the test ordered, and obtained from the patient authorization permitting UVM Medical Center to report results of each test ordered directly to the ordering physician.

Additional Test Codes

Epic Code	Mayo Access ID
LAB9913	N/A

Test Schedule / Analytical Time / Test Priority

Monday – Saturday / 7 days / Not available STAT

Method

Culture, Microscopy,Probe Hybridzation, and Interpretation

CPT(s)

Description	CPT Code
Blood /Bone Marrow Culture, Neoplastic	88237
FISH DNA Probe	88271
FISH Intrp & Report Part B	88291
In Situ Hybridization, Interphase, BM or Blood	88275
Blood Culture	88230
In Situ Hybridization, Metaphase	88273

Instrumentation

Manual Method

Section

Cytogenetics

Performing Location

University of Vermont Medical Center

Is the UVMMC lab NY State Certified to perform this testing? Yes/No

Yes

Test Note

FISH Testing (Fluorescence In-Situ Hybridization):

- Fluorescent probes can be used to characterize chromosome abnormalities associated with specific hematologic diseases.
- Reporting time is 7 days.
- FISH testing can be done on the same sample submitted for chromosome evaluation or it can be ordered alone.

Some FISH testing can be done on unstained fresh tissue slides (air-dried FNA smear or touch imprints). Call the Cytogenetics Laboratory at 847-5121.

Hematologic (Neoplasia) Oncology probes available at UVMMC:

t(8;14) MYC/IGH, Burkitt's Lymphoma
t(8;21) RUNX1/RUNX1T1, Acute Myeloid Leukemia (AML)
t(9;22) BCR/ABL, Chronic Myelogenous Leukemia (CML)
t(11;14) CCND1/IGH, Mantle Cell Lymphoma
t(12;21) ETV6/RUNX1, Acute Lymphoblastic Leukemia (ALL)
t(14;18) BCL2/IGH, Follicular Lymphoma
t(15;17) PML/RARA, Acute Promyelocytic Leukemia (APL)
CBFB Rearrangement inv (16), AML with eosinophils
MLL Rearrangement 11q23 AML, ALL or MDS
MYC Rearrangement 8q24, Burkitt's Lymphoma
BCL2 Rearrangement 18q21 Large B Cell Lymphoma
BCL6 Rearrangement 3q27 Large B Cell Lymphoma
CLL FISH Panel, Chronic Lymphocytic Leukemia

Congenital Syndrome probes available at UVMMC:
DiGeorge Syndrome 22q11.2 deletion or duplication
Prader-Willi/ Angel man Syndrome 15q11.2 deletion or duplication
Smith-Magenis Syndrome 17p11.2 deletion or duplication
Williams Syndrome 7q11.23 deletion or duplication
CepX/SRY Xp11.1-q11.1 Yp11.3 enumeration or rearrangement of sex chromosomes

Send out FISH tests: require a separate sodium heparin tube (1-2mL)
Plasma Cell Proliferative Disorder, Myeloma FISH Panel

Specimen Information — FISH TESTING (FLUORESCENCE IN SITU HYBRIDIZATION)

Container	Specimen	Temperature	Collect Vol	Submit Vol	Minimum Vol
Bone Marrow Tube (RPMI) **Or**	Bone Marrow	Ambient	3 mL	3 mL	0.5 mL
Sodium Heparin Tube	Bone Marrow	Ambient	3 mL	3 mL	0.5 mL
Sodium Heparin Tube**, *Adult****	**Whole Blood**	Ambient	6 mL	6 mL	3 mL
Sodium Heparin Tube**, *Pediatric****	Whole Blood	Ambient	3 mL	3 mL	1 mL
Hanks Solution	Lymph Tissue/Node	Ambient	1 Cubic CM	1 Cubic CM	0.5 Cubic CM

*Samples should be kept at ambient temperature after collection and during transport. Containers are available from Laboratory Customer Service 847-5121.

Some FISH testing can be done on unstained fresh tissue slides (air-dried FNA smear or touch imprints). Call the Cytogenetics Laboratory at 847-5121.
Containers are available from Laboratory Customer service 847-5121, bone marrow transport media (RPMI) supply #032047, sodium heparin supply #031977, hanks solution supply #032048. Use Hematopoietic Neoplasm Lab Form, supply #032014.

FOL *FOLATE*

University of Vermont Medical Center

Important Note

Patient should be fasting, as reference range is based on fasting individuals.
The results of this assay can be **falsely elevated** due to the consumption of Biotin. Please instruct patients to discontinue the use of vitamins or supplements that contain Biotin 12 hours before blood collection.

Additional Test Codes

Primary ID	Epic Code	Mayo Access ID
FOL	LAB69	FAH129

Test Schedule / Analytical Time / Test Priority

Monday – Friday / 3 days / Not available STAT

Method

Immunoturbidometric

CPT(s)

Description	CPT Code
Folate	82746

Instrumentation

Siemens ADVIA Centaur XPT

Reference Range

≥18 years:
Normal: >5.4 ng/mL
Indeterminate: 3.4 – 5.4 ng/mL
Deficient: <3.4 ng/mL
The results of this assay can be **falsely elevated** due to the consumption of Biotin. Please instruct patients to discontinue the use of vitamins or supplements that contain Biotin 12 hours before blood collection.

Section

Chemistry-2

Performing Location

University of Vermont Medical Center

Is the UVMMC lab NY State Certified to perform this testing? Yes/No

Yes

LOINC Code Information

Result Code	Reporting Name	LOINC Code
FOL	Folate	2284-8

Specimen Information — FOLATE

Container	Specimen	Temperature	Collect Vol	Submit Vol	Minimum Vol	Stability
SST	Serum	Refrigerate	4 mL	1 mL	0.5 mL	7 days

Sample must not be hemolyzed.

SERFLC *FREE LIGHT CHAINS, SERUM*

University of Vermont Medical Center

Important Note

This assay is **not validate**d for the pediatric population.

Additional Test Codes

Primary ID	Epic Code	Mayo Access ID
SERFLC	LAB2477	FAH5603

Test Schedule / Analytical Time / Test Priority

Monday – Friday / 3 days / Not available STAT

Method

Immunoturbidometric

CPT(s)

Description	CPT Code
Kappa Free Light Chains	83883
Lambda Free Light Chains	83883

Instrumentation

Binding Site Optilite

Reference Range

≥18 year Male
Kappa free light chain: 0.33 – 1.94 mg/dL
Lambda free light chain: 0.57 – 2.63 mg/dL
Kappa/Lambda free light chain ratio: 0.26 –1.65 mg/dL
≥18 year Female
Kappa free light chain: 0.33 – 1.94 mg/dL
Lambda free light chain: 0.57 – 2.63 mg/dL
Kappa/Lambda free light chain ratio: 0.26 –1.66 mg/dL

Section

Chemistry-2

Performing Location

University of Vermont Medical Center

Is the UVMMC lab NY State Certified to perform this testing? Yes/No

Yes

LOINC Code Information

Result Code	Reporting Name	LOINC Code
SKLC	Kappa Free Lt Chain	36916-5
SLLC	Lambda Free Lt Chain	33944-0
SLCR	Kappa/Lambda Ratio	48378-4

Specimen Information — FREE LIGHT CHAINS, SERUM

Container	Specimen	Temperature	Collect Vol	Submit Vol	Minimum Vol	Stability
Serum Separator Tube	Serum	Refrigerate	4 mL	0.5 mL	0.5 mL	7 days

Markedly lipemic or hemolyzed samples will be rejected.

FEMDON *FROFILE IVF FEMALE, IVF USE ONLY*

University of Vermont Medical Center

Important Note

This test has restricted use.
Test Includes:
Donor Screening Panel, Memorial Blood Center
NAT Donor Screening, Memorial Blood Center
Chlamydia/GC Donor Screening, Memorial Blood Center

Additional Test Codes

Primary ID	Epic Code	Mayo Access ID
FEMDON	LAB2692	N/A

Performing Location

Memorial Blood Center

Specimen Information — FROFILE IVF FEMALE, IVF USE ONLY

Container	Specimen	Temperature	Collect Vol	Submit Vol	Minimum Vol	Stability
Serum Separator Tube	Serum	Refrigerate	5 mL	3 mL	3 mL	7 days
Red Top, Plain	Whole Blood	Refrigerate	6 mL	6 mL	6 mL	
Lavender Tube (EDTA)	Whole Blood	Refrigerate	12 mL	12 mL	12 mL	
Aptima (purple or yellow vial)	Endocervical, Urethral or Urine	Refrigerate	N/A	N/A	N/A	60 days

FSH *FSH*

University of Vermont Medical Center

Additional Test Codes

Primary ID	Epic Code	Mayo Access ID
FSH	LAB86	FAH138

Test Schedule / Analytical Time / Test Priority

Monday – Friday / 3 day / Not available STAT

Method

Chemiluminescence Immunoassay

CPT(s)

Description	CPT Code
FSH	83001

Instrumentation

ADVIA Centaur

Section

Chemistry-2

Performing Location

University of Vermont Medical Center

Is the UVMMC lab NY State Certified to perform this testing? Yes/No

Yes

LOINC Code Information

Result Code	Reporting Name	LOINC Code
FSH	FSH	15067-2

Specimen Information — FSH

Container	Specimen	Temperature	Collect Vol	Submit Vol	Minimum Vol	Stability
SST	Serum	Refrigerate	4 mL	1 mL	0.5 mL	7 days

Reference Range — FSH

Age	Sex	Physiological Status	Low	High	Units
≥13 years	Female	Follicular(-12 to-4 days)	2.5	10.2	mIU/mL
≥13 years	Female	Midcycle(-3 to +2 days)	3.4	33.4	mIU/mL
≥13 years	Female	Luteal(+4 to +12 days)	1.5	9.1	mIU/mL
≥18 years	Female	Postmenopausal	23.0	116.3	mIU/mL
13-70 years	Male	N/A	1.4	18.1	mIU/mL

FSM *FUNGAL SMEAR*

University of Vermont Medical Center

Important Note

Sample must be received within 48 hours of collection.
Testing for both fungal culture and smear are the best practice for diagnosis of fungal infections.

Additional Test Codes

Primary ID	Epic Code	Mayo Access ID
FSM	N/A	N/A

Test Schedule / Analytical Time / Test Priority

Monday – Friday / 1 day / Fungal smear NOT available STAT

Method

Smear

CPT(s)

Description	CPT Code
Fungus Smear	87206

Instrumentation

Manual Method

Reference Range

No fungi seen

Section

Microbiology-2

Performing Location

University of Vermont Medical Center

Is the UVMMC lab NY State Certified to perform this testing? Yes/No

Yes

LOINC Code Information

Order Code	Reporting Name	LOINC Code
FSM	Fungus Smear, Oral or Genital	21003-9

Specimen Information — FUNGAL SMEAR

Container	Specimen	Temperature	Collect Vol	Submit Vol	Minimum Vol	Stability
Sterile Container	Oral	Refrigerate				48 hours
Sterile Container	Genital	Refrigerate				48 hours

See sample requirements for fungus culture (FC).

FC *FUNGUS CULTURE*

University of Vermont Medical Center

Important Note

Samples must be received within 48 hours of collection.
Please specify specimen and collection site with order.
Testing for both fungal culture and smear are the best practice for diagnosis of fungal infections, Testing includes isolation and identification (additional charges/CPT codes may apply). If culture results warrant, susceptibility testing (at an additional charge) of all appropriate Candida sp isolates from sterile sites or pathology approved requests from non-sterile sites will be performed.
Bacterial culture, Urine is the appropriate order for the detection of Candida spp. Fungal culture of urine should only be performed to diagnose invasive fungi (Cryptococcus, Aspergillus, Mucormyctes, Blastomyces and Histoplasmosis).

Additional Test Codes

Primary ID	Epic Code	Mayo Access ID
FC	LAB240	FAH5074

Test Schedule / Analytical Time / Test Priority

Daily / Reported when positive. Negative final at 28 days/ Not available STAT

Method

Culture

CPT(s)

Description	CPT Code
Fungus Culture	87102

Instrumentation

Manual Method

Reference Range

No fungus isolated

Section

Microbiology-2

Performing Location

University of Vermont Medical Center

Is the UVMMC lab NY State Certified to perform this testing? Yes/No

Yes

LOINC Code Information

Order Code	Reporting Name	LOINC Code
In process		

Specimen Information — FUNGUS CULTURE

Container	Specimen	Temperature	Collect Vol	Submit Vol	Minimum Vol	Stability
Sterile Container	CSF	Ambient	1 mL	1 mL	1 mL	
Sterile Container	Urine	Refrigerate	50 mL	50 mL	1 mL	
Sterile Container	Tissue*	Refrigerate	1 gram	1 gram	0.2 grams	48 hours
Sterile Container	Bronchial Alveolar Lavage (BAL)	Refrigerate	5 mL	5 mL	1 mL	
Sterile container	Bronchial Wash	Refrigerate	5 mL	5 mL	1 mL	
Sterile Container	Sputum	Refrigerate	3 mL	3 mL	1 mL	
Sterile Container	Other*	Refrigerate				

Samples must be received within 48 hours of collection.
*Tissue, fluids, scrapings, skin, hair and nails are preferred specimens. **Swabs are acceptable for the recovery of yeasts, but are suboptimal for the recovery of mold.** A bacterial collection kit can be used (An eSwab in Amies media is preferred, Copan swabs will be accepted, wooden swabs will be rejected).

FCS *FUNGUS CULTURE & SMEAR (C + S)*

University of Vermont Medical Center

Important Note

Samples must be received within 48 hours of collection.
Please specify specimen and collection site with order.
Testing for both fungal culture and smear are the best practice for diagnosis of fungal infections, Testing includes isolation and identification (additional charges/CPT codes may apply). If culture results warrant, susceptibility testing (at an additional charge) of all appropriate Candida sp isolates from sterile sites or pathology approved requests from non-sterile sites will be performed.
Bacterial culture, Urine is the appropriate order for the detection of Candida spp. Fungal culture of urine should only be performed to diagnose invasive fungi (Cryptococcus, Aspergillus, Mucormyctes, Blastomyces and Histoplasmosis).

Additional Test Codes

Primary ID	Epic Code	Mayo Access ID
FCS	LAB242	FAH5076

Test Schedule / Analytical Time / Test Priority

Daily / Reported when positive. Negative final at 28 days/ Fungul smear is Not available STAT

Method

Culture and Smear

CPT(s)

Description	CPT Code
Fungus Culture	87102
Fungus Smear	87206

Instrumentation

Manual Method

Reference Range

No fungus isolated

Section

Microbiology-2

Performing Location

University of Vermont Medical Center

Is the UVMMC lab NY State Certified to perform this testing? Yes/No

Yes

LOINC Code Information

Order Code	Reporting Name	LOINC Code
In process		

Specimen Information — FUNGUS CULTURE & SMEAR (C + S)

Container	Specimen	Temperature	Collect Vol	Submit Vol	Minimum Vol	Stability
Sterile Container	CSF	Ambient	1 mL	1 mL	1 mL	
Sterile Container	Urine	Refrigerate	50 mL	50 mL	1 mL	
Sterile Container	Tissue*	Refrigerate	1 gram	1 gram	0.2 grams	48 hours
Sterile Container	Bronchial Alveolar Lavage (BAL)	Refrigerate	5 mL	5 mL	1 mL	
Sterile container	Bronchial Wash	Refrigerate	5 mL	5 mL	1 mL	
Sterile Container	Sputum	Refrigerate	3 mL	3 mL	1 mL	
Sterile Container	Other*	Refrigerate				

Samples must be received within 48 hours of collection.
*Tissue, fluids, scrapings, skin, hair and nails are preferred specimens. **Swabs are acceptable for the recovery of yeasts, but are suboptimal for the recovery of mold.** A bacterial collection kit can be used (An eSwab in Amies media is preferred, Copan swabs will be accepted, wooden swabs will be rejected).

BFC *FUNGUS CULTURE, BLOOD*

University of Vermont Medical Center

Important Note

Most yeast will be recovered in routine blood culture bottles.

Additional Test Codes

Primary ID	Epic Code	Mayo Access ID
BFC	LAB2535	FAH5266

Test Schedule / Analytical Time / Test Priority

Daily / Reported when positive. Negative final at 28 days / Not available STAT

Method

Culture

CPT(s)

Description	CPT Code
Fungus Culture	87103

Testing includes culture, identification (additional charges/CPT codes may apply) and if culture results warrant, susceptibility testing (at an additional charge) of all appropriate Candida species isolates.

Instrumentation

Manual Method

Reference Range

No fungus isolated

Section

Microbiology-2

Performing Location

University of Vermont Medical Center

Is the UVMMC lab NY State Certified to perform this testing? Yes/No

Yes

LOINC Code Information

Order Code	Reporting Name	LOINC Code
BFC	Fungus Culture, Blood	601-5

Specimen Information — FUNGUS CULTURE, BLOOD

Container	Specimen	Temperature	Collect Vol	Submit Vol	Minimum Vol	Stability
Adult Isolator Tube	Whole Blood	Ambient	10 mL	10 mL	8.0 mL	24 hours
Pedi Isolator Tube	Whole Blood	Ambient	1.5 mL	1.5 mL	1.0 mL	24 hours

Adult patient samples drawn in pediatric isolator tubes will be rejected as quantity NOT sufficient for testing.

Collection of Blood Cultures

1. Clean the venipuncture site using a Blood Culture ChloroPrep Kit supply #59183. Squeeze the handle of the scrubber once to release the isopropyl alcohol. Use the scrubber to vigorously cleanse the site for 30 seconds and then allow it to air dry; do not use gauze to wipe off the site. Squeeze the center of the iodine ampule and use the swab end to apply it to the site, starting in the center and working out in concentric circles, to cover an area about 5cm. in diameter. A double application of alcohol may be used if the patient is sensitive to iodine. Wait several minutes for the site to air dry.
2. Once the puncture area is prepared, do not palpate the site again. If the puncture area is touched, it must be thoroughly prepped again.
3. If an Isolator™ tube is used, a vacutainer set up may be used, but care must be taken to keep the tube below the level of the vein so that the lysing solution does not flow back into the arm of the patient.

Blood Culture, Fungal (Pediatric) (Pedi Isolator® supply # 59186): Inject 1.5 mL of blood into an alcohol-swabbed tube.

1. Label bottles or tube with patient's full name, date of birth and UVM Medical Center Medical Record number if available. The label must contain two unique identifiers, UVMMC medical record number (MRN) or patient's date of birth along with the patient's full name.
2. Deliver immediately (samples must be received within 24 hours of collection) to the laboratory. Do not place blood cultures samples in the refrigerator.

FCSK *FUNGUS CULTURE, SKIN, HAIR OR NAIL*

University of Vermont Medical Center

Important Note

Sample must be received within 48 hours of collection.
Testing includes isolation and identification (additional charges/CPT codes may apply).

Additional Test Codes

Primary ID	Epic Code	Mayo Access ID
FCSK	LAB1294	FAH5302

Test Schedule / Analytical Time / Test Priority

Monday – Friday / Reported when positive. Negative final at 28 days / Not avalable STAT

Method

Culture & KOH

CPT(s)

Description	CPT Code
Fungus Culture, Skin, Hair or Nail	87101

Instrumentation

Manual Method

Reference Range

No fungus isolated.

Section

Microbiology-2

Performing Location

University of Vermont Medical Center

Is the UVMMC lab NY State Certified to perform this testing? Yes/No

Yes

LOINC Code Information

Order Code	Reporting Name	LOINC Code
FCSK	Fungus Culture, Skin, Hair, or Nail	580-1

Specimen Information — FUNGUS CULTURE, SKIN, HAIR OR NAIL

Container	Specimen	Temperature	Collect Vol	Submit Vol	Minimum Vol	Stability
Sterile	Varies	Refrigerate	N/A	N/A	N/A	48 hours

Sample must be received within 48 hours of collection.

FCSKS *FUNGUS CULTURE, SKIN, HAIR OR NAIL, & SMEAR*

University of Vermont Medical Center

Important Note
Samples must be received within 48 hours of collection.

Additional Test Codes

Primary ID	Epic Code	Mayo Access ID
FCSKS	LAB2534	FAH5303

Test Schedule / Analytical Time / Test Priority
Monday – Friday / Reported when positive. Negative final at 28 days / Fungal smear NOT avaiable STAT

Method
Culture & Smear

CPT(s)

Description	CPT Code
Fungus Culture	87101
Fungus Smear	87206

Testing includes isolation and identification (additional charges/CPT codes may apply).

Instrumentation
Manual Method

Reference Range
No fungus isolated.

Section
Microbiology-2

Performing Location
University of Vermont Medical Center

Is the UVMMC lab NY State Certified to perform this testing? Yes/No
Yes

LOINC Code Information

Order Code	Reporting Name	LOINC Code
FCSKS	Fungus Culture/Smear, Skin, Hair, or Nail	580-1

Specimen Information — FUNGUS CULTURE, SKIN, HAIR OR NAIL, & SMEAR

Container	Specimen	Temperature	Collect Vol	Submit Vol	Minimum Vol	Stability
Sterile	Varies	Refrigerate	N/A	N/A	N/A	2 days

Samples must be received within 48 hours of collection.

GPST *GENE PANEL SOLID TUMOR TESTING*

University of Vermont Medical Center

Important Note

The Request for Genomic Analysis order will result in assessment of sample adequacy for genomic analysis, the result of which will post to the patient record. Should a sample be deemed adequate for genomic analysis, the genomic medicine laboratory will reflexively initiate the appropriate solid tumor testing.

The Genomic Medicine Laboratory at the University of Vermont Medical Center offers target capture-based next generation sequencing of 30 genes that have clinical utility across solid tumors. Pathologist assessment of sample adequacy and tumor type inform analysis via Gene Panel Solid Tumor or Gene Panel NSCLC. Non-small cell lung cancer is submitted for DNA-based and RNA-based sequencing, the latter for targeted gene fusion analysis in ALK, RET and ROS1.
The test is validated for formalin-fixed paraffin embedded tissue and all non-cell block cytology preparations. Extracted eluates may be accepted with Pathologist approval.

Additional Test Codes

Primary ID	Epic Code	Mayo Access ID
GPST	LAB9915	N/A

Test Schedule / Analytical Time / Test Priority

Monday – Friday / 10 - 14 days / Not available STAT

Method

Total nucleic acid, DNA plus RNA, extracted from cytology slide preparations and formalin-fixed paraffin embedded tissue are analyzed for Gene Panel Solid Tumor and Gene Panel Solid Tumor Non-Small Cell Lung Cancer. Our DNA test employs Agilent Sure Select library preparation and target capture and the RNA sequencing portion of Gene Panel Solid Tumor Non-Small Cell Lung Cancer utilizes ArcherDx FusionPlex amplicon library preparation. Sequencing is performed on Illumina MiSeq, MiSeqDx and NextSeq instrumentation.

CPT(s)

Description	CPT
Solid Tumor Gene Panel	81445

Instrumentation

Manual Extraction and Illumina miseq for Sequencing

Section

Genomic Medicine

Performing Location

University of Vermont Medical Center

LOINC Code Information

N/A

Gene List

Oncogenes	AKT1
	ALK
	BRAF
	CTNNB1
	DDR2
	EGFR
	ERBB2
	ESR1
	FGFR1
	FGFR2
	GNA11
	GNAQ
	HRAS
	KIT
	KRAS
	MAP2K1
	MAP2K2
	MAPK1
	MET
	MTOR
	NRAS
	PDGFRA
	PIK3CA
	RET
	ROS1
Tumor Suppressor Genes	CDKN2A
	PTEN
	STK11
Metabolic Genes	IDH1
	IDH2

Specimen Information — GENE PANEL SOLID TUMOR TESTING

Container	Specimen	Temperature	Collect Vol	Submit Vol	Minimum Vol	Stability
Formalin fixed paraffin embedded tissue or cell block	Tissue	Ambient				
Cytology Slide Preparation	Slide					

All specimens must contain ≥ 10% tumor cells.
Nucleic Acid Input Amounts
DNA, 100 ng
RNA, 150 ng

EXTHLD *GENETIC TESTING SUPPORT FOR INHERITED DISEASE OR INHERITED RISK*

University of Vermont Medical Center

Important Note

The Genomic Medicine Laboratory at the University of Vermont Medical Center offers total nucleic acid testing (RNA plus DNA) to be used in testing for inherited disease or risk. Extractions are performed on blood, bone marrow or formalin-fixed paraffin-embedded tissue. Quantifications of the RNA and DNA fractions of the extract are carried out and reported.

Additional Test Codes

Primary ID	Epic Code	Mayo Access ID
EXTHLD	N/A	N/A

Test Schedule / Analytical Time / Test Priority

Monday – Friday / 1 - 2 days / Not available STAT

Method

RNA and DNA Manual Extraction or Qiagen QIAcube

CPT(s)

Description	CPT
Extraction	

Instrumentation

Manual Method

Section

Genomic Medicine

Performing Location

University of Vermont Medical Center

LOINC Code Information

N/A

Specimen Information — GENETIC TESTING SUPPORT FOR INHERITED DISEASE OR INHERITED RISK

Container	Specimen	Temperature	Collect Vol	Submit Vol	Minimum Vol	Stability
Formalin fixed paraffin embedded tissue or cell block	Tissue	Ambient				
Lavender Top Tube (EDTA	Bone Marrow	Refrigerate	4 mL	4 mL	2 mL	7 days
Lavender Top Tube (EDTA)	Whole Blood	Refrigerate	4 mL	4 mL	2 mL	7 days

GENTP *GENTAMICIN, PEAK*

University of Vermont Medical Center

Important Note

Peak levels should be collected 30 minutes after completion of the infusion.

Additional Test Codes

Primary ID	Epic Code	Mayo Access ID
GENTP	LAB28	FAH5210

Test Schedule / Analytical Time / Test Priority

Daily / 1 day / Available STAT

Method

Chemiluminescence Immunoassay

CPT(s)

Description	CPT Code
Gentamicin Peak	80170

Instrumentation

Ortho Vitros 5600

Section

Chemistry-1

Performing Location

University of Vermont Medical Center

Is the UVMMC lab NY State Certified to perform this testing? Yes/No

Yes

LOINC Code Information

Result Code	Reporting Name	LOINC Code
GENP	Gentamicin Peak	3663-2
DTYPE	Type of Draw	20506-2

Specimen Information — GENTAMICIN, PEAK

Container	Specimen	Temperature	Collect Vol	Submit Vol	Minimum Vol	Stability
Serum Separator Tube	Serum	Refrigerate	4 mL	0.5 mL	0.2 mL	3 days
Lithium Heparin (Green Top)	Plasma	Refrigerate	4 mL	0.5 mL	0.2 mL	3 days
Green Microtainer**		Refrigerate	0.6 mL	N/A	N/A	3 days

Samples must be spun within one hour of collection.
When collected in a gel barrier tube sample is stable for 72-hours on the gel and 7 days removed from gel and refrigerated.
*When collected in a Green Top Tube, plasma must be removed within one hour. It is then stable 7 days refrigerated.
While a microtainer is an optional tube type in rare circumstances, it is **not recommended.
.

Reference Range — GENTAMICIN, PEAK

Age	Sex	Physiological Status	Low	High	Units
All	All	Peak	5	12	ug/mL
All	All	Call Value		>12	ug/mL

GENTA *GENTAMICIN, RANDOM*

University of Vermont Medical Center

Additional Test Codes

Primary ID	Epic Code	Mayo Access ID
GENTA	LAB27	FAH5721

Test Schedule / Analytical Time / Test Priority

Daily / 24 Hours / Available STAT

Method

Chemiluminescence Immunoassay

CPT(s)

Description	CPT Code
Gentamicin	80170

Instrumentation

Ortho Vitros 5600

Reference Range

No Established Reference Range.

Section

Chemistry-2

Is the UVMMC lab NY State Certified to perform this testing? Yes/No

Yes

LOINC Code Information

Result Code	Reporting Name	LOINC Code
GENTA	Gentamicin, Random	3664-0

Specimen Information — GENTAMICIN, RANDOM

Container	Specimen	Temperature	Collect Vol	Submit Vol	Minimum Vol	Stability
Serum Separator Tube	Serum	Refrigerate	4 mL	0.5 mL	0.2 mL	3 days
Lithium Heparin (Green Top)	Plasma	Refrigerate	4 mL	0.5 mL	0.2 mL	3 days
**Green Microtainer		Refrigerate	0.6 mL			3 days

Samples must be spun within one hour of collection.
When collected in a gel barrier tube (SST) sample is stable for 72-hours on the gel and 7 days removed from gel and refrigerated.
*When collected in a Green Top Tube, plasma must be removed within one hour. It is then stable 7 days refrigerated.
While a microtainer is an optional tube type in rare circumstances, it is **not recommended.

GENTT *GENTAMICIN, TROUGH*

University of Vermont Medical Center

Important Note

Trough levels should be collected 30 minutes before the next dose.

Additional Test Codes

Primary ID	Epic Code	Mayo Access ID
GENTT	LAB26	FAH5216

Test Schedule / Analytical Time / Test Priority

Daily / 1 day / Available STAT

Method

Chemiluminescence Immunoassay

CPT(s)

Description	CPT Code
Gentamicin Trough	80170

Instrumentation

Ortho Vitros 5600

Section

Chemistry-1

Performing Location

University of Vermont Medical Center

Is the UVMMC lab NY State Certified to perform this testing? Yes/No

Yes

LOINC Code Information

Result Code	Reporting Name	LOINC Code
GENT	Gentamicin, Trough	3665-7
DTYPE	Type of Draw	20506-2

Specimen Information — GENTAMICIN, TROUGH

Container	Specimen	Temperature	Collect Vol	Submit Vol	Minimum Vol	Stability
Serum Separator Tube	Serum	Refrigerate	4 mL	0.5 mL	0.2 mL	3 days
Lithium Heparin (Green Top)	Plasma	Refrigerate	4 mL	0.5 mL	0.2 mL	3 days*
**Green Microtainer		Refrigerate	0.6 mL			3 days

Samples must be spun within one hour of collection.
When collected in a gel barrier tube (SST) sample is stable for 72-hours on the gel and 7 days removed from gel and refrigerated.
*When collected in a Green Top Tube, plasma must be removed within one hour. It is then stable 7 days refrigerated.
While a microtainer is an optional tube type in rare circumstances, it is **not recommended.

Reference Range — GENTAMICIN, TROUGH

Age	Sex	Physiological Status	Low	High	Units
All	All	Trough		<1.5	ug/mL
All	All	Call Value		>1.5	ug/mL

GGT *GGT (GAMMA GT)*

University of Vermont Medical Center

Important Note

Test subject to Medicare National Coverage Determination (NCD) 190.32 - Gamma Glutamyl Transferase.
While a microtainer is an optional tube type in rare circumstances, it is **not recommended.**

Additional Test Codes

Primary ID	Epic Code	Mayo Access ID
GGT	LAB85	FAH242

Test Schedule / Analytical Time / Test Priority

Daily / 1 day / Available STAT

Method

Colorimetric

CPT(s)

Description	CPT Code
Gamma Glutamyl Transferase	82977

Instrumentation

Ortho Vitros 5600

Section

Chemistry-1

Performing Location

University of Vermont Medical Center

Is the UVMMC lab NY State Certified to perform this testing? Yes/No

Yes

LOINC Code Information

Result Code	Reporting Name	LOINC Code
GGT	GGT	2324-2

Specimen Information — GGT (GAMMA GT)

Container	Specimen	Temperature	Collect Vol	Submit Vol	Minimum Vol	Stability
SST	Serum	Refrigerate	4 mL	0.6 mL	0.3 mL	7 days
Lithium Heparin (green top)	Plasma	Refrigerate	4 mL	0.6 mL	0.3 mL	7 days
Green Microtainer		Refrigerate	0.6 mL			7 days

Hemolysis affects results, please submit non hemolyzed sample.
While a microtainer is an optional tube type in rare circumstances, it is **not recommended.**

Reference Range — GGT (GAMMA GT)

Age	Sex	Physiological Status	Low	High	Units
1-8 days	Male		25	148	U/L
1-8 days	Female		19	131	U/L
8-30 days	Male		25	153	U/L
8-30 days	Female		17	124	U/L
1-4 months	Male		17	130	U/L
1-4 months	Female		17	124	U/L
4-7 months	Male		<84		U/L
4-7 months	Female		15	109	U/L
7-12 months	Male		<36		U/L
7-12 months	Female		<55		U/L
1-4 years	Male		<17		U/L
1-4 years	Female		<17		U/L
4-7 years	Male		<19		U/L
4-7 Years	Female		<19		U/L
7-10 years	Male		<22		U/L
7-10 years	Female		<22		U/L
10-12 years	Male		14	25	U/L
10-12 years	Female		14	23	U/L
12-14 years	Male		14	37	U/L
12-14 years	Female		<22		U/L
14-16 years	Male		<29		U/L
14-16 years	Female		<23		U/L
16-18 years	Male		<30		U/L
16-18 years	Female		<24		U/L
≥18 years	Male		15	73	U/L
≥18 years	Female		<44		U/L

GICR *GIARDIA & CRYPTOSPORIDIUM ANTIGEN DETECTION*

University of Vermont Medical Center

Important Note

This test is the preferred method for detecting stool parasites in patients who have not traveled outside of the United States.
Fecal samples submitted in Total Fix or Unifix Transport Vials will be accepted for testing at UVMMC. Fecal samples submitted in EcoFix or Formalin/ PVA will be forwarded to Mayo Clinical Laboratories for testing the clinician approval. All other transport vials will be rejected.

Additional Test Codes

Primary ID	Epic Code	Mayo Access ID
GICR	LAB1319	FAH5884

Test Schedule / Analytical Time / Test Priority

Monday – Friday / 1 day / Not available STAT

Method

Fluorescent Microscopy

CPT(s)

Description	CPT Code
Concentration for Infectious Agents	87015
Cryptosporidium Exam	87272
Giardia Antigen	87269

Instrumentation

Manual Method

Reference Range

No Giardia Antigen Detection and No Cryptosporidium Antigen Detected

Section

Microbiology-2

Performing Location

University of Vermont Medical Center

Is the UVMMC lab NY State Certified to perform this testing? Yes/No

Yes

LOINC Code Information

Order Code	Reporting Name	LOINC Code
In process		

Specimen Information — GIARDIA & CRYPTOSPORIDIUM ANTIGEN DETECTION

Container	Specimen	Temperature	Collect Vol	Submit Vol	Minimum Vol	Stability
Total Fix Vial	Feces*	Ambient	5 mL	1 mL	1 mL	72 hours
Sterile Container	Feces	Ambient	5 mL	1 mL	1 mL	<2 hours

If unable to transport specimen to the lab within 2 hours of collection, use Total Fix Vial. Kits are available from Lab Customer Service 847-5121.
*Refrigerated samples are acceptable.

Collection and Transport of Sample for Fecal Ova and Parasites

- Collect sample in a bedpan, avoiding contamination with urine.
- If patient is at home, collect specimen in Stool Collection Commode or have the patient put plastic wrap over toilet bowl.
- At least 1 mL (size of a walnut) of sample is needed. **Do not fill stool above the fill line on the transport vial**
- **If the specimen cannot be transported to the lab within two hours, inoculate stool into a transport vial (Total Fix) which can be obtained from Customer Service (802) 847-5121. Transport to the lab within 72 hours.**
- All vials should be inverted several times so the sample and preservative are well mixed.

GT1 *GLUCOSE TOLERANCE, 1 HOUR SCREEN (GESTATIONAL)*

University of Vermont Medical Center

Additional Test Codes

Primary ID	Epic Code	Mayo Access ID
GT1	LAB2185	N/A

Test Schedule / Analytical Time / Test Priority

Monday – Friday / 1 day / Not available STAT

Method

Colorimetric

CPT(s)

Description	CPT Code
Glucose, 1 Hour Gestational Screen	82950

Instrumentation

Ortho Vitros 5600

Reference Range

1 Hour Plasma Glucose: 50 - 134 mg/dL

Section

Chemistry-1

Performing Location

University of Vermont Medical Center

Is the UVMMC lab NY State Certified to perform this testing? Yes/No

Yes

LOINC Code Information

Result Code	Reporting Name	LOINC Code
GDOSE	Glucose Tol, Dose	4269-7
G10	Glucose-1 hr Gest Scrn	20438-8

Specimen Information — GLUCOSE TOLERANCE, 1 HOUR SCREEN (GESTATIONAL)

Container	Specimen	Temperature	Collect Vol	Submit Vol	Minimum Vol	Stability
Grey top Tube	Plasma	Refrigerate	4 mL	1 mL	0.5 mL	3 days

GT2 *GLUCOSE TOLERANCE, 2 HOUR*

University of Vermont Medical Center

Important Note

Test subject to Medicare National Coverage Determination (NCD) 190.20 Blood Glucose Testing and Diabetes Screening.
Test must be scheduled in advance at the Ambulatory Care Center, Fanny Allen Medical Office Building, One Prospect Street, or Blair Park Williston.
See Special Test Considerations.

Additional Test Codes

Primary ID	Epic Code	Mayo Access ID
GT2	LAB2182	N/A

Test Schedule / Analytical Time / Test Priority

Monday – Friday, by appointment only (847-5121) / 1 day / Not available STAT

Method

Colorimetric

CPT(s)

Description	CPT Code
Glucose Tolerance post glucose dose	82950
Glucose Tolerance Fasting	82947

Instrumentation

Ortho Vitros 5600

Section

Chemistry-1

Performing Location

University of Vermont Medical Center

Is the UVMMC lab NY State Certified to perform this testing? Yes/No

Yes

LOINC Code Information

Result Code	Reporting Name	LOINC Code
GDOSE	Glucose Tol, Dose	4269-7
G21	Glucose Tol, Fasting	1558-6
G251	Glucose Tol, 2 hr	20436-2

Specimen Information — GLUCOSE TOLERANCE, 2 HOUR

Container	Specimen	Temperature	Collect Vol	Submit Vol	Minimum Vol	Stability
Grey Top Tube	Plasma	Refrigerate	4 mL	1 mL	0.5 mL	3 days

Reference Range — GLUCOSE TOLERANCE, 2 HOUR

Age	Sex	Physiological Status	Low	High	Units
All	All	Fasting Non-gestational	50	100	mg/dL
All	All	2-Hour Non-gestational	50	140	mg/dL

GT3 *GLUCOSE TOLERANCE, 3-HOUR (GESTATIONAL)*

University of Vermont Medical Center

Important Note

Test must be scheduled in advance at the Ambulatory Care Center, Fanny Allen Medical Office Building, One Prospect Street, or Blair Park Williston. See Special Test considerations.
A significant number of patients experience a critically low serum glucose level following this procedure. Please encourage your patients to bring a snack for after the procedure.

Additional Test Codes

Primary ID	Epic Code	Mayo Access ID
GT3	LAB2183	N/A

Test Schedule / Analytical Time / Test Priority

Monday – Friday, by appointment only (847-5121) / 1 day / Not available STAT

Method

Colorimetric

CPT(s)

Description	CPT Code
Glucose Tolerance additional specimen	82952
Glucose Tolerance 3 specimens	82951

Instrumentation

Ortho Vitros 5600

Section

Chemistry-1

Performing Location

University of Vermont Medical Center

Is the UVMMC lab NY State Certified to perform this testing? Yes/No

Yes

LOINC Code Information

Result Code	Reporting Name	LOINC Code
GDOSE	Glucose Tol, Dose	4269-7
G30	Gest Glucose Tol, Fasting	1558-6
G31	Gest Glucose Tol, 1 hr	20438-8
G32	Gest Glucose Tol, 2 hr	20436-2
G33	Gest Glucose Tol, 3 hr	20437-0

Specimen Information — GLUCOSE TOLERANCE, 3-HOUR (GESTATIONAL)

Container	Specimen	Temperature	Collect Vol	Submit Vol	Minimum Vol	Stability
Grey Top Tube	Plasma	Refrigerate	4 mL	1 mL	0.5 mL	3 days

Reference Range — GLUCOSE TOLERANCE, 3-HOUR (GESTATIONAL)

Age	Sex	Physiological Status	Low	High	Units
All	Female	Fasting	50	95	mg/dL
All	Female	1-Hour Plasma Glucose	50	180	mg/dL
All	Female	2-Hour Plasma Glucose	50	155	mg/dL
All	Female	3-Hour Plasma Glucose	50	140	mg/dL

CGL *GLUCOSE, CSF*

University of Vermont Medical Center

Important Note
Best interpreted in the context of a paired serum glucose value

Additional Test Codes

Primary ID	Epic Code	Mayo Access ID
CGL	LAB185	FAH5191

Test Schedule / Analytical Time / Test Priority
Daily / 1 day / Available STAT

Method
Colorimetric

CPT(s)

Description	CPT Code
Glucose, CSF	82945

Instrumentation
Ortho Vitros 5600

Reference Range
60-80% of serum glucose.

Section
Chemistry-1

Performing Location
University of Vermont Medical Center

Is the UVMMC lab NY State Certified to perform this testing? Yes/No
Yes

LOINC Code Information

Result Code	Reporting Name	LOINC Code
CGL	Glucose, CSF	2342-4

Specimen Information — GLUCOSE, CSF

Container	Specimen	Temperature	Collect Vol	Submit Vol	Minimum Vol	Stability
CSF Tube	CSF	Refrigerate	0.5 mL	0.5 mL	0.2 mL	7 days

FGL *GLUCOSE, FLUID*

University of Vermont Medical Center

Important Note
Best interpreted in the context of a paired serum glucose value.

Additional Test Codes

Primary ID	Epic Code	Mayo Access ID
FGL	LAB186	FAH5014

Test Schedule / Analytical Time / Test Priority
Daily / 1 day / Available STAT

Method
Colorimetric

CPT(s)

Description	CPT Code
Glucose, Fluid	82945

Instrumentation
Ortho Vitros 5600

Reference Range
No established reference range.

Section
Chemistry-1

Performing Location
University of Vermont Medical Center

Is the UVMMC lab NY State Certified to perform this testing? Yes/No
Yes

LOINC Code Information

Result Code	Reporting Name	LOINC Code
FGL	Glucose, Fluid	2344-0

Specimen Information — GLUCOSE, FLUID

Container	Specimen	Temperature	Collect Vol	Submit Vol	Minimum Vol	Stability
Sterile Container	Pleural or Peritoneal Fluid only	Refrigerate	2 mL	1 ml	0.2 mL	5 days

GL *GLUCOSE, PLASMA*

University of Vermont Medical Center

Important Note

Test subject to Medicare National Coverage Determination (NCD) 190.20 Blood Glucose Testing and Diabetes Screening.

Additional Test Codes

Primary ID	Epic Code	Mayo Access ID
GL	LAB2069	FAH259

Test Schedule / Analytical Time / Test Priority

Daily / 1 day / Available STAT

Method

Colorimetric

CPT(s)

Description	CPT Code
Glucose, Plasma	82947

Instrumentation

Ortho Vitros 5600

Section

Chemistry-1

Performing Location

University of Vermont Medical Center

Is the UVMMC lab NY State Certified to perform this testing? Yes/No

Yes

LOINC Code Information

Result Code	Reporting Name	LOINC Code
GL	Glucose, Plasma	2345-7

Specimen Information — GLUCOSE, PLASMA

Container	Specimen	Temperature	Collect Vol	Submit Vol	Minimum Vol	Stability
Grey Top Tube	Plasma	4 mL	1 mL	0.5 mL	0.2 mL	3 days

Reference Range — GLUCOSE, PLASMA

Age	Sex	Physiological Status	Low	High	Units
0-1 day	All		40	100	mg/dL
1-8 days	All		50	100	mg/dL
≥8 days	All		70	100	mg/dL

GLS *GLUCOSE, SCREENING*

University of Vermont Medical Center

Important Note

Test subject to Medicare National Coverage Determination (NCD) 190.20 Blood Glucose Testing and Diabetes Screening.
A glucose of >180 mg/dL will trigger a Hemoglobin A1C order

Additional Test Codes

Primary ID	Epic Code	Mayo Access ID
GLS	LAB2565	N/A

Test Schedule / Analytical Time / Test Priority

Daily / 1 day / Available STAT

Method

Colorimetric

CPT(s)

Description	CPT Code
Glucose, Screening	82947

Instrumentation

Ortho Vitros 5600

Section

Chemistry-1

Performing Location

University of Vermont Medical Center

Is the UVMMC lab NY State Certified to perform this testing? Yes/No

Yes

Test Note

All adult patients (those 18 or older), who are not pregnant (where glucose goals are different) or admitted to hematology/oncology for chemotherapy for a cancer-related illness, that are admitted to UVM Medical Center (including the Emergency Department) will have a screening blood glucose level ordered. In addition, if the glucose level is above 180 mg/dL, the glucose result will have a comment attached stating, “Elevated Glucose, screening glucose greater than 180 mg/dl, please order follow up hemoglobin A1c.” UVM Medical Center recommends that a hemoglobin A1c be ordered unless there is one in the records within the last 60 days. Patients on dialysis will be exempt from obtaining a hemoglobin A1c, given that this test is not accurate for that patient population.

LOINC Code Information

Result Code	Reporting Name	LOINC Code
GLSS	Glucose, Screening	2345-7

Specimen Information — GLUCOSE, SCREENING

Container	Specimen	Temperature	Collect Vol	Submit Vol	Minimum Vol	Stability
SST	Serum	Refrigerate	4 mL	1 mL	0.5 mL	7 days
Lithium Heparinized (green top)	Plasma	Refrigerate	4 mL	1 mL	0.5 mL	7 days
Green Microtainer		Refrigerate	0.6 mL	N/A	N/A	7 days

Reference Range — GLUCOSE, SCREENING

Age	Sex	Physiological Status	Low	High	Units
0-1 Day	All		40	100	mg/dL
1 - 8 Days	All		50	100	mg/dL
≥8 Days	All		70	100	mg/dL

A glucose of >180 mg/dL will trigger a Hemoglobin A1C order.

SGL *GLUCOSE, SERUM*

University of Vermont Medical Center

Important Note

Test subject to Medicare National Coverage Determination (NCD) 190.20 Blood Glucose Testing and Diabetes

Additional Test Codes

Primary ID	Epic Code	Mayo Access ID
SGL	LAB82	FAH4902

Test Schedule / Analytical Time / Test Priority

Daily / 1 hour / Available STAT

Method

Colorimetric

CPT(s)

Description	CPT Code
Glucose, Serum	82947

Instrumentation

Ortho Vitros

Section

Chemistry-1

Performing Location

University of Vermont Medical Center

Is the UVMMC lab NY State Certified to perform this testing? Yes/No

Yes

LOINC Code Information

Result Code	Reporting Name	LOINC Code
SGL	Glucose, Serum	2345-7

Specimen Information — GLUCOSE, SERUM

Container	Specimen	Temperature	Collect Vol	Submit Vol	Minimum Vol	Stability
SST	Serum	Refrigerate	4 mL	1 mL	0.5 mL	7 days
Lithium Heparinized (green top)	Plasma	Refrigerate	4 mL	1 mL	0.5 mL	7 days
*Green Microtainer		Refrigerate	0.6 mL	N/A	N/A	7 days

*While a microtainer is an optional tube type in rare circumstances, it is **not recommended.**

Reference Range — GLUCOSE, SERUM

Age	Sex	Physiological Status	Low	High	Units
0-1 day	All	Fasting	40	100	mg/dL
1-8 days	All	Fasting	50	100	mg/dL
≥8 days	All	Fasting	70	100	mg/dL

UGL *GLUCOSE, URINE*

University of Vermont Medical Center

Additional Test Codes

Primary ID	Epic Code	Mayo Access ID
UGL	LAB396	N/A

Test Schedule / Analytical Time / Test Priority

Daily / 1 day / Available STAT

Method

Colorimetric

CPT(s)

Description	CPT Code
Glucose,Urine	82945

Instrumentation

Ortho Vitros 5600

Reference Range

All ages: <30 mg/dL

Section

Chemistry-1

Performing Location

University of Vermont Medical Center

Is the UVMMC lab NY State Certified to perform this testing? Yes/No

Yes

LOINC Code Information

Result Code	Reporting Name	LOINC Code
UGLR	Glucose	2350-7
UGLCAL	Glucose Calc	2350-7

Specimen Information — GLUCOSE, URINE

Container	Specimen	Temperature	Collect Vol	Submit Vol	Minimum Vol	Stability
Sterile Container	Urine	Refrigerate	10 mL	0.5 mL	0.2 mL	3 days

Spot or 24-hour urine is acceptable.

SXBPEN *GROUP B STREP FOR PENICILLIN ALLERGIC PATIENTS*

University of Vermont Medical Center

Important Note

Sample must be received in the lab within 24 hours of collection.
This test is intended for pregnant women with a penicillin allergy. A PCR test for Group B Strep will be performed.
If the test is positive, a culture will also be done to provide susceptibility information. It is possible to have a positive PCR result and not grow the organism in culture because PCR has a higher sensitivity and is able to detect Group B Strep in lower numbers.

Additional Test Codes

Primary ID	Epic Code	Mayo Access ID
SXBPEN	LAB3584	FAH5720

Specimen Information

Container	Specimen	Temperature	Collect	Submit
Bacterial/Yeast Collection Kit	Rectal and Vaginal	Refrigerated	Swab	Swab in collection kit

Bacterial/Yeast
Collection Kit


PEEL HERE
Swab
collection &
preservation
1
2
3
4
5
COPAN
CE 0123

Test Schedule / Analytical Time / Test Priority

Monday - Friday / 2 days / Not available STAT

Method

Nucleic Acid Amplification

CPT(s)

Description	CPT Code
Grp B Strep PCR for Penicillin Allergic Patients	87653

Instrumentation

BD Max

Reference Range

Negative

Section

Microbiology-1

Performing Location

University of Vermont Medical Center

Is the UVMMC lab NY State Certified to perform this testing? Yes/No

Yes

LOINC Code Information

Result Code	Reporting Name	LOINC Code
FAH5720	Grp B Strep PCR for Penicillin Allergy	In Process

SXBBD *GROUP B STREP, PCR*

University of Vermont Medical Center

Additional Test Codes

Primary ID	Epic Code	Mayo Access ID
SXBBD	LAB2540	FAH5655

Specimen Information

Container	Specimen	Temperature	Collect Vol	Submit Vol	Min Vol	Stability
Bacterial/Yeast Collection Kit	Rectal and Vaginal	Refrigerated	N/A	N/A	N/A	7 days

Bacterial/Yeast Collection Kit


PEEL HERE
Swab
collection &
preservation
1
2
3
4
5
COPAN
STERILE
CE 0123

Test Schedule / Analytical Time / Test Priority
Monday - Friday / 2 days / Not available STAT

Method
Nucleic Acid Amplification

CPT(s)

Description	CPT Code
Strep, Group B Amplified Probe	87653

Instrumentation
BD Max

Reference Range
Negative

Section
Microbiology-1

Performing Location
University of Vermont Medical Center

Is the UVMMC lab NY State Certified to perform this testing? Yes/No
Yes

LOINC Code Information

Result Code	Reporting Name	LOINC Code
SXBBD	Grp B Strep PCR	In Process

HAPTS *HAPTOGLOBIN*

University of Vermont Medical Center

Additional Test Codes

Primary ID	Epic Code	Mayo Access ID
HAPTS	LAB89	FAH5817

Test Schedule / Analytical Time / Test Priority
Monday – Friday / 3 days / Not available STAT

Method
Immunoturbidometric

CPT(s)

Description	CPT Code
Haptoglobin	83010

Instrumentation
Binding Site Optilite

Section
Chemistry-2

Performing Location
University of Vermont Medical Center

Is the UVMMC lab NY State Certified to perform this testing? Yes/No
Yes

LOINC Code Information

Result Code	Reporting Name	LOINC Code
HAPT	Haptoglobin	4542-7

Specimen Information — HAPTOGLOBIN

Container	Specimen	Temperature	Collect Vol	Submit Vol	Minimum Vol	Stability
SST	Serum	Refrigerate	4 mL	0.5 mL	0.2 mL	7 days
*Yellow Microtainer		Refrigerate	0.6 mL	N/A	N/A	7 days

Heparinized plasma (green top) is not acceptable. Markedly hemolyzed or lipemic samples are not acceptable.
*While a microtainer is an optional tube type in rare circumstances, it is **not recommended.**

Reference Range — HAPTOGLOBIN

Age	Sex	Physiological Status	Low	High	Units
>18 years	All		32	197	mg/dL

HCGAC2 *HCG FOR ACCUTANE MONITORING*

University of Vermont Medical Center

Important Note

Test subject to Medicare National Coverage Determination (NCD) 190.27 - Human Chorionic Gonadotropin.
All results 5 MIU/mL or above are called to the physician.
The results of this assay can be **falsely lowered** due to the consumption of Biotin. Please instruct patients to discontinue the use of vitamins or supplements that contain Biotin 12 hours before blood collection.

Additional Test Codes

Primary ID	Epic Code	Mayo Access ID
HCGAC2	LAB144	N/A

Test Schedule / Analytical Time / Test Priority

Daily / 1 day / Available STAT

Method

Immunoturbidometric

CPT(s)

Description	CPT Code
HCG Accutane	84702

Instrumentation

Ortho Vitros 5600

Reference Range

Pregnancy:
Negative: Less than 5MIU/mL
Indeterminant: Between 5 and 25 MIU/mL, recommend repeat testing in 48 hours
Positive: Greater than 25 MIU/mL
The results of this assay can be **falsely lowered** due to the consumption of Biotin. Please instruct patients to discontinue the use of vitamins or supplements that contain Biotin 12 hours before blood collection.

Section

Chemistry-1

Performing Location

University of Vermont Medical Center

Is the UVMMC lab NY State Certified to perform this testing? Yes/No

Yes

Specimen Information — HCG FOR ACCUTANE MONITORING

Container	Specimen	Temperature	Collect Vol	Submit Vol	Minimum Vol	Stability
Serum Separator Tube	Serum	Refrigerate	4 mL	2 mL	1 mL	5 days

HCVQU *HCV RNA DETECTION QUANTITATIVE*

University of Vermont Medical Center

Additional Test Codes

Primary ID	Epic Code	Mayo Access ID
HCVQU	LAB2472	FAH5528

Test Schedule / Analytical Time / Test Priority

Monday, Wednesday, Thursday and Friday / 3 days / Not available STAT

Method

RT-PCR

CPT(s)

Description	CPT Code
HCV RNA Quant PCR	87522

Instrumentation

Roche COBAS TaqMan and AmpliPrep

Reference Range

All ages: Undetected

Section

Chemistry-2

Performing Location

University of Vermont Medical Center

Is the UVMMC lab NY State Certified to perform this testing? Yes/No

Yes

LOINC Code Information

Result Code	Reporting Name	LOINC Code
HCVQU	HCV RNA Detect Quant	11011-4

Specimen Information — HCV RNA DETECTION QUANTITATIVE

Container	Specimen	Temperature	Collect Vol	Submit Vol	Minimum Vol	Stability
Serum Separator Tube	Serum	Frozen	8 mL	2.0 mL	1.5 mL	42 days
Serum Separator Tube	Serum	Refrigerated	8 mL	2.0 mL	1.5 mL	3 days

Serum must be separated from cells within 24-hours of collection.

HCVRX1 *HCV RNA QUANT. BY PCR WITH REFLEX*

University of Vermont Medical Center

Important Note

This test is subject to reflex testing, see Laboratory Reflex Testing Policy, you have the option to decline reflex testing if you believe it is not medically necessary. If HCV RNA QUANT. BY PCR is >500 IU/mL an HCV Genotyping (Mayo Test Code HCVG) will be performed.

Additional Test Codes

Primary ID	Epic Code	Mayo Access ID
HCVRX1	LAB2741	FAH5556

Test Schedule / Analytical Time / Test Priority

Monday, Wednesday, Thursday and Friday / 3 days / Not available STAT

Method

RT-PCR

CPT(s)

Description	CPT Code
HCV RNA by PCR	87522

Instrumentation

Roche COBAS TaqMan and AmpliPrep

Reference Range

All ages: Undetected

Section

Chemistry-1

Performing Location

University of Vermont Medical Center

Is the UVMMC lab NY State Certified to perform this testing? Yes/No

Yes

LOINC Code Information

Result Code	Reporting Name	LOINC Code
HCVQU	HCV RNA Detect Quant	11011-4

Specimen Information — HCV RNA QUANT. BY PCR WITH REFLEX

Container	Specimen	Temperature	Collect Vol	Submit Vol	Minimum Vol	Stability
Serum Separator Tube	Serum	Frozen	8 mL	5 mL	3 mL	6 weeks
Serum Separator Tube	Serum	Refrigerated	8 mL	5 mL	3 mL	3 days

Serum must be separated from cells within 24-hours of collection.

HPSA *HELICOBACTER PYLORI STOOL ANTIGEN TESTING*

University of Vermont Medical Center

Additional Test Codes

Primary ID	Epic Code	Mayo Access ID
HPSA	LAB1016	FAH5711

Test Schedule / Analytical Time / Test Priority

Tuesday and Thursday / Same day / Not available STAT

Method

ELISA

CPT(s)

Description	CPT Code
H. pylori Antigen	87338

Instrumentation

Dynex DSX

Reference Range

All ages: Negative
Performance characteristics have not been established for watery, diarrheal stools. False negative results may be obtained within 2 weeks of treatment with antimicrobials, bismuth, or proton pump inhibitors. A negative result in such a situation should be followed up with repeat testing at least 2 weeks after discontinuation of therapy.

Section

Immunology

Performing Location

University of Vermont Medical Center

Is the UVMMC lab NY State Certified to perform this testing? Yes/No

Yes

LOINC Code Information

Result Code	Reporting Name	LOINC Code
HPSA	H. pylori Antigen	17780-8

Specimen Information — HELICOBACTER PYLORI STOOL ANTIGEN TESTING

Container	Specimen	Temperature	Collect Vol	Submit Vol	Minimum Vol	Stability
Sterile Container	Feces	Frozen	5 grams	5 grams	*	60 days
Sterile Container	Feces	Refrigerate	5 grams	5 grams	*	72 hours

5 g (walnut sized) fecal specimen collected into a sterile airtight container (without preservatives) and stored at 2-8 C until tested. *Minimum volume is 100 uL of well-mixed liquid or semi-solid stool and 5-6 mm diameter of well-mixed formed/solid stool. Stool in transport media, swabs, or preservatives are unacceptable.

HCT *HEMATOCRIT*

University of Vermont Medical Center

Important Note

Test subject to Medicare National Coverage Decision (NCD) 190.15 - Blood Count

Additional Test Codes

Primary ID	Epic Code	Mayo Access ID
HCT	LAB289	N/A

Test Schedule / Analytical Time / Test Priority

Daily / 24 Hours / Available STAT

Method

Automated Cell Counter

CPT(s)

Description	CPT Code
Hematocrit	85014

Instrumentation

Sysmex XN 9000

Reference Range

Age and gender dependent. See report

Section

Hematology

Performing Location

University of Vermont Medical Center

Is the UVMMC lab NY State Certified to perform this testing? Yes/No

Yes

LOINC Code Information

Result Code	Reporting Name	LOINC Code
HCT	HCT	4544-3

Specimen Information — HEMATOCRIT

Container	Specimen	Temperature	Collect Vol	Submit Vol	Minimum Vol
Lavender Top Tube	Whole Blood	Refrigerate	2 mL	2 mL	1.5 mL
*Lavender Microtainer			0.6 mL		

*While a microtainer is an optional tube type in rare circumstances, it is **not recommended.**

FHCT *HEMATOCRIT, BODY FLUID*

University of Vermont Medical Center

Important Note

Test subject to Medicare National Coverage Decision (NCD) 190.15 - Blood Counts.

Additional Test Codes

Primary ID	Epic Code	Mayo Access ID
FHCT	LAB3573	N/A

Test Schedule / Analytical Time / Test Priority

Daily / 24 Hours / Available STAT

Method

Centrifugation

CPT(s)

Description	CPT Code
Hematocrit, Body Fluid	85013

Instrumentation

Hettich Haematokrit 210 Microhematocrit Centrifuge

Reference Range

No reference range

Section

Hematology

Performing Location

University of Vermont Medical Center

Is the UVMMC lab NY State Certified to perform this testing? Yes/No

Yes

LOINC Code Information

Result Code	Reporting Name	LOINC Code
FHCT	Hematocrit, Body Fluid	11153-4

Specimen Information — HEMATOCRIT, BODY FLUID

Container	Specimen	Temperature	Collect Vol	Submit Vol	Minimum Vol
Lavender Top Tube	Bloody Fluid	Refrigerate			0.5 mL

Clotted samples will be rejected.

MHT *HEMATOCRIT, SPUN*

University of Vermont Medical Center

Important Note

This test is subject to Medicare National Coverage Decision (NCD) 190.15 - Blood Counts.
MHT collection tubes only available on pediatric in-patient floors, for all other patients order HCT.

Additional Test Codes

Primary ID	Epic Code	Mayo Access ID
MHT	LAB753	N/A

Test Schedule / Analytical Time / Test Priority

Daily / 24 Hours / Available STAT

Method

Centrifugation

CPT(s)

Description	CPT Code
Hematocrit, Spun	85013

Instrumentation

Hettich Haematokrit 210 Microhematocrit Centrifuge

Reference Range

Age and gender dependent. See report.

Section

Hematology

Performing Location

University of Vermont Medical Center

Is the UVMMC lab NY State Certified to perform this testing? Yes/No

Yes

LOINC Code Information

Result Code	Reporting Name	LOINC Code
MHT	Micro Hematocrit	42908-4

Specimen Information — HEMATOCRIT, SPUN

Container	Specimen	Temperature	Collect Vol	Submit Vol	Minimum Vol
Capillary Tubes*	Whole Blood	Refrigerate	2 Tubes	2 Tubes	1 Tube

*Fill 2-heparinized microhematocrit tubes 3/4 full and seal one end with clay. Label and place capillary tube inside a large red top tube to protect from breaking.

HGB *HEMOGLOBIN*

University of Vermont Medical Center

Important Note

Test subject to Medicare National Coverage Decision (NCD) 190.15 - Blood Counts.

Additional Test Codes

Primary ID	Epic Code	Mayo Access ID
HGB	LAB291	FAH239

Test Schedule / Analytical Time / Test Priority

Daily / 24 Hours / Available STAT

Method

Automated Cell Counter

CPT(s)

Description	CPT Code
Hemoglobin	85018

Instrumentation

Sysmex XN 9000

Reference Range

Age and gender dependent. See report.

Section

Hematology

Performing Location

University of Vermont Medical Center

Is the UVMMC lab NY State Certified to perform this testing? Yes/No

Yes

LOINC Code Information

Result Code	Repoting Name	LOINC Code
HGB	HGB	718-7

Specimen Information — HEMOGLOBIN

Container	Specimen	Temperature	Collect Vol	Submit Vol	Minimum Vol
Lavender Top Tube	Whole Blood	Refrigerate	2 mL	2 mL	1.5 mL
*Lavender Microtainer			0.6 mL		

*While a microtainer is an optional tube type in rare circumstances, it is **not recommended.**

HA1C *HEMOGLOBIN A1C*

University of Vermont Medical Center

Important Note

Test subject to Medicare National Coverage Determination (NCD) 190.21 - Glycated Hemoglobin/Glycated Protein.
This test subject to reflex testing see laboratory policy. If Hemoglobin A1C shows a suspicious Hgb not previously identified a Hemoglobin/ Thalassemia Evaluation will be performed (cpt: 83020/85660/83021). You have the option to decline reflex testing if you believe it is not medically necessary. If we are not able to assay using the UVM Medical Center Hemoglobin A1C test methodology due to the presence of an abnormal hemoglobin in the patient sample, the test will be credited with the following reason: A1c unreportable. Abnormal hemoglobin present. Measurement of serum fructosamine may be helpful to monitor glycemic control.

Additional Test Codes

Primary ID	Epic Code	Mayo Access ID
HA1C	LAB90	FAH5419

Test Schedule / Analytical Time / Test Priority

Monday – Friday / 3 days / Not available STAT

Method

Ion-exchange High Perfromance Liquid Chromatography (HPLC)

CPT(s)

Description	CPT Code
Hemoglobin A1C	83036

Instrumentation

Tosoh G8

Reference Range

The following A1c interpretive data reflect the 2017 American Diabetes Association (ADA) guidelines and will be reported with each A1c result:
Normal: <5.7%
Prediabetes: 5.7 - 6.4%
Diagnostic for diabetes (if confirmed): ≥6.5%
Goals for glycemic control in diabetes (ADA 2017)
<7% - The A1c target for nonpregnant adults with diabetes.
More or less stringent targets may be appropriate for individual patients.
<7.5% - The A1c target for children and adolescents with type 1 diabetes.

Section

Chemistry-2

Performing Location

University of Vermont Medical Center

Is the UVMMC lab NY State Certified to perform this testing? Yes/No

Yes

LOINC Code Information

Result Code	Reporting Name	LOINC Code
A1C	Hemoglobin A1C	4548-4
EAG	Est Avg Glucose	27353-2

Specimen Information — HEMOGLOBIN A1C

Container	Specimen	Temperature	Collect Vol	Submit Vol	Minimum Vol	Stability
Lavender Top Tube	Whole Blood	Refrigerate	2 mL	2 mL	0.5 mL	7 days
*Lavender Microtainer	Whole Blood	Refrigerate	0.5 mL	0.5 mL	0.5 mL	7 days

*While a microtainer is an optional tube type in rare circumstances, it is **not recommended.**

HBA2 *HEMOGLOBIN A2*

University of Vermont Medical Center

Additional Test Codes

Primary ID	Epic Code	Mayo Access ID
HBA2	LAB2073	N/A

Test Schedule / Analytical Time / Test Priority

Monday, Wednesday, and Friday, run starts at 8 am / 1 day / Not available STAT

Method

Capillary Electrophoresis

CPT(s)

Description	CPT Code
Hemoglobin A2	82664

Instrumentation

Sebia Capillarys 2 Flex

Section

Chemistry-2

Performing Location

University of Vermont Medical Center

Is the UVMMC lab NY State Certified to perform this testing? Yes/No

Yes

Specimen Information — HEMOGLOBIN A2

Container	Specimen	Temperature	Collect Vol	Submit Vol	Minimum Vol	Stability
Lavender Top (EDTA) Tube	Whole Blood	Refrigerate	2.5 mL	2.5 mL	0.5 mL	7 days

Reference Range — HEMOGLOBIN A2

Age	Sex	Physiological Status	Low	High	Units
≥1 year	All		2.2	3.2	%

ACIDH *HEMOGLOBIN ELECTROPHORESIS, ACID*

University of Vermont Medical Center

Important Note

This test is not orderable. It is performed as necessary as part of the Hemoglobinopathy/Thalassemia Evaluation

Additional Test Codes

Primary ID	Epic Code	Mayo Access ID
ACIDH	Not an orderable test	N/A

Test Schedule / Analytical Time / Test Priority

Monday, Wednesday, and Friday, run starts at 8 am / 1 day / Not available STAT

Method

Capillary Electrophoresis

CPT(s)

Description	CPT Code
Hemoglobin Electrophoresis	83020
Hemoglobin Electrophoresis Part B	83020.26

Instrumentation

Sebia Hydrasys 1

Reference Range

All ages: No abnormal hemoglobins identified

Section

Chemistry-2

Performing Location

University of Vermont Medical Center

Is the UVMMC lab NY State Certified to perform this testing? Yes/No

Yes

Specimen Information — HEMOGLOBIN ELECTROPHORESIS, ACID

Container	Specimen	Temperature	Collect Vol	Submit Vol	Minimum Vol	Stability
Lavender Top (EDTA) Tube	Whole Blood	Refrigerate	2 mL	2 mL	0.5 mL	7 days

Do not spin tube.

SIC *HEMOGLOBIN S SCREEN*

University of Vermont Medical Center

Important Note

This test is subject to reflex testing, see Laboratory Reflex Testing Policy, you have the option to decline reflex testing if you believe it is not medically necessary. If sickle test is positive, then Hemoglobin/Thalassemia Evaluation (cpt: 83020, 83020.26) will be performed at an additional charge.
False negatives may occur in infants less than 6 months of age due to elevated levels of Hemoglobin F. It is recommended, therefore, that infants not be tested prior to six months of age.

Additional Test Codes

Primary ID	Epic Code	Mayo Access ID
SIC	LAB339	FAH228

Test Schedule / Analytical Time / Test Priority

Daily / 1 day / Not available STAT

Method

Sicklesol Hemoglobin Precipitation Kit

CPT(s)

Description	CPT Code
Sickle Cell Test	85660

Instrumentation

Manual Method

Reference Range

Negative
False negatives may occur in infants less than 6 months of age due to elevated levels of Hemoglobin F. It is recommended, therefore, that infants not be tested prior to six months of age.

Section

Hematology

Performing Location

University of Vermont Medical Center

Is the UVMMC lab NY State Certified to perform this testing? Yes/No

Yes

LOINC Code Information

Result Code	Reporting Name	LOINC Code
SIC	Hemoglobin S Screen	4621-9

Specimen Information — HEMOGLOBIN S SCREEN

Container	Specimen	Temperature	Collect Vol	Submit Vol	Minimum Vol
Lavender Top Tube	Whole Blood	Refrigerate	2.5 mL	2.5 mL	1.5 mL

HBF *HEMOGLOBIN, FETAL*

University of Vermont Medical Center

Additional Test Codes

Primary ID	Epic Code	Mayo Access ID
HBF	LAB292	N/A

Test Schedule / Analytical Time / Test Priority

Monday, Wednesday, and Friday, run starts at 8 am / 3 days / Not available STAT

Method

Capillary Electrophoresis

CPT(s)

Description	CPT Code
Hemoglobin, Fetal	82664

Instrumentation

Sebia Capillarys 2 Flex

Section

Chemistry-2

Performing Location

University of Vermont Medical Center

Is the UVMMC lab NY State Certified to perform this testing? Yes/No

Yes

Specimen Information — HEMOGLOBIN, FETAL

Container	Specimen	Temperature	Collect Vol	Submit Vol	Minimum Vol	Stability
Lavender top (EDTA) Tube	Whole Blood	Refrigerate	2.5 mL	2.5 mL	0.5 mL	7 days

Do not spin tube.

Reference Range — HEMOGLOBIN, FETAL

Age	Sex	Physiological Status	Low	High	Units
≥1 year	All		<2%		%

HBEVAL *HEMOGLOBIN/THALASSEMIA EVALUATION*

University of Vermont Medical Center

Important Note

Samples on newborns under the age of 28 days are not acceptable for analysis by this method.
Following capillary electrophoresis performance, if findings are suspicious for the presence of an abnormal hemoglobin, then gel Hemoglobin Electrophoresis, Acid may be perfomed. If capillary electrophoresis is suspicious for the presence of hemoglobin S, then a Hemoglobin S Screen (LAB339) is performed.

Additional Test Codes

Primary ID	Epic Code	Mayo Access ID
HBEVAL	LAB2059	FAH5636

Test Schedule / Analytical Time / Test Priority

Monday, Wednesday,and Friday, run starts at 8 am / 3 days / Not available STAT

Method

Capillary Electrophoresis

CPT(s)

Description	CPT Code
Hemoglobin Electrophoresis	83020
Hemoglobin Electrophoresis Part B	83020.26

Instrumentation

See individual tests.

Reference Range

All ages: No abnormal hemoglobins identified

Section

Chemistry-2

Performing Location

University of Vermont Medical Center

Is the UVMMC lab NY State Certified to perform this testing? Yes/No

Yes

Specimen Information — HEMOGLOBIN/THALASSEMIA EVALUATION

Container	Specimen	Temperature	Collect Vol	Submit Vol	Minimum Vol	Stability
Lavender top (EDTA) Tube	Whole Blood	Refrigerate	2 mL	2 mL	0.5 mL	7 days

Do not spin tube.

HEPUFH *HEPARIN LEVEL-UFH*

University of Vermont Medical Center

Important Note

This test can only be collected at the Main Campus 111 Colchester Avenue Burlington Vermont. See Special Test Considerations.
Patient should be receiving UNFRACTIONATED HEPARIN if this assay is ordered.

Additional Test Codes

Primary ID	Epic Code	Mayo Access ID
HEPUFH	LAB317	FAH5381

Test Schedule / Analytical Time / Test Priority

Daily / 24 Hours / Available STAT

Method

Chromogenic Anti Xa Assay

CPT(s)

Description	CPT Code
Heparin Level Anti-XA	85520

Instrumentation

ACL Top 500

Reference Range

THERAPEUTIC HEPARIN RANGE:
Unfractionated heparin therapeutic range 0.3 – 0.7 IU/mL. Results may not be reliable for direct thrombin inhibitors or pentasaccharides such as fondaparinux.

Section

Coagulation

Performing Location

University of Vermont Medical Center

Is the UVMMC lab NY State Certified to perform this testing? Yes/No

Yes

LOINC Code Information

Result Code	Reporting Name	LOINC Code
HEPUFH	Heparin Level – UFH	3273-0

Specimen Information — HEPARIN LEVEL-UFH

Container	Specimen	Temperature	Collect Vol	Submit Vol	Minimum Vol	Stability
Blue Top Tube	Plasma	Frozen	To fill line	1 mL plasma	1 mL plasma	6 months
Blue Top Tube	Whole Blood	Ambient	To fill line	To fill line	To fill line	75 minutes

TUBE MUST BE FULL AT COLLECTION. Whole blood should remain at ambient temperature until processed. Refer to Coagulation Specimen Handling prior to collection. Double spin before freezing-see Coag Spec Processing step 3. Submit 2 × 0.5 mL frozen plasma aliquots for this test. Draw blood in light blue top tube(s). Spin down, remove plasma, spin plasma again and place citrate platelet-poor plasma in required number of plastic vials (Glass vials cannot be accepted.) Freeze specimen at ≤ -40° C if possible. Send specimen frozen on dry ice. Each coagulation assay requested should have one tube per test.

HEPLMW *HEPARIN LEVEL, LOW MOLECULAR WEIGHT (LMWH)*

University of Vermont Medical Center

Important Note

This test can only be collected at the Main Campus 111 Colchester Avenue Burlington Vermont. See Special Test Considerations.
Patient should be receiving LOW MOLECULAR WEIGHT HEPARIN if this assay is ordered.

Additional Test Codes

Primary ID	Epic Code	Mayo Access ID
HEPLMW	LAB316	FAH5034

Test Schedule / Analytical Time / Test Priority

Daily / 24 Hours / Available STAT

Method

Chromogenic Anti Xa Assay

CPT(s)

Description	CPT Code
Heparin Level Low Molecular Weight	85520

Instrumentation

ACL Top 500

Reference Range

THERAPEUTIC HEPARIN RANGE
(for **twice-a-day dosing**, peak sample drawn 4 hours post subcutaneous injection) for treatment of venous thromboembolism: Adults and children: 0.5 – 1.1 IU/mL Newborn: 0.5 - 1.0 IU/mL

(for **once-a-day dosing**, peak sample drawn 4 hours post subcutaneous injection) for treatment of venous thromboembolism: 1.0 – 2.0 IU/mL Patient sample tested against Low Molecular Weight heparin – Results may not be reliable for unfractionated heparin, pentassacharide (Fondaparinux) or Danaparoid (ORGARAN).

Section

Coagulation

Performing Location

University of Vermont Medical Center

Is the UVMMC lab NY State Certified to perform this testing? Yes/No

Yes

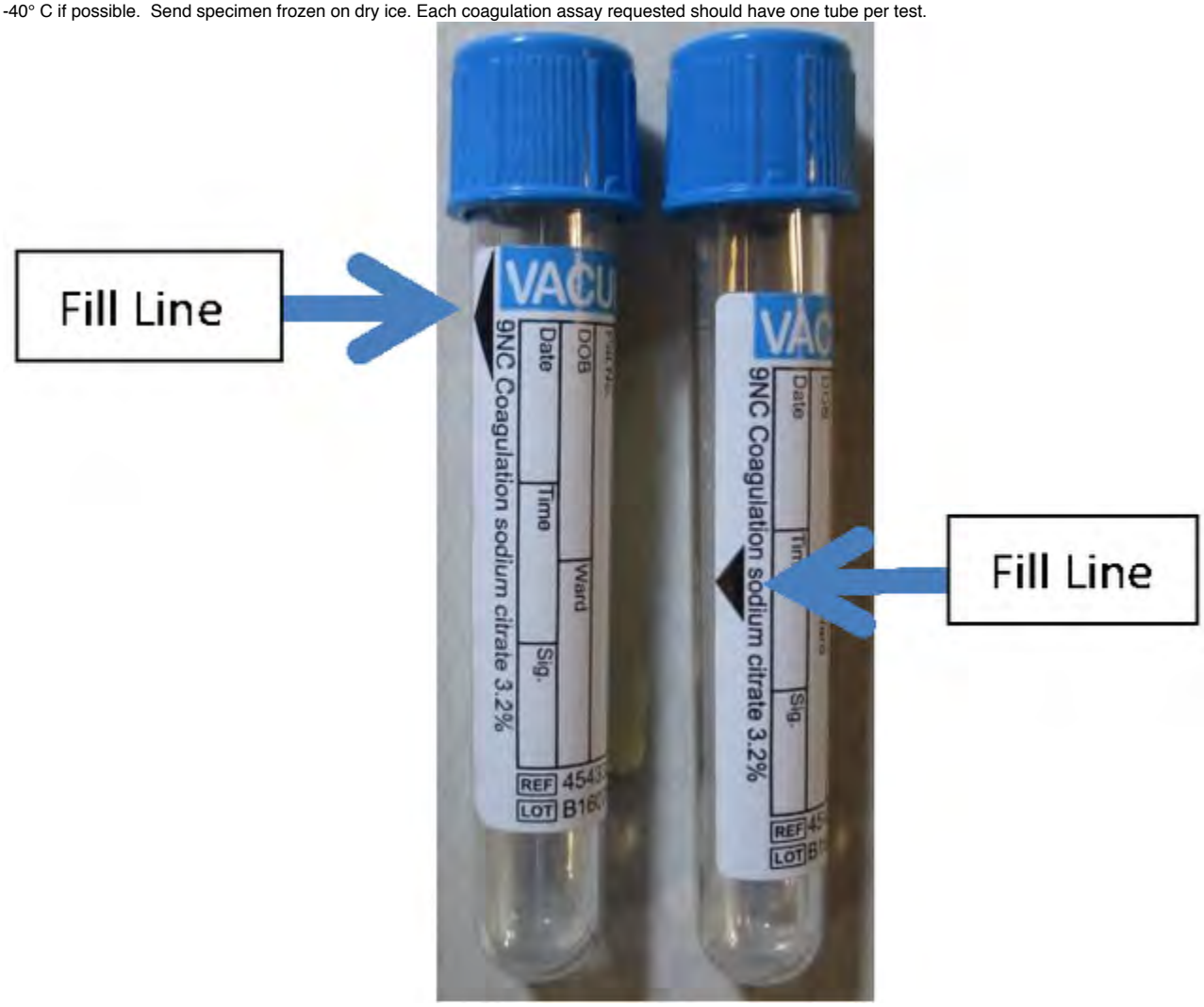
LOINC Code Information

Result Code	Reporting Name	LOINC Code
HEPLMW	Heparin Level – LMWH	32684-3

Specimen Information — HEPARIN LEVEL, LOW MOLECULAR WEIGHT (LMWH)

Container	Specimen	Temperature	Collect Vol	Submit Vol	Minimum Vol	Stability
Blue Top Tube	Plasma	Frozen	To fill line	1 mL plasma	1 mL plasma	6 months
Blue Top Tube	Whole Blood	Ambient	To fill line	To fill line	To fill line	75 minutes

TUBE MUST BE FULL AT COLLECTION. Whole blood should remain at ambient temperature until processed. Refer to Coagulation Specimen Handling prior to collection. Double spin before freezing-see Coag Spec Processing step 3. Submit 2 × 0.5 mL frozen plasma aliquots for this test. Draw blood in light blue top tube(s). Spin down, remove plasma, spin plasma again and place citrate platelet-poor plasma in the required number of plastic vials (Glass vials cannot be accepted.) Freeze specimen at ≤ -40° C if possible. Send specimen frozen on dry ice. Each coagulation assay requested should have one tube per test.



LIVR *HEPATIC FUNCTION PANEL*

University of Vermont Medical Center

Important Note

Tests included: Albumin, Alkaline Phosphatase, ALT, AST, Direct Bilirubin, Total Bilirubin, and Total Protein.

Additional Test Codes

Primary ID	Epic Code	Mayo Access ID
LIVR	LAB20	FAH4870

Test Schedule / Analytical Time / Test Priority

Daily / 1 day / Available STAT

Method

Colorimetric

CPT(s)

Description	CPT Code
Hepatic Function Panel	80076

Instrumentation

Ortho Vitros 5600

Reference Range

See individual tests, Albumin, Alkaline Phosphatase, ALT, AST, Direct Bilirubin, Total Bilirubin, and Total Protein.

Section

Chemistry-1

Performing Location

University of Vermont Medical Center

Is the UVMMC lab NY State Certified to perform this testing? Yes/No

Yes

LOINC Code Information

Result Code	Reporting Name	LOINC Code
ALB	Albumin	1751-7
TP	Protein, Total	2885-2
ALKP	Alkaline Phosphatase	6768-6
ALT	ALT	1742-6
AST	AST	1920-8
BILU	Unconjugated Bili	1971-1
BILC	Conjugated Bili	15152-2
TBIL	Bilirubin, Total	1975-2
BILD	Delta Bilirubin	1970-3

Specimen Information — HEPATIC FUNCTION PANEL

Container	Specimen	Temperature	Collect Vol	Submit Vol	Minimum Vol	Stability
SST	Serum	Refrigerate	4 mL	0.6 mL	0.3 mL	5 days
Lithium Heparin (Green Top)	Plasma	Refrigerate	4 mL	0.6 mL	0.3 mL	5 days
Green Microtainer		Refrigerate	0.6 mL	N/A	N/A	5 days

*While a microtainer is an optional tube type in rare circumstances, it is **not recommended.**

HAIGM2 *HEPATITIS A ANTIBODY IgM*

University of Vermont Medical Center

Important Note

This is a reflex test for Hepatitis A Antibody, If Hepatitis A Antibody is positive, this test will be performed.
The results of this assay can be **falsely lowered** due to the consumption of Biotin. Please instruct patients to discontinue the use of vitamins or supplements that contain Biotin 12 hours before blood collection.

Additional Test Codes

Primary ID	Epic Code	Mayo Access ID
HAIGM2	Reflex order only	FAH5751

Test Schedule / Analytical Time / Test Priority

Monday – Friday / 3 days / Not available STAT

Method

Chemiluminescence Immunoassay

CPT(s)

Description	CPT Code
Hepatitis A Antibody IgM	86709

Instrumentation

Siemens ADVIA Centaur XPT

Reference Range

All ages: Negative
The results of this assay can be **falsely lowered** due to the consumption of Biotin. Please instruct patients to discontinue the use of vitamins or supplements that contain Biotin 12 hours before blood collection.

Section

Chemistry-2

Performing Location

University of Vermont Medical Center

Is the UVMMC lab NY State Certified to perform this testing? Yes/No

Yes

LOINC Code Information

Result Code	Reporting Name	LOINC Code

Specimen Information — HEPATITIS A ANTIBODY IgM

Container	Specimen	Temperature	Collect Vol	Submit Vol	Minimum Vol	Stability
Serum Separator Tube	Serum	Refrigerate	4 mL	1 mL	0.3 mL	7 days

HAAB2 *HEPATITIS A ANTIBODY WITH REFLEX*

University of Vermont Medical Center

Important Note

This test is subject to reflex testing, see Laboratory Reflex Testing Policy, you have the option to decline reflex testing if you believe it is not medically necessary. If Hepatitis A Antibody is positive, a Hepatitis A IgM Antibody (CPT 86709) will be performed. You have the option to decline reflex testing if you believe it is not medically necessary.
The results of this assay can be **falsely elevated** due to the consumption of Biotin. Please instruct patients to discontinue the use of vitamins or supplements that contain Biotin 12 hours before blood collection.

Additional Test Codes

Primary ID	Epic Code	Mayo Access ID
HAAB2	LAB797	FAH5750

Test Schedule / Analytical Time / Test Priority

Monday – Friday / 3 days / Not available STAT

Method

Chemiluminescence Immunoassay

CPT(s)

Description	CPT Code
Hepatitis A Antibody	86708

Instrumentation

Siemens ADVIA Centaur XPT

Reference Range

All ages: Negative
The results of this assay can be **falsely elevated** due to the consumption of Biotin. Please instruct patients to discontinue the use of vitamins or supplements that contain Biotin 12 hours before blood draw.

Section

Chemistry-2

Performing Location

University of Vermont Medical Center

Is the UVMMC lab NY State Certified to perform this testing? Yes/No

Yes

LOINC Code Information

Result Code	Reporting Name	LOINC Code

Specimen Information — HEPATITIS A ANTIBODY WITH REFLEX

Container	Specimen	Temperature	Collect Vol	Submit Vol	Minimum Vol	Stability
Serum Separator Tube	Serum	Refrigerate	4 mL	1 mL	0.3 mL	7 days

HAABN *HEPATITIS A TOTAL ANTIBODY - IMMUNITY*

University of Vermont Medical Center

Important Note

This test is for detection of immunity or past infection with hepatitis A, NOT acute disease. A reflex test to Hepatitis A IgM Antibody testing is not performed.
The results of this assay can be falsely **elevated** due to the consumption of Biotin. Please instruct patients to discontinue the use of vitamins or supplements that contain Biotin 12 hours before blood collection.

Additional Test Codes

Primary ID	Epic Code	Mayo Access ID
HAABN	LAB3668	FAH5752

Test Schedule / Analytical Time / Test Priority

Monday – Friday / 3 days / Not available STAT

Method

Chemiluminescence Immunoassay

CPT(s)

Description	CPT Code
Hepatitis A Total	86708

Instrumentation

Siemens ADVIA Centaur XPT

Reference Range

All ages: Negative
The results of this assay can be falsely **elevated** due to the consumption of Biotin. Please instruct patients to discontinue the use of vitamins or supplements that contain Biotin 12 hours before blood draw.

Section

Chemistry-2

Performing Location

University of Vermont Medical Center

Is the UVMMC lab NY State Certified to perform this testing? Yes/No

Yes

LOINC Code Information

Result Code	Reporting Name	LOINC Code

Specimen Information — HEPATITIS A TOTAL ANTIBODY - IMMUNITY

Container	Specimen	Temperature	Collect Vol	Submit Vol	Minimum Vol	Stability
Serum Separator Tube	Serum	Refrigerate	4 mL	1 mL	0.3 mL	7 days

HBCOR *HEPATITIS B CORE ANTIBODY*

University of Vermont Medical Center

Important Note
Detects both IgG an IgM anti-core HBV antibodies.

Additional Test Codes

Primary ID	Epic Code	Mayo Access ID
HBCOR	LAB1242	FAH5743

Test Schedule / Analytical Time / Test Priority
Monday – Friday / 3 days / Not available STAT

Method
Chemiluminescence Immunoassay

CPT(s)

Description	CPT Code
Hepatitis B Core Antibody	86704

Instrumentation
Siemens ADVIA Centaur XPT

Reference Range
All ages: Negative

Section
Chemistry-2

Performing Location
University of Vermont Medical Center

Is the UVMMC lab NY State Certified to perform this testing? Yes/No
Yes

LOINC Code Information

Result Code	Reporting Name	LOINC Code

Specimen Information — HEPATITIS B CORE ANTIBODY

Container	Specimen	Temperature	Collect Vol	Submit Vol	Minimum Vol	Stability
Serum Separator Tube	Serum	Refrigerate	4 mL	1 mL	0.3 mL	7 days

HEPB2 *HEPATITIS B PROFILE*

University of Vermont Medical Center

Important Note

Testing Includes: Hepatitis B Surface Antigen, Hepatits B Surface Antibody, and Hepatitis B Core Antibody.
Samples testing positive for the antigen (HBSAG) will have confirmatory testing done at an additional charge. This test is Subject to Medicare Preventive Service Coverage policy for Screening for Sexually Transmitted Infections (STI's) and High Intensity Behavioral Counseling (HIBC) to Prevent STI's.

Additional Test Codes

Primary ID	Epic Code	Mayo Access ID
HEPB2	LAB1315	FAH5748

Test Schedule / Analytical Time / Test Priority

Monday – Friday / 3 days / Not available STAT

Method

Chemiluminescence Immunoassay

Instrumentation

Siemens ADVIA Centaur XPT

Reference Range

See individual Tests.

Section

Chemistry-2

Performing Location

University of Vermont Medical Center

Is the UVMMC lab NY State Certified to perform this testing? Yes/No

Yes

LOINC Code Information

Result Code	Reporting Name	LOINC Code
HBAG	Hep B Surface Ag	5195-3
HBAB	Hep B Surface Ab	22322-2
HBABQT	HBs Antibody, Quant	16935-9
HBCORE	Hep B Core Antibody	16933-4

CPT's

Description	CPT Code
Hepatitis B Surface Antigen	87340
Hepatitis B Surface Antibody	86706
Hepatitis B Core Antibody	86704

Specimen Information — HEPATITIS B PROFILE

Container	Specimen	Temperature	Collect Vol	Submit Vol	Minimum Vol	Stability
Serum Separator Tube	Serum	Refrigerate	4 mL	2 mL	1 mL	7 days

HBABQ2 *HEPATITIS B SURFACE ANTIBODY*

University of Vermont Medical Center

Important Note

Test includes Hepatitis B Surface Antibody, Qualitative and Quantitative report.

Additional Test Codes

Primary ID	Epic Code	Mayo Access ID
HBABQ2	LAB472	FAH5749

Test Schedule / Analytical Time / Test Priority

Monday – Friday / 1 day / Not available STAT

Method

Chemiluminescence Immunoassay

CPT(s)

Description	CPT Code
Hepatitis B Surface Antibody	86706

Instrumentation

Siemens Centaur XP

Reference Range

HBABQL: Vaccinated - Positive, Unvacinated - Negative
HBABQT: <10.0 mIU/mL - Negative, ≥10.0 mIU/mL - Positive

Section

Chemistry-2

Performing Location

University of Vermont Medical Center

Is the UVMMC lab NY State Certified to perform this testing? Yes/No

Yes

LOINC Code Information

Result Code	Reporting Name	LOINC Code
HBABQL	Hepatitis B Surface Antibody	10900-9
HBABQN	Hepatitis B Surface Ab, Quant	5193-8

Specimen Information — HEPATITIS B SURFACE ANTIBODY

Container	Specimen	Temperature	Collect Vol	Submit Vol	Minimum Vol	Stability
Serum Separator Tube	Serum	Refrigerate	4 mL	1 mL	0.3 mL	7 days

HBSAG *HEPATITIS B SURFACE ANTIGEN*

University of Vermont Medical Center

Important Note

Samples testing positive for the antigen will have confirmatory testing done at an additional charge. This test is Subject to Medicare Preventive Service Coverage policy for Screening for Sexually Transmitted Infections (STI's) and High Intensity Behavioral Counseling (HIBC) to Prevent STI's.

Additional Test Codes

Primary ID	Epic Code	Mayo Access ID
HBSAG	LAB471	FAH5742

Test Schedule / Analytical Time / Test Priority

Monday – Friday / 3 days / Not available STAT

Method

Chemiluminescence Immunoassay

Instrumentation

Siemens Centaur XP

Reference Range

All ages: Negative

Section

Chemistry-2

Performing Location

University of Vermont Medical Center

Is the UVMMC lab NY State Certified to perform this testing? Yes/No

Yes

LOINC Code Information

Result Code	Reporting Name	LOINC Code

CPT's

Description	CPT Code
Hepatitis B Surface Antigen	87340

Specimen Information — HEPATITIS B SURFACE ANTIGEN

Container	Specimen	Temperature	Collect Vol	Submit Vol	Minimum Vol	Stability
Serum Separator Tube	Serum	Refrigerate	4 mL	2 mL	0.8 mL	14 days

HCSCR2 *HEPATITIS C ANTIBODY WITH REFLEX TO HCV RNA BY PCR*

University of Vermont Medical Center

Important Note

This test is subject to reflex testing, see Laboratory Reflex Testing Policy, you have the option to decline reflex testing if you believe it is not medically necessary. If Hepatitis C Antibody is low level reactive, Hepatitis C PCR (LAB2472, CPT: 87522) will be performed.

Additional Test Codes

Primary ID	Epic Code	Mayo Access ID
HCSCR2	LAB868	FAH5744

Test Schedule / Analytical Time / Test Priority

Monday – Friday / 3 days / Not available STAT

Method

Chemiluminescence Immunoassay

CPT(s)

Description	CPT Code
Hepatitis C Antibody	86803

Instrumentation

Siemens ADVIA Centaur XPT

Reference Range

All ages: Negative

Section

Chemistry-2

Performing Location

University of Vermont Medical Center

Is the UVMMC lab NY State Certified to perform this testing? Yes/No

Yes

LOINC Code Information

Result Code	Reporting Name	LOINC Code

Specimen Information — HEPATITIS C ANTIBODY WITH REFLEX TO HCV RNA BY PCR

Container	Specimen	Temperature	Collect Vol	Submit Vol	Minimum Vol	Stability
Serum Separator Tube	Serum	Refrigerate	5 mL	2.5 mL	1.5 mL	7 days

HEPACU *HEPATITIS PROFILE - ACUTE*

University of Vermont Medical Center

Important Note

This test is subject to reflex testing, see Laboratory Reflex Testing Policy, you have the option to decline reflex testing if you believe it is not medically necessary.
Samples testing positive for the antigen (Hepatitis B Surface Antigen) will have confirmatory testing at an additional charge.If Hepatitis C antibody is reactive, Hepatitis C Antibody With Reflex to HCV RNA by PCR will be performed at an additional charge.
Hepatitis B Surface Antigen is subject to Medicare Preventative Service Coverage Policy for screening for Sexually Transmitted infections (STI's) and High Intensity Behavioral Counseling (HIBC) To prevent STI's.
This profile is subject to Medicare National Coverage Determination (NCD) 190.33 Hepatitis Panel/Acute Hepatitis Panel.

Additional Test Codes

Primary ID	Epic Code	Mayo Access ID
HEPACU	LAB3586	FAH

Test Schedule / Analytical Time / Test Priority

Monday – Friday / 3 days / Not available STAT

Method

Chemiluminescence Immunoassay

CPT(s)

Description	CPT Code
Hepatitis B Surface Antigen	87340
Hepatitis B Core Antibody	86704
Hepatitis C Antibody	86803
Hepatitis A Antibody IgM	86709

Instrumentation

Siemens ADVIA Centaur XPT

Reference Range

See individual tests

Section

Chemistry-2

Performing Location

University of Vermont Medical Center

Is the UVMMC lab NY State Certified to perform this testing? Yes/No

Yes

LOINC Code Information

Result Code	Reporting Name	LOINC Code

Specimen Information — HEPATITIS PROFILE - ACUTE

Container	Specimen	Temperature	Collect Vol	Submit Vol	Minimum Vol	Stability
SST	Serum	Refrigerate	4 mL	2.5 mL	1.5 mL	7 days

HEPUNK *HEPATITIS PROFILE, CHRONIC UNKNOWN TYPE*

University of Vermont Medical Center

Important Note

This test is subject to reflex testing, see Laboratory Reflex Testing Policy, you have the option to decline reflex testing if you believe it is not medically necessary. If Hepatitis C Antibody is reactive, Hepatitis C PCR (Epic Code LAB2472 CPT 87522) will be performed at an additional charge.

Additional Test Codes

Primary ID	Epic Code	Mayo Access ID
HEPUNK	LAB3667	FAH5741

Test Schedule / Analytical Time / Test Priority

Monday – Friday / 3 day / Not available STAT

Method

Chemiluminescence Immunoassay

CPT(s)

Description	CPT Code
Hepatitis B Surface Antigen	87340
Hepatitis B Surface Antibody	86706
Hepatitis B Core Antibody	86704
Hepatitis C Antibody	86803

Instrumentation

Siemens ADVIA Centaur XPT

Reference Range

See individual tests

Section

Chemistry-2

Performing Location

University of Vermont Medical Center

Is the UVMMC lab NY State Certified to perform this testing? Yes/No

Yes

LOINC Code Information

Result Code	Reporting Name	LOINC Code

Specimen Information — HEPATITIS PROFILE, CHRONIC UNKNOWN TYPE

Container	Specimen	Temperature	Collect Vol	Submit Vol	Minimum Vol	Stability
SST	Serum	Refrigerate	4 mL	2.5 mL	1.5 mL	7 days

V6AM *Heroin Metabolite (6-AM) Screen, Urine*

Aspenti Health Laboratory

Important Note

Routine drug screen for inpatients and ambulatory clinics.
Heroin Metabolite (6-AM) Screen, Urine , test information.

Additional Test Codes

Primary ID	Epic Code	Aspenti Test Code
V6AM	LAB3724	VBL2000

Test Schedule / Analytical Time / Test Priority

Monday - Friday / 24 Hours / Not Available STAT

Performing Location

Aspenti Health Laboratory

HSVLUM *HERPES SIMPLEX VIRUS, PCR*

University of Vermont Medical Center

Additional Test Codes

Primary ID	Epic Code	Mayo Access ID
HSVLUM	LAB3753	FAH5849

Specimen Information

Container	Specimen	Temperature	Collect Vol	Submit Vol	Minimum Vol	Stability
Viral Collection Kit (M6)	Mucocutaneous sites	Refrigerate				15 days
Sterile Container	CSF	Refrigerate	2 mL	2 mL	1 mL	7 days

Viral Collection Kit (M6)

Test Schedule / Analytical Time / Test Priority
Daily / 24 hours / Not available STAT

Method
PCR

CPT(s)

Narrative	CPT
Herpes Simplex Virus 1	87529 x 1
Herpes Simplex Virus 2	87529.59 x 1

Instrumentation
Luminex Aries

Reference Range
No virus detected

Section
Microbiology-2

Performing Location
University of Vermont Medical Center

Is the UVMMC lab NY State Certified to perform this testing? Yes/No
No

LOINC Code Information
In process

CRPS *HIGH SENSITIVITY CRP*

University of Vermont Medical Center

Important Note
Test is for the determination of cardiac risk assessment only. If evaluating acute inflammation, then order C-Reactive Protein (Epic code LAB149).

Additional Test Codes

Primary ID	Epic Code	Mayo Access ID
CRPS	LAB150	FAH5809

Test Schedule / Analytical Time / Test Priority
Daily / 1 day / Not available STAT

Method
Colorimetric

CPT(s)

Description	CPT Code
C-Reactive Protein, High Sensitivity	86141

Instrumentation
Ortho Vitros 5600

Reference Range
All ages and sexes:
Less Risk: <1.0 mg/L
Average Risk: 1.0 - 3.0 mg/L
High Risk: >3.0 mg/L
Indeterminate*: >10 mg/L
*May be indication of inflamation or infection

Section

Chemistry-2

Performing Location

University of Vermont Medical Center

Is the UVMMC lab NY State Certified to perform this testing? Yes/No

Yes

LOINC Code Information

Result Code	Reporting Name	LOINC Code
SCRP	High Sensitivity CRP	305227

Specimen Information — HIGH SENSITIVITY CRP

Container	Specimen	Temperature	Collect Vol	Submit Vol	Minimum Vol	Stability
SST	Serum	Refrigerate	4 mL	0.2 mL	0.2 mL	5 days
Lithium Heparin (Green Top)	Plasma	Refrigerate	4 mL	0.2 mL	0.2 mL	5 days
Green Microtainer		Refrigerate	0.6 mL			5 days

Lipemic specimens are not acceptable.
*While a microtainer is an optional tube type in rare circumstances, it is **not recommended.**

HIVSCN *HIV 1 & 2 ANTIGEN AND ANTIBODY, 4TH GENERATION*

University of Vermont Medical Center

Important Note

This test is subject to Medicare National Coverage Determination (NCD) 190.14 - Human Immunodeficiency Virus (HIV) Testing (Diagnosis).
Reactive specimens will be confirmed by HIV 1 + 2 Confirmation / Differentiation and additional charges will apply.
It is strongly recommended that a properly dated and signed consent form reside in the patient chart for each HIV testing episode. Do not send the consent form to the laboratory.
For Anonymous HIV testing, see Anonymous Testing procedure in the Laboratory Services Directory, Anonymous Patient Testing.

Additional Test Codes

Primary ID	Epic Code	Mayo Access ID
HIVSCN	LAB159	FAH5747

Test Schedule / Analytical Time / Test Priority

Monday - Friday / 3 Day / Not available STAT

Method

Chemiluminescence Immunoassay

CPT(s)

Description	CPT Code
HIV 1/2 Antibody	87389

Instrumentation

Siemens ADVIA Centaur XPT

Reference Range

All ages: Negative

Section

Chemistry-2

Performing Location

University of Vermont Medical Center

Is the UVMMC lab NY State Certified to perform this testing? Yes/No

Yes

LOINC Code Information

Result Code	Reporting Name	LOINC Code
HIV	HIV 1/2 Antibody	56888-1

Specimen Information — HIV 1 & 2 ANTIGEN AND ANTIBODY, 4TH GENERATION

Container	Specimen	Temperature	Collect Vol	Submit Vol	Minimum Vol	Stability
SST	Serum	Refrigerate	4 mL	2 mL	0.8 mL	7 days

HIVRX *HIV 1 QUANT. WITH REFLEX TO GENOTYPE*

University of Vermont Medical Center

Important Note

This test is subject to reflex testing, see Laboratory Reflex Testing Policy, you have the option to decline reflex testing if you believe it is not medically necessary. If the HIV Quantitation is equal to greater than 500 copies/mL the HIV-1 Genotypic Drug Protease and Reverse Transcriptase Inhibitor Drug Resistance, plasma (Mayo Test Code: HIVGP1) will automatically be sent to Mayo Clinic Laboratories.
Test subject to Medicare National Coverage Determination (NCD) 190.13 - human Immunodeficiency Virus (HIV) Testing (Prognosis Including Monitoring).
Test schedule may change without notice.

Additional Test Codes

Primary ID	Epic Code	Mayo Access ID
HIVRX	LAB919	FAH5546

Test Schedule / Analytical Time / Test Priority

**Monday and Thursday / 4 day / Not available STAT
**Test schedule may change without notice.

Method

RT-PCR

CPT(s)

Description	CPT Code
HIV 1 Quant w/Reflex to Genotype	87536

Instrumentation

Roche COBAS TaqMan and AmpliPrep

Reference Range

All ages: Undetected

Section

Chemistry-2

Performing Location

University of Vermont Medical Center

Is the UVMMC lab NY State Certified to perform this testing? Yes/No

Yes

LOINC Code Information

Result Code	Reporting Name	LOINC Code
HIVPCR	HIV 1 RNA Quant	20447-9

Specimen Information — HIV 1 QUANT. WITH REFLEX TO GENOTYPE

Container	Specimen	Temperature	Collect Vol	Submit Vol	Minimum Vol	Stability
Lavender Top (EDTA) Tube	Plasma	Frozen	7 mL	3.5 mL	2.5 mL	84 days
Lavender Top (EDTA) Tube	Plasma	Refrigerated	7 mL	3.5 mL	2.5 mL	6 days

HIVQU *HIV 1 RNA QUANTITATION*

University of Vermont Medical Center

Important Note

Test subject to Medicare National Coverage Determination (NCD) 190.13 - human Immunodeficiency Virus (HIV) Testing (Prognosis Including Monitoring).
Test schedule may change without notice.

Additional Test Codes

Primary ID	Epic Code	Mayo Access ID
HIVQU	LAB2678	FAH5529

Test Schedule / Analytical Time / Test Priority

**Monday and Thursday / 4 days / Not available STAT
**Test schedule may change without notice.

Method

RT-PCR

CPT(s)

Description	CPT Code
HIV 1 RNA Quant	87536

Instrumentation

Roche COBAS TaqMan and AmpliPrep

Reference Range

All agges: Undetected

Section

Chemistry-2

Performing Location

University of Vermont Medical Center

Is the UVMMC lab NY State Certified to perform this testing? Yes/No

Yes

LOINC Code Information

Result Code	Reporting Name	LOINC Code
HIVPCR	HIV 1 RNA Quant	20447-9

Specimen Information — HIV 1 RNA QUANTITATION

Container	Specimen	Temperature	Collect Vol	Submit Vol	Minimum Vol	Stability
Lavender Top Tube	Plasma	Frozen	7 mL	3.5 mL	2.5 mL	84 days
Lavender Top Tube	Plasma	Refrigerate	7 mL	3.5 mL	2.5 mL	6 days

Separate plasma from whole blood within 24 hours of collection.

HIVDI *HIV ANTIBODY CONFIRMATION/DIFFERENTIATION*

University of Vermont Medical Center

Important Note

This test is a reflex test order only for samples that test positive for HIV 1 & 2 Antibody and for referring hospitals use only.
Test subject to Medicare National Coverage Determination (NCD) 190.14 - Human Immunodeficiency Virus (HIV) Testing (Diagnosis).

Additional Test Codes

Primary ID	Epic Code	Mayo Access ID
HIVDI	LAB3340	FAH5829

Test Schedule / Analytical Time / Test Priority

Monday - Friday / 3 days / Not available STAT
Test schedule may change without notice.

Method

Immunochromatography

CPT(s)

Description	CPT Code
HIV 1/2 Antibody	86703

Instrumentation

BioRad Geenius

Reference Range

All ages: Negative

Section

Chemistry-2

Performing Location

University of Vermont Medical Center

Is the UVMMC lab NY State Certified to perform this testing? Yes/No

Yes

LOINC Code Information

Result Code	Reporting Name	LOINC Code
HIV	HIV 1/2 Antibody	56888-1

Specimen Information — HIV ANTIBODY CONFIRMATION/DIFFERENTIATION

Container	Specimen	Temperature	Collect Vol	Submit Vol	Minimum Vol	Stability
SST	Serum	Refrigerate	2 mL	1 mL	0.5 mL	7 days

HIVSS2 *HIV, RAPID 1 & 2 ANTIBODY*

University of Vermont Medical Center

Important Note

Test subject to Medicare National Coverage Determination (NCD) 190.14 - Human Immunodeficiency Virus (HIV) Testing (Diagnosis).
Routine HIV 1/2 Antibody should be ordered (Epic Code: LAB159). HIV 1/2 Antibody (STAT - LAB5746) should be ordered when the HIV status of the patient is needed ASAP (for example, needle stick or accidental exposure, labor and delivery, high risk patients).
Reactive specimens will be confirmed by HIV 1 + 2 Confirmation / Differentiation and additional charges will apply. UVMMC laboratory does not perform STAT Maternal/Newborn testing or Occupational Exposure Anonymous HIV Testing for New York State.

Additional Test Codes

Primary ID	Epic Code	Mayo Access ID
HIVSS2	LAB473	FAH5746

Test Schedule / Analytical Time / Test Priority

Daily / 1 day / Available STAT

Method

Chemiluminescence Immunoassay

CPT(s)

Description	CPT Code
HIV 1/2 Antibody	86703

Instrumentation

Siemens ADVIA Centaur XPT

Reference Range

All ages: Negative

Section

Chemistry-2

Performing Location

University of Vermont Medical Center

Is the UVMMC lab NY State Certified to perform this testing? Yes/No

Yes

LOINC Code Information

Result Code	Reporting Name	LOINC Code

Specimen Information — HIV, RAPID 1 & 2 ANTIBODY

Container	Specimen	Temperature	Collect Vol	Submit Vol	Minimum Vol	Stability
Serum Separator Tube	Serum	Refrigerate	4 mL	2 mL	0.8 mL	7 days

HCY *HOMOCYSTEINE*

University of Vermont Medical Center

Important Note

Patient should be fasting, as reference range obtained from fasting individuals.
Sample is stable at room temperature for 1 hour. If sample cannot be delivered to laboratory in ≤ 1 hour, then sample should be collected on ice, centrifuged immediately and plasma transferred to another tube and refrigerated for delivery to the laboratory.

Additional Test Codes

Primary ID	Epic Code	Mayo Access ID
HCY	LAB93	FAH5249

Test Schedule / Analytical Time / Test Priority

Monday, Wednesday, and Friday / 3 days / Not available STAT

Method

Chemiluminescence Immunoassay

CPT(s)

Description	CPT Code
Homocysteine	83090

Instrumentation

Siemens ADVIA Centaur XPT

Section

Chemistry-2

Performing Location

University of Vermont Medical Center

Is the UVMMC lab NY State Certified to perform this testing? Yes/No

Yes

LOINC Code Information

Result Code	Reporting Name	LOINC Code
HCY	Homocysteine	13965-9

Specimen Information — HOMOCYSTEINE

Container	Specimen	Temperature	Collect Vol	Submit Vol	Minimum Vol	Stability
Lavender Top Tube	Plasma	Refrigerate	3.5 mL	1 mL	0.3 mL	7 days

Sample must be kept on ice until you spin, remove plasma immediately after centrifugation. Refrigerate plasma.Serum separator or red top tube is acceptable, centrifuge within 30 minutes and remove serum from gel or cells as soon as possible. Due to special sample handling and transport, add on requests cannot be done.

Reference Range — HOMOCYSTEINE

Age	Sex	Physiological Status	Low	High	Units
≥18 year	All		5	13.9	umol/L

HPVON *HPV AMPLIFIED RNA, HIGH RISK*

University of Vermont Medical Center

Important Note

HPV testing may be performed on the same ThinPrep sample submitted for cytologic evaluation. This test can only be performed on cervical samples. To order HPV testing on a ThinPrep Pap test, circle yes for HPV Detection, in the ThinPrep area on the laboratory requisition form or in Epic under Pap Test (LAB4), question #4 under the prompt “Please Specify HPV Testing”. If you have questions, please call Cytopathology at (802)-847-5121.
HPV Testing: Anal Pap tests have not been approved by the FDA for HPV testing therefore, our laboratory will not perform HPV testing on this type of sample. There is no FDA-approved HPV test for anal or oral samples, therefore we do not perform this testing and will not forward to a reference lab. Outside clients submit a manual order.
Vaginal thinprep requests for HPV Genotyping will be sent to Mayo Clinic Laboratories.

Additional Test Codes

Primary ID	Epic Code	Mayo Access ID
HPVON	LAB263	FAH5475

Test Schedule / Analytical Time / Test Priority

Monday – Friday / 1 day / Not available STAT

Method

Transcription Mediated Amplification

CPT(s)

Description	CPT Code
HPV Detection, High Risk Types	87624

Instrumentation

Panther

Reference Range

Negative for HPV. No E6 or E7 mRNA detected from HPV types 16,18, 31, 33, 35, 39, 45, 51, 52, 56, 58, 59, 66, and 68.

Section

Microbiology-2

Performing Location

University of Vermont Medical Center

Is the UVMMC lab NY State Certified to perform this testing? Yes/No

Yes

LOINC Code Information

Result Code	Reporting Name	LOINC Code
HPVDES	Specimen Description	31208-2
RESHPV	Result	44550-2

Specimen Information — HPV AMPLIFIED RNA, HIGH RISK

Container	Specimen	Temperature	Collect Vol	Submit Vol	Minimum Vol	Stability
ThinPrep Vial	Cervical	Refrigerate	4 mL	4 mL	1 mL	30 days

Collect specimen in ThinPrep PreservCyt (Pap) vials with broom-type or cytobrush/spatula collection devices according to the manufacturer's instructions. Specimen is stable for 30 days at 2-30° C. This testing may be ordered as reflex testing to a diagnosis of Atypical Squamous Cells- Undetermined Significance (ASC-US). HPV testing may also be ordered up front, regardless of the diagnosis of the current ThinPrep cytology result.
Vaginal samples are NOT acceptable, vaginal high risk HPV samples will be sent to Mayo Medical Laboratory for testing.

HPVGTP *HPV GENOTYPE 16, 18/45, THINPREP*

University of Vermont Medical Center

Important Note

If the result for HPV Amplified Probe Testing and Pap smear meet the appropriate ASCCP guidelines, HPV Genotype 16, 18/45 can be performed. Contact Microbiology to request testing (847-5121 or 1-800-991-2799).

Additional Test Codes

Primary ID	Epic Code	Mayo Access ID
HPVGTP	N/A	FAH5865

Test Schedule / Analytical Time / Test Priority

Monday - Friday / 3 days / Not available STAT

Method

Nucleic Acid Amplification

CPT(s)

Description	CPT
	87625

Instrumentation

Hologic Panther Fusion

Reference Range

Negative for HPV types 16 and 18/45.

Section

Microbiology 2

Performing Location

University of Vermont Medical Center

Is the UVMMC lab NY State Certified to perform this testing? Yes/No

Yes

Specimen Information — HPV GENOTYPE 16, 18/45, THINPREP

Container	Specimen	Temperature	Collect Vol	Submit Vol	Minimum Vol	Stability
Thinprep Vial	Endocervical or Cervical	Ambient	4 mL	4 mL	1 mL	30 days

HSVIGP *HSV TYPE 1&2 ANTIBODY, IgG*

University of Vermont Medical Center

Additional Test Codes

Primary ID	Epic Code	Mayo Access ID
HSVIGP	LAB947	FAH5539

Test Schedule / Analytical Time / Test Priority

Monday, Wednesday, and Friday / 3 days / Not available STAT

Method

Chemiluminescence Immunoassay

CPT(s)

Description	CPT Code
HSV Type 1 Ab, IgG	86695
HSV Type 2 Ab, IgG	86696

Instrumentation

Diasorin Liaison XL

Reference Range

All ages: Negative

Section

Chemistry -2

Performing Location

University of Vermont Medical Center

Is the UVMMC lab NY State Certified to perform this testing? Yes/No

Yes

LOINC Code Information

Result Code	Reporting Name	LOINC Code
HSV1G	HSV Type 1 Ab, IgG	51916-5
HSV2G	HSV Type 2 Ab, IgG	43180-9

Specimen Information — HSV TYPE 1&2 ANTIBODY, IgG

Container	Specimen	Temperature	Collect Vol	Submit Vol	Minimum Vol	Stability
Serum Separator Tube	Serum	Refrigerate	4 mL	0.8 mL	0.3 mL	7 days

Serum should be separated from clotted blood as soon as possible and stored at 2 - 8° C.

AIO *IDENTIFY ISOLATED ANAEROBE*

University of Vermont Medical Center

Additional Test Codes

Primary ID	Epic Code	Mayo Access ID
AIO	LAB1292	FAH5085

Test Schedule / Analytical Time / Test Priority

Daily / 2-3 days / Not available STAT

Method

Culture

CPT(s)

Description	CPT Code
Identify Isolated Anaerobe	87076

Instrumentation

Manual Method

Section

Microbiology-1

Performing Location

University of Vermont Medical Center

Is the UVMMC lab NY State Certified to perform this testing? Yes/No

Yes

LOINC Code Information

Order Code	Reporting Name	LOINC Code
AIO	Identify Isolated Anaerobe	42803-7

Specimen Information — IDENTIFY ISOLATED ANAEROBE

Container	Specimen	Temperature	Collect Vol	Submit Vol	Minimum Vol
Plate/Slant	Isolated Organism	Ambient	N/A	N/A	N/A

Package anaerobically.

IO *IDENTIFY ISOLATED ORGANISM*

University of Vermont Medical Center

Important Note

Charge for each organism isolated. If a susceptibility test is also needed, order Organism Identification &Susceptibility (Test Code: IOSUSC) instead.

Additional Test Codes

Primary ID	Epic Code	Mayo Access ID
IO	LAB2541	FAH5067

Test Schedule / Analytical Time / Test Priority

Daily / 2-3 days / Not available STAT

Method

Culture

CPT(s)

Description	CPT Code
Identify Isolated Organism	87077

Instrumentation

Manual Method

Section

Microbiology-1

Performing Location

University of Vermont Medical Center

Is the UVMMC lab NY State Certified to perform this testing? Yes/No

Yes

LOINC Code Information

Order Code	Reporting Name	LOINC Code
IO	Identify Isolated Organism	41852-5

Specimen Information — IDENTIFY ISOLATED ORGANISM

Container	Specimen	Temperature	Collect Vol	Submit Vol	Minimum Vol
Plate/Slant	Isolated Organism	Ambient	N/A	N/A	N/A

IGAS *IgA*

University of Vermont Medical Center

Important Note
See also Immunoglobulins.

Additional Test Codes

Primary ID	Epic Code	Mayo Access ID
IGAS	LAB1077	FAH5813

Test Schedule / Analytical Time / Test Priority
Monday – Friday / 3 days / Not available STAT

Method
Immunoturbidometric

CPT(s)

Description	CPT Code
IgA	82784

Instrumentation
Binding Site Optilite

Section
Chemistry-2

Performing Location
University of Vermont Medical Center

Is the UVMMC lab NY State Certified to perform this testing? Yes/No
Yes

LOINC Code Information

Result Code	Reporting Name	LOINC Code
IGA	IgA	2458-8

Specimen Information — IgA

Container	Specimen	Temperature	Collect Vol	Submit Vol	Minimum Vol	Stability
SST	Serum	Refrigerate	5 mL	0.5 mL	0.2 mL	7 days

Heparinized plasma (green top) is NOT acceptable. Markedly hemolyzed or lipemic samples are not acceptable.

Reference Range — IgA

Age	Sex	Physiological Status	Low	High	Units
0 - 1 year	All	N/A	0	83	mg/dL
1 - 4 years	All	N/A	20	100	mg/dL
4 - 7 years	All	N/A	27	195	mg/dL
7 - 10 years	All	N/A	34	305	mg/dL
10 - 12 years	All	N/A	53	204	mg/dL
12 - 14 years	All	N/A	58	359	mg/dL
14 - 16 years	All	N/A	47	249	mg/dL
16 - 19 years	All	N/A	61	348	mg/dL
≥19 years	All	N/A	84.5	499	mg/dL

IGE *IgE*

University of Vermont Medical Center

Additional Test Codes

Primary ID	Epic Code	Mayo Access ID
IGE	LAB74	FAH177

Test Schedule / Analytical Time / Test Priority

Monday, Wednesday, and Friday / 3 days / Not available STAT

Method

Chemiluminescence Immunoassay

CPT(s)

Description	CPT Code
IgE	82785

Instrumentation

Siemens ADVIA Centaur XPT

Section

Chemistry-2

Performing Location

University of Vermont Medical Center

Is the UVMMC lab NY State Certified to perform this testing? Yes/No

Yes

LOINC Code Information

Result Code	Reporting Name	LOINC Code
IGE	IgE	19113-0

Specimen Information — IgE

Container	Specimen	Temperature	Collect Vol	Submit Vol	Minimum Vol	Stability
Serum Separator Tube	Serum	Refrigerate	2.5 mL	0.5 mL	0.3 mL	7 days

Reference Range — IgE

ge	Sex	Physiological Status	Low	High	Units
0 - 1 year	All	N/A	<52		IU/mL
1 - 5 years	All	N/A	<352		IU/mL
5 - 11 years	All	N/A	<393		IU/mL
11 - 16 years	All	N/A	<170		IU/mL
≥16 years	All	N/A	<158		IU/mL

IGGS *IgG*

University of Vermont Medical Center

Important Note
See also immunoglobulins.

Additional Test Codes

Primary ID	Epic Code	Mayo Access ID
IGGS	LAB71	FAH5812

Test Schedule / Analytical Time / Test Priority
Monday – Friday / 3 days / Not available STAT

Method
Immunoturbidometric

CPT(s)

Description	CPT Code
IgGS	82784

Instrumentation
Binding Site Optilite

Section
Chemistry-2

Performing Location
University of Vermont Medical Center

LOINC Code Information

Result Code	Reporting Name	LOINC Code
IGGS	IgG	2465-3

Specimen Information — IgG

Container	Specimen	Temperature	Collect Vol	Submit Vol	Minimum Vol	Stability
SST	Serum	Refrigerate	5 mL	0.5 mL	0.2 mL	8 days

Heparinized plasma (green top) is NOT acceptable. Markedly hemolyzed or lipemic samples are not acceptable.

Reference Range — IgG

Age	Sex	Physiological Status	Low	High	Units
0 - 2 years	All	N/A	327	1270	mg/dL
2 - 4 years	All	N/A	468	1250	mg/dL
4 - 6 years	All	N/A	532	1340	mg/dL
6 - 8 years	All	N/A	454	1360	mg/dL
8 - 10 years	All	N/A	568	1360	mg/dL
10 - 12 years	All	N/A	568	1490	mg/dL
12 - 14 years	All	N/A	664	1490	mg/dL
14 - 19 years	All	N/A	550	1440	mg/dL
≥19 years	All	N/A	610	1616	mg/dL

IGGIN *IgG INDEX, CSF*

University of Vermont Medical Center

Important Note

Both serum and CSF required for testing. Testing includes: Serum IgG, Serum Albumin, CSF IgG, CSF albumin, CSF IgG/albumin ratio, CSF IgG index and IgG synthesis rate.

Additional Test Codes

Primary ID	Epic Code	Mayo Access ID
IGGIN	LAB555	FAH5275

Test Schedule / Analytical Time / Test Priority

Monday, Wednesday and, Friday / 3 days / Not available STAT

Method

See individual test.

CPT(s)

Description	CPT Code
CSF Albumin	82042
CSF IgG	82784
Serum Albumin	82040
Serum IgG	82784

Instrumentation

See individual tests

Reference Range

≥18 years:
CSF IgG/Albumin Ratio: ≤ 0.24 ratio
CSF IgG Index:≤ 0.84 index;
CSF IgG Synthesis Rate: ≤ 8 mg/24-hours

Section

Chemistry-2

Performing Location

University of Vermont Medical Center

Is the UVMMC lab NY State Certified to perform this testing? Yes/No

Yes

LOINC Code Information

Result Code	Reporting Name	LOINC Code
CSFIGG	CSF IgG	2464-6
CALB	CSF Albumin	1746-7
IGG	IgG	2465-3
ALB	Albumin	1751-7
CIGAL	CSF IgG/Albumin	2470-3
CIGGIN	CSF IgG Index	14117-6
SYNRAT	Synthesis Rate	14116-8

Specimen Information — IgG INDEX, CSF

Container	Specimen	Temperature	Collect Vol	Submit Vol	Minimum Vol	Stability
Serum Separator Tube	Serum	Refrigerate	4.0 mL	0.5 mL	0.2 mL	5 days
CSF Tube	CSF	Refrigerate	1 mL	0.8 mL	0.5 mL	7 days

Both serum and CSF required for testing.

CIGG *IgG, CSF*

University of Vermont Medical Center

Additional Test Codes

Primary ID	Epic Code	Mayo Access ID
CIGG	LAB997	FAH4822

Test Schedule / Analytical Time / Test Priority

Monday, Wednesday and, Friday / 3 days / Not available STAT

Method

Immunoturbidometric

CPT(s)

Description	CPT Code
IgG, CSF	82784

Instrumentation

Binding Site Optilite

Section

Chemistry-2

Performing Location

University of Vermont Medical Center

Is the UVMMC lab NY State Certified to perform this testing? Yes/No

Yes

LOINC Code Information

Result Code	Reporting Name	LOINC Code
CIGG	CSF IgG	2464-6

Specimen Information — IgG, CSF

Container	Specimen	Temperature	Collect Vol	Submit Vol	Minimum Vol	Stability
CSF Tube	CSF	Refrigerate	0.7 mL	0.7 mL	0.3 mL	7 days

Reference Range — IgG, CSF

Age	Sex	Physiological Status	Low	High	Units
≥18 years	All		0.0	5.0	mg/dL

IGMS *IgM*

University of Vermont Medical Center

Additional Test Codes

Primary ID	Epic Code	Mayo Access ID
IGMS	LAB72	FAH5814

Test Schedule / Analytical Time / Test Priority

Monday – Friday / 3 days / Not available STAT

Method

Immunoturbidometric

CPT(s)

Description	CPT Code
IgM	82784

Instrumentation

Binding Site Optilite

Section

Chemistry-2

Performing Location

University of Vermont Medical Center

Is the UVMMC lab NY State Certified to perform this testing? Yes/No

Yes

LOINC Code Information

Result Code	Reporting Name	LOINC Code
IGM	IgM	2472-9

Specimen Information — IgM

Container	Specimen	Temperature	Collect Vol	Submit Vol	Minimum Vol	Stability
SST	Serum	Refrigerate	5 mL	0.5 mL	0.2 mL	14 days

Heparinized plasma (green top tube) is **NOT** acceptable. Markedly hemolyzed or lipemic samples are not acceptable.

Reference Range — IgM

Age	Sex	Physiological Status	Low	High	Units
0 - 31 days	Male	N/A	12	78	mg/dL
31 - 183 days	Male	N/A	18	98	mg/dL
183 days - 1 year	Male	N/A	27	132	mg/dL
1 - 4 years	Male	N/A	42	161	mg/dL
4 - 7 years	Male	N/A	43	166	mg/dL
7 - 10 years	Male	N/A	33	155	mg/dL
10 - 13 years	Male	N/A	39	167	mg/dL
13 - 16 years	Male	N/A	38	200	mg/dL
16 - 19 years	Male	N/A	40	195	mg/dL
≥19 years	Male	N/A	35	242	mg/dL
0 - 31 days	Female	N/A	13	70	mg/dL
31 - 183 days	Female	N/A	12	142	mg/dL
183 days - 1 year	Female	N/A	12	145	mg/dL
1 - 4 years	Female	N/A	47	200	mg/dL
4 - 7 years	Female	N/A	54	200	mg/dL
7 - 10 years	Female	N/A	42	181	mg/dL
10 - 13 years	Female	N/A	54	228	mg/dL
13 - 16 years	Female	N/A	46	242	mg/dL
16 - 19 years	Female	N/A	58	241	mg/dL
≥19 years	Female	N/A	35	242	mg/dL

IP *IMMUNODEFICIENCY PANEL (T-CELL SUBSETS ONLY)*

University of Vermont Medical Center

Important Note

Hemagram and differential (CBCDF) are required for total CD4 count (absolute). Outside clients may submit a hemagram with differential from their own instrumentation with the sample or place an order for a CBCDF and also submit a lavender top tube (EDTA) for testing. If the CBCDF will not be tested within 12 hours, also submit a properly labelled smear. A CBCDF must be performed within 24 hours of the subset analysis, however a CBCDF drawn at the same time is optimal.

Additional Test Codes

Primary ID	Epic Code	Mayo Access ID
IP	LAB2318	FAH293

Test Schedule / Analytical Time / Test Priority

Monday – Saturday / 3 days / Not available STAT

Method

Flow Cytometry

CPT(s)

Description	CPT Code
CD 3	86359
CD 4 & CD 8	86360

Instrumentation

Beckman Coulter FC500 and Beckman Coulter Navios

Reference Range

CD3% = 62 – 87%
CD4%= 35 – 63%
CD8% = 10 – 35%
Absolute CD4 = 329 – 1427 cells/uL

Section

Immunology

Performing Location

University of Vermont Medical Center

Is the UVMMC lab NY State Certified to perform this testing? Yes/No

Yes

LOINC Code Information

Result Code	Reporting Name	LOINC Code
CD3	CD3	20599-7
CD4	CD4	32516-7
CD8	CD8	32518-3
TOTCD4	Absolute CD4	32515-9

Specimen Information — IMMUNODEFICIENCY PANEL (T-CELL SUBSETS ONLY)

Container	Specimen	Temperature	Collect Vol	Submit Vol	Minimum Vol	Stability
Sodium Heparin Tube	Whole Blood	Ambient	4 mL	2 mL	1 mL	48 hours
Purple Top (EDTA)	Whole Blood	Ambient	4 mL	2 mL	1 mL	30 hours

Samples drawn in sodium heparin (supply #032050) must be tested within 48 hours of collection. Lavender top tube (EDTA) is also acceptable. EDTA samples must be tested within 30 hours. A clinical history and a properly filled out laboratory requisition must be provided.

IMM *IMMUNODEFICIENCY PANEL (T, B & NK CELL SUBSETS)*

University of Vermont Medical Center

Important Note

Hemagram and differential (CBCDF) are required for absolute counts. Dual platform analysis is performed when done at the University of Vermont Laboratory. Outside clients may submit a hemagram and differential from their own instrumentation with the sample or place an order for a CBCDF and submit an EDTA for testing. If the CBCDF will not be tested within 12 hours, also submit a properly labelled smear.

A CBCDF must be performed within 24 hours of the subset analysis, however a CBCDF drawn at the same time is optimal.

Additional Test Codes

Primary ID	Epic Code	Mayo Access ID
IMM	LAB343	FAH5221

Test Schedule / Analytical Time / Test Priority

Monday – Saturday / 3 days / Not available STAT

Method

Flow Cytometry

CPT(s)

Description	CPT Code
CD 19	86355
CD 3	86359
CD 4 & CD 8	86360
CD NK	86357

Instrumentation

Beckman Coulter Navios

Reference Range

Pediatric Reference Ranges

Age	CD3%	CD4%	CD8%	CD19%	CD16+56%	Absolute CD4
0-2 Mos.	53-84%	35-64%	12-28%	6-32%	4-18%	1600-4000 cells/uL
3-5 Mos	51-77%	35-56%	12-23%	11-41%	3-14%	1800-4000 cells/uL
6-11 Mos.	49-76%	31-56%	12-24%	14-37%	3-15%	1400-4300 cells/uL
12-23 Mos.	53-75%	32-51%	14-30%	16-35%	3-15%	1300-3400 cells/uL
2-5 Yrs.	56-75%	28-47%	16-30%	14-33%	4-17%	700-2200 cells/uL
6-11 Yrs.	60-76%	31-47%	18-35%	13-17%	3-22%	650-1500 cells/uL
12-17 Yrs.	56-84%	31-52%	18-35%	6-23%	3-22%	530-1300 cells/uL

Adult Reference Ranges

Subset	%	Absolute
CD3%	62-87%	548-2118 cells/uL
CD4%	35-63%	329-1427 cells/uL
CD8%	10-35%	66-750 cells/uL
CD19%	5-22%	<488 cells/uL
CD16+56%	5-23%	72-425 cells/uL

Section

Immunology

Performing Location

University of Vermont Medical Center

Is the UVMMC lab NY State Certified to perform this testing? Yes/No

Yes

LOINC Code Information

Result Code	Reporting Name	LOINC Code
CD3	CD3	20599-7
CD4	CD4	32516-7
CD8	CD8	32518-3
CD19	CD19	20593-0
CDNK	CD16+CD56	21166-4
TOTCD3	Absolute CD3	20598-9
TOTCD4	Absolute CD4	32515-9
TOTCD8	Absolute CD8	in process
TOT19	Absolute CD19	in process
TOTNK	Absolute CD16+CD56	in process

Specimen Information — IMMUNODEFICIENCY PANEL (T, B & NK CELL SUBSETS)

Container	Specimen	Temperature	Collect Vol	Submit Vol	Minimum Vol
Sodium Heparin Tube	Whole Blood	Ambient	4 mL	2 mL	2 mL
Purple Tube (EDTA)	Whole Blood	Ambient	4 mL	2 mL	2 mL

Samples collected in sodium Heparin must be tested within 48 hours of collection. Samples collected in EDTA must be tested within 30 hours of collection.

IGAMS *IMMUNOGLOBULINS*

University of Vermont Medical Center

Important Note
Test includes IgA, IgG, and IgM.

Additional Test Codes

Primary ID	Epic Code	Mayo Access ID
IGAMS	LAB166	FAH5811

Test Schedule / Analytical Time / Test Priority
Monday – Friday, run starts at 10 am / 3 days / Not available STAT

Method
Immunoturbidometric

CPT(s)

Description	CPT Code
IgA	82784
IgG	82784
IgM	82784

Instrumentation
Binding Site Optilite

Reference Range
See individual Tests.

Section
Chemistry-2

Performing Location
University of Vermont Medical Center

Is the UVMMC lab NY State Certified to perform this testing? Yes/No
Yes

LOINC Code Information

Result Code	Reporting Name	LOINC Code
IGG	IgG	2465-3
IGA	IgA	2458-8
IGM	IgM	2472-9

Specimen Information — IMMUNOGLOBULINS

Container	Specimen	Temperature	Collect Vol	Submit Vol	Minimum Vol	Stability
SST	Serum	Refrigerate	4.0 mL	0.5 mL	0.3 mL	7 days

Heparinized plasma (green top) is NOT acceptable. Markedly hemolyzed or lipemic samples are not acceptable.

SPEPIT *IMMUNOTYPING/ELECTROPHORESIS*

University of Vermont Medical Center

Important Note

Test includes Immuonotyping, Professional Interpretation, Protein Electrophoresis, and Total Protein

Additional Test Codes

Primary ID	Epic Code	Mayo Access ID
SPEPIT	LAB174	FAH5912

Test Schedule / Analytical Time / Test Priority

Monday – Friday, run starts at 8 am / 3 days / Not available STAT

Method

Capillary Electrophoresis

CPT(s)

Description	CPT Code
Immunofixation	86334
Immunofixation Part B	86334.26
Protein Electrophoresis	84165
Protein, Total	84155

Instrumentation

Sebia Capillarys 2 Flex

Reference Range

All ages: Negative for Monoclonal Immunoglobulins

Section

Chemistry-2

Performing Location

University of Vermont Medical Center

Is the UVMMC lab NY State Certified to perform this testing? Yes/No

Yes

Specimen Information — IMMUNOTYPING/ELECTROPHORESIS

Container	Specimen	Temperature	Collect Vol	Submit Vol	Minimum Vol	Stability
Serum Separator Tube	Serum	Refrigerate	4 mL	1.5 mL	0.5 mL	5 days

Heparin tube (green) is NOT acceptable.

IOFLUR *INPATIENT / OUTPATIENT INFLUENZA, RSV, PCR*

University of Vermont Medical Center

Additional Test Codes

Primary ID	Epic Code	Mayo Access ID
IOFLUR	LAB3757	FAH5834

Specimen Information

Container	Specimen	Temperature	Collect Vol	Submit Vol	Minimum Vol	Stability
Viral Collection Kit (M6)	Nasphopharyngeal	Refrigerate	2 mL	2 mL	1 mL	4 days
Sterile Container	Respiratory Fluid	Refrigerate	2 mL	2mL	1 mL	4 days

Viral Collection Kit (M6)

COLLECTION
1. Insert the tip of the floqswab swab into a nostril to obtain a specimen from the posterior nasopharynx.
2. Do not force the swab; resistance will be felt when the posterior nasopharynx is reached.
3. Rotate the swab and leave it in place for 10-30 seconds or until the patient coughs.
4. Repeat the process for the second nostril

Test Schedule / Analytical Time / Test Priority

Daily / One day / Not available STAT

Method

PCR

CPT(s)

Narrative	CPT
Respiratory Virus	87631 x 1

Instrumentation

Hologic Panther Fusion

Reference Range

No virus detected

Section

Microbiology-2

Performing Location

University of Vermont Medical Center

Is the UVMMC lab NY State Certified to perform this testing? Yes/No

No

LOINC Code Information

In process

INS *INSULIN*

University of Vermont Medical Center

Important Note

The patient should be fasting, as reference range is based on fasting individuals.

Additional Test Codes

Primary ID	Epic Code	Mayo Access ID
INS	LAB527	FAH201

Test Schedule / Analytical Time / Test Priority

Thursday / 7 days / Not available STAT

Method

Chemiluminescence Immunoassay

CPT(s)

Description	CPT Code
Insulin	83525

Instrumentation

Abbott Architect i1000

Section

Chemistry-2

Performing Location

University of Vermont Medical Center

Is the UVMMC lab NY State Certified to perform this testing? Yes/No

Yes

LOINC Code Information

Result Code	Reporting Name	LOINC Code
INS	Insulin	20448-7

Specimen Information — INSULIN

Container	Specimen	Temperature	Collect Vol	Submit Vol	Minimum Vol	Stability
Serum Separator Tube	Serum	Frozen	4 mL	1 mL	1 mL	7 days
EDTA (Lavender Top)	Plasma	Frozen	4 mL	1 mL	1 mL	7 days

Reference Range — INSULIN

ge	Sex	Physiological Status	Low	High	Units
0 - 1 year	All	N/A	<23.5		uIU/m
1 - 6 years	All	N/A	<40.2		uIU/m
6 - 19 years	All	N/A	<49.7		uIU/m
≥19 years	All	N/A	<29		uIU/m

ICAL *IONIZED CALCIUM*

University of Vermont Medical Center

Important Note

Place heparinized syringe or unspun green top tube on ice and transport immediately to lab.
For Green Top tubes - Do not remove cap and fill to black fill line. As long as the cap has **NOT** been removed, spun tubes are acceptable for 3-hours at ambient temperature or 24-hours if refrigerated.

Additional Test Codes

Primary ID	Epic Code	Mayo Access ID
ICAL	LAB2039	FAH5668

Test Schedule / Analytical Time / Test Priority

Daily / Immediately / Available STAT

Method

Ion-Selective Electrode

CPT(s)

Description	CPT Code
Calcium, Ionized, Whole Blood	82330

Instrumentation

Siemens Rapid Point 500

Section

Chemistry-1

Performing Location

University of Vermont Medical Center

Is the UVMMC lab NY State Certified to perform this testing? Yes/No

Yes

LOINC Code Information

Result Code	Reporting Name	LOINC Code
ICA	Calcium, Ionized	1994-3

Specimen Information — IONIZED CALCIUM

Container	Specimen	Temperature	Collect Vol	Submit Vol	Minimum Vol	Stability
**Green Top Tube	Whole Blood	Ambient	3 mL	3 mL	0.8 mL	30 minutes
**Green Top Tube	Whole Blood	On ice	3 mL	3 mL	0.8 mL	4 Hours
*Syringe	Heparinized Whole Blood	Ambient	3 mL	3 mL	0.8 mL	30 minutes
*Syringe	Heparinized Whole Blood	On Ice	3 mL	3 mL	0.8 mL	4 Hours
Green Top	Plasma	Ambient	3 mL	3 mL	0.8 mL	3 Hours
Green Top	Plasma	Refrigerate	3 mL	3 mL	0.8 mL	24 Hours

For Green Top tubes – **Do not remove the cap and fill to black fill line see below.
Sodium heparin or lithium heparin are both acceptable. Plasma separator tube (PST) is acceptable.
*For syringes remove needle and cap immediately.
Frozen samples are NOT acceptable. On ice samples ONLY.
Overheparinization and exposure to air can decrease result.
Green microtainers are not ideal for this assay and should be used when a vacutainer cannot be obtained and will only be accepted from NICU, NUR, B5 and PICU patients.
For Green Top tubes – **Do not remove the cap and fill to black fill line see below.

Reference Range — IONIZED CALCIUM

Age	Sex	Physiological Status	Low	High	Units
0 - 1 month	All	N/A	1.0	1.5	mmol/L
1 - 6 months	All	N/A	0.95	1.5	mmol/L
≥6 months	All	N/A	1.12	1.32	mmol/L

IRON *IRON*

University of Vermont Medical Center

Important Note

Test subject to Medicare National Coverage Determination 190.18 - Serum Iron Studies.

Additional Test Codes

Primary ID	Epic Code	Mayo Access ID
IRON	LAB94	FAH130

Test Schedule / Analytical Time / Test Priority

Daily / 1 day / Available STAT

Method

Colorimetric

CPT(s)

Description	CPT Code
Iron	83540

Instrumentation

Ortho Vitros 5600

Section

Chemistry-1

Performing Location

University of Vermont Medical Center

Is the UVMMC lab NY State Certified to perform this testing? Yes/No

Yes

LOINC Code Information

Result Code	Reporting Name	LOINC Code
IRON	Iron	2498-4

Specimen Information — IRON

Container	Specimen	Temperature	Collect Vol	Submit Vol	Minimum Vol	Stability
SST	Serum	Refrigerate	4 mL	1 mL	0.3 mL	7 days
Lithium heparin (green top tube)	Plasma	Refrigerate	4 mL	1 mL	0.3 mL	7 days
*Green Microtainer		Refrigerate	0.6 mL			7 days

Hemolysis affects result, please submit non-hemolyzed sample.
*While a microtainer is an optional tube type in rare circumstances, it is **not recommended.**

Reference Range — IRON

Age	Sex	Physiological Status	Low	High	Units
0 - 43 days	Male	N/A	100	250	ug/dL
43 days - 1 year	Male	N/A	40	100	ug/dL
1 - 11 years	Male	N/A	50	120	ug/dL
11 - 18 years	Male	N/A	65	175	ug/dL
≥18 years	Male	N/A	49	181	ug/dL
0 - 43 days	Female	N/A	100	250	ug/dL
43 days - 1 year	Female	N/A	40	100	ug/dL
1 - 11 years	Female	N/A	50	120	ug/dL
11 - 18 years	Female	N/A	50	170	ug/dL
≥18 years	Female	N/A	37	170	ug/dL

IBC *IRON BINDING CAPACITY*

University of Vermont Medical Center

Important Note

Test subject to Medicare National Coverage Determination 190.18 - Serum Iron Studies.

Additional Test Codes

Primary ID	Epic Code	Mayo Access ID
IBC	LAB829	FAH131

Test Schedule / Analytical Time / Test Priority

Daily / 1 day / Available STAT

Method

Colorimetric

CPT(s)

Description	CPT Code
Iron Binding Capacity	83550

Instrumentation

Ortho Vitros 5600

Section

Chemistry-1

Performing Location

University of Vermont Medical Center

Is the UVMMC lab NY State Certified to perform this testing? Yes/No

Yes

LOINC Code Information

Result Code	Reporting Name	LOINC Code
IBC	IBC	2500-7

Specimen Information — IRON BINDING CAPACITY

Container	Specimen	Temperature	Collect Vol	Submit Vol	Minimum Vol	Stability
SST	Serum	Refrigerate	4 mL	1 mL	0.3 mL	7 days
*Yellow Microtainer		Refrigerate	0.6 mL			7 days

Hemolysis affects results. Please submit a non-hemolyzed sample.
*While a microtainer is an optional tube type in rare circumstances, it is **not recommended.**

Reference Range — IRON BINDING CAPACITY

Age	Sex	Physiological Status	Low	High	Units
0 - 1 year	Male		100	400	ug/dL
≥1 year	Male		261	462	ug/dL
0 - 1 year	Female		100	400	ug/dL
≥1 year	Female		265	497	ug/dL

KIDST *Kidney Stone Analysis*

Mayo Clinic Laboratories in Rochester

Additional Test Codes

Primary ID	Epic Code	Mayo Test ID
KIDST1	LAB564	KIDST

Shipping Instructions

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Necessary Information

Specimen source is required.

Specimen Required

Supplies: Stone Analysis Collection Kit (T550)
Sources: Bladder, kidney, prostatic, renal, or urinary
Specimen Volume: Entire dried calculi specimen
Collection Instructions:
1. Have patient collect specimen using the Patient Collection Instructions for Kidney Stones (see Special Instructions).
2. Prepare specimen per Guiding Proper Stone Collection information (see Special Instructions).
2. **Do not place stone directly in a bag.** If specimen is received in a bag, either transfer stone into a screw-capped, plastic container or place bag containing stone in a screw-capped, plastic container.

Forms

If not ordering electronically, complete, print, and send 1 of the following forms with the specimen:
-General Request (T239)
-Renal Diagnostics Test Request (T830)

Useful For

Managing patients with recurrent renal calculi

Testing Algorithm

Upon arrival in the performing laboratory, all stone specimens and the containers they are received in will be inspected. Prior to analysis, stones must be clean and dry. If the stone, or its container, has any amount of moisture, blood, or foreign material present, the laboratory will add the STNPC and perform cleaning and drying of the specimen at an additional charge.

Special Instructions

- Patient Collection Instructions for Kidney Stones
- Guiding Proper Stone Collection

Method Name

Infrared Spectrum Analysis

Reporting Name

Kidney Stone Analysis

Specimen Type

Stone

Specimen Minimum Volume

Entire stone

Specimen Stability Information

Specimen Type	Temperature	Time	Special Container
Stone	Ambient (preferred)		
	Frozen	365 days	
	Refrigerated	365 days	

Reject Due To

All specimens will be evaluated at Mayo Clinic Laboratories for test suitability.

Reference Values

The presence of a kidney stone is abnormal. A quantitative report will be provided after analysis.

Day(s) and Time(s) Performed

Monday through Friday; 8 a.m.-8 p.m.
Saturday; 8 a.m.-3 p.m.; Continuously

Analytic Time

2 days

Specimen Retention Time

7 days

Test Classification

This test uses a standard method. Its performance characteristics were determined by Mayo Clinic in a manner consistent with CLIA requirements. This test has not been cleared or approved by the U.S. Food and Drug Administration.

CPT Code Information

82365

LOINC Code Information

Test ID	Test Order Name	Order LOINC Value
KIDST	Kidney Stone Analysis	74446-6

Result ID	Test Result Name	Result LOINC Value
605761	Kidney Stone Analysis	40787-4
SRC1	Source:	31208-2
605762	Interpretation	9795-6

NY State Approved

Yes

Reflex Tests

Test ID	Reporting Name	Available Separately	Always Performed
STNPC	Stone Processing Charge	No, (Result Bill)	No

KLI *KLEIHAUER TEST, BLOOD*

University of Vermont Medical Center

Important Note

Maternal Rh status and testing indication should be provided with each order.

Additional Test Codes

Primary ID	Epic Code	Mayo Access ID
KLI	LAB762	FAH234

Test Schedule / Analytical Time / Test Priority

Monday – Friday 7 am to 3:30 only / 1 day / Not available STAT

Method

Acid Elution of Adult Hemoglobin

CPT(s)

Description	CPT Code
Kleihauer Test, Blood	85460

Instrumentation

Manual Method

Reference Range

No fetal cells seen

Section
Hematology

Performing Location
University of Vermont Medical Center

Is the UVMMC lab NY State Certified to perform this testing? Yes/No
Yes

LOINC Code Information

Result Code	Reporting Name	LOINC Code
KLI	Kleihauer test, Blood	48555-7

Clinical Indications

Definitely Indicated	Clinical Judgment	Not Indicated
RhIG (if positive fetal screen)	Maternal Trauma	External cephalic version
Fetal loss > 20wks	Neonatal Anemia	Non-traumatic abruption
Fetal hydrops	Cord blood sample	Vaginal bleeding
High clinical concern for massive fetal maternal hemorrhage with MCA dopplers		

If the patient is Rh (-) a Fetal Screen Test should be initially ordered. A Kleihauer-Betke will automatically be reflexed and run on all positive fetal screens.
The Kleihauer-Betke (KB) test is designed to quantitate fetal red blood cells, but the results have been shown to be imprecise with a large coefficient of variation (CV). It is often utilized to quantitate large fetomaternal hemorrhages at the time of delivery in Rh (-) women for appropriate dosing of RhIG to prevent Rh alloimmunization. Although it can be used during pregnancy in both Rh (-) and Rh (+) women to detect fetomaternal hemorrhage, the evidence to support its utility are limited and results should be interpreted with caution.

Specimen Information — KLEIHAUER TEST, BLOOD

Container	Specimen	Temperature	Collect Vol	Submit Vol	Minimum Vol
Lavender Top Tube	Whole Blood	Refrigerate	2.5 mL	2.5 mL	1.5 mL

LACTIC *LACTIC ACID*

University of Vermont Medical Center

Additional Test Codes

Primary ID	Epic Code	Mayo Access ID
LACTIC	LAB729	FAH4916

Specimen Information

Container	Specimen	Temperature	Collect Vol	Submit Vol	Minimum Vol	Stability
Green Top Tube (LithiumHeparin)	Plasma	Refrigerate	6 mL	2 mL	0.5 mL	*
Green Microtainer		Refrigerate	0.6 mL			

***Ideal**	Collected	Placed on ice immediately	Spun within 15 minutes of collection
***Acceptable**	Collected	Placed on ice within 15 minutes	Spun within 1 hour of collection
Reject	Collected	Not placed on ice within 15 minutes of collection	Not spun within 1 hour of collection

*While a microtainer is an optional tube type in rare circumstances, it is **not recommended.**

Test Schedule / Analytical Time / Test Priority

Daily / 1 day / Available STAT

Method

Colorimetric

CPT(s)

Description	CPT Code
Lactic Acid	83605

Instrumentation

Ortho Vitros 5600

Reference Range

All ages: ≤ 2.0 mmol/L

Section

Chemistry-1

Performing Location

University of Vermont Medical Center

Is the UVMMC lab NY State Certified to perform this testing? Yes/No

Yes

LOINC Code Information

Result Code	Reporting Name	LOINC Code
LACTIC	Lactic Acid	32693-4

CLAC *LACTIC ACID, CSF*

University of Vermont Medical Center

Additional Test Codes

Primary ID	Epic Code	Mayo Access ID
CLAC	LAB187	N/A

Test Schedule / Analytical Time / Test Priority

Daily / 1 day / Available STAT

Method

Colorimetric

CPT(s)

Description	CPT Code
Lactic Acid, CSF	83605

Instrumentation

Ortho Vitros 5600

Reference Range

No established reference range available.

Section

Chemistry-1

Performing Location

University of Vermont Medical Center

Is the UVMMC lab NY State Certified to perform this testing? Yes/No

Yes

LOINC Code Information

Result Code	Reporting Name	LOINC Code
CLAC	Lactic Acid, CSF	2520-5

Specimen Information — LACTIC ACID, CSF

Container	Specimen	Temperature	Collect Vol	Submit Vol	Minimum Vol	Stability
CSF Tube	CSF	Refrigerate	1 mL	1 mL	1 mL	*

Deliver to lab immediately. *Sample is stable unspun 6-hours refrigerated and spun 14-days refrigerated.

LDH *LDH*

University of Vermont Medical Center

Additional Test Codes

Primary ID	Epic Code	Mayo Access ID
LDH	LAB96	FAH257

Test Schedule / Analytical Time / Test Priority

Daily / 24 Hours / Available STAT

Method

Colorimetric

CPT(s)

Description	CPT Code
LDH	83615

Instrumentation

Ortho Vitros 5600

Section

Chemistry-1

Performing Location

University of Vermont Medical Center

Is the UVMMC lab NY State Certified to perform this testing? Yes/No

Yes

LOINC Code Information

Result Code	Reporting Name	LOINC Code
LDH	LDH	2532-0

Specimen Information — LDH

Container	Specimen	Temperature	Collect Vol	Submit Vol	Minimum Vol	Stability
SST	Serum	Refrigerate	4 mL	1 mL	0.6 mL	24 hours
Lithium Heparin (green) Tube	Plasma	Refrigerate	4 mL	1 mL	0.6 mL	24 hours
Green Microtainer		Refrigerate	0.6 mL			4 hours

Hemolysis affects results. Please submit a non-hemolyzed sample.

Reference Range — LDH

Age	Sex	Physiological Status	Low	High	Units
0 - 1 month	Male	N/A	550	2100	U/L
1 - 4 months	Male	N/A	480	1220	U/L
4 - 7 months	Male	N/A	400	1230	U/L
7 months - 1 year	Male	N/A	380	1200	U/L
1 - 4 years	Male	N/A	500	920	U/L
4 - 7 years	Male	N/A	470	900	U/L
7 - 10 years	Male	N/A	420	750	U/L
10 - 12 years	Male	N/A	432	700	U/L
12 - 14 years	Male	N/A	470	750	U/L
14 - 16 years	Male	N/A	360	730	U/L
16 - 18 years	Male	N/A	340	670	U/L
≥18 years	Male	N/A	313	618	U/L
0 - 1 month	Female	N/A	580	2000	U/L
1 - 4 months	Female	N/A	460	1150	U/L
4 - 7 months	Female	N/A	480	1150	U/L
7 months - 1 year	Female	N/A	460	1060	U/L
1 - 4 years	Female	N/A	500	920	U/L
4 - 7 years	Female	N/A	470	900	U/L
7 - 10 years	Female	N/A	420	750	U/L
10 - 12 years	Female	N/A	380	700	U/L
12 - 14 years	Female	N/A	380	640	U/L
14 - 16 years	Female	N/A	390	580	U/L
16 - 18 years	Female	N/A	340	670	U/L
≥18 years	Female	N/A	313	618	U/L

FLDH *LDH, FLUID*

University of Vermont Medical Center

Important Note

Best interpreted in the context of a paired serum or plasma LDH value.
Protein, Fluid will also be perfomed when a Fluid LDH is ordered.
CSF LDH must be sent to Mayo Clinic Laboratories for analysis.

Additional Test Codes

Primary ID	Epic Code	Mayo Access ID
FLDH	LAB188	FAH5015

Test Schedule / Analytical Time / Test Priority

Daily / 24 Hours / Available STAT

Method

Colorimetric

CPT(s)

Description	CPT Code
LDH, Fluid	83615

Instrumentation

Ortho Vitros 5600

Reference Range

No established reference range.

Section

Chemistry-1

Performing Location

University of Vermont Medical Center

Is the UVMMC lab NY State Certified to perform this testing? Yes/No

Yes

LOINC Code Information

Result Code	Reporting Name	LOINC Code
FLDH	LDH, Fluid	2529-6

Specimen Information — LDH, FLUID

Container	Specimen	Temperature	Collect Vol	Submit Vol	Minimum Vol	Stability
Sterile Container	Pleural or Peritoneal Fluid only	Refrigerate	2 mL	1 mL	0.2 mL	5 days

LDL *LDL CALCULATED*

University of Vermont Medical Center

Important Note

This test is NOT ORDERABLE as a stand alone test; See Lipid Profile (Test Code: LPR) for information.

Additional Test Codes

Primary ID	Epic Code	Mayo Access ID
LDL	Not an orderable test	N/A

Method

Colorimetric

Instrumentation

Ortho Vitros 5600

Reference Range

≥18 years:
Optimal: <100 mg/dL
Near Optimal: 100-129 mg/dL
Borderline High: 130-159 mg/dL
High: 160-189 mg/dL
Very High: ≥ 190 mg/dL
Pediatric: (<18 years)
Acceptable: <110 mg/dL
Borderline: 110-129 mg/dL
High: ≥130 mg/dL

Section

Chemistry-1

Performing Location

University of Vermont Medical Center

LOINC Code Information

Result Code	Reporting Name	LOINC Code
LDL	LDL, Calculated	2089-1

LEAD *LEAD*

University of Vermont Medical Center

Additional Test Codes

Primary ID	Epic Code	Mayo Access ID
LEAD	LAB98	FAH134

Test Schedule / Analytical Time / Test Priority

Monday – Friday / 1 day / Not available STAT

Method

Atomic Absorption/Graphite Furnace

CPT(s)

Description	CPT Code
Lead	83655

Instrumentation

Perkin Elmer Analyst 600

Reference Range

< 5 ug/dL

Section

Chemistry-2

Performing Location

University of Vermont Medical Center

Is the UVMMC lab NY State Certified to perform this testing? Yes/No

Yes

LOINC Code Information

Result Code	Reporting Name	LOINC Code
LEAD	Lead	10912-4

Specimen Information — LEAD

Container	Specimen	Temperature	Collect Vol	Submit Vol	Minimum Vol	Stability
Lavender Top Tube	Whole Blood	Refrigerate	4 mL	1 mL	0.3 mL	14 days
*Lavender Microtainer		Refrigerate	0.6 mL			14 days

*While a microtainer is an optional tube type in rare circumstances, it is **not recommended.**

LEGUAG *LEGIONELLA ANTIGEN DETECTION, URINE*

University of Vermont Medical Center

Important Note
Sample must be received within 24 hours.

Additional Test Codes

Primary ID	Epic Code	Mayo Access ID
LEGUAG	LAB1306	FAH5886

Test Schedule / Analytical Time / Test Priority
Daily / 24 Hours / Not available STAT

Method
Immunochromatographic Membrane Assay

CPT(s)

Description	CPT Code
Legionella Antigen Detection, Urine	87899

Instrumentation
Manual Method

Reference Range
No legionella antigen detected

Section
Microbiology-1

Performing Location
University of Vermont Medical Center

Is the UVMMC lab NY State Certified to perform this testing? Yes/No
Yes

LOINC Code Information

Order Code	Reporting Name	LOINC Code
LEGUAG	Legionella Antigen Detection, Urine	31870-9

Specimen Information — LEGIONELLA ANTIGEN DETECTION, URINE

Container	Specimen	Temperature	Collect Vol	Submit Vol	Minimum Vol
Sterile Container	Urine	Refrigerate	10 mL	10 mL	10 mL

Clean catch specimen preferred. First morning voided urine preferred.

LH *LH*

University of Vermont Medical Center

Additional Test Codes

Primary ID	Epic Code	Mayo Access ID
LH	LAB87	FAH150

Test Schedule / Analytical Time / Test Priority

Monday – Friday / 3 days/ Not available STAT

Method

Chemiluminescence Immunoassay

CPT(s)

Description	CPT Code
LH (Luteiniizing Hormone)	83002

Instrumentation

Siemens ADVIA Centaur XPT

Section

Chemistry-2

Performing Location

University of Vermont Medical Center

Is the UVMMC lab NY State Certified to perform this testing? Yes/No

Yes

LOINC Code Information

Result Code	Reporting Name	LOINC Code
LH	LH	10501-5

Specimen Information — LH

ontainer	Specimen	Temperature	Collect Vol	Submit Vol	Minimum Vol	Stability
SST	Serum	Refrigerate	4 mL	1 mL	0.5 mL	7 days

Reference Range — LH

Age	Sex	Physiological Status	Low	High	Units
	Female	Pre-Pubertal	<6		mIU/mL
	Female	Folicular (-12 to -4 days)	1.9	12.5	mIU/mL
	Female	Mid Cycle (-3 to +2 days)	8.7	76.3	mIU/mL
	Female	Luteal (+4 to +12 days)	0.5	16.9	mIU/mL
	Female	Post menopausal	15.9	54.0	mIU/mL
0 - 20 years	Male		<6.0		mIU/mL
20-70 years	Male		1.5	9.3	mIU/mL
≥70 years	Male		3.1	34.6	mIU/mL

LIPA *LIPASE*

University of Vermont Medical Center

Additional Test Codes

Primary ID	Epic Code	Mayo Access ID
LIPA	LAB99	FAH166

Test Schedule / Analytical Time / Test Priority

Daily / Same day / Available STAT

Method

Colorimetric

CPT(s)

Description	CPT Code
Lipase	83690

Instrumentation

Ortho Vitros 5600

Division

Chemistry-1

NYS Approved

Yes

LOINC Code Information

Result Code	Reporting Name	LOINC Code
LIPA	Lipase	3040-3

Specimen Information — LIPASE

Container	Specimen	Temperature	Collect Vol	Submit Vol	Minimum Vol	Stability
Serum Separator Tube	Serum	Refrigerate	4 mL	0.5 mL	0.3 mL	5 days
Lithium Heparin (Green) Tube	Plasma	Refrigerate	4 mL	0.5 mL	0.3 mL	5 days
*Green Microtainer		Refrigerate	0.6 mL			5 days

*While a microtainer is an optional tube type in rare circumstances, it is **not recommended.**

Reference Range — LIPASE

Age	Sex	Physiological Status	Low	High	Units
0 - 3 months	Male		<86		U/L
3 months - 1 year	Male		<96		U/L
1 - 2 years	Male		<136		U/L
2 - 7 years	Male		<176		U/L
7 - 11 years	Male		<176		U/L
11 - 15 years	Male		<196		U/L
15 - 18 years	Male		<196		U/L
≥18 years	Male		<251		U/L
0 - 3 months	Female		<86		U/L
3 months - 1 year	Female		<129		U/L
1 - 2 years	Female		<151		U/L
2 - 7 years	Female		<151		U/L
7 - 11 years	Female		<151		U/L
11 - 15 years	Female		<181		U/L
15 - 18 years	Female		<221		U/L
≥18 years	Female		<251		U/L

FLIPA *LIPASE, FLUID*

University of Vermont Medical Center

Important Note
Best interpreted in the context of a paired serum or plasma Lipase value.

Additional Test Codes

Primary ID	Epic Code	Mayo Access ID
FLIPA	LAB3109	FAH5725

Test Schedule / Analytical Time / Test Priority
Daily / 24 Hours / Available STAT

Method
Colorimetric

CPT(s)

Description	CPT Code
In process	

Instrumentation
Ortho Vitros 5600

Reference Range
No established reference range.

Section
Chemistry-1

Performing Location
University of Vermont Medical Center

Is the UVMMC lab NY State Certified to perform this testing? Yes/No
Yes

LOINC Code Information

Result Code	Reporting Name	LOINC Code
FLIPA	Lipase, Fluid	15212-4

Specimen Information — LIPASE, FLUID

Container	Specimen	Temperature	Collect Vol	Submit Vol	Minimum Vol	Stability
Sterile Container	Pleural or Pertioneal Fluid only	Refrigerate	2 mL	1 mL	0.2 mL	5 days

LPR *LIPID PANEL*

University of Vermont Medical Center

Important Note

he patient should be fasting, as reference ranges are based on fasting individuals.
Tests included are: Cholesterol, Triglycerides, HDL, LDL (calculated), Cholesterol/HDL ratio and non-HDL Cholesterol.
Test subject to Medicare National Coverage Determination (NCD) Cardiovascular Screening Blood Tests and 190.23 Lipids Testing.
This test is subject to reflex testing, see Laboratory Reflex Testing Policy, you have the option to decline reflex testing if you believe it is not medically necessary. If the triglyceride is greater than 400 mg/dL or the calculated LDL is deemed invalid a measured LDL will be performed.

Additional Test Codes

Primary ID	Epic Code	Mayo Access ID
LPR	LAB18	FAH4957

Test Schedule / Analytical Time / Test Priority

Daily / 24 Hours / Not available STAT

Method

See individual tests.

CPT(s)

Description	CPT Code
Lipid Profile	80061

Instrumentation

Ortho Vitros 5600

Reference Range

See individual tests.

Section

Chemistry-1

Performing Location

University of Vermont Medical Center

Is the UVMMC lab NY State Certified to perform this testing? Yes/No

Yes

LOINC Code Information

Result Code	Reporting Name	LOINC Code
CHOL	Cholesterol	2093-3
TRIG	Triglyceride	2571-8
HDL	HDL	2085-9
LDL	LDL, Calculated	2089-1
CHHDLR	Chol/HDL Ratio	9830-1
FASTN	Fasting?	49541-6
NHDLCH	Non HDL Cholesterol	43396-1

Specimen Information — LIPID PANEL

Container	Specimen	Temperature	Collect Vol	Submit Vol	Minimum Vol	Stability
SST	Serum	Refrigerate	4 mL	1.5 mL	0.8 mL	5 days
Lithium Heparin (Green Top)	Plasma	Refrigerate	4 mL	0.6 mL	0.3 mL	5 days

LITH *LITHIUM*

University of Vermont Medical Center

Additional Test Codes

Primary ID	Epic Code	Mayo Access ID
LITH	LAB29	FAH158

Test Schedule / Analytical Time / Test Priority

Daily / 24 Hours / Available STAT

Method

Colorimetric

CPT(s)

Description	CPT Code
Lithium	80178

Instrumentation

Ortho Vitros 5600

Reference Range

All ages:
Therapeutic Range: 0.6 – 1.2 mEq/L
Potentially Toxic: >1.5 mEq/L

Section

Chemistry-1

Is the UVMMC lab NY State Certified to perform this testing? Yes/No

Yes

LOINC Code Information

Result Code	Reporting Name	LOINC Code
LITH	Lithium	14334-7

Specimen Information — LITHIUM

Container	Specimen	Temperature	Collect Vol	Submit Vol	Minimum Vol	Stability
Serum Separator Tube	Serum	Refrigerate	4 mL	0.2 mL	0.1 mL	5 days
*Yellow Miicrotainer		Refrigerate	0.6 mL			5 days

Lithium heparin (green top) tubes are not acceptable.
*While a microtainer is an optional tube type in rare circumstances, it is **not recommended.**

LACASC *LUPUS ANTICOAGULANT CASCADE*

University of Vermont Medical Center

Important Note

Patient should not be on anticoagulation or acute phase/current clot at the time of collection.
Please specify if the patient is having an acute thrombosis.
This test includes DVV, Dilute Viper Venom, SCT, Silica Clotting Time, and LACINT, LA Cascade Summary, which is a pathology interpretation.
This test is subject to reflex testing, see Laboratory Reflex Testing Policy, you have the option to decline reflex testing if you believe it is not medically necessary.

ID	Reporting Name	Available Separately	Always Performed
LACONF	LA Confirm Test	No	No
SCCONF	Silica Confirm Test	No	No
DVV50	50/50 Mix DVV	No	No
SCT50	50/50 Mix for SCT	No	No
THT	Thrombin Time	Yes	No
FIB	Fibrinogen	Yes	No
THTHEP	THT Hepzyme	No	No
DVVHEP	DVV Heparin Removed	No	No
SCTHEP	SCT Hep Removed	No	No
LCONFH	DVV Confirm Hepzymed	No	No
SCONFH	SCT Confirm Hepzymed	No	No
ANTXAQ	Qualitative Anti Xa	No	No

Additional Test Codes

Primary ID	Epic Code	Mayo Access ID
LACASC	LAB3629	FAH5675

Test Schedule / Analytical Time / Test Priority

Monday and Thursday / Reported next day / Not available STAT

Method

Clot Based

CPT(s)

Description	CPT Code
Dilute Viper Venom	85613
Silica Clotting Time	85732
LA Cascade Summary	85390.26

Instrumentation

ACL TOP 500

Reference Range

See report.

Section

Coagulation

Performing Location

University of Vermont Medical Center

Is the UVMMC lab NY State Certified to perform this testing? Yes/No

Yes

LOINC Code Information

Result Code	Reporting Name	LOINC Code
LACINT	LA Cascade Summary	75514-0
DVV	Dilute Viper Venom	6303-2
SCT	Silica Clotting Time	34571-0

Specimen Information — LUPUS ANTICOAGULANT CASCADE

Container	Specimen	Temperature	Collect Vol	Submit Vol	Min Vol	Stability
Blue Top Tube	*Platelet Poor Plasma	Frozen	10.5 mL (*3 tubes)	**3 mL	**3 mL	6 months
Blue Top Tube	Whole Blood	Ambient	10.5 mL (*3 tubes)	10.5 mL (3 tubes)	10.5 mL (3 tubes)	4 hours

*Tubes must be filled to fill line see below.
**Deliver capped whole blood sample at ambient temperature within 4 hours. For delayed delivery send platelet poor plasma in three separate frozen plasma aliquots of 1mL each for this testing. Refer to Coagulation Specimen Handling for process instructions prior to collection. Submit separate frozen plasma aliquot for this test. Draw blood in light blue top tube(s). Spin down, remove plasma, spin plasma again and place citrate platelet-poor plasma in required number of plastic vials (Glass vials cannot be accepted.) Freeze specimen at ≤-30° C if possible. Send specimen frozen on dry ice. Each coagulation assay requested should have its own vial.

LYMAB *LYME ANTIBODY*

University of Vermont Medical Center

Important Note

This test is subject to reflex testing, see Laboratory Reflex Testing Policy, you have the option to decline reflex testing if you believe it is not medically necessary. CDC guidelines state that Western Blot should only be ordered on specimens that are positive or equivocal by a FDA-licensed antibody screening test. Samples with a result of positive or equivocal will reflex Lyme Disease Antibody Western Blot Analysis (CPT 86617 × 2).

Additional Test Codes

Primary ID	Epic Code	Mayo Access ID
LYMAB	LAB3035	FAH5444

Test Schedule / Analytical Time / Test Priority

Monday – Friday / 3 days / Not available STAT

Method

Chemiluminescence Immunoassay

CPT(s)

Description	CPT Code
Lyme Antibody	86618

Instrumentation

DiaSorin Liaison XL

Reference Range

All ages: Negative

Section

Chemistry-2

Performing Location

University of Vermont Medical Center

Is the UVMMC lab NY State Certified to perform this testing? Yes/No

Yes

LOINC Code Information

Result Code	Reporting Name	LOINC Code
LYMAB	Lyme Ab	20449-5

Specimen Information — LYME ANTIBODY

Container	Specimen	Temperature	Collect Vol	Submit Vol	Minimum Vol	Stability
Serum Separator Tube	Serum	Refrigerate	4.0 mL	0.8 mL	0.8 mL	7 days

Samples that are markedly lipemic, markedly hemolyzed or markedly icteric are not acceptable.

LYMIB *LYME ANTIBODY CONFIRMATION*

University of Vermont Medical Center

Important Note

This is a reflex test for Lyme Antibody when Lyme Antibody is positive or equivocal, for lab use and referring hospitals only.

Additional Test Codes

Primary ID	Epic Code	Mayo Access ID
LYMIB	Reflex order only	FAH5859

Test Schedule / Analytical Time / Test Priority

Tuesday and Friday, April to November / 7 days / not available STAT
Wednesday, November to April / 7 days / not available STAT
Schedule can change without notice.

Method

Line Immunoblot

CPT(s)

Description	CPT Code
Lyme Antibody Confirmation	86617 x 2

Instrumentation

Gold Standard Diagnostics Roboblot

Reference Range

All ages:
IgG Immunoblot: Negative
IgM Immunoblot: Negative

Section

Chemistry-2

Performing Location

University of Vermont Medical Center

Is the UVMMC lab NY State Certified to perform this testing? Yes/No

Yes

LOINC Code Information

Result Code	Reporting Name	LOINC Code
LYMIB	Lyme Immunoblot Conf.	34942-3
IGGIB	IgG Immunoblot	6320-6
IGGB	IgG Band(s)	13502-0
IGMIB	IgM Immunoblot	6321-4
IGMB	IgM Band(s)	13503-8
LYMIT	Immunoblot Interp	62342-1

Specimen Information — LYME ANTIBODY CONFIRMATION

Container	Specimen	Temperature	Collect Vol	Submit Vol	Minimum Vol	Stability
Serum Separator Tube	Serum	Refrigerate	4 mL	0.8 mL	0.8 mL	7 days

Markedly lipemic, icteric, or hemolyzed samples will not be accepted.

MG *MAGNESIUM*

University of Vermont Medical Center

Important Note

Samples should be spun as soon as possible to separate serum/plasma from cells.

Additional Test Codes

Primary ID	Epic Code	Mayo Access ID
MG	LAB103	FAH5203

Test Schedule / Analytical Time / Test Priority

Daily / 24 Hours / Available STAT

Method

Colorimetric

CPT(s)

Description	CPT Code
Magnesium	83735

Instrumentation

Ortho Vitros 5600

Section

Chemistry-1

Performing Location

University of Vermont Medical Center

Is the UVMMC lab NY State Certified to perform this testing? Yes/No

Yes

LOINC Code Information

Result Code	Reporting Name	LOINC Code
MG	Magnesium	19123-9

Specimen Information — MAGNESIUM

Container	Specimen	Temperature	Collect Vol	Submit Vol	Minimum Vol	Stability
SST	Serum	Refrigerate	4 mL	0.6 mL	0.3 mL	7 days
Lithium heparin tube (green Top)	Plasma	Refrigerate	4 mL	0.6 mL	0.3 mL	7 days
*Green Microtainer		Refrigerate	0.6 mL			7 days

Samples should be spun as soon as possible to separate serum/plasma from cells.
*While a microtainer is an optional tube type in rare circumstances, it is **not recommended.**

Reference Range — MAGNESIUM

Age	Sex	Physiological Status	Low	High	Units
0 - 7 days	All		1.2	2.6	mg/dL
7 days - 1 month	All		1.6	2.4	mg/dL
1 month - 2 years	All		1.6	2.6	mg/dL
2-6 years	All		1.5	2.4	mg/dL
6-10 years	All		1.6	2.3	mg/dL
10-14 years	All		1.6	2.2	mg/dL
14-18 years	All		1.5	2.3	mg/dL
≥18	All		1.7	2.8	mg/dL

UMAG24 *MAGNESIUM, URINE, 24 HOUR*

University of Vermont Medical Center

Additional Test Codes

Primary ID	Epic Code	Mayo Access ID
UMAG24	LAB406	FAH5871

Test Schedule / Analytical Time / Test Priority

Daily 8 am-4:30 pm / Same day / Not available STAT

Method

Colorimetric

CPT(s)

Description	CPT Code
Magnesium, Urine	83735

Instrumentation

Ortho Vitros 5600

Section

Chemistry-1

Performing Location

University of Vermont Medical Center

Is the UVMMC lab NY State Certified to perform this testing? Yes/No

Yes

LOINC Code Information

Result Code	Reporting Name	LOINC Code
UMAGR	Magnesium, Urn Random	30922-9
UMAGC	24h Calc	24447-5

Specimen Information — MAGNESIUM, URINE, 24 HOUR

Container	Specimen	Temperature	Collect Vol	Submit Vol	Minimum Vol	Stability
Jug A	24-Hour Urine	Refrigerate	24-Hour	10 mL	1 mL	7 days

Reference Range — MAGNESIUM, URINE, 24 HOUR

Age	Sex	Physiological Status	Low	High	Units
All	All		12	192	mg/24-Hours

UMAGR *MAGNESIUM, URINE, RANDOM*

University of Vermont Medical Center

Additional Test Codes

Primary ID	Epic Code	Mayo Access ID
UMAGR	LAB405	FAH4933

Test Schedule / Analytical Time / Test Priority

Daily 8 am-4:30 pm / Same day / Not available STAT

Method

Colorimetric

CPT(s)

Description	CPT Code
Magnesium, Urine	83735

Instrumentation

Ortho Vitros 5600

Reference Range

No established reference range.

Section

Chemistry-1

Performing Location

University of Vermont Medical Center

Is the UVMMC lab NY State Certified to perform this testing? Yes/No

Yes

LOINC Code Information

Result Code	Reporting Name	LOINC Code
UMAGR	Magnesium, Urn Random	30922-9

Specimen Information — MAGNESIUM, URINE, RANDOM

Container	Specimen	Temperature	Collect Vol	Submit Vol	Minimum Vol	Stability
Clean Container	Random Urine	Refrigerate	50 mL	10 mL	1 mL	7 days

MEASL *MEASLES IgG ANTIBODY*

University of Vermont Medical Center

Additional Test Codes

Primary ID	Epic Code	Mayo Access ID
MEASL	LAB657	FAH5552

Test Schedule / Analytical Time / Test Priority

Monday - Friday, run starts at 9 am / 3 days / Not available STAT

Method

Chemiluminescence Immunoassay

CPT(s)

Description	CPT Code
Rubeola IgG Antibody	86765

Instrumentation

DiaSorin Liaison XL

Reference Range

Negative – Absence of detectable measles virus IgG antibodies. A negative result generally indicated that the patient is susceptible to measles.
Equivocal – Recommend collecting a second sample for testing in no less than one to two weeks.
Positive – Presence of detectable measles virus IgG antibodies.

Section

Chemistry-2

Performing Location

University of Vermont Medical Center

Is the UVMMC lab NY State Certified to perform this testing? Yes/No

Yes

LOINC Code Information

Result Code	Reporting Name	LOINC Code
MEASL	Measles IgG Ab	35275-7

Specimen Information — MEASLES IgG ANTIBODY

Container	Specimen	Temperature	Collect Vol	Submit Vol	Minimum Vol	Stability
Serum Separator Tube	Serum	Refrigerate	4 mL	0.5 mL	0.3 mL	9 days

Samples that are markedly lipemic, markedly hemolyzed or markedly icteric are not acceptable.

VMETH *METHADONE CONFIRMATION*

Aspenti Health Laboratory

Important Note

Confirmation only, cannot be ordered as a stand alone test.

Additional Test Codes

Primary ID	Epic Code	Aspenti Test Code
VMETH	LAB2397	VBL7007

Test Schedule / Analytical Time / Test Priority

Monday - Friday / 3 days / Not available STAT

Performing Location

Aspenti Health

Specimen Information — METHADONE CONFIRMATION

Container	Specimen	Temperature	Collect Vol	Submit Vol	Minimum Vol
Clean Container	Random Urine	Refrigerate	50 mL	50 mL	30 mL

VMEDDP *Methadone Metabolite EDDP Screen, Urine*

Aspenti Health Laboratory

Important Note

Routine drug screen for inpatients and ambulatory clinics.
Methadone Metabolite EDDP Screen, Urine, test information.

Additional Test Codes

Primary ID	Epic Code	Aspenti Test Code
VMEDDP	LAB3725	VBL2100

Test Schedule / Analytical Time / Test Priority

Monday - Friday / 24 Hours / Not Available STAT

Performing Location

Aspenti Health Laboratory

VMTH *Methadone Screen, Urine*

Aspenti Health Laboratory

Important Note

Routine drug screen for inpatients and ambulatory clinics.
Methadone Screen, Urine, test information.

Additional Test Codes

Primary ID	Epic Code	Aspenti Test Code
VMTH	LAB3732	VBL2160

Test Schedule / Analytical Time / Test Priority

Monday - Friday / 24 Hours / Not Available STAT

Performing Location

Aspenti Health Laboratory

UMTD2 *METHADONE SCREEN, URINE*

University of Vermont Medical Center

Important Note

For the Emergency Department and Labor and Delivery only.
This screen is for medical purposes only.
This test is subject to Medicare National Coverage Determination (LCD) L36037-Urine Drug Testing.

Additional Test Codes

Primary ID	Epic Code	Mayo Access ID
UMTD2	LAB3012	FAH5772

Test Schedule / Analytical Time / Test Priority

Daily / Same day / Available STAT

Method

Immunochromatography

CPT(s)

Description	CPT Code
Methadone Screen	80306

Instrumentation

MedTox Scan

Reference Range

This screen is intended for use in clinical monitoring or management of patients.

Section

Chemistry-1

Performing Location

University of Vermont Medical Center

Is the UVMMC lab NY State Certified to perform this testing? Yes/No

Yes

LOINC Code Information

Result Code	Reporting Name	LOINC Code
UMTD2	Methadone Screen, Urine	19550-3

Specimen Information — METHADONE SCREEN, URINE

Container	Specimen	Temperature	Collect Vol	Submit Vol	Minimum Vol	Stability
Sterile Container	Urine	Refrigerate	50 mL	50 mL	30 mL	2 days
Sterile Container	Urine	Frozen	50 mL	50 mL	30 mL	30 days

MAMP *METHAMPHETAMINE SCREEN, URINE*

University of Vermont Medical Center

Important Note

For the Emergency Department and Labor and Delivery only.
This test is for medical purposes only.
This test is subject to Medicare National Coverage Determination (LCD) L36037-Urine Drug Testing.

Additional Test Codes

Primary ID	Epic Code	Mayo Access ID
MAMP	LAB3673	FAH5773

Test Schedule / Analytical Time / Test Priority

Daily / Same day / Available STAT

Method

Immunochromatography

CPT(s)

Description	CPT Code
Methamphetamine Screen	80306

Instrumentation

MedTox Scan

Reference Range

This screen is intended for use in clinical monitoring or management of patients.

Section

Chemistry-1

Performing Location

University of Vermont Medical Center

Is the UVMMC lab NY State Certified to perform this testing? Yes/No

Yes

LOINC Code Information

Result Code	Reporting Name	LOINC Code
MAMP	Methamphetamine Screen, Urine	19554-5

Specimen Information — METHAMPHETAMINE SCREEN, URINE

Container	Specimen	Temperature	Collect Vol	Submit Vol	Minimum Vol	Stability
Sterile Container	Urine	Refrigerate	50 mL	50 mL	30 mL	2 days
Sterile Container	Urine	Frozen	50 mL	50 mL	30 mL	30 days

MET *METHEMOGLOBIN*

University of Vermont Medical Center

Additional Test Codes

Primary ID	Epic Code	Mayo Access ID
MET	LAB91	FAH5268

Test Schedule / Analytical Time / Test Priority

Daily / immediately / Available STAT

Method

Co-Oximetry

CPT(s)

Description	CPT Code
Methemoglobin	83050

Instrumentation

Siemens Rapid Point 500

Reference Range

All ages: <1.5%

Section

Chemistry-1

Performing Location

University of Vermont Medical Center

Is the UVMMC lab NY State Certified to perform this testing? Yes/No

Yes

LOINC Code Information

Result Code	Reporting Name	LOINC Code
MET	Methemoglobin	2614-6

Specimen Information — METHEMOGLOBIN

Container	Specimen	Temperature	Collect Vol	Submit Vol	Minimum Vol	Stability
Lithium Heparin (Green) Tube	Whole Blood	Refrigerate	3 mL	3 mL	0.8 mL	4 hours
Heparinized Syringe	Whole Blood	Refrigerate	1 mL	1 mL	0.2 mL	4 hours

Green microtainers are not ideal for this assay and should be used when a vacutainer cannot be obtained and will only be accepted from NICU, NUR, B5 and PICU patients
Sodium heparin and lithium heparin are both acceptable. Plasma separator tubes are acceptable.
For samples collected in a syringe remove the needle from syringe and cap sample immediately.

MTXT *METHOTREXATE*

University of Vermont Medical Center

Important Note

Sample MUST be **protected from light**; wrap tube in foil.
Methotrexate assay must have it's own tube.

Additional Test Codes

Primary ID	Epic Code	Mayo Access ID
MTXT	LAB2561	FAH5718

Test Schedule / Analytical Time / Test Priority

Daily / 24 Hours / Available STAT

Method

Enzymatic Immunoassay

CPT(s)

Description	CPT Code
Methotrexate Quant	80299

Instrumentation

Ortho Vitros 5600

Reference Range

Dependent on Therapy Protocol

Section

Chemistry-1

Performing Location

University of Vermont Medical Center

Is the UVMMC lab NY State Certified to perform this testing? Yes/No

Yes

LOINC Code Information

Result Code	Reporting Name	LOINC Code
MTXT	Methotrexate	14836-1

Specimen Information — METHOTREXATE

Container	Specimen	Temperature	Collect Vol	Submit Vol	Minimum Vol	Stability
Plain Red Top Tube	Serum	Refrigerate	4 mL	1 mL	0.5 mL	14 days

Do NOT use a serum gel tube. Plain plastic red top tube is acceptable. Sample MUST be protected from light; wrap tube in foil.

VRITC *METHYLPHENIDATE CONFIRMATION PANEL*

Aspenti Health Laboratory

Additional Test Codes

Primary ID	Epic Code	Aspenti Test Code
VRITC	LAB3089	VBL7068

Test Schedule / Analytical Time / Test Priority

Monday - Friday / 3 days / Not available STAT

Performing Location

Aspenti Health

Specimen Information — METHYLPHENIDATE CONFIRMATION PANEL

Container	Specimen	Temperature	Collect Vol	Submit Vol	Minimum Vol
Clean Container	Random Urine	Refrigerate	50 mL	50 mL	30 mL

CSPORA *MODIFIED ACID FAST PARASITOLOGY*

University of Vermont Medical Center

Important Note

Fecal samples submitted in Total Fix or Unifix Transport Vials will be accepted for testing at UVMMC. Fecal samples submitted in EcoFix or Formalin/ PVA will be forwarded to Mayo Clinic Laboratories for testing. All other transport vials will be rejected.
This test looks for Cryptosporidium, Cyclospora, and Isospora.

Additional Test Codes

Primary ID	Epic Code	Mayo Access ID
CSPORA	LAB905	FAH5899

Test Schedule / Analytical Time / Test Priority

Monday – Friday / 1 day / Not available STAT

Method

Modified Acid Fast Stain

CPT(s)

Description	CPT Code
Cyclospora Detection	87206

Instrumentation

Manual Method

Reference Range

No Cryptosporidium, Cyclospora or Isospora seen by Modified Kinyoun Carbol Fuschin stain. Physician will be notified of positive results.

Section

Microbiology-2

Performing Location

University of Vermont Medical Center

Is the UVMMC lab NY State Certified to perform this testing? Yes/No

Yes

LOINC Code Information

Order Code	Reporting Name	LOINC Code
CSPORA	Cyclospora Detection	10659-1

Specimen Information — MODIFIED ACID FAST PARASITOLOGY

Container	Specimen	Temperature	Collect Vol	Submit Vol	Minimum Vol	Stability
Total Fix Vial	Feces	Ambient*	5 mL	1 mL	0.5 mL	72 hours
Sterile Container	Feces	Ambient	5 mL	1 mL	0.5 mL	<2 hours

If unable to transport specimen to the lab within 2 hours of collection, use Total Fix Vial. Kits are available from Lab Customer Service 847-5121.
*Refrigerated samples are acceptable.

Collection and Transport of Sample for Fecal Ova and Parasites

- Collect sample in a bedpan, avoiding contamination with urine.
- If patient is at home, collect specimen in Stool Collection Commode or have the patient put plastic wrap over the toilet bowl.
- At least 0.5 mL (size of a walnut) of sample is needed. **Do not fill stool above the fill line on the transport vial**
- **If the specimen cannot be transported to the lab within two hours, inoculate stool into a transport Vial (Total Fix) which can be obtained from Customer Service (802)847-5121. Transport to the lab within 72 hours.**
- All vials should be inverted several times so the sample and preservative are well mixed.

FIOM *MOLD IDENTIFICATION, PLATE SUBMITTED*

University of Vermont Medical Center

Additional Test Codes

Primary ID	Epic Code	Mayo Access ID
FIOM	LAB1296	FAH5300

Test Schedule / Analytical Time / Test Priority

Monday – Friday / 3-7 days / Not available STAT

Method

Culture

CPT(s)

Description	CPT Codes
Mold Identification	87107

Instrumentation

Manual Method

Reference Range

Mold identified to genus/species level

Section

Microbiology-2

Performing Location

University of Vermont Medical Center

LOINC Code Information

Order Code	Reporting Name	LOINC Code
FIOM	Mold Identification	42804-5

Specimen Information — MOLD IDENTIFICATION, PLATE SUBMITTED

Container	Specimen	Temperature	Collect Vol	Submit Vol	Minimum Vol
Plate/Slant	Isolated Colony	Ambient	N/A	N/A	N/A

MPDS *MONOCLONAL PROTEIN DIAGNOSTIC PANEL, SERUM,*

University of Vermont Medical Center

Important Note
Test includes Immunotyping/Electrophoresis and Free Light Chains.

Additional Test Codes

Primary ID	Epic Code	Mayo Access ID
MPDS	LAB3206	N/A

Test Schedule / Analytical Time / Test Priority
Monday – Friday / 3 days / Not available STAT

Method
See individual tests.

CPT(s)
See individual tests. Immunotyping/Electrophoresis, Immunofixation and Free Light Chains.

Reference Range
See individual tests.

Section
Chemistry-2

Performing Location
University of Vermont Medical Center

Is the UVMMC lab NY State Certified to perform this testing? Yes/No
Yes

LOINC Code Information
See individual tests.

Specimen Information — MONOCLONAL PROTEIN DIAGNOSTIC PANEL, SERUM,

Container	Specimen	Temperature	Collect Vol	Submit Vol	Minimum Vol	Stability
Serum Separator Tube	Serum	Refrigerate	4 mL	1.5 mL	1 mL	5 days

MPMS *MONOCLONAL PROTEIN MONITORING PANEL, SERUM*

University of Vermont Medical Center

Important Note

Test includes Electrophoresis-Serum, Free Light Chains and Immunoglobulins IgA, IgG, IgM. See individual tests.

Additional Test Codes

Primary ID	Epic Code	Mayo Access ID
MPMS	LAB3205	N/A

Test Schedule / Analytical Time / Test Priority

Monday – Friday / 3 days / Not available STAT

Method

See individual tests.

CPT(s)

See individual tests. Electrophoresis-Serum, Free Light Chains and Immunoglobulins IgA, IgG, IgM.

Reference Range

See individual tests.

Section

Chemistry-2

Performing Location

University of Vermont Medical Center

LOINC Code Information

See individual tests.

Specimen Information — MONOCLONAL PROTEIN MONITORING PANEL, SERUM

Container	Specimen	Temperature	Collect Vol	Submit Vol	Minimum Vol	Stability
Serum Separator Tube	Serum	Refrigerate	4 mL	1.5 mL	1 mL	5 days

UPE24 *MONOCLONAL STUDY URINE, 24-HOUR*

University of Vermont Medical Center

Important Note

Monoclonal Protein, 24-Hour includes a Monoclonal Study Urine, 24-Hour, Monoclonal Study Urine Random and Urine Immunotyping.

Additional Test Codes

Primary ID	Epic Code	Mayo Access ID
UPE24	LAB2027	FAH5881

Test Schedule / Analytical Time / Test Priority

Monday – Friday, run starts at 8 am / Same day / Not available STAT

Method

See individual tests,

CPT(s)

Description	CPT Code
Immunofixation	86335
Immunofixation Part B	86335.26
Protein	84156
Protein Electrophoresis	84166

Instrumentation

See individual tests.

Section

Chemistry-2

Performing Location

University of Vermont Medical Center

Is the UVMMC lab NY State Certified to perform this testing? Yes/No

Yes

Specimen Information — MONOCLONAL STUDY URINE, 24-HOUR

Container	Specimen	Temperature	Collect Vol	Submit Vol	Minimum Vol	Stability
24-Hour Urine Jug A	24-Hour Urine Collection	Refrigerate	24-Hour	10 mL	3 mL	3 days

Refrigerate sample during collection.

UPER *MONOCLONAL STUDY URINE, RANDOM*

University of Vermont Medical Center

Important Note

Monoclonal Study Urine, Random includes , urine electrophoresis, urine total protein and a urine immunotyping is performed.

Additional Test Codes

Primary ID	Epic Code	Mayo Access ID
UPER	LAB205	FAH5642

Test Schedule / Analytical Time / Test Priority

Monday – Friday, run starts at 8 am / Same day / Not available STAT

Method

Capillary electrophoresis, immunotyping and colorimetric reflectance spectrophotometry.

CPT(s)

Description	CPT Code
Immunofixation	86335
Immunofixation Part B	86335.26
Protein	84156
Protein Electrophoresis	84166

Instrumentation

Sebia Capillarys 2 Flex

Reference Range

Negative for free monoclonal light chains.

Section

Chemistry-2

Performing Location

University of Vermont Medical Center

Is the UVMMC lab NY State Certified to perform this testing? Yes/No

Yes

Specimen Information — MONOCLONAL STUDY URINE, RANDOM

Container	Specimen	Temperature	Collect Vol	Submit Vol	Minimum Vol	Stability
Sterile Container	Urine	Refrigerate	100 mL	10 mL	3 mL	7 days

MONO *MONOSPOT*

University of Vermont Medical Center

Additional Test Codes

Primary ID	Epic Code	Mayo Access ID
MONO	LAB482	FAH5040

Test Schedule / Analytical Time / Test Priority

Daily / 24 Hours / Available STAT

Method

Immunochromatography

CPT(s)

Description	CPT Code
Monospot	86308

Instrumentation

OSOM Mono Test

Reference Range

All ages: Negative

Section

Chemistry-1

Performing Location

University of Vermont Medical Center

Is the UVMMC lab NY State Certified to perform this testing? Yes/No

Yes

LOINC Code Information

Result Code	Reporting Name	LOINC Code
MONO	Mono-Test	31418-7

Specimen Information — MONOSPOT

Container	Specimen	Temperature	Collect Vol	Submit Vol	Minimum Vol	Stability
Serum Separator Tube	Serum	Refrigerate	4 mL	1 mL	0.2 mL	2 days
Serum Separator Tube	Serum	Frozen	4 mL	1 mL	0.2 mL	90 days
*Yellow Microtainer		Refrigerate	0.6 mL			2 days

Frozen Serum should be maintained at ≤-20°C
While a microtainer is an optional tube type in rare circumstances, it is **not recommended.**

MRSBD *MRSA PCR*

University of Vermont Medical Center

Important Note

Sample must be received in lab within 24 hours. MRSA PCR swabs can be collected at any of UVMMC phlebotomy locations.

Additional Test Codes

Primary ID	Epic Code	Mayo Access ID
MRSBD	LAB1368	FAH5670

Specimen Information

Container	Specimen	Temperature	Collect	Submit	Stability
Bacterial/Yeast Collection Kit	Nares	Refrigerate	Swab	Swab in collection vial	24 hours

Protect from freezing or excessive heat.

Specimen Collection

- Insert swab 1-2 cm into the nostril and rotate against the inside of the nostril for 3 seconds while applying pressure with a finger on the outside of the nose. Hold the swab by the cap in which they are embedded.
- Repeat the process in the other nostril using the same swab.
- Place the swab back in the tube.
- It is important that the swab contains material from both nostrils.

Bacterial/Yeast Collection Kit


PEEL HERE
Swab
collection &
preservation
& Fastidious Bacteria
1
2
3
4
5
COPAN
STERILE
CE 0123

Test Schedule / Analytical Time / Test Priority
Daily, run times 8 am. 11 am, 2 pm, 5 pm, 8 pm / 24-hours / Not available STAT

Method
Nucleic Acid Amplification

CPT(s)

Description	CPT Code
MRSA Molecular Detection	87641
Staph aureus Molecular Detection	87640

Instrumentation
BD Max

Reference Range
No Staphylococcus aureus DNA detected by PCR

Section
Microbiology-1

Performing Location
University of Vermont Medical Center

Is the UVMMC lab NY State Certified to perform this testing? Yes/No
Yes

LOINC Code Information
In process

MUMG *MUMPS ANTIBODY IgG*

University of Vermont Medical Center

Additional Test Codes

Primary ID	Epic Code	Mayo Access ID
MUMG	LAB160	FAH5553

Test Schedule / Analytical Time / Test Priority
Monday - Friday, run starts at 9 am / 3 days / Not available STAT

Method
Chemiluminescence Immunoassay

CPT(s)

Description	CPT Code
Mumps Antibody IgG	86735

Instrumentation
DiaSorin Liaison XL

Reference Range
All ages:
Negative – Absence of detectable mumps virus IgG antibodies. A negative result generally indicates that the patient is susceptible to mumps.
Equivocal – Recommend collecting a second sample for testing in no less than one to two weeks.
Positive – Presence of detectable mumpsvirus IgG antibodies.

Section
Chemistry-2

Performing Location
University of Vermont Medical Center

Is the UVMMC lab NY State Certified to perform this testing? Yes/No
Yes

LOINC Code Information

Result Code	Reporting Name	LOINC Code
MUMG	Mumps Antibody IgG	6476-6

Specimen Information — MUMPS ANTIBODY IgG

Container	Specimen	Temperature	Collect Vol	Submit Vol	Minimum Vol	Stability
Serum Separator Tube	Serum	Refrigerate	4 mL	0.5 mL	0.3 mL	9 days

Samples that are markedly lipemic, markedly hemolyzed or markedly icteric are not acceptable.

MUMPCR *MUMPS PCR*

Vermont Department of Health Laboratory

Important Note

Mumps PCR Vermont Department of Health Laboratory
Outside clients submit a manual order.
Mumps PCR Testing at Vermont State Lab 2-15-2018:
*Serology testing in acute disease **is not** indicated.*
The Vermont Department of Health Laboratory performs this testing at no charge.
If Mumps is suspected, collect and send a buccal swab as detailed below.
The provider should call the Health Department at least 24 hours before they plan to send a swab for testing at 863-7240 (not for permission, just notification)
The provider should complete the Department of Health Test Requisition and fax it to UVMMC Lab Specimen Receiving at 847-4763. Link to VHDL Clinical Test Form.
SPECIMEN INFORMATION
Specimen source: Buccal Mucosa
Collection Container: Buccal swab in Universal Transport Media
Laboratory Examination Requested: Under Virology choose Mumps PCR
If swab will not be tested within 24 hours it must be submitted frozen. This test is not routinely performed on weekends and holidays. The test can be performed on weekends and holidays only after consultation with VDH Epidemiology (802) 863 7240.

1. For Epic Users: Provider should place Misc. order in Epic or complete a paper VHDL Clinical Test Form.
2. The provider should collect with a Buccal Swab in Universal VDHL Transport media – the outpatient labs at UVMMC **do not** collect this sample type.
3. UVMMC Viral Collection Kit (FloqSwab in M6 Media) has not been validated at the VDHL. If you submit this container the result will contain a disclaimer.
4. The Health Department has supplied us with some collection kits, available through Lab Customer Service (refrigerated), limit 3 at a time (for more kits contact the Vermont State Lab – 1-800-660-9997 or 1-802-338-4724).
5. **Serology testing is not recommended for the diagnosis of mumps**. If mumps is suspected, send a buccal swab for PCR testing. If Mumps IGG and/or a Mumps IGM are ordered, the VDHL will not perform serology testing, the serology tests will be performed through the UVMMC lab.
6. Mumps PCR testing has a one day turn-around time on weekdays if received before 10:30 am.

Additional Test Codes

Primary ID	Epic Code	Mayo Access ID
MUMPCR	LAB3711	N/A

Section

Sent to the Vermont Department of Health Laboratory

Performing Location

Vermont Department of Health (VDH) Laboratory

LOINC Code Information

N/A

SPUTBB *MYCOBACTERIUM TUBERCULOSIS, PCR*

University of Vermont Medical Center

Important Note

This test requires pathology approval on AFB smear negative samples.
This test is not orderable as a stand alone test, it is a reflex test for AFB SMEAR ONLY, OTHER And AFB CULTURE, RESPIRATORY & SMEAR

Additional Test Codes

Primary ID	Epic Code	Mayo Access ID
SPUTBB	N/A	N/A

Test Schedule / Analytical Time / Test Priority

Test is run when AFB Smear is positive / Result is available the same day / AFB Smear NOT available STAT

Method

Nucleic Acid Amplification

CPT(s)

Description	CPT Code
Mycobacterium tuberculosis, amplified probe	87556

Instrumentation

GenXpert

Reference Range

No Mycobacterium tuberculosis complex DNA detected by PCR.
A single negative result has a high negative predicitve value and can be used in conjunction with other clinical findings to decide whether to remove suspected tuberculosis patients from isolation.

Section

Microbiology-2

Performing Location

University of Vermont Medical Center

Is the UVMMC lab NY State Certified to perform this testing? Yes/No

No

LOINC Code Information

Order Code	Reporting Name	LOINC Code

Specimen Information — MYCOBACTERIUM TUBERCULOSIS, PCR

Container	Specimen	Temperature	Collect Vol	Submit Vol	Minimum Vol	Stability
Sterile Container	Sputum	Refrigerate	5 mL	5 mL	3 mL	48 hours

Sample must be received within 48 hours of specimen collection.

FMP3P *MyoMarker Panel 3 Plus*

RDL Reference Laboratory, Inc.

Additional Test Codes

Primary ID	Epic Code	Mayo Test ID
MYOM3P	LAB3705	FMP3P

Specimen Required

Submit only 1 of the following specimens:

Serum
Collection Container Tube: 10 mL Red
Acceptable: 8.5 mL SST
Collection Instructions: Draw blood in a plain red-top tube(s), serum gel tube is acceptable. Spin down and send 3 mL of serum refrigerated in a plastic vial.

Min Vol: 1 mL

Plasma
Collection Container Tube: 10 mL EDTA
Collection Instructions: Draw blood in a purple-top (EDTA) tube(s). Spin down and send 3 mL EDTA plasma refrigerated in a plastic vial.

Min Vol: 1 mL

Method Name
RIPA, EIA

Reporting Name
MyoMarker Panel 3 Plus

Specimen Type
Varies

Specimen Minimum Volume
1.0 mL

Specimen Stability Information

Specimen Type	Temperature	Time	Special Container
Varies	Refrigerated (preferred)	14 days	
	Frozen	60 days	
	Ambient	7 days	

Reject Due To

Hemolysis:	Mild OK ; Gross Reject
Thawing:	Warm OK; Cold OK
Lipemia:	Mild OK ; Gross Reject
Icteric:	Mild OK ; Gross Reject
Other:	NA

Reference Values

PL-7, PL-12, EJ, OJ, SRP, MI-2, Fibrillarin (U3 RNP), U2 snRNP, Ku:

Reference Range: Negative

Anti-Jo-1 Ab, TIF1 GAMMA (P155/140), MDA-5 (P140) (CADM-140), NXP-2 (P140), Anti-PM/Scl-100 Ab, Anti-U1-RNP Ab, Anti-SS-A 52 kD Ab IgG, Anti-SAE 1 IgG:

Reference Range: <20

EIA Interpretation:

Negative: <20 units
Weak Positive: 20 - 39 units

Moderate Positive: 40 - 80 units
Strong Positive: >80 units

Day(s) and Time(s) Performed

Batched weekly

Analytic Time

10 - 14 days

Test Classification

This panel was developed and its performance characteristics validated by RDL. There is no FDA approved assay for the above tests. As a lab developed test (LDT), approval or clearance by the FDA is not required. This test may be used for clinical purposes and should not be regarded as investigational or for research.

CPT Code Information

83516 x 9 - PL-7, PL12, EJ, OJ, U2 snRNP, Anti-Fibrillarin U3 RNP, Mi-2, SRP, Ku
86235 x 8 - Anti-Jo-1-Ab, Anti-SSA 52 kD Ab, IgG, Anti-PM/Scl Ab, Anti-U1 RNP Ab,MDA-5(P140) (CADM), NXP-2 (P140), TIF1 GAMMA (P155/140), Anti-SAE 1 IgG

LOINC Code Information

Test ID	Test Order Name	Order LOINC Value
FMP3P	MyoMarker Panel 3 Plus	Not Provided

Result ID	Test Result Name	Result LOINC Value
Z5317	Anti-Jo-1 Ab	35333-4
Z5318	PL-7	33772-5
Z5319	PL-12	33771-7
Z5320	EJ	48647-2
Z5321	OJ	48649-8
Z5322	SRP	33921-8
Z5323	MI-2	18485-3
Z5324	Fibrillarin (U3 RNP)	49963-2
Z5325	MDA-5 (P140)(CADM-140)	Not Provided
Z5326	NXP-2 (P140)	Not Provided
Z5327	TIF1 GAMMA (P155/140)	Unable to Verify
Z5328	Anti-PM/Scl-100 Ab	Unable to Verify
Z5330	U2 snRNP	68549-5
Z5331	Anti-U1-RNP Ab	57662-9
Z5332	Ku	18484-6
Z5333	Anti-SS-A 52 kD Ab, IgG	56549-9
Z5334	Anti-SAE 1, IgG	Not Provided

NY State Approved

Yes

NCSM *NOCARDIA CULTURE AND SMEAR*

University of Vermont Medical Center

Additional Test Codes

Primary ID	Epic Code	Mayo Access ID
NCSM	LAB3291	FAH5551

Test Schedule / Analytical Time / Test Priority

Daily / Smear 1 day, Culture 14 days / Not Available STAT

Method

Culture & Smear

CPT(s)

Description	CPT Code
Nocardia Culture	87081
Smear for Nocardia	87206

Instrumentation
Manual Method

Reference Range
No aerobic actinomycetes isolated

Section
Microbiology-2

Performing Location
University of Vermont Medical Center

Is the UVMMC lab NY State Certified to perform this testing? Yes/No
Yes

LOINC Code Information

Result Code	Reporting Name	LOINC Code
SDES	Specimen Description	31208-2
FUNSM	Fungus Smear	21003-9
CULT	Result	41852-5
RPT	Report Status	N/A

Specimen Information — NOCARDIA CULTURE AND SMEAR

Container	Specimen	Temperature	Collect Vol	Submit Vol	Minimum Vol	Stability
Sterile Container	Sputum	Refrigerate	5 mL	5 mL	1 mL	48 hours
Sterile Container	Respiratory Fluids	Refrigerate	N/A	N/A	N/A	48 hours
Sterile Container	Tissue/Bone	Refrigerate	N/A	N/A	N/A	48 hours
Sterile Container	Other Fluids	Refrigerate	N/A	N/A	N/A	48 hours

NTBNP *NT-proBNP*

University of Vermont Medical Center

Important Note

Test subject to Medicare National Coverage Determination (NCD) B-type Natriuretic Peptide (BNP) Testing (L26375).
The results of this assay can be **falsely lowered** due to the consumption of Biotin. Please instruct patients to discontinue the use of vitamins or supplements that contain Biotin 12 hours before blood collection.

Additional Test Codes

Primary ID	Epic Code	Mayo Access ID
NTBNP	LAB106	FAH5502

Test Schedule / Analytical Time / Test Priority

Daily / 24 Hours / Available STAT

Method

Immunoturbidometric

CPT(s)

Description	CPT Code
NT-BNP	83880

Instrumentation

Ortho Vitros 5600

Reference Range

<75 years: <125 pg/mL
≥75 years: <450 pg/mL
The results of this assay can be falsely lowered due to the consumption of Biotin. Please instruct patients to discontinue the use of vitamins or supplements that contain Biotin 12 hours before blood collection. NT-proBNP values less than 300 pg/mL have a 98% negative predictive value for excluding acute congestive heart failure.

Section

Chemistry-1

Performing Location

University of Vermont Medical Center

Is the UVMMC lab NY State Certified to perform this testing? Yes/No

Yes

LOINC Code Information

Result Code	Reporting Name	LOINC Code
NTBNP	NT Pro BNP	33762-6

Specimen Information — NT-proBNP

Container	Specimen	Temperature	Collect Vol	Submit Vol	Minimum Vol	Stability
Lithium Heparin (Green top)	Plasma	Refrigerate	4 mL	1 mL	0.5 mL	3 days
Serum Separator Tube	Serum	Refrigerate	4 mL	1 mL	0.5 mL	3 days
*Green Microtainer		Refrigerate	0.6 mL			3 days

EDTA (lavender Top) tube is NOT acceptable.
*While a microtainer is an optional tube type in rare circumstances, it is **not recommended.**

OCCB *OCCULT BLOOD, FECES, DIAGNOSTIC*

University of Vermont Medical Center

Important Note

Test subject to Medicare National Coverage Determination (NCD) Colorectal Cancer Screening (L29796) and 190.34 - Occult Blood Screening.

Additional Test Codes

Primary ID	Epic Code	Mayo Access ID
OCCB	LAB697	N/A

Test Schedule / Analytical Time / Test Priority

Daily / 24 Hours / Not available STAT

Method

Guiac Test

CPT(s)

Description	CPT Code
Occult Blood, Other	82272

Instrumentation

Manual Method

Reference Range

Negative

Section

Microbiology-1

Performing Location

University of Vermont Medical Center

Is the UVMMC lab NY State Certified to perform this testing? Yes/No

Yes

LOINC Code Information

Order Code	Reporting Name	LOINC Code
OCCB	Occult Blood Diag, F	2335-8

Specimen Information — OCCULT BLOOD, FECES, DIAGNOSTIC

Container	Specimen	Temperature	Collect Vol	Submit Vol	Minimum Vol
Sterile container	Feces	Refrigerate	N/A	N/A	N/A

Inoculated cards at ambient temperature must be received within 2 weeks of collection.

SOCCB *OCCULT BLOOD, FECES, SCREENING*

University of Vermont Medical Center

Important Note

This test is subject to Medicare Local Coverage Determination and Frequency limitations for Colorectal Cancer Screening (L29796).

Additional Test Codes

Primary ID	Epic Code	Mayo Access ID
SOCCB	LAB694	N/A

Test Schedule / Analytical Time / Test Priority

Daily / 24 Hours / Not available STAT

Method

Guiac Test

CPT(s)

Description	CPT Code
Occult Blood Screen, Feces	82270

Instrumentation

Manual Method

Reference Range

Negative

Section

Microbiology-1

Performing Location

University of Vermont Medical Center

Is the UVMMC lab NY State Certified to perform this testing? Yes/No

Yes

LOINC Code Information

Order Code	Reporting Name	LOINC Code
SOCCB	Occult Blood Screen	2335-8

Specimen Information — OCCULT BLOOD, FECES, SCREENING

Container	Specimen	Temperature	Collect Vol	Submit Vol	Minimum Vol
Sterile Container	Feces	Refrigerate	N/A	N/A	N/A

VOPIUR *OPIATE CONFIRMATION*

Aspenti Health Laboratory

Additional Test Codes

Primary ID	Epic Code	Aspenti Test Code
VOPIUR	LAB417	VBL7030

Test Schedule / Analytical Time / Test Priority

Monday - Friday / 3 days / Not available STAT

Performing Location

Aspenti Health

Specimen Information — OPIATE CONFIRMATION

Container	Specimen	Temperature	Collect Vol	Submit Vol	Minimum Vol
Clean Container	Random Urine	Refrigerate	50 mL	50 mL	30 mL

UOP2 *OPIATE SCREEN, URINE*

University of Vermont Medical Center

Important Note

For the Emergency Department and Labor and Delivery only.
This screen is intended for use in clinical monitoring or management of patients.

This test is subject to Medicare National Coverage Determination (LCD) L36037-Urine Drug Testing.

Additional Test Codes

Primary ID	Epic Code	Mayo Access ID
UOP2	LAB416	FAH5774

Test Schedule / Analytical Time / Test Priority

Daily / 24 Hours / Available STAT

Method

Immunochromatography

CPT(s)

Description	CPT
Opiate Screen	80306

Instrumentation

MEDTOX Scan

Reference Range

This screen is intended for use in clinical monitoring or management of patients.

Section

Chemistry-1

Performing Location

University of Vermont Medical Center

Is the UVMMC lab NY State Certified to perform this testing? Yes/No

Yes

LOINC Code Information

Result Code	Reporting Name	LOINC Code
UOP2	Opiates Screen, Urine	19295-5

Specimen Information — OPIATE SCREEN, URINE

Container	Specimen	Temperature	Collect Vol	Submit Vol	Minimum Vol	Stability
Sterile Container	Urine	Refrigerate	50 mL	50 mL	30 mL	2 days
Sterile Container	Urine	Frozen	50 mL	50 mL	30 mL	30 days

VOPDEP *Opioid and Depressant Co-use Panel, Urine*

Aspenti Health Laboratory

Important Note

Routine drug screen for inpatients and ambulatory clinics.
Test includes the following tests:
Alcohol Metabolite (EtG) Screen-Urine
Benzodiazepines Screen-Urine
Buprenorphine Screen-Urine
Fentanyl Screen-Urine
Heroin Metabolite (6-AM) Screen-Urine
Methadone Metabolite EDDP Screen-Urine
Opioid Screen-Urine
Oxycodone Screen-Urine
Zolpidem Screen-Urine.

Additional Test Codes

Primary ID	Epic Code	Aspenti Test Code
VOPDEP	LAB3739	VBL2611

Test Schedule / Analytical Time / Test Priority

Monday - Friday / 24 Hours / Not Available STAT

Performing Location

Aspenti Health Laboratory

VOP9 *Opioids Panel Extended, Urine*

Aspenti Health Laboratory

Important Note

Routine drug screen for inpatients and ambulatory clinics.
Test includes the following tests:
Buprenorphine Screen-Urine
Fentanyl Screen, Urine
Heroin Metabolite (6-AM) Screen-Urine
Methadone Metabolite EDDP Screen-Urine
Opioid Screen-Urine
Oxycodone Screen-Urine
Propoxphene Screen-Urine
Tapentadol Screen-Urine
Tramadol Screen Urine

Additional Test Codes

Primary ID	Epic Code	Aspenti Test Code
VOP9	LAB3736	VBL2609

Test Schedule / Analytical Time / Test Priority

Monday - Friday / 24 Hours / Not Available STAT

Performing Location

Aspenti Health Laboratory

VOP6 *Opioids Panel, Urine*

Aspenti Health Laboratory

Important Note

Routine drug screen for inpatients and ambulatory clinics.
Test includes the following tests:
Buprenorphine Screen-Urine
Fentanyl Screen-Urine
Heroin Metabolite (6-AM) Screen-Urine
Methadone Metabolite EDDP Screen-Urine

Opioid Screen-Urine
Oxycodone Screen-Urine

Additional Test Codes

Primary ID	Epic Code	Aspenti Test Code
VOP6	LAB3735	VBL2608

Test Schedule / Analytical Time / Test Priority

Monday - Friday / 24 Hours / Not Available STAT

Performing Location

Aspenti Health Laboratory

VOPIAS *Opioids Screen, Urine*

Aspenti Health Laboratory

Important Note

Routine drug screen for inpatients and ambulatory clinics.
Opioids Screen, Urine, test information.

Additional Test Codes

Primary ID	Epic Code	Aspenti Test Code
VOPIAS	LAB3734	VBL2170

Test Schedule / Analytical Time / Test Priority

Monday - Friday / 24 Hours / Not Available STAT

Performing Location

Aspenti Health Laboratory

IOSUSC *ORGANISM IDENTIFICATION & SUSCEPTIBILITY*

University of Vermont Medical Center

Important Note

Please provide source and antibiotics requested. There is a fee for each organism isolated.

Additional Test Codes

Primary ID	Epic Code	Mayo Access ID
IOSUSC	LAB2732	FAH5424

Specimen Information

Submit isolated organism on a plate or slant.

Test Schedule / Analytical Time / Test Priority

Daily / 2-3 days / Not available STAT

Method

Culture & MIC

CPT(s)

Description	CPT Code
Organism ID and Susceptibility	87077

Section

Microbiology-1

Performing Location

University of Vermont Medical Center

Is the UVMMC lab NY State Certified to perform this testing? Yes/No

Yes

LOINC Code Information

Order Code	Reporting Name	LOINC Code
IOSUSC	Organism Identification and Susceptibility	41852-5

OSM *OSMOLALITY, SERUM*

University of Vermont Medical Center

Additional Test Codes

Primary ID	Epic Code	Mayo Access ID
OSM	LAB201	FAH214

Test Schedule / Analytical Time / Test Priority

Daily / 24 Hours / Available STAT

Method

Freezing Point Depression

CPT(s)

Description	CPT Code
Osmolality, Serum	83930

Instrumentation

Advanced Osmometer A20

Section

Chemistry-1

Performing Location

University of Vermont Medical Center

Is the UVMMC lab NY State Certified to perform this testing? Yes/No

Yes

LOINC Code Information

Result Code	Reporting Name	LOINC Code
OSM	Osmolality	2692-2

Specimen Information — OSMOLALITY, SERUM

Container	Specimen	Temperature	Collect Vol	Submit Vol	Minimum Vol	Stability
Serum Separator Tube	Serum	Refrigerate	4 mL	1 mL	0.5 mL	7 days
Lithium heparin tube (green top)	Plasma	Refrigerate	4 mL	1 mL	0.5 mL	7 days
*Green Microtainer		refrigate	0.6 mL			7 days

*While a microtainer is an optional tube type in rare circumstances, it is **not recommended.**

Reference Range — OSMOLALITY, SERUM

Age	Sex	Physiological Status	Low	High	Units
All ages	All	N/A	275	295	mOsm/kg

UOSM *OSMOLALITY, URINE*

University of Vermont Medical Center

Additional Test Codes

Primary ID	Epic Code	Mayo Access ID
UOSM	LAB107	FAH221

Test Schedule / Analytical Time / Test Priority

Daily / 24 Hours / Available STAT

Method

Freezing Point Depression

CPT(s)

Description	CPT Code
Osmolality, Urine	83935

Instrumentation

Advanced Osmometer A20

Section

Chemistry-1

Performing Location

University of Vermont Medical Center

Is the UVMMC lab NY State Certified to perform this testing? Yes/No

Yes

LOINC Code Information

Result Code	Reporting Name	LOINC Code
UOSM	Osmolality, Urine	2695-5

Specimen Information — OSMOLALITY, URINE

Container	Specimen	Temperature	Collect Vol	Submit Vol	Minimum Vol	Stability
SterileContainer	Urine	Refrigerate	10 mL	2 mL	0.5 mL	7 days

Reference Range — OSMOLALITY, URINE

Age	Sex	Physiological Status	Low	High	Units
0 - 1 year	All	N/A	50	750	mOsm/kg
≥1 year	All	N/A	150	1,150	mOsm/kg

OP *OVA & PARASITE EXAMINATION*

University of Vermont Medical Center

Important Note

Ova/Parasite Exam does not detect Cyclospora, Isospora, Cyptosporidium, and Microsporidium. For Cyclospora and Isospora, order Modified Acid Fast Parasitology (LAB905). For Cryptosporidium, order Cryptosporidium Exam (LAB2527). For Microsporidium, order Microsporidia PCR Detection (LAB3576) performed at Mayo Medical Laboratory.
Please specify if If Cryptosporidium, Cyclospora or Microsporidium are suspected.
Fecal samples submitted in Total Fix or Unifix Transport Vials are required for testing at UVMMC. Fecal samples submitted in EcoFix or Formalin/PVA will be forwarded to Mayo Clinic Laboratories for testing. All other transport vials will be rejected.
The most sensitive and cost effective tests for the detection of parasites for patients who haven't traveled outside the United Stated are Giardia and Cryptosporidium Antigen Tests.
Ova and Parasite stool specimens collected on inpatients that have been in the hospital for more than 3 days will have that sample rejected with the following reason: "The only infectious cause of nosocomially acquired gastroenteritis is Clostridium difficile. Please contact the Microbiology resident to discuss unique clinical situations."

Additional Test Codes

Primary ID	Epic Code	Mayo Access ID
OP	LAB955	FAH5907

Test Schedule / Analytical Time / Test Priority

Monday – Friday / 1 day / Not available STAT

Method

Trichrome Stain and Microscopic Exam on concentrate.

CPT(s)

Description	CPT Code
Ova & Parasite Exam	87177
Trichrome Stain	87209

Instrumentation

Manual Method

Reference Range

No ova and parasites seen

Section

Microbiology-2

Performing Location

University of Vermont Medical Center

Is the UVMMC lab NY State Certified to perform this testing? Yes/No

Yes

LOINC Code Information

Order Code	Reporting Name	LOINC Code
In process		

Specimen Information — OVA & PARASITE EXAMINATION

Container	Specimen	Temperature	Collect Vol	Submit Vol	Minimum Vol	Stability
Total Fix Vial	Feces	Ambient***	10 mL	10 mL	1 mL	72 hours
Sterile Container	Duodenal Aspirate*	Ambient	10 mL	10 mL	1 mL	2 hours
Sterile Container	Respiratory*	Ambient	5 mL	5 mL	1 mL	2 hours
Sterile Container	Other*	Ambient	5 mL	5 mL	1 mL	2 hours
Sterile Container	Urine**	Ambient	5 mL	5 mL	1 mL	24 hours

Deliver specimen to the laboratory as soon as collected. All stool samples for ova & parasite should be collected in Total Fix Vial (supply #032040). **Three samples may be necessary to detect certain parasites. These specimens should be collected every 24 to 48 hours during a time frame of no more than 10 days to detect intermittent shedding of parasites.** If the patient has been hospitalized for more than 3 days, testing should not be performed. If the patient has not traveled outside of the U.S., order Cryptosporidium/Giardia antigen test.
*Submit sterile container within 2 hours of collection.

Collection and Transport of Sample for Fecal Ova and Parasites

- Collect sample in a bedpan, avoiding contamination with urine.
- If the patient is at home, collect specimen in Stool Collection Commode or have the patient put plastic wrap over the toilet bowl.
- At least 1 mL (size of a walnut) of the sample is needed. **Do not fill stool above the fill line on the transport vial**
- **If the specimen cannot be transported to the lab within two hours, inoculate stool into a transport vial (Total Fix) which can be obtained from Customer Service (802) 847-5121. Transport to the lab within 72 hours.**
- All vials should be inverted several times so the sample and preservative are well mixed.

S. haemotobium adults are found in the portal vein of the urinary bladder in the infected human. Laboratory recovery depends upon repeated daily examinations of **fresh urine specimens collected around noon.**
***Refrigerated samples are acceptable.

VOXY *Oxycodone Screen, Urine*

Aspenti Health Laboratory

Important Note

Routine drug screen for inpatients and ambulatory clinics.
Oxycodone Screen, Urine, test information.

Additional Test Codes

Primary ID	Epic Code	Aspenti Test Code
VOXY	LAB3719	VBL2180

Test Schedule / Analytical Time / Test Priority

Monday - Friday / 24 Hours / Not Available STAT

Performing Location

Aspenti Health Laboratory

UOXY2 *OXYCODONE SCREEN, URINE*

University of Vermont Medical Center

Important Note

For the Emergency Department and Labor and Delivery only.
This screen is intended for use in clinical monitoring or management of patients.
This test is subject to Medicare National Coverage Determination (LCD) L36037-Urine Drug Testing.

Additional Test Codes

Primary ID	Epic Code	Mayo Access ID
UOXY2	LAB3064	FAH5775

Test Schedule / Analytical Time / Test Priority

Daily / 24 Hours / Available STAT

Method

Immunochromatography

CPT(s)

Description	CPT Code
Oxycodone Screen	80306

Instrumentation

MEDTOX Scan

Reference Range

This screen is intended for use in clinical monitoring or management of patients.

Section

Chemistry-1

Performing Location

University of Vermont Medical Center

Is the UVMMC lab NY State Certified to perform this testing? Yes/No

Yes

LOINC Code Information

Result Code	Reporting Name	LOINC Code
UOXY2	Oxycodone Screen, Urine	19642-8

Specimen Information — OXYCODONE SCREEN, URINE

Container	Specimen	Temperature	Collect Vol	Submit Vol	Minimum Vol	Stability
Sterile Container	Urine	Refrigerate	50 mL	50 mL	30 mL	2 days
Ssterile Container	Urine	Frozen	50 mL	50 mL	30 mL	30 days

OSAT *OXYGEN SATURATION*

University of Vermont Medical Center

Important Note

Hemoglobin is reported, test subject to Medicare Local Medical Review Policy 190.15-Blood counts.
Must be collected at the UVMMC Ambulatory Care Center Main Campus. Place sample on ice and deliver immediately to the lab, see Special Test Considerations.
Test includes: Hemoglobin, Carboxyhemoglobin, Methemoglobin, Deoxyhemoglobin, and Oxygen Saturation.

Additional Test Codes

Primary ID	Epic Code	Mayo Access ID
OSAT	LAB718	N/A

Test Schedule / Analytical Time / Test Priority

Daily / Immediately / Available STAT

Method

Co-Oximetry

CPT(s)

Description	CPT Code
Carboxyhemoglobin	82375
Hemoglobin	85018
Methemoglobin	83050
O2 Saturation	82803

Instrumentation

Siemens Rapid Point 500

Reference Range

O2 Saturation: 95 - 98%
Oxyhemoglobin: 89 - 96%
Deoxyhemoglobin: <5%

Section

Chemistry-1

Performing Location

University of Vermont Medical Center

Is the UVMMC lab NY State Certified to perform this testing? Yes/No

Yes

LOINC Code Information

Result Code	Reporting Name	LOINC Code
THB	Total Hemoglobin	718-7
OXY	Oxy Hemoglobin	11559-2
CHBART	Carboxyhemoglobin	2030-5
METART	Methemoglobin	2614-6
DEOXY	Deoxyhemoglobin	4536-9
OSATR	Oxygen Saturation	2708-6

Specimen Information — OXYGEN SATURATION

Container	Specimen	Temperature	Collect Vol	Submit Vol	Minimum Vol	Stability
Syringe, Heparinized	Whole Blood	Ice	1 mL	1 mL	0.2 mL	1 hour

*Remove the needle and cap syringe submit sample on ice to the laboratory immediately.
Unspun lithium heparin (green top) tube is also acceptable.

FPAN1 *Pancreatic Elastase-1*

Quest Diagnostics Nichols Institute

Additional Test Codes

Primary ID	Epic Code	Mayo Test ID
PELAS1	LAB979	FPAN1

Specimen Required

Preferred Specimen Type: Undiluted stool
Supplies: Clean, dry, sterile leak-proof stool container
Container/Tube: Clean, dry, sterile leak- proof stool container
Specimen Volume: 1 g
Specimen Stability Information: Refrigerated
Collection Instructions: 1 gram undiluted feces in clean, dry, sterile leak-proof container.
Do not add fixative or preservative. Ship refrigerated.

Method Name

Immunoassay (IA)

Reporting Name

Pancreatic Elastase-1

Specimen Type

Fecal

Specimen Minimum Volume

0.3 gram

Specimen Stability Information

Specimen Type	Temperature	Time	Special Container
Fecal	Refrigerated (preferred)	7 days	
	Frozen	365 days	
	Ambient	7 days	

Reject Due To

Hemolysis	NA
Lipemia	NA
Icterus	NA
Other	Specimen collected in formalin; MF, SAF or PVA, Cary-Blair Media

Reference Values

Normal: >200 mcg/g
Moderate Pancreatic Insufficiency: 100-200 mcg/g
Severe Pancreatic Insufficiency: <100 mcg/g

Day(s) and Time(s) Performed

Sunday, Tuesday, Thursday

Analytic Time

2 - 7 days

CPT Code Information

82656

LOINC Code Information

Test ID	Test Order Name	Order LOINC Value
FPAN1	Pancreatic Elastase-1	25907-7

Result ID	Test Result Name	Result LOINC Value
FPAN1	Pancreatic Elastase-1	25907-7

NY State Approved
Yes

BPEX *PARASITE EXAM, BLOOD*

University of Vermont Medical Center

Important Note

Blood Parasite examination consists of examinating a thin and thick smear microscopically in conjunction with the BinaxNOW Malaria Immunochromographic Assay: **Please specify if malaria is in the differential diagnosis indicated in the order**. BinaxNow Malaria is a Rapid method for determining circulating Plasmodium antigen in a patient's blood. The Microbiology Laboratory performs BinaxNOW Assay 24 hours a day as a Stat exam.
Three orders/specimens are necessary to rule out a parasite infection.

Additional Test Codes

Primary ID	Epic Code	Mayo Access ID
BPEX	LAB2535	FAH5888

Test Schedule / Analytical Time / Test Priority

Daily / 24 Hours / Available STAT

Method

Microscopic Examination, Antigen testing for Plasmodium

CPT(s)

Description	CPT Code
Special Stain for Parasites	87207
Thick Smear Prep	87015
BinaxNOW, if indicated	87899

Instrumentation

Manual Method

Reference Range

No blood parasite seen. Positives are reported by phone immediately.

Section

Microbiology-2

Performing Location

University of Vermont Medical Center

Is the UVMMC lab NY State Certified to perform this testing? Yes/No

Yes

LOINC Code Information

Order Code	Reporting Name	LOINC Code
BPEX	Parasite Exam, Blood	24429-3

Specimen Information — PARASITE EXAM, BLOOD

Container	Specimen	Temperature	Collect Vol	Submit Vol	Minimum Vol	Stability
Lavender Top Tube	Whole Blood	Refrigerate	2.5 mL	2.5 mL	1.5 mL	*
**Lavender Microtainer			0.6 mL			

*Fresh Specimen is critical. If blood is not expected to arrive in lab within 2-4 hours of collection then prepare 3 thin film slides and 2 thick smears from specimen. Send slides along with original specimen. Include patient's travel history when available. Blood films are examined for Malaria, Trypanosomes, Microfilaria, and Babesia.
While a microtainer is an optional tube type in rare circumstances, it is **not recommended.

PTHIN *PARATHYROID HORMONE, INTACT*

University of Vermont Medical Center

Additional Test Codes

Primary ID	Epic Code	Mayo Access ID
PTHIN	LAB813	FAH304

Test Schedule / Analytical Time / Test Priority

Monday – Friday / 3 days / Not available STAT

Method

Chemiluminescence Immunoassay

CPT(s)

Description	CPT Code
Parathyroid Hormone	83970

Instrumentation

Siemens Advia Centaur XPT

Reference Range

All ages: 19 - 88 pg/mL

Section

Chemistry-2

Performing Location

University of Vermont Medical Center

Is the UVMMC lab NY State Certified to perform this testing? Yes/No

Yes

LOINC Code Information

Result Code	Reporting Name	LOINC Code
PTHR2	Intact PTH	2731-8

Specimen Information — PARATHYROID HORMONE, INTACT

Container	Specimen	Temperature	Collect Vol	Submit Vol	Minimum Vol	Stability
Serum Separator Tube	Serum	Refrigerate	4 mL	1 mL	0.6 mL	24 hours
Serum Separator Tube	Serum	*Frozen	4 mL	1 mL	0.6 mL	30 days

Allow specimen to clot at ambient temperature. Spin and separate sample within 4-hours of collection. Submit 1.0 mL in a plastic vial frozen (≤-20°C). Serum removed from the gel is stable 24 hours refrigerated.

PTHOP *PARATHYROID HORMONE, INTACT, INTRAOPERATIVE*

University of Vermont Medical Center

Important Note

Please notify the chemistry laboratory at 847-5121 prior to collection.
Label specimens with the Pre-Removal PTH or Post Removal PTH. Each specimen should be sent to Specimen Receiving immediately after it is collected.

Additional Test Codes

Primary ID	Epic Code	Mayo Access ID
PTHOP	LAB108	N/A

Test Schedule / Analytical Time / Test Priority

Upon request only (M-F), 24 hour notice required / Same day / Available STAT

Method

Chemiluminescence Immunoassay

CPT(s)

Description	CPT Code
Parathyroid Hormone	83970

Instrumentation

Siemens Advia Centaur XPT

Reference Range

All ages: 19 - 88 pg/mL

Section

Chemistry-2

Performing Location

University of Vermont Medical Center

Is the UVMMC lab NY State Certified to perform this testing? Yes/No

Yes

LOINC Code Information

Result Code	Reporting Name	LOINC Code
PTHOP	Intraoperative PTH	in process

Specimen Information — PARATHYROID HORMONE, INTACT, INTRAOPERATIVE

Container	Specimen	Temperature	Collect Vol	Submit Vol	Minimum Vol
Lavender Top Tube	Plasma	Frozen	4 mL	1.5 mL	1 mL

PH *PH*

University of Vermont Medical Center

Important Note

Must be collected at the UVMMC Ambulatory Care Center Main Campus, see Special Test Considerations.. Remove needle, cap the syringe, and transport sample on ice immediately to the laboratory.

Additional Test Codes

Primary ID	Epic Code	Mayo Access ID
PH	LAB75	FAH241

Test Schedule / Analytical Time / Test Priority

Daily / Immediately / Available STAT

Method

Ion Selective Electrode

CPT(s)

Description	CPT code
pH	82800

Instrumentation

Siemens Rapid Point 500

Reference Range

All ages: 7.31 - 7.41

Section

Chemistry-1

Performing Location

University of Vermont Medical Center

Is the UVMMC lab NY State Certified to perform this testing? Yes/No

Yes

LOINC Code Information

Result Code	Reporting Name	LOINC Code
PH	pH	11558-4

Specimen Information — PH

Container	Specimen	Temperature	Collect Vol	Submit Vol	Minimum Vol	Stability
Syringe, Heparinized	Whole Blood	Ice	1 mL	1 mL	0.2 mL	1 hour

STLPH *PH, FECES*

University of Vermont Medical Center

Important Note

Submit soft or liquid fresh random sample. Testing cannot be performed on formed stool.

Additional Test Codes

Primary ID	Epic Code	Mayo Access ID
STLPH	LAB3649	FAH4834

Test Schedule / Analytical Time / Test Priority

Daily / 24 Hours / Not available STAT

Method

Litmus Paper

CPT(s)

Description	CPT Code
pH, Stool	83986

Instrumentation

Litmus paper

Reference Range

All ages: 6.0 - 7.0.

Section

Chemistry-1

Performing Location

University of Vermont Medical Center

Is the UVMMC lab NY State Certified to perform this testing? Yes/No

Yes

LOINC Code Information

Result Code	Reporting Name	LOINC Code
STLPH	pH	2755-7

Specimen Information — PH, FECES

Container	Specimen	Temperature	Collect Vol	Submit Vol	Minimum Vol	Stability
Sterile Container	Feces	Refrigerate	1 gram	0.5 gram	0.5 gram	4 hours
Sterile Container	Feces	Ambient	1gram	0.5 gram	0.5 gram	1 hour

Testing CANNOT be performed on formed stool.
Submit soft or liquid fresh random sample. Sample is stable 1 hour at ambient temperature and 4-hours refrigerated.

UPH *pH, URINE*

University of Vermont Medical Center

Additional Test Codes

Primary ID	Epic Code	Mayo Access ID
UPH	LAB110	FAH167

Test Schedule / Analytical Time / Test Priority

Daily / 24 Hours / Available STAT

Method

Ion Selective Electrode

CPT(s)

Description	CPT Code
pH, Urine	83986

Instrumentation

Accumet XL150 pH Meter

Reference Range

All ages: 4.6 - 8.0

Section

Chemistry-1

Performing Location

University of Vermont Medical Center

Is the UVMMC lab NY State Certified to perform this testing? Yes/No

Yes

LOINC Code Information

Result Code	Reporting Name	LOINC Code
UPH	pH	5803-2

Specimen Information — pH, URINE

Container	Specimen	Temperature	Collect Vol	Submit Vol	Minimum Vol	Stability
Sterile Container	Urine	Refrigerate	1 mL	1 mL	1 mL	1 day

THSC *PHARYNGITIS CULTURE*

University of Vermont Medical Center

Important Note

Samples must be received in lab within 24 hours.
For the recovery of pharyngitis pathogens, including Group A Strep, Group C Strep, Group G Strep, and Arcanobacterium.

Additional Test Codes

Primary ID	Epic Code	Mayo Access ID
THSC	LAB502	N/A

Specimen Information

Container	Specimen	Temperature	Collect Vol	Submit Vol	Minimum Vol	Stability
Bacterial/Yeast Collection Kit	Throat	Refrigerate	N/A	N/A	N/A	24 hours

Bacterial/Yeast Collection Kit


PEEL HERE
Swab
collection &
preservation
1
2
3
4
5
COPAN
STERILE
CE 0123

Test Schedule / Analytical Time / Test Priority
Daily / Reported when positive. Negative final at 48 hours / Not available STAT

Method
Culture

CPT(s)

Description	CPT Code
Pharyngitis Culture	87070

Instrumentation
Manual Method

Reference Range
No Group A Streptococci

Section
Microbiology-1

Performing Location
University of Vermont Medical Center

Is the UVMMC lab NY State Certified to perform this testing? Yes/No
Yes

LOINC Code Information

Order Code	Reporting Name	LOINC Code
THSC	Pharyngitis Culture	626-2

VPCP *Phencyclidine Screen (PCP), Urine*

Aspenti Health Laboratory

Important Note
Routine drug screen for inpatients and ambulatory clinics.
Phencyclidine Screen (PCP), Urine, test information.

Additional Test Codes

Primary ID	Epic Code	Aspenti Test Code
VPCP	LAB3733	VBL2190

Test Schedule / Analytical Time / Test Priority
Monday - Friday / 24 Hours / Not Available STAT

Performing Location
Aspenti Health Laboratory

PCP *PHENCYCLIDINE SCREEN (PCP), URINE*

University of Vermont Medical Center

Important Note
For the Emergency Department and Labor and Delivery only.
This screen is intended for use in clinical monitoring or management of patients.
This test is subject to Medicare National Coverage Determination (LCD) L36037-Urine Drug Testing.

Additional Test Codes

Primary ID	Epic Code	Mayo Access ID
PCP	LAB3674	FAH5776

Test Schedule / Analytical Time / Test Priority
Daily / Same day / Available STAT

Method
Immunochromatography

CPT(s)

Description	CPT Code
Phencyclidine Screen	80306

Instrumentation
MEDTOX Scan

Reference Range
This screen is intended for use in clinical monitoring or management of patients.

Section
Chemistry-1

Performing Location
University of Vermont Medical Center

Is the UVMMC lab NY State Certified to perform this testing? Yes/No
Yes

LOINC Code Information

Result Code	Reporting Name	LOINC Code
PCP	Phencyclidine Screen, Urine	19659-2

Specimen Information — PHENCYCLIDINE SCREEN (PCP), URINE

Container	Specimen	Temperature	Collect Vol	Submit Vol	Minimum Vol	Stability
Sterile Container	Urine	Refrigerate	50 mL	50 mL	30 mL	2 days
Sterile Container	Urine	Frozen	50 mL	50 mL	30 mL	30 days

PHNOB2 *PHENOBARBITAL*

University of Vermont Medical Center

Additional Test Codes

Primary ID	Epic Code	Mayo Access ID
PHNOB2	LAB30	FAH5783

Test Schedule / Analytical Time / Test Priority

Daily / Same day / Available STAT

Method

Chemiluminescence Immunoassay

CPT(s)

Description	CPT Code
Phenobarbital	80184

Instrumentation

Abbott Architect i1000

Reference Range

All ages: Therapeutic Range: 15 – 40 µg/mL

Section

Chemistry-2

Performing Location

University of Vermont Medical Center

Is the UVMMC lab NY State Certified to perform this testing? Yes/No

Yes

LOINC Code Information

Result Code	Reporting Name	LOINC Code
PHNOB2	Phenobarbital	3948-7

Specimen Information — PHENOBARBITAL

Container	Specimen	Temperature	Collect Vol	Submit Vol	Minimum Vol	Stability
Serum Separator Tube	Serum	Refrigerate	2 mL	0.5 mL	0.3 mL	8 days
Lithium heparin (green top)	Plasma	Refrigerate	2 mL	0.5 mL	0.3 mL	8 days
*Green Microtainer		Refrigerate	0.6 mL			8 days

*While a microtainer is an optional tube type in rare circumstances, it is **not recommended.**

PHENY2 *PHENYTOIN*

University of Vermont Medical Center

Additional Test Codes

Primary ID	Epic Code	Mayo Access ID
PHENY2	LAB176	FAH5782

Test Schedule / Analytical Time / Test Priority

Daily / 24 Hours / Available STAT

Method

Chemiluminescence Immunoassay

CPT(s)

Description	CPT Code
Phenytoin	80185

Instrumentation

Abbott Architect i1000

Reference Range

Therapeutic Range: 10 – 20 µg/mL

Section

Chemistry-1

Performing Location

University of Vermont Medical Center

Is the UVMMC lab NY State Certified to perform this testing? Yes/No

Yes

LOINC Code Information

Result Code	Reporting Name	LOINC Code
PHENY2	Phenytoin	3968-5

Specimen Information — PHENYTOIN

Container	Specimen	Temperature	Collect Vol	Submit Vol	Minimum Vol	Stability
Serum Separator Tube	Serum	Refrigerate	2 mL	0.5 mL	0.3 mL	7 days
Lithium heparin (green top)	Plasma	Refrigerate	2 mL	0.5 mL	0.3 mL	7 days
*Green Microtainer		Refrigerate	0.6 mL			7 days

*While a microtainer is an optional tube type in rare circumstances, it is **not recommended.**

PHOS *PHOSPHORUS*

University of Vermont Medical Center

Additional Test Codes

Primary ID	Epic Code	Mayo Access ID
PHOS	LAB113	FAH207

Test Schedule / Analytical Time / Test Priority

Daily / 24 Hours / Available STAT

Method

Colorimetric

CPT(s)

Description	CPT Code
Phosphorus	84100

Instrumentation

Ortho Vitros 5600

Section

Chemistry-1

Performing Location

University of Vermont Medical Center

Is the UVMMC lab NY State Certified to perform this testing? Yes/No

Yes

LOINC Code Information

Result Code	Reporting Name	LOINC Code
PHOS	Phosphorus	2777-1

Specimen Information — PHOSPHORUS

Container	Specimen	Temperature	Collect Vol	Submit Vol	Minimum Vol	Stability
SST	Serum	Refrigerate	4 mL	0.6 mL	0.3 mL	7 days
Lithium heparin (green top)	Plasma	Refrigerate	4 mL	0.6 mL	0.3 mL	7 days
*Green Microtainer		Refrigerate	0.6 mL			7 days

Hemolysis can affect the results. Please submit non-hemolyzed samples.
*While a microtainer is an optional tube type in rare circumstances, it is **not recommended.**

Reference Range — PHOSPHORUS

Age	Sex	Physiological Status	Low	High	Units
0 - 1 month	Male		2.7	7.2	mg/dL
1 - 3 months	Male		3.0	6.8	mg/dL
3 months - 1 year	Male		3.0	6.9	mg/dL
1 - 4 years	Male		3.9	6.5	mg/dL
4 - 7 years	Male		4.0	5.4	mg/dL
7 - 12 years	Male		3.7	5.6	mg/dL
12 - 14 years	Male		3.3	5.4	mg/dL
14 - 16 years	Male		2.9	5.4	mg/dL
16 - 18 years	Male		2.8	4.6	mg/dL
≥18 years	Male		2.5	4.5	mg/dL
0 - 1 month	Female		3.0	8.0	mg/dL
1 - 3 months	Female		3.0	7.5	mg/dL
3 months - 1 year	Female		2.5	7.0	mg/dL
1 - 4 years	Female		3.9	6.5	mg/dL
4 - 7 years	Female		4.0	5.4	mg/dL
7 - 12 years	Female		3.7	5..6	mg/dL
12 - 14 years	Female		3.3	5.4	mg/dL
14 - 16 years	Female		2.9	5.4	mg/dL
16 - 18 years	Female		2.8	4.6	mg/dL
≥18 years	Female		2.5	4.5	mg/dL

UPHO24 *PHOSPHORUS, URINE, 24 HOUR*

University of Vermont Medical Center

Additional Test Codes

Primary ID	Epic Code	Mayo Access ID
UPHO24	LAB246	FAH5872

Test Schedule / Analytical Time / Test Priority

Daily 8 am-4:30 pm / Same day / Not available STAT

Method

Colorimetric

CPT(s)

Description	CPT Code
Phosphorus, Urine 24-hour	84102

Instrumentation

Ortho Vitros 5600

Reference Range

All ages: 0.4 - 1.3 g/24 Hours

Section

Chemistry-1

Performing Location

University of Vermont Medical Center

Is the UVMMC lab NY State Certified to perform this testing? Yes/No

Yes

LOINC Code Information

Result Code	Reporting Name	LOINC Code
UPHOSR	Phosphorus, Urn Rand	35673-3
UPHOC	24h Calc	2779-7

Specimen Information — PHOSPHORUS, URINE, 24 HOUR

Container	Specimen	Temperature	Collect Vol	Submit Vol	Minimum Vol	Stability
24-Hour Urine Jug A	24-Hour Urine	Refrigerate	24-Hour	10 mL	1 mL	2 days

UPHOSR *PHOSPHORUS, URINE, RANDOM*

University of Vermont Medical Center

Additional Test Codes

Primary ID	Epic Code	Mayo Access ID
UPHOSR	LAB427	FAH5048

Test Schedule / Analytical Time / Test Priority

Daily 8 am-4:30 pm / Same day / Not available STAT

Method

Colorimetric

CPT(s)

Description	CPT Code
Phosphorus, Urine Random	84105

Instrumentation

Ortho Vitros 5600

Reference Range

No established reference range.

Section

Chemistry-1

Performing Location

University of Vermont Medical Center

Is the UVMMC lab NY State Certified to perform this testing? Yes/No

Yes

LOINC Code Information

Result Code	Reporting Name	LOINC Code
UPHOSR	Phosphorus, Urn Rand	35673-3

Specimen Information — PHOSPHORUS, URINE, RANDOM

Container	Specimen	Temperature	Collect Vol	Submit Vol	Minimum Vol	Stability
Sterile Container	Urine	Refrigerate	50 mL	10 mL	1 mL	2 days

PIW *PINWORM EXAM*

University of Vermont Medical Center

Additional Test Codes

Primary ID	Epic Code	Mayo Access ID
PIW	LAB248	FAH5193

Specimen Information

Collection and Transport for Enterobius vermicularis:
1. **Pinworm Paddles:**
Optimal Collection time is first thing in the morning. Remove the paddle from the collection vial and place the sticky side of the paddle to the perianal region and then place the paddle back into the collection vial. Write the patient name, date of birth, and date collected on the vial and submit the vial to the laboratory for examination within 72 hours. Pinworm paddle collection vials are available from Lab Customer Service, (802) 847-5121.
2. **Cellulose Scotch Tape preparations:**
Optimal collection time is first thing in the morning. Adult female worms usually migrate from the anus at night and lay their eggs in the perianal region. To collect the specimen, clear scotch tape should be applied (sticky side down) to the perianal region and then the scotch tape should be transferred to a glass slide. Write the name, date of birth, and date on the label on the slide and the slide should be submitted to the laboratory for examination. Since the female worms emerge on a sporadic basis, a series (4-6) of consecutive tapes should be collected to rule out an infection.
NOTE: If clear regular cellulose tape (do not use Magic tape) is not available, Pinworm collection paddles are available through Lab Customer Service (802) 847-5121.
3. **Adult worms**:
If an adult worm is found in the perianal region, the worm should be placed in a clean container. If 70% alcohol is available, add enough 70% alcohol to cover the worm in the container. Submit the container to the laboratory for identification.

Test Schedule / Analytical Time / Test Priority

Monday – Friday / 1 day / Not available STAT

Method

Microscopic Exam

CPT(s)

Description	CPT Code
Pinworm Exam	87172

Instrumentation

Manual Method

Reference Range

No Enterobius vermicularis (pinworm) ova or adults seen.

Section

Microbiology-2

Performing Location

University of Vermont Medical Center

Is the UVMMC lab NY State Certified to perform this testing? Yes/No

Yes

LOINC Code Information

Order Code	Reporting Name	LOINC Code
PIW	Pinworm Exam	675-9

PLTAGG *PLATELET AGGREGATION AND SECRETION ASSAY*

University of Vermont Medical Center

Important Note

Special collection required, test must be scheduled in advance, see Special Test Considerations. This test can only be collected at the Main Campus 111 Colchester Avenue Burlington Vermont.

Additional Test Codes

Primary ID	Epic Code	Mayo Access ID
PLTAGG	LAB1122	N/A

Specimen Information

Special collection required, test must be scheduled in advance. This test can only be collected at the Main Campus 111 Colchester Avenue Burlington Vermont. Call Coagulation at 847-5121 to schedule testing.

Test Schedule / Analytical Time / Test Priority

Monday – Friday / 1 day / Not available STAT

Method

Whole Blood Impedence Lumiaggregation

CPT(s)

Description	CPT Code
Secretion Chemiluminescent	82397 × 6
Platelet Aggregation	85576 × 7
Interpretation and Report	85576.26

Instrumentation

Chronolog Model 700

Reference Range

Interpretive Report

Section

Coagulation

Performing Location

University of Vermont Medical Center

Is the UVMMC lab NY State Certified to perform this testing? Yes/No

Yes

PLTC *PLATELET COUNT*

University of Vermont Medical Center

Important Note

Test subject to Medicare National Coverage Decision 190.15 - Blood Counts.

Additional Test Codes

Primary ID	Epic Code	Mayo Access ID
PLTC	LAB301	FAH395

Test Schedule / Analytical Time / Test Priority

Daily / 24 Hours / Available STAT

Method

Automated Cell Counter

CPT(s)

Description	CPT Code
Platelet Count	85049

Instrumentation

Sysmex XN 9000

Reference Range

Age and gender dependent. See report.

Section
Hematology

Performing Location
University of Vermont Medical Center

Is the UVMMC lab NY State Certified to perform this testing? Yes/No
Yes

LOINC Code Information

Result Code	Reporting Name	LOINC Code
PLTC	PLT	777-3

Specimen Information — PLATELET COUNT

Container	Specimen	Temperature	Collect Vol	Submit Vol	Minimum Vol
Lavender Top Tube	Whole Blood	Refrigerate	2.5 mL	2.5 mL	1.5 mL
*Lavender Microtainer			0.6 mL		

*While a microtainer is an optional tube type in rare circumstances, it is **not recommended.**

PFA1 *PLATELET FUNCTION ANALYSIS*

University of Vermont Medical Center

Important Note

This test requires a separate blue top collected just for this test. Prefer a 3.5 mL collection tube
This test is subject to reflex testing, see Laboratory Reflex Testing Policy, you have the option to decline reflex testing if you believe it is not medically necessary, If platelet function is above normal limit, a COL/ADP cartridge will be performed (CPT: 85576).

Additional Test Codes

Primary ID	Epic Code	Mayo Access ID
PFA1	LAB318	FAH5425

Test Schedule / Analytical Time / Test Priority

Daily / 24 Hours / Available STAT

Method

PFA-100

CPT(s)

Description	CPT Code
Platelet Function Analysis	85576

Instrumentation

PFA-100

Reference Range

COL/EPI: 94 – 193 Seconds
COL/ADP: 71 – 118 Seconds

Section

Coagulation

Performing Location

University of Vermont Medical Center

Is the UVMMC lab NY State Certified to perform this testing? Yes/No

Yes

LOINC Code Information

Result Code	Reporting Name	LOINC Code
PFAEPI	COL/EPI Cartridge	24471-5

Specimen Information — PLATELET FUNCTION ANALYSIS

Container	Specimen	Temperature	Collect Vol	Submit Vol	Minimum Vol	Stability
Blue Top Tube	Whole Blood	Ambient	To fill line	To fill line	To fill line	4 hours

Testing must be performed within 4 hours of sample collection. Requires a separate aliquot if other coagulation tests are requested.

Platelet Function Analysis (PFA) is strongly dependent on the correct method of blood collection requiring venipuncture through a19-21G needle drawn directly into a full size evacuated sodium citrate tube. Do not draw through a line or port, which may cause platelet clumping and result in specimen rejection. Ensure proper specimen mixing by gently inverting by hand 4 times. Must remain unspun at ambient temp. Testing must be performed within 4 hours of sample collection. PFA requires separate tube; additional samples must be collected if other coagulation tests are requested.

PMAA *PLATELET MAPPING FOR ASPIRIN (ARACHIDONIC ACID)*

University of Vermont Medical Center

Important Note

This test requires a separate blue top collected just for this test.

Additional Test Codes

Primary ID	Epic Code	Mayo Access ID
PMAA	LAB3323	N/A

Test Schedule / Analytical Time / Test Priority

Daily 7 am-9 pm / Same day / Not available STAT

Method

Thrombelastograph

CPT(s)

Description	CPT Code
Activated Coagulation Time	85347
Fibrinogen activity	85384 × 2
Fibrinolysins or Coagulopathy Screen	85390
Platelet Aspirin Aggregation	85576
Platelet TEG Aggregation	85576

85347, 85384 × 2, 85390, 85576 × 2,
85390.26, 85576.26

Instrumentation

TEG 5000

Reference Range

Normal platelet function without evidence of significant inhibition using the arachidonic acid agonist.

Section

Coagulation

Performing Location

University of Vermont Medical Center

Is the UVMMC lab NY State Certified to perform this testing? Yes/No

Yes

LOINC Code Information

See individual tests.

Specimen Information — PLATELET MAPPING FOR ASPIRIN (ARACHIDONIC ACID)

Container	Specimen	Temperature	Collect Vol	Submit Vol	Minimum Vol
Blue Top Tube	Whole Blood	Ambient	3.5 mL To fill line	3.5 mL	3.5 mL
Green Top Tube	Whole Blood	Ambient	3.5 mL to fill line	3.5 mL	3.5 mL

Samples must be collected at the Main campus (ACC) only and tested within 2 hours of collection. This test requires a separate blue top collected just for this test. Collect blood through a 19-21 gauge butterfly needle into a blue top tube (supply #031975), discard this tube and collect a second blue top tube and collect 6 mL into a green top (lithium heparin supply #031977), submit whole blood to the lab immediately. Tube must be full. Keep sample at ambient temperature. Gel tubes are NOT acceptable.

PMADPA *PLATELET MAPPING FOR ASPIRIN & PLAVIX*

University of Vermont Medical Center

Important Note

This test requires a separate blue top collected just for this test.

Additional Test Codes

Primary ID	Epic Code	Mayo Access ID
PMADPA	LAB3322	N/A

Test Schedule / Analytical Time / Test Priority

Daily 7 am-9 pm / Same day / Not available STAT

Method

Thrombelastograph

CPT(s)

Description	CPT Code
Activated Coagulation Time	85347
Fibrinogen Activity	85384 × 2
Fibrinolysis or Coagulopathy Screen	85390
Platelet Aspirin Aggregation	85576
Platelet Plavix Aggregation	85576
Platelet TEG Aggregation	85576

Instrumentation

TEG 5000

Reference Range

Normal platelet function without evidence of significant inhibition using the ADP and arachidonic acid.

Section

Coagulation

Performing Location

University of Vermont Medical Center

Is the UVMMC lab NY State Certified to perform this testing? Yes/No

Yes

LOINC Code Information

See individual tests.

Specimen Information — PLATELET MAPPING FOR ASPIRIN & PLAVIX

Container	Specimen	Temperature	Collect Vol	Submit Vol	Minimum Vol
Blue Top Tube	Whole Blood	Ambient	3.5 mL To fill line	3.5 mL	3.5 mL
Green Top Tube	Whole Blood	Ambient	3.5 mL	3.5 mL	3.5 mL

Samples must be collected at the Main Campus (ACC) only and tested within 2 hours of collection. This test requires a separate blue top collected just for this test. Collect blood through a 19-21 gauge butterfly needle into a blue top tube (supply #031975), discard this tube and collect a second blue top tube and collect 6 mL into a green top (lithium heparin supply #031977), submit whole blood to the lab immediately. Tube must be full. Keep sample at ambient temperature. Gel tubes are NOT acceptable.

PMADP *PLATELET MAPPING FOR PLAVIX (ADP)*

University of Vermont Medical Center

Important Note

This test requires a separate blue top collected just for this test.

Additional Test Codes

Primary ID	Epic Code	Mayo Access ID
PMADP	LAB3324	N/A

Test Schedule / Analytical Time / Test Priority

Daily 7 am-9 pm / Same day / Not available STAT

Method

Thrombelastograph

CPT(s)

Description	CPT Code
Activated Coagulation Time	85347
Fibrinogen Activity	85384 × 2
Fibrinolysis or Coagulopathy Screen	85390
Platelet Plavix Aggregation	85576
Plt TEG Aggregation	85576

Instrumentation

TEG 5000

Reference Range

Normal platelet function without evidence of
significant inhibition using the ADP agonist.

Section

Coagulation

Performing Location

University of Vermont Medical Center

Is the UVMMC lab NY State Certified to perform this testing? Yes/No

Yes

LOINC Code Information

See individual tests.

Specimen Information — PLATELET MAPPING FOR PLAVIX (ADP)

Container	Specimen	Temperature	Collect Vol	Submit Vol	Minimum Vol
Blue Top Tube	Whole Blood	Ambient	3.5 mL To fill line	3.5 mL	3.5 mL
Green Top Tube	Whole Blood	Ambient	3.5 mL	3.5 mL	3.5 mL

Samples must be collected at the Main Campus (ACC) only and tested within 2 hours of collection. This test requires a separate blue top collected just for this test. Collect blood through a 19-21 gauge butterfly needle into a blue top tube (supply #031975), discard this tube and collect a second blue top tube and collect 6 mL into a green top (lithium heparin supply #031977), submit whole blood to the lab immediately. Tube must be full. Keep sample at ambient temperature. Gel tubes are NOT acceptable.

PLPH *PLEURAL FLUID pH*

University of Vermont Medical Center

Additional Test Codes

Primary ID	Epic Code	Mayo Access ID
PLPH	LAB3110	N/A

Test Schedule / Analytical Time / Test Priority

Daily / 24 Hours / Available STAT

Method

Ion Selective Electrode

CPT(s)

Description	CPT
pH; Body Fluid, not otherwise specified	83986

Instrumentation

Siemens Rapid Point 500

Reference Range

No established reference range.

Section

Chemistry-1

Performing Location

University of Vermont Medical Center

Is the UVMMC lab NY State Certified to perform this testing? Yes/No

Yes

Specimen Information — PLEURAL FLUID pH

Container	Specimen	Temperature	Collect Vol	Submit Vol	Minimum Vol	Stability
*Syringe, Heparinized	Pleural Fluid	**Ice	3 mL	3 mL	0.8 mL	1 hour
Sterile Container	Pleural Fluid	Refrigerate	3 mL	3 mL	0.8 mL	1 hour

*Remove the needle from the syringe and cap sample.
**Deliver sample on ice immediately to the laboratory.

POC22 *POCT BLOOD GAS, CG8, iSTAT*

University of Vermont Medical Center

Important Note

This tests is only available to the University of Vermont Health Care clinics and hospital.

Additional Test Codes

Epic Code: POC22

Method

Ion Selective Electrode, Amperometry, Potentiometry, and Conductometry

CPT(s)

Description	CPT Code
Blood Gas	82803
Sodium	84295
Potassium	84132
Calcium, Ionized	82330
Glucose	82947
Hematocrit	85014

Instrumentation

Abbott iSTAT

Reference Range

Arterial:
pH:
0-1 day: 7.26-7.49
1-7 days: 7.29-7.45
≥7 days: 7.35-7.45
pCO2:
0-1 day: 27-40 mmHg
1-7 days: 27-41 mmHg
≥7 days: 35-45 mmHg
pO2:
0-1 day: 55-80 mmHg
1-7 days: 54-95 mmHg
≥7 days: 80-105 mmHg
HCO3, Calculated: All Ages: 22-26 mmol/L
TCO2, Calculated: All Ages: 23-27 mmol/L
BE, Calculated: All Ages: -2 to +3 mmol/L
sO2, Calculated: All Ages: 95-98%
Sodium: All Ages: 136-145 mmol/L
Potassium:
0-8 days 3.2-5.5 mmol/L
8 days - 1 months: 3.4-6.0 mmol/L
1-6 months: 3.5-5.6 mmol/L
6 months-1 year: 3.5-6.1 mmol/L
1-17 y:ears 3.3-4.6 mmol/L
≥17 years: 3.5-5.0 mmol/L
Glucose Fasting:
0-1 day: 40-100 mg/dL
1-8 days: 50-100 mg/dL
≥8 days: 70-100 mg/dL
Calcium, Ionized:
0-1 month: 1.0-1.5 mmol/L
1-6 months: 0.95-1.5 mmol/L
≥6 months: 1.12-1.32 mmol/L
Hematocrit:
0-3 months: 28.0-42.0%
3-6 months: 29.0-41.0%
6 months-2 years: 33.0-39.0%
2-6 years: 34.0-40.0%
6-12 years: 35.0-45.0%
12-18 years: 37.0-49.0%
≥18 years: 39.5-50.2%
Venous: All Ages:
pH: 7.31-7.41
pCO2: All Ages: 41-51 mmHg

pO2:N/A
HCO3, Calculated: All Ages: 23-28 mmol/L
TCO2, Calculated: All Ages: 24-29 mmol/L
BE, Calculated: All Ages: -2 to +3 mmol/L
sO2, Calculated: N/A
Sodium: All Ages: 136-145 mmol/L
Potassium:
0-8 days: 3.2-55 mmol/L
8 days- 1 months: 3.4-6.0 mmol/L
1-6 months: 3.5-5.6 mmol/L
6 months-1 y: 3.5-6.1 mmol/L
1-17 years: 3.3-4.6 mmol/L
≥17 years: 3.5-5.0 mmol/L
Glucose: Fasting:
0-1 day: 40-100 mg/dL
1-8 days: 50-100 mg/dL
≥8 days: 70-100 mg/dL
Calcium, Ionized:
0-1 month: 1.0-1.5 mmol/L
1-6 months: 0.95-1.5 mmol/L
≥6 months: 1.12-1.32 mmol/L
Hematocrit:
0-3 months: 28.0-42.0%
3-6 months: 29.0-41.0%
6 months-2 years: 33.0-39.0%
2-6 years: 34.0-40.0%
6-12 years: 35.0-45.0%
12-18 years: 37.0-49.0%
≥18 years: 39.5-50.2%

Section
Point of Care Testing

Performing Location
University of Vermont Medical Center

Complexity
Moderate

Specimen Information — POCT BLOOD GAS, CG8, iSTAT

Container	Specimen	Temperature	Testing Volume	Stability
Safe wrap collection tube	Whole Blood	Ambient	95 uL	Test Immediately
Heparinized Syringe	Whole Blood (Arterial or Venous)	Ambient	95 uL	Test Immediately
Non-Heparinized Syringe	Whole Blood (Arterial or Venous)	Ambient	95 uL	Test Immediately

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POC16 *POCT BLOOD GAS, G3 iSTAT*

University of Vermont Medical Center

Important Note

This tests is only available to the University of Vermont Health Care clinics and hospital.

Additional Test Codes

Epic Code: POC16

Method

Amperometry and Potentiometry

CPT(s)

Description	CPT Code
Blood Gas	82803

Instrumentation

Abbott iSTAT

Reference Range

Arterial:
pH:
0-1 day: 7.26-7.49
1-7 days: 7.29-7.45
≥7 days 7.35-7.45
pCO2:
0-1 day: 27-40 mmHg
1-7 days: 27-41 mmHg
≥7 days: 35-45 mmHg
pO2:
0-1 day: 55-80 mmHg
1-7 days: 54-95 mmHg
≥7 days: 80-105 mmHg
All Ages:
HCO3, Calculated**:** 22-26 mmol/L
TCO2, Calculated: 23-27 mmol/L
BE, Calculated: -2 to +3 mmol/L
sO2, Calculated: 95-98% Venous:
Venous All Ages:
pH: 7.31-7.41
pCO2: 41-51 mmHg
pO2:N/A
HCO3, Calculated: 23-28 mmol/L
TCO2, Calculated: 24-29 mmol/L
BE, Calculated: -2 to +3 mmol/L
sO2, Calculated: N/A

Section

Point of Care Testing

Performing Location

University of Vermont Medical Center

Complexity

Moderate

Specimen Information — POCT BLOOD GAS, G3 iSTAT

Container	Specimen	Temperature	Testing Volume	Stability
Safe wrap collection tube	Whole Blood	Ambient	95 uL	Test Immediately
Heparinized Syringe	Whole Blood (Arterial or Venous)	Ambient	95 uL	Test Immediately
Non-Heparinized Syringe	Whole Blood (Arterial or Venous)	Ambient	95 uL	Test Immediately

POC506 *POCT CHEM8, iSTAT*

University of Vermont Medical Center

Important Note

This tests is only available to the University of Vermont Health Care clinics and hospital.

Additional Test Codes

Epic Code: POC506

Method

Ion Selective Electrode, Amperometry, Potentiometry, and Conductometry

CPT(s)

Description	CPT Code
CHEM 8	80047

Instrumentation

Abbott iSTAT

Reference Range

Sodium: All Ages:
136-145 mmol/L
Potassium:
0-8 days: 3.2-5.5 mmol/L
8 days- 1 months: 3.4-6.0 mmol/L
1-6 months: 3.5-5.6 mmol/L
6 months-1 years: 3.5-6.1 mmol/L
1-17 years: 3.3-4.6 mmol/L
≥17 years: 3.5-5.0 mmol/L
Creatinine:
0-2 months: 0.31-0.92 mg/dL
2 months-1 years: 0.16-0.39 mg/dL
1-3 years: 0.17-0.35 mg/dL
3-5 years: 0.26-0.42 mg/dL
5-7 years: 0.29-0.48 mg/dL
7-9 years: 0.34-0.55 mg/dL
9-11 years: 0.32-0.64 mg/dL
11-13 years: 0.42-0.71 mg/dL
13-15 years: 0.46-0.81 mg/dL
15-18 years: 0.6-1.0 mg/dL
≥18 years: 0.66-1.25 mg/dL
Glucose: Fasting:
0-1 day: 40-100 mg/dL
1-8 days: 50-100 mg/dL
≥8 days: 70-100 mg/dL
Calcium, Ionized:
0-1 months: 1.0-1.5 mmol/L
1-6 months: 0.95-1.5 mmol/L
≥6 months: 1.12-1.32 mmol/L
BUN:
0-8 days <14 mg/dL
8 days-1 months: <17 mg/dL
1-4 months: <13 mg/dL
4-7 months: <15 mg/dL
7 months-1 years: <15 mg/dL
1-4 years: 5-17 mg/dL
4-7 years: 7-17 mg/dL
7-10 years: 7-17 mg/dL
10-12 years: 7-17 mg/dL
12-14 years: 7-17 mg/dL
14-16 years: 8-21 mg/dL
16-18 years: 8-21 mg/dL
≥18 years: 10-26 mg/dL
Hematocrit:
0-3 months: 28.0-42.0%
3-6 months: 29.0-41.0%
6 months-2 years: 33.0-39.0%
2-6 years: 34.0-40.0%
6-12 years: 35.0-45.0%

12-18 years: 37.0-49.0%
≥18 years: 39.5-50.2%

Section

Point of Care Testing

Performing Location

University of Vermont Medical Center

Complexity

Moderate

Specimen Information — POCT CHEM8, iSTAT

Container	Specimen	Temperature	Testing Volume	Stability
Safe wrap collection tube	Whole Blood	Ambient	95 uL	Test Immediately
Heparinized Syringe	Whole Blood (Arterial or Venous)	Ambient	95 uL	Test Immediately
Non-Heparinized Syringe	Whole Blood (Arterial or Venous)	Ambient	95 uL	Test Immediately

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POC47 *POCT CREATININE, iSTAT*

University of Vermont Medical Center

Important Note

This test is only available to the University of Vermont Health Care clinics and hospital.

For arterial collection, the Laboratory recommends that the Modified Allen test be performed to determine that collateral circulation is present from the ulnar artery in the event that thrombosis of the radial artery should occur. Performance of the Modified Allen test should be documented in the patients' chart.

Additional Test Codes

Epic Code: POC47

Method

Amperometry

CPT(s)

Description	CPT Code
Creatinine	82565

Instrumentation

Abbott iSTAT

Reference Range

MALE
0-2 months: 0.31-0.92 mg/dL
2 months-1 years: 0.16-0.39 mg/dL
1-3 years: 0.17-0.35 mg/dL
3-5 years: 0.26-0.42 mg/dL
5-7 years: 0.29-0.48 mg/dL
7-9 years: 0.34-0.55 mg/dL
9-11 years: 0.32-0.64 mg/dL
11-13 years: 0.42-0.71 mg/dL
13-15 years: 0.46-0.81 mg/dL
15-18 years: 0.6-1.0 mg/dL
≥18 years: 0.66-1.25 mg/dL
FEMALE
0-2 months: 0.31-0.92 mg/dL
2 months-1 year: 0.16-0.39 mg/dL
1-3 years: 0.17-0.35 mg/dL
3-5 years: 0.26-0.42 mg/dL
5-7 years: 0.29-0.48 mg/dL
7-9 years: 0.34-0.55 mg/dL
9-11 years: 0.32-0.64 mg/dL
11-13 years: 0.42-0.71 mg/dL
13-15 years: 0.46-0.81 mg/dL
15-18 years: 0.5-0.9 mg/dL
≥18 years: 0.52-1.04 mg/dL

Section

Point of Care Testing

Performing Location

University of Vermont Medical Center

Complexity

Moderate

Specimen Information — POCT CREATININE, iSTAT

Container	Specimen	Temperature	Testing Volume	Stability
Heparinized Syringe	Whole Blood (Arterial or Venous)	Ambient	65 uL	Test Immediately
Non-Heparinized Syringe	Whole Blood (Arterial or Venous)	Ambient	65 uL	Test Immediately

POC50 *POCT FERN TEST*

University of Vermont Medical Center

Important Note

This tests is only available to the University of Vermont Health Care clinics and hospital.

Additional Test Codes

Epic Code: POC50

Method

Microscopy

CPT(s)

Description	CPT Code
Fern Test	89060

Instrumentation

Microscope

Reference Range

Negative (Absent)

Section

Point of Care Testing

Performing Location

University of Vermont Medical Center

Complexity

Provider-performed Microscopy.

Specimen Information — POCT FERN TEST

Container	Specimen	Temperature	Testing Volume	Stability
Glass Slide	Vaginal Secretions	Ambient	65 uL	Allow 10 minutes to air dry

POC 10 *POCT GLUCOSE*

University of Vermont Medical Center

Important Note

This tests is only available to the University of Vermont Health Care clinics and hospital.

Additional Test Codes

Epic Code: POC10

Method

Amperometry

CPT(s)

Description	CPT Code
Glucose	82962

Instrumentation

Abbott Free Style Precision Pro and Nova Xpress 2

Reference Range

Fasting:
0-1 day: 40-100 mg/dL
1-8 days: 50-100 mg/dL
≥8 days: 70-100 mg/dL

Section

Point of Care Testing

Performing Location

University of Vermont Medical Center

Complexity

Waived

Specimen Information — POCT GLUCOSE

Container	Specimen	Temperature	Testing Volume	Stability
Capillary Tube (EDTA or Lithium Heparin)	Whole Blood	Ambient	60 uL	See procedure
Lavender Top Tube (EDTA)	Whole Blood	Ambient	60 uL	See procedure
Green Top Tube (Lithium Heparin)	Whole Blood (Arterial or Venous)	Ambient	60 uL	See procedure

POC505 *POCT GLUCOSE, iSTAT*

University of Vermont Medical Center

Important Note

This tests is only available to the University of Vermont Health Care clinics and hospital.

Additional Test Codes

Epic Code: POC505

Method

Amperometry

CPT(s)

Description	CPT Code
Glucose	82947

Instrumentation

Abbott iSTAT

Reference Range

Fasting:
0-1 day: 40-100 mg/dL
1-8 days: 50-100 mg/dL
≥8 days: 70-100 mg/dL

Section

Point of Care Testing

Performing Location

University of Vermont Medical Center

Complexity

Moderate

Specimen Information — POCT GLUCOSE, iSTAT

Container	Specimen	Temperature	Testing Volume	Stability
Safe-wrap collection tube	Whole Blood	Ambient	65 uL	Test immediately
Green Top Tube (Lithium Heparin)	Whole Blood	Ambient	65 uL	Test immediately
Heparinized Syringe	Whole Blood	Ambient	65 uL	Test immediately
Non-heparinized syringe	Whole Blood	Ambient	65 uL	Test immediately

POC12 *POCT HEMOGLOBIN*

University of Vermont Medical Center

Important Note

This tests is only available to the University of Vermont Health Care clinics and hospital.

Additional Test Codes

Epic Code: POC12

Method

Spectrophotometry

CPT(s)

Description	CPT Code
Hemoglobin	85018

Instrumentation

Hemocue201DM

Reference Range

MALE
0-3 months: 9.0-14.0 mg/dL
3-6 months: 9.5-13.5 mg/dL
6 months-2 years: 10.5-13.5 mg/dL
2-6 year: 11.5-13.5 mg/dL
6-12 years: 11.5-15.5 mg/dL
12-18 years: 13.0-16.0 mg/dL
≥18 years: 13.8-17.3 mg/dL
FEMALE
0-3 months: 9.0-14.0 mg/dL
3-6 months: 9.5-13.5 mg/dL
6 months-2 years: 10.5-13.5 mg/dL
2-6 years: 11.5-13.5 mg/dL
6-12 years: 11.5-15.5 mg/dL
12-18 years: 12.0-16.0 mg/dL
≥18 years: 11.6-15.2 mg/dL

Section

Point of Care Testing

Performing Location

University of Vermont Medical Center

Complexity

Waived

Specimen Information — POCT HEMOGLOBIN

Container	Specimen	Temperature	Testing Volume	Stability
Hemacue Cuvette	Capillary Whole Blood	Ambient	10 uL	Test Immediately
Green Top Tube (Lithium Heparin)	Whole Blood	Ambient	10 uL	Test Immediately
Lavender Top Tube (EDTA)	Whole Blood	Ambient	10 uL	Test Immediately
Gray Top Tube (Na Fluoride/K Oxalate)	Whole Blood	Ambient	10 uL	Test Immediately
Blue Top Tube (Na citrate)	Whole Blood	Ambient	10 uL	Test Immediately

POC507 *POCT HEMOGLOBIN A1c*

University of Vermont Medical Center

Important Note

This tests is only available to the University of Vermont Health Care clinics and hospital.

Additional Test Codes

Epic Code: POC507

Method

Immunoturbidometric

CPT(s)

Description	CPT Code
Hemoglobin a1C	83036

Instrumentation

Siemens DCA Vantage

Reference Range

All Ages: The following A1c interpretive data reflect the 2017 American Diabetes Association (ADA) guidelines and will be reported with each A1c result:
Normal: <5.7%
Prediabetes: 5.7 - 6.4%
Diagnostic for diabetes (if confirmed): ≥6.5%

Goals for glycemic control in diabetes (ADA 2017) <7% - The A1c target for nonpregnant adults with diabetes. More or less stringent targets may be appropriate for individual patients.
<7.5% - The A1c target for children and adolescents with type 1 diabetes.

Section

Point of Care Testing

Performing Location

University of Vermont Medical Center

Complexity

Waived

Specimen Information — POCT HEMOGLOBIN A1c

Container	Specimen	Temperature	Testing Volume	Stability
DCA Capillary Holder	Capillary Whole Blood	Ambient	1 uL	Test Immediately
Green Top Tube (Lithium Heparin)	Whole Blood	Ambient	1 uL	See procedure
Lavender Top Tube (EDTA)	Whole Blood	Ambient	1 uL	See procedure
Gray Top Tube (Na Fluoride/K Oxalate)	Whole Blood	Ambient	1 uL	See procedure
Blue Top Tube (Na citrate)	Whole Blood	Ambient	1 uL	See procedure

ID1 *POCT HIV*

University of Vermont Medical Center

Important Note
This tests is only available to the University of Vermont Health Care clinics and hospital.

Additional Test Codes
Epic Code: POC In Process

Method
Immunochromatography

Instrumentation
OraSure Technologies

Reference Range

Analyte	Reference Range
HIV	Negative

Section
Point of Care Testing

Performing Location
University of Vermont Medical Center

Complexity
Waived

Specimen Information — POCT HIV

Container	Specimen	Temperature	Testing Volume	Stability
Specimen Collection Loop	Capillary Whole Blood	Ambient	Full Loop	In process
Test Device Flat Pad	Oral Fluid	Ambient	See procedure	See Procedure

POC9 *POCT KOH PREP (SKIN, HAIR, & NAILS)*

University of Vermont Medical Center

Important Note

This tests is only available to the University of Vermont Health Care clinics and hospital.

Additional Test Codes

Epic Code: POC9

Method

Microscopy

CPT(s)

Description	CPT Code
KOH Prep	87220

Instrumentation

Microscope

Reference Range

All ages: Negative

Section

Point of Care Testing

Performing Location

University of Vermont Medical Center

Complexity

Provider performed microscopy.

Specimen Information — POCT KOH PREP (SKIN, HAIR, & NAILS)

Container	Specimen	Temperature	Testing Volume	Stability
Glass Slide or Sterile Container	Skin (Scraping), Hair	Ambient	See procedure	See procedure
Glass Slide or Sterile Container	Nail (Scraping or nail)	Ambient	See procedure	See procedure

POC251 *POCT LEAD TEST*

University of Vermont Medical Center

Important Note
This tests is only available to the University of Vermont Health Care clinics and hospital.

Additional Test Codes
Epic Code: POC251

Method
Voltammetry

CPT(s)

Description	CPT Code
Lead	83655

Instrumentation
Lead Care II

Reference Range
All ages: <5.0 µg/dL

Section
Point of Care Testing

Performing Location
University of Vermont Medical Center

Complexity
Waived

Specimen Information — POCT LEAD TEST

Container	Specimen	Room Temperature	Testing Volume	Stability
Capillary Tube Heparin	Whole Blood	Ambient	50 uL	See procedure

POC504 *POCT OCCULT BLOOD SLIDE TEST x1*

University of Vermont Medical Center

Important Note
This tests is only available to the University of Vermont Health Care clinics and hospital.

Additional Test Codes
Epic Code: POC504

Specimen Information

Container	Specimen	Testing Volume	Stability
Sterile Container	Feces	N/A	Test immediately

Method
Colorimetric

CPT(s)

Description	CPT Code
Occult Blood	82272 x1

Instrumentation
Hemoccult Sensa

Reference Range
All ages: Negative

Section
Point of Care Testing

Performing Location
University of Vermont Medical Center

Complexity
Waived

POC13 *POCT OCCULT BLOOD SLIDE TEST x3*

University of Vermont Medical Center

Important Note
This tests is only available to the University of Vermont Health Care clinics and hospital.

Additional Test Codes
Epic Code: POC13

Method
Colorimetric

CPT(s)

Description	CPT Code
Occult Blood	82272 x3

Instrumentation
Hemoccult Sensa

Reference Range
All ages: Negative

Section
Point of Care Testing

Performing Location
University of Vermont Medical Center

Complexity
Waived

Specimen Information — POCT OCCULT BLOOD SLIDE TEST x3

Container	Specimen	Temperature	Testing Volume	Stability
Sterile Container	Feces	Ambient	N/A	Test Immediately

POC85 *POCT pH DIALYSATE*

University of Vermont Medical Center

Important Note
This tests is only available to the University of Vermont Health Care clinics and hospital.

Additional Test Codes
Epic Code: POC85

Method
Colorimetric

CPT(s)

Description	CPT Code
pH	83986

Instrumentation
pHydrion pH Indicator Strips

Reference Range

Analyte	Reference Range
pH	See procedure

Section
Point of Care Testing

Performing Location
University of Vermont Medical Center

Complexity
Waived

Specimen Information — POCT pH DIALYSATE

Container	Specimen	Temperature	Testing Volume	Stability
Sterile Container	Dialysate	Ambient	N/A	Test Immediately

POC112 *POCT pH VAGINAL*

University of Vermont Medical Center

Important Note
This tests is only available to the University of Vermont Health Care clinics and hospital.

Additional Test Codes
Epic Code: POC112

Method
Colorimetric

CPT(s)

Description	CPT Code
pH	83986

Instrumentation
pHydrion Paper

Reference Range
See procedure

Section
Point of Care Testing

Performing Location
University of Vermont Medical Center

Complexity
Waived

Specimen Information — POCT pH VAGINAL

Container	Specimen	Temperature	Testing Volume	Stability
In process	Vaginal Secretions	Ambient	N/A	Test Immediately

POC14 *POCT RAPID STREP SCREEN*

University of Vermont Medical Center

Important Note
This tests is only available to the University of Vermont Health Care clinics and hospital.

Additional Test Codes
Epic Code: POC14

Specimen Information

Container	Specimen	Temperature	Stability
Puritan Rayon-tipped Swab	Throat	Ambient	Test Immediately

Method
Immunochromatography

CPT(s)

Description	CPT Code
Rapid Strep Screen	87880

Instrumentation
Sekesui Osom Rapid Strep Kit

Reference Range
All ages: Negative

Section
Point of Care Testing

Performing Location
University of Vermont Medical Center

Complexity
Waived

POC6 *POCT SCABIES*

University of Vermont Medical Center

Important Note
This tests is only available to the University of Vermont Health Care clinics and hospital.

Additional Test Codes
Epic Code: POC6

Specimen Information

Container	Specimen	Temperature	Stability
Glass Slide	Skin Scrappings	Ambient	Test Immediately

Method
Microscopy

CPT(s)

Description	CPT Code
Skin Scrapings	87220

Instrumentation
Microscope

Reference Range
All ages: Negative

Section
Point of Care Testing

Performing Location
University of Vermont Medical Center

Complexity
Provider performed Microscopy

POC91 *POCT SEMEN ANALYSIS QUALITATIVE*

University of Vermont Medical Center

Important Note
This tests is only available to the University of Vermont Health Care clinics and hospital.

Additional Test Codes
Epic Code: POC91

Method
Microscopy

CPT(s)

Description	CPT Code
In process	In process

Instrumentation
Microscope

Reference Range
Post Vasectomy: Absent

Section
Point of Care Testing

Performing Location
University of Vermont Medical Center

Complexity
Provider performed microscopy

Specimen Information — POCT SEMEN ANALYSIS QUALITATIVE

Container	Specimen	Temperature	Testing Volume	Stability
Sterile Container	Semen	Ambient	N/A	Test Immediately

POC5 *POCT URINE DIPSTICK*

University of Vermont Medical Center

Important Note
This tests is only available to the University of Vermont Health Care clinics and hospital.

Additional Test Codes
Epic Code: POC5

Method
Colorimetric

CPT(s)

Description	CPT Code
Urine dipstick	81003

Instrumentation
Siemens Clinitek Status+ with MultiStix 10SG

Reference Range

Analyte	All Ages and Gender Reference Range
Glucose	Negative
Bilirubin	Negative
Ketone	Negative
Specific Gravity	1.001 - 1.035
Blood	Negative
pH	4.6 - 8.0
Protein	Negative
Urobilinogen	0.2 - 1.0 mg/dL
Nitrite	Negative
Leukocytes	Negative

Section
Point of Care Testing

Performing Location
University of Vermont Medical Center

Complexity
Waived

Specimen Information — POCT URINE DIPSTICK

Container	Specimen	Temperature	Collect Vol	Submit Vol	Min Vol	Stability
Sterile Container	Urine	Ambient	10 mL	10 mL	5 mL	Test Immediately

POC503 *POCT URINE DRUG SCREEN*

University of Vermont Medical Center

Important Note

This tests is only available to the University of Vermont Health Care clinics and hospital.
Includes morphine(opioids), oxycodone, buprenorphine, Methylenedioxymethamphetamine (MDMA), methadone, benzodiazepines, barbiturates, THC, amphetamine, methamphetamine, Phencyclidine (PCP), and cocaine.

Additional Test Codes

Epic Code: POC503

Method

Immunochromatography

CPT(s)

Description	CPT Code
Urine Drug Screen	80305

Instrumentation

UScreen Drugs of Abuse Cup

Reference Range

Analyte	Reference Range
Urine Drug Screen All Ages	Negative

This screen is intended for use in clinical monitoring or management of patients.
Adulterants: Temperature: 90-100°F Specific Gravity: 1.005-1.025 Creatinine: 20-200 mg/dL pH: 4.0-9.0

Section

Point of Care Testing

Performing Location

University of Vermont Medical Center

Complexity

Waived

Specimen Information — POCT URINE DRUG SCREEN

Container	Specimen	Temperature	Testing Volume	Stability
Sterile Container	Urine	Ambient	30 mL	Test Immediately

POC508 *POCT URINE NICOTINE SCREEN*

University of Vermont Medical Center

Important Note

This tests is only available to the University of Vermont Health Care clinics and hospital.

Additional Test Codes

Epic Code: POC508

Method

Immunochromatography

CPT(s)

Description	CPT Code
Urine Nicotine Screen	80305

Instrumentation

NicCheck I Test Strip

Reference Range

Analyte	Reference Range
Urine Nicotine Screen	Negative

Section

Point of Care Testing

Performing Location

University of Vermont Medical Center

Complexity

Waived

Specimen Information — POCT URINE NICOTINE SCREEN

Container	Specimen	Temperature	Testing Volume	Stability
Sterile Container	Urine	Ambient	0.5 - 1.0 mL	Test Immediately

POC114 *POCT URINE PREGNANCY TEST, AUTOMATED*

University of Vermont Medical Center

Important Note
This tests is only available to the University of Vermont Health Care clinics and hospital.

Additional Test Codes
Epic Code: POC114

Method
Immunochromatography

CPT(s)

Description	CPT Code
Urine Preganacy Test	81025

Instrumentation
Siemens Clinitek Status+ and Clinitest UPT Cassettes

Reference Range

Analyte	Reference Range
Urine Pregnancy Test	Negative

Section
Point of Care Testing

Performing Location
University of Vermont Medical Center

Complexity
Waived

Specimen Information — POCT URINE PREGNANCY TEST, AUTOMATED

Container	Specimen	Temperature	Testing Volume	Stability
Sterile Container	Urine	Ambient	200 uL	Test Immediately

POC7 *POCT URINE PREGNANCY TEST, MANUAL*

University of Vermont Medical Center

Important Note
This tests is only available to the University of Vermont Health Care clinics and hospital.

Additional Test Codes
Epic Code: POC7

Method
Immunochromatography

CPT(s)

Description	CPT Code
Urine Preganacy Test	81025

Instrumentation
OSOM Card Urine Pregnancy Test

Reference Range

Analyte	Reference Range
Urine Pregnancy Test	Negative

Section
Point of Care Testing

Performing Location
University of Vermont Medical Center

Complexity
Waived

Specimen Information — POCT URINE PREGNANCY TEST, MANUAL

Container	Specimen	Temperature	Testing Volume	Stability
Sterile Container	Urine	Ambient	135 uL	Test Immediately

POC8 *POCT URINE SEDIMENT*

University of Vermont Medical Center

Important Note

This tests is only available to the University of Vermont Health Care clinics and hospital.

Additional Test Codes

Epic Code: POC8

Method

Microscopy

CPT(s)

Description	CPT Code
Urine Sediment	81015

Instrumentation

Microscope

Reference Range

Analyte	Reference Range
WBC	0 - 3/HPF
RBC	0 - 2/HPF
Squamous Epithelial Cells	None seen
Renal Epithelial Cells	None seen
Hyaline Casts	None seen to Few seen
Bacteria	None seen

Section

Point of Care Testing

Performing Location

University of Vermont Medical Center

Complexity

Provider performed microscopy

Specimen Information — POCT URINE SEDIMENT

Container	Specimen	Temperature	Testing Volume	Stability
Sterile Container	Urine	Ambient	12 mL	Test Immediately

POC4 *POCT VAGINAL WET PREP (INCLUDES KOH)*

University of Vermont Medical Center

Important Note
This tests is only available to the University of Vermont Health Care clinics and hospital.

Additional Test Codes
Epic Code: POC4

Method
Microscopy

CPT(s)

Description	CPT Code
We Mount	87210

Instrumentation
Microscope

Reference Range
All Ages: Clue Cells: Absent Trichomonas: Absent Yeast Forms: Absent White Blood Cells: Absent

Section
Point of Care Testing

Performing Location
University of Vermont Medical Center

Complexity
Provider performed microscopy

Specimen Information — POCT VAGINAL WET PREP (INCLUDES KOH)

Container	Specimen	Temperature	Testing Volume	Stability
Glass Slide	Vaginal Secretions	Ambient	N/A	Test Immediately

VPOLY *Polysubstance Use Panel, Urine*

Aspenti Health Laboratory

Important Note

Routine drug screen for inpatients and ambulatory clinics.
Test includes the following tests:
Alcohol Metabolite (EtG) Screen-Urine
Amphetamine Screen-Urine
Barbiturates Screen-Urine
Benzodiazepines Screen-Urine
Buprenorphine Screen-Urine
Cocaine Metabolite (Benzylecgonine) Screen-Urine
Ecstasy MDMA Screen-Urine
Fentanyl Screen-Urine
Heroin Metabolite (6-AM) Screen-Urine
Methadone Metabolite EDDP Screen-Urine
Opioid Screen-Urine
Oxycodone Screen-Urine
Zolpidem Screen-Urine

Additional Test Codes

Primary ID	Epic Code	Aspenti Test Code
VPOLY	LAB3740	VBL2613

Test Schedule / Analytical Time / Test Priority

Monday - Friday / 24 Hours / Not Available STAT

Performing Location

Aspenti Health Laboratory

VPREG *Polysubstance Use Pregnancy Panel, Urine*

Aspenti Health Laboratory

Important Note

Routine drug screen for inpatients and ambulatory clinics.
Test includes the following tests:
Alcohol Metabolite (EtG) Screen-Urine
Amphetamine Screen-Urine
Barbiturates Screen-Urine
Benzodiazepines Screen-Urine
Buprenorphine Screen-Urine
Cocaine Metabolite (Benzylecgonine) Screen-Urine
Continine Screen-Urine
Ecstasy MDMA Screen-Urine
Fentanyl Screen-Urine
Heroin Metabolite (6-AM) Screen-Urine
Methadone Metabolite EDDP Screen-Urine
Opioid Screen-Urine
Oxycodone Screen-Urine
THC Metabolites (Cannabinoids) Screen, Urine
Zolpidem Screen-Urine

Additional Test Codes

Primary ID	Epic Code	Aspenti Test code
VPREG	LAB3741	VBL2614

Test Schedule / Analytical Time / Test Priority

Monday - Friday / 24 Hours / Not Available STAT

Performing Location

Aspenti Health Laboratory

VKIDT *Polysubstance Use Transplant Panel, Urine*

Aspenti Health Laboratory

Important Note

Routine drug screen for inpatients and ambulatory clinics.
Test includes the following tests:
Alcohol Metabolite (EtG) Screen-Urine
Amphetamine Screen-Urine
Barbiturates Screen-Urine
Benzodiazepines Screen-Urine
Buprenorphine Screen-Urine
Cocaine Metabolite (Benzylecgonine) Screen-Urine
Continine Screen-Urine
Ecstasy MDMA Screen-Urine
Fentanyl Screen-Urine
Heroin Metabolite (6-AM) Screen-Urine
Methadone Metabolite EDDP Screen-Urine
Opioid Screen-Urine
Oxycodone Screen-Urine
THC Metabolites (Cannabinoids) Screen, Urine
Zolpidem Screen-Urine

Additional Test Codes

Primary ID	Epic Code	Aspenti Test Code
VKIDT	LAB3742	VBL2615

Test Schedule / Analytical Time / Test Priority

Monday - Friday / 24 Hours / Not Available STAT

Performing Location

Aspenti Health Laboratory

K *POTASSIUM*

University of Vermont Medical Center

Additional Test Codes

Primary ID	Epic Code	Mayo Access ID
K	LAB114	FAH258

Test Schedule / Analytical Time / Test Priority

Daily / 24 Hours / Available STAT

Method

Ion- Specific Electrode

CPT(s)

84132

Instrumentation

Ortho Vitros 5600

Section

Chemistry-1

Performing Location

University of Vermont Medical Center

Is the UVMMC lab NY State Certified to perform this testing? Yes/No

Yes

LOINC Code Information

Result Code	Reporting Name	LOINC Code
K	Potassium	2823-3

Specimen Information — POTASSIUM

Container	Specimen	Temperature	Collect Vol	Submit Vol	Minimum Vol	Stability
SST	Serum	Refrigerate	4 mL	0.6 mL	0.3 mL	42 days
Lithium heparin (green top)	Plasma	Refrigerate	4 mL	0.6 mL	0.3 mL	42 days
*Green Microtainer		Refrigerate		0.6 mL		42 days

Specimen must be not be hemolyzed.
*While a microtainer is an optional tube type in rare circumstances, it is **not recommended.**

Reference Range — POTASSIUM

Age	Sex	Physiological Status	Low	High	Units
0-8 days	All		3.2	5.5	mEq/L
8 days -1 month	All		3.4	6.0	mEq/L
1-6 months	All		3.5	5.6	mEq/L
6 months-1 year	All		3.5	6.1	mEq/L
1-17 years	All		3.3	4.6	mEq/L
≥17 years	All		3.5	5.0	mEq/L

UK24 *POTASSIUM, URINE, 24 HOUR*

University of Vermont Medical Center

Important Note

The 24 hour urine sample should be delivered to the lab within 12 hours of collection completion.

Additional Test Codes

Primary ID	Epic Code	Mayo Access ID
UK24	LAB436	FAH5873

Test Schedule / Analytical Time / Test Priority

Daily 8 am-4:30 pm / Same day / Available STAT

Method

Ion – Specific Electrode

CPT(s)

Description	CPT
	84133

Instrumentation

Ortho Vitros 5600

Reference Range

0-18 years: 40-80 mEq/24 Hours
≥18 years: 25 – 125 mEq/24 Hours

Section

Chemistry-1

Performing Location

University of Vermont Medical Center

Is the UVMMC lab NY State Certified to perform this testing? Yes/No

Yes

LOINC Code Information

Result Code	Reporting Name	LOINC Code
UKR	Potassium, Urn Random	35677-4
UK24C	24h Calc	2829-0

Specimen Information — POTASSIUM, URINE, 24 HOUR

Container	Specimen	Temperature	Collect Vol	Submit Vol	Minimum Vol	Stability
24-Hour Urine Jug A	24-Hour Urine	Refrigerate	24-hour Collection	10 mL	1 mL	7 days

Must not have preservative.

UKR *POTASSIUM, URINE, RANDOM*

University of Vermont Medical Center

Additional Test Codes

Primary ID	Epic Code	Mayo Access ID
UKR	LAB434	FAH261

Test Schedule / Analytical Time / Test Priority

Daily 8 am-4:30 pm / Same day / Available STAT

Method

Ion – Specific Electrode

CPT(s)

Description	CPT
	84133

Instrumentation

Ortho Vitros 5600

Reference Range

No established reference range.

Section

Chemistry-1

Performing Location

University of Vermont Medical Center

Is the UVMMC lab NY State Certified to perform this testing? Yes/No

Yes

LOINC Code Information

Result Code	Reporting Name	LOINC Code
UKR	Potassium, Urn Random	35677-4

Specimen Information — POTASSIUM, URINE, RANDOM

Container	Specimen	Temperature	Collect Vol	Submit Vol	Minimum Vol	Stability
Sterile Container	Urine	Refrigerate	50 mL	10 mL	1 mL	7 days

PALBS *PREALBUMIN*

University of Vermont Medical Center

Additional Test Codes

Primary ID	Epic Code	Mayo Access ID
PALBS	LAB115	FAH5820

Test Schedule / Analytical Time / Test Priority

Monday – Friday, final run starts at 2:00 pm / Same day / Not available STAT

Method

Immunoturbidometric

CPT(s)

Description	CPT
Prealbumin	84134

Instrumentation

Binding Site Optilite

Section

Chemistry-2

Performing Location

University of Vermont Medical Center

Is the UVMMC lab NY State Certified to perform this testing? Yes/No

Yes

LOINC Code Information

Result Code	Reporting Name	LOINC Code
PALB	Prealbumin	14338-8

Specimen Information — PREALBUMIN

Container	Specimen	Temperature	Collect Vol	Submit Vol	Minimum Vol	Stability
Serum Separator Tube	Serum	Refrigerate	5 mL	0.5 mL	0.2 mL	7 days
*Yellow Microtainer		Refrigerate	0.6 mL			7 days

Heparinized plasma is NOT acceptable. Markedly hemolyzed or lipemic samples are not acceptable.
*While a microtainer is an optional tube type in rare circumstances, it is **not recommended.**

Reference Range — PREALBUMIN

Age	Sex	Physiological Status	Low	High	Units
≥18 years	All	N/A	20	40	mg/dL

UPT *PREGNANCY TEST, URINE*

University of Vermont Medical Center

Additional Test Codes

Primary ID	Epic Code	Mayo Access ID
UPT	LAB437	N/A

Test Schedule / Analytical Time / Test Priority

Daily / 24 Hours / Available STAT

Method

Immunochromatography

CPT(s)

Description	CPT Code
Pregnancy Test, Urine	81025

Instrumentation

OSOM Card Urine Pregnancy Test

Reference Range

All ages: Negative

Section

Chemistry-1

Performing Location

University of Vermont Medical Center

Is the UVMMC lab NY State Certified to perform this testing? Yes/No

Yes

LOINC Code Information

Result Code	Reporting Name	LOINC Code
UPR	Result	2106-3

Specimen Information — PREGNANCY TEST, URINE

Container	Specimen	Temperature	Collect Vol	Submit Vol	Minimum Vol	Stability
Sterile Container	Urine	Refrigerate	10 mL	5 mL	0.5 mL	3 days

PNAT *PRENATAL PANEL*

University of Vermont Medical Center

Important Note

Tests included are: Blood Type, Antibody Screen, Hepatitis B Surface Antigen, Syphilis Serology, Rubella IgG Antibody, and Hemagram with Differential (Includes: WBC, RBC, HGB, HCT, indices, PLT and differential (may be automated or manual). If blood will be refrigerated overnight, submit 2 smears. See Laboratory Service Directory, Section II, Specimen Handling for making smears.
Test subject to Medicare National Coverage Decision 190.27-Human chorionic Gonadotropin.

Additional Test Codes

Primary ID	Epic Code	Mayo Access ID
PNAT	LAB2200	N/A

Test Schedule / Analytical Time / Test Priority

Monday – Friday / 3 days / Not available STAT

Method

See individual tests

CPT(s)

Description	CPT Code
Prenatal Panel	80055

Instrumentation

See individual tests.

Reference Range

See individual tests.

Section

Blood Bank

Performing Location

University of Vermont Medical Center

Is the UVMMC lab NY State Certified to perform this testing? Yes/No

No

LOINC Code Information

See individual tests.

Specimen Information — PRENATAL PANEL

Container	Specimen	Temperature	Collect Vol	Submit Vol	Minimum Vol	Stability
Lavender (EDTA) Tube	Whole Blood	Refrigerate	4 mL	4 mL	2 mL	1 day
Pink Top Tube	Whole Blood	Refrigerate	6 mL	6 mL	6 mL	1 day
Serum Separator Tube	Serum	Refrigerate	8 mL	4 mL	2 mL	1 day

All 3-sample types are required. Submit pink and lavender top unspun. Blood Bank samples must be labeled with the date collected. Specimens must be received in the laboratory within 24-hours of collection. If blood will be refrigerated overnight, submit two smears from the EDTA for a differential count.

PROCAL *PROCALCITONIN*

University of Vermont Medical Center

Important Note

This test can only be ordered on M004 (Infectious Disease) patients or patients transferred from M004.Patients on M3 (Surgical Intensive Care Unit SICU) can have PCT testing performed if ordered by specific attending physicians. Consult with Special Chemistry to determine if the physician is approved to order this test.

Additional Test Codes

Primary ID	Epic Code	Mayo Access ID
PROCAL	N/A	N/A

Test Schedule / Analytical Time / Test Priority

Daily run 8:00 am -2:00 pm / 1 day / Not available STAT

Method

Chemiluminescence Immunoassay

CPT(s)

Description	CPT Code
Procalcitonin	84145

Instrumentation

Abbott Architect i1000

Reference Range

<0.5 ng/mL – Low risk of severe sepsis
>2.0 ng/mL – High risk of severe sepsis

Section

Chemistry-2

Performing Location

University of Vermont Medical Center

Is the UVMMC lab NY State Certified to perform this testing? Yes/No

Yes

LOINC Code Information

Result Code	Reporting Name	LOINC Code
PROCAL	Procalcitonin	75241-0

Specimen Information — PROCALCITONIN

Container	Specimen	Temperature	Collect Vol	Submit Vol	Minimum Vol	Stability
Serum Separator Tube	Serum	Refrigerate	4 mL	1 mL	0.3 mL	2 days
Serum Separator Tube	Serum	Frozen	4 mL	1 mL	0.3 mL	15 days

ACCU4S *PROFILE ACCUTANE FOUR SEASONS DERMATOLOGY*

University of Vermont Medical Center

Important Note

Tests included are: AST, Cholesterol, Triglyceride, and Hemagram and Differential. See individual tests. Test subject to Medicare National Coverage Determination (NCD). May only be ordered if laboratory has a signed "Physician Acknowledgement of Custom Profile" on file. Contact your Lab Outreach Specialist to obtain this form.

Additional Test Codes

Primary ID	Epic Code	Mayo Access ID
ACCU4S	LAB3635	N/A

Test Schedule / Analytical Time / Test Priority

Daily / 24 hours / Not available STAT

Method

See individual tests.

CPT(s)

See individual tests.

Instrumentation

See individual tests.

Reference Range

See individual tests.

Section

Chemistry-1

Performing Location

University of Vermont Medical Center

Is the UVMMC lab NY State Certified to perform this testing? Yes/No

Yes

LOINC Code Information

See individual tests.

Specimen Information — PROFILE ACCUTANE FOUR SEASONS DERMATOLOGY

Container	Specimen	Temperature	Collect Vol	Submit Vol	Minimum Vol	Stability
Serum Separator Tube	Serum	Refrigerate	4 mL	2 mL	1 mL	5 days
Lavender (EDTA) Tube	Whole Blood	Refrigerate	2.5 mL	2.5 mL	1.5 mL	2 days

Submit both serum separator tube and lavender top tube.

ACCUNR *PROFILE ACCUTANE-NO RISK OF PREGNANCY*

University of Vermont Medical Center

Important Note

Tests included are: ALT, AST, Triglyceride. See individual tests. Test subject to Medicare National Coverage Determination (NCD). May only be ordered if laboratory has a signed "Physician Acknowledgement of Custom Profile" on file. Contact your Lab Outreach Specialist to obtain this form.

Additional Test Codes

Primary ID	Epic Code	Mayo Access ID
ACCUNR	LAB2203	N/A

Test Schedule / Analytical Time / Test Priority

Daily / 24 hours / Not available STAT

Method

See individual tests.

CPT(s)

See individual tests.

Instrumentation

See individual tests.

Reference Range

See individual tests.

Section

Chemistry-1

Performing Location

University of Vermont Medical Center

Is the UVMMC lab NY State Certified to perform this testing? Yes/No

Yes

LOINC Code Information

See individual tests.

Specimen Information — PROFILE ACCUTANE-NO RISK OF PREGNANCY

Container	Specimen	Temperature	Collect Vol	Submit Vol	Minimum Vol	Stability
Serum Separator Tube	Serum	Refrigerate	4 mL	2 mL	1 mL	5 days

ACCUPR *PROFILE ACCUTANE-PREGNANCY RISK*

University of Vermont Medical Center

Important Note

Tests included are: ALT, AST, HCG, Triglyceride. See individual tests. Test subject to Medicare National Coverage Determination (NCD). May only be ordered if laboratory has a signed "Physician Acknowledgement of Custom Profile" on file. Contact your Lab Outreach Specialist to obtain this form.

Additional Test Codes

Primary ID	Epic Code	Mayo Access ID
ACCUPR	LAB2202	N/A

Test Schedule / Analytical Time / Test Priority

Daily / 1 day / Not available STAT

Method

See individual tests: ALT, AST, HCG, Triglyceride

CPT(s)

See individual tests.

Instrumentation

See individual tests: ALT, AST, HCG, Triglyceride

Reference Range

See individual tests.

Section

Chemistry-1

Performing Location

University of Vermont Medical Center

Is the UVMMC lab NY State Certified to perform this testing? Yes/No

Yes

LOINC Code Information

See individual tests.

Specimen Information — PROFILE ACCUTANE-PREGNANCY RISK

Container	Specimen	Temperature	Collect Vol	Submit Vol	Minimum Vol	Stability
Serum Separator Tube	Serum	Refrigerate	4 mL	2 mL	1 mL	5 days

DARM *PROFILE ARMY*

University of Vermont Medical Center

Important Note

Tests included are: Glucose, Lipid profile. Tests subject to Medicare Local Medical Review Policy, see individual tests.
May only be ordered if laboratory has a signed "Physician Acknowledgement of Custom Profile" on file. Contact your Lab Clinical Outreach Specialist to obtain this form.

Additional Test Codes

Primary ID	Epic Code	Mayo Access ID
DARM	LAB2025	N/A

Test Schedule / Analytical Time / Test Priority

Daily / 24 Hours / Not available STAT

Method

See individual tests.

CPT(s)

See individual tests.

Instrumentation

See individual tests.

Reference Range

See individual tests.

Section

Chemistry-1

Performing Location

University of Vermont Medical Center

Is the UVMMC lab NY State Certified to perform this testing? Yes/No

Yes

LOINC Code Information

Result Code	Reporting Name	LOINC Code
SGL	Glucose, Serum	2345-7
CHOL	Cholesterol	2093-3
TRIG	Triglyceride	2571-8
HDL	HDL	2085-9
LDL	LDL, Calculated	2089-1
CHHDLR	Chol/HDL Ratio	9830-1
FASTN	Fasting?	49541-6
NHDLCH	Non HDL Cholesterol	43396-1

Specimen Information — PROFILE ARMY

Container	Specimen	Temperature	Collect Vol	Submit Vol	Minimum Vol	Stability
Gray Top Tube	Whole Blood	Refrigerate	2 mL	2 mL	1 mL	3 days
Serum Separator Tube	Serum	Refrigerate	4 mL	1.5 mL	0.8 mL	5 days

ARTH1 *PROFILE ARTHRITIS*

University of Vermont Medical Center

Important Note

Tests included are: ANA IFA and Rheumatoid Factor. May only be ordered if laboratory has a signed "Physician Acknowledgement of Custom Profile" on file. Contact your Laboratory Clinical Outreach Specialist to obtain this form.

Additional Test Codes

Primary ID	Epic Code	Mayo Access ID
ARTH1	LAB2315	FAH309

Test Schedule / Analytical Time / Test Priority

Monday – Friday / 3 days / Not available STAT

Method

Tests included are: ANA IFA and Rheumatoid Factor see indivual tests.

CPT(s)

Tests included are: ANA IFA and Rheumatoid Factor see indivual tests.

Instrumentation

Tests included are: ANA IFA and Rheumatoid Factor see indivual tests.

Reference Range

Tests included are: ANA IFA and Rheumatoid Factor see indivual tests.

Section

Chemistry-2

Performing Location

University of Vermont Medical Center

Is the UVMMC lab NY State Certified to perform this testing? Yes/No

Yes

LOINC Code Information

Result Code	Reporting Name	LOINC Code
ANA	Anti Nuclear Ab	5048-4
RF	Rheumatoid Factor	6928-6

Specimen Information — PROFILE ARTHRITIS

Container	Specimen	Temperature	Collect Vol	Submit Vol	Minimum Vol	Stability
SST	Serum	Refrigerate	4 mL	2 mL	1 mL	7 days

ASCDON *PROFILE AUTOLOGOUS STEM CELL DONOR*

University of Vermont Medical Center

Important Note

This test has restricted use.
This test is subject to reflex testing, see Laboratory Reflex Testing Policy, you have the option to decline reflex testing if you believe it is not medically necessary, see individual tests.
Test Includes:
Hepatitis A Antibody with Reflex, UVMMC
NAT Donor Screening, Memorial Blood Center
Hepatitis B Surface Antigen, Memorial Blood Center
Hepatitis B Core Antibody, Memorial Blood Center
HTL I/II, Memorial Blood Center
Hepatitis C Antibody, Memorial Blood Center
SyphilisTP, Memorial Blood Center
HIV 1/2 Antibody Screen, Memorial Blood Center
HSV 1/2 Antibody Panel, UVMMC
Hepatitis B Surface Antibody, UVMMC
CMV IgG, UVMMC

Additional Test Codes

Primary ID	Epic Code	Mayo Access ID
ASCDON	LAB2205	N/A

Test Schedule / Analytical Time / Test Priority

Monday – Friday / 3 days / Not available STAT

Method

See individual tests.

CPT(s)

See individual tests.

Instrumentation

See individual tests.

Reference Range

See individual tests.

Section

Chemistry-2

Performing Location

University of Vermont Medical Center and Memorial Blood Center

Is the UVMMC lab NY State Certified to perform this testing? Yes/No

Yes

LOINC Code Information

See individual tests.

Specimen Information — PROFILE AUTOLOGOUS STEM CELL DONOR

Container	Specimen	Temperature	Collect Vol	Submit Vol	Minimum Vol	Stability
Serum Separator Tube	Serum	Refrigerate	5 mL	3 mL	3 mL	7 days
Red Top, Plain	Whole Blood	Refrigerate	6 mL	6 mL	6 mL	
Lavender Tube (EDTA)	Whole Blood	Refrigerate	12 mL	12 mL	12 mL	

CFPROF *PROFILE CF VITAMIN*

University of Vermont Medical Center

Important Note

Test includes Vitamin D (25, OH), Vitamin E, and Vitamin A. Test subject to Medicare Local Coverage Determination (NCD) Vitamin D Assay Testing (L32860).

Send specimen in amber vial to protect from light within 24 hours.
May only be ordered if laboratory has a signed "Physician Acknowledgement of Custom Profile" on file. Contact your Lab Outreach Specialist to obtain this form.

Additional Test Codes

Primary ID	Epic Code	Mayo Access ID
CFPROF	LAB2206	NA

Test Schedule / Analytical Time / Test Priority

Monday – Friday / 3 days / Not available STAT

Method

See individual tests.

Instrumentation

See individula tests.

Section

Chemistry-2 and Mayo Clinic Laboratories

Performing Location

University of Vermont Medical Center and Mayo Medical Laboratory

Is the UVMMC lab NY State Certified to perform this testing? Yes/No

Yes

LOINC Code Information

See individual tests

Specimen Information — PROFILE CF VITAMIN

Container	Specimen	Temperature	Collect Vol	Submit Vol	Minimum Vol	Stability
Serum Separator Tube	Serum	Refrigerate	5.0 mL	2.0 mL	2.0 mL	7 days

Samples that are markedly lipemic, markedly hemolyzed or markedly icteric are not acceptable.

CYCSCR *PROFILE CYCLOSPORINE DRUG SCREEN*

University of Vermont Medical Center

Important Note

Test subject to Medicare National Coverage Determination (NCD) Cardiovascular Screening Blood Tests. and 190.23 - Lipids Testing. Fasting specimen preferred. Test includes potassium, BUN, Creatinine, Total Bilirubin, AST, ALT, Uric Acid, Magnesium and Cholesterol.
May only be ordered if laboratory has a signed "Physician Acknowledgement of Custom Profile" on file. Contact your Lab Outreach Specialist to obtain this form.

Additional Test Codes

Primary ID	Epic Code	Mayo Access ID
CYCSCR	LAB3640	N/A

Test Schedule / Analytical Time / Test Priority

Daily / 1 day / Not Available STAT

Method

Colorimetric Reflectance Spectrophotometry

CPT(s)

Description	CPT Code
Triglyceride	84478

Instrumentation

Ortho Vitros

Reference Range

See individual tests.

Section

Chemistry-1

Performing Location

University of Vermont Medical Center

Is the UVMMC lab NY State Certified to perform this testing? Yes/No

Yes

LOINC Code Information

See individual tests.

Specimen Information — PROFILE CYCLOSPORINE DRUG SCREEN

Container	Specimen	Temperature	Collect Vol	Submit Vol	Minimum Vol	Stability
Serum Separator Tube	Serum	Refrigerate	4 mL	1 mL	1 mL	

Fasting specimen preferred. Lithium heparin (green top) plasma acceptable.

DLYS *PROFILE DIALYSATE*

University of Vermont Medical Center

Important Note

Tests included are: Urea Nitrogen, Glucose, and Creatinine.
May only be ordered if laboratory has a signed "Physician Acknowledgement of Custom Profile" on file. Contact your Laboratory Outreach Specialist to obtain this form.

Additional Test Codes

Primary ID	Epic Code	Mayo Access ID
DLYS	LAB2047	N/A

Test Schedule / Analytical Time / Test Priority

Monday - Friday 8 am-4:30 pm / 3 days / Not available STAT

CPT(s)

See individual tests.

Instrumentation

Ortho Vitros 5600

Reference Range

No established reference range

Section

Chemistry-1

Performing Location

University of Vermont Medical Center

Is the UVMMC lab NY State Certified to perform this testing? Yes/No

Yes

LOINC Code Information

Result Code	Reporting Name	LOINC Code
DYLPER	Dialysate Period	47842-0
DYLVOL	Dialysate Volume	12457-8
DUN	Dialysate Urea N	5918-8
DGL	Dialysate Glucose	2343-2
DCR	Dialysate Creatinine	in process

Specimen Information — PROFILE DIALYSATE

Container	Specimen	Temperature	Collect Vol	Submit Vol	Minimum Vol	Stability
Sterile Container	Dialysate	Refrigerate	5 mL	5 mL	5 mL	5 days

DIALI *PROFILE DIALYSIS IRON*

University of Vermont Medical Center

Important Note

Tests included are: Iron, IBC, Ferritin and Transferrin Saturation
May only be ordered if laboratory has a signed "Physician Acknowledgement of Custom Profile" on file. Contact your Laboratory Clinical Outreach Specialist to obtain this form.
Test subject to Medicare National Coverage Determination (NCD), see individual tests.

Additional Test Codes

Primary ID	Epic Code	Mayo Access ID
DIALI	LAB2051	N/A

Test Schedule / Analytical Time / Test Priority

Daily / 24 Hours / Not available STAT

Method

See individual tests.

CPT(s)

See individual tests.

Instrumentation

See individual tests.

Reference Range

See individual tests.

Section

Chemistry-1

Performing Location

University of Vermont Medical Center

Is the UVMMC lab NY State Certified to perform this testing? Yes/No

Yes

LOINC Code Information

Result Code	Reporting Name	LOINC Code
IRON	Iron	2498-4
IBC	IBC	2500-7
IRSAT	Transferrin Saturation	2502-3
FER	Ferritin	2276-4

Specimen Information — PROFILE DIALYSIS IRON

Container	Specimen	Temperature	Collect Vol	Submit Vol	Minimum Vol	Stability
Serum Separator Tube	Serum	Refrigerate	4 mL	1.2 mL	1 mL	5 days

DIALR *PROFILE DIALYSIS ROUTINE*

University of Vermont Medical Center

Important Note

Tests included are: Albumin, Alkaline Phosphatase, AST, pre-dialysis BUN, Calcium, Chloride, CO2, Phosphorus, Sodium and Potassium.
May only be ordered if laboratory has a signed "Physician Acknowledgement of Custom Profile" on file. Contact your Laboratory Clinical Outreach Specialist to obtain this form.

Additional Test Codes

Primary ID	Epic Code	Mayo Access ID
DIALR	LAB2053	N/A

Test Schedule / Analytical Time / Test Priority

Daily / 24 Hours / Not available STAT

Method

See individual tests.

CPT(s)

See individual tests.

Instrumentation

See individual tests.

Reference Range

See individual tests.

Section

Chemistry-1

Performing Location

University of Vermont Medical Center

Is the UVMMC lab NY State Certified to perform this testing? Yes/No

Yes

LOINC Code Information

Result Code	Reporting Name	LOINC Code
DK	Potassium	2823-3
CL	Chloride	2075-0
CO2	CO2	2028-9
BUNPRE	BUN, Predialysis	11065-0
DCAL	Calcium	17861-6
ALB	Albumin	1751-7
DCALC	Calculated Calcium	17861-6
PHOS	Phosphorous	2777-1
AST	AST	1920-8
ALKP	Alkaline Phosphatase	6768-6
CALCPH	Calcium Phos Product	50675-8
NA	Sodium	2951-2

Specimen Information — PROFILE DIALYSIS ROUTINE

Container	Specimen	Temperature	Collect Vol	Submit Vol	Minimum Vol	Stability
Serum Separator Tube	Serum	Refrigerate	4 mL	1.5 mL	1 mL	5 days

DIALRH *PROFILE DIALYSIS ROUTINE, HOME CARE*

University of Vermont Medical Center

Important Note

Tests included are: Albumin, Alkaline Phosphatase, AST, pre-dialysis BUN, Calcium, Chloride, CO2, Phosphorus, Sodium and Potassium.
May only be ordered if laboratory has a signed "Physician Acknowledgement of Custom Profile" on file. Contact your Laboratory Clinical Outreach Specialist to obtain this form.

Additional Test Codes

Primary ID	Epic Code	Mayo Access ID
DIALR	LAB2053	N/A

Test Schedule / Analytical Time / Test Priority

Daily / 24 Hours / Not available STAT

Method

See individual tests.

CPT(s)

See individual tests.

Instrumentation

See individual tests.

Reference Range

See individual tests.

Section

Chemistry-1

Performing Location

University of Vermont Medical Center

Is the UVMMC lab NY State Certified to perform this testing? Yes/No

Yes

LOINC Code Information

Result Code	Reporting Name	LOINC Code
DKH	Potassium	2823-3
CL	Chloride	2075-0
CO2	CO2	2028-9
BUNPRE	BUN, Predialysis	11065-0
DCAL	Calcium	17861-6
ALB	Albumin	1751-7
DCALC	Calculated Calcium	17861-6
PHOS	Phosphorous	2777-1
AST	AST	1920-8
ALKP	Alkaline Phosphatase	6768-6
CALCPH	Calcium Phos Product	50675-8
NA	Sodium	2951-2

Specimen Information — PROFILE DIALYSIS ROUTINE, HOME CARE

Container	Specimen	Temperature	Collect Vol	Submit Vol	Minimum Vol	Stability
Serum Separator Tube	Serum	Refrigerate	4 mL	1.5 mL	1 mL	5 days

RHEUM *PROFILE DMARD*

University of Vermont Medical Center

Important Note

Tests included are: Albumin, Alkaline Phosphatase, ALT, AST, and Creatinine.
May only be ordered if laboratory has a signed "Physician Acknowledgement of Custom Profile" on file. Contact your Lab Clinical Outreach Specialist to obtain this form.

Additional Test Codes

Primary ID	Epic Code	Mayo Access ID
RHEUM	LAB2055	FAH4841

Test Schedule / Analytical Time / Test Priority

Daily / 24 Hours / Not available STAT

Method

See individual test.

CPT(s)

See individual test.

Instrumentation

See individual test.

Reference Range

See individual test.

Section

Chemistry-1

Performing Location

University of Vermont Medical Center

Is the UVMMC lab NY State Certified to perform this testing? Yes/No

Yes

LOINC Code Information

Result Code	Reporting Name	LOINC Code
ALKP	Alkaline Phosphatase	6768-6
AST	AST	1920-8
ALT	ALT	1742-6
ALB	Albumin	1751-7
CREA	Creatinine	2160-0
CGFR	GFR, Calculated	50210-4

Specimen Information — PROFILE DMARD

Container	Specimen	Temperature	Collect Vol	Submit Vol	Minimum Vol	Stability
Serum Separator Tube	Serum	Refrigerate	4 mL	2 mL	0.5 mL	5 days

CHCREF *PROFILE DOMESTIC HEALTH*

UVMC & Mayo Medical Laboratory Rochester

Important Note

Tests included are: ALT, AST, Glucose, Hepatitis B Surface AB, Hepatitis B Surface AG, Hepatitis B Core AB, Syphilis Serology (SYPH), Varicella IgG AB, Hemagram and differential, Hepatitis C AB with Reflex PCR, Rubeola IgG AB, Mumps IgG Screen, Rubella IgG AB, Hepatitis A AB, Schistoma IgG Antibody, and Strongyloides IgG antibody.
Test subject to Medicare National Coverage Determination (NCD). See individual tests.
May only be ordered if laboratory has signed "Physician Acknowledgement of Custom Profile" on file. Contact your Lab Clinical Outreach Specialist to obtain this form.
Hepatitis B Surface AG and Hepatitis C AB are subject to reflex testing, see Laboratory Reflex Testing Policy, you have the option to decline reflex testing if you believe it is not medically necessary.

Additional Test Codes

Primary ID	Epic Code	Mayo Access ID
CHCREF	LAB2214	N/A

Test Schedule / Analytical Time / Test Priority

Monday - Friday / 3 days / Not available STAT

Method

See individual tests.

CPT(s)

See individual tests.

Instrumentation

See individual tests.

Reference Range

See individual tests.

Section

Chemistry-1

Is the UVMMC lab NY State Certified to perform this testing? Yes/No

Yes

LOINC Code Information

See individual tests.

Specimen Information — PROFILE DOMESTIC HEALTH

Container	Specimen	Temperature	Collect Vol	Submit Vol	Minimum Vol	Stability
Serum Separator Tube	Serum	Refrigerate	16 mL	10 mL	2.5 mL	5 days
Lavender Top Tube	Whole Blood	Refrigerate	3.5 mL	3.5 mL	3.5 mL	2 days

Both samples are required.

CARDAC *PROFILE ER CARDIAC PACK*

University of Vermont Medical Center

Important Note

For emergency department use only.
Tests included are: CBC with differential, BUN, Creatinine, Electrolytes, Glucose Screening, Troponin I, Magnesium and a blue top to hold for possible testing.
May only be ordered if laboratory has a signed "Physician Acknowledgement of Custom Profile" on file. Contact your Laboratory Outreach Specialist to obtain this form.
Tests subject to Medicare Local Medical Review Policy. See individual tests.

Additional Test Codes

Primary ID	Epic Code	Mayo Access ID
CARDAC	LAB2177	N/A

Test Schedule / Analytical Time / Test Priority

Daily / 24 Hours / Available STAT

Method

See individual testsm

CPT(s)

See individual tests.

Instrumentation

See individual tests.

Reference Range

See individual tests.

Section

Chemistry-1

Performing Location

University of Vermont Medical Center

Is the UVMMC lab NY State Certified to perform this testing? Yes/No

Yes

LOINC Code Information

See individual tests.

Specimen Information — PROFILE ER CARDIAC PACK

Container	Specimen	Temperature	Collect Vol	Submit Vol	Minimum Vol	Submit
Blue Top Tube	Plasma	Ambient	To fill line	To fill line	To fill line	
Serum Separator Tube	Serum	Refrigerate	4 mL	1.5 mL	1.5 mL	5 days
Lithium Heparin (Green) Tube	Plasma	Refrigerate	4 mL	1.5 mL	1.5 mL	5 days
Lavender (EDTA) Tube	Whole Blood*	Refrigerate	2.5 mL	2.5 mL	1.5 mL	2 days

All 4 sample containers are necessary for testing. *Mix lavender top tube gently 5-10 times.

DONPKG *PROFILE IVF DONOR, IVF ONLY*

University of Vermont Medical Center

Important Note

This test has restricted use.
Test Includes:
Donor Screening Panel, Memorial Blood Center
NAT Donor Screening, Memorial Blood Center
HTL I/II, Memorial Blood Center
CMV Donor Screening, Memorial Blood Center
Chlamydia/GC Donor Screening, Memorial Blood Center

Additional Test Codes

Primary ID	Epic Code	Mayo Access ID
DONPKG	LAB2210	N/A

Performing Location

Memorial Blood Center

Specimen Information — PROFILE IVF DONOR, IVF ONLY

Container	Specimen	Temperature	Collect Vol	Submit Vol	Minimum Vol	Stability
Red Top, Plain	Whole Blood	Refrigerate	6 mL	6 mL	6 mL	
Lavender Tube (EDTA)	Whole Blood	Refrigerate	12 mL	12 mL	12 mL	
Aptima (purple or yellow vial)	Endocervical, Urethral or Urine	Refrigerate	N/A	N/A	N/A	60 days

NONDON *PROFILE IVF NONDONOR*

University of Vermont Medical Center

Important Note

Not FDA Approved.
Tests included are: Hep B Core Ab, Hep B Surf Ag, Hep C Ab, HIV, SYPH.
Test subject to Medicare National Coverage Determination (NCD). See individual tests.
May only be ordered if laboratory has a signed "Physician Acknowledgement of Custom Profile" on file. Contact your Laboratory Outreach Specialist to obtain this form.

Additional Test Codes

Primary ID	Epic Code	Mayo Access ID
NONDON	LAB2211	N/A

Test Schedule / Analytical Time / Test Priority

Monday – Friday / 3 days / Not available STAT

Method

See individual tests.

CPT(s)

See individual tests.

Instrumentation

See individual tests.

Reference Range

See individual tests.

Section

Chemistry-2

Performing Location

University of Vermont Medical Center

Is the UVMMC lab NY State Certified to perform this testing? Yes/No

Yes

LOINC Code Information

See individual tests.

Specimen Information — PROFILE IVF NONDONOR

Container	Specimen	Temperature	Collect Vol	Submit Vol	Minimum Vol	Stability
Serum Separator Tube	Serum	Refrigerate	15 mL	6 mL	4 mL	5 days

LIPRX *PROFILE LIPID RX 2*

University of Vermont Medical Center

Important Note

Tests included in LIPRX are: Tests included are: ALT, AST, BUN, Creatinine, CK, Glucose, Uric Acid, Cholesterol, Triglycerides, HDL, LDL (calculated), Cholesterol/HDL ratio and non-HDL Cholesterol.
This test is subject to reflex testing, see Laboratory Reflex Testing Policy, you have the option to decline reflex testing if you believe it is not medically necessary; If Triglycerides are greater than 400 mg.dL a measured LDL will be performed.
Test subject to Medicare National Coverage Determination (NCD) see individual tests.
May only be ordered if laboratory has a signed "Physician Acknowledgement of Custom Profile" on file. Contact your Laboratroy Outreach Specialist to obtain this form.

Additional Test Codes

Primary ID	Epic Code	Mayo Access ID
LIPRX	LAB102	N/A

Test Schedule / Analytical Time / Test Priority

Daily / 24 Hours / Not available STAT

Method

See Individual Tests.

CPT(s)

See Individual Tests.

Instrumentation

See Individual Tests.

Reference Range

See Individual Tests.

Section

Chemistry-1

Performing Location

University of Vermont Medical Center

Is the UVMMC lab NY State Certified to perform this testing? Yes/No

Yes

LOINC Code Information

Result Code	Reporting Name	LOINC Code
BUN	BUN	3094-0
CREA	Creatinine	2160-0
CGFR	GFR, Calculated	50210-4
SGL	Glucose, Serum	2345-7
AST	AST	1920-8
ALT	ALT	1742-6
URIC	Uric Acid	3084-1
CK	CK	2157-6
CHOL	Cholesterol	2093-3
TRIG	Triglyceride	2571-8
HDL	HDL	2085-9
LDL	LDL, Calculated	2089-1
CHHDLR	Chol/HDL Ratio	9830-1
FASTN	Fasting?	49541-6
NHDLCH	Non HDL Cholesterol	43396-1

Specimen Information — PROFILE LIPID RX 2

Container	Specimen	Temperature	Collect Vol	Submit Vol	Minimum Vol	Stability
SST	Serum	Refrigerate	4 mL	2 mL	1 mL	5 days

METHO *PROFILE MTX*

University of Vermont Medical Center

Important Note

Tests included are: Albumin, Alkaline Phosphatase, ALT, AST, Creatinine, Total and Direct Bilirubin, and Hemagram and differential.
Test subject to Medicare Local Medical Review Policy. See individual tests.
May only be ordered if laboratory has a signed "Physician Acknowledgement of Custom Profile" on file. Contact your Laboratory outreach Specialist to obtain this form.
If a Methotrexate Level is needed, a red top tube will need to be submitted to perform this testing.

Additional Test Codes

Primary ID	Epic Code	Mayo Access ID
METHO	LAB2194	LAB2194

Test Schedule / Analytical Time / Test Priority

Daily / 24 Hours / Not available STAT

Method

See individual tests.

CPT(s)

See individual tests. Albumin, Alkaline Phosphatase, ALT, AST, Creatinine, Total and Direct Bilirubin, and Hemagram and differential.

Instrumentation

See individual tests.

Reference Range

See individual tests.

Section

Chemistry-1

Performing Location

University of Vermont Medical Center

Is the UVMMC lab NY State Certified to perform this testing? Yes/No

Yes

LOINC Code Information

See individual tests.

Specimen Information — PROFILE MTX

Container	Specimen	Temperature	Collect Vol	Submit Vol	Minimum Vol	Stability
Serum Separator Tube	Serum	Refrigerate	4 mL	2 mL	1 mL	5 days
Lavender (EDTA) Tube	Whole Blood	Refrigerate	2.5 mL	2.5 mL	1.5 mL	2 days

Both samples are required.

NEPHR *PROFILE NEPHROLOGY*

University of Vermont Medical Center

Important Note

Tests included are: Albumin, BUN, Calcium, Creatinine, Electrolytes, and Phosphorus.
May only be ordered if laboratory has a signed "Physician Acknowledgement of Custom Profile" on file. Contact your Lab Outreach Specialist to obtain this form.

Additional Test Codes

Primary ID	Epic Code	Mayo Access ID
NEPHR	LAB2195	N/A

Test Schedule / Analytical Time / Test Priority

Daily / 24 Hours / Not available STAT

Method

See individual tests.

CPT(s)

See individual tests.
.

Instrumentation

See individual tests.

Reference Range

See individual tests.

Section

Chemistry-1

Performing Location

University of Vermont Medical Center

Is the UVMMC lab NY State Certified to perform this testing? Yes/No

Yes

LOINC Code Information

See individual tests.

Specimen Information — PROFILE NEPHROLOGY

Container	Specimen	Temperature	Collect Vol	Submit Vol	Minimum Vol	Stability
Serum Separator Tube	Serum	Refrigerate	4 mL	2 mL	0.5 mL	5 days

PREFUG *PROFILE NEW AMERICAN ASSESSMENT*

University of Vermont Medical Center

Important Note

Tests included are: CBC, Differential, Hepatitis B Antibody, Hepatitis B Surface Antigen, Hepatitis B Core Antibody, Hold SST Tube, Lead, Syphilis Serology, Varicella IgG Antibody and Hemoglobin and Thalassemia Evaluation.
Test subject to Medicare National Coverage Determination (NCD). See individual tests.
This test is subject to reflex testing, see Laboratory Reflex Testing Policy, you have the option to decline reflex testing if you believe it is not medically necessary. If HBAG is positive a confirmation will be performed at an additional charge. Syphilis Serology is also subject to reflex testing. If the the Treponemal AB is reactive or equivocal a Syphilis Ab (at MML) is performed if that is reactive an RPR.RPR titer or Syphilis TP-PA is performed.
May only be ordered if laboratory has a signed "Physician Acknowledgement of Custom Profile" on file. Contact your Lab Outreach Specialist to obtain this form.

Additional Test Codes

Primary ID	Epic Code	Mayo Access ID
PREFUG	LAB2213	N/A

Test Schedule / Analytical Time / Test Priority

Monday – Friday / 3 days / Not available STAT

Method

See individual tests.

CPT(s)

See individual tests.

Instrumentation

See individual tests.

Reference Range

See individual tests.

Section

Chemistry-1

Performing Location

University of Vermont Medical Center

Is the UVMMC lab NY State Certified to perform this testing? Yes/No

Yes

LOINC Code Information

See individual tests. C

Specimen Information — PROFILE NEW AMERICAN ASSESSMENT

Container	Specimen	Temperature	Collect Vol	Submit Vol	Minimum Vol	Stability
Serum Separator Tube	Serum	Refrigerate	12 mL	6 mL	5 mL	7 days
Lavender (EDTA) Tube	Whole Blood	Refrigerate	7 mL	7 mL	3.5 mL	2 days

Both containers are necessary for testing.

PET *PROFILE PERITONEAL DIALYSATE*

University of Vermont Medical Center

Important Note

Tests included are: BUN, glucose and creatinine on peritoneal dialysate.
May only be ordered if laboratory has a signed "Physician Acknowledgement of Custom Profile" on file. Contact your Lab Outreach Specialist to obtain this form.

Additional Test Codes

Primary ID	Epic Code	Mayo Access ID
PET	LAB2092	N/A

Test Schedule / Analytical Time / Test Priority

Monday – Friday, 8 am-4:30 pm / 1 day / Not available STAT

Method

See Individual tests.

CPT(s)

See Individual tests.

Instrumentation

See Individual tests.

Reference Range

No established reference range.

Section

Chemistry-1

Performing Location

University of Vermont Medical Center

Is the UVMMC lab NY State Certified to perform this testing? Yes/No

Yes

LOINC Code Information

Result Code	Reporting Name	LOINC Code
DUN	Dialysate Urea N	5918-8
DGL	Dialysate Glucose	2343-2
DCR	Dialysate Creatinine	in process

Specimen Information — PROFILE PERITONEAL DIALYSATE

Container	Specimen	Temperature	Collect Vol	Submit Vol	Minimum Vol	Stability
Sterile Container	Dialysate	Refrigerate	5 mL	5 mL	5 mL	5 days

PITPNL *PROFILE PITUITARY FEMALE*

UVMC and Mayo Medical Laboratory

Important Note

Early morning collection is desirable (6-10 a.m.).
Testing performed at UVM Medical Center and MML.
Test includes: FSH, Estrogens E1 & E2, LH, Prolactin, Free T4, T4, TSH, ACTH, Cortisol, Alpha Subunit, Insulin Like GF, Glucose, Growth Hormone.
May only be ordered if laboratory has a signed "Physician Acknowledgement of Custom Profile" on file. Contact your Clinical Lab Outreach Specialist to obtain this form.
Test subject to Medicare National Coverage Determination (NCD). See individual tests.

Additional Test Codes

Primary ID	Epic Code	Mayo Access ID
PITPNL	LAB3005	N/A

Test Schedule / Analytical Time / Test Priority

Monday – Friday / 3 days / Not available STAT

Method

See individual tests.

CPT(s)

See individual tests.

Reference Range

See individual tests.

Section

Chemistry-2 and Mayo Clinic Laboratories

Is the UVMMC lab NY State Certified to perform this testing? Yes/No

Yes

LOINC Code Information

See individual tests.

Specimen Information — PROFILE PITUITARY FEMALE

Container	Specimen	Temperature	Collect Vol	Submit Vol	Minimum Vol	Stability
Serum Separator Tube	Serum	Refrigerate	20 mL	10 mL	10 mL	3 days
Lavender (EDTA) tube	Whole Blood	*	3.5 mL	3.5 mL	3.5 mL	2 hours
Plain Red Top	Serum		10 mL			

*Collect tube, place on ice, and deliver to laboratory immediately.
See individual tests for collection and processing information.

PITPLM *PROFILE PITUITARY MALE*

UVMC and Mayo Medical Laboratory

Important Note

Early morning collection is desirable (6-10 a.m.).
Testing performed at UVM Medical Center and Mayo Clinic Laboratories.
Test includes: FSH,LH, Prolactin, Free T4, T4, TSH, ACTH, Cortisol, Alpha Subunit, Insulin Like GF, Glucose, Growth Hormone.
May only be ordered if laboratory has a signed "Physician Acknowledgement of Custom Profile" on file. Contact your Clinical Lab Outreach Specialist to obtain this form.
Test subject to Medicare National Coverage Determination (NCD). See individual tests.

Additional Test Codes

Primary ID	Epic Code	Mayo Test ID
PITPLM	LAB3266	N/A

Test Schedule / Analytical Time / Test Priority

Monday – Friday / 3 days / Not available STAT

Method

See individual tests.

CPT(s)

See individual tests.

Reference Range

See individual tests.

Section

Chemistry-2 and Mayo Clinic Laboratory

Is the UVMMC lab NY State Certified to perform this testing? Yes/No

Yes

LOINC Code Information

See individual tests.

Specimen Information — PROFILE PITUITARY MALE

Container	Specimen	Temperature	Collect Vol	Submit Vol	Minimum Vol	Stability
Serum Separator Tube	Serum	Refrigerate	20 mL	10 mL	10 mL	3 days
Lavender (EDTA) tube	Whole Blood	*	3.5 mL	3.5 mL	3.5 mL	2 hours
Plain Red Top			10 mL			

*Collect tube, place on ice, and deliver to laboratory immediately.
See individual tests for collection and processing information.

DCOB *PROFILE PREECLAMPTIC*

University of Vermont Medical Center

Important Note

Tests included are: AST, ALT, BUN, Creatinine, Uric Acid and Hemagram.
Test subject to Medicare Local Medical Review Policy. See individual tests.
May only be ordered if laboratory has a signed "Physician Acknowledgement of Custom Profile" on file. Contact your Laboratory Clinical Outreach Specialist to obtain this form.

Additional Test Codes

Primary ID	Epic Code	Mayo Access ID
DCOB	LAB2199	N/A

Test Schedule / Analytical Time / Test Priority

Daily / 24 Hours / Not available STAT

Method

See individual tests.

CPT(s)

See individual tests: AST, ALT, BUN, Creatinine, Uric Acid and Hemagram.

Instrumentation

See individual tests.

Reference Range

See individual tests.

Section

Chemistry-1

Performing Location

University of Vermont Medical Center

Is the UVMMC lab NY State Certified to perform this testing? Yes/No

Yes

LOINC Code Information

See individual tests.

Specimen Information — PROFILE PREECLAMPTIC

Container	Specimen	Temperature	Collect Vol	Submit Vol	Minimum Vol
SST	Serum	Refrigerate	8 mL	5 mL	2.5 mL
Lavender Top Tube	Whole Blood	Refrigerate	3.5 mL	2.5 mL	1.5 mL

PEPNAT *PROFILE PREECLAMPTIC AND PRENATAL*

University of Vermont Medical Center

Important Note

All 3-sample types are required. Submit pink and lavender top unspun. Blood Bank (pink and lavender tubes) samples must be labeled with the date collected.
Tests included are: Blood bank Prenatal Study, Hepatitis B Surface Antigen, Syphilis Serology, Rubella IgG Antibody, and Hemagram with Differential (Includes: WBC, RBC, HGB, HCT, indices, PLT), AST, ALT, BUN, Creatinine, Uric Acid , and Varicella IgG Antibody .
Test subject to Medicare Local Medical Review Policy. See individual tests.
May only be ordered if laboratory has a signed "Physician Acknowledgement of Custom Profile" on file. Contact your Laboratory Clinical Outreach Specialist to obtain this form.

Additional Test Codes

Primary ID	Epic Code	Mayo Access ID
PEPNAT	LAB3178	N/A

Test Schedule / Analytical Time / Test Priority

Monday - Friday / 3 days / Not available STAT

Method

See individual Tests.

CPT(s)

Description	CPT Code
ALT	84460
AST	84450
BUN	84520
Creatinine	82565
Prenatal Profile	80055
Uric Acid	84550
Varicella IgG Antibody	86787

Instrumentation

See individual Tests.

Reference Range

See individual Tests.

Section

Chemistry-1

Performing Location

University of Vermont Medical Center

LOINC Code Information

See individual Tests.

Specimen Information — PROFILE PREECLAMPTIC AND PRENATAL

Container	Specimen	Temperature	Collect Vol	Submit Vol	Minimum Vol	Stability
Serum Separator Tube	Serum	Refrigerate	8 mL	4 mL	3 mL	5 days
Pink Top Tube	Whole Blood	Refrigerate	6 mL	6 mL	6 mL	1 day
Lavender (EDTA) Tube	Whole Blood	Refrigerate	2.5 mL	2.5 mL	1.5 mL	2 days

Collect and submit all three sample types.

NONPRG *PROFILE PREGNANT THROMBOSIS*

University of Vermont Medical Center

Important Note

Patient should not be on anticoagulation or acute phase/current clot at the time of collection.
This test must be processed within 4 hours of collection.
Test subject to Medicare National Coverage Determination (NCD) see individual tests.
May only be ordered if laboratory has a signed "Physician Acknowledgement of Custom Profile" on file. Contact your Lab Clincal Outreach Specialist to obtain this form.
This test includes Prothrombin Time, Partial Thromboplastin Time, PTT 50/50 Mix , Factor 8, D-Dimer, Cardiolipin Antibodies, APC Resistance V, LA Cascade.

Additional Test Codes

Primary ID	Epic Code	Mayo Access ID
LACASC	LAB3629	FAH5675

Test Schedule / Analytical Time / Test Priority

Tuesday and Thursday / Reported next day / Not available STAT

Method

See individual tests.

CPT(s)

See individual tests.

Instrumentation

See individual tests.

Reference Range

See individual tests.

Section

Coagulation

Performing Location

University of Vermont Medical Center

Is the UVMMC lab NY State Certified to perform this testing? Yes/No

Yes

LOINC Code Information

See individual tests.

Specimen Information — PROFILE PREGNANT THROMBOSIS

Submit all sample types.
*After collection samples must be kept at ambient temperature until they are processed.
Samples must be processed within 3-hours of collection. If the samples cannot be processed within 3-hours call Laboratory Customer Service for a courier pickup or have the sample collected at the Main Campus.

Container	Specimen	Temperature	Collect Vol	Submit Vol	Minimum Vol
*Blue Top Tube	*Platelet Poor Plasma	Frozen	9 mL (4 tubes - to fill line)	**5 mL plasma	**5 mL plasma
Lavender Top Tube	Whole Blood	Ambient	3.5 mL	3.5 mL	2 mL
SST	Serum	Refrigerate	4 mL	1 mL	0.4 mL

**Submit four separate frozen plasma aliquots of 1mL each for this testing.
*Refer to Coagulation Specimen Handling for process instructions prior to collection. Submit separate frozen plasma aliquot for this test. Draw blood in light blue top tube(s). Spin down, remove plasma, spin plasma again and place citrate platelet-poor plasma in required number of plastic vials (Glass vials cannot be accepted.) Freeze specimen at ≤-30° C if possible. Send specimen frozen on dry ice. Each coagulation assay requested should have its own vial.

PROG *PROGESTERONE*

University of Vermont Medical Center

Important Note

The presence of DHEA-S that is used in some *in vitro* fertilization (IVF) protocols can cause falsely elevated progesterone results. If you have questions please contact the Chemistry Lab 847-5121.

Additional Test Codes

Primary ID	Epic Code	Mayo Access ID
PROG	LAB529	FAH162

Test Schedule / Analytical Time / Test Priority

Daily / 24 Hours / Available STAT

Method

Chemiluminescence Immunoassay

CPT(s)

Description	CPT Code
Progesterone	84144

Instrumentation

Siemens ADVIA Centaur XPT

Section

Chemistry-2

Performing Location

University of Vermont Medical Center

Is the UVMMC lab NY State Certified to perform this testing? Yes/No

Yes

LOINC Code Information

Result Code	Reporting Name	LOINC Code
PROG	Progesterone	2839-9

Specimen Information — PROGESTERONE

Container	Specimen	Temperature	Collect Vol	Submit Vol	Minimum Vol	Stability
SST	Serum	Refrigerate	4 mL	0.5 mL	0.3 mL	2 days

Reference Range — PROGESTERONE

Age	Sex	Physiological Status	Low	High	Units
≥18 years	Female	Menstruating,Non-pregnant, Follicular Phase		≤1.4	ng/mL
≥18 years	Female	Menstruating, Non-pregnant, Luteal Phase	3.3	25.6	ng/mL
≥18 years	Female	Menstruating, Non-pregnant, Mid-luteal Phase	4.4	28.0	ng/mL
≥18 years	Female	Postmenopausal		≤0.7	ng/mL
≥18 years	Female	Pregnant, First Timester	11.2	90	ng/mL
≥18 years	Female	Pregnant, Second Trimester	25.6	89.4	ng/mL
≥18 years	Female	Pregnant, Third Trimester	48.4	422.5	ng/mL
		Ectopic Pregnancy - Consult Pathologist			
≥18 years	Male	N/A	0.3	1.2	ng/mL

For ectopic pregnancy, consult a pathologist.

PROL *PROLACTIN*

University of Vermont Medical Center

Additional Test Codes

Primary ID	Epic Code	Mayo Access ID
PROL	LAB531	FAH155

Test Schedule / Analytical Time / Test Priority

Monday – Friday / 3 days / Not available STAT

Method

Chemiluminescence Immunoassay

CPT(s)

Description	CPT Code
Prolactin	84146

Instrumentation

Siemens ADVIA Centaur XPT

Section

Chemistry-2

Performing Location

University of Vermont Medical Center

Is the UVMMC lab NY State Certified to perform this testing? Yes/No

Yes

LOINC Code Information

Result Code	Reporting Name	LOINC Code
PROL	Prolactin	2842-3

Specimen Information — PROLACTIN

Container	Specimen	Temperature	Collect Vol	Submit Vol	Minimum Vol	Stability
SST	Serum	Refrigerate	4 mL	0.5 mL	0.2 mL	7 days

Reference Range — PROLACTIN

Age	Sex	Physiological Status	Low	High	Units
≥18 years	Female	Postmenopausal	1.8	20.3	ng/mL
≥18 years	Female	Pregnant	9.7	208.5	ng/mL
≥18 years	Female	Non-pregnant	2.8	29.2	ng/mL
≥18 years	Male	N/A	2.1	17.7	ng/mL

VPPX *Propoxyphene Screen, Urine*

Aspenti Health Laboratory

Important Note

Routine drug screen for inpatients and ambulatory clinics.
Propoxyphene Screen, Urine, test information.

Additional Test Codes

Primary ID	Epic Code	Aspenti Test Code
VPPX	LAB3718	VBL2210

Test Schedule / Analytical Time / Test Priority

Monday - Friday / 24 Hours / Not Available STAT

Performing Location

Aspenti Health Laboratory

PPX *PROPOXYPHENE SCREEN, URINE*

University of Vermont Medical Center

Important Note

For the Emergency Department and Labor and Delivery only.
This screen is intended for use in clinical monitoring or management of patients.
This test is subject to Medicare National Coverage Determination (LCD) L36037-Urine Drug Testing.

Additional Test Codes

Primary ID	Epic Code	Mayo Access ID
PPX	LAB3675	FAH5777

Test Schedule / Analytical Time / Test Priority

Daily / Same day / Available STAT

Method

Immunochromatography

CPT(s)

Description	CPT Code
Propoxyphene Screen	80306

Instrumentation

MEDTOX Scan

Reference Range

This screen is intended for use in clinical monitoring or management of patients.

Section

Chemistry-1

Performing Location

University of Vermont Medical Center

Is the UVMMC lab NY State Certified to perform this testing? Yes/No

Yes

LOINC Code Information

Result Code	Reporting Name	LOINC Code
PPX	Propoxyphene Screen, Urine	19429-0

Specimen Information — PROPOXYPHENE SCREEN, URINE

Container	Specimen	Temperature	Collect Vol	Submit Vol	Minimum Vol	Stability
Sterile Container	Urine	Refrigerate	50 mL	50 mL	30 mL	2 days
Sterile Container	Urine	Frozen	50 mL	50 mL	30 mL	30 days

CCLOT *PROTEIN C, FUNCTIONAL (CLOT-BASED)*

University of Vermont Medical Center

Additional Test Codes

Primary ID	Epic Code	Mayo Access ID
CCLOT	LAB290	FAH191

Test Schedule / Analytical Time / Test Priority

Wednesday / Same day / Not available STAT

Method

Clot Based Assay

CPT(s)

Description	CPT Code
Protein C Functional	85303

Instrumentation

ACL Top 500

Reference Range

Varies according to reagent lot, see report or call if needed.

Section

Coagulation

Performing Location

University of Vermont Medical Center

Is the UVMMC lab NY State Certified to perform this testing? Yes/No

Yes

LOINC Code Information

Result Code	Reporting Name	LOINC Code
CCLOT	Protein C Clot	27819-2

Specimen Information — PROTEIN C, FUNCTIONAL (CLOT-BASED)

Container	Specimen	Temperature	Collect Vol	Submit Vol	Minimum Vol	Stability
Blue Top Tube	Plasma	*	To fill line	2. mL plasma	1 mL plasma	6 months

*Refer to Coagulation Specimen Handling before collection. Submit 1 × 1.0 mL frozen plasma aliquots for this test. Draw blood in light blue top tube(s). Spin down, remove plasma, spin plasma again and place citrate platelet-poor plasma in required number of plastic vials (Glass vials cannot be accepted.) Freeze specimen at less than or equal to minus 40° C if possible. Send specimen frozen on dry ice. Each coagulation assay requested should have its own vial.

UTPCRR *PROTEIN CREATININE RATIO, URINE*

University of Vermont Medical Center

Additional Test Codes

Primary ID	Epic Code	Mayo Access ID
UTPCRR	LAB3650	FAH5739

Test Schedule / Analytical Time / Test Priority

Daily 8 am-4:30 pm / Same day / Available STAT

Method

Colorimetric

CPT(s)

Description	CPT Code
Protein, Urine Random	84156
Creatinine, Urine Random	82570

Instrumentation

Ortho Vitros 5600

Section

Chemistry-1

Performing Location

University of Vermont Medical Center

Is the UVMMC lab NY State Certified to perform this testing? Yes/No

Yes

LOINC Code Information

Result Code	Reporting Name	LOINC Code

Specimen Information — PROTEIN CREATININE RATIO, URINE

Container	Specimen	Temperature	Collect Vol	Submit Vol	Minimum Vol	Stability
Sterile Container	Urine	Refrigerate	50 mL	5 mL	0.2 mL	3 days

Reference Range — PROTEIN CREATININE RATIO, URINE

Age	Sex	Physiological Status	Low	High	Units
18 - 83 years	Male		<0.11		mg/mg Creatinine
18 - 83 years	Female		<0.16		mg/mg Creatinine

No reference values have been established for male or female patients <18 years or >83 years of age.

SCLOT *PROTEIN S, FUNCTIONAL (CLOT-BASED)*

University of Vermont Medical Center

Additional Test Codes

Primary ID	Epic Code	Mayo Access ID
SCLOT	LAB844	FAH196

Test Schedule / Analytical Time / Test Priority

Wednesday / Same day / Not available STAT

Method

Clot Based Assay

CPT(s)

Description	CPT Code
Protein S Functional	85303

Instrumentation

ACL Top 500

Reference Range

Varies according to reagent lot, see report or call if needed.

Section

Coagulation

Performing Location

University of Vermont Medical Center

Is the UVMMC lab NY State Certified to perform this testing? Yes/No

Yes

LOINC Code Information

Result Code	Reporting Name	LOINC Code
SCLOT	Protein S Clot	27822-6

Specimen Information — PROTEIN S, FUNCTIONAL (CLOT-BASED)

Container	Specimen	Temperature	Collect Vol	Submit Vol	Minimum Vol	Stability
Blue Top Tube	Plasma	*	To fill line	2 mL plasma	1 mL plasma	6 months

*Refer to Coagulation Specimen Handling before collection. Submit 1 × 1.0 mL frozen plasma aliquots for this test. Draw blood in light blue top tube(s). Spin down, remove plasma, spin plasma again and place citrate platelet-poor plasma in required number of plastic vials (Glass vials cannot be accepted.) Freeze specimen at less than or equal to minus 40° C if possible. Send specimen frozen on dry ice. Each coagulation assay requested should have its own vial.

FTP *PROTEIN TOTAL, FLUID*

University of Vermont Medical Center

Important Note

Best interpreted in the context of a paired serum or plasma Total Protein value.

Additional Test Codes

Primary ID	Epic Code	Mayo Access ID
FTP	LAB196	FAH4986

Test Schedule / Analytical Time / Test Priority

Daily / 24 Hours / Available STAT

Method

Colorimetric

CPT(s)

Description	CPT Code
Protein, Total Fluid	84157

Instrumentation

Ortho Vitros 5600

Reference Range

No Established Reference Range.
Best interpreted in the context of a paired serum or plasma Total Protein value.

Section

Chemistry-1

Performing Location

University of Vermont Medical Center

Is the UVMMC lab NY State Certified to perform this testing? Yes/No

Yes

LOINC Code Information

Result Code	Reporting Name	LOINC Code
FTP	Total Protein, Fluid	2881-1

Specimen Information — PROTEIN TOTAL, FLUID

Container	Specimen	Temperature	Collect Vol	Submit Vol	Minimum Vol	Stability
Sterile Container	Pleural or Pertioneal Fluid only	Refrigerate	2 mL	1 mL	0.2 mL	5 days

TP *PROTEIN TOTAL, SERUM*

University of Vermont Medical Center

Additional Test Codes

Primary ID	Epic Code	Mayo Access ID
TP	LAB118	FAH5010

Test Schedule / Analytical Time / Test Priority

Daily / 24 Hours / Available STAT

Method

Colorimetric

CPT(s)

Description	CPT code
Protein, Total Serum	84155

Instrumentation

Ortho Vitros 5600

Section

Chemistry-1

Performing Location

University of Vermont Medical Center

Is the UVMMC lab NY State Certified to perform this testing? Yes/No

Yes

LOINC Code Information

Result Code	Reporting Name	LOINC Code
TP	Protein, Total	2885-2

Specimen Information — PROTEIN TOTAL, SERUM

Container	Specimen	Temperature	Collect Vol	Submit Vol	Minimum Vol	Stability
SST	Serum	Refrigerate	4 mL	0.6 mL	0.3 mL	5 days
Lithium Heparin (green)	Plasma	Refrigerate	4 mL	0.6 mL	0.6 mL	5 days
*Green Microtainer		Refrigerate	0.6 mL			5 days

Lithium heparin (green top tube acceptable. Hemolysis may affect results. Please submit a non-hemolyzed specimen.
*While a microtainer is an optional tube type in rare circumstances, it is **not recommended.**

Reference Range — PROTEIN TOTAL, SERUM

Age	Sex	Physiological Status	Low	High	Units
0 - 15 days	All		5.4	8.5	g/dL
15 days - 1 year	All		4.5	7.3	g/dL
1 - 6 years	All		6.2	7.7	g/dL
6 - 9 years	All		6.5	7.9	g/dL
9 - 19 years	All		6.6	8.3	g/dL
≥19 years	All		6.3	8.2	g/dL

CTP *PROTEIN, CSF*

University of Vermont Medical Center

Additional Test Codes

Primary ID	Epic Code	Mayo Access ID
CTP	LAB195	FAH119

Test Schedule / Analytical Time / Test Priority

Daily / 24 Hours / Available STAT

Method

Colorimetric

CPT(s)

Description	CPT Code
Protein, CSF	84157

Instrumentation

Ortho Vitros 5600

Reference Range

0 - 30 days: : < 100 mg/dL
30 days - : < 60 years: 12 - 45 mg/dL
≥ 60 years: 12 - 60 mg/dL

Section

Chemistry-1

Performing Location

University of Vermont Medical Center

Is the UVMMC lab NY State Certified to perform this testing? Yes/No

Yes

LOINC Code Information

Result Code	Reporting Name	LOINC Code
CTP	Total Protein, CSF	2880-3

Specimen Information — PROTEIN, CSF

Container	Specimen	Temperature	Collect Vol	Submit Vol	Minimum Vol	Stability
CSF Tube	CSF	Refrigerate	1 mL	0.5 mL	0.2 mL	3 days

UTP24 *PROTEIN, URINE, 24 HOUR*

University of Vermont Medical Center

Additional Test Codes

Primary ID	Epic Code	Mayo Access ID
UTP24	LAB441	FAH5877

Test Schedule / Analytical Time / Test Priority

Daily 8 am-4:30 pm / Same day / Available STAT

Method

Colorimetric

CPT(s)

Description	CPT Code
Protein, Urine 24-Hour	84156

Instrumentation

Ortho Vitros 5600

Reference Range

All ages: <150 mg/24-Hours

Section

Chemistry-1

Performing Location

University of Vermont Medical Center

Is the UVMMC lab NY State Certified to perform this testing? Yes/No

Yes

LOINC Code Information

Result Code	Reporting Name	LOINC Code
UTPR	Total Protein, Ur Random	35663-4
UTP24C	24h Calc.	

Specimen Information — PROTEIN, URINE, 24 HOUR

Container	Specimen	Temperature	Collect Vol	Submit Vol	Minimum Vol	Stability
Jug A	24-Hour Urine	Refrigerate	24-Hour Urine	5 mL	0.5 mL	3 days

For Outside Hospital Clients: Submit 5 mL aliquot from a 24-hour urine collection. Record the total volume on the lab requisition if 24-hour collected.

UTPR *PROTEIN, URINE, RANDOM*

University of Vermont Medical Center

Additional Test Codes

Primary ID	Epic Code	Mayo Access ID
UTPR	LAB439	FAH4930

Test Schedule / Analytical Time / Test Priority

Daily 8 am-4:30 pm / Same day / Available STAT

Method

Colorimetric

CPT(s)

Description	CPT Code
Protein, Urine Random	84156

Instrumentation

Ortho Vitros 5600

Reference Range

No established reference range

Section

Chemistry-1

Performing Location

University of Vermont Medical Center

Is the UVMMC lab NY State Certified to perform this testing? Yes/No

Yes

LOINC Code Information

Result Code	Reporting Name	LOINC Code
UTPR	Total Protein, Ur Rand	35663-4

Specimen Information — PROTEIN, URINE, RANDOM

Container	Specimen	Temperature	Collect Vol	Submit Vol	Minimum Vol	Stability
Sterile Container	Urine	Refrigerate	50 mL	5 mL	0.5 mL	3 days

PRO *PROTHROMBIN TIME*

University of Vermont Medical Center

Important Note

Test is asubject to Medicare National Coverage Determination 190.17 - Prothrombin Time (PT).
Please deliver to the lab within 24 hours.

Additional Test Codes

Primary ID	Epic Code	Mayo Access ID
PRO	LAB320	FAH4828

Test Schedule / Analytical Time / Test Priority

Daily / 24 Hours / Available STAT

Method

Photo Optical Clot Detection

CPT(s)

Description	CPT Code
Prothrombin Time	85610

Instrumentation

ACL Top 500

Reference Range

Varies according to reagent lot, see report or call if needed.

Section

Coagulation

Performing Location

University of Vermont Medical Center

Is the UVMMC lab NY State Certified to perform this testing? Yes/No

Yes

LOINC Code Information

Result Code	Reporting Name	LOINC Code
PROTIME	Pro Time	5902-2
INR	I.N.R.	6301-6

Specimen Information — PROTHROMBIN TIME

Container	Specimen	Temperature	Collect Vol	Submit Vol	Minimum Vol	Stability
Blue Top Tube	Whole Blood	Ambient	To fill line*	To fill line	**To fill line**	24 hours
Blue Top Tube	Plasma	Frozen	To fill line*	2.0 mL plasma	0.5 mL plasma	6 months

TUBE MUST BE FULL AT COLLECTION. Refer to **Coagulation Specimen Handling** before collecting.Submit frozen plasma if sample is delayed more than 24 hours.

PRO50 *PROTHROMBIN TIME 50/50 MIXING STUDY*

University of Vermont Medical Center

Important Note

Test is asubject to Medicare National Coverage Determination 190.17 - Prothrombin Time (PT).
Please deliver to the lab within 24 hours.
A Prothrombin Time must be performed first and billed. The Pro 50/50 mixing study will be credited and not performed if the initial Prothrombin Time is normal.

Additional Test Codes

Primary ID	Epic Code	Mayo Access ID
PRO50	LAB321	FAH5271

Test Schedule / Analytical Time / Test Priority

Daily / 24 Hours / Available STAT

Method

Photo Optical Clot Detection

CPT(s)

Description	CPT Code
50/50 Mixing Study-Protime Time	85611

Instrumentation

ACL Top 500

Reference Range

Varies according to reagent lot, see report or call if needed.

Section

Coagulation

Performing Location

University of Vermont Medical Center

Is the UVMMC lab NY State Certified to perform this testing? Yes/No

Yes

LOINC Code Information

Result Code	Reporting Name	LOINC Code
PATO50	Patient	5946-9
CONO50	Control	5956-8
MIXO50	Mix	5959-2

Specimen Information — PROTHROMBIN TIME 50/50 MIXING STUDY

Container	Specimen	Temperature	Collect Vol	Submit Vol	Minimum Vol	Stability
Blue Top Tube	Whole Blood	Ambient	To fill line*	To fill line	**To fill line**	24 hours
Blue Top Tube	Plasma	Frozen	To fill line*	2.0 mL plasma	0.5 mL plasma	6 months

*TUBE MUST BE FULL AT COLLECTION. Refer to **Coagulation Specimen Handling** before collecting.Submit frozen plasma if sample is delayed more than 24 hours.

PSAS *PSA (PROSTATE SPECIFIC ANTIGEN) SCREENING*

University of Vermont Medical Center

Important Note

This code is used only for Medicare patients with a screening PSA. Medicare will pay for one per year.

Additional Test Codes

Primary ID	Epic Code	Mayo Access ID
PSAS	LAB117	FAH5385

Test Schedule / Analytical Time / Test Priority

Monday – Friday / 3 days / Not available STAT

Method

Chemiluminescence Immunoassay

CPT(s)

Description	CPT Code
PSA (Prostatic Specific Antigen)	84153

Instrumentation

Siemens ADVIA Centaur XPT

Section

Chemistry-2

Performing Location

University of Vermont Medical Center

Is the UVMMC lab NY State Certified to perform this testing? Yes/No

Yes

LOINC Code Information

Result Code	Reporting Name	LOINC Code
PSA	PSA	2857-1

Specimen Information — PSA (PROSTATE SPECIFIC ANTIGEN) SCREENING

Container	Specimen	Temperature	Collect Vol	Submit Vol	Minimum Vol	Stability
SST	Serum	Refrigerate	4 mL	1 mL	0.5 mL	7 days

Reference Range — PSA (PROSTATE SPECIFIC ANTIGEN) SCREENING

Age	Sex	Physiological Status	Low	High	Units
<0 - 50 years	Male	N/A	0	≤2.5	ng/mL
50 - 60 years	Male	N/A	0	≤3.5	ng/mL
60 - 70 years	Male	N/A	0	≤4.5	ng/mL
≥70 years	Male	N/A	0	≤6.5	ng/mL

PSA *PSA (PROSTATE SPECIFIC ANTIGEN), DIAGNOSTIC*

University of Vermont Medical Center

Important Note

Test subject to Medicare Local Medical Review Policy 190.31 - Prostate Specific Antigen.

Additional Test Codes

Primary ID	Epic Code	Mayo Access ID
PSA	LAB116	FAH202

Test Schedule / Analytical Time / Test Priority

Monday – Friday / 3 days / Not available STAT

Method

Chemiluminescence Immunoassay

CPT(s)

Description	CPT Code
PSA (Prostatic Specific Antigen)	84153

Instrumentation

Siemens ADVIA Centaur XPT

Section

Chemistry-2

Performing Location

University of Vermont Medical Center

Is the UVMMC lab NY State Certified to perform this testing? Yes/No

Yes

LOINC Code Information

Result Code	Reporting Name	LOINC Code
PSA	PSA	2857-1

Specimen Information — PSA (PROSTATE SPECIFIC ANTIGEN), DIAGNOSTIC

Container	Specimen	Temperature	Collect Vol	Submit Vol	Minimum Vol	Stability
SST	Serum	Refrigerate	4 mL	1 mL	0.5 mL	7 days

Reference Range — PSA (PROSTATE SPECIFIC ANTIGEN), DIAGNOSTIC

Age	Sex	Physiological Status	Low	High	Units
0 - 50 years	Male	N/A		≤2.5	ng/mL
50 - 60 years	Male	N/A		≤3.5	ng/mL
60 - 70 years	Male	N/A		≤4.5	ng/mL
≥ 70 years	Male	N/A		≤6.5	ng/mL

PTT *PTT*

University of Vermont Medical Center

Important Note

Test subject to Medicare National Coverage Determination (NCD) 190.16 - Partial Thromboplastin Time (PTT).

Additional Test Codes

Primary ID	Epic Code	Mayo Access ID
PTT	LAB325	FAH168

Test Schedule / Analytical Time / Test Priority

Daily / 24 Hours / Available STAT

Method

Photo Optical Clot Detection

CPT(s)

Description	CPT Code
PTT	85730

Instrumentation

ACL Top 500

Reference Range

Varies according to reagent lot, see report or call if needed.

Section

Coagulation

Performing Location

University of Vermont Medical Center

Is the UVMMC lab NY State Certified to perform this testing? Yes/No

Yes

LOINC Code Information

Result Code	Reporting Name	LOINC Code
PTT	PTT	14979-9

Specimen Information — PTT

Container	Specimen	Temperature	Collect Vol	Submit Vol	Minimum Vol	Stability
Blue Top Tube	Whole Blood	Ambient	To fill line	To fill line	To fill line	4 hours
Blue Top Tube	Plasma	Frozen	To fill line	2 mL plasma	0.5 mL plasma	6 months

TUBE MUST BE FULL AT COLLECTION. Whole blood should remain at ambient temperature until processed. If you are using the PTT result to monitor heparin therapy sample MUST be processed within **75 minutes of collection**. Refer to Coagulation Specimen Handling prior to collection. Submit frozen plasma if not received in the lab within 4 hours.

PTT50 *PTT 50/50 MIXING STUDY*

University of Vermont Medical Center

Important Note

A Partial Thromboplastin Time must be performed first and billed. The PTT 50/50 mixing study will be credited and not performed if the initial PTT is normal.

Additional Test Codes

Primary ID	Epic Code	Mayo Access ID
PTT50	LAB326	FAH300

Test Schedule / Analytical Time / Test Priority

Daily / 24 Hours / Available STAT

Method

Photo Optical Clot Detection

CPT(s)

Description	CPT Code
50/50 Mixing Study-PTT	85732

Instrumentation

ACL Top 500

Reference Range

Varies according to reagent lot, see report or call if needed.

Section

Coagulation

Performing Location

University of Vermont Medical Center

Is the UVMMC lab NY State Certified to perform this testing? Yes/No

Yes

LOINC Code Information

Result Code	Reporting Name	LOINC Code
PATT50	Patient	5959-2
CONT50	Control	5949-3
MIXT50	Mix	5946-9

Specimen Information — PTT 50/50 MIXING STUDY

Container	Specimen	Temperature	Collect Vol	Submit Vol	Minimum Vol	Stability
Blue Top Tube	Whole Blood	Ambient	To fill line	To fill line	To fill line	4 hours
Blue Top Tube	Plasma	Frozen	To fill line	2 mL plasma	1 mL plasma	6 months

Tube must be filled to the fill line. Please note on the laboratory requisition if the patient is on heparin. Refer to Coagulation Specimen Handling before collecting. *Submit frozen plasma if the lab will not receive the sample within 4 hours.

RAPHM *RAPID HEME PANEL*

Vermont Department of Health Laboratory

Important Note

Hematology/Oncology and pathology use only. Submit the Rapid Heme Panel Test Requisition available in the side panel.
This testing is subject to the Molecular Pathology LCD (81450) however, since the policy does not work in Epic it is not set up. An ABN would most likely be needed since it is not specifically identified as a covered CPT code in the policy.

Additional Test Codes

Primary ID	Epic Code	Mayo Access ID
RAPHM	LAB3703	N/A

Test Schedule / Analytical Time / Test Priority

Monday - Thursday / Unknown / Not available STAT

Section

Reference Lab:
Brigham and Womens Hospital

Specimen Information — RAPID HEME PANEL

Container	Specimen	Temperature	Collect Vol	Submit Vol	Minimum Vol
EDTA Tube (Purple Top)	Bone Marrow	Refrigerate	4 mL	4 mL	2 mL
EDTA Tube (Purple Top)	Whole Blood	Refrigerate	4 mL	4 mL	2 mL

RESEXP *RESPIRATORY VIRAL PANEL EXPANDED, PCR*

University of Vermont Medical Center

Important Note

This test should only be used for immunocompromised patients or extremely ill inpatients in whom influenza and RSV testing is negative.
Viruses tested for are:
Rhinovirus
Adenovirus
Parainfluenza Virus type 1 - 4
Human Metapneumovirus

Additional Test Codes

Primary ID	Epic Code	Mayo Access ID
RESEXP	LAB3758	FAH5838

Specimen Information

Container	Specimen	Temperature	Collect Vol	Submit Vol	Minimum Vol	Stability
Viral Collection Kit (M6)	Nasopharyngeal	Refrigerate	2 mL	2 mL	1 mL	4 days
Sterile Container	Respiratory Fluid	Refrigerate	2 mL	2mL	1 mL	4 days

This test can be ordered as an add on test up to four days after sample collection.

Viral Collection Kit (M6)

COLLECTION
1. Insert the tip of the floqswab swab into a nostril to obtain a specimen from the posterior nasopharynx.
2. Do not force the swab; resistance will be felt when the posterior nasopharynx is reached.
3. Rotate the swab and leave it in place for 10-30 seconds or until the patient coughs.
4. Repeat the process for the second nostril

Test Schedule / Analytical Time / Test Priority
Daily / One day / Not available STAT

Method
Nucleic Acid Amplification

CPT(s)

Narrative	CPT
Respiratory Virus	87632 x 1

Instrumentation
Hologic Panther Fusion

Reference Range
No virus detected

Section
Microbiology-2

Performing Location
University of Vermont Medical Center

Is the UVMMC lab NY State Certified to perform this testing? Yes/No
No

LOINC Code Information
In process

RET *RETICULOCYTE COUNT*

University of Vermont Medical Center

Important Note
Retic count must be done within 48 hours of collection.

Additional Test Codes

Primary ID	Epic Code	Mayo Access ID
RET	LAB296	FAH197

Test Schedule / Analytical Time / Test Priority
Daily / 24 hours / Available STAT

Method
Automated Cell Counter

CPT(s)

Description	CPT Code
Reticulocyte Count	85045

Instrumentation
Sysmex XN 9000

Reference Range
0.5 – 2.5%

Section
Hematology

Performing Location
University of Vermont Medical Center

Is the UVMMC lab NY State Certified to perform this testing? Yes/No

Yes

LOINC Codes

Result Code	Reporting Name	LOINC Code
RET	Reticulocyte Count	17849-1

Specimen Information — RETICULOCYTE COUNT

Container	Specimen	Temperature	Collect Vol	Submit Vol	Minimum Vol
Lavender Top Tube	Whole Blood	Refrigerate	2.5 mL	0.5 mL	0.2 mL
*Lavender Microtainer			0.6 mL		

Invert tube gently 10 times.

*While a microtainer is an optional tube type in rare circumstances, it is **not recommended.**

RFS *RHEUMATOID FACTOR*

University of Vermont Medical Center

Additional Test Codes

Primary ID	Epic Code	Mayo Access ID
RFS	LAB206	FAH5810

Test Schedule / Analytical Time / Test Priority

Daily / 1 day / Not available STAT

Method

Immunoturbidometric

CPT(s)

Description	CPT Code
Rheumatoid Factor	86431

Instrumentation

Ortho Vitros 5600

Reference Range

All sexes:
0 - 15 days: <19.0 IU/mL
≥15 days: <12.0 IU/mL

Section

Chemistry-2

Performing Location

University of Vermont Medical Center

Is the UVMMC lab NY State Certified to perform this testing? Yes/No

Yes

LOINC Code Information

Result Code	Reporting Name	LOINC Code
RF	Rheumatoid Factor	6928-6

Specimen Information — RHEUMATOID FACTOR

Container	Specimen	Temperature	Collect Vol	Submit Vol	Minimum Vol	Stability
Serum Separator Tube	Serum	Refrigerate	4 mL	0.5 mL	0.2 mL	5 days
Lithium Heparin (green top)	Plasma	Refrigerate	4 mL	0.5 mL	0.5 mL	5 days

RNPA *RNP ANTIBODY*

University of Vermont Medical Center

Additional Test Codes

Primary ID	Epic Code	Mayo Access ID
RNPA	LAB772	FAH5610

Test Schedule / Analytical Time / Test Priority

Tuesday and Thursday / 6 days / Not available STAT

Method

ELISA

CPT(s)

Description	CPT Code
RNP Antibody	86235

Instrumentation

Dynex DSX

Reference Range

All ages:
Negative: <20 Units
Weak Positive: 20-39 Units
Moderate Positive: 40-80 Units
Strong Positive: >80 Units

Section

Immunology

Performing Location

University of Vermont Medical Center

Is the UVMMC lab NY State Certified to perform this testing? Yes/No

No

LOINC Code Information

Result Code	Reporting Name	LOINC Code
RNPA	RNP Antibody	51928-0

Specimen Information — RNP ANTIBODY

Container	Specimen	Temperature	Collect Vol	Submit Vol	Minimum Vol	Stability
Serum Separator Tube	Serum	Refrigerate	4 mL	0.5 mL	0.4 mL	2 days
Serum Separator Tube	Serum	Frozen	4 mL	0.5 mL	0.4 mL	21 days

RUBG2 *RUBELLA IgG ANTIBODY*

University of Vermont Medical Center

Additional Test Codes

Primary ID	Epic Code	Mayo Access ID
RUBG2	LAB496	FAH5753

Test Schedule / Analytical Time / Test Priority

Monday – Friday / 3 days / Not available STAT

Method

Chemiluminescence Immunoassay

CPT(s)

Description	CPT Code
Rubella IgG Antibody	86762

Instrumentation

Diasorin Liaison XL

Reference Range

All ages:
Negative: Absence of detectable Rubella virus IgG antibodies. A negative result indicated no detectable antibody, but does not rule out acute infection.
Equivocal: Recommend collecting a second sample for testing in no less than one to two weeks.
Positive: Presence of detectable Rubella virus IgG antibodies.

Section

Chemistry-2

Performing Location

University of Vermont Medical Center

Is the UVMMC lab NY State Certified to perform this testing? Yes/No

Yes

LOINC Code Information

Result Code	Reporting Name	LOINC Code
RUBG2	Rubella IgG Ab	25514-1

Specimen Information — RUBELLA IgG ANTIBODY

Container	Specimen	Temperature	Collect Vol	Submit Vol	Minimum Vol	Stability
Serum Separator Tube	Serum	Refrigerate	4 mL	0.6 mL	0.3 mL	7 days

SALI *SALICYLATE*

University of Vermont Medical Center

Additional Test Codes

Primary ID	Epic Code	Mayo Access ID
SALI	LAB34	FAH5053

Test Schedule / Analytical Time / Test Priority

Daily / 24 Hours / Available STAT

Method

Colorimetric

CPT(s)

Description	CPT Code
Salicylate Quatitative	80329

Instrumentation

Ortho Vitros 5600

Reference Range

All ages:
Negative: <2 mg/dL
Therapeutic: <20 mg/dL
Possible Toxic: >30 mg/dL

Section

Chemistry-1

Performing Location

University of Vermont Medical Center

Is the UVMMC lab NY State Certified to perform this testing? Yes/No

Yes

LOINC Code Information

Result Code	Reporting Name	LOINC Code
SALI	Salicylate	4024-6

Specimen Information — SALICYLATE

Container	Specimen	Temperature	Collect Vol	Submit Vol	Minimum Vol	Stability
Serum Separator Tube	Serum	Refrigerate	4 mL	0.5 mL	0.2 mL	7 days
Lithium heparin (green top)	Plasma	Refrigerate	4 mL	0.5 mL	0.2 mL	7 days
*Green Microtainer		Refrigerate	0.6 mL			7 days

.*While a microtainer is an optional tube type in rare circumstances, it is **not recommended.**

UPEX *SCHISTOSOMA EXAM, URINE*

University of Vermont Medical Center

Important Note

S. haemotobium adults are found in the portal vein of the urinary bladder in the infected human. Laboratory recovery depends upon repeated daily examinations of **fresh urine specimens collected around noon.**

Additional Test Codes

Primary ID	Epic Code	Mayo Access ID
UPEX	LAB3184	FAH5496

Test Schedule / Analytical Time / Test Priority

Monday – Friday / Same day / Not available STAT

Method

Urine Concentration Exam

CPT(s)

Description	CPT Code
Schistosome Exam, Urine	87177

Instrumentation

Manual Method

Reference Range

No parasites seen

Section

Microbiology-2

Performing Location

University of Vermont Medical Center

Is the UVMMC lab NY State Certified to perform this testing? Yes/No

Yes

LOINC Code Information

Order Code	Reporting Name	LOINC Code
UPEX	Schistosoma Exam, Urine	10715-1

Specimen Information — SCHISTOSOMA EXAM, URINE

Container	Specimen	Temperature	Collect Vol	Submit Vol	Minimum Vol	Stability
Sterile Container	Urine	Ambient	5 mL	1 mL	1 mL	24 hours

Repeat daily examination is optimal for recovery of parasites. Deliver specimen to laboratory as soon as possible. If sample cannot be delivered to the lab within 2 hours of sample collection, sample should be preserved with Total Fix. Use equal volume of Total Fix and urine collected. Contact Laboratory Customer Service for Total Fix Vials at 847-5121.

SCONFH *SCT CONFIRM HEPZYMED*

University of Vermont Medical Center

Important Note

This test is NOT ORDERABLE as a stand alone test it is a possible reflex test for the Lupus Anticoagulant Cascade.

Additional Test Codes

Primary ID	Epic Code	Mayo Access ID
SCONFH	Reflex order only	N/A

Test Schedule / Analytical Time / Test Priority

Monday – Friday / Same day / Not available STAT

Method

Clot Based Assay

CPT(s)

Description	CPT Code
Silica Clotting Time	85732

Instrumentation

ACL TOP500

Reference Range

Reported in seconds. Ranges are subject to change with subsequent reagent lot numbers.

Section

Coagulation

Performing Location

University of Vermont Medical Center

Is the UVMMC lab NY State Certified to perform this testing? Yes/No

Yes

SWE *SED RATE, WESTERGREN*

University of Vermont Medical Center

Additional Test Codes

Primary ID	Epic Code	Mayo Access ID
SWE	LAB322	FAH4904

Test Schedule / Analytical Time / Test Priority

Daily / 24 Hours / Available STAT

Method

Westergren

CPT(s)

Description	CPT Code
Sed. Rate Westergren	85662

Instrumentation

ISED

Section

Hematology

Performing Location

University of Vermont Medical Center

Is the UVMMC lab NY State Certified to perform this testing? Yes/No

Yes

LOINC Code Information

Result Code	Reporting Name	LOINC Code
SWE	Sed Rate, Westergren	4537-7

Specimen Information — SED RATE, WESTERGREN

Container	Specimen	Temperature	Collect Vol	Submit Vol	Minimum Vol	Stability
Lavender Top Tube	Whole blood	Refrigerate	2.5 mL	2.5 mL	1.5 mL	11 hours
Lavender Top Tube	Whole Blood	Ambient	2.5 mL	2.5 mL	1.5 mL	3 hours

Mix tube well. Specimen must be refrigerated and delivered to the laboratory within 11 hrs. Samples that are kept at ambient temperature must be delivered to the laboratory within 3 hours.

Reference Range — SED RATE, WESTERGREN

Age	Sex	Physiological Status	Low	High	Units
<49 years	Female	N/A	0	20	mm/hr
>50 years	Female	N/A	0	30	mm/hr
<49 years	Male	N/A	0	15	mm/hr
>50 years	Male	N/A	0	20	mm/hr

FPORC *Serotonin Release Assay, Unfractionated Heparin*

Versiti Wisconsin, Inc.

Additional Test Codes

Primary ID	Epic Code	Mayo Access ID
SRAPOR	LAB2694	FPORC

Specimen Required

Specimen Type: Serum
Container/Tube: Red/ SST acceptable
Specimen Volume: 5 mL
Collection Instruction: Draw blood in a plain, red-top tube, serum gel tube is acceptable. Spin down and remove serum from clot. Ship 5 mL of serum refrigerated in a plastic vial.

Note: Date of birth required.

Method Name

Serotonin Release Assay (SRA)

Reporting Name

Unfract. Heparin Dep. Platelet Ab

Specimen Type

Serum

Specimen Minimum Volume

1 mL

Specimen Stability Information

Specimen Type	Temperature	Time	Special Container
Serum	Refrigerated (preferred)	7 days	
	Frozen		

Reject Due To

Hemolysis	NA
Lipemia	NA
Icterus	NA
Other	NA

Reference Values

An interpretive comment included with results.

Day(s) and Time(s) Performed

Monday through Saturday

Analytic Time

1 - 3 days

Test Classification

This test was developed and its performance characteristics determined by Versiti Wisconsin, Inc. It has not been cleared or approved by the US Food and Drug Administration. This test is used for clinical purposes. It should not be regarded as investigational or for research. This laboratory is certified under the Clinical Laboratory Improvement Amendments (CLIA) as qualified to perform high complexity clinical laboratory testing.

CPT Code Information

86022

LOINC Code Information

Test ID	Test Order Name	Order LOINC Value
FPORC	Unfract. Heparin Dep. Platelet Ab	50736-8

Result ID	Test Result Name	Result LOINC Value
Z0123	unfractionated heparin Low Dose	50728-5
Z0124	unfractionated heparin High Dose	50727-7
Z0125	unfractionated heparin Result	50734-3

NY State Approved

Yes

SHBG2 *SEX HORMONE BINDING GLOBULIN*

University of Vermont Medical Center

Important Note

The results of this assay can be **falsely lowered** due to the consumption of Biotin. Please instruct patients to discontinue the use of vitamins or supplements that contain Biotin 12 hours before blood collection.

Additional Test Codes

Primary ID	Epic Code	Mayo Access ID
SHBG2	LAB839	FAH5764

Test Schedule / Analytical Time / Test Priority

Monday – Friday / 3 days / Not available STAT

Method

Chemiluminescence Immunoassay

CPT(s)

Description	CPT Code
Sex Hormone Binding Globulin	84270

Instrumentation

Siemens ADVIA Centaur XPT

Section

Chemistry-2

Performing Location

University of Vermont Medical Center

Is the UVMMC lab NY State Certified to perform this testing? Yes/No

Yes

LOINC Code Information

Result Code	Reporting Name	LOINC Code
SHBG2	Sex Hormone Binding Globulin	13967-5

Specimen Information — SEX HORMONE BINDING GLOBULIN

Container	Specimen	Temperature	Collect Vol	Submit Vol	Minimum Vol	Stability
Serum Separator Tube	Serum	Refrigerate	4 mL	1 mL	0.3 mL	6 days

Reference Range — SEX HORMONE BINDING GLOBULIN

Age	Sex	Physiological Status	Low	High	Units
≥21 years	Female	Pre-menopausal	>10.8		nmol/L
	Female	Post-menopausal	23.2	159.1	nmol/L
0 - 50 Years	Male		14.6	94.6	nmol/L
≥50 years	Male	N/A	21.6	113.1	nmol/L

The results of this assay can be **falsely lowered** due to the consumption of Biotin. Please instruct patients to discontinue the use of vitamins or supplements that contain Biotin 12 hours before blood collection.

HGMON *SICKLING HEMOGLOBIN THERAPEUTIC MONITORING*

University of Vermont Medical Center

Important Note

This test is not intended for diagnostic purposes, it is assumed the patient's diagnosis is established. If the patient has never had a hemoglobin/ thalassemia evaluation (HBEVAL) then this should be done first.
Samples on newborns under the age of 28 days are not acceptable for analysis by this method.

Additional Test Codes

Primary ID	Epic Code	Mayo Access ID
HGMON	LAB4062	FAH5651

Test Schedule / Analytical Time / Test Priority

Monday, Wednesday, and Friday, run starts at noon / 3 days / Not available STAT

Method

Capillary Electrophoresis

CPT(s)

Description	CPT Code
Sickling Hgb Therapeutic Monitoring	83020

Instrumentation

Sebia Capillarys 2 Flex

Reference Range

No established reference range

Section

Chemistry-2

Performing Location

University of Vermont Medical Center

Is the UVMMC lab NY State Certified to perform this testing? Yes/No

Yes

Specimen Information — SICKLING HEMOGLOBIN THERAPEUTIC MONITORING

Container	Specimen	Temperature	Collect Vol	Submit Vol	Minimum Vol	Stability
Lavender (EDTA) Tube	Whole Blood	Refrigerate	2 mL	2 mL	0.5 mL	7 days

Submit whole blood, do not freeze.

SCCONF *SILICA CLOTTING TIME CONFIRMATION TEST*

University of Vermont Medical Center

Important Note

This test is NOT orderable as a stand alone test, it is a reflex test and will be performed if the Silica Clotting Time is greater than the upper limit. It is preferable the patient sample is obtained from a patient **free of anticoagulation therapy**, particularly warfarin, direct thrombin inhibitors, and anti-Xa medications.

Additional Test Codes

Primary ID	Epic Code	Mayo Access ID
SCCONF	Reflex order only	N/A

Test Schedule / Analytical Time / Test Priority

Monday – Friday / Same day / Not available STAT

Method

Clot Based Assay

CPT(s)

Description	CPT Code
Silica Confirmation Test	85372

Instrumentation

ACL TOP500

Reference Range

Reported in seconds, ranges are subject to change with subsequent reagent lot numbers.

Section

Coagulation

Performing Location

University of Vermont Medical Center

Is the UVMMC lab NY State Certified to perform this testing? Yes/No

Yes

Specimen Information — SILICA CLOTTING TIME CONFIRMATION TEST

Container	Specimen	Temperature	Collect Vol	Submit Vol	Minimum Vol	Stability
Blue Top Tube	*Platelet Poor Plasma	Frozen	To fill line	1 mL	0.5 mL	6 Months
Blue Top Tube	Whole Blood	Ambient	To fill line	To fill line	To fill line	3 hours

*Refer to Coagulation Specimen Handling. Spin down and remove plasma from cells, respin and remove plasma from cell button, place this platelet poor plasma into a plastic vial and freeze at -40° C.

SIRO *SIROLIMUS*

University of Vermont Medical Center

Additional Test Codes

Primary ID	Epic Code	Mayo Access ID
SIRO	LAB875	FAH5388

Test Schedule / Analytical Time / Test Priority

**Monday, Wednesday, and Friday, run starts at 11 am / Same day / Not available STAT
**Daily for inpatients, Stat samples from pediatric nephrology or upon request from transplant.

Method

Chemiluminescence Immunoassay

CPT(s)

Description	CPT Code
Sirolimus	80195

Instrumentation

Abbott Architect i1000

Reference Range

Therapy dependent

Section

Chemistry-2

Performing Location

University of Vermont Medical Center

Is the UVMMC lab NY State Certified to perform this testing? Yes/No

Yes

LOINC Code Information

Result Code	Reporting Name	LOINC Code
SIRO	Sirolimus	29247-4

Specimen Information — SIROLIMUS

Container	Specimen	Temperature	Collect Vol	Submit Vol	Minimum Vol	Stability
Lavender (EDTA) Tube	Whole Blood	Refrigerate	2.5 mL	1 mL	0.5 mL	7 days

SMAA *Sm (SMITH) ANTIBODY*

University of Vermont Medical Center

Additional Test Codes

Primary ID	Epic Code	Mayo Access ID
SMAA	LAB2373	FAH5609

Test Schedule / Analytical Time / Test Priority

Tuesday and Thursday / 6 days / Not available STAT

Method

ELISA

CPT(s)

Description	CPT Code
Sm (Smith) Antibody	86235

Instrumentation

Dynex DSX

Reference Range

All ages:
Negative: <20 Units
Weak Positive: 20-39 Units
Moderate Positive: 40-80 Units
Strong Positive: >80 Units

Section

Immunology

Performing Location

University of Vermont Medical Center

Is the UVMMC lab NY State Certified to perform this testing? Yes/No

Yes

LOINC Code Information

Result Code	Reporting Name	LOINC Code
SMAA	Sm (Smith) Antibody	43182-5

Specimen Information — Sm (SMITH) ANTIBODY

Container	Specimen	Temperature	Collect Vol	Submit Vol	Minimum Vol	Stability
Serum Separator Tube	Serum	Refrigerate	4 mL	0.5 mL	0.4 mL	2 days
Serum Separator Tube	Serum	Frozen	4 mL	0.5 mL	0.4 mL	21 days

NA *SODIUM*

University of Vermont Medical Center

Additional Test Codes

Primary ID	Epic Code	Mayo Access ID
NA	LAB122	FAH253

Test Schedule / Analytical Time / Test Priority

Daily / 1 day / Available STAT

Method

Ion Selective Electrode

CPT(s)

Description	CPT Code
Sodium	84295

Instrumentation

Ortho Vitros 5600

Reference Range

All ages: 136 – 145 mEq/L

Section

Chemistry-1

Performing Location

University of Vermont Medical Center

Is the UVMMC lab NY State Certified to perform this testing? Yes/No

Yes

LOINC Code Information

Result Code	Reporting Name	LOINC Code
NA	Sodium	2951-2

Specimen Information — SODIUM

Container	Specimen	Temperature	Collect Vol	Submit Vol	Minimum Vol	Stability
Serum Separator Tube	Serum	Refrigerate	4 mL	0.6 mL	0.3 mL	7 days
Lithium heparin (green top)	Plasma	Refrigerate	4 mL	0.6 mL	0.3 mL	7 days
*Green Microtainer		Refrigerate	0.6 mL			7 days

*While a microtainer is an optional tube type in rare circumstances, it is **not recommended.**

UNA24 *SODIUM, URINE, 24 HOUR*

University of Vermont Medical Center

Additional Test Codes

Primary ID	Epic Code	Mayo Access ID
UNA24	LAB446	FAH5874

Test Schedule / Analytical Time / Test Priority

Daily 8 am-4:30 pm / Same day / Available STAT

Method

Ion Selective Electrode

CPT(s)

Description	CPT Code
Sodium, Urine	84300

Instrumentation

Ortho Vitros 5600

Reference Range

0-1 year: 0.3-3.5 mEq/24 Hours
1-16 year: 40-180 mEq/24 Hours
≥16 year: 40-220 mEq/24 Hours

Section

Chemistry-1

Performing Location

University of Vermont Medical Center

Is the UVMMC lab NY State Certified to perform this testing? Yes/No

Yes

LOINC Code Information

Result Code	Reporting Name	LOINC Code
UNAR	Sodium, Urn Random	35678-2
UNACAL	24h Calc.	21527-7

Specimen Information — SODIUM, URINE, 24 HOUR

Container	Specimen	Temperature	Collect Vol	Submit Vol	Minimum Vol	Stability
24 Hour Urine Jug A	24 Hour Urine	Refrigerate	24 Hour Urine	10 mL	1 mL	7 days

UNAR *SODIUM, URINE, RANDOM*

University of Vermont Medical Center

Additional Test Codes

Primary ID	Epic Code	Mayo Access ID
UNAR	LAB444	FAH235

Test Schedule / Analytical Time / Test Priority

Daily 8 am-4:30 pm / Same day / Available STAT

Method

Ion Selective Electrode

CPT(s)

Description	CPT Code
Sodium, Urine	84300

Instrumentation

Ortho Vitros 5600

Reference Range

No established reference range

Section

Chemistry-1

Performing Location

University of Vermont Medical Center

Is the UVMMC lab NY State Certified to perform this testing? Yes/No

Yes

LOINC Code Information

Result Code	Reporting Name	LOINC Code
UNAR	Sodium, Urn Random	35678-2

Specimen Information — SODIUM, URINE, RANDOM

Container	Specimen	Temperature	Collect Vol	Submit Vol	Minimum Vol	Stability
Sterile Container	Urine	Refrigerate	50 mL	10 mL	1 mL	1 day

URSG *SPECIFIC GRAVITY, URINE*

University of Vermont Medical Center

Additional Test Codes

Primary ID	Epic Code	Mayo Access ID
URSG	LAB2117	N/A

Test Schedule / Analytical Time / Test Priority

Daily / 24 Hours / Available STAT

Method

Refractometry

CPT(s)

Description	CPT Code
Refractometer Specific Gravity, Urine	81099

Instrumentation

Arkray Aution Hybrid AU-4050 or Refractometer

Reference Range

All ages: 1.001 – 1.035

Section

Chemistry-1

Performing Location

University of Vermont Medical Center

Is the UVMMC lab NY State Certified to perform this testing? Yes/No

Yes

LOINC Code Information

Result Code	Reporting Name	LOINC Code
URSG	Refractometer SG, Ur	5810-7

Specimen Information — SPECIFIC GRAVITY, URINE

Container	Specimen	Temperature	Collect Vol	Submit Vol	Minimum Vol	Stability
Sterile Container	Urine	Refrigerate	12 mL	12 mL	12 mL	1 day

VALSCN *Specimen Tampering/Validity Panel, Urine*

Aspenti Health Laboratory

Important Note

Specimen Tampering/Validity Panel, Urine, test information.
This test is not orderable as a stand alone test.

Additional Test Codes

Primary ID	Epic Code	Aspenti Test Code
VALSCN	In process	VBL1500

Test Schedule / Analytical Time / Test Priority

Monday - Friday / 24 Hours / Not Available STAT

Performing Location

Aspenti Health Laboratory

SPSCN *SPERM SCREEN*

University of Vermont Medical Center

Important Note

The sample must be delivered to the laboratory within four hours.

Additional Test Codes

Primary ID	Epic Code	Mayo Access ID
SPSCN	LAB2005	N/A

Test Schedule / Analytical Time / Test Priority

Monday – Friday 8:00 am - 4:00 pm / 1 day / Not available STAT

Method

Microscope

CPT(s)

Description	CPT Code
Sperm Screen	89321

Instrumentation

Manual Method

Reference Range

Vasovasostomy: Sperm present
Post Vasectomy: No motile sperm.

Section

Hematology

Performing Location

University of Vermont Medical Center

Is the UVMMC lab NY State Certified to perform this testing? Yes/No

Yes

LOINC Code Information

Result Code	Reporting Name	LOINC Code
COLLE	Collected at	13358-7
EXAMND	Examined at	45375-3
SPSCOM	Comment	8251-1

Specimen Information — SPERM SCREEN

Container	Specimen	Temperature	Collect Vol	Submit Vol	Minimum Vol	Stability
Sterile Container	Semen	Ambient	2 mL	2 mL	0.3 mL	4 hours

The sample should be collected after abstaining from ejaculation for 2 to 7 days. The use of lubricants should be avoided during collection.
Collect the entire ejaculate in container, store at room temperature and deliver to the laboratory within four hours.

SSAA *SS-A ANTIBODY*

University of Vermont Medical Center

Additional Test Codes

Primary ID	Epic Code	Mayo Access ID
SSAA	LAB2377	FAH5607

Test Schedule / Analytical Time / Test Priority

Tuesday and Thursday / 6 days / Not available STAT

Method

ELISA

CPT(s)

Description	CPT Code
SSA Antibody	86235

Instrumentation

Dynex DSX

Reference Range

All ages:
Negative: <20 Units
Weak Positive: 20-39 Units
Moderate Positive: 40-80 Units
Strong Positive: >80 Units

Section

Immunology

Performing Location

University of Vermont Medical Center

Is the UVMMC lab NY State Certified to perform this testing? Yes/No

No

LOINC Code Information

Result Code	Reporting Name	LOINC Code
SSAA	SSA Antibody	33569-5

Specimen Information — SS-A ANTIBODY

Container	Specimen	Temperature	Collect Vol	Submit Vol	Minimum Vol	Stability
Serum Separator Tube	Serum	Refrigerate	4 mL	0.5 mL	0.4 mL	2 days
Serum Separator Tube	Serum	Frozen	4 mL	0.5 mL	0.4 mL	21 days

Non-UVMMC clients must send samples frozen. For samples being sent frozen, serum should be separated from clotted blood within 4 hours of collection and frozen at ≤-20 C.

SSBA *SS-B ANTIBODY*

University of Vermont Medical Center

Additional Test Codes

Primary ID	Epic Code	Mayo Access ID
SSBA	LAB2378	FAH5608

Test Schedule / Analytical Time / Test Priority

Tuesday and Thursday / 6 days / Not available STAT

Method

ELISA

CPT(s)

Description	CPT Code
SSb Antibody	86235

Instrumentation

Dynex DSX

Reference Range

For Both SS-A and SS-B all ages:
Negative: <20 Units
Weak Positive: 20-39 Units
Moderate Positive: 40-80 Units
Strong Positive: >80 Units

Section

Immunology

Performing Location

University of Vermont Medical Center

Is the UVMMC lab NY State Certified to perform this testing? Yes/No

No

LOINC Code Information

Result Code	Reporting Name	LOINC Code
SSBA	SSB Antibody	45142-7

Specimen Information — SS-B ANTIBODY

Container	Specimen	Temperature	Collect Vol	Submit Vol	Minimum Vol	Stability
Serum Separator Tube	Serum	Refrigerate	4 mL	0.5 mL	0.4 mL	2 days
Serum Separator Tube	Serum	Frozen	4 mL	0.5 mL	0.4 mL	21 days

Non-UVMMC clients must send samples frozen. For samples being sent frozen, serum should be separated from clotted blood within 4 hours of collection and frozen at ≤-20 C.

SSABPL *SSA/SSB ANTIBODY PANEL*

University of Vermont Medical Center

Additional Test Codes

Primary ID	Epic Code	Mayo Access ID
SSABPL	LAB3356	FAH5616

Test Schedule / Analytical Time / Test Priority

Tuesday and Thursday / 6 days / Not available STAT

Method

ELISA

CPT(s)

Description	CPT Code
SSA Antibody	86235
SSB Antibody	86235

Instrumentation

Dynex DSX

Reference Range

For Both SS-A and SS-B all ages
Negative: <20 Units
Weak Positive: 20-39 Units
Moderate Positive: 40-80 Units
Strong Positive: >80 Units

Section

Immunology

Performing Location

University of Vermont Medical Center

Is the UVMMC lab NY State Certified to perform this testing? Yes/No

No

LOINC Code Information

Result Code	Reporting Name	LOINC Code
SSBA	SSB Antibody	45142-7
SSBB	SSA Antibody	33569-5

Specimen Information — SSA/SSB ANTIBODY PANEL

Container	Specimen	Temperature	Collect Vol	Submit Vol	Minimum Vol	Stability
Serum Separator Tube	Serum	Refrigerate	4 mL	0.5 mL	0.4 mL	2 days
Serum Separator Tube	Serum	Frozen	4 mL	0.5 mL	0.4 mL	21 days

Non-UVMMC clients must send samples frozen. For samples being sent frozen, serum should be separated from clotted blood within 4 hours of collection and frozen at ≤-20 C.

STAPCX *STAPHYLOCCUS COAGULASE POSITIVE CULTURE*

University of Vermont Medical Center

Important Note

Samples must be received in the lab within 24 hours of collection.
Please specify site of collection.
Testing includes culture, identification of Staphylococcus aureus (additional charges/CPT codes may apply) and if present, susceptibility testing (at additional charge).

Additional Test Codes

Primary ID	Epic Code	Mayo Access ID
STAPCX	LAB2528	N/A

Test Schedule / Analytical Time / Test Priority

Daily / Reported when positive, negative final at 48 hours / Not available STAT

Method

Culture

CPT(s)

Description	CPT Code
Culture for Staphyloccus Coagulase Positive	87081

Reference Range

No Staphylococcus aureus Isolated.

Section

Microbiology-1

Performing Location

University of Vermont Medical Center

Is the UVMMC lab NY State Certified to perform this testing? Yes/No

Yes

LOINC Code Information

Order Code	Reporting Name	LOINC Code
STAPCX	Culture for Staphylococcus coagulase positive	20966-8

Specimen Information — STAPHYLOCCUS COAGULASE POSITIVE CULTURE

Container	Specimen	Temperature	Collect Vol	Submit Vol	Minimum Vol	Stability
Bacterial/Yeast Collection Kit	Nares	Refrigerate	N/A	N/A	N/A	24 hours

Please specify site. Samples must be received in lab within 24 hours of collection.

SCCPB *STEM CELL CD34 BLOOD*

University of Vermont Medical Center

Important Note

A hemagram and differential (CBCDF) must be ordered on the same tube as the SCCPB.

Additional Test Codes

Primary ID	Epic Code	Mayo Access ID
SCCPB	LAB3604	N/A

Test Schedule / Analytical Time / Test Priority

Monday – Saturday / 24-Hours / Not available STAT

Method

Flow Cytometry

CPT(s)

Description	CPT Code
Stem Cell CD34 Blood	86367

Instrumentation

Beckman Coulter FC500

Section

Flow Cytometry

Performing Location

University of Vermont Medical Center

Is the UVMMC lab NY State Certified to perform this testing? Yes/No

Yes

LOINC Code Information

Result Code	Reporting Name	LOINC Code
CD34	Percent CD34 Cells	8125-7
ABCD34	Absolute CD34 Cells	14136-6

Specimen Information — STEM CELL CD34 BLOOD

Container	Specimen	Temperature	Collect Vol	Submit Vol	Minimum Vol
Lavender Top (EDTA)	Whole Blood	Ambient	4 mL	4 mL	2 mL

ATEST *STERILIZER TEST*

University of Vermont Medical Center

Important Note

This test is used for testing autoclave temperature. In addition to test ampule, send ampule that has not been autoclaved to serve as a control, label as such. Ampules can be ordered from Customer Service 847-5121

Additional Test Codes

Primary ID	Epic Code	Mayo Access ID
ATEST	LAB2549	N/A

Test Schedule / Analytical Time / Test Priority

Monday – Friday / 48 hours / Not available STAT

Method

Biological Indicator to Monitor Steam Sterilization Methods.

CPT(s)

Description	CPT Code
Sterility Test	87070

Reference Range

Reported as negative or positive.

Section

Microbiology-1

Performing Location

University of Vermont Medical Center

Is the UVMMC lab NY State Certified to perform this testing? Yes/No

Yes

LOINC Code Information

In process.

Specimen Information — STERILIZER TEST

Container	Specimen	Temperature	Collect Vol	Submit Vol	Minimum Vol	Stability
Autoclave Check	N/A	Ambient	N/A	N/A	N/A	24 hours

Autoclave Monitoring

Purpose: The ATTEST
is used as a biological indicator for saturated steam sterilization cycles. The spore phase of the chosen microorganism is resistant to moist heat sterilization and is used to validate the lethality of steam sterilization. You much have a UVM Medical Center Account Number to order this test. Call Laboratory Customer Service if you have questions.

Precautions: ATEST Ampules contain live cultures and should be handled with care toprevent breakage. Use ampule only once.

Storage: Store at ambient temperature, between 59 – 86 f○. Do not store near sterilants or other chemicals. ATTESTs are good for two years after manufacture date, which is printed on the box.

Procedure:
1. Place unopened ATEST in the autoclave. Vial may be included with a normal load or they may be tested alone.
2. Follow usual procedures for running a load for sterilization.
3. Remove vial when cool.
4. Check the chemical indicator on the label for a color change from rose to brown.
5. Each time an ATEST is submitted, a control must be included. Use one ATEST that has NOT been autoclaved and with a sharpie mark “Control” on it.
6. Complete laboratory requisition. In the name field on the requisition put “SPORE TESTING”. Each specimen should also be uniquely identified for your office’s record keeping. Check off your 96 account number.
7. Take ATEST and wrap them in a paper towel. Place in specimen bag. Place bag in REFRIGERATOR. Send with next shipment of specimens. Specimens must remain refrigerated in transport.
8. Test vials must be sent to lab within 24 hours of sterilization.
9. Results will be returned within two weeks.

Interpretation: Spore growth indicates autoclave is not functioning properly. Consult manufacturer before using autoclave.

VSTIM *Stimulants Panel, Urine*

Aspenti Health Laboratory

Important Note

Routine drug screen for inpatients and ambulatory clinics.
Test includes the following tests:
Amphetamine Screen-Urine
Cocaine Metabolite (Benzylecgonine) Screen-Urine
Ecstasy MDMA Screen-Urine

Additional Test Codes

Primary ID	Epic Code	Aspenti Test Code
VSTIM	LAB3738	VBL2612

Test Schedule / Analytical Time / Test Priority

Monday - Friday / 24 Hours / Not Available STAT

Performing Location

Aspenti Health Laboratory

SXPNAG *STREP PNEUMONIAE URINE ANTIGEN DETECTION*

University of Vermont Medical Center

Important Note

Sample must be received within 24 hours.
A negative result does not exclude infection with S.pneumoniae. Use urine antigen test in conjunction with culture, other tests and clinical findiings to make an accurate diagnosis. Recently administered Strep. pneumoniae vaccine may cause false positive results. Colonization with Strep pneumo can cause false positive.

Additional Test Codes

Primary ID	Epic Code	Mayo Access ID
SXPNAG	LAB2312	FAH5474

Test Schedule / Analytical Time / Test Priority

Daily / 24 hours / Not available STAT

Method

Immunochromatographic Membrane Assay

CPT(s)

Description	CPT Code
Strp pneumoniae Urine Antigen Detection	87899

Reference Range

Negative

Section

Microbiology-1

Performing Location

University of Vermont Medical Center

Is the UVMMC lab NY State Certified to perform this testing? Yes/No

Yes

LOINC Code Information

Order Code	Reporting Name	LOINC Code
SXPNAG	Strep Pneumoniae Urine Antigen Detection	24027-5

Specimen Information — STREP PNEUMONIAE URINE ANTIGEN DETECTION

Container	Specimen	Temperature	Collect Vol	Submit Vol	Minimum Vol	Stability
Sterile Container	Urine	Refrigerate	10 mL	10 mL	10 mL	24 hours

Sample must be received within 24 hours.

SWEAT *SWEAT TEST*

University of Vermont Medical Center

Important Note

Sample collection for sweat testing is performed by Dr. Lahiri's office and must be scheduled through them at 847-8600. Samples must be received in the lab by 2 pm.

Additional Test Codes

Primary ID	Epic Code	Mayo Access ID
SWEAT	LAB183	N/A

Specimen Information

Sample collection for sweat testing is performed by Dr. Lahiri's office and must be scheduled through them at 847-8600. Samples must be received in the lab by 2 pm.

Test Schedule / Analytical Time / Test Priority

Monday, Tuesday, Thursday / 5 days / Not available STAT

Method

Coulometric

CPT(s)

Description	CPT Code
Chloride	82438

Instrumentation

EliTech Chlorochek Model 3400

Reference Range

All ages
≤29 mmol/L Unlikely for CF
30-59 mmol/L Intermediate,
≥60 mmol/L Indicative of CF

Section

Chemistry-2

Performing Location

University of Vermont Medical Center

Is the UVMMC lab NY State Certified to perform this testing? Yes/No

Yes

LOINC Code Information

Result Code	Reporting Name	LOINC Code
SCL	Sweat Chloride	2077-6
SITE1	Collection Site 1	No current LOINC
SCL2	Sweat Chloride 2	No current LOINC
SITE2	Collection Site 2	No current LOINC

SYNCAN *Synthetic Cannabinoids Screen, Urine*

Aspenti Health Laboratory

Important Note

Routine drug screen for inpatients and ambulatory clinics.
Synthetic Cannabinoids Screen, Urine, test information.

Additional Test Codes

Primary ID	Epic Code	Aspenti Test Code
SYNCAN	LAB3726	VBL2300

Test Schedule / Analytical Time / Test Priority

Monday - Friday / 24 Hours / Not Available STAT

Performing Location

Aspenti Health Laboratory

SYPH *SYPHILIS SEROLOGY*

University of Vermont Medical Center

Important Note

This test is subject to reflex testing, see Laboratory Reflex Testing Policy, you have the option to decline reflex testing if you believe it is not medically necessary. Samples that are reactive will reflex an Syphilis Ab IgG (Mayo Test Code SYPGR) and will be sent to Mayo Clinic Laboratories for testing. You have the option to decline reflex testing if you believe it is not medically necessary.
Tis Subject to Medicare Preventive Service Coverage policy for Screening for Sexually Transmitted Infections (STI's) and High Intensity Behavioral Counseling (HIBC) to Prevent STI's.

Additional Test Codes

Primary ID	Epic Code	Mayo Access ID
SYPH	LAB3037	FAH5443

Test Schedule / Analytical Time / Test Priority

Monday - Friday, run starts at 9 am / 3 days / Not available STAT

Method

Chemiluminescence Immunoassay

CPT(s)

Description	CPT Code
Syphillis Serology	86780

Instrumentation

Diasorin Liaison XL

Reference Range

All ages: Negative

Section

Chemistry-2

Performing Location

University of Vermont Medical Center

Is the UVMMC lab NY State Certified to perform this testing? Yes/No

Yes

LOINC Code Information

Result Code	Reporting Name	LOINC Code
SYPH	Syphilis Serology	24110-9

Specimen Information — SYPHILIS SEROLOGY

Container	Specimen	Temperature	Collect Vol	Submit Vol	Minimum Vol	Stability
Serum Separator Tube	Serum	Refrigerate	2.5 mL	0.8 mL	0.5 mL	7 days

Samples that are markedly lipemic, markedly hemolyzed or markedly icteric are not acceptable.

FREET3 *T3, FREE*

University of Vermont Medical Center

Additional Test Codes

Primary ID	Epic Code	Mayo Access ID
FREET3	LAB137	FAH5786

Test Schedule / Analytical Time / Test Priority

Daily / Same day / Available STAT

Method

Chemiluminescence Immunoassay

CPT(s)

Description	CPT Code
T3, Free	84481

Instrumentation

Ortho Vitros 5600

Section

Chemistry-1

Performing Location

University of Vermont Medical Center

Is the UVMMC lab NY State Certified to perform this testing? Yes/No

Yes

LOINC Code Information

Result Code	Reporting Name	LOINC Code
FREET3	T3, Free	3051-0

Specimen Information — T3, FREE

Container	Specimen	Temperature	Collect Vol	Submit Vol	Minimum Vol	Stability
Serum Separator Tube	Serum	Refrigerate	4 mL	0.5 mL	0.2 mL	7 days
Lithium Heparin (Green Top) Tube	Plasma	Refrigerate	4 mL	0.5 mL	0.2 mL	7 days

Reference Range — T3, FREE

Age	Sex	Physiological Status	Low	High	Units
0 - 2 weeks	Male		3.0	12.4	pg/mL
2 weeks - 4 years	Male		3.5	7.4	pg/mL
4 - 13 years	Male		4.3	7.0	pg/mL
13 - 18 years	Male		4.1	6.7	pg/mL
≥18 Years	Male		2.8	5.3	pg/mL
0 - 2 weeks	Female		3.0	12.4	pg/mL
2 weeks - 4 years	Female		3.5	7.4	pg/mL
4 - 13 years	Female		4.3	7.0	pg/mL
13 - 18 years	Female		3.7	6.1	pg/mL
≥18 Years	Female		2.8	5.3	pg/mL

TT3 *T3, TOTAL*

University of Vermont Medical Center

Additional Test Codes

Primary ID	Epic Code	Mayo Access ID
TT3	LAB136	FAH5785

Test Schedule / Analytical Time / Test Priority

Daily / Same day / Available STAT

Method

Chemiluminescence Immunoassay

CPT(s)

Description	CPT Code
T3, Total	84480

Instrumentation

Ortho Vitros 5600

Section

Chemistry-1

Performing Location

University of Vermont Medical Center

Is the UVMMC lab NY State Certified to perform this testing? Yes/No

Yes

LOINC Code Information

Result Code	Reporting Name	LOINC Code
TT3	T3, Total	3053-6

Specimen Information — T3, TOTAL

Container	Specimen	Temperature	Collect Vol	Submit Vol	Minimum Vol	Stability
Serum Separator Tube	Serum	Refrigerate	4 mL	0.5 mL	0.2 mL	7 days
Lithium Heparin (green top)	Plasma	Refrigerate	4 mL	0.5 mL	0.2 mL	7 days
*Green Microtainer		Refrigerate	0.6 mL			7 days

*While a microtainer is an optional tube type in rare circumstances, it is **not recommended.**

Reference Range — T3, TOTAL

Age	Sex	Physiological Status	Low	High	Units
0 - 4 days	All		60	300	ng/dL
4 - 1 year	All		90	260	ng/dL
1 - 7 years	All		90	240	ng/dL
7 - 12 years	All		90	230	ng/dL
12 - 18 years	All		100	210	ng/dL
≥18 years	All		97	169	ng/dL

FRET4 *T4, FREE*

University of Vermont Medical Center

Important Note

Test subject to Medicare National Coverage Determination (NCD) 190.22 - Thyroid Testing.

Additional Test Codes

Primary ID	Epic Code	Mayo Access ID
FRET4	LAB127	FAH5788

Test Schedule / Analytical Time / Test Priority

Daily / Same day / Available STAT

Method

Chemiluminescence Immunoassay

CPT(s)

Description	CPT Code
T4, Free	84439

Instrumentation

Ortho Vitros 5600

Section

Chemistry-1

Performing Location

University of Vermont Medical Center

Is the UVMMC lab NY State Certified to perform this testing? Yes/No

Yes

LOINC Code Information

Result Code	Reporting Name	LOINC Code
FRET4	T4, Free	3024-7

Specimen Information — T4, FREE

Container	Specimen	Temperature	Collect Vol	Submit Vol	Minimum Vol	Stability
SST	Serum	Refrigerate	4 mL	0.5 mL	0.2 mL	7 days
*Yellow Microtainer		Refrigerate	0.6 mL			7 days

*While a microtainer is an optional tube type in rare circumstances, it is **not recommended.**

Reference Range — T4, FREE

Age	Sex	Physiological Status	Low	High	Units
0 - 4 days	All		2.0	5.0	ng/dL
4 days - 1 month	All		0.9	2.2	ng/dL
1 month - 18 years	All		0.8	2.0	ng/dL
≥18 years	All		0.8	2.2	ng/dL

TT4 *T4, TOTAL*

University of Vermont Medical Center

Important Note

Test subject to Medicare National Coverage Determination (NCD) 190.22 - Thyroid Testing.

Additional Test Codes

Primary ID	Epic Code	Mayo Access ID
TT4	LAB126	FAH5787

Test Schedule / Analytical Time / Test Priority

Daily / Same day / Available STAT

Method

Chemiluminescence Immunoassay

CPT(s)

Description	CPT Code
T4	84436

Instrumentation

Ortho Vitros 5600

Section

Chemistry-1

Performing Location

University of Vermont Medical Center

Is the UVMMC lab NY State Certified to perform this testing? Yes/No

Yes

LOINC Code Information

Result Code	Reporting Name	LOINC Code
TT4	T4	3026-2

Specimen Information — T4, TOTAL

Container	Specimen	Temperature	Collect Vol	Submit Vol	Minimum Vol	Stability
SST	Serum	Refrigerate	4 mL	0.5 mL	0.2 mL	5 days
Lithium Heparin (green top)	Plasma	Refrigerate	4 mL	0.5 mL	0.2 mL	5 days
*Green Microtainer		Refrigerate	0.6 mL			5 days

*While a microtainer is an optional tube type in rare circumstances, it is **not recommended.**

Reference Range — T4, TOTAL

Age	Sex	Physiological Status	Low	High	Units
0 - 4 days	All		8.0	20.0	ug/dL
4 days - 1 month	All		5.0	15.0	ug/dL
1 month - 1 year	All		6.0	14.0	ug/dL
1 - 6 years	All		4.5	11.0	ug/dL
6 - 18 years	All		4.5	10.0	ug/dL
≥18 years	All		5.5	11.0	ug/dL

FK506 *TACROLIMUS*

University of Vermont Medical Center

Important Note

Do not spin tube.

Additional Test Codes

Primary ID	Epic Code	Mayo Access ID
FK506	LAB876	FAH248

Test Schedule / Analytical Time / Test Priority

**Monday - Friday, run starts at 12 pm / Same day / Not available STAT
**Will be performed on weekends for inpatients, STAT samples or a patient from Transplant with a cutoff time of 11:00

Method

Chemiluminescence Immunoassay

CPT(s)

Description	CPT Code
Tacrolimus	80197

Instrumentation

Abbott Architect i1000

Reference Range

Therapy dependent

Section

Chemistry-2

Performing Location

University of Vermont Medical Center

Is the UVMMC lab NY State Certified to perform this testing? Yes/No

Yes

LOINC Code Information

Result Code	Reporting Name	LOINC Code
FK506	Tacrolimus (FK506)	32721-3

Specimen Information — TACROLIMUS

Container	Specimen	Temperature	Collect Vol	Submit Vol	Minimum Vol	Stability
Lavender (EDTA) Tube	Whole Blood	Refrigerate	2.5 mL	1 mL	0.5 mL	7 days
Lavender Microtainer	Whole Blood	Refrigerate	0.5 mL			7 days

Do not spin.
*While a microtainer is an optional tube type in rare circumstances, it is **not recommended.**

VTAP *Tapentadol Screen, Urine*

Aspenti Health Laboratory

Important Note

Routine drug screen for inpatients and ambulatory clinics.
Tapentadol Screen, Urine, test information.

Additional Test Codes

Primary ID	Epic Code	Aspenti Test Code
VTAP	LAB3717	VBL2230

Test Schedule / Analytical Time / Test Priority

Monday - Friday / 24 Hours / Not Available STAT

Performing Location

Aspenti Health Laboratory

QFTB4 *TB BY QUANTIFERON GOLD PLUS*

University of Vermont Medical Center

Important Note

TB by Quantiferon Testing has special collection and processing. This test must be scheduled in advance by contacting Laboratory Customer Service at 847-5121 or 1-800-991-2799. This test can only be collected Monday through Friday 8 am - 5 pm. Collection and testing schedule may be subject to change, please contact Laboratory Customer Service if you have questions (847-5121). Please review Special Test Consideration for more information.

Additional Test Codes

Primary ID	Epic Code	Mayo Access ID
QFTB4	LAB3051	FAH5825

Specimen Information

TB by Quantiferon Testing has special collection and processing. This test must be scheduled in advance by contacting Laboratory Customer Service at 847-5121 or 1-800-991-2799. This test can only be collected Monday through Friday 8 am - 5 pm. Collection and testing schedule may be subject to change, please contact Laboratory Customer Service if you have questions (847-5121).

Test Schedule / Analytical Time / Test Priority

Monday, Wednesday and Friday run starts at 8 a.m. / 4 days / Not available STAT

Method

ELISA

CPT(s)

Description	CPT Code
TB by Quantiferon	86480

Instrumentation

Dynex DSX

Reference Range

All ages: Negative

Section

Immunology

Performing Location

University of Vermont Medical Center

Is the UVMMC lab NY State Certified to perform this testing? Yes/No

Yes

LOINC Codes

Result Code	Test Name	LOINC
QFTB4	QuantiFERON TB Gold Plus	71772-1
QFTBR	TB Interpretation	71773-6
QFTTB1	TB1 Ag minus Nil	64084-7
QFTTB2	TB2 Ag minus Nil	88517-8

test *test*

University of Vermont Medical Center

Important Note

Please specify specimen and collection site.
The best specimens for culture are tissue, fluids, aspirates, or curettings.
test requis

Additional Test Codes

Primary ID	Epic Code	Mayo Access ID
RCS	LAB2523	FAH5295

Test Schedule / Analytical Time / Test Priority

Daily / Reported when positive. Negative final at 2 - 5 days / Gram smear available STAT

Method

Culture & Smear

CPT(s)

Description	CPT Code
Gram Stain	87205
Routine Culture	87070

Instrumentation

Manual Method

Reference Range

No growth

Section

Microbiology-1

Performing Location

University of Vermont Medical Center

Is the UVMMC lab NY State Certified to perform this testing? Yes/No

Yes

Order Code LOINC

Order Code	Reporting Name	LOINC Code
In process		

Result Code LOINC(s)

Result Code	Reporting Name	LOINC Code
In process		

Specimen Information — test

Container	Specimen	Temperature	Collect Vol	Submit Vol	Minimum Vol	Stability
Bacterial/Yeast Collection Kit	Variable*	Refrigerate	Swab	Swab in collection kit	Swab in collection kit	
Sterile Container	Tissue**	Refrigerate	2mm	2 mm	1 mm	**
Sterile Container	Fluid**	Ambient	10 mL	10 mL	1 mL	**
Sterile Container	Bone***	Ambient	N/A	N/A	N/A	***

*Samples must be received in lab within 24 hours. Please specify site and source with the laboratory order.
**Deliver to lab immediately, specify site.
***Deliver to lab immediately, swabs are **NOT** acceptable.

TESTO2 *TESTOSTERONE*

University of Vermont Medical Center

Important Note

The results of this assay can be **falsely elevated** due to the consumption of Biotin. Please instruct patients to discontinue the use of vitamins or supplements that contain Biotin 12 hours before blood draw.

Additional Test Codes

Primary ID	Epic Code	Mayo Access ID
TESTO2	LAB124	FAH5763

Test Schedule / Analytical Time / Test Priority

Monday – Friday / 3 days / Not available STAT

Method

Chemiluminescence Immunoassay

CPT(s)

Description	CPT Code
Testosterone	84403

Instrumentation

Siemens ADVIA Centaur XPT

Section

Chemistry-2

Performing Location

University of Vermont Medical Center

Is the UVMMC lab NY State Certified to perform this testing? Yes/No

Yes

LOINC Code Information

Result Code	Reporting Name	LOINC Code
TESTO2	Testosterone	2986-8

Specimen Information — TESTOSTERONE

Container	Specimen	Temperature	Collect Vol	Submit Vol	Minimum Vol	Stability
SST	Serum	Refrigerate	4 mL	2 mL	0.5 mL	7 days

Reference Range — TESTOSTERONE

Age	Sex	Physiological Status	Low	High	Units
2 - 11 Years	Male		<29		ng/dL
11 - 12 Years	Male		<353		ng/dL
12 - 13 Years	Male		<562		ng/dL
13 - 14 Years	Male		8	583	ng/dL
14 - 15 Years	Male		20	777	ng/dL
15 - 16 Years	Male		127	849	ng/dL
16 - 21 Years	Male		113	882	ng/dL
≥21 Years	Male	N/A	229	902	ng/dL
2 - 11 Years	Female		<118		ng/dL
11 - 16 Years	Female		<39		ng/dL
16 - 21 Years	Female		15	42	ng/dL
≥21 Years	Female	Premenopause	9	48	ng/dL
	Female	Postmenopause	<46		ng/dL

The results of this assay can be **falsely elevated** due to the consumption of Biotin. Please instruct patients to discontinue the use of vitamins or supplements that contain Biotin 12 hours before blood draw.

FTES2 *TESTOSTERONE, TOTAL AND FREE*

University of Vermont Medical Center

Important Note

Test includes testoterone (total and free) and sex hormone binding globulin.
Please instruct patients to discontinue the use of vitamins or supplements that contain Biotin 12 hours before blood draw.

Additional Test Codes

Primary ID	Epic Code	Mayo Access ID
FTES2	LAB173	FAH5762

Test Schedule / Analytical Time / Test Priority

Monday – Friday / 3 days / Not available STAT

Method

Chemiluminescence Immunoassay

CPT(s)

Description	CPT Code
Testosterone, Total	84403
Sex Hormone Binding Globulin	84270

Instrumentation

Siemens ADVIA Centaur XPT

Section

Chemistry-2

Performing Location

University of Vermont Medical Center

Is the UVMMC lab NY State Certified to perform this testing? Yes/No

Yes

LOINC Code Information

Result Code	Reporting Name	LOINC Code
TESTO2	Testosterone	2986-8
SHBG2	Sex Hormone Binding Globulin	13967-5
FRTES2	Free Testosterone	2991-8

Specimen Information — TESTOSTERONE, TOTAL AND FREE

Container	Specimen	Temperature	Collect Vol	Submit Vol	Minimum Vol	Stability
SST	Serum	Refrigerate	4 mL	2 mL	0.8 mL	6 days

Reference Range — TESTOSTERONE, TOTAL AND FREE

Testosterone, Free (Calculated)

Age	Sex	Low	High	Units
20 - 25 years	Male	4.7	18.3	ng/dL
25 - 30 years	Male	4.6	17.5	ng/dL
30 - 35 years	Male	4.4	16.8	ng/dL
35 - 40 years	Male	4.2	16.0	ng/dL
40 - 45 years	Male	4.1	15.2	ng/dL
45 - 50 years	Male	4.0	14.5	ng/dL
50 - 55 years	Male	3.8	13.8	ng/dL
55 - 60 years	Male	3.6	13.1	ng/dL
60 - 65 years	Male	6.1	12.4	ng/dL
65 - 70 years	Male	3.3	11.6	ng/dL
70 - 75 years	Male	3.1	10.9	ng/dL
75 - 80 years	Male	2.9	10.1	ng/dL
80 - 85 years	Male	2.7	9.4	ng/dL
85 - 90 years	Male	2.5	8.3	ng/dL
90 - 95 years	Male	2.4	7.9	ng/dL
≥95 years	Male	2.2	7.1	ng/dL
20 - 30 years	Female		≤1.2	ng/dL
30 - 50 years	Female		≤1.1	ng/dL
50 - 65 years	Female		≤1.0	ng/dL
65 - 85 years	Female		≤0.9	ng/dL
≥85 years	Female		≤0.8	ng/dL

See Testosterone TESTO2 and Sex Hormone Binding Globulin SHBG2 for Reference Ranges.

VCAN *THC Metabolites (Cannabinoids) Screen, Urine*

Aspenti Health Laboratory

Important Note

THC Metabolites (Cannabinoids) Screen, Urine, test information.

Additional Test Codes

Primary ID	Epic Code	Aspenti Test Code
VCAN	LAB3730	VBL2240

Test Schedule / Analytical Time / Test Priority

Monday - Friday / 24 Hours / Not Available STAT

Performing Location

Aspenti Health Laboratory

THEOP *THEOPHYLLINE*

University of Vermont Medical Center

Additional Test Codes

Primary ID	Epic Code	Mayo Access ID
THEOP	LAB35	FAH5784

Test Schedule / Analytical Time / Test Priority

Daily / Same day / Available STAT

Method

Chemiluminescence Immunoassay

CPT(s)

Description	CPT Code
Theophylline	80198

Instrumentation

Abbott Architect i1000

Reference Range

All ages: Trough: 10.0 – 20.0 ug/mL

Section

Chemistry-1

Performing Location

University of Vermont Medical Center

Is the UVMMC lab NY State Certified to perform this testing? Yes/No

Yes

LOINC Code Information

Result Code	Reporting Name	LOINC Code
THEOP	Theophylline	4049-3

Specimen Information — THEOPHYLLINE

Container	Specimen	Temperature	Collect Vol	Submit Vol	Minimum Vol	Stability
Serum Separator Tube	Serum	Refrigerate	2 mL	0.5 mL	0.3 mL	7 days
Lithium heparin (green top)	Plasma	Refrigerate	2 mL	0.5 mL	0.3 mL	7 days
*Green Microtainer		Refrigerate	0.6 mL			7 days

*While a microtainer is an optional tube type in rare circumstances, it is **not recommended.**

THT *THROMBIN TIME*

University of Vermont Medical Center

Additional Test Codes

Primary ID	Epic Code	Mayo Access ID
THT	LAB324	FAH247

Test Schedule / Analytical Time / Test Priority

Monday – Friday / 1 day / Not available STAT

Method

Photo Optical Clot Detection

CPT(s)

Description	CPT Code
Thrombin Time	85670

Instrumentation

ACL Top 500

Reference Range

Units: Seconds.
Range varies according to reagent lot, see report or call if needed.

Section

Coagulation

Performing Location

University of Vermont Medical Center

Is the UVMMC lab NY State Certified to perform this testing? Yes/No

Yes

LOINC Code Information

Result Code	Reporting Name	LOINC Code
THT	Thrombin Time	3243-3

Specimen Information — THROMBIN TIME

Container	Specimen	Temperature	Collect Vol	Submit Vol	Minimum Vol	Stability
Blue Top Tube	Whole Blood	Ambient	**To fill line**	To fill line	To fill line	4 hours
Blue Top Tube	Plasma	Frozen	To fill line	1 mL	1 mL	6 months

*Refer to Coagulation Specimen Handling prior to collection. Submit frozen plasma if the lab will not receive the sample within 3 hours.

TEG *THROMBOELASTOGRAPH*

University of Vermont Medical Center

Important Note

This test requires a separate blue top collected just for this test.
This test is subject to reflex testing, see Laboratory Reflex Testing Policy, you have the option to decline reflex testing if you believe it is not medically necessary. if the thrombelastograph assay has an R-value of >10 seconds TEG Heparinase (Additional CPT's billed: 85347, 85384 x 2, 85390, 85576) will be performed.
Phlebotomy or Operating Room collections require a separate blue top tube for testing. This test must be collected at the Main Campus only. The testing must begin within 2 hours. Samples are drawn through a 19-21 gauge butterfly needle. Collect a discard tube of 3 mL of blood prior to collection of the blue top tube. Keep blue top tube capped and at ambient temperature, do not spin. Collection time must be documented on the tube.

Additional Test Codes

Primary ID	Epic Code	Mayo Access ID
TEG	LAB3560	N/A

Test Schedule / Analytical Time / Test Priority

Daily / 24 Hours / Not available STAT

Method

Thromboelastograph

CPT(s)

Description	CPT Code
Activated Coagulation time	85347
Fibrinogen Activity	85384 × 2
Fibrinolysis or Coagulopathy Screen	85390
Platelet Aggregation	85576
Interpretation	85390.26 or 85396

Instrumentation

Thromboelastograph

Reference Range

See report

Section

Coagulation

Performing Location

University of Vermont Medical Center

Is the UVMMC lab NY State Certified to perform this testing? Yes/No

Yes

LOINC Code Information

Result Code	Reporting Name	LOINC Code
TEGR	Reaction Time	52789-5
TEGK	K Time	52768-9
TEGANG	Angle	66748-5
TEGMA	Maximum Amplitude	52778-8
EPL	Estimated % Lysis	66757-6
TEGLY	Clot Lysis	66745-1
TEGINT	Interpretation	69049-5
TEGPL	Patient Location	56816-2

Specimen Information — THROMBOELASTOGRAPH

Container	Specimen	Temperature	Collect Vol	Submit Vol	Minimum Vol	Stability
Blue Top Tube	Whole Blood	Ambient	3.5 mL To fill line	3.5 mL	3.5 mL	2 hours

The sample must be collected at the Main Campus. This test requires a separate blue top collected just for this test. Testing must begin within 2-hours. Samples are drawn through a 19-21 gauge butterfly needle. Collect a discard tube of 3 mL of blood prior to collection of the blue top tube. Keep Blue Top tube capped and at ambient temperature, do not spin. Collection time must be documented on the tube.

ATGL *THYROGLOBIN ANTIBODY*

University of Vermont Medical Center

Additional Test Codes

Primary ID	Epic Code	Mayo Access ID
ATGL	LAB515	FAH5484

Test Schedule / Analytical Time / Test Priority

Monday - Friday / 3 days / Not available STAT

Method

Chemiluminescence Immunoassay

CPT(s)

Description	CPT Code
Anti Thyroglobulin	86800

Instrumentation

Siemens Advia Centaur XPT

Reference Range

All ages: ≤60 U/mL

Section

Chemistry-2

Performing Location

University of Vermont Medical Center

Is the UVMMC lab NY State Certified to perform this testing? Yes/No

Yes

LOINC Code Information

Result Code	Reporting Name	LOINC Code
ATGL	Anti Thyroglobulin	56536-6

Specimen Information — THYROGLOBIN ANTIBODY

Container	Specimen	Temperature	Collect Vol	Submit Vol	Minimum Vol	Stability
Serum Separator Tube	Serum	Refrigerate	4 mL	0.5 mL	0.3 mL	7 days

THYRAB *THYROID ANTIBODIES*

University of Vermont Medical Center

Important Note

Test includes Thyroperoxidase Antibodiy (TPO) and Thyroglobin Antibody (ATGL).

Additional Test Codes

Primary ID	Epic Code	Mayo Access ID
THYRAB	LAB128	FAH5483

Test Schedule / Analytical Time / Test Priority

Monday – Friday / 3 days / Not available STAT

Method

Chemiluminescence Immunoassay

CPT(s)

See individual tests.

Instrumentation

Siemens ADVIA Centaur XPT

Reference Range

See individual tests.

Section

Chemistry-1

Performing Location

University of Vermont Medical Center

Is the UVMMC lab NY State Certified to perform this testing? Yes/No

Yes

LOINC Code Information

Result Code	Reporting Name	LOINC Code
ATGL	Anti Thyroglobulin	56536-6
TPO	Thyroperoxidase Ab	56477-3

Specimen Information — THYROID ANTIBODIES

Container	Specimen	Temperature	Collect Vol	Submit Vol	Minimum Vol	Stability
Serum Separator Tube	Serum	Refrigerate	4 mL	1 mL	1 mL	7 days

THCAS *THYROID CASCADE*

University of Vermont Medical Center

Important Note

The Thyroid cascade is a reflex test where the reflex is part of the order and there is no option to decline the testing. TSH is done first. If the TSH is outside normal range a Free-T4 is ordered automatically (CPT: 84439). If the TSH is low and the Free-T4 is normal based on the appropriate reference range for the age/sex of the patient a Total -T3 is ordered (CPT: 84480).
Test subject to Medicare National Coverage Determination (NCD) 190.22 - Thyroid Testing.
Test is designed for ambulatory adults only.

Additional Test Codes

Primary ID	Epic Code	Mayo Access ID
THCAS	LAB2103	FAH5791

Test Schedule / Analytical Time / Test Priority

Daily / 1 day / Available STAT

Method

See individual tests

CPT(s)

See individual tests

Instrumentation

Ortho Vitros 5600

Reference Range

See Individual Tests

Section

Chemistry-1

Performing Location

University of Vermont Medical Center

Is the UVMMC lab NY State Certified to perform this testing? Yes/No

Yes

LOINC Code Information

Result Code	Reporting Name	LOINC Code
TSH3	TSH	3016-3

Specimen Information — THYROID CASCADE

Container	Specimen	Temperature	Collect Vol	Submit Vol	Minimum Vol	Stability
Serum Separator Tube	Serum	Refrigerate	4 mL	1 mL	0.6 mL	7 days

TSH3 *THYROID STIMULATING HORMONE*

University of Vermont Medical Center

Important Note

Test subject to Medicare National Coverage Determination (NCD) 190.22 - Thyroid Testing.
The results of this assay can be **falsely lowered** due to the consumption of Biotin. Please instruct patients to discontinue the use of vitamins or supplements that contain Biotin 12 hours before blood collection.

Additional Test Codes

Primary ID	Epic Code	Mayo Access ID
TSH3	LAB129	FAH5790

Test Schedule / Analytical Time / Test Priority

Daily / 1 day / Available STAT

Method

Immunoturbidometric

CPT(s)

Description	CPT Code
TSH	84443

Instrumentation

Ortho Vitros 5600

Section

Chemistry-1

Performing Location

University of Vermont Medical Center

Is the UVMMC lab NY State Certified to perform this testing? Yes/No

Yes

Result / LOINC Code Information

SQ Result Code	Reporting Name	LOINC Code
TSH3	TSH	3016-3

Specimen Information — THYROID STIMULATING HORMONE

Container	Specimen	Temperature	Collect Vol	Submit Vol	Minimum Vol	Stability
Serum Separator Tube	Serum	Refrigerate	4 mL	0.5 mL	0.2 mL	7 days
*Green Microtainer		Refrigerate	0.6 mL			7 days

*While a microtainer is an optional tube type in rare circumstances, it is **not recommended.**

Reference Range — THYROID STIMULATING HORMONE

Age	Sex	Physiological Status	Low	High	Units
0 - 4 days	All		1.00	20.00	uIU/mL
4 - 1 month	All		0.50	6.50	uIU/mL
1 month - 6 months	All		0.50	6.00	uIU/mL
6 months - 18 years	All		0.50	4.50	uIU/mL
≥18 years	All		0.47	4.68	uIU/mL

The results of this assay can be **falsely lowered** due to the consumption of Biotin. Please instruct patients to discontinue the use of vitamins or supplements that contain Biotin 12 hours before blood collection.

TPO *THYROPEROXIDASE ANTIBODY*

University of Vermont Medical Center

Additional Test Codes

Primary ID	Epic Code	Mayo Access ID
TPO	LAB2104	FAH5485

Test Schedule / Analytical Time / Test Priority

Monday - Friday / 3 days / Not available STAT

Method

Chemiluminescence Immunoassay

CPT(s)

Description	CPT Code
Thyroperoxidase Antibody	86376

Instrumentation

Siemens Advia Centaur XPT

Reference Range

All ages: ≤60 U/mL

Section

Chemistry-2

Performing Location

University of Vermont Medical Center

Is the UVMMC lab NY State Certified to perform this testing? Yes/No

Yes

LOINC Code Information

Result Code	Reporting Name	LOINC Code
TPO	Thyroperoxidase Ab	56477-3

Specimen Information — THYROPEROXIDASE ANTIBODY

Container	Specimen	Temperature	Collect Vol	Submit Vol	Minimum Vol	Stability
Serum Separator Tube	Serum	Refrigerate	4 mL	0.5 mL	0.3 mL	7 days

TTAB *TISSUE TRANSGLUTAMINASE ANTIBODY IgA*

University of Vermont Medical Center

Additional Test Codes

Primary ID	Epic Code	Mayo Access ID
TTAB	LAB723	FAH5587

Test Schedule / Analytical Time / Test Priority

Monday, Wednesday, and Friday / 4 days / Not available STAT

Method

ELISA

CPT(s)

Description	CPT
Tissue Transglutaminase Ab, IgA	83516

Instrumentation

Dynex DSX

Reference Range

All Ages:
Negative: <4 U/mL
Weak Positive: 4-10 U/mL
Positive: >10 U/mL

Section

Immunology

Performing Location

University of Vermont Medical Center

Is the UVMMC lab NY State Certified to perform this testing? Yes/No

Yes

LOINC Code Information

Result Code	Reporting Name	LOINC Code
TTAB	Tissue Transglut Ab	46128-5

Specimen Information — TISSUE TRANSGLUTAMINASE ANTIBODY IgA

Container	Specimen	Temperature	Collect Vol	Submit Vol	Minimum Vol	Stability
Serum Separator Tube	Serum	Refrigerate	4 mL	0.5 mL	0.4 mL	7 days
Serum Separator Tube	Serum	Frozen	4mL	0.5 mL	0.4 mL	21 days

Non-UVMMC clients must send samples frozen. For samples being sent frozen, serum should be separated from clotted blood within 4 hours of collection and frozen at ≤-20 C

TOBRP *TOBRAMYCIN, PEAK*

University of Vermont Medical Center

Important Note
Peak levels should be collected 30 minutes after completion of the infusion.

Additional Test Codes

Primary ID	Epic Code	Mayo Access ID
TOBRP	LAB36	FAH4967

Test Schedule / Analytical Time / Test Priority
Daily / 24 Hours / Available STAT

Method
Chemiluminescence Immunoassay

CPT(s)

Description	CPT Code
Tobramycin	80200

Instrumentation
Ortho Vitros 5600

Reference Range
All ages:
Peak: 5 – 12 ug/mL
Call Value: >12 ug/mL

Section
Chemistry-2

Performing Location
University of Vermont Medical Center

Is the UVMMC lab NY State Certified to perform this testing? Yes/No
Yes

LOINC Code Information

Result Code	Reporting Name	LOINC Code
TBMP	Tobra Peak	4057-6
DTYPE	Type of Draw	20506-2

Specimen Information — TOBRAMYCIN, PEAK

Container	Specimen	Temperature	Collect Vol	Submit Vol	Minimum Vol	Stability
Serum Separator Tube	Serum	Refrigerate	4 mL	0.4 mL	0.2 mL	3 days**
Lithium heparin (green top)	Plasma	Refrigerate	4 mL	0.4 mL	0.2 mL	5 days*
**Green Microtainer		Refrigerate	0.6 mL			5 days*

**When collected in a serum separator tube is stable for 3 days on the gel and 5 days removed from gel and refrigerated.
*When collected in a Green Top Tube, plasma must be removed within one hour. It is then stable 5 days refrigerated.
*While a microtainer is an optional tube type in rare circumstances, it is **not recommended.**

TOBRA *TOBRAMYCIN, RANDOM*

University of Vermont Medical Center

Additional Test Codes

Primary ID	Epic Code	Mayo Access ID
TOBRA	LAB37	FAH4908

Test Schedule / Analytical Time / Test Priority

Daily / 1 day / Available STAT

Method

Chemiluminescence Immunoassay

CPT(s)

Description	CPT Code
Tobramycin	80200

Instrumentation

Ortho Vitros 5600

Reference Range

No established reference range.

Section

Chemistry-2

Is the UVMMC lab NY State Certified to perform this testing? Yes/No

Yes

LOINC Code Information

Result Code	Reporting Name	LOINC Code
TOBRA	Tobramycin, Random	35670-9

Specimen Information — TOBRAMYCIN, RANDOM

Container	Specimen	Temperature	Collect Vol	Submit Vol	Minimum Vol	Stability
Serum Separator Tube	Serum	Refrigerate	4 mL	0.4 mL	0.2 mL	3 days**
Lithium heparin (green top)	Plasma	Refrigerate	4 mL	0.4 mL	0.2 mL	5 days*
**Green Microtainer			0.6 mL			5 days*

**When collected in a serum separator tube is stable for 3 days on the gel and 5 days removed from gel and refrigerated.
*When collected in a Green Top Tube, plasma must be removed within one hour. It is then stable 5 days refrigerated.
*While a microtainer is an optional tube type in rare circumstances, it is **not recommended.**

TOBRT *TOBRAMYCIN, TROUGH*

University of Vermont Medical Center

Important Note
Trough levels should be collected 30 minutes before the next dose.

Additional Test Codes

Primary ID	Epic Code	Mayo Access ID
TOBRT	LAB38	FAH4988

Test Schedule / Analytical Time / Test Priority
Daily / 24 Hours / Available STAT

Method
Chemiluminescence Immunoassay

CPT(s)

Description	CPT Code
Tobramycin	80200

Instrumentation
Ortho Vitros 5600

Reference Range
All ages:
Trough: <1.5 ug/mL
Call Value: >1.5 ug/mL

Section
Chemistry-2

Performing Location
University of Vermont Medical Center

Is the UVMMC lab NY State Certified to perform this testing? Yes/No
Yes

LOINC Code Information

Result Code	Reporting Name	LOINC Code
TBMT	Tobra Trough	4059-2
DTYPE	Type of Draw	20506-2

Specimen Information — TOBRAMYCIN, TROUGH

Container	Specimen	Temperature	Collect Vol	Submit Vol	Minimum Vol	Stability
Serum Separator Tube	Serum	Refrigerate	4 mL	0.4 mL	0.2 mL	3 days**
Lithium heparin (green top)	Plasma	Refrigerate	4 mL	0.4 mL	0.2 mL	5 days*
**Green Microtainer		Refrigerate	0.6 mL			5 days*

**When collected in a serum separator tube is stable for 3 days on the gel and 5 days removed from gel and refrigerated.
*When collected in a Green Top Tube, plasma must be removed within one hour. It is then stable 5 days refrigerated.
*While a microtainer is an optional tube type in rare circumstances, it is **not recommended.**

VTRAM *Tramadol Screen, Urine*

Aspenti Health Laboratory

Important Note

Routine drug screen for inpatients and ambulatory clinics.
Tramadol Screen, Urine , test information.

Additional Test Codes

Primary ID	Epic Code	Aspenti Test Code
VTRAM	LAB3721	VBL2250

Test Schedule / Analytical Time / Test Priority

Monday - Friday / 24 Hours / Not Available STAT

Performing Location

Aspenti Health Laboratory

TRFS *TRANSFERRIN*

University of Vermont Medical Center

Important Note

Test subject to Medicare National Coverage Determination 190.18 - Serum Iron Studies.

Additional Test Codes

Primary ID	Epic Code	Mayo Access ID
TRFS	LAB133	FAH5818

Test Schedule / Analytical Time / Test Priority

Monday – Friday / 3 days / Not available STAT

Method

Immunoturbidometric

CPT(s)

Description	CPT Code
Transferrin	84466

Instrumentation

Binding Site Optilite

Section

Chemistry-2

Performing Location

University of Vermont Medical Center

Is the UVMMC lab NY State Certified to perform this testing? Yes/No

Yes

LOINC Code Information

Result Code	Reporting Name	LOINC Code
TRF	Transferrin	3034-6

Specimen Information — TRANSFERRIN

Container	Specimen	Temperature	Collect Vol	Submit Vol	Minimum Vol	Stability
Serum Separator Tube	Serum	Refrigerate	2.5 mL	0.5 mL	0.2 mL	7 days
*Yellow Microtainer		Refrigerate	0.6 mL			7 days

Heparinized plasma (green top) is NOT acceptable. Markedly hemolyzed or lipemic samples are not acceptable.
*While a microtainer is an optional tube type in rare circumstances, it is **not recommended.**

Reference Range — TRANSFERRIN

Age	Sex	Physiological Status	Low	High	Units
0 - 3 months	All		130	275	mg/dL
≥ 3 months	All		201	352	mg/dL

TRSAT *TRANSFERRIN SATURATION*

University of Vermont Medical Center

Important Note

Testing includes testing for Iron and Iron Binding Capacity.
Test subject to Medicare National Coverage Determination (NCD) 190.18 - Serum Iron Studies.

Additional Test Codes

Primary ID	Epic Code	Mayo Access ID
TRSAT	LAB2105	FAH5284

Test Schedule / Analytical Time / Test Priority

Daily / Same day / Not available STAT

Method

Calculated

CPT(s)

See individual tests.

Instrumentation

Ortho Vitros 5600

Reference Range

Transferrin Saturation All Ages: 15-45%
Also see Iron and Iron Binding Capacity.

Section

Chemistry-1

Performing Location

University of Vermont Medical Center

Is the UVMMC lab NY State Certified to perform this testing? Yes/No

Yes

LOINC Code Information

Result Code	Reporting Name	LOINC Code
IRON	Iron	2498-4
IBC	IBC	2500-7
IRSAT	Transferrin Saturation	2502-3

Specimen Information — TRANSFERRIN SATURATION

Container	Specimen	Temperature	Collect Vol	Submit Vol	Minimum Vol	Stability
Serum Separator Tube	Serum	Refrigerate	4 mL	2 mL	1 mL	7 days

TRIOP *TRICHROME STAIN FOR PARASITES*

University of Vermont Medical Center

Important Note

If Cryptosporidium, Cyclospora or Microsporidium are suspected, specific tests must be requested.

Additional Test Codes

Primary ID	Epic Code	Mayo Access ID
TRIOP	LAB2551	FAH5298

Test Schedule / Analytical Time / Test Priority

Monday – Friday / Same day / Not available STAT

Method

Microscopic Exam

CPT(s)

Description	CPT Code
Trichrome Stain for Parasites	87209

Instrumentation

Manual Methods

Reference Range

No ova or parasites seen

Section

Microbiology-2

Performing Location

University of Vermont Medical Center

Is the UVMMC lab NY State Certified to perform this testing? Yes/No

Yes

LOINC Code Information

Order Code	Reporting Name	LOINC Code
TRIOP	Trichrome Stain for Parasites	43227-8

Specimen Information — TRICHROME STAIN FOR PARASITES

Container	Specimen	Temperature	Collect Vol	Submit Vol	Minimum Vol
Sterile Container	Gastric Brushings	Ambient	N/A	N/A	N/A

Deliver specimen to laboratory as soon as collected.

TCA2 *TRICYCLIC ANTIDEPRESSANT SCREEN, URINE*

University of Vermont Medical Center

Important Note

For the Emergency Department and Labor and Delivery only.
This screen is intended for use in clinical monitoring or management of patients.
This test is subject to Medicare National Coverage Determination (LCD) L36037-Urine Drug Testing.

Additional Test Codes

Primary ID	Epic Code	Mayo Access ID
TCA2	LAB3676	FAH5778

Test Schedule / Analytical Time / Test Priority

Daily / Same day / Available STAT

Method

Immunochromatography

CPT(s)

Description	CPT Code
Tricyclic Antidepressant Screen	80306

Instrumentation

MEDTOX Scan

Reference Range

This screen is intended for use in clinical monitoring or management of patients.

Section

Chemistry-1

Performing Location

University of Vermont Medical Center

Is the UVMMC lab NY State Certified to perform this testing? Yes/No

Yes

LOINC Code Information

Result Code	Reporting Name	LOINC Code
TCA2	Tricyclic Antidepressants Screen, Urine	19312-8

Specimen Information — TRICYCLIC ANTIDEPRESSANT SCREEN, URINE

Container	Specimen	Temperature	Collect Vol	Submit Vol	Minimum Vol	Stability
Sterile Container	Urine	Refrigerate	50 mL	50 mL	30 mL	2 days
Sterile Container	Urine	Refrigerate	50 mL	50 mL	30 mL	30 days

TRIG *TRIGLYCERIDE*

University of Vermont Medical Center

Important Note

Test subject to Medicare National Coverage Determination (NCD) Cardiovascular Screening Blood Tests. and 190.23 - Lipids Testing
The patient should be fasting, as reference range is based on fasting individuals.

Additional Test Codes

Primary ID	Epic Code	Mayo Access ID
TRIG	LAB134	FAH4959

Test Schedule / Analytical Time / Test Priority

Daily / 24 Hours / Available STAT

Method

Colorimetric

CPT(s)

Description	CPT Code
Triglyceride	84478

Instrumentation

Ortho Vitros 5600

Reference Range

≥18 years	Normal: <150 mg/dL Borderline High: 150 - 199 mg/dL High: 200 - 499 mg/dL Very High: ≥ 500 mg/dL
10 - 18 Years	Acceptable: <90 mg/dL Borderline: 90 - 129 mg/dL High: ≥130 mg/dL
0 - 10 Years	Acceptable: <75 mg/dL Borderline: 75 - 99 mg/dL High: ≥100 mg/dL
	The patient should be fasting, as reference range is based on fasting individuals.

Section

Chemistry-1

Performing Location

University of Vermont Medical Center

Is the UVMMC lab NY State Certified to perform this testing? Yes/No

Yes

LOINC Code Information

Result Code	Reporting Name	LOINC Code
TRIG	Triglyceride	2571-8

Specimen Information — TRIGLYCERIDE

Container	Specimen	Temperature	Collect Vol	Submit Vol	Minimum Vol	Stability
SST	Serum	Refrigerate	4 mL	0.6 mL	0.3 mL	7 days
Lithium heparin (green top)	Plasma	Refrigerate	4 mL	0.6 mL	0.3 mL	7 days
*Green Microtainer		Refrigerate	0.6 mL			7 days

Fasting specimen preferred.
*While a microtainer is an optional tube type in rare circumstances, it is **not recommended.**

TROPI *TROPONIN I*

University of Vermont Medical Center

Important Note

The results of this assay can be **falsely lowered** due to the consumption of Biotin. Please instruct patients to discontinue the use of vitamins or supplements that contain Biotin 12 hours before blood collection.

Additional Test Codes

Primary ID	Epic Code	Mayo Access ID
TROPI	LAB747	FAH5501

Test Schedule / Analytical Time / Test Priority

Daily / 24 Hours / Available STAT

Method

Immunoturbidometric

CPT(s)

Description	CPT Code
Troponin I	84484

Instrumentation

Ortho Vitros 5600

Reference Range

<0.034 ng/mL
The results of this assay can be **falsely lowered** due to the consumption of Biotin. Please instruct patients to discontinue the use of vitamins or supplements that contain Biotin 12 hours before blood collection.

Section

Chemistry-1

Performing Location

University of Vermont Medical Center

Is the UVMMC lab NY State Certified to perform this testing? Yes/No

Yes

LOINC Code Information

Result Code	Reporting Name	LOINC Code
TROPI	Troponin I	10839-9

Specimen Information — TROPONIN I

Container	Specimen	Temperature	Collect Vol	Submit Vol	Minimum Vol	Stability
Lithium Heparin (green top)	Plasma	Refrigerate	4 mL	1 mL	1 mL	7 days
*Green Microtainer		Refrigerate	0.6 mL			7 days

Plasma may be stored up to 7 days refrigerated. Serum samples **will not** be accepted.
*While a microtainer is an optional tube type in rare circumstances, it is **not recommended.**

FTRIG *TRYGLYCERIDE, FLUID*

University of Vermont Medical Center

Important Note
Best interpreted in the context of a paired serum or plasma Triglyceride value.

Additional Test Codes

Primary ID	Epic Code	Mayo Access ID
FTRIG	LAB3111	FAH5726

Test Schedule / Analytical Time / Test Priority
Daily / 24 Hours / Available STAT

Method
Colorimetric

CPT(s)

Description	CPT Code
In process	

Instrumentation
Ortho Vitros 5600

Reference Range
No established reference range.
Best interpreted in the context of a paired serum or plasma Triglyceride value.

Section
Chemistry-1

Performing Location
University of Vermont Medical Center

Is the UVMMC lab NY State Certified to perform this testing? Yes/No
Yes

LOINC Code Information

Result Code	Reporting Name	LOINC Code
FTRIG	Triglycerides, Fluid	12228-3

Specimen Information — TRYGLYCERIDE, FLUID

Container	Specimen	Temperature	Collect Vol	Submit Vol	Minimum Vol	Stability
Sterile Container	Pleural or Peritoneal only	Refrigerate	2 mL	1 mL	0.2 mL	5 days

UUN24 *UREA NITROGEN, URINE, 24 HOUR*

University of Vermont Medical Center

Additional Test Codes

Primary ID	Epic Code	Mayo Access ID
UUN24	LAB449	FAH5875

Test Schedule / Analytical Time / Test Priority

Daily 8 am-4:30 pm / Same day / Not available STAT

Method

Colorimetric

CPT(s)

Description	CPT Code
Urea Nitrogen, Urine	84540

Instrumentation

Ortho Vitros 5600

Reference Range

All ages: 12 – 20 g/24 Hours

Section

Chemistry-1

Performing Location

University of Vermont Medical Center

Is the UVMMC lab NY State Certified to perform this testing? Yes/No

Yes

LOINC Code Information

Result Code	Reporting Name	LOINC Code
UUNR	Urea Nitrogen, Ur Rand	3095-7
UUNCAL	24h Calc	3096-5

Specimen Information — UREA NITROGEN, URINE, 24 HOUR

Container	Specimen	Temperature	Collect Vol	Submit Vol	Minimum Vol	Stability
24 Hour Urine Jug A	24 Hour Urine	Refrigerate	24 Hour Urine	5 mL	2 mL	5 days

UUNR *UREA NITROGEN, URINE, RANDOM*

University of Vermont Medical Center

Additional Test Codes

Primary ID	Epic Code	Mayo Access ID
UUNR	LAB748	FAH5044

Test Schedule / Analytical Time / Test Priority

Daily 8 am-4:30 pm / Same day / Not available STAT

Method

Colorimetric

CPT(s)

Description	CPT Code
Urea Nitrogen, Urine	84540

Instrumentation

Ortho Vitros 5600

Reference Range

No established reference range.

Section

Chemistry-1

Performing Location

University of Vermont Medical Center

Is the UVMMC lab NY State Certified to perform this testing? Yes/No

Yes

LOINC Code Information

Result Code	Reporting Name	LOINC Code
UUNR	Urea Nitrogen, Ur, Random	3095-7

Specimen Information — UREA NITROGEN, URINE, RANDOM

Container	Specimen	Temperature	Collect Vol	Submit Vol	Minimum Vol	Stability
Sterile Container	Urine	Refrigerate	50 ml	50 mL	2 mL	5 days

URR *UREA REDUCTION RATE*

University of Vermont Medical Center

Important Note
Postdialysis BUN with URR calculation.

Additional Test Codes

Primary ID	Epic Code	Mayo Access ID
URR	LAB2111	N/A

Test Schedule / Analytical Time / Test Priority
Daily / 24 hours / Not available STAT

Method
Colorimetric

CPT(s)

Description	CPT Code
BUN Post Dialysis	84520.91

Instrumentation
Ortho Vitros 5600

Reference Range
No established reference range.

Section
Chemistry-1

Performing Location
University of Vermont Medical Center

Is the UVMMC lab NY State Certified to perform this testing? Yes/No
Yes

LOINC Code Information

Result Code	Reporting Name	LOINC Code
BUNPOS	BUN, Postdialysis	11064-3
URRCAL	Urea Reduction Rate	54456-9

Specimen Information — UREA REDUCTION RATE

Container	Specimen	Temperature	Collect Vol	Submit Vol	Minimum Vol	Stability
Lithium heparin (green top)	Plasma	Refrigerate	4 mL	0.6 mL	0.3 mL	5 days

URIC *URIC ACID*

University of Vermont Medical Center

Additional Test Codes

Primary ID	Epic Code	Mayo Access ID
URIC	LAB141	FAH4964

Test Schedule / Analytical Time / Test Priority

Daily / 24 Hours / Available STAT

Method

Colorimetric

CPT(s)

Description	CPT Code
Uric Acid	84550

Instrumentation

Ortho Vitros 5600

Section

Chemistry-1

Performing Location

University of Vermont Medical Center

Is the UVMMC lab NY State Certified to perform this testing? Yes/No

Yes

LOINC Code Information

Result Code	Reporting Name	LOINC Code
URIC	Uric Acid	3084-1

Specimen Information — URIC ACID

Container	Specimen	Temperature	Collect Vol	Submit Vol	Minimum Vol	Stability
SST	Serum	Refrigerate	4 mL	0.6 mL	0.3 mL	5 days
Lithium heparin (green top)	Plasma	Refrigerate	4 mL	0.6 mL	0.3 mL	5 days
*Green Microtainer		Refrigerate	0.6 mL			5 days

*While a microtainer is an optional tube type in rare circumstances, it is **not recommended.**

Reference Range — URIC ACID

Age	Sex	Physiological Status	Low	High	Units
0 - 15 days	Male		2.8	12.6	mg/dL
15 days - 1 year	Male		1.7	6.3	mg/dL
1 - 12 years	Male		1.9	4.9	mg/dL
12 - 19 years	Male		2.7	7.6	mg/dL
≥19 years	Male		3.9	9.0	mg/dL
0 - 15 days	Female		2.8	12.6	mg/dL
15 days - 1 year	Female		1.7	6.3	mg/dL
1 - 12 years	Female		1.9	4.9	mg/dL
12 - 19 years	Female		2.6	5.9	mg/dL
≥19 years	Female		2.2	7.7	mg/dL

EURIC *URIC ACID, ELITEK*

University of Vermont Medical Center

Important Note

Collect blood in prechilled green top tube, label tube first. Sample must be maintained in an ice bath on route to the lab.

Additional Test Codes

Primary ID	Epic Code	Mayo Access ID
EURIC	LAB2061	N/A

Test Schedule / Analytical Time / Test Priority

Daily / 24 Hours / Available STAT

Method

Colorimetric

CPT(s)

Description	CPT Code
Uric Acid Elitek	84550

Instrumentation

Ortho Vitros 5600

Section

Chemistry-1

Performing Location

University of Vermont Medical Center

Is the UVMMC lab NY State Certified to perform this testing? Yes/No

Yes

LOINC Code Information

Result Code	Reporting Name	LOINC Code
EURIC	Elitek, Uric Acid	3084-1

Specimen Information — URIC ACID, ELITEK

Container	Specimen	Temperature	Collect Vol	Submit Vol	Minimum Vol	Stability
Green Top (lithium heparin)	Plasma	*Ice	2.5 mL	1 mL	0.3 mL	4 hours

Collect blood in prechilled green top tube, label tube first. Sample must be maintained in an ice bath on route to the lab.

Reference Range — URIC ACID, ELITEK

ge	Sex	Physiological Status	Low	High	Units
0 - 15 days	Male		2.8	12.6	mg/dL
15 days - 1 year	Male		1.7	6.3	mg/dL
1 - 12 years	Male		1.9	4.9	mg/dL
12 - 19 years	Male		2.7	7.6	mg/dL
≥19 years	Male		3.9	9.0	mg/dL
0 - 15 days	Female		2.8	12.6	mg/dL
15 days - 1 year	Female		1.7	6.3	mg/dL
1 - 12 years	Female		1.9	4.9	mg/dL
12 - 19 years	Female		2.6	5.9	mg/dL
≥19 years	Female		2.2	7.7	mg/dL

UUA24 *URIC ACID, URINE, 24 HOUR*

University of Vermont Medical Center

Additional Test Codes

Primary ID	Epic Code	Mayo Access ID
UUA24	LAB841	FAH5876

Test Schedule / Analytical Time / Test Priority

Daily / Same day / Not available STAT

Method

Colorimetric

CPT(s)

Description	CPT Code
Uric Acid, Urine	84560

Instrumentation

Ortho Vitros 5600

Reference Range

All ages: 250 – 750 mg/24hours

Section

Chemistry-1

Performing Location

University of Vermont Medical Center

Is the UVMMC lab NY State Certified to perform this testing? Yes/No

Yes

LOINC Code Information

Result Code	Reporting Name	LOINC Code
UUAR	Uric Acid, Urn Random	No current LOINC
UUA24C	24h Calc	3087-4

Specimen Information — URIC ACID, URINE, 24 HOUR

Container	Specimen	Temperature	Collect Vol	Submit Vol	Minimum Vol	Stability
24 Hour Urine jug A	24 Hour Urine	Refrigerate	24 hour Urine	10 mL	2 mL	3 days

UUAR *URIC ACID, URINE, RANDOM*

University of Vermont Medical Center

Additional Test Codes

Primary ID	Epic Code	Mayo Access ID
UUAR	LAB450	FAH4931

Test Schedule / Analytical Time / Test Priority

Daily / Same day / Not available STAT

Method

Colorimetric

CPT(s)

Description	CPT Code
Uric Acid, Urine	84560

Instrumentation

Ortho Vitros 5600

Reference Range

No established reference range

Section

Chemistry-1

Performing Location

University of Vermont Medical Center

Is the UVMMC lab NY State Certified to perform this testing? Yes/No

Yes

LOINC Code Information

Result Code	Reporting Name	LOINC Code
UUAR	Uric Acid, Urn Random	No current LOINC

Specimen Information — URIC ACID, URINE, RANDOM

Container	Specimen	Temperature	Collect Vol	Submit Vol	Minimum Vol	Stability
Sterile Container	Urine	Refrigerate	50 mL	10 mL	2 mL	3 days

ARKUA *URINALYSIS CHEMICAL, AUTOMATED*

University of Vermont Medical Center

Important Note

Clean catch specimen preferred. First morning voided urine preferred. Samples greater than 8 hours old may be unreliable.

Additional Test Codes

Primary ID	Epic Code	Mayo Access ID
ARKUA	Not orderable in Epic	N/A

Test Schedule / Analytical Time / Test Priority

Daily / 24 Hours / Available STAT

Method

Arkray UA Chemistry Strip

CPT(s)

Description	CPT Code
Urinalysis	81003

Instrumentation

Arkray Aution Hybrid AU-4050

Reference Range

Chemical:
Specific Gravity: 1.001 – 1.035
Bilirubin: Negative
Blood: Negative
Glucose: Negative
Ketones: Negative
Leukocyte Esterase: Negative
Nitrite: Negative
Protein: Negative
Urobilinogen: 0.2 - 1.0 mg/dL
pH: 4.6 – 8.0
Sediment:
WBC: 0-3/HPF
RBC: 0-2/HPF
Squamous Epithelial Cells: None Seen
Hyaline Casts: ≤10/LPF
Bacteria: None Seen

Section

Chemistry 1

Performing Location

University of Vermont Medical Center

Is the UVMMC lab NY State Certified to perform this testing? Yes/No

No

LOINC Code Information

Result Code	Reporting Name	LOINC Code
UCOL	Color	5778-6
UCLAR	Clarity	32167-9
UGLU	Glucose	25428-4
UBIL	Bilirubin	5770-3
UKET	Ketones	2514-8
USG	Spec. Gravity	5811-5
UBLD	Blood	5794-3
UPH	pH	5803-2
UPROT	Protein	20454-5
UURO	Urobilin.	20405-7
UNIT	Nitrite	5802-4
ULEU	Leuk. Est.	5799-2

Specimen Information — URINALYSIS CHEMICAL, AUTOMATED

Container	Specimen	Temperature	Collect Vol	Submit Vol	Minimum Vol	Stability
Sterile Container	Urine	Refrigerate	10 mL	10 mL	5 mL	1 day

Clean catch specimen preferred. First morning voided urine preferred. Samples greater than 8 hours old may be unreliable.

ARKIP *URINALYSIS FOR INFECTION PANEL*

University of Vermont Medical Center

Important Note

Urinalysis Infection Panel

Links to
Urinalysis, Chemical (dipstick only)
Urinalysis, Sediment Analysis
Reflex to Bacterial Culture Reflex

Additional Test Codes

Primary ID	Epic Code	Mayo Access ID
ARKIP	In process	N/A

ARKKUD *URINALYSIS TESTING FOR KIDNEY/URINARY TRACT DISEASE*

University of Vermont Medical Center

Important Note

Urinalysis for Kidney Urinary Tract Disease
Links to
Urinalysis, Chemical (dipstick only)
Urinalysis, Sediment Analysis

Additional Test Codes

Primary ID	Epic Code	Mayo Access ID
ARKKUP-Available 11/9/2019	In process	N/A

ARKCOM *URINALYSIS, CHEMICAL AND SEDIMENT, AUTOMATED*

University of Vermont Medical Center

Important Note

Clean catch specimen preferred. First morning voided urine preferred. Samples greater than 8 hours old may be unreliable.

Additional Test Codes

Primary ID	Epic Code	Mayo Access ID
ARKCOM	Not orderable in Epic	N/A

Test Schedule / Analytical Time / Test Priority

Daily / 24 Hours / Available STAT

Method

Arkray UA Chemistry Strip and Flow Cytometry

CPT(s)

Description	CPT Code
Urinalysis with Microscopic	81001

Instrumentation

Arkay Aution Hybrid AU-4050

Reference Range

Chemical:
Specific Gravity: 1.001 – 1.035
Bilirubin: Negative
Blood: Negative
Glucose: Negative
Ketones: Negative
Leukocyte Esterase: Negative
Nitrite: Negative
Protein: Negative
Urobilinogen: 0.2 - 1.0 mg/dL
pH: 4.6 – 8.0
Sediment:
WBC = 0-3/HPF
RBC = 0-2/HPF
Squamous Epithelial Cells = None Seen
Hyaline Casts = ≤10/LPF
Bacteria = None Seen

Section

Chemistry 1

Performing Location

University of Vermont Medical Center

Is the UVMMC lab NY State Certified to perform this testing? Yes/No

No

LOINC Code Information

Result Code	Reporting Name	LOINC Code
UCOL	Color	5778-6
UCLAR	Clarity	32167-9
UGLU	Glucose	25428-4
UBIL	Bilirubin	5770-3
UKET	Ketones	2514-8
USG	Spec. Gravity	5811-5
UBLD	Blood	5794-3
UPH	pH	5803-2
UPROT	Protein	20454-5
UURO	Urobilin.	20405-7
UNIT	Nitrite	5802-4
ULEU	Leuk. Est.	5799-2
UAMTD	UA Method	85069-3
ARKWBC	UA WBC Count, Auto	5821-4
ARKRBC	UA RBC Count, Auto	13945-1
ARKSQU	UA Squam Count, Auto	11277-1
ARKHYL	UA Cast Count, Auto	24124-0
ARKBAC	UA Bact Count, Auto	25145-4
USENS	Comment	8251-1

Specimen Information — URINALYSIS, CHEMICAL AND SEDIMENT, AUTOMATED

Container	Specimen	Temperature	Collect Vol	Submit Vol	Minimum Vol	Stability
Sterile Container	Urine	Refrigerate	10 mL	10 mL	5 mL	1 day

Clean catch specimen preferred. First morning voided urine preferred. Samples greater than 8 hours old may be unreliable.

UMIO *URINE MICROSCOPIC ONLY*

University of Vermont Medical Center

Important Note

Available only at Fanny Allen Walk-in Clinic through EPIC.

Additional Test Codes

Primary ID	Epic Code	Mayo Access ID
UMIO	LAB2120	N/A

Test Schedule / Analytical Time / Test Priority

Daily / 24 Hours / Available STAT

Method

Microscopy

CPT(s)

Description	CPT Code
Urine Microscopy	81015

Instrumentation

Microscope

Reference Range

Sediment
All Ages:
WBC: 0-3/HPF
RBC: 0-2/HPF
Squamous Epithelial Cells: None Seen
Hyaline Casts: ≤10/LPF
Bacteria: None Seen

Section

Chemistry 1

Performing Location

University of Vermont Medical Center

Is the UVMMC lab NY State Certified to perform this testing? Yes/No

No

Specimen Information — URINE MICROSCOPIC ONLY

Container	Specimen	Temperature	Collect Vol	Submit Vol	Minimum Vol	Stability
Sterile Container	Urine	Refrigerate	12 mL	12 mL	12 mL	1 day

Sterile container needed when culture also ordered. Clean catch specimen preferred. First morning voided urine preferred.

ARKUMI *URINE SEDIMENT ANALYSIS, AUTOMATED*

University of Vermont Medical Center

Important Note

Clean catch specimen preferred. First morning voided urine preferred. Samples greater than 8 hours old may be unreliable.

Additional Test Codes

Primary ID	Epic Code	Mayo Access ID
ARKUMI	Not orderable in Epic	N/A

Test Schedule / Analytical Time / Test Priority

Daily / 24 Hours / Available STAT

Method

Flow Cytometry

CPT(s)

Description	CPT Code
Urinalysis Sediment, Automated	81015

Instrumentation

Arkay Aution Hybrid AU-4050

Reference Range

All ages:
WBC = 0-3/HPF
RBC = 0-2/HPF
Squamous Epithelial Cells = None Seen
Hyaline Casts = ≤10/LPF
Bacteria = None Seen

Section

Chemistry 1

Performing Location

University of Vermont Medical Center

Is the UVMMC lab NY State Certified to perform this testing? Yes/No

No

LOINC Code Information

Result Code	Reporting Name	LOINC Code
UAMTD	UA Method	85069-3
ARKWBC	UA WBC Count, Auto	5821-4
ARKRBC	UA RBC Count, Auto	13945-1
ARKSQU	UA Squam Count, Auto	11277-1
ARKHYL	UA Cast Count, Auto	24124-0
ARKBAC	UA Bact Count, Auto	25145-4
USENS	Comment	8251-1

Specimen Information — URINE SEDIMENT ANALYSIS, AUTOMATED

Container	Specimen	Temperature	Collect Vol	Submit Vol	Minimum Vol	Stability
Sterile Container	Urine	Refrigerate	10 mL	10 mL	5 mL	1 day

Clean catch specimen preferred. First morning voided urine preferred. Samples greater than 8 hours old may be unreliable.

VAGEX *VAGINITIS EXAM*

University of Vermont Medical Center

Important Note

Sample must be received within 24 hours.
Vaginitis is primarily caused by Trichomonas, yeast, and bacterial vaginosis.
Culture usually is not warranted. Vaginitis Exam includes Trichomonas Antigen Detection, Gram Smear for detection of yeast and a scored gram smear for the diagnosis of bacterial vaginosis.

Additional Test Codes

Primary ID	Epic Code	Mayo Access ID
VAGEX	LAB1380	FAH5868

Specimen Information

Container	Specimen	Temperature	Collect	Submit	Stability
Bacterial/Yeast Collection Kit	Variable	Refrigerate	Swab	Swab in Collection kit	24 hours

Bacterial/Yeast Collection Kit


PEEL HERE
Swab
collection &
preservation
1
2
3
4
5
COPAN
STERILE
CE 0123

Test Schedule / Analytical Time / Test Priority

Daily / 24 Hours / Not available STAT

Method

Immunochromatography & Smear

CPT(s)

Description	CPT Code
Gram Smear for Clue Cells and Yeast	87205
Trichomonas	87808

Instrumentation

Manual Method

Reference Range

Negative for Trichomonas
Negative for yeast
Smear not consistantwith bacterial vaginosis

Section

Microbiology-1

Performing Location

University of Vermont Medical Center

Is the UVMMC lab NY State Certified to perform this testing? Yes/No

Yes

LOINC Code Information

Order Code	Reporting Name	LOINC Code
VAGEX	Vaginitis Exam	43391-2

VALP *VALPROIC ACID*

University of Vermont Medical Center

Additional Test Codes

Primary ID	Epic Code	Mayo Access ID
VALP	LAB25	FAH133

Test Schedule / Analytical Time / Test Priority

Daily / 1 day / Available STAT

Method

Chemiluminescence Immunoassay

CPT(s)

Description	CPT Code
Valproic Acid	80164

Instrumentation

Ortho Vitros 5600

Reference Range

All ages
Therapeutic Range: 50 – 100 ug/mL
Toxic: >150 ug/mL

Section

Chemistry-1

Performing Location

University of Vermont Medical Center

Is the UVMMC lab NY State Certified to perform this testing? Yes/No

Yes

LOINC Code Information

Result Code	Reporting Name	LOINC Code
VALP	Valproic Acid	4086-5

Specimen Information — VALPROIC ACID

Container	Specimen	Temperature	Collect Vol	Submit Vol	Minimum Vol	Stability
Serum Separator Tube	Serum	Refrigerate	4 mL	0.5 mL	0.2 mL	*
Lithium heparin (green top)	Plasma	Refrigerate	4 mL	0.5 mL	0.2 mL	**
**Green Microtainer			0.6 mL			**

*When collected in a serum separator tube sample is stable for 3 days on the gel and 7 days removed from gel and refrigerated.
When collected in a green top, plasma **must be removed within one hour. It is then stable 14 days refrigerated.
While a microtainer is an optional tube type in rare circumstances, it is **not recommended.

VANCP *VANCOMYCIN, PEAK*

University of Vermont Medical Center

Important Note

Please use Vancomycin Random if a peak level is required. Peak level should be collected 60 minutes after completion of infusion.
While a microtainer is an optional tube type in rare circumstances, it is **not recommended.**

Additional Test Codes

Primary ID	Epic Code	Mayo Access ID
VANCO	LAB40	FAH215

VANCO *VANCOMYCIN, RANDOM*

University of Vermont Medical Center

Important Note

If assessing Peak levels, peak level should be collected 60 minutes after completion of infusion.

Additional Test Codes

Primary ID	Epic Code	Mayo Access ID
VANCO	LAB40	FAH215

Test Schedule / Analytical Time / Test Priority

Daily / 24 Hours / Available STAT

Method

Chemiluminescence Immunoassay

CPT(s)

Description	CPT Code
Vancomycin	80202

Instrumentation

Ortho Vitros 5600

Reference Range

All ages:Trough: 10-20 ug/mL

Section

Chemistry-1

Performing Location

University of Vermont Medical Center

Is the UVMMC lab NY State Certified to perform this testing? Yes/No

Yes

LOINC Code Information

Result Code	Reporting Name	LOINC Code
VANCO	Vancomycin, Random	4091-5

Specimen Information — VANCOMYCIN, RANDOM

Container	Specimen	Temperature	Collect Vol	Submit Vol	Minimum Vol	Stability
Serum Separator Tube	Serum	Refrigerate	4 mL	0.5 mL	0.2 mL	3 days
*Yellow Microtainer		Refrigerate	0.6 mL			3 days

*While a microtainer is an optional tube type in rare circumstances, it is **not recommended.**

VANCT *VANCOMYCIN, TROUGH*

University of Vermont Medical Center

Important Note

Trough levels should be collected 30 minutes before the next dose.

Additional Test Codes

Primary ID	Epic Code	Mayo Access ID
VANCT	LAB39	FAH349

Test Schedule / Analytical Time / Test Priority

Daily / 24 Hours / Available STAT

Method

Chemiluminescence Immunoassay

CPT(s)

Description	CPT Code
Vancomycin	80202

Instrumentation

Ortho Vitros 5600

Reference Range

All ages: Trough Level: 10 – 20 ug/mL

Section

Chemistry-1

Performing Location

University of Vermont Medical Center

Is the UVMMC lab NY State Certified to perform this testing? Yes/No

Yes

LOINC Code Information

Result Code	Reporting Name	LOINC Code
VANCOT	Result	4092-3
DTYPE	Type of Draw	20506-2

Specimen Information — VANCOMYCIN, TROUGH

Container	Specimen	Temperature	Collect Vol	Submit Vol	Minimum Vol	Stability
Serum Separator Tube	Serum	Refrigerate	4 mL	0.5 mL	0.2 mL	3 days
*Yellow Microtainer		Refrigerate	0.6 mL			3 days

*While a microtainer is an optional tube type in rare circumstances, it is **not recommended.**

VARI *VARICELLA IgG ANTIBODY*

University of Vermont Medical Center

Additional Test Codes

Primary ID	Epic Code	Mayo Access ID
VARI	LAB162	FAH5554

Test Schedule / Analytical Time / Test Priority

Monday-Friday, run starts at 9 am / 3 days / Not available STAT

Method

Chemiluminescence Immunoassay

CPT(s)

Description	CPT Code
Varicella IgG Antibody	86787

Instrumentation

DiaSorin Liaison XL

Reference Range

All ages:
Negative: Absence of detectable Varicella Zoster virus IgG antibodies. A negative result indicated no detectable antibody, but does not rule out acute infection.
Equivocal: Recommend collecting a second sample for testing in no less than one to two weeks.
Positive: Presence of detectable Varicella Zoster virus IgG antibodies.

Section

Chemistry-2

Performing Location

University of Vermont Medical Center

Is the UVMMC lab NY State Certified to perform this testing? Yes/No

Yes

LOINC Code Information

Result Code	Reporting Name	LOINC Code
VARI	Varicella IgG Ab	in process

Specimen Information — VARICELLA IgG ANTIBODY

Container	Specimen	Temperature	Collect Vol	Submit Vol	Minimum Vol	Stability
Serum Separator Tube	Serum	Refrigerate	4 mL	0.5 mL	0.3 mL	7 days
Yellow Microtainer		Refrigerate	0.6 mL			7 days

Samples that are markedly lipemic, markedly hemolyzed or markedly icteric are not acceptable.
*While a microtainer is an optional tube type in rare circumstances, it is **not recommended.**

VZVLUM *VARICELLA ZOSTER VIRUS, PCR*

University of Vermont Medical Center

Additional Test Codes

Primary ID	Epic Code	Mayo Access ID
VZVLUM	LAB3754	FAH5853

Specimen Information

Container	Specimen	Temperature	Collect Vol	Submit Vol	Minimum Vol	Stability
Viral Collection Kit (M6)	Mucocutaneous	Refrigerate				15 days
Sterile Container	CSF	Refrigerate	2 mL	2 mL	1 mL	7 days

Viral Collection Kit (M6)

Test Schedule / Analytical Time / Test Priority
Daily / 24 hours / Not available STAT

Method
Nucleic Acid Amplification

CPT(s)

Narrative	CPT
Varicella zoster	87798 x 1

Instrumentation
Luminex Aries

Reference Range
Negative

Section
Microbiology-2

Performing Location
University of Vermont Medical Center

Is the UVMMC lab NY State Certified to perform this testing? Yes/No
No

LOINC Code Information
In process

B12 *VITAMIN B12*

University of Vermont Medical Center

Additional Test Codes

Primary ID	Epic Code	Mayo Access ID
B12	LAB67	FAH110

Test Schedule / Analytical Time / Test Priority
Monday - Friday / 1 day / Not available STAT

Method
Chemiluminescence Immunoassay

CPT(s)

Description	CPT Code
Vitamin B12	82607

Instrumentation
Siemens ADVIA Centaur XPT

Reference Range
All ages: 211 – 911 pg/mL

Section
Chemistry-2

Performing Location
University of Vermont Medical Center

Is the UVMMC lab NY State Certified to perform this testing? Yes/No
Yes

LOINC Code Information

Result Code	Reporting Name	LOINC Code
B12	Vitamin B12	2132-9

Specimen Information — VITAMIN B12

Container	Specimen	Temperature	Collect Vol	Submit Vol	Minimum Vol	Stability
Serum Separator Tube	Serum	Refrigerate	4 mL	0.6 mL	0.3 mL	7 days

VITD *VITAMIN D, 25-OH (TOTAL)*

University of Vermont Medical Center

Important Note

Test subject to Medicare Local Coverage Determination (NCD) Vitamin D Assay Testing (L32860).

Additional Test Codes

Primary ID	Epic Code	Mayo Access ID
VITD	LAB3036	FAH5442

Test Schedule / Analytical Time / Test Priority

Monday – Friday / 3 days / Not available STAT

Method

Chemiluminescence Immunoassay

CPT(s)

Description	CPT Code
Vitamin D (25, OH)	82306

Instrumentation

DiaSorin Liaison XL

Reference Range

All ages:
Deficiency: <10 ng/mL
Insufficiency: 10-30 ng/mL
Sufficiency: 30-100 ng/mL
Toxicity: >100 ng/mL

Section

Chemistry-2

Performing Location

University of Vermont Medical Center

Is the UVMMC lab NY State Certified to perform this testing? Yes/No

Yes

LOINC Code Information

Result Code	Reporting Name	LOINC Code
VITD	Vitamin D (25,OH)	62292-8

Specimen Information — VITAMIN D, 25-OH (TOTAL)

Container	Specimen	Temperature	Collect Vol	Submit Vol	Minimum Vol	Stability
Serum Separator Tube	Serum	Refrigerate	2.5 mL	0.8 mL	0.5 mL	7 days
*2 Yellow Microtainers		Refrigerate	1.2 mL			7 days

Samples that are markedly lipemic, markedly hemolyzed or markedly icteric are not acceptable.
*While a microtainer is an optional tube type in rare circumstances, it is **not recommended.**

ALC *VOLATILE SCREEN*

University of Vermont Medical Center

Important Note

Includes analysis for methanol, isopropanol, ethanol and acetone. Methanol and Isopropanol are quantitated if present. Sample is stable 3-days refrigerated as long as the sample remains tightly capped to prevent evaporation of any volatile substance.
Please call Lab Customer Service at 847-5121 or 1-800-991-2799 to notify us that a sample is on the way. This notification will allow time for us to prepare the instrumentation and ensure an appropriate turn around time.

Additional Test Codes

Primary ID	Epic Code	Mayo Access ID
ALC	LAB751	FAH4966

Test Schedule / Analytical Time / Test Priority

Daily / 1 day / Available STAT

Method

Gas Chromatography with Flame Ionization Detection

CPT(s)

Description	CPT code
Volatile Screen	80320

Instrumentation

Agilent 7890B Gas Chromatograph

Reference Range

All ages: None detected

Section

Chemistry-2

Performing Location

University of Vermont Medical Center

Is the UVMMC lab NY State Certified to perform this testing? Yes/No

Yes

LOINC Code Information

Result Code	Reporting Name	LOINC Code
METH	Methanol	5693-7
ISOPRO	Isopropanol	5669-7
ETH	Ethanol	5642-4
ACETO	Acetone	39529-3

Specimen Information — VOLATILE SCREEN

Container	Specimen	Temperature	Collect Vol	Submit Vol	Minimum Vol	Stability
Serum Separator Tube	Serum	Refrigerate	4 mL	2 mL	1 mL	3 days*

Stable 3-days refrigerated as long as the sample remains tightly capped to prevent evaporation of any volatile substance. (Lab Only:Expedite all alcohols to chemistry.)

VWFMP *VON WILLBRAND FACTOR MULTIMER PANEL*

University of Vermont Medical Center

Important Note

Test includes: Factor 8 Assay, VWF Multimers, VWF Activity, VWF Antigen

Additional Test Codes

Primary ID	Epic Code	Mayo Access ID
VWFMP	LAB1111	N/A

Test Schedule / Analytical Time / Test Priority

Monday - Friday / Varies / Not avaialble STAT

Method

See individual tests.

CPT(s)

See individual tests. Tests included are: Factor 8 Assay, VWF Multimers, VWF Activity, VWF Antigen.

Instrumentation

See individual tests.

Reference Range

See individual tests.

Section

Coagulation

Performing Location

University of Vermont Medical Center

LOINC Code Information

See individual tests.

Specimen Information — VON WILLBRAND FACTOR MULTIMER PANEL

Container	Specimen	Temperature	Collect Vol	Submit Vol	Minimum Vol	Stability
Blue Top Tube	Plasma	Frozen	3-3.5 mL Tubes to fill line	4-1mL Plasma Aliquots	1-1mL and 3-0.5 mL Plasma Aliquots	6 Months
Blue Top Tube	Whole Blood	Ambient	3-3.5 mL Tubes to fill line	3-3.5 mL Tubes	3-3.5 mL Tubes	4 hours

Refer to Coagulation Specimen Handling prior to collection. Glass vials cannot be accepted. Freeze specimen at less than or equal to minus 40° C if possible. Send specimen frozen on dry ice. Each coagulation assay requested should have its own vial.

VWACT *VON WILLEBRAND FACTOR ACTIVITY*

University of Vermont Medical Center

Additional Test Codes

Primary ID	Epic Code	Mayo Access ID
VWACT	LAB3116	FAH5455

Test Schedule / Analytical Time / Test Priority

Monday – Friday, run starts at 10 am / Same day / Available STAT, nights and weekends with pathologist approval

Method

Latex Particle Enhanced Immunoturbidmetric

CPT(s)

Description	CPT Code
VWF Activity	85245

Instrumentation

ACL Top
500

Reference Range

49 – 153%

Section

Coagulation

Performing Location

University of Vermont Medical Center

Is the UVMMC lab NY State Certified to perform this testing? Yes/No

Yes

LOINC Code Information

Result Code	Reporting Name	LOINC Code
VWACT	VWF Activity	27816-8

Specimen Information — VON WILLEBRAND FACTOR ACTIVITY

Container	Specimen	Temperature	Collect Vol	Submit Vol	Minimum Vol	Stability
Blue Top Tube	Plasma	Frozen	To fill line	2 mL plasma	0.5 mL plasma	6 Months
Blue Top Tube	Whole Blood	Ambient	To fill line	To fill line	To fill line	4 hours

Refer to Coagulation Specimen Handling prior to collection. Submit 2 × 0.5 mL frozen plasma aliquots for this test. Draw blood in light blue top tube(s). If sample can be submitted within 3 hours, submit whole blood at ambient temperature. If this is not possible, spin down tube and remove plasma. Spin plasma again and place citrate platelet-poor plasma in required number of plastic vials Glass vials cannot be accepted.) Freeze specimen at less than or equal to minus 40° C, if possible. Send specimen frozen on dry ice. Each coagulation assay requested should have its own vial.

VWFA *VON WILLEBRAND FACTOR ANTIGEN*

University of Vermont Medical Center

Additional Test Codes

Primary ID	Epic Code	Mayo Access ID
VWFA	LAB307	FAH5365

Test Schedule / Analytical Time / Test Priority

Tuesday, Thursday / 1 day / Available STAT, nights and weekends with pathologist approval

Method

Immunoassay

CPT(s)

Description	CPT Code
VWF Antigen	85246

Instrumentation

ACL Top 500

Reference Range

50 – 185%

Section

Coagulation

Performing Location

University of Vermont Medical Center

Is the UVMMC lab NY State Certified to perform this testing? Yes/No

Yes

LOINC Code Information

Result Code	Reporting Name	LOINC Code
VWFA	VWF Antigen	27816-8

Specimen Information — VON WILLEBRAND FACTOR ANTIGEN

Container	Specimen	Temperature	Collect Vol	Submit Vol	Minimum Vol	Stability
Blue Top Tube	Plama	Frozen	To fill line	2 mL plasma	0.5 mL plasma	6 months
Blue Top Tube	Whole Blood	Ambient	To fill line	To fill line	To fill line	4 hours

Refer to Coagulation Specimen Handling prior before collection. Submit 2 × 0.5 mL frozen plasma aliquots for this test. Draw blood in light blue top tube(s). If sample can be submitted within 3 hours, submit whole blood at ambient temperature. If this is not possible, spin down tube and remove plasma. Spin plasma again and place citrate platelet-poor plasma in required number of plastic vials (Glass vials cannot be accepted.) Freeze specimen at less than or equal to minus 40° C if possible. Send specimen frozen on dry ice. Each coagulation assay requested should have its own vial.

WATER *WATER TEST, CHEMICAL*

University of Vermont Medical Center

Important Note

Water tests are done March, June, September, and December. Samples must be received by the fifth of the month. Analysis will occur some time between the sixth and the twelfth of the month.

Additional Test Codes

Primary ID	Epic Code	Mayo Access ID
WATER	LAB2114	FAH312

Test Schedule / Analytical Time / Test Priority

Quarterly / Varies / Not available STAT
Water tests are done March, June, September, and December. Samples must be received by the fifth of the month. Analysis will occur some time between the sixth and the twelfth of the month.

Method

Conductivity

CPT(s)

Description	CPT Code
Water Test, Chemical	84999

Instrumentation

Conductivity Meter

Reference Range

<2 uS/cm (micromhos)

Section

Chemistry-2

Performing Location

University of Vermont Medical Center

Is the UVMMC lab NY State Certified to perform this testing? Yes/No

Yes

LOINC Code Information

Result Code	Reporting Name	LOINC Code
PURITY	Purity	in process

Specimen Information — WATER TEST, CHEMICAL

Container	Specimen	Temperature	Collect Vol	Submit Vol	Minimum Vol	Stability
Clean Container	Water	Refrigerate	500 mL	500 mL	20 mL	1 day

WBC *WBC*

University of Vermont Medical Center

Important Note

Test subject to Medicare National Coverage Determination (NCD) 190.15 - Blood Counts.

Additional Test Codes

Primary ID	Epic Code	Mayo Access ID
WBC	LAB299	FAH388

Test Schedule / Analytical Time / Test Priority

Daily / 24 Hours / Available STAT

Method

Automated Cell Counter

CPT(s)

Description	CPT Code
WBC	85048

Instrumentation

Sysmex XN 9000

Reference Range

Age and gender dependent – see report.

Section

Hematology

Performing Location

University of Vermont Medical Center

Is the UVMMC lab NY State Certified to perform this testing? Yes/No

Yes

LOINC Code Information

Result Code	Reporting Name	LOINC Code
WBC	WBC	6690-2

Specimen Information — WBC

Container	Specimen	Temperature	Collect Vol	Submit Vol	Minimum Vol
Lavender Top Tube	Whole Blood	Refrigerate	2.5 mL	2.5 mL	1.5 mL

Invert tube gently several times after collection.

WID *WORM IDENTIFICATION*

University of Vermont Medical Center

Additional Test Codes

Primary ID	Epic Code	Mayo Access ID
WID	LAB247	FAH5107

Test Schedule / Analytical Time / Test Priority

Monday – Friday / 1 day / Not available STAT

Method

Microscopic Exam

CPT(s)

Description	CPT Code
Worm Identification	87169
Pinworm Exam	87172

Instrumentation

Manual Method

Reference Range

A descriptive report is provided.

Section

Microbiology-2

Performing Location

University of Vermont Medical Center

Is the UVMMC lab NY State Certified to perform this testing? Yes/No

Yes

LOINC Code Information

Order Code	Reporting Name	LOINC Code
In process		

Specimen Information — WORM IDENTIFICATION

Container	Specimen	Temperature	Collect Vol	Submit Vol	Minimum Vol
Sterile Container	Variable	Ambient	N/A	N/A	N/A

Adult worms:
If an adult worm is found in the perianal region, the worm should be placed in a clean container. If 70% alcohol is available, add enough 70% alcohol to cover the worm in the container. Submit the container to the laboratory for identification.
Collection and Transport for Enterobius vermicularis:
1. **Pinworm Paddles:**
Optimal Collection time is first thing in the morning. Remove the paddle from the collection vial and place the sticky side of the paddle to the perianal region and then place the paddle back into the collection vial. Write the patient name, date of birth, and date collected on the vial and submit the vial to the laboratory for examination within 72 hours. Pinworm paddle collection vials are available from Lab Customer Service, (802) 847-5121.
2. **Cellulose Scotch Tape preparations:**
Optimal collection time is first thing in the morning. Adult female worms usually migrate from the anus at night and lay their eggs in the perianal region. To collect the specimen, clear scotch tape should be applied (sticky side down) to the perianal region and then the scotch tape should be transferred to a glass slide. Write the name, date of birth, and date on the label on the slide and the slide should be submitted to the laboratory for examination. Since the female worms emerge on a sporadic basis, a series (4-6) of consecutive tapes should be collected to rule out an infection.
NOTE: If clear regular cellulose tape (do not use Magic tape) is not available, Pinworm collection paddles are available through Lab Customer Service (802) 847-5121.

FIOY *YEAST IDENTIFICATION, PLATE SUBMITTED*

University of Vermont Medical Center

Additional Test Codes

Primary ID	Epic Code	Mayo Access ID
FIOY	LAB1295	FAH5301

Specimen Information

Submit a plate or slant at ambient temperature.

Test Schedule / Analytical Time / Test Priority

Monday – Friday / 3-7 days / Not available STAT

Method

Culture

CPT(s)

Description	CPT
	87106

Reference Range

Yeast identified to genu/species level.

Section

Microbiology-2

Performing Location

University of Vermont Medical Center

Is the UVMMC lab NY State Certified to perform this testing? Yes/No

Yes

LOINC Code Information

Order Code	Reporting Name	LOINC Code
FIOY	Yeast Identification	18482-0

ZNPL *ZINC, PLASMA*

NMS Laboratory

Additional Test Codes

Primary ID	Epic Code	Mayo Access ID
ZNPL	LAB3702	N/A

Specimen Information

NMS Referral Lab Code 4844SP

Section

Sent to NMS Laboratory

Performing Location

NMS Laboratory

VZOLP *Zolpidem Screen, Urine*

Aspenti Health Laboratory

Important Note

Routine drug screen for inpatients and ambulatory clinics.
Zolpidem Screen, Urine, test information.

Additional Test Codes

Primary ID	Epic Code	Aspenti Test Code
VZOLP	LAB3720	VBL2270

Test Schedule / Analytical Time / Test Priority

Monday - Friday / 24 Hours / Not Available STAT

Performing Location

Aspenti Health Laboratory

Special Instructions & Forms

THE University of Vermont MEDICAL CENTER

PATHOLOGY AND LABORATORY MEDICINE

24 Hour Timed Urine Collection

Container:

24-Hour Timed Urine Jug, 2500 mL available from Laboratory Customer Service	Brown Jug, See Urine ph Adjustment and Preservatives:24- hour Collection

Instructions for the office:

1. See the list of 24 hour urine preservatives below.
2. If you do not have a 24 hour timed urine jug with the appropriate preservative, call (802) 847-5121 to request one. We will send it to your office as soon as possible. You can also send the patient to one of our Patient Service Centers to pick one up.
3. Before giving the container to the patient label it with two patient identifiers. When you get the urine container back from the patient, make sure the **Collection Begun and Collection Completed sections** are filled in on the container.
4. Refrigerate the sample until it is sent to the laboratory.
5. An outpatient laboratory order must accompany the sample, as well as the "Collection of 24 Hour Timed Urine Specimen Form".

Instructions for Patients:

24-hour urine containers are available from laboratory Customer Service (847-5121). Please arrange for patients to have the correct container prior to collection (See our Test Catalog https://uvmlabs.testcatalog.org/). Collection in the wrong container may cause the sample to be unsuitable for the tests ordered. In addition to the 24 hour timed urine collection container, patients will receive a brochure with the following instructions and a 24 hour timed urine specimen form.

1. Patients must not collect a 24 hour timed urine under the following circumstances.
   - Menstrual periods
   - Urinary Tract Infections
   - Strenuous exercise
2. Instruct patients to maintain a normal diet and fluid intake before and during collection unless the physician has specified otherwise.
3. Be sure your patient has a laboratory order identifying the test(s) requested.
4. Instruct patient to fill out the "Collection of 24 Hour Timed Urine Specimen Form prior to collection". Patients may also need to bring a physician order (laboratory requisition) to the lab when they bring in the sample.
5. Instruct patients to keep the 24 hour timed urine jug in an upright position at all times.
6. Patient must also be sure the white cap is securely screwed on top of the jug.
7. The 24 hour timed urine jug may contain a preservative that is required to do the tests requested. There may be a hazard sticker as well as a sticker identifying the specific hazard attached to the jug.
8. Patients must not urinate directly into the container; Use the hat provided or urinate into a clean container and carefully pour the urine into the jug.
9. Instruct patients to keep the jug out of reach of children.
10. Patients also must keep jug in a cool place during collection. Refrigerate or place in a cooler with ice. Do not store urine in a different container than the one given to you by your health care provider.
11. **BEGIN COLLECTION**
    Collection period begins when the patient gets up in the morning and urinates directly into the toilet. Record the date and time on the collection form.
    Collection Begun
    Date:___/___/___ Time:___:___ AM / PM

The next urination is the first collection.

Patients must collect and save **all** urine passed for the next 24 hours.

12. **COMPLETE COLLECTION**
The final collection should be approximately 24 hours from the start of collection, collect your first urination in the morning. Record the date and time on the collection form.

Collection Completed

Date:___/___/___ Time:___:___ AM / PM

If the patient has collected more than one container, indicate so on the collection form.

Refrigerate sample until delivery to the laboratory.

All 24 hour timed urine samples should be delivered to the lab within 12 hours of completion of collection.

Failure to follow these instructions may result in the need to recollect the sample.

13. **PACKAGING URINE FOR TRANSPORT**: Instruct patients to:
- Be sure sample is labeled with full name and date of birth.
- Be sure the cap is secure on the top of the jug and keep jug upright.
- Put the jug into the large inner sleeve of the zip lock bag provided.
- Put the laboratory order provided by the physician in the outer sleeve.

14. **DELIVERY TO THE LAB:** When the patient delivers the sample to the lab they will need to plan some extra time so that we can collect their insurance and demographic information. If someone else is dropping off your sample they will need to be prepared to provide insurance and demographic information.
Please visit our web site for Laboratory Service Center locations and hours.
www.uvmhealth.org/medcenterdrawsites/

Preservatives: 24-Hour Collection

Each test has a specific numbered jug as to the preservative required for testing.

JUG A -	NO preservative. Refrigerate
JUG B -	25 mL 50% Acetic Acid. Refrigerate
JUG C -	10 gms Boric Acid. Refrigerate
JUG D -	5 gms sodium carbonate. Refrigerate
JUG E -	20 mL 6N HC1. Refrigerate
PEDI JUG B* -	15 mL 50% Acetic Acid. Refrigerate
PEDI JUG C* -	5 gms Boric Acid. Refrigerate

These jugs are available at the Patient Service Center (laboratory Services) at the Fanny Allen Campus and Ambulatory Care Center. One South Prospect also has jugs; please call Laboratory Customer Service (802)847-5121) for assistance.

*Usually a pediatric patient (for the purpose of a 24-hour urine) is considered anyone less than 5 years old.

Blood Transfusion: Answering Your Questions

This brochure is intended for persons who will need a transfusion of blood or blood products and those who are receiving transfusions on a regular basis.

FOR MORE INFORMATION PHONE: (802) 847-5121 | (800) 991-2799

IS IT SAFE TO RECEIVE BLOOD

Receiving blood is safer today than ever. In some cases, it may be the only way to save your life. While it is true that at one time, receiving blood was not as safe, nowadays a very rigorous process is used to select donors and cutting-edge technology is used to test blood so that harmful diseases and viruses can be detected more accurately in donors' blood.

All of these precautions have led to a significantly lower risk of viral disease transmission; as a result, bacterial contamination and other non-infectious complications of transfusion are now considered to be more prevalent risks.

Other common transfusion reactions such as itching, hives, fever, or chills can occur in 1%- 10% of transfused patients, but are considered minor and are not usually life-threatening (see further descriptions below). However, an evaluation by a physician is still recommended whenever any reaction occurs.

Current Estimated Transfusion Risks

Complication	Risk per Unit Transfused
Acute lung injury	1 in 1,000 to 200,000
Circulatory overload	1 in 2,000 to 6,000
Severe allergic reaction	1 in 2,000 to 30,000
Delayed hemolytic reaction	1 in 5,000 to 110,000
ABO incompatible hemolysis	1 in 13,000 to 200,000
Bacterial infection	
with platelets	1 in 33,000 to 75,000
with red cells	1 in 30,000 to 5,000,000
Hepatitis B virus infection	1 in 205,000
Hepatitis A virus infection	1 in 1,000,000
Hepatitis C virus infection	<1 in 1,935,000
HIV-1 (AIDS virus) infection	1 in 2,135,000

WHAT ARE OTHER RISK OF BLOOD TRANSFUSTIONS?

Allergic reactions

Blood may cause an allergic reaction in the receiver. Approximately 1% to 10% of receivers have such a reaction, which may be hives or other skin reactions. These are easily treated with medication (antihistamines).

Fever

Like any foreign substance administered to a patient, blood can cause fever, with or without chills. Approximately 1% to 10% of transfusions cause this reaction, which also is easily treated with different medications. Very rarely, fever may be due to the infusion of a blood product that is contaminated with bacteria. In such cases, the medical team will treat the problem.

Other reactions

Certain patients may develop antibodies following a transfusion. This complication, called all immunization, has no symptoms and does not put the patient's life in danger. However, special attention will be paid to the patient during subsequent transfusions.

Another potential reaction following a transfusion is circulatory overload, which can occur in the elderly or in patients with cardiac disorders. If blood transfusions have caused severe reactions in the past, please share this information with your medical team.

THE University of Vermont MEDICAL CENTER

HOW CAN A PATIENT ENSURE A SAFE BLOOD TRANSFUSION?

Receive a blood transfusion only when it is needed

Although the risks of major complications from transfusions are very low, they can and do occur when over 15 million units of blood and blood components are transfused annually in the U.S. Therefore, a patient should receive transfusions only when necessary and when alternatives to improving their medical condition are believed to be less effective.

Confirm accuracy of patient identification

Preventable fatal transfusion reactions are almost always caused by errors in labeling or patient identification. The wristband is a very important piece of patient identification. Review the wristband to confirm proper spelling of name and date of birth. When a nurse or phlebotomist draws a blood sample, confirm that the tubes are labeled at the patient's bedside. The labels should have complete and accurate patient information (no missing letters or numbers), the date and time when the sample was drawn, and the initials or designated code of the person drawing the blood sample.

Similarly, confirmation should be made that the right blood is going to the right patient. Before a transfusion is started, the nurse should read the information on the unit of blood out loud to another person at the bedside. The information on the unit should be the same as that of the patient who is to receive the blood (the name, medical record number, and date of birth should match).

WHAT IS BLOOD?

Blood contains different components: solid components – such as red blood cells, white blood cells and platelets – and plasma, the liquid in which the solid components are suspended. Each of these may be made into separate blood products. Depending on a person's health status, he or she may need to receive one of the most commonly transfused blood products – red blood cells, platelets or plasma.

Blood is essential for the human body to function properly. It transports oxygen, nutrients and other substances for fighting disease to the cells, which need them to stay alive. Blood components are formed in the bone marrow. In an average adult, the volume of blood is between five and six liters.

Red Blood Cells

Red blood cells transport oxygen. Each drop of blood contains approximately five million red blood cells. Red blood cells are used for patients who have lost blood due to trauma or during a major surgical operation, or who suffer from disorders that reduce the number of their own red blood cells, such as chronic anemia.

Red blood cells are stored for 42 days at a temperature of 2 to 6 degrees Celsius. In exceptional circumstances, they can be frozen and then stored for up to ten years.

Platelets

The blood cells referred to as platelets are smaller than red blood cells. They aid in blood clotting and wound healing. The main role of platelets is to speed clotting when there is bleeding. They are used especially in cases of massive bleeding, where there is a decrease in the number of platelets in the blood, or when platelet dysfunction is noted.

Platelets can be stored for five days from the day they are collected and up to seven days with additional testing, at a temperature of 20 to 24 degrees Celsius.

Plasma

Plasma is the clear liquid part of the blood that contains the red blood cells, white blood cells and platelets. It also contains many proteins including factors necessary to form a clot. On average, plasma makes up 55% of whole blood by volume. Plasma is most often administered to patients who have serious clotting factor deficiencies or in order to replace an important loss of blood.

Plasma is generally kept frozen and only thawed when needed.

WHERE DOES THE BLOOD USED FOR TRANSFUSIONS COME FROM?

All the blood products mentioned in this brochure come either from volunteer donors in the New England region through the American Red Cross or from persons elsewhere in the U.S. through other accredited and FDA-licensed blood collection centers.

Not just anyone can be a donor! Donors are volunteers who are selected carefully before each donation. They are not paid for their donation. Apart from doing good, no other compensation is offered.

Before each donation, donors must provide personal identification and fill out a donor form that contains questions about their health status and risk factors they may have related to certain diseases. Donors are then questioned about their health status and any high-risk activities that they may have engaged in. The tip of the donor's finger is pricked to ensure that the hemoglobin level is up to the standard of a blood donor. Only people who meet these rigorous criteria can donate their blood.

Finally, each donation is drawn using new, sterile and disposable material (needle, bag, etc.) which is used one time only.

HOW IS THE BLOOD I AM RECEIVING TESTED?

All blood collected is carefully analyzed. It is screened for Hepatitis B, Hepatitis C, HIV, West Nile Virus, HTLV, Zika, and syphilis. The tests are carried out before the blood can be used. If the results of one of these screening tests are inconclusive or positive, the blood must be disposed of. Additional required tests are performed as they become available and found to improve the safety of blood transfusions.

The blood is also analyzed to determine which blood group it belongs to and whether it is Rh-positive or Rh-negative. Before any transfusion, a recent sample of the patient's blood is cross-matched with the donated blood to make sure that they are compatible.

HOW ARE BLOOD PRODUCTS TRANSFUSED?

All blood products are administered by intravenous infusion, using tubing equipment with a filter. The rate of transfusion varies according to the blood product used, but must be completed within 4 hours of starting. Usually the transfusion is started slowly for the first 15-20 minutes to ensure there are so major reactions before increasing the transfusion rate.

WHAT ARE THE ADVANTAGES OF BLOOD PRODUCT TRANSFUSION?

In the U.S., well over 15 million blood products are transfused every year. Blood transfusion may be required in the care of premature babies, during cardiac surgery, for organ transplants, during treatments for cancer and anemia, and for resuscitation following traumatic injury. The transfusion of blood or blood products have resulted in significant advances in the treatment of these patients. Thanks to blood transfusion, major surgical operations and medical treatments can be carried out.

ARE THERE ALTERNATIVES TO TRANSFUSION?

Options other than transfusion may be considered for certain surgeries. The decision to use either transfusion or another type of treatment must be discussed with your doctor.

Autologous blood donations

Autologous blood donation refers to patients who pre-donate their own blood and have it stored while they are awaiting surgery that is likely to require blood transfusions. To do this, you must ask your doctor whether it is advisable for you to store your own blood for a possible transfusion given the surgery and your own health status.

Recuperation of blood during the operation

In certain surgical operations, it is possible to retrieve lost blood during the operation and transfuse it immediately back to the patient. You should discuss this with your doctor, since it is not possible for all surgical operations.

USE OF DRUGS

In very specific circumstances, drugs may reduce or eliminate the need for blood. Once again, your doctor is the best person to give you information about this.

If you have other questions about blood transfusion, do not hesitate to discuss them with your doctor.

The information provided in this document is for educational purposes only and does not supersede existing hospital and clinic policies, procedures, or clinical judgment.

SELECTED INTERNET SITES*:

National Library of Medicine: http://www.nlm.nih.gov/medlineplus/healthtopics.html

AABB (American Association of Blood Banks): www.aabb.org

American Red Cross – Northern New England Region: www.newenglandblood.org

America's Blood Centers: www.americasblood.org

UpToDate Patient Information: www.patients.uptodate.com

*Inclusion of websites do not represent an endorsement of the content at the websites or a guarantee of the accuracy of the information contained within. However, these sites are generally viewed as reliable Internet sources.

This information was adapted in part and with permission to the University of Vermont College of Medicine from "Blood transfusions, answers to your questions" by Québec Ministère de la Santé et des Services sociaux, Secrétariat du système du Sang, Publication No. 00-205-4A.

THE University of Vermont MEDICAL CENTER

PATHOLOGY AND LABORATORY MEDICINE

COLLECTING A BONE MARROW SAMPLE

General Information

1. It is important to have all supplies ahead of time.
2. It is important to collect the specimens in the correct order. This order would be aspirate, aspirate with heparin for Cytogenetics and/or Flow Cytometry if needed, and needle biopsy.
3. Specimens may be collected Monday through Friday

Materials needed on Bone Marrow Collection Tray: Supplies are available from UVM Medical Center laboratory

- Lavender Top Tubes
- 1 box frosted end glass slides
- 4 containers of 1% Zinc Formalin fixative
  CAUTION: Contains Formaldehyde.
  - Toxic by inhalation and if swallowed.
  - Irritating to eyes, respiratory system, and skin
  - Risk of serious damage to eyes.
  - May cause cancer; repeated or prolonged exposure increases risk.
  - Keep container covered except when adding specimen. Reseal immediately to prevent spread of Formalin fumes.
  - Refer to MSDS Manual for further information.
- 2 Millipore Swinex-125 filters with Whatman Spectrum polypropylene Macro Filter mesh
- 20 mL of Plasmalyte Solution
- Venipuncture Equipment
- Bone Marrow Tube (RPMI)
- Bone Marrow Culture Tube (SPS)
- Heparin, 5 - 10,000 units, 1 mL vials
- Sodium Heparin tubes for flow cytometry
- **Cytogenetics/Flow Cytometry/Bone Marrow Exam** form including patient's birth date, clinical diagnosis or indication for study, previous or current chemo/radiotherapy, collection date, ordering physician, and tests requested.

Additional supplies needed: Not provided by University of Vermont Medical Center Laboratory

- 2 Plastic cups (for expelled Plasmalyte)
- Gloves
- Tweezers
- Gauze 4 x 4's
- Alcohol Swabs

Collecting the Aspirate

1. Assemble all materials and equipment for the bone marrow collection tray and put on gloves.
2. Inquire if any “optional” procedures are requested on the marrow specimen. If so, refer to the “Optional Procedure” section on the following page.
3. The provider performing the bone marrow will give the Technologist two types of specimens (1) 0.5-1.0 mL bone marrow aspirate and (2) a biopsy.
4. On the aspirated specimen perform the following:

   6-8 thin “push” smears
   For a standard collection 1 – 2 mL aspirate into EDTA (lavender top tube), mix well

The remaining marrow material in the syringe should be diluted with Plasmalyte and filtered through the polypropylene mesh filtration system

a. Draw 5-10 mL of Plasmalyte into the syringe with the marrow, mix immediately
b. Attach the Millipore Swinex-125 with mesh filter and expel contents of syringe through the millipore with gentle pressure
c. Repeat steps a and b
d. Open the Millipore and examine for particles (spicules). If insufficient amount, inform the clinician so additional marrow can be aspirated.
e. Using tweezers, place the mesh with particles into a bottle of 1% Zinc Formalin fixative. Reseal container immediately to prevent spread of Formalin fumes.
f. If aspirated specimen is clotted, place the clot directly into the fixative.

5. On the biopsy specimen perform the following:
   3-4 imprint or touch-prep slides of the bone marrow biopsy should be made using tweezers and a light touch. (The biopsy should be tan colored and firm. A blood clot appears red and gel-like.) Take care not to break the biopsy specimen.

   Place the biopsy specimen into the second jar of 1% Zinc Formalin fixative, resealing the container immediately to prevent the spread of Formalin fumes.

   If an aspirate cannot be collected, please submit a second biopsy in an extra Bone Marrow Tube (RPMI) container.

6. Write the date and approximate time when the specimen was collected on both jars of fixative and the Bone Marrow Requisition. Label jars and all smears with patients full name. Smears should also be dated.
7. The provider **must sign** and complete the Cytogenetics/Flow Cytometry/ Bone Marrow Exam form and check off the testing requested. This should include diagnosis.
8. A CBC with differential and peripheral smear collected within 72 hours of the bone marrow must be included. If this is not possible, record this information as well as the reason for not being available.

Optional Procedures

1. Culture: A separate specimen is collected into a Bone Marrow Culture Tube (SPS) stored at room temperature. The stopper should be well sterilized first with betadine and then alcohol first before injection. Approximately 1 mL of bone marrow should be injected through the rubber stopper. If the specimen is clotted, remove stopper and place the clotted specimen directly into the culture tube. Use caution to avoid contamination.

2. Chromosome Analysis (Karyotype): Use the **second** bone marrow aspirate which should be collected in a **heparinized** syringe and transferred to a Bone Marrow Tube (RPMI) stored at 4˚c (do not use media if it has turned yellow) or Sodium Heparin Tube. At least 1-2 mL of bone marrow should be put into the tube. After collection, specimen should be kept at room temperature; the specimen should **never** be refrigerated. If there are any problems or questions concerning bone marrow cytogenetics samples, call Laboratory Customer Service at (802)847-5121 and ask to speak to the Cytogenetics Department.

3. Bone Marrow Leukemia/Lymphoma Panel: Use the **second** bone marrow aspitate which should be collected in a **heparinized** syringe and transferred to a sodium heparin, special tube, supply #032051, or EDTA, supply #78529. After collection, specimen should be kept at room temperature; the specimen

should **never** be refrigerated. If there are any problems or questions concerning Bone Marrow Leukemia/Lymphoma Panels, call Laboratory Customer Service at (802)847-5121 and ask to speak to the Immunopathologist or Immunology Charge Tech.

Samples collected in a sodium heparin tube, supply #032050, or a sodium heparin, special tube are stable for up to 48 hours. EDTA samples are stable only up to 30 hours.

Transport to UVM Medical Center

1. Please call Laboratory Customer Service at 847-5121 or 1-800-991-2799 and inform them that a bone marrow specimen will be arriving.

2. Put slides into a slide box or folder. Put these and all specimen material into 1 transport bag with the paperwork and mark “Deliver to Hematology”

3. Specimen must be received in a timely manner. If the collection site has Priority pick-up, please send it the day of collection. If specimen is to be sent by Federal Express overnight, send it the day of collection. Samples sent by Federal Express on Friday must have Saturday delivery indicated. Call Laboratory Customer Service at 847-5121 or 1-800-991-2799 and inform them that a sample is being sent and provide requested information.

1 Name: _____ HM_____

ACUTE LEUKEMIA – New Diagnosis or Relapsed

- ○ FLOW CYTOMETRY
- ○ CHROMOSOME ANALYSIS
- ○ PATHOLOGY SUMMARY REPORT
  - ○ ask Kim to Accession PS report
  - ○ add patient to PRISM list

AML

○ Send out RAPID NGS PANEL to Brigham & Women's (ID: RAPHMR; EDTA)

O Fill out B&W requisition and bring it to Cytogenetics

Suspicious for Acute Promyelocytic Leukemia (APL)? then

○ FISH for t(15;17) PML/RARA

If FISH is positive for t(15;17) then ○ PML/RARA Quant. PCR (ID: PMLR; EDTA 5d)

Suspicious for t(8;21)? then

○ FISH for t(8;21) RUNX1/RUNX1T1

Suspicious for inv(16)/t(16;16)? then

○ FISH for CBFB

ALL

○ FISH for BCR/ABL on all cases

If BCR/ABL1 FISH is positive then send:

○ BCR/ABL qualitative with reflex quantitation (ID: BCRFX; EDTA 72 Hr)

O FISH for MLL if FISH for BCR/ABL1 is negative

I have reviewed this algorithm: _____ date: _____
Attending signature

Did you stray from the algorithm? ○ yes ○ no why?

* Peripheral blood can be substituted for BM for most of these tests if there are >10% blasts in the blood

2 Name: _____ HM_____

Treated Acute Leukemia

If this is Relapsed AML or ALL GO TO TRACK 1
Relapsed = recurrent leukemia after apparent remission. If in doubt, ask the clinician.

- ◯ FLOW CYTOMETRY
- ◯ CHROMOSOME ANALYSIS

} On all cases

Treated or Persistent AML:

note: DO NOT repeat NGS studies because the tests are not sensitive enough to detect minimal residual disease

- ◯ PML/RARA quantitative PCR (ID: PMLR; EDTA 5d)
- ◯ FISH for _____ if previously abnormal (order in CoPath)

Treated or Persistent ALL:

If PREVIOUSLY ABNORMAL and not done in the past 4 weeks

- ◯ BCR/ABL Quant. PCR P210 (ID: BCRAB; EDTA 72Hr)
- ◯ BCR/ABL Quant. PCR P190 (ID: BA190; EDTA 72Hr)
- ◯ FISH for _____ (order in CoPath)

I have reviewed this algorithm: _____ date: _____

Attending signature

Did you stray from the algorithm? ◯ yes ◯ no why?

* Peripheral blood can be substituted for BM for most of these tests if there are >10% blasts in the blood

3 Name: _____ HM_____

Cytopenias, Myelodysplasia

◯ Flow Cytometry
◯ Chromosome Analysis } On all cases

If this is MYELODYSPLASIA then:

◯ PATHOLOGY SUMMARY REPORT

- ◯ ask Kim to Accession PS report
- ◯ add patient to PRISM list

ONLY if Chromosome Analysis fails (normal and <20 cells)

◯ MDS FISH panel (ID:MDSF; CG cell pellet)

If NEW definitive diagnosis of MDS

◯ Send out RAPID NGS PANEL to Brigham & Women's (ID: RAPHMR; EDTA)

O Fill out B&W requisition and bring it to Cytogenetics

* Note: genetic mutations are not diagnostic of MDS without morphologic evidence of dysplasia

I have reviewed this algorithm: _____ date: _____
Attending signature

Did you stray from the algorithm? ◯ yes ◯ no why?

Name: _____ HM_____

CML – Chronic Myelogenous Leukemia (new or treated)

- ○ Reticulin stain on biopsy
- ○ Flow cytometry
- ○ Chromosome Analysis
- ○ FISH for BCR/ABL1

} On all cases

New Diagnosis of CML

○ BCR/ABL qualitative with reflex quantitation (ID: BCRFX; EDTA 72 Hr)

○ PATHOLOGY SUMMARY REPORT for new diagnosis Chronic Myelogenous Leukemia

- ○ ask Kim to accession a PS report
- ○ add patient to PRISM list

Previously Diagnosed CML

If P210 positive in the past ○ BCR/ABL1 Quant. P210 on Bone Marrow (ID: BCRAB 72Hr)

If P190 positive in the past ○ BCR/ABL1 Quant. P190 on Bone Marrow (ID: BA190 5 d)

If other than P210 or P190 ○ BCR/ABL1 new diagnosis and ask for quantitation (ID: BADX 5 d)

I have reviewed this algorithm: _____ date: _____
Attending signature

Did you stray from the algorithm? ○ yes ○ no why?

5 Name: _____ HM_____

Myeloproliferative Neoplasm or CMML or Mast cell disease

- ◯ Reticulin stain on biopsy
- ◯ Flow cytometry
- ◯ Chromosome Analysis

} On all cases

New Diagnosis or New Workup

- ◯ PATHOLOGY SUMMARY REPORT
  - ◯ ask Kim to accession a PS report
  - ◯ add patient to PRISM list

Concern for Essential Thrombocythemia or Primary Myelofibrosis or possible Polycythemia Vera

If JAK2, CALR and MPL not already done	◯ JAK2V617F / CALR / MPL reflex	(ID: MPNR: EDTA 7d)
If JAX2, CALR and MPL are negative	◯ FISH for BCR/ABL1	(notify Cytogenetics)

Concern for Polycythemia Vera ONLY

If JAK2 V617F not already done	◯ JAK2 V617F / JAK2 exon 12-15	(ID: PVJAK; EDTA 5d)
If JAK2 V617F is negative	◯ JAK2 exon 12 if not already done(BM)	(ID: JAKXM; EDTA 5d)
If JAX2 V617 and exon12 are negative	◯ FISH for BCR/ABL1 if not already done	(notify Cytogenetics)

Concern for Chronic Eosinophilic Leukemia

If BCR/ABL1 not already done	◯ FISH for BCR/ABL1	(notify Cytogenetics)
If BCR/ABL FISH is negative	◯ FISH for PDGFRA and PDGFRB	(ID: CHICF& 512F; cell pellet)

Concern for Chronic Myelomonocytic Leukemia

If not already done	◯ FISH for BCR/ABL1	(notify Cytogenetics)
if abnormalities of chromosome 5q	◯ FISH for PDGFRB	(ID: 512F; cell pellet)
if accompanied by eosinophilia	◯ FISH for PDGFRA & B	(ID: FCHIC & 512F; cell pellet)

Concern for Chronic NEUTROPHILIC Leukemia (CNL) or atypical CML (aCML)

If BCR/ABL1 not already done	◯ FISH for BCR/ABL1	(notify Cytogenetics)
Concern for CNL and BCR/ABL1 is negative	◯ CSFR3	(ID: FCHIC; cell pellet)
Concern for aCML and BCR/ABL1 is negative	◯ NGS Heme panel for SETBP1	(Mayo ID: NGSHM)

Concern for Mastocytosis

If ? mastocytosis	◯ KIT D816F (even if negative in blood)	(ID:KITBM; EDTA 7d)
If ? mastocytosis with eosinophilia	◯ FISH for PDGFRA	(ID: CHICF; cell pellet)
if ? mastocytosis and need to meet WHO	◯ CD25 by IHC	(ID: IHC send-out)
if ? mastocytosis and mast cells seen	◯ tryptase by IHC	(ID: UVMMC IHC test)

I have reviewed this algorithm: _____ date: _____
Attending signature

Did you stray from the algorithm? ◯ yes ◯ no why?

Name: _____ HM_____

Plasma Cell Dyscrasia, Myeloma and/or Amyloid

○ Flow cytometry } On all cases

If MYELOMA (bone marrow has ≥10% plasma cells; new or restaging/follow up)

○ Cytogenetics Chromosome Analysis

(order in CoPath)

○ Myeloma FISH panel (if clinician requests it, order even if plasma cells are <10%) * (ID:PCPDF 14d)

* BMs are usually obtained for surveillance or change in disease – bot require FISH
Mayo will do an abbreviated panel for previously tested patients

○ Congo red on biopsy if clinical or morphology is suspicious for amyloid

○ PATHOLOGY SUMMARY REPORT for new diagnosis Myeloma

○ ask Kim to accession PS report

○ add patient to PRISM list

Additional Information:

Evidence of end-organ damage? (optional): ○ unknown ○ NO ○ YES by: ○ Clinical Hx ○ PRISM ○ Radiology

SPEP:

Serum Immunoglobulins: IgG:_____ IgA: _____ IgM: _____

Free Light chains: Kappa: _____ Lambda: _____ K/L ratio: _____

Hemoglobin: Calc Calcium: Creat: B2 microglobulin:

I have reviewed this algorithm: _____ date: _____
Attending signature

Did you stray from the algorithm? ○ yes ○ no why?

Name: _____ HM_____

Chronic Lymphocytic Leukemia and/or Lymphoma

If Diagnosis is NHL or CLL (not for Hodgkin lymphoma)

◯ Flow Cytometry

Diagnosis of CLL / SLL and Marrow Is Involved

If a new diagnosis then:

◯ PATHOLOGY SUMMARY REPORT

◯ ask Kim to accession PS report

◯ add patient to PRISM list

if not done in past six months

◯ CLL FISH panel

Diagnosis of DLBCL and Marrow Is Involved

if not previously done

◯ FISH for MYC cascade

OPTIONAL ◯ PATHOLOGY SUMMARY REPORT

I have reviewed this algorithm: _____ date: _____
Attending signature

Did you stray from the algorithm? ◯ yes ◯ no why?

Name: _____ HM_____

Other, including benign disease (hemolytic anemia, ITP, TTP, etc.)

As Indicated:

- ◯ Flow cytometry
- ◯ Chromosome Analysis
- ◯ FISH for _____
- ◯ Other: _____
- ◯ Switch to another track as appropriate: TRACK ____

Please communicate with the Clinician before you order anything unusual.

for a new diagnosis of a WHO entity

- ◯ PATHOLOGY SUMMARY REPORT
  - ◯ ask Kim to accession PS report
  - ◯ add patient to PRISM list

I have reviewed this algorithm: _____ date: _____
Attending signature

Did you stray from the algorithm? ◯ yes ◯ no why?

Time of report 07/21/2017 1615

CCCTEST,TEST34 (0611590514)
DOB 05/05/1955 (62Y) **Sex F**
Soc Sec #: 888777777

Hospital ID MHV
Location B622-2 (B006)
Att phys 1 GOGO MD, PROSPERO B JR
Att phys 2

F6176 Collect D/T: 07/21/2017 1532 **Receive D/T: 07/21/2017 1542**
Order account #: **Order location: B006**

Order physician: GOGO MD, PROSPERO B JR

Bordetella pertussis

Specimen Description	Nasopharynx	(603) {MV}
<<Special Requests>>	None	(603) {MV}
Result	Negative	(603) {MV}
Report Status	Final 07/21/2017	(603) {MV}

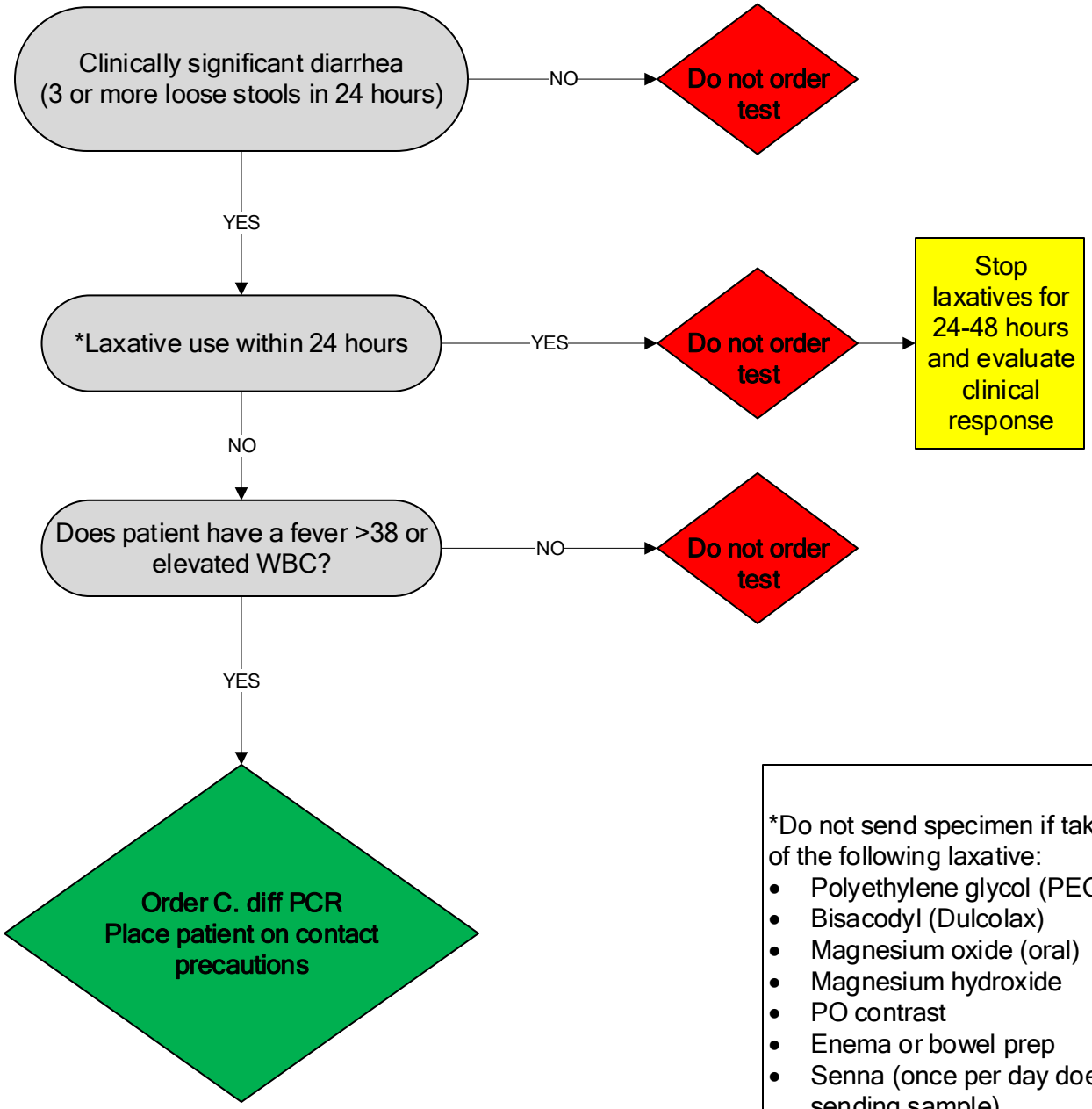
*** END OF REPORT ***

THE University of Vermont MEDICAL CENTER

C. difficile Testing Guidelines

Applies to UVMMC patients that have been admitted for >3 days. Do not delay testing if suspicion of C.diff exists on admission or within the first 3 days of admission.

If a patient is critically ill from sepsis in the setting of diarrhea with a high clinical suspicion for C.diff, providers are allowed to over-ride the below algorithm and are encouraged to not delay empiric treatment.



*Do not send specimen if taking one or more of the following laxative:

- Polyethylene glycol (PEG) (Miralax)
- Bisacodyl (Dulcolax)
- Magnesium oxide (oral)
- Magnesium hydroxide
- PO contrast
- Enema or bowel prep
- Senna (once per day does not prohibit sending sample)
- Lactulose (can send specimen without stopping if indicated for cirrhosis)

Date Reviewed: 12/5/2019

INTERIM LABORATORY REPORT
PRINTED @ 06/27/2017

TEST,CDP
MRN: LABS9-178 Loc: LABS9
DOB: 07/11/1968 Sex: F

Clinician: IMMUNOLOGY LAB

T6491 COLL: 06/27/2017 12:01 REC: 06/27/2017 12:02 PHYS: IMMUNOLOGY LAB

Celiac Disease Panel			
Tissue Transglut Ab	**H 35.5**	[<4.0]	U/mL
	The following results were obtained with the INOVA QUANTA Lite Rh-tTG Elisa on the Dynex DSX.		
	Interpretation: Positive (>10.0 U/mL)		
IgA	259	[82-453]	mg/dl
Celiac Dis Interpret	Celiac disease possible. Consider referral to gastroenterology specialist for consideration for biopsy.		

END OF REPORT

H = High L = Low * = Critical

INTERIM LABORATORY REPORT
PRINTED @ 06/27/2017

TEST,CDPEQU
MRN: LABS9-179 Loc: LABS9
DOB: 03/24/1990 Sex: M

Clinician: IMMUNOLOGY LAB

T6565 COLL: 06/27/2017 13:57 REC: 06/27/2017 13:58 PHYS: IMMUNOLOGY LAB

Celiac Disease Panel			
Tissue Transglut Ab	**H 6.3**	[<4.0]	U/mL
	The following results were obtained with the INOVA QUANTA Lite Rh-tTG Elisa on the Dynex DSX.		
	Interpretation: Weak Positive (4-10 U/mL). Suggest follow-up testing for anti-endomysial antibodies and/or anti-deamidated gliadin peptide antibodies if clinically indicated. A serum sample will be available for at least seven days for add-on testing if needed.		
IgA	135	[82-453]	mg/dl
Celiac Dis Interpret	Equivocal serology, celiac disease cannot be excluded. Referral to gastroenterology specialist recommended for additional evaluation.		

END OF REPORT

H = High L = Low * = Critical

INTERIM LABORATORY REPORT
PRINTED @ 06/27/2017

TEST,CDPNEG
MRN: LABS9-180 Loc: LABS9
DOB: 02/15/2007 Sex: F

Clinician: IMMUNOLOGY LAB

T6574 COLL: 06/27/2017 14:02 REC: 06/27/2017 14:03 PHYS: IMMUNOLOGY LAB

Celiac Disease Panel		
Tissue Transglut Ab	<1.2 [<4.0] U/mL	
	The use of this assay and normal range (result interpretation) has not been established for pediatric samples.	
	The following results were obtained with the INOVA QUANTA Lite Rh-tTG Elisa on the Dynex DSX.	
	A negative result may be due to IgA deficiency and does not rule out celiac disease.	
IgA	53 [45-237] mg/dl	
Celiac Dis Interpret	Negative serology. Celiac disease unlikely. Approximately 10% of patients with celiac disease are seronegative. Patients who are already adhering to a gluten-free diet may be seronegative. If celiac disease is highly clinically suspected, referral to gastroenterology for additional evaluation is recommended.	

END OF REPORT

H = High L = Low * = Critical

INTERIM LABORATORY REPORT
PRINTED @ 06/27/2017

TEST,CDPBABY
MRN: LABS9-183 Loc: LABS9
DOB: 01/01/2017 Sex: M

Clinician: IMMUNOLOGY LAB

T6579 COLL: 06/27/2017 14:08 REC: 06/27/2017 14:09 PHYS: IMMUNOLOGY LAB

Celiac Disease Panel			
Tissue Transglut Ab	**H 4.2**	[<4.0]	U/mL
	The use of this assay and normal range (result interpretation) has not been established for pediatric samples.		
	The following results were obtained with the INOVA QUANTA Lite Rh-tTG Elisa on the Dynex DSX.		
	Interpretation: Weak Positive (4-10 U/mL). Suggest follow-up testing for anti-endomysial antibodies and/or anti-deamidated gliadin peptide antibodies if clinically indicated. A serum sample will be available for at least seven days for add-on testing if needed.		
IgA	33	[8.0-83]	mg/dl
Celiac Dis Interpret	Celiac disease interpretation in children less than one year of age is difficult. Recommend referral to gastroenterology specialist for additional evaluation if clinically indicated.		

END OF REPORT

H = High L = Low * = Critical

INTERIM LABORATORY REPORT
PRINTED @ 06/27/2017

TEST,CDPIGA
MRN: LABS9-181 Loc: LABS9
DOB: 10/15/1999 Sex: M

Clinician: IMMUNOLOGY LAB

T6576 COLL: 06/27/2017 14:07 REC: 06/27/2017 14:08 PHYS: IMMUNOLOGY LAB

Celiac Disease Panel

Tissue Transglut Ab	**H**	**7.3**	[<4.0]	U/mL

The use of this assay and normal range (result interpretation) has not been established for pediatric samples.
The following results were obtained with the INOVA QUANTA Lite Rh-tTG Elisa on the Dynex DSX.
Interpretation: Weak Positive (4-10 U/mL). Suggest follow-up testing for anti-endomysial antibodies and/or anti-deamidated gliadin peptide antibodies if clinically indicated. A serum sample will be available for at least seven days for add-on testing if needed.

IgA	**L**	**30**	[45-237]	mg/dl

Corrected on 06/27 AT 1416: Previously reported as 199

Celiac Dis Interpret: Low total serum IgA. Recommend referral to gastroenterology specialist for additional evaluation.

END OF REPORT
H = High L = Low * = Critical

INTERIM LABORATORY REPORT
PRINTED @ 06/27/2017

TEST,LOWIGA
MRN: LABS9-182 Loc: LABS9
DOB: 05/16/1986 Sex: F

Clinician: IMMUNOLOGY LAB

T6577 COLL: 06/27/2017 14:07 REC: 06/27/2017 14:08 PHYS: IMMUNOLOGY LAB

Celiac Disease Panel			
Tissue Transglut Ab	3.6	[<4.0]	U/mL
	The following results were obtained with the INOVA QUANTA Lite Rh-tTG Elisa on the Dynex DSX.		
	A negative result may be due to IgA deficiency and does not rule out celiac disease.		
IgA	**L <7**	[82-453]	mg/dl
Celiac Dis Interpret	Total serum IgA deficiency. Recommend referral to gastroenterology specialist for additional evaluation.		

END OF REPORT

H = High L = Low * = Critical

THE University of Vermont MEDICAL CENTER

Pathology & Laboratory Medicine
Client Centrifuge Procedure

LABORATORY CUSTOMER SERVICE

Problems or Questions
Phone: 847-5121

Toll Free Phone:

800-991-2799

Compact II

Fisher Scientific

Horizon Mini e

Emergency open

OPERATING INSTRUCTIONS

The centrifuge must be placed on a rigid level surface, in a temperature controlled, non-patient area. There must be adequate ventilation and at least twelve inches of space around the centrifuge. There must be sufficient space above the centrifuge to leave the cover open. Suction cups secure the centrifuge to the bench top.

Observe universal precautions when handling specimens, always use gloves and goggles. Inspect tubes before centrifugation; cracked or scratched tubes should not be spun.

To balance the load, place tubes of equal weight (volume) opposite each other. Unbalanced tubes will result in excess noise when spinning and may lead to broken tubes. When you centrifuge an odd number of tubes, place a balance tube of equal weight (volume) opposite the odd tube. Do not remove tops from tubes before spinning.

Do not walk away from the centrifuge until full operating speed is attained.
DO NOT OPEN THE CENTRIFUGE COVER UNTIL THE ROTOR STOPS COMPLETELY!

To minimize temperature build up, the centrifuge should be left idle for 10 minutes with the cover open between sequential runs. When temperatures build up in successive runs the results for certain tests can be altered or can cause hemolysis.

Additional inserts are available for various tube sizes. Please contact laboratory Customer Service if you have any questions about your centrifuge.

COMPACT II OR FISHER SCIENTIFIC

1. The six stainless steel shields MUST be inserted into the rotor for proper centrifuge operation.
2. The six stainless steel shields must have one black or orange disk cushion and one large black cushion inserted into the bottom. Failure to use BOTH cushions can lead to the tops of the tubes popping off in the centrifuge. For smaller tubes insert a blue adapter into shields opposite each other. There should be a couple of centimeters between the bottom of the test tube cap and the top of the metal shield.
3. Close the top cover and latch. The centrifuge will not start unless the interlock switch near the cover is depressed.
4. Turn the timer knob past 15 and back to the 15 mark. Do not spin blood for longer than 15 minutes. When the timer's clock gets to zero (knob reaches OFF position), a bell will ring and electrical power to the motor will shut off causing the rotor head to coast to a stop.

HORIZON MINI E

1. Make sure there are **4-red tube holders and 2-green tube holders** inserted into the rotor.
2. The **green holders** are for spinning tubes that are less than 5 mL (75 mm long).
3. The **red holders** are for spinning tubes that are 6-10 mL (100 mm long). *Do not spin 75 mm tubes in the red holders.*
   IMPORTANT: The top of the tube must not rest on the lip of the bucket or bucket insert. In addition, the tube must not stick up beyond middle of the rotor when spinning.
   Close the top cover and turn the latch clockwise, the LATCH light will illuminate.
4. Press START. The RUN and the LATCH light should be illuminated. The run is set for 10 minutes and the centrifuge will automatically turn off when finished. When the centrifuge is stopped turn the latch counter clock wise to open.
5. In case the power goes out and you need to get into the centrifuge, peel back the open/close label and insert a pen in the hole as you turn the latch.

CLEANING, GENERAL

1. Always unplug the power cord before cleaning the centrifuge. Wear protective gloves and clothing.
2. At least weekly, wipe the centrifuge interior rotor chamber and exterior housing with a mild detergent or Clorox wipes and water. Do not pour cleaning solutions directly into the centrifuge.
3. Run empty centrifuge for 5 minutes before spinning patient samples.
4. Annually or as needed, centrifuge maintenance must be done by a qualified technician. This would include checking the centrifuge brushes, timer, speed and electrical leaks. This is done by UVM Medical Center Technical Services Department.
5. Please contact Laboratory Customer Service at (802)847 5121 to order your annual maintenance. This is required according to the renewal date on the inspection sticker located on the centrifuge.

ANNUAL MAINTENANCE OR CENTRIFUGE REPAIR

The centrifuge needs routine maintenance annually. There is a sticker on the side of your centrifuge that tells you the date maintenance is due. If your centrifuge is due for maintenance or there is a problem with operation call Laboratory Customer Service for a replacement. If you have an orange “Defective Equipment” sticker fill it out and stick it to the centrifuge for transport. If not add a label to your centrifuge that says Your name, phone number, location, and the problem with your centrifuge (for instance “routine maintenance/ too loud/ latch broken, etc.) for transport. The courier will pick up your centrifuge for delivery to the lab,

CLEANING, DISINFECTING

1. To disinfect, wipe the centrifuge interior rotor chamber and exterior housing with Clorox wipes or with a solution of 1:10 sodium hypochlorite (bleach) and water solution (1-part bleach and 9-parts water).
2. It is also recommended to soak the shields and adapters in a 1:10 bleach solution for 10 minutes. After soaking rinse thoroughly in water and dry completely before use.
3. If a tube breaks in the centrifuge, carefully remove broken glass/plastic with a hemostat or other device, using gloves. Disinfect the centrifuge as above.
4. Run empty centrifuge for 5 minutes before spinning patient samples.

*** IMPORTANT ***

DO NOT SEND A CONTAMINATED CENTRIFUGE TO THE LAB. BE SURE TO CLEAN YOUR CENTIFUGE BEFORE SENDING IT TO UVMMC FOR SERVICE

NEVER SEND A CENTRIFUGE WITH BROKEN TUBES INSIDE TO THE LABORATORY

SAFETY MEASURES

1. Do not use the centrifuge if any part shows signs of corrosion, mechanical damage, or wear.
2. Do not use the centrifuge if the interior is hot or if unusual vibrations or noises occur. For centrifuge problems, call Laboratory Customer Service (802)847-5121.
3. Centrifuges are instruments with strong potential for harming users due to the high speed at which they operate. It is very important to act safely when using and maintaining these instruments.
4. Do not lean or place items on the centrifuge at any time.
5. Do not leave the centrifuge until full operating speed is attained, and the centrifuge is operating correctly.

References:

Becton Dickinson and Company. *Clay Adams® Brand Compact II Centrifuge Model Nos. 420225 and 420227 Operator’s Manual.* 1993. Print.

The Drucker Company. *Horizon mini E Operators Manual Model 642E laboratory Centrifuge.* P/N 7711006 Rev.1.6. Print.

Coagulation Specimen Handling and Processing

SPECIMEN REQUIREMENTS FOR BLUE TOP TUBES (3.2% SODIUM CITRATE)

1. Please indicate in the order or on the laboratory requisition if the patient is on heparin or coumadin.
2. Under-filled or over-filled blue top tubes are unacceptable for coagulation testing.
3. Samples from patients receiving heparin or fondaparinux should be processed immediately.
   See Heparin Assay-UFH (HEPUFH) and Heparin Level-LMW (HEPLMW) sample requirements.

- All the screening tests (Protime, PTT, Fibrinogen, D-Dimer) or any combination of the listed screening tests can be performed on a single 1.5 mL plasma aliquot.
- Thrombin Time requires a separate aliquot.
- Each additional test requires a separate 0.5-mL aliquot of plasma.
- Samples that require treatment with a heparin adsorbent require a separate 1.0-mL aliquot for each test.
- Platelet Function Analysis requires a separate blue top whole blood tube.

Labels
Tubes should be labeled with the patient's full legal name, collection date/time, and if you are not sending the sample in the primary tube label with sample type (for example blue top plasma).
Patient Information
Please note on the test request if the patient is on heparin or coumadin. Some tests (in addition to the Protime and PTT) are affected by the presence of heparin or coumadin.

REFER TO INDIVIDUAL TEST DESCRIPTIONS FOR EXCEPTIONS TO THIS PROTOCOL

Test	Sample Time
NON-HEPARINIZED PATIENT	
PTT and/or Protime	Deliver capped whole blood sample at room temperature within 3-hours of collection. For delayed delivery, send platelet poor plasma frozen. Protime can be included with this collection and sample time. If a patient is on heparin see **HEPARINIZED PATIENT** lower in this table.
D-Dimer	
Fibrinogen	
Other Coag Testing	Deliver capped whole blood sample at room temperature within 3 hours. For delayed delivery send platelet poor plasma in individual frozen aliquots for each test requested.
Platelet Function Analysis	Deliver capped whole blood samples at room temperature within 3 hours. Requires separate tube.
ProTime only (no other coagulation testing requested)	Deliver capped whole blood sample at room temperature within 23-hours of collection, if delayed, send platelet poor plasma frozen.
HEPARINIZED PATIENT	
Heparin Assay or Fondaparinux (Unfractionated or low molecular weight)	Deliver immediately; sample must be processed as soon as possible after collection, preferably within 30 minutes. For delayed delivery send platelet poor plasma frozen. **Samples from patients receiving heparin must be processed for platelet poor plasma immediately**
PTT, D-Dimer, Fibrinogen, Protime, Other Coag testing.	

COLLECTION OF SAMPLE FOR COAGULATION STUDIES

1. ANTICOAGULANT: Use blue top tube, 3.2% sodium citrate anticoagulant.
   (NOTE: The majority of coagulation tests require sodium citrate anticoagulant but there are exceptions. Refer to the individual tests in the directory for specific specimen requirements.)
2. If using the Vacutette® system the blue top tube must not be the first drawn. If only coagulation specimens are being collected, draw at least 2-mL of blood into the first tube, then discard that tube.
3. If using the two-syringe technique, unscrew the safety needle and dispose of it in an approved sharps container. Screw a blood transfer device into the syringe. You can now safely fill vacuum tubes as needed, use care not to force blood into the tubes, run the blood gently down the side of the tube. Immediately after filling the tube, invert the tube GENTLY five or six times to mix. When transfer is complete, discard the entire assembly (syringe and transfer device) in an approved sharps container. Never disassemble equipment, dispose of it in its entirety. Blood must be transferred from syringe to anticoagulated tubes within one minute to prevent clotting.
4. The sample must be drawn as atraumatically as possible to avoid contamination with tissue factor, activation of clotting factors or platelets, and hemolysis. Do not leave the tourniquet on for more than one minute. Also avoid excessive pumping of the hand, or slapping to raise a vein. If a good blood flow has been established, loosen the tourniquet before drawing the coag samples.
5. HEMOLYSIS IS UNACCEPTABLE for the more specialized coagulation tests. Screening tests (Protime, PTT, Fibrinogen, D-dimer and Thrombin Time), will be performed on a slight too hemolysis is preferable for the screening tests as well. MARKEDLY HEMOLYZED SPECIMENS WILL BE REJECTED.
6. UNDERFILLED OR OVERFILLED TUBES ARE UNACCEPTABLE. Even though minimum PLASMA requirements for a test may be as little as 0.1 mL, MINIMUM REQUIREMENT IS A FULL COAG TUBE. There is a black triangle located at the top of the label that is the fill-to line, tubes that are filled under or over this line will be rejected. Coagulation testing and accurate test results are based on a ratio of 9 parts blood to 1 part anticoagulant and since the anticoagulant stops blood from clotting by removing a portion of the calcium from plasma, underfilling the tube removes too much calcium leading to inaccurate patient results. Fot patients whose hematocrits are 55% or higher, a smaller plasma volume leads to a disproportionately higher calcium loss therefore anticoagulant volume must be adjusted for patients with high hematocrits. Call the Coagulation Laboratory at (802) 847-5121 for instructions.

PLATELET POOR PLASMA PROCESSING

1. If only a protime is ordered and the sample will reach the lab within 23 hours after collection, the sample must be stored and transported at room temperature.

   If only screening tests are requested (PTT, Fibrinogen, D-Dimer, Thrombin Time) and the sample will reach the lab within 3 hours of collection, the sample must be kept at room temperature.

   DO NOT FREEZE A WHOLE BLOOD SAMPLE.

   All other coagulation tests require that the specimen be processed for platelet poor plasma and frozen as quickly as possible after the specimen is drawn. The plasma must remain frozen until the test is performed.
2. SPECIMENS MUST BE CHECKED FOR CLOTS. This may be done before centrifuging the specimen or after the plasma has been removed. If several tubes are drawn and the plasma is to be pooled and realiquoted, it is preferable that the tubes be checked for clots prior to centrifugation in case one of several tubes to be used for the pool is clotted. CLOTTED TUBES MUST BE REJECTED.
3. To obtain plasma suitable for freezing for coagulation testing, the capped specimen tube must be centrifuged. It is recommended that a swing bucket rotor be used to minimize remixing of the plasma and platelets. A double-spun method is required.
4. To double-spin plasma: Spin whole blood and transfer the top two thirds of the plasma into a plastic aliquot tube, cap the aliquot tube and respin the plasma. Being careful not to disturb the cells at the bottom of the tube, transfer the top two thirds of the respun plasma to a plastic tube and freeze. If the plasma is for multiple tests, prepare a separate aliquot for each test. Failure to produce platelet-poor-plasma results in residual platelets, which are a significant source of interference in coagulation testing. Contact the Hematology laboratory for further guidance ((802) 847-5121). Samples for heparin levels, tests used to detect Lupus-like inhibitors and tests on heparinized patients must be centrifuged as outlined above and frozen within one hour of collection.
5. If a delivery system other than the UVMMC courier is used, frozen specimens should be shipped in a styrofoam container with at least 5 pounds of dry ice via a courier with a guaranteed overnight delivery.

SPECIMEN HANDLING FOR THROMBOSIS PANELS

There are 2 orderable Thrombosis Panels:

Thrombosis Panel with Coumadin, charge code TP1C. Testing includes: Prothrombin time, PTT, D-Dimer, Cardiolipin IgG & IgM AB, APC Resistance V, Antithrombin 3-Functional, and Factor 8.

Thrombosis Panel WITHOUT Coumadin, charge code TP1. Testing includes: Prothrombin time, PTT, PTT 50/50 mixing study, D-Dimer, Cardiolipin IgG & IgM AB, Antithrombin 3 Functional, Lupus Anticoagulant Cascade, Activated Protein C Resistance V, Protein C Functional (if low, Protein C Antigen done), Protein S Functional (if low Protein S Antigen done).

Prothrombin time and PTT are subject to Medicare Local Medical Review Policy. Only order these panels if all test components are medically necessary. May only be ordered if laboratory has a signed "Physician Acknowledgement of Custom Profile" on file. Contact your Lab Outreach Specialist to obtain this form.

Collect and process samples for either panel in the following manner. Be sure to label all tubes with 2 patient identifiers and the date and time collected.

COLLECT: 6 Blue tops
1 Serum Gel Tube

PROCESSING AND STORAGE

Process **blue tops** as for platelet poor plasma. Label each aliquot tube as “Blue top plasma” along with 2 patient dentifiers and the date and time collected. Freeze plasma and send to the lab on dry ice

Aliquot: 2-plastic tubes with 1.0 mL each
6-plastic tubes with 0.5 mL each

Spin the **serum gel tube**. Send 1-mL serum refrigerated.

PATHOLOGY & LABORATORY MEDICINE
111 Colchester Avenue |Burlington, Vermont 05401

PHONE LABORATORY CUSTOMER SERVICE
(802) 847-5121 | (800) 991-2799

UVMHealth.org/MedCenterlabs

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PATHOLOGY AND LABORATORY MEDICINE

COLLECTING A BLOOD SAMPLE

Patient Considerations

Fasting

Patients should be instructed not to have anything to eat or drink for at least 8 hours. Water is acceptable. The patient should continue to take any medications that have been prescribed, unless otherwise directed by the physician. If the patient usually takes their medication with food, please tell them to refrain until after the sample has been collected. It is important for the patient to hydrate.

Other Factors

Smoking and exercise may affect test result. Please ask patients to refrain from these activities until their sample has been collected.

General Information

1. It is important to have all equipment, supplies, and test orders ready for the procedure.
2. Wash your hands before each patient.
3. Gloves must be worn when performing any venipuncture or fingerstick. Gloves must also be worn when processing the lab samples.
4. Whenever collecting laboratory samples, the patient must be identified using at least two patient identifiers. Label the samples immediately after collection and in the presence of the patient. For proper labeling use the patients' full legal name (no nick names), date of birth and, University of Vermont Medical Center (UVMMC) MRN if available. The date and time the sample was collected is also helpful.

Blood Bank Sample Collection

Only authorized personnel can collect Blood Bank samples used for transfusion, Contact blood bank for information 847-5121.

Venipuncture

1. To help find a site for venipuncture use a soft flexible tourniquet. Place the tourniquet around the arm above the bend of the elbow (2-3 inches) in such a way that a pull of one end will allow for easy release. It should be tight but not painful to the patient. Do not leave the tourniquet on for more than one minute.
2. Palpate for a suitable vein. Once the site has been selected, use concentric circles to decontaminate it with 70% alcohol. The alcohol should be allowed to air dry after preparing the site. Do not wipe off with gauze. If this is not done, alcohol will sting at the puncture site and can interfere with some test results.
3. Once the site has been decontaminated DO NOT touch the actual puncture site. Put on gloves.
4. Prepare the needle assembly. Do not uncap the needle until you are ready to perform the venipuncture.

5. Anchor the vein. This is very important so the vein does not move when inserting the needle. Using the thumb of your non-dominate hand pull down on the patients skin approximately 3 inches below the intended venipuncture site. You may also use your index finger above the site but is not practiced universally.

6. Hold the assembly with the first tube in place between your thumb and third and fourth fingers of your dominate hand. Your fingers should never come in contact with the exposed needle. The needle should run the same direction as the vein and should be inserted at a 15-30 degree angle with the bevel side upward, slightly below the vein. Once the needle is in the vein the test tube should be gently pushed forward to puncture the rubber stopper and allow blood to fill the tube. Hold firmly onto the needle holder to prevent the needle from moving as you push the test tube onto the needle.

7. The tube should continue to fill until the blood flow stops (vacuum has been exhausted). Remove tube from assembly and gently invert the tube 5 to 7 times for light blue top tubes and 8 to 10 times for all others to mix the blood. Never shake a tube containing blood. When drawing multiple tubes each tube should be gently removed from the holder and replaced with the next tube.

8. The correct order for tubes to be collected so there is no contamination or transfer of anticoagulants is as follows:

    1. Blood Cultures
    2. Light Blue Top Tube
    3. Red Top, NO GEL
    4. Serum Gel Tube
    5. Green Top Tube
    6. Lavender Top Tube/Pink Top Tube
    7. Grey Top Tube

9. If blood has been collected into one tube, it should never be transferred to another tube.

10. Release the tourniquet, withdraw the needle, and apply pressure with a dry gauze pad for two minutes, or until bleeding has stopped. DO NOT BEND the arm. The arm may be elevated.

11. Do not recap the needle. Dispose of the needle and holder assembly in a puncture proof needle disposal container.

12. Label the tubes at the patient's side see “Laboratory Specimen Acceptability Policy”). Samples should not be left on a counter top or bed unlabeled.

13. After labeling tubes, check the patient’s arm for proper clotting by dabbing the gauze and stretching the skin at the puncture site. Apply a pressure bandage to reduce the risk of bruising. Instruct the patient to remove the bandage after one hour.

Hemolysis of Blood Specimens

Hemolysis is due to red blood cells lysing or breaking-up, causing constituents inside the cell to spill into the serum or plasma. Hemolysis is important because it can effect test results. Some lab tests are effected more than others by hemolysis, the effects can be caused by-products liberated from the red cells, or due to interferences with laboratory analyzers.

The most common causes of hemolysis occur during blood collection, listed here are a few of the most common collection errors that can lead to hemolysis.

Common Causes of Hemolysis During Sample Collection

- Not letting the venipuncture site completely dry after cleansing with 70% alcohol or betadine.
- Putting the tourniquet on too tight or leaving the tourniquet on the arm for more than one minute. You usually can release the tourniquet as soon as the blood starts to flow into the tube.
- Using too small a gauge needles for blood collection. Needles should be 21 or 23 gauge to facilitate steady blood flow into the tube or syringe. A larger bore needle can cause too much suction on a small or weak vein, collapsing it. If you use too small of a needle, the shearing forces on the cells as they enter the needle can cause hemolysis.
- Forcing blood into or out of a syringe. Before drawing the blood in a syringe move the plunger within the barrel several times to ensure ease of movement. A 5mL, 10mL, or 20 mL syringe is recommended, larger syringes require more force to pull out the plunger and this can cause hemolysis. It is extremely important to draw the blood SLOWLY into the syringe, keeping the level of the blood close or at the edge of the plunger. If the blood is drawing slowly, do not pull back harder. If you use a syringe you will need to transfer the blood to the proper tubes. Never force the flow of blood into the tube, let the vacuum fill the tube.
- Mixing the blood sample too vigorously. NEVER SHAKE THE TUBE; always gently invert the tube 5 to 7 times for light blue tops and 8 to 10 times for all others to mix anticoagulant with the blood. (Some testing may require special handling. Refer to test catalog for special instructions)
- The tube must be inserted straight into the needle adapter/holder. If the needle that goes inside the collection tube is crooked and is resting near the side of the tube or is not completely inside the stopper, this can cause hemolysis.
- Do not remove the needle from the vein until you have removed the collection tube from the adapter/holder. If there is vacuum left in the tube, the sudden burst of air into the tube from the needle can cause hemolysis and pain to the patient.
- Do not centrifuge blood for longer than 15 minutes. Temperatures can build up in successive runs and this can cause hemolysis. To minimize temperature build up, the centrifuge should be left idle for 10 minutes with the cover open between sequential runs.

Hemolysis can occur in other scenarios, if you have a particular instance you would like to discuss please call Laboratory Customer Service (802)847-5121.

THE University of Vermont MEDICAL CENTER

PATHOLOGY AND LABORATORY MEDICINE

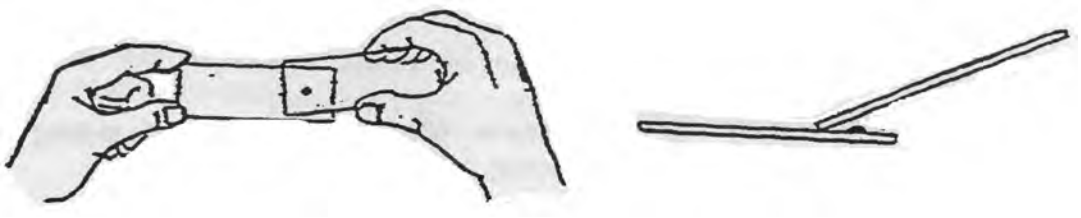
PREPARATION OF DIFFERENTIAL BLOOD SMEARS

If you order a CBC with differential and the sample will not arrive at UVMMC within 4 hours, a blood smear must be made for the differential. A carefully prepared blood smear is vital for an accurate differential count. If the smear is made too thin, there is a chance the larger cells will be collected at the thin edge. If too thick, the cells appear too round to properly identify. Preparation technique, therefore, is of the utmost importance in the blood cell differential. Our laboratory is happy to assist in training of office personnel. Please contact an Outreach Specialist at (802) 847-5121 to schedule training.

When handling blood or other body fluids always wear gloves.

Manual Method (push smear) for Making Blood Smears

1. Place a drop of blood approximately 3-4 mm in diameter at one end (non-frosted) of the slide:
   a. Use clean glass slides of sufficient quality so that the edges of the slide are smooth (free of nicks or imperfections). If the slides used do not have smooth edges the resulting smear will be uneven and full of streaks.
   b. Fill a microhematocrit tube with blood. Carefully place a small drop of blood in the middle of the slide approximately 1 cm from the frosted end.



2. Draw a spreader slide back into the blood, allow blood to spread, then immediately push the spreader slide over the entire length of the slide:
   a. Place the slide on a table top with the drop of blood on the right (for left-handed people it may be easier to reverse all techniques to the opposite hand).
   b. With the left hand, hold the slide on the table. Hold the spreader slide with the right hand and place the end slightly in front of the drop of blood on the other slide. There should be an approximately 25 degree angle between the two slides (see diagram above).
   c. Draw the spreader slide back toward the drop of blood. As soon as the spreader slide comes in contact with the drop of blood, the blood will spread to the edges of the slide. (Be careful that no blood gets in front of the spreader slide.)
   d. Keeping the spreader slide at a 25 degree angle, and the edge of the spreader slide firmly against the horizontal slide, push the spreader slide rapidly over the entire length of the slide. Label the slide with the patient's full name.
3. Prepare a second slide on the same specimen using the same procedure.
4. Allow the slides to air dry and label. (Do not use a fan to dry.)
5. Label the frosted area with a pencil; include patient name and Fletcher Allen Medical Record Number and/or date of birth.

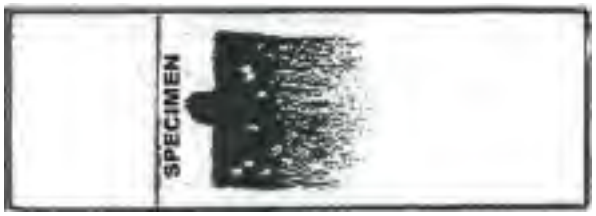
Discussion

1. The glass slides must be clean and have smooth edges.
2. There should be no delay in making the smear once the drop of blood is placed on the glass slide. Any delay whatsoever results in abnormal distribution of the white cells. Rouleaux and platelet clumping may occur.

3. Common causes of a poor blood smear:

    a. Drop of blood is too large or too small.
    b. Spreader slide pushed across the slide in a jerky manner.
    c. Failure to keep the entire edge of the spreader slide against the slide while making the smear.
    d. Failure to keep the spreader slide at a 25 degree angle with the slide. (Increasing the angle results in a thicker slide, whereas a smaller angle gives a thinner smear.)
    e. Failure to push the spreader slide completely across the slide.

Examples of Properly and Improperly Prepared Smears:



Properly made smear contains no streaks and tapers to a feathered edge with adequate area for differential to be performed.

Improperly made smear. Lots of streaks with no feathered edge. This may be caused by not allowing the drop of blood to spread along the spreader slide, spreader slide being pushed too rapidly or a poor quality spreader slide.

Improperly made smear. No feathered edge. This type of slide results when either the drop of blood is too large and/or the spreader slide is pushed too slowly.

Improperly made smear. Irregular pressure applied during slide preparation.

Pompe Disease Dried Blood Spot Testing and GAA Sequencing Program Testing Requisition Form

Glycogen Storage Disease Laboratory, Pediatric Biochemical Genetics Laboratory
Duke University Hospital

PATIENT INFORMATION

Last Name _____ First Name _____ MI_____

DOB____/____/____ Gender: _____ Ethnicity of patient: ☐Caucasian/NW European ☐Hispanic
dd mmm yyyy male / female (Check all that apply) ☐Asian ☐African-American ☐Indian
☐Native American ☐Eastern European
☐Mediterranean Other_____

Required clinical information:

muscle weakness present: _____. If yes, please describe: _____
yes / no proximal / distal / limb girdle / LGMD, etc.

muscle wasting: _____ hypotonia:_____ exercise intolerance:_____ lower back pain: _____
yes / no yes / no yes / no yes / no

cardiomyopathy/cardiomegaly:_____ cardiac arrhythmia:_____ hepatomegaly:_____
yes / no / unknown yes / no / unknown yes / no / unknown

respiratory insufficiency: _____ If yes; _____
yes / no BiPap / CPap / mechanical ventilator

Has a muscle biopsy been performed? _____ If yes, please summarize results:_____
glycogen present, membrane bound, UNK

Family history of Pompe disease? _____ *If patient is part of a known Pompe family, please attach pedigree.
yes* / no / unknown

Other relevant clinical information: _____

SAMPLE INFORMATION

Sample requirements: **3-5mL whole blood in sodium-EDTA** (purple-top) tube.

Please indicate your testing preferences: ☐ DBS for GAA enzyme assay and GAA gene sequencing if indicated**

** If enzyme activity is decreased, GAA gene sequencing may be indicated to confirm diagnosis. **You must** indicate above if you wish for reflex GAA gene sequencing to be done if necessary.

Date sample collected: ____/_____/_____ Time sample collected: ____:____ AM PM
DD MMM YYYY

Sample should be shipped overnight with a cold pack. If unable to ship on the day sample is drawn, please keep at 4°C until able to be shipped. Ship samples Monday through Thursday only. **Do not ship samples on Fridays**; no weekend deliveries accepted. **Be sure to include this requisition form with your sample!**

Ship to: Glycogen Storage Disease (GSD) Laboratory
Biochemical Genetics Laboratories
Attn: Deeksha Bali, PhD – Pompe DBS Program
Duke Hospital
801 Capitola Drive, Suite 6
Durham, NC 27713

If questions please contact:

Deeksha Bali, PhD
Phone: 919-684-0025
Deeksha.Bali@duke.edu

or

Gwen Dickerson
Phone: 919-684-0338
gharmon@duke.edu

http://medgenetics.pediatrics.duke.edu

PHYSICIAN ORDERING TEST:

Name and Specialty: _____

Institution / address: _____

_____

City: _____ State: _____ Zip: _____

Phone: (_____)_____-_____ Fax: (_____)_____-_____

Email: _____

Duplicate report to: _____
Physician name & clinic

Phone: (_____) _____-_____

Fax: (_____) _____-_____

BILLING INFORMATION:

Are you an MDA-affiliated physician? ____ yes*
____ no

* If you are an MDA physician, you *must* provide billing info for your **local MDA office** below:

MDA Billing address:

Name: _____

Address: _____

_____

Phone: (_____) _____-_____

Fax: (_____) _____-_____

Pompe Disease

Dried Blood Spot Testing and GAA Sequencing Program

About the Pompe Testing Program

Pompe disease (also known as Acid Maltase Deficiency) is a progressive and often fatal neuromuscular disorder with symptoms that can mimic other metabolic myopathies. Making the diagnosis is an important step toward optimizing your patient's care.

The Duke Glycogen Storage Disease (GSD) Laboratory offers non-invasive and free testing through the Pompe Disease Dried Blood Spot (DBS) testing and GAA Sequencing Program. This program is supported through a grant provided by Genzyme Corporation.

How do I test my patients?

- Collect 3 – 5 mL whole blood in an EDTA (purple-top) tube.
- Complete the requisition form (available from your local Genzyme representative).
- Send the sample to the address provided on the requisition form within 24 hours of collection:
  - If sample is collected on a Friday, please store at 4°C through the weekend and ship sample on the following Monday with a cold-pak enclosed.
  - The Pompe Disease Dried Blood Spot Testing and GAA Sequencing Program does not cover the costs associated with obtaining and shipping the sample.
- If a patient's GAA enzyme activity testing on blood sample is found to be low, the ordering physician will be notified via e-mail or phone call to recommend follow up testing through GAA full gene sequencing. If a patient's DBS tests negative, you will receive results via the mail within 10 days.

DukeMedicine™
Clinical Labs & Pathology

Why does the test requisition form ask me to indicate my testing preferences?

Blood-based GAA enzyme testing is an initial screening test for Pompe disease. Dried blood spot (DBS) samples testing positive for GAA deficiency must be confirmed using GAA full gene sequencing for definitive diagnosis.

Initial testing performed on the patient's blood sample will be DBS based GAA enzyme activity measurement. Samples testing in the normal range in enzyme activity exclude the diagnosis of Pompe disease.

If your patient's GAA enzyme activity test shows deficiency or low-level activity, follow-up testing through GAA full gene sequencing is recommended for confirmation of diagnosis. There is no need to send an additional sample; sequencing can be performed using blood from the original sample.

If you would like GAA gene sequencing to be done as a reflective test for confirmation of diagnosis, **please indicate this by ordering both tests on the requisition form**.

Duke University Hospital
Glycogen Storage Disease Laboratory
Biochemical Genetics Laboratory
801 Capitola Drive, Suite 6
Durham, NC 27713
919-549-0445

The Duke University GSD Laboratory specializes in the enzymatic and molecular diagnosis of glycogen storage disorders, disorders of fructose metabolism, and lysosomal storage diseases. The laboratory is certified by the College of American Pathologists (CAP) and Clinical Laboratory Improvement Amendments (CLIA) and is staffed by highly trained, licensed professionals and laboratory personnel. The latest advances in diagnostic technologies are utilized to provide physicians with an extensive menu of biochemical, enzyme and molecular tests. The laboratories work closely with the Division's board-certified medical geneticists and genetic counselors to ensure timely interpretation of laboratory results for health care professionals and their patients.

DukeMedicine™
Clinical Labs & Pathology

DMCLP-03-11

THE University of Vermont MEDICAL CENTER

Patient:
Test, Test 0700002318
F, 25 yrs, 1/5/1995

Report Recipient: Test, Test
318 Vt Rt 110
Chelsea VT 05638

Submitter: Alderbrook Family Health
8 Essex Way
Essex Jct Vermont 05452

Authorizing Provider

Berger, Claudia MD, MD F93647 F: 802-847-8245
PO Box 1063, Burlington VT 05402-1063

ED, Urgent Care Influenza, RSV PCR (Final result)

Component	Value	Ref. Range
FLU A RNA Result (FLARES)	Negative	Negative
FLU B RNA Result (FLBRES)	Negative	Negative
RSV RNA Result (RSVRES)	Negative	Negative

Resulting Lab: UVMMC LAB

Swab specimen 20UV-043M0002 from Nasopharynx Unspecified. Ordered by Berger, Claudia MD, MD. Authorized by Berger, Claudia MD, MD. Collected: 2/12/2020 1014 Received: 1014. Verified: 2/12/2020 1015. Resulted by UVMMC LAB.

Resulting Labs

UVMMC LAB CLIA: **47D0660960**, CAP: **1182501** UVM MEDICAL CENTER LABORATORY SERVICES, 111 Colchester Avenue, Burlington VT 05401

Time of report 08/06/2018 1505

TEST,MAGGIE (8500000255)
DOB 05/05/1995 (23Y) **Sex F**
Soc Sec #: 888338888

Hospital ID MHV
Location WP3025 (PMCHI)
Att phys 1 MARROQUIN MD, CARLOS E
Att phys 2

M5840 Collect D/T: 08/06/2018 UNKNOWN Receive D/T: 08/06/2018 1456
Order account #: Order location: PMCHI
Order physician: MARROQUIN MD, CARLOS E

INPATIENT, OP INFLUE

Specimen Description	Nasopharynx	(608) {MV}
INFLUENZA A RNA RESU	Negative	(608) {MV}
INFLUENZA B RNA RESU	Negative	(608) {MV}
RSV RNA RESULT	Negative	(608) {MV}

*** END OF REPORT ***

Time of report 08/06/2018 1506

TEST JR,MARYTT2 B (0611200809)
DOB 05/04/1933 (85Y) **Sex F**
Soc Sec #: 888888888

Hospital ID MHV
Location ME5061 (M005)
Att phys 1 DRUCKER MD, NANCY ANN
Att phys 2

M5841 Collect D/T: 08/06/2018 UNKNOWN **Receive D/T: 08/06/2018 1457**
Order account #: **Order location: M005**
Order physician: DRUCKER MD, NANCY ANN

INPATIENT, OP INFLUE

Specimen Description		Nasopharynx	(608) {MV}
INFLUENZA A RNA RESU	*	**POSITIVE**	(608) {MV}
INFLUENZA B RNA RESU	*	**POSITIVE**	(608) {MV}
RSV RNA RESULT	*	**POSITIVE**	(608) {MV}

*** END OF REPORT ***

Time of report 08/06/2018 1506

TEST,MARY (0011150042)
DOB 05/05/1955 (63Y) **Sex F**
Soc Sec #: 888888888

Hospital ID MHV
Location DCRE
Att phys 1 FINK MD, THEODORE
Att phys 2

M5842 Collect D/T: 08/06/2018 UNKNOWN Receive D/T: 08/06/2018 1458
Order account #: Order location: B004

Order physician: DRUCKER MD, NANCY ANN

INPATIENT, OP INFLUE

Specimen Description	Bronchoalveolar Lavage	(608) {MV}
INFLUENZA A RNA RESU	Negative	(608) {MV}
INFLUENZA B RNA RESU	Negative	(608) {MV}
RSV RNA RESULT	Negative	(608) {MV}

This test was developed and it performance characteristics determined by University of Vermont Medical Center.
It has not been cleared or approved by the US Food and Drug Administration.
FDA does not require this test to go through premarket FDA review.
This test is used for clinical purposes. It should not be regarded as investigational or for research.
This laboratory is certified under the Clinical Laboratory Improvement Amendments (CLIA) as qualified to perform high complexity clinical laboratory testing.

*** END OF REPORT ***

Time of report 08/06/2018 1506

TEST,MARY (0011150042)
DOB 05/05/1955 (63Y) **Sex F**
Soc Sec #: 888888888

Hospital ID MHV
Location DCRE
Att phys 1 FINK MD, THEODORE
Att phys 2

M5843 Collect D/T: 08/06/2018 1200 **Receive D/T: 08/06/2018 1459**
Order account #: **Order location: B004**

Order physician: DRUCKER MD, NANCY ANN

INPATIENT, OP INFLUE

Specimen Description		Bronchoalveolar Lavage	(608) {MV}
INFLUENZA A RNA RESU	*	**POSITIVE**	(608) {MV}
INFLUENZA B RNA RESU	*	**POSITIVE**	(608) {MV}
RSV RNA RESULT	*	**POSITIVE**	(608) {MV}

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*** END OF REPORT ***

Time of report 08/06/2018 0906

TEST JR,NXG1XX Z (8500025237)
DOB 05/05/1955 (63Y) **Sex F**
Soc Sec #: 888888888

Hospital ID MHV
Location B390-1 (B003)
Att phys 1 KLIKUNAS MD, MARVIN F
Att phys 2

M5832 Collect D/T: 08/06/2018 UNKNOWN Receive D/T: 08/06/2018 0856
Order account #: Order location: B003
Order physician: KLIKUNAS MD, MARVIN F

EXPANDED RESP VIRAL

Specimen Description	Nasopharynx	(608) {MV}
PARAINFLUENZA TYPE 1	Negative	(608) {MV}
PARAINFLUENZA TYPE 2	Negative	(608) {MV}
PARAINFLUENZA TYPE 3	Negative	(608) {MV}
PARAINFLUENZA TYPE 4	Negative	(608) {MV}
ADENOVIRUS DNA RESUL	Negative	(608) {MV}
METAPNEUMOVIRUS RNA	Negative	(608) {MV}
RHINOVIRUS RNA RESUL	Negative	(608) {MV}

*** END OF REPORT ***

Time of report 08/06/2018 0906

TEST JR,STATUS A (8500041374)
DOB 02/05/1981 (37Y) **Sex F**
Soc Sec #: 888888234

Hospital ID MHV
Location DGH
Att phys 1 CLEMENTS, SARAH
Att phys 2

M5833 Collect D/T: 08/06/2018 UNKNOWN Receive D/T: 08/06/2018 0856
Order account #: Order location: B003
Order physician: LANDRY MD, KARA KLINGMAN

EXPANDED RESP VIRAL

Specimen Description		Nasopharynx	(608) {MV}
PARAINFLUENZA TYPE 1	*	**POSITIVE**	(608) {MV}
PARAINFLUENZA TYPE 2	*	**POSITIVE**	(608) {MV}
PARAINFLUENZA TYPE 3	*	**POSITIVE**	(608) {MV}
PARAINFLUENZA TYPE 4	*	**POSITIVE**	(608) {MV}
ADENOVIRUS DNA RESUL	*	**POSITIVE**	(608) {MV}
METAPNEUMOVIRUS RNA	*	**POSITIVE**	(608) {MV}
RHINOVIRUS RNA RESUL	*	**POSITIVE**	(608) {MV}

*** END OF REPORT ***

Time of report 08/06/2018 0907

TEST,LARRY A (5118008803)
DOB 03/11/1953 (65Y) **Sex M**
Soc Sec #: 888888888

Hospital ID MHV
Location DARM
Att phys 1 AITKEN APRN, MARGARET
Att phys 2

M5834 Collect D/T: 08/06/2018 UNKNOWN Receive D/T: 08/06/2018 0857
Order account #: Order location: B004

Order physician: LURIA MD, SCOTT

EXPANDED RESP VIRAL

Specimen Description	Bronchoalveolar Lavage	(608) {MV}
PARAINFLUENZA TYPE 1	Negative	(608) {MV}
PARAINFLUENZA TYPE 2	Negative	(608) {MV}
PARAINFLUENZA TYPE 3	Negative	(608) {MV}
PARAINFLUENZA TYPE 4	Negative	(608) {MV}
ADENOVIRUS DNA RESUL	Negative	(608) {MV}
METAPNEUMOVIRUS RNA	Negative	(608) {MV}
RHINOVIRUS RNA RESUL	Negative	(608) {MV}

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*** END OF REPORT ***

Time of report 08/06/2018 0907

TEST,KYLE D (0611213471)
DOB 04/16/2006 (12Y) **Sex M**
Soc Sec #: 888552222

Hospital ID MHV
Location AES
Att phys 1 HAYDEN MD, JONATHAN
Att phys 2

M5835 Collect D/T: 08/06/2018 UNKNOWN Receive D/T: 08/06/2018 0858
Order account #: Order location: B004

Order physician: CONNOLLY MD, GREGORY J

EXPANDED RESP VIRAL

Specimen Description		Bronchoalveolar Lavage	(608) {MV}
PARAINFLUENZA TYPE 1	*	**POSITIVE**	(608) {MV}
PARAINFLUENZA TYPE 2	*	**POSITIVE**	(608) {MV}
PARAINFLUENZA TYPE 3	*	**POSITIVE**	(608) {MV}
PARAINFLUENZA TYPE 4	*	**POSITIVE**	(608) {MV}
ADENOVIRUS DNA RESUL	*	**POSITIVE**	(608) {MV}
METAPNEUMOVIRUS RNA	*	**POSITIVE**	(608) {MV}
RHINOVIRUS RNA RESUL	*	**POSITIVE**	(608) {MV}

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*** END OF REPORT ***

[Normal Priority] - A26392 : Otsuka— BreathTek Urea Breath Test Kits: FDA Approves Update to Product Labeling

Medical Device Ongoing Action

Published: Wednesday, May 18, 2016
Last Updated: Thursday, May 19, 2016

UMDNS Terms:

- IVD Test Reagent/Kits, Serology, Rapid Test, Bacteria, Helicobacter pylori [19468]

Product Identifier:
BreathTek Urea Breath Test (UBT) Kits *[Consumable]*

Geographic Regions: (Impact in additional regions has not been identified or ruled out at the time of this posting), U.S.

Manufacturer(s): Otsuka America Pharmaceutical Inc 2440 Research Blvd, Rockville, MD 20850, United States

Suggested Distribution: Clinical Laboratory/Pathology, Gastroenterology, Point-of-Care Coordination, Pharmacy, Materials Management

Problem:
In an April 12, 2016, letter submitted by an ECRI Institute member hospital, Otsuka states that FDA has approved updates to the product labeling for the above kits. Otsuka also states that the above kits will not be distributed with the updated package insert and how-to guide for several months. The manufacturer has not confirmed the information provided in the source material.

Action Needed:
Identify any affected product in your inventory. If you have affected product, verify that you have received the April 12, 2016, letter, the new current package insert, and how-to guide from Otsuka. The current package insert and how-to guide are also available for download from the firm's website . Be aware of the following changes to the package insert:
Warnings and Precautions (Section 4)

- The caution for administering the Pranactin-citric solution in diabetic patients was removed.
- The term "antimicrobials" was changed to "antibiotics."
- A clarification was added to recommend the use of the straw supplied in the kit to reduce likelihood of false-positive results.
- The safety of using affected product on pregnant and lactating patients is not established.
- Additional emphasis has been placed on determining infection status in pediatric patients. To obtain pediatric results, you must use a web-based calculation program provided on the website .

Patient Preparation (Section 7)

- Additional information advises patients to stop taking histamine 2-receptor antagonists (H_2RAs) 24 to 48 hours before testing.
- Additional information establishes that patients may continue to take antacids before testing.
- The term "antimicrobials" was changed to "antibiotics." Patients should stop taking antibiotics 2 weeks before testing.
- If a repeat test is required, affected product can be administered on the following day.

Step-by-Step Procedure (Section 8.2)

- After adding water to the Pranactin-citric solution, close the lid securely by pressing down until there is a click before swirling the mixture.
- Not using the straw provided in the kit may result in inaccurate results.
- The patient's breath sample may be collected no later than 30 minutes post-dose.

Notify all relevant personnel at your facility of the information in the letter, and forward a copy of the letter to any facility to which you have further distributed affected product.
For Further Information:
Otsuka
Tel.: (888) 637-3835
Email: productinfo@otsuka.com
Website: Click here

Comments:

- This alert is a living document and may be updated when ECRI Institute receives additional information. In circumstances in which we determine that it is appropriate for customers to repeat their review of an issue (e.g., when additional affected product has been identified), we will post a separate update alert. In other cases, we may add information, such as additional commentary, recommendations, and/or source documents, to the original alert. For additional information regarding the format of this alert, refer to our HDA Format Guide .

Source(s):

- 2016 May 17. Member Hospital. Download

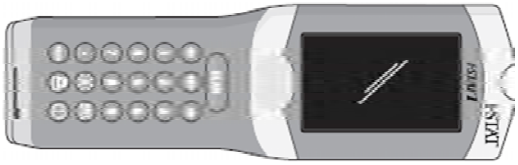
Documents Status: **Approved**

IDENT	labpoct100.013
Type of Document	Policy
Applicability Type	Cross-Organizational
Title of Owner	Network Dir Ops Lab&Path Svcs
Title of Approving Official	Medical Director of Clinical Laboratories
Date Effective	12/17/2018
Date of Next Review	10/31/2020

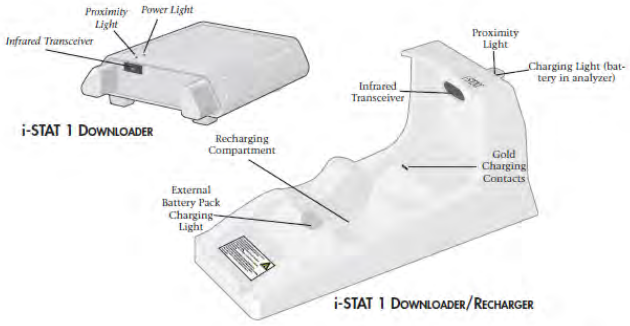
TITLE: **iSTAT TEST SYSTEM**

I. OVERVIEW AND INTENDED USE: The i-STAT analyzer is intended for use with i-STAT cartridges for *in vitro* quantification of various analytes and coagulation times in whole blood. The i-STAT System incorporates a comprehensive group of components needed to perform blood analysis at the point of care. A portable handheld analyzer, a cartridge with the required test, and 2 to 3 drops of blood will allow the caregiver to view quantitative test results for blood gas, chemistry and coagulation tests in approximately 2 minutes. The System consists of the following primary components:

Analyzer: A hand-held analyzer into which the blood-filled cartridge is placed for analysis automatically controls functions of the systems including fluid movement within the cartridge, calibration, and continuous quality monitoring.



iSTAT Downloader/Downloader/Recharger: The Downloader converts test records and transmits results to Epic. The Downloader/Recharger is also capable of recharging rechargeable batteries. The Downloader comes in two models:



Portable Printer: The printer can receive data directly from the analyzer via IR transmission. The printer can be recharged from a power adapter connected to an outlet. Only UVMMC Transport and Anesthesia/Perfusion use these printers.

UniPOC: UniPOC provides the primary information management capabilities for the i-STAT system. IR links and downloaders allow for transmission of patient records from a widely distributed network of analyzers to the POCCS server which communicates to UniPOC. Data can be stored, organized, edited and transferred to the laboratory information system (Sunquest) and then on to the UVMMC EHR, Epic. From UniPOC, cartridge usage and efficiency reports can be generated for management of the Test System.

Cartridges: A single-use disposable cartridge contains a microfabricated sensor array, a calibrant solution, fluidics system, and waste chamber. Sensors for analysis of sodium, potassium, chloride, BUN, creatinine, glucose, pH, pCO2, pO2, lactate and hematocrit are available in a variety of configurations (See Table 1).

II. SUPPLIES and STORAGE REQUIREMENTS:

1. **Cartridges:**

Store the main supply of cartridges at 2- 8°C (35 to 46°F). Do not allow cartridges to freeze. Cartridges may be stored at room temperature (18 - 30ºC or 64 - 86ºF) for the time frame indicated on the box and the foil pouches.

Room Temp Storage for 14 days: **Chem8, G, ACT, and CREA** Cartridges

Room Temp Storage for 2 months: **G3, CG4**, & **CG8** Cartridges

Cartridges should **never** be returned to the refrigerator once they have been at room temperature and should not be exposed to temperatures above 30ºC (86ºF). Mark the box or the cartridge to indicate the two-week or two-month expiration date immediately when removed from the refrigerator. Cartridges should remain in pouches until time of use. Do not use cartridge after the labeled expiration date. Do not use if storage conditions have been exceeded. Do not transport via pneumatic tube.

2. **Analyzer**: The operating and storage temperature for the i-STAT analyzer is 16-30^{0}C (61-86^{0}F). The analyzer monitors its own temperature and will not operate outside the acceptable temperature range. In addition, humidity should not exceed 90% non-condensing and barometric pressure should be between 300-850 mmHg. The analyzer has internal sensors to assure these are within range.

3. **Quality Control:**

- **i-STAT TriControls:** Store at 2 to 8°C (35° to 46°F). Controls may be stored at room temperature (18 to 30°C or 64 to 86°F) for five days. Do not use after expiration date on the box and ampules.
- **i-STAT Controls for ACT:** Store at 2 to 8°C (35° to 46°F). Do not use after expiration date on the box and vials. Controls should be used immediately after reconstitution.
- **Electronic Simulator:** Store at room temperature and protect contact pads from contamination by replacing the plastic cap and placing the Electronic Simulator in its protective case after use.
- **i-STAT Calibration Verification Set Linearity 1-5:** Store at 2 - 8°C (35-36°F). Do not use materials after expiration date. Observe manufacturer's handling instructions.
- **Eurotrol Hypoxic and Hyperbaric Controls**: Store Hyperbaric QC at room temp (15-30°C). Stable until manufacturer's expiration date. After opening, only stable for 30 seconds. Hypoxic should be stored at 2-8°C in the dark. Stable until manufacturer's expiration date. After opening, only stable for 10 minutes.

Documents Status: **Approved**

Quality Control Quick-Guide:

New device (Performed by Point of Care)
1. i-STAT TriConrols Calibration Verification material levels 1 – 5 in singlet
2. ACT QC Levels 1 and 2
3. Eurotrol Hypoxic and Hyperbaric QC material

Replacement devices (Performed by Point of Care)
1. i-STAT TriConrols Calibration Verification material levels 1 – 5 in singlet
2. ACT QC Levels 1 and 2
3. Eurotrol Hypoxic and Hyperbaric QC material

New Shipments of cartridges &/or Monthly QC (Performed by testing departments)
1. Chem8, G3, CG4, CREA, G and CG8+: i-STAT TriControl levels 1, 2, and 3
2. ACT: QC using ACT Level 1 and Level 2 materials
3. Old Lot vs New Lot Comparisons done by POC Team using 2 patient samples for all new lot/shipment of cartridges.

Post Software Upgrade (Performed by Point of Care)
1. i-STAT TriControl Calibration Verification Levels 1 - 5 (Chem8, CG4)
2. ACT QC levels 1 and 2
3. Eurotrol Hypoxic and Hyperbaric QC material
4. Thermal probe check

For more detailed information on the ongoing iSTAT Test System Quality Assurance Plan, see Point of Care Quality Assurance Policy (LabPOCT100.027)

iSTAT Cartridges by UVMMC Location:

DEPARTMENT	ACT-k	G3	CREA	CG4	Chem8	CG8	G
Respiratory Therapy		X		X		X	
Pulmonology		X					
NICU Staff					X		X
Anesthesia/OR	X					X	
Cath Lab	X						
Perfusion	X					X	
Radiology	X						
CT/MRI			X				
UVMHealthNet Transport				X		X	

III. SAMPLE REQUIREMENTS

A. Suitable Specimens for ALL cartridges other than ACT Kaolin:

- Fresh whole blood collected in a capillary collection tube with balanced heparin.
- Fresh whole blood collected in a collection tube with lithium heparin anticoagulant. Fill collection tubes to capacity.
- Fresh whole blood collected in a plain plastic syringe or in a blood gas syringe labeled for the assays to be performed. Fill syringes for correct blood-to-heparin ratio.

B. Suitable Specimens for ACT-Kaolin Cartridges

- Fresh whole blood ***without anticoagulant*** collected in a plastic syringe. If from an indwelling line, flush the line with 5ml saline and discard the first 5ml of blood or six dead space volumes of the catheter.
- Fresh whole blood collected in a plastic tube without anticoagulant, clot activators, or serum separators. Device used to transfer sample to cartridge ***must be plastic***. Sample must be tested immediately after collection.

Table 1: Cartridge Panel Configurations & Blood Volume Requirements:

	G only	**G3+**	**EG6+**	**CG8+**	**CG4+**	**Chem8**	**ACT Kaolin**	**Creat**
Sample volume	65 uL	95 uL	95 uL	95 uL	95 uL	95 uL	40 uL	65ul
Sodium (Na)			**X**	**X**		**X**		
Potassium (K)			**X**	**X**		**X**		
Chloride (Cl)						**X**		
BUN						**X**		
Glucose(GL)	**X**			**X**		**X**		
Ionized Ca (iCA)				**X**		**X**		
pH		**X**	**X**	**X**	**X**			
PCO_2		**X**	**X**	**X**	**X**			
PO_2		**X**	**X**	**X**	**X**			
Hct			**X**	**X**		**X**		
HCO_3		**X**	**X**	**X**	**X**			
tCO_2		**X**	**X**	**X**	**X**			
sO_2		**X**	**X**	**X**	**X**			
BE		**X**	**X**	**X**	**X**			
Gap								
Lactate (LAC)					**X**			
Creatinine (Creat)						**X**		**X**
ACT							**X**	

IV. SPECIMEN COLLECTION:

Patient must be identified prior to sample collection using guidelines from the Lab Patient Identification Policy, Lab200.037. Standard precautions must be followed, including using the appropriate PPE. Gloves must be worn during patient testing, hand hygiene performed, and gloves changed between patients. Follow site protocol for collection practices, but below are points to consider specific to sample quality for the iSTAT System:

1. In-Dwelling Line:

Back flush line with sufficient amount of blood to remove intravenous solution, heparin or medications that may contaminate the sample. Recommendation: five to six times the volume of the catheter, connectors and needle. Following guidelines for suitable specimen when choosing collection device (see above section).

2. Arterial Specimens:

Fill a plain syringe or fill a blood gas syringe, labeled for the assays to be performed, to the recommended capacity, or use the least amount of liquid heparin anticoagulant that will prevent clotting. Under-filling syringes containing liquid heparin will decrease results due to dilution and will decrease ionized calcium results due to binding. For ionized calcium, balanced or low volume heparin blood gas syringes should be used. Do not expose sample to air or ***P***CO**2** may decrease, pH may increase and ***P***O**2** may decrease if the value is above or increase if the value is below the ***P***O**2** of room air (approximately 150 mmHg).

For cartridge testing of ACT, use only a plain, plastic syringe without anticoagulant.

Mix blood and anticoagulant by rolling syringe between palms for at least 5 seconds each in two different directions, then invert the syringe repeatedly for at least 5 seconds. Discard the first two drops of blood. For blood gas testing, avoid or remove immediately any air drawn into syringe to maintain anaerobic conditions.

Test samples collected without anticoagulant immediately. Test samples for ACT and lactate immediately. For pH, blood gases, TCO2 and ionized calcium, test within 10 minutes of collection. If not tested immediately, remix the sample and discard the first two drops of blood from a syringe before testing. Note that it may be difficult to property remix a sample in a 1.0 cc syringe. For other cartridge tests, test sample within 30 minutes of collection.

3. Venous Specimens:

Collect sample into an evacuated blood collection tube or a syringe containing lithium heparin, or balanced heparin anticoagulant. For ionized calcium measurements, balanced heparin or 10 U of sodium or lithium heparin/mL of blood is recommended. Fill tubes to capacity; fill syringes for correct heparin-to blood ratio. Incomplete filling causes higher heparin-to-blood ratio, which will decrease ionized calcium results and may affect other results. The use of partial – draw tubes (evacuated tubes that are adjusted to draw less than the tube volume, e.g. a 5 mL tube with enough vacuum to draw only 3 mL) is not recommended for blood gases because of the potential for decreased ***P***CO2, HCO3 and TCO2 values.
Be sure to allow any alcohol on the skin to completely dry before venipuncture, as alcohol contamination can cause hemolysis and inaccurate results.
For cartridge testing of ACT, use only a plain, plastic syringe or collection tube containing no anticoagulant. Use a plastic capillary tube, pipette, or syringe to transfer sample from a tube to a cartridge.

Mix blood and anticoagulant by inverting a tube gently at least ten times. Roll a syringe vigorously between the palms for at least 5 seconds each in two different directions, then invert the syringe repeatedly for at least 5 seconds, then discard the first two drops of blood. Note that it may be difficult to properly mix a sample in a 1 cc syringe.

Test Sample collected without anticoagulant immediately. Test samples for ACT and lactate immediately. Test samples for pH, ***P***CO2, TCO2 and ionized calcium within 10 minutes of sample draw. If not tested immediately, remix the sample before testing and discard the first two drops of blood from a syringe before testing. For other cartridge tests, test sample within 30 minutes of collection.

4. Finger and Heelstick Specimens:

Only auto-disabling, single use fingerstick devices can be used for fingerstick and heelstick specimens. Wipe away the first drop of blood, which contains excess tissue fluid which can increase potassium result and dilute other test results. Avoid drawing air into capillary tube. Heparinized capillary tubes are not suitable for ionized calcium due to the high concentration of heparin. Use balanced heparin capillary tubes for collection. UVMMC uses Safe-Wrap Combo Blood Collection Tubes for heelstick collection and transfer. Tubes are calibrated to deliver either 65 ul or 95 ul of blood volume. The tubes are Mylar-wrapped and have been treated with calcium-balanced lithium heparin. Test samples immediately to avoid clotting (especially in neonates).

Capillary samples are NOT recommended for ACT testing.

There are conflicting reports in the literature regarding the validity of PO2 analysis performed on arterialized skin puncture specimens compared to arterial PO2. The process of capillary collection may change PO2, PCO_2 and the calculated SO2. Arterial specimens are preferred for blood gas analysis.

Criteria for Specimen Rejection

1. Evidence of clotting
2. Specimens collected in vacuum tubes with anticoagulant other than lithium heparin
3. Syringe for pH, **P**CO_2 and **P**O_2 with air bubbles in sample
4. Other sample types such as urine, CSF and pleural fluid
5. Incompletely filled vacuum tube for the measurement of ionized calcium, ***P***CO**2**, HCO3 or TCO2
6. Samples collected in glass collection device or collection device containing anticoagulants for ACT testing.
7. Samples drawn from insufficiently flushed catheters.

Avoid the Following Circumstances

1. Drawing a specimen from an arm with an I.V.
2. Stasis (tourniquet left on longer than one minute before venipuncture)
3. Extra muscle activity (fist pumping)
4. Alcohol contamination from puncture site during venipuncture (not allowing to dry completely)
5. Traumatic draw
6. Icing before filling cartridge
7. Time delays before filling cartridge
8. Exposing the sample to air when measuring pH, **P**CO_2 and **P**O_2
9. Analyzer not on level surface during testing

****NOTE** Whenever the sample integrity is questioned and/or results do not fit clinical picture, please contact the Point of Care Office at 847-1116 or email** Lab-Pointofcare@uvmhealth.org **for assistance.**

V. PROCEDURE FOR PATIENT TESTING:

Preparation for Use: An individual cartridge may be used after standing 5 minutes, in its pouch, at room temperature. An entire box should stand at room temperature for one hour before cartridges are used.

Procedural Note: ALWAYS wear gloves and follow UVMMC biohazard safety policies and guidelines when performing tests involving patient blood samples.

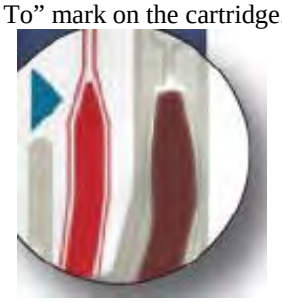
Cartridge Testing:

1. PRESS  to turn on iSTAT. The Test Main Screen will display:
   1- Last Result
   2- i-STAT cartridge
2. On the Test Menu Screen, select 2- i-STAT cartridge and follow the prompts on the screen.
3. Scan your operator ID (your M# on your barcoded UVMMC badge. If badge is unavailable, enter the 6-digit User ID #, omitting the M).

   General iSTAT Scanning Tips:
   - Position barcodes 3-9 inches from scanner window on the iSTAT
   - Press and hold 

 to activate the scanner
   - Align the red laser light so it covers the entire barcode
   - The iSTAT will beep when it reads the barcode successfully
4. Scan the patient ID always using the patient's wrist band whenever available. If necessary, manually entering the patient ID will require the ID to be entered twice.
5. Scan the bar-coded lot# off the individual cartridge package.

6. Remove the cartridge from the pouch. Avoid touching the contact pads or exerting pressure over the calibrant pack in the center of the cartridge.
7. Direct the dispensing tip or capillary tube containing the blood into the sample well.
8. Dispense the sample until it reaches the "Fill To" mark on the cartridge. Leave some sample in the well.



Fill to blue mark

9. Close the cover over the sample well until it snaps into place. Do not press directly over the sample well, use the tab on the side of the cover.
10. Insert the cartridge into the cartridge door until it clicks into place. Wait for test to complete.

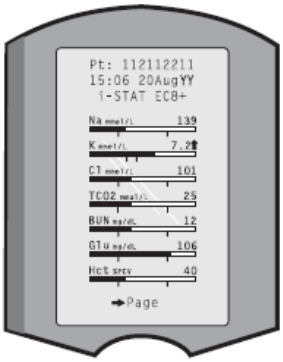
Note: iSTAT analyzer MUST remain on a level, flat surface during testing. ACT results may be affected up to 10% by the analyzer testing on an unlevel surface.

11. Enter additional parameters (if required). Only Respiratory Therapy and UVM HealthNet Transport utilize the free fields.
    Patient temperature should be entered as degrees Celsius. Use the * key for a decimal point.
    %FIO2 may be entered as a percentage of oxygen the patient is receiving. Enter the whole number, using % as the unit.
    Choose the number corresponding to the type of sample used when prompted at the Sample Type field.
    Press the SAVE softkey to record the blood gas parameters entered.
12. View the results shown on the display screen.
13. Cartridges should be disposed of properly in a biohazardous waste container as per UVMMC Policy.

Backup Procedure: If the i-STAT system is inoperable for any reason, contact the Point of Care Office at 847-1116 during business hours (0800-1630 M-F) for assistance. If an analyzer malfunctions during off-hours, report problem to Point of Care via FrontRange ticket or email Lab-PointofCare@uvmhealth.org . Alternantly, specimens could be collected and submitted to the laboratory in accordance with the UVMMC Laboratory Procedure Manual.

VI. RESULTS

Displayed Results: Results are displayed numerically with their units. Non-blood bas and hematocrit results are depicted as bar graphs with reference ranges marked under the graphs.
Action ranges (or critical values) indicate results that require immediate attention. See the Critical Value Policy section below for site-specific protocols. Critical values are depicted on the iSTAT screen as either too high (↑) or too low (↓). In the example of the screen below, Potassium (K) is depicted as being too high (a critical value):



Note: Since the ↑ and ↓ symbols cannot be printed from the iSTAT printer, action flags will appear with the << >> symbol.

Calculations: The i-STAT contains a microprocessor that performs all calculations required for reporting results. These results include: O2 saturation, base excess, base deficit, TCO2 and temperature correction. The calculations may be found in the i-STAT system manual.

Suppressed Results: There are three conditions under which the i-STAT System will not display results:

1. Results outside the System reportable ranges are flagged with a < or >, indicating that the result is below the lower limit or above the upper limit of the reportable range respectively. See table of Reportable Ranges.
   Action: Send specimen(s) to the laboratory for analysis.
2. Cartridge results which are not reportable based on internal QC rejection criteria are flagged with *******.
   Action: Analyze the specimen again using another cartridge. If the results are not suppressed, report in the usual manner. If the result is suppressed again, send specimen(s) to the laboratory for analysis.
3. A Quality Check message will be reported instead of results if the handheld detects a problem with the sample, calibrant solution, sensors, or mechanical or electrical functions of the handheld during the test cycle.
   Action: Repeat testing using another cartridge. If error code repeats, contact the Point of Care Testing office at 847-1116 , noting the Error Code number and display.

When results are questionable: Whenever results are being questioned as accurate, the following actions are options:

- notify the provider right away of questionable results and document the notification in Epic Notes

- repeat testing using new cartridge or send a specimen to the UVMMC Core Lab for testing.
- For results that have filed into Epic and are known to be errant due to sample integrity, please email the Point of Care Office at Lab-Pointofcare@uvmhealth.org or call 847-1116. Point of Care can append a disclaimer on the result(s) to say: Sample integrity questioned, results may not be reliable or Specimen Contaminated; disregard results.

Other Errors:

Point of Care can also make edits to errors in sample type and FIO2 %s.

Point of Care can correct all reports that have filed errantly into the wrong patient's chart, if notifed. These will also be reported using the SAFE System.

VII. PRINTING and TRANSMITTING RESULTS

Printing from the iSTAT Analyzer (Anesthesia/OR and UVM HealthNet Transport ONLY)

1.Turn printer on if green power light is not on.
2. Align IR windows of handheld and printer.
3. Display results.
4. Press the Print key.
5. Do not move handheld or printer until printing is complete.
6. If printer is not powered from a wall outlet, turn printer off.

Transmitting i-STAT Results Using the Downloader or Wireless Transmission

1. Place analyzer in front of the downloader. When properly aligned, the red proximity light will turn on and the analyzer will automatically upload its data to the Central Data Station.
2. Wireless iSTATs transmit automatically via the wireless network once the testing is complete. Wireless iSTATs may also be placed in the downloader to transmit results if necessary.
3. DO NOT remove the analyzer while data is transmitting. While data is being transmitted the arrows on the screen will "spin".
4. If a corrected report needs to be generated, contact Point of Care Office 847-1116 during business hours (0800-1630, M-F) or Help Desk at 847-1414. During off-hours, a Service Now Ticket will be generated for POCT to review the next business day.

Individual Site Resulting Protocols:

1. **Cardiac Catheterization Lab**: Results are verbally reported by the operator to the physician and to the nurse at the monitor station. Results file into Epic after analyzer is downloaded.
2. **Radiology**: ACT results are recorded on the log sheet and verbally reported to the radiologist. iSTAT is downloaded and results are transmitted to Epic. Reference ranges are in Epic.
3. **CT/MRI**: Results are read on the iSTAT analyzer and transmitted into Epic after analyzer is docked. Reference ranges are on a sticker that is placed on the patient order and scanned into the PACS System.
    a. To calculate GFRs (Glomerular Filtration Rates) from the iSTAT Creatinine results, CT/MRI uses the following website via a dedicated icon on their department's computers:
    http://www.niddk.nih.gov/health-information/health-communication-programs/nkdep/lab-evaluation/gfr-calculators/adults-conventional-unit-ckd-epi/Pages/default.aspx
    b. This calculator is IDMS-traceable and utilizes the MDRD study equation. For children, the same website offers the IDMS-traceable Schwartz calculator using a different tab.
4. **Anesthesia/OR**: Results are printed out and handed to the Anesthesiologist. Critical values and reference ranges are posted in the Anesthesia Workroom and on the iSTAT results form. Patient iSTAT printout is stapled to this form and scanned into Epic. In addition, iSTAT results are filed into Epic by either wireless transmission or when a non-wireless analyzer is docked.
5. **Perfusion**: Results are printed from the iSTAT and recorded on the Cardiopulmonary Bypass Record log. The printout is then handed to the Anesthesiologist and changes in therapy are then made by the Perfusionist and/or the Anesthesiologist. One copy of the two part Cardiopulmonary Bypass Record is kept by the Department of Surgery and the other is scanned into the patient's chart. After iSTAT is downloaded, results file into Epic.

6. **UVMHN Transport**: Results are printed from the i-STAT and recorded in a documentation application utilized by the department, ImageTrend.
7. **Respiratory Therapy and NICU Nurses:** Results are visually read by the RT or NICU Nurse from the iSTAT screen. Results are interpreted and patient treated accordingly in collaboration with the attending provider. Results are transmitted wirelessly and file into Epic.

Reference Ranges, Reportable Ranges, Test Unit Conversions: Reference range means the range of test values expected from 95% of fasting individuals presumed to be healthy. Measurable range is the test reporting limits of the iSTAT analyzer. The following table contains the reference ranges (normal) and measurable ranges applicable to the i-STAT System.

Table 2: REFERENCE RANGES, REPORTABLE RANGES, TEST UNITS

Analyte	Unit	Measurable Range	Normal Reference Range-Arterial	Normal Reference Range-Venous & Capillary
Sodium (Na)	mmol/L	100 – 180	136 - 145	Same as arterial
Potassium (K)	mmol/L	2.0 - 9.0	>17-Adult: 3.5-5.0 1 yr-17 yr: 3.3-4.6 6 mo-1 yr: 3.5-6.1 1 mo-6 mo: 3.5-5.6 1 wk-1 mo: 3.4-6.0 0 d-1wk: 3.2-5.5	Same as arterial
ACT-Kaolin (PreWarm Status)	Seconds	50 - 1000	Baseline (pre-heparin range) : 74-137** 3 min post heparin dose during CPB: 480 *Therapeutic interventional range is dependent upon patient population and procedure type.*	Same as arterial
pH	N/A	6.5 - 8.2	7D-Adult: 7.35- 7.45 ** 1D-7D: 7.29-7.45 0D-1D: 7.26-7.49	7.31- 7.41 **
Creatinine	mg/dL	0.2-20	>18-Adult: 0.6-.1.3** 0-1 year: 0.3-1.0 1-4 year: 0.1-0.6 4-7 year: 0.1-0.7 7- 10 year 0.3-0.7 10-14 year 0.4-1.0 14-18 year 0.6-1.2	Same as arterial
PCO_2	mm/Hg	5 – 130	7D-Adult: 35 – 45** 1D-7D: 27-41 0D-1D: 27-40	41-51 **
PO_2	mm/Hg	5 – 800	7D-Adult: 80-105** 1D-7D: 54-95	N/A **
HCO_3 Calculated	mmol/L	1-85	22-26 **	23-28 **
TCO_2Calculated	mmol/L	5 – 50	23-27 **	24-29 **
BE Calculated	mmol/L	(-30)-(+30)	(-2) - (+3) **	Same as arterial
sO_2 Calculated	%	N/A	95 – 98 **	N/A

Table 2: REFERENCE RANGES, REPORTABLE RANGES, TEST UNITS (cont)				
Chloride	mmol/L	65-140	96-110	Same as arterial
Hematocrit (Hct)	% PCV	15 – 75	>18-Adult Male: 39.5-50.2 >18-Adult Female: 34.9-44.4 12-18 yr Male: 37.0-49.0 12-18 yr Female: 36.0-46.0 6-12 yr Male&Female: 35.0-45.0 2yr-6yr Male&Female 34.0-40.0 6m-2yr Male&Female: 33.0-39.0 3m-6m Male & Female: 29.0-41.0 1m-3m Male & Female: 28.0-42.0 <1m : Not established	Same as arterial
BUN	mg/dL	3-140	>18-Adult: 10-26 14-18 y.o.: 8-21 4-13 y.o.: 7-17 1-3 y.o: 5-17 4m-12m Male: <15 4m-12m Female: <14 1m-3m Male: <13 1m-3m Female: <15 8D-30D Male: <17 8D-30D Female: <16 1D-7D Infants <14	Same as arterial
Glucose (fasting)	mg/dl	20-700	>7D-Adult: 70-100 1D-7D: 50-100 0D-1D: 40-100	Same as arterial
Ionized Calcium	mmol/L	0.25-2.50	6mo-Adult: 1.12-1.32 ** <6 Months: Not established	Same as arterial
Lactate	mmol/L	0.30 – 20.00	>18-Adult: 0.36-1.25** Pediatric ranges: not defined	up to 1.9 mmol/L

****Reference ranges stated are defined by i-STAT. All other reference ranges stated are as defined by the UVMMC Core Lab and verified on the i-STAT.**

Result Reporting Errors: Errors in the testing process that are brought to light will be included in the hospital SAFE reporting system and corrected by the POCT staff, when possible.

VIII. CRITICAL VALUE PROTOCOL: Critical test results fall significantly outside the normal range and may indicate a life-threatening situation. Critical results represent an emergency condition and must be reported immediately to the licensed provider who can change or initiate treatment. Critical value protocol consists of:

- Notifying the licensed provider immediately –*not exceeding 30 minutes*
- Documenting in the patient's chart both the name of provider, and time of notification. Provider should read back the results as per policy LAB200.007

Note: Repeat testing for confirmation is no longer required and will be at the discretion of the provider

In emergent cases such as: **DURING A CODE, IN MEDICAL TRANSPORT, DURING PERFUSION, OR DURING SURGERY**, the critical result will be reported **IMMEDIATELY** to the licensed provider in charge who can initiate or change treatment. Therefore, no documentation of doctor notification is necessary.

Each caregiver is in a position to assess whether or not results are incongruent with patient status. In these instances, the caregiver should exercise clinical judgment as to whether or not the results are consistent with the clinical status of the patient or consistent with previous results.

UVMMC iSTAT Critical Values

Analyte	Age of Patient	↓ Critical	↑Critical
Sodium (Na)	>6 mo-adult	<125 mmol/L	>155 mmol/L
Sodium (Na)	0-6 mos	<125 mmol/L	>150 mmol/L
Potassium (K)	All ages but 6 mo-1yr	<3.0 mmol/L	>6.0 mmol/L
Potassium (K)	6 mo- 1yr	<3.0 mmol/L	>6.1 mmol/L
Potassium (K) All ages, ***Anesthesia ONLY***		<2.8 mmol/L	>6.8 mmol/L
pH	>6 mo-adult	<7.00	>7.60
pH	0-6 mos	<7.20	>7.50
Hematocrit (Hct)	>6 mo-adult	<21%	N/A
Hematocrit (Hct)	0-6 mos	<25%	
Ionized Calcium (iCa)	>6 mo-adult	<0.8 mmol/L	>1.6 mmol/L
Ionized Calcium (iCa)	0-6 mos	<0.8 mmol/L	>1.4 mmol/L
Lactate (Lac)	All ages	N/A	≥2.0 mmol/L
Glucose (Gl)	>6 mo-adult	<50 mg/dl	>500 mg/dl
Glucose (Gl)	0-6 mos	<40 mg/dl	>150 mg/dl
Creatinine (Crea)	All ages	N/A	>15 mg/dl

MONITORING OF CRITICAL VALUES COMPLIANCE: Each morning, critical value iSTAT results are reviewed by POCT staff via the UniPOC Monitoring System and investigated for confirmatory requirements. POCT emails each department with their critical values, and each department is responsible for reviewing and investigating each case for provider notification and documentation requirements.

IX. INTERFERING SUBSTANCES: An interferent is a substance which, if present at significant levels in the blood specimen being analyzed, will produce an error in the result of the analyte being measured. See the table below and on the next pages for specific known interfering substances:

ANALYTE	INTERFERING SUBSTANCE	INTERFERENT CONCENTRATION	EFFECT ON ANALYTE RESULT
Sodium (Na)	Bromide	37.5 mmol/L	Increase ↑ Na
	Nithiodote (sodium thiosulfate)	16.7 mmol/L	Increase ↑ Na
Potassium (K)	Bromide	37.5 mmol/L	Increased rate of star (***) outs
	Nithiodote (sodium thiosulfate)	16.7 mmol/L	Decrease ↓K
Chloride (Cl)	Acetylcysteine	10.2 mmol/L	Increase ↑ Cl
	Bromide	37.5 mmol/L	Increase ↑ Cl
	Bromide (therapeutic)	2.5 mmol/L	Increase ↑ Cl
	Salicylate	4.34 mmol/L	Increase ↑ Cl

ANALYTE	INTERFERING SUBSTANCE	INTERFERENT CONCENTRATION	EFFECT ON ANALYTE RESULT
Chloride (Cl)	Iodide	2.99 mmol/L	Increase ↑ Cl
	Thiocyanate	6.9 mmol/L	Increase ↑ Cl
	Nithiodote (sodium thiosulfate)	16.7 mmol/L	Increase ↑ Cl
Ionized Calcium (iCa)	Acetominophen	1.32 mmol/L	Decrease ↓iCa
	Leflunomide	0.03 mmol/L	Decrease ↓iCa
	Magnesium	1.0 mmol/L	Increase ↑iCa by up to 0.04 mmol/L
	Acetylcysteine	10.2 mmol/L	Decrease ↓iCa
	Bromide	37.5 mmol/L	Increase ↑iCa
	Lactate	6.6 mmol/L	Decrease ↓iCa by up to 0.07 mmol/L
	Salicylate (therapeutic)	0.5 mmol/L	Decrease ↓iCa by up to 0.03 mmol/L
	Salicylate	4.34 mmol/L	Decrease ↓iCa
	Nithiodote (sodium thiosulfate)	16.7 mmol/L	Decrease ↓iCa
	Thiocyanate	6.9 mmol/L	Decrease ↓iCa. ***USE ANOTHER METHOD***
Lactate	Bromide	37.5 mmol/L	Decrease ↓Lactate
	Hyrdroxyurea	0.92 mmol/L	Increase ↑ Lactate ***USE ANOTHER METHOD***
	Nithiodote (sodium thiosulfate)	16.7 mmol/L	Increase ↑ Lactate ***USE ANOTHER METHOD***
Glucose (Gl)	Acetominophen	1.32 mmol/L	Increase ↑Gl
	Acetylcysteine	10.2 mmol/L	Decrease ↓Gl
	Bromide	37.5 mmol/L	Decrease ↓Gl
	Bromide (therapeutic)	2.5 mmol/L	Decrease ↓Gl
	pH	per 0.1 pH units below 7.4 @ 37°C	Decrease ↓Gl by 0.9 mg/dl
	pH	per 0.1 pH units above 7.4 @ 37°C	Increase ↑ Gl by 0.8 mg/dl
	Oxygen (O_2)	***P***O_2 <20 mmHg @ 37°C	Decrease ↓Gl
	Thiocyanate	6.9 mmol/L	Decrease ↓Gl
	Hydroxyurea	0.92 mmol/L	Increase ↑ Gl. ***USE ANOTHER METHOD***
	Nithiodote (sodium thiosulfate)	16.7 mmol/L	Decrease ↓Gl
BUN/Urea	Bromide	37.5 mmol/L	Increased rate of star (***) outs
	Hydroxyurea	0.92 mmol/L	Increase ↑ BUN
	Nithiodote (sodium thiosulfate)	16.7 mmol/L	Decrease ↓BUN

ANALYTE	INTERFERING SUBSTANCE	INTERFERENT CONCENTRATION	EFFECT ON ANALYTE RESULT
***p*CO₂**	Propofol (Diprovan™) Thiopental Sodium		For patients on propofol or thiopental sodium, iSTAT does NOT recommend EC8 cartridges. G3,CG4,CG8, and EG6 are free from clinically significant interferences at all therapeutic doses.
Hematocrit (HCT)	White Blood Count (WBC)	>50,000 WBC/uL	Increase ↑ HCT
	Lipids	Abnormally High	Increase ↑ HCT
	Bromide	37.5 mmol/L	Increased rate of star (***) outs
HCT <40%	Total Protein	for each g/dL below 6.5	Decrease ↓by 1% PCV
		for each g/dL above 8.0	Increase ↑by 1% PCV
HCT >40%	Total Protein	for each g/dL below 6.5	Decrease ↓by .75% PCV
		for each g/dL above 8.0	Increase ↑by .75% PCV
***p*O₂**	Air Exposure	below 150 mmHg	Increase ↑pO_2
	Air Exposure	above 150 mmHg	Decrease ↓ pO_2
	Iced samples		Increase ↑pO_2
	Cold cartridges		Decrease ↓ pO_2
pH	Venous Stasis (prolonged tourniquet application)		Decrease ↓ pH
	Air Exposure		Increase ↑pH
	Delay in testing (anaerobically in syringe)		Decrease ↓ pH
Creatinine	Acetaminophen	1.32 mmol/L	Increase ↑Creatinine
	Ascorbate	0.34 mmol/L	Increase ↑ Creatinine
	Bromide	2.5 mmol/L	Increase ↑Creatinine
	Hydroxyurea	0.92 mmol/L	Increase ↑Creatinine ***– USE ANOTHER METHOD***
	Acetylcysteine	10.2 mmol/L	Increase ↑Creatinine
	Creatine	0.382 mmol/L	Increase ↑Creatinine
	Glycolic Acid	10.0 mmol/L	Decrease ↓Creatinine—***USE ANOTHER METHOD***
	Nithiodote (sodium thiosulfate)	16.7 mmol/L	Increase ↑Creatinine

X. NON-PATIENT TESTING PROCEDURES

1. DAILY TASKS:

Analyzer Verification – All departments using the i-STAT

1. Internal Electronic QC is performed from a patient cartridge every 8 hours.
2. If the internal electronic QC fails twice, run an external simulator (see procedure in Section IX). If the simulator passes, the iSTAT may be used for patient testing.
3. If the external simulator fails. Take the analyzer out of service and return it to the Point of Care office. The Point of Care Office will troubleshoot and/or contact i-STAT Technical Support to determine whether the internal system is functioning properly.
4. Calibration is automatically performed as part of the test cycle on each cartridge. Operator intervention is not necessary.

All departments using the i-STAT Responsibilities

Refrigerated Cartridges

1. Verify that the cartridges stored in the refrigerator are all within the expiration date printed on the boxes or on the cartridge. If cartridges are expired, discard appropriately.
2. Verify that the refrigerator did not exceed the 2-8ºC limit. Current temperature and minimum and maximum temperatures should be taken daily and logged on the temperature log in the department. After temperatures are recorded, the thermometer should be cleared.

Action: If the temperature of the cartridge storage refrigerator is within the range of 2 to 8°C (35 to 46°F) use cartridges as required.

Remedial Action: If the temperature is outside the range of 2 to 8°C (35 to 46°F) quarantine the cartridges in the storage refrigerator. Notify the Lead Respiratory Therapist/Educator/Manage or Point of Care Office immediately. DO NOT USE the cartridges from the out-of-range refrigerator. Note temperature out of range on the temperature log and note action taken under "Action taken if temp is out of range". The lab fridge is a back up to any refrigerator used to store i-STAT supplies.

Room Temperature Cartridges: Verify that all cartridges are stored properly according to the cartridge packaging. Any cartridges stored at room temperature must have the room temperature expiration date written on the cartridge. Room temperatures (current, min and max temps) should be logged daily on the room temperature log.

Action: If the measured temperature of the room has been continuously below 30°C (86°F) use cartridges as required. After temperatures are recorded, the thermometer should be cleared

Remedial Action: If the measured room temperature has exceeded 30°C (86°F) for any period of time:

1. Quarantine the cartridges.
2. Notify the Lead Respiratory Therapist/Educator/Manager or Point of Care Office (7-1116) immediately.
3. DO NOT USE the cartridges.
4. Record on room temperature log.

2. MONTHLY QC PROCEDURE FOR ALL ISTAT CARTRIDGES EXCEPT ACT-KAOLIN

Monthly external liquid QC must be performed on all iSTAT cartridges at least every 31 days, or whenever a new shipment/new lot is received. See the procedure below for all cartridges except ACT-Kaolin:

** When running QC material, be sure you are ready to run the test before you open the vial.

1. Turn on the i-STAT analyzer, and select "Menu". Select "3-Quality Test".
2. Select "1-Control".
3. Scan or enter your operator ID. (Scan badge)
4. Select Fluid Vendor. Select 1-APOC
5. Select Fluid Level: Enter 1 for Level 1, 2 for Level 2, 3 for Level 3
6. Scan the control lot number found on the bottle.
7. Scan the Cartridge lot number.

STEP	ACTION
1	Access the Control option under Quality Tests in the Administration Menu. Enter the required information. The handheld allows 15 minutes (or the customized timeout) to insert the cartridge after the last data entry.
2	Immediately before use, shake the ampule vigorously for 5 to 10 seconds to equilibrate the liquid and gas phases. To shake, hold the ampule at the tip and bottom with forefinger and thumb to minimize increasing the temperature of the solution. If necessary, tap the tip of the ampule to send solution back into the bottom section of the ampule.
3	Protect fingers with gauze, tissue or glove, or use an ampule breaker to snap off the tip of the ampule at the neck.
4	Immediately transfer the solution from the ampule into a capillary tube or syringe, and then immediately transfer the solution into a cartridge.
5	Immediately seal the cartridge and insert it into a handheld – it is important not to expose the solution to room air since this will alter the results. **Note:** Since aqueous based solutions such as control materials lack the buffering capability of whole blood, the transfer process from ampule to cartridge must be more expedient than with a patient sample.

8. Results will display, and the analyzer will determine if QC is acceptable by displaying “Pass” or “Fail”. If results are out of range, or there is a cartridge error, repeat test with new cartridge. Press “1- Test Options”, “1- Next Level”. Choose appropriate level.
9. Repeat with next level until all 3 levels are done.
10. Download the i-STAT

For the **CG8+,Chem8, G, G3+, CG4+ and Crea cartridges:** Use i-STAT TriControl levels 1,2, 3. Liquid QC for each cartridge type shall fall within the manufacturer’s reference range.

3. MONTHLY QC PROCEDURE FOR ACT CARTRIDGES:

Do not reconstitute both levels of quality control at the same time. To run the quality control: **Reconstitute the control material, and set up meter**. Control solutions may also be stored at room temperature for up to 4 hours (18to 30 °C or 64 to -86 °F). If left out longer than 4 hours at room temperature, they should be discarded.
Prior to testing, vials containing the lyophilized plasma and CaCl2 reconstituting fluid should stand at room temperature (18 - 30 ºC or 64 - 86 ºF) for a minimum of 45 minutes. For best results, vials, cartridges, and analyzers should be at the same temperature.Reconstitute only one level of control plasma at a time. **CONTROL SOLUTIONS MUST BE USED IMMEDIATELY (less than 30 seconds) AFTER COMPLETING THE RECONSTITUTION AND MIXING STEPS**

1. After 45 minute room temperature equilibration, remove the cap and stopper from one lyophilized human plasma control vial and remove the cap from one vial of calcium chloride reconstituting fluid.
2. Pour the entire contents of the calcium chloride vial into the lyophilized human plasma control vial. Place the stopper back in the reconstituted control vial, sealing the vial appropriately so that the contents do not leak or spill out.
3. Allow the vial to sit at room temperature for 1 minute.
4. Mix the contents of the vial by swirling gently for 1 minute, then inverting slowly for 30 seconds.
   Note: To minimize foaming of the control sample, avoid vigorous or rapid mixing motion. Visually inspect the control vial to ensure that the sample is fully reconstituted. If not, discard the reconstituted fluid and start over with fresh vials.

5. Using a plastic transfer pipette, plastic syringe, or plastic capillary tube with no anticoagulant, immediately transfer the solution from the vial into the ACT cartridge
6. Immediately seal the cartridge and insert it into an analyzer.

Note: Additional ACT cartridges may be tested with the remaining fluid if used within 30 seconds of complete reconstitution of the sample. Results should be within manufacturer's range.

****WHAT IF QC FAILS?**

i-STAT TriControl levels 1,2, & 3 or ACT Levels 1 & 2 will be performed for each cartridge type. QC shall fall within the manufacturer's range. If a parameter is outside limits,verify the following conditions and then repeat the test(s):

- Expiration date printed on cartridge pouch and control ampule have not been exceeded
- Room temperature expiration date for cartridge and control have not been exceeded
- Cartridge and control have been stored correctly
- The analyzer being used passes an Electronic Simulator test.

If the results have exceeded despite meeting the above criteria, **repeat QC using a new box of control solutions and new cartridges.** All QC failures will be reviewed by the POCT Medical Director for further action.

4. PROFICIENCY TESTING FOR THE ISTAT TEST SYSTEM

Participation in CAP proficiency testing occurs two or three times/yr depending on analytes reported. Point of Care Testing will alert department when proficiency testing samples have arrived. All Proficiency Tests should be performed by end-users selected from each department. For more detailed information, please refer to the Point of Care Quality Assurance Policy LABPOCT100.027 and the External Assessment System Policy LAB700.001

To access the Proficiency Test path on the i-STAT 1 Analyzer

1. Press the On/Off key
2. Press the MENU key
3. Press 3 for Quality Tests
4. Press 2 for Proficiency

5. Biannual Procedures Performed by Point of Care

Correlations: Correlations with the main lab will be performed every 6 months. For this, patient specimens will be tested using a sampling of iSTAT devices for each sensor type used. All sensors will be compared with the main lab.
Post Software Update (Calibration Verification): Assay i-STAT TriControl Calibration Verification set in singlet on all cartridge types and a sampling of devices. Eurotrol Hyperbaric and Hypoxic QC are used to validate the AMR for pO2. Liquid QC for each cartridge type shall fall within the manufacturer's reference range. If a parameter is outside limits, it is repeated and reviewed by Medical Director.

6. Periodic Procedures- Performed by Point of Care

New Device- Calibration Verification and QC (See Quick Reference Section): All new analyzers will be validated using the Replacement Device procedure below. The POCT Medical Director must review and approve new analyzer validations.

Analyze i-STAT TriControl Calibration Verification solutions 1-5 in singlet. If a parameter is outside limits, it is repeated in duplicate and the results are averaged to determine acceptability (manufacturer's instructions). If results are still outside the manufacturer's range, consult the Medical Director.

Analyze i-STAT ACT Level 1 and 2 for devices that perform ACT testing. Analyze Eurotrol Hypoxic and Hyperbaric QC material to validate the pO2 AMR. Transmit results to UniPOC and record results. For i-STAT 1's use the linearity graph report in UniPOC. Lot number of calibration verification set must be loaded into UniPOC for each sensor type on each cartridge type.

Replacement Devices- Calibration Verification and monthly QC: The POCT Medical Director must review and approve replacement analyzer validations monthly and QC data for trending or if any issues arise.

Analyze i-STAT TriControl Calibration Verification solutions 1-5 in singlet. If a parameter is outside the manufacturer's limits, it is repeated in duplicate and the results are averaged to determine acceptability (manufacturer's instructions). If results are still outside the manufacturer's range, consult the Medical Director.

Analyze i-STAT ACT Level 1 and 2 for devices that perform ACT testing. Analyze Eurotrol Hypoxic and Hyperbaric QC material to validate the pO2 AMR. Use expected values in inserts to verify results are acceptable.

For i-STAT use the linearity graph report in UniPOC 3.0. Lot number of calibration verification set must be loaded into UniPOC for each sensor type on each cartridge type.

Error codes will be monitored biweekly after implementation.

New Cartridge (Sensor) Types: New cartridge (sensor types) will require validation of accuracy, precision and reportable range, as well as a 10 point validation of 2 levels of i-STAT TriControls versus the electronic QC (EQC validation). The POCT Medical Director must review and approve new sensor validations.

XI. MAINTENANCE

1. Performed by Testing Departments

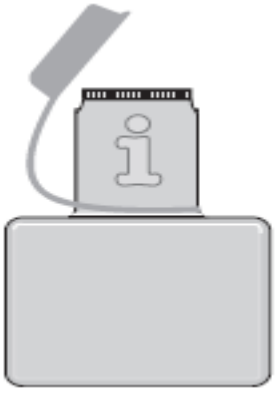
Daily Cleaning: Clean the analyzer after every patient use with alcohol (DisCide wipes) or 10% Bleach solution (DisPatch wipes) . Avoid getting excess fluids in the seam between the display screen and the case, the electronics compartment, battery compartment, cartridge port or test strip port. Clean the Downloader and/or Printer whenever necessary. Use caution when cleaning either devices, as they may be damaged by liquid contamination.

If the analyzer is not to be used for an extended period of time, the batteries should be removed to prevent leakage

Decontamination: Decontaminate the analyzer or downloader whenever a specimen is spilled onto them or before and after any patient in Isolation. Decontaminate with 10% Bleach (DisPatch wipes) , wearing gloves.

External Simulator Testing: The Electronic Simulator, external and internal, is a quality control device for the analyzer's cartridge signal-reading function. It simulates two levels of electrical signals that stress the analyzer's cartridge signal detection function both below and above measurement ranges. UVMMC has all iSTAT analyzers customized to do an Internal simulator check once every 8 hours. If it passes, the analyzer can be used for patient testing. This is automatic and happens without notice. If it does not pass, the analyzer will display "ELECTRONIC SIMULATOR FAIL". iSTAT analyzer will be locked out for patient testing. Please contact Point of Care at 71116 and perform an External Simulator.

Display	Step	Analyzer Response / Comments
	Press the **On/Off** key to turn the analyzer on.	Logo briefly displayed followed by Test Menu.
Test Menu	Press the **Menu** key.	
Administration Menu	Press **3** to select Quality Tests.	
Quality Tests Menu	Press **4** to select Simulator.	
Scan or Enter Operator ID	Press **Scan** to scan the Operator ID or manually enter the Operator ID and press **Enter**.	If enabled, the analyzer will validate ID and/or ask for the ID to be repeated.
Scan or Enter Simulator ID	Press **Scan** to scan the Simulator ID or manually enter the Simulator ID and press **Enter**.	The simulator serial number can be used as an ID. If the simulator does not have a barcode, one can be made on-site and affixed to the simulator (not near contact pads).
INSERT SIMULATOR	Remove the cover protecting the contact pads and insert the simulator straight into the analyzer. Avoid touching the contact pads.	Inserting the simulator at an angle may cause a Quality Check message to be displayed.
Contacting Simulator Please wait… Time to Results bar Simulator Locked	Do not attempt to remove the simulator until the results are displayed and the "Simulator Locked" message is removed.	

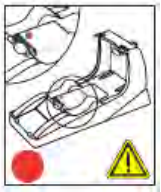


If the External Simulator passes, continue to use the analyzer. Remove the simulator and return to its protective case.
Changing Disposable Batteries: Change or charge rechargeable batteries whenever the analyzer displays “Low Battery”. For non-rechargeable batteries, it is recommended that 2 Lithium-ion 9V be used and not 9V Alkaline. Wait until any test in progress is completed, and turn off the analyzer before replacing the batteries or the most recent set of results may be lost. Stored results will not be lost when replacing the batteries.

1. Slide the battery compartment door off.
2. Tilt the analyzer slightly to slide out the battery carrier which contains the two 9-volt batteries.
3. Remove the old batteries from the carrier. Pull each battery out to the side and then lift back and out.
4. Note the battery orientation symbol molded into the carrier on each side of the center wall. Starting with one side, orient the new battery so it matches the symbol. Slide the battery into the carrier, pushing the terminal end in first, under the plastic bar, and slide it up as far as it will go. Then push the bottom of the battery inward. The terminals of the battery should be underneath the protective bar on the carrier. Repeat for the second battery on the other side of the carrier.
5. Note the orientation of the battery carrier illustrated on the label on the carrier. The label faces up, and the electrical contact end of the carrier goes into the instrument first. Insert the carrier into the instrument as shown on the label. If the carrier is inserted incorrectly, the battery door will not close.
6. Slide the battery compartment door back into place.
7. Dispose of old batteries according to UVMMC Policy SEH13, Waste Battery Policy

Changing Rechargeable Batteries: Rechargeable batteries recharge when analyzer is placed in a Downloader/Recharger. In addition, the Downloader has a compartment for recharging the battery outside the analyzer.

1. Slide the battery compartment door off.
2. Tilt the analyzer slightly to slide out the rechargeable battery pack.
3. The battery pack has two labels: one for orientation in the analyzer and one for orientation in the Downloader/Recharger. With the label with the analyzer facing up, and the electrical contact end of the pack facing the analyzer, insert the pack into the analyzer as shown on the label. If the pack is inserted incorrectly, the battery door will not close.
4. Slide the battery compartment door back into place.



If using rechargeable batteries, use only rechargeable batteries and recharging equipment supplied by the POCT Office. Other batteries and rechargers may affect test results and pose other hazards to operators and patients. A falling instrument may cause injury.

MONITORING PLAN: Refrigerator and room temperature logs will be checked monthly by a point of care testing specialist for any reading that is out of range and any corrective action that resulted from the out of range reading.

RELATED POLICIES:

Lab200.007 Critical Values
Lab200.037 The Identification of Patient Specimens
Labpoct100.036 Competency Assessment for Point of Care Non-Waived Tests
LabPOCT100.027 Point of Care Quality Assurance Policy
Lab700.006 Individualized Quality Control Plan
INFC00016 Infection Prevention Practices-Cleanliness of the Envirmonment and Equipment
SEH13 Waste Battery Policy

REFERENCES:

i-STAT Test System Manual, Most recent version

Documents Status: **Approved**

REVIEWERS: Angela Patterson, MT (ASCP) Technical Specialist, POCT Laboratory
Clayton Wilburn, MD, POCT Medical Director, CLIA Director for Transport
Andrew Goodwin, MD, CLIA Director for Multi-Site
Mark Fung, MD, PhD, CLIA Director for NICU/Resp Therapy

OWNER: Tania Hong, Network Dir Ops Lab&Path Svcs

APPROVING OFFICIAL: Andrew Goodwin, Medical Director of Clinical Laboratories

THE University of Vermont MEDICAL CENTER

PATHOLOGY AND LABORATORY MEDICINE

LEAD DEMOGRAPHIC FORM

Please submit this form when you are ordering Lead Testing.
This form must accompany a laboratory test requisition

PLEASE PRINT CLEARLY

Patient Information:	Full Legal Name:	
	Street Address:	
	City State Zip Code	
Legal Guardian:	Full Legal Name:	
	Home Phone:	
Sample Type: Check one		Venous
		Capillary
Date of Collection		
Race: Check one		White (Non-Hispanic)
		Black (Non-Hispanic)
		Hispanic
		Asian/Pacific Islander
		American Indian/Alaskan Native
		Other
		Unknown
Ordering Provider:	Full Name:	
	Practice Name:	
	Street/PO Box	
	City State Zip Code	

Submit to: UVM Medical Center
Pathology & Laboratory Medicine-233MP1
111 Colchester Avenue
Burlington VT 05401
Phone: 847-5121 or 1-800-991-2799 Fax 1-802-847-6079

Lynch Syndrome Screening

Effective October 1, 2014, University of Vermont Medical Center GI Pathology began performing Universal Screening for Lynch Syndrome on biopsy specimens found to be positive for colorectal cancer. This screening was formerly performed on resection specimens. This change allows for clinical decision making to be made prior to surgical intervention.

It is important to note that the initial screening test, immunohistochemical (IHC) staining with antibodies against four mismatch repair proteins, done at the University of Vermont Medical Center is NOT considered a molecular test. However, any follow up molecular testing (e.g. MLH1-Promoter Methylation) requires preauthorization. The most common scenario in which this is encountered is in colon cancers that show the following IHC results: Loss of MLH1/PMS2 and retention of MSH2 and MSH6 proteins. In these cases the following comment will always be present in the surgical pathology report:

"The majority of colon cancers that have loss of MLH1/PMS2 protein are associated with somatic changes rather than an inherited mutation (Lynch syndrome). However, if additional testing to rule out Lynch syndrome is warranted in this individual, additional molecular testing, specifically MLH1 Promoter Methylation can be ordered upon obtaining preauthorization. "

MLH1 Promoter Methylation allows clinicians to definitively delineate Lynch Syndrome-associated cancer from microsatellite unstable (aka MSI-high) tumors that are sporadic (non-familial). However, this test will only be performed following preauthorization obtained from the treating clinician.

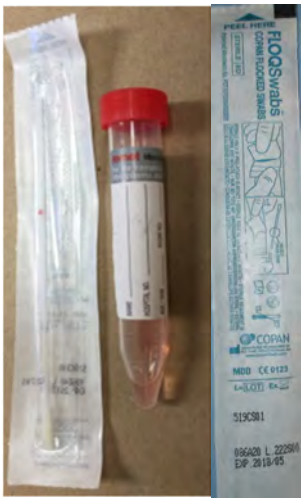
If you have any questions concerning this change please contact Dr. Rebecca Wilcox, 802-847-9477, Rebecca.wilcox@uvmhealth.org.

Microbiology Collection Containers

BACTERIAL, FUNGAL (YEAST) COLLECTION KIT

USE FOR:
Routine Culture (Wounds),
MRSA PCR,
Group B strep PCR,
Throat Strep Screen,
Fungus (Yeast),
Vaginitis Exam
Trichomonas antigen

VIRAL COLLECTION KIT



USE FOR:
ED/Urgent Care Influenza, RSV, PCR
Inpatient/Outpatient Influenza, RSV, PCR
Respiratory Viral Panel Expanded, PCR
Herpes Simplex Virus, PCR
Varicella Zoster Virus, PCR

STERILE CONTAINER

Do not use if the blue seal is broken

USE FOR:
Urine Culture
Tissue Culture
C. difficile PCR
Fecal Lactoferrin for WBCs
Fungal Culture
H. pylori Stool Antigen,
Mycobacterial Culture
Respiratory Culture

ANAEROBIC TRANSPORT VIAL

Do not use if vial has been removed from sterile packaging

USE FOR:
Anaerobic Cultures for
Bone
Fluid
Fungal
Mycobacterial
Tissue

BACTERIAL COLLECTION KIT (PARA PAK CAREY BLAIR)

USE FOR:
Fecal Bacterial Pathogen PCR
Feces Culture unusual Pathogens

TOTAL FIX VIAL

USE FOR:
Ova and Parasite
Giardia and Cryptosporidium Exam

Microbiology Instructions for collection of Aptima vials (GC and Chlamydia) and Virology collection are also available. Contact Laboratory Customer Service for information. or for information about specific test collection not mentioned here
GO TO our test catalog
https://UVMLabs.TestCatalog.org/ or call 847-5121

THE University of Vermont MEDICAL CENTER

Memorial BLOOD CENTERS
A Division of Innovative Blood Resources

Jed B Gorlin, MD, MBA, Medical Director | Elizabeth H Perry, MD, Associate Medical Director
MEDICARE #24L0008045 | CLIA #24D0663800
MAIN: 651-332-7000 | FAX: 651-332-7001
Hematopoietic Progenitor Cell: 651-332-7126
Transfusion Support: 651-332-7125 | Viral Serology: 651-332-7110
737 Pelham Boulevard | St. Paul, MN 55114-1739 | MBC.ORG | 1-888-GIVE-BLD

To: Valued Donor Testing Clients

From: Dennis Glaser, Donor Testing Assistant Manager
Dennis.Glaser@innovativeblood.org | Phone: 651-332-7229

Cc: Aelgifa Kehr, Donor Testing Senior Manager

Re: NAT MPX and WNV Sample Collection and Storage

Date: 03/26/19

On **Monday April 1, 2019** MBC Donor Testing Laboratory will be switching our NAT assays to the Roche cobas® MPX (HIV/HCV/HBV) test and Roche cobas® WNV test.

Impact to Clients:

- With the new assays there is an important change to the shipping requirements that will impact our clients. We are providing you with this information to ensure your testing is not impacted.
- When ordering NAT (MPX or WNV) testing the sample must arrive at MBC within 72 hours of collection.
- If sample arrives after 72 hours we will not be able to test your sample for NAT.
- We highly recommend you document collection times on your Test Request Forms to expedite the specimen accessioning process. Recording the time can be the difference between meeting the 72 hour requirement or having the samples rejected for being too old.

Please take preventative actions when shipping samples:

- Ship samples the day they are collected. Avoid combining or batching samples into a single shipment and proactively ship tubes without unnecessary delays.
- Ship samples directly to Memorial Blood Centers. Avoid shipping samples to a secondary location to be forwarded to MBC.
- Schedule Friday collections so that they are available for the last Friday FedEx pick-up.
- Avoid FedEx shipping on Saturday. FedEx will not deliver shipments on Sundays.

If you have any questions regarding any of the above information, please feel free to contact me at 651-332-7229 or by email at Dennis.Glaser@innovativeblood.org.

Thank you for your continued business.

FOR INTERNAL USE ONLY | Location # L000814 | Practice # P000531 | *Indicates Required Information

ReproSource®

ILLUMINATING PATHWAYS TO REPRODUCTIVE HEALTH™

Phone: 1.800.667.8893 · Fax: 1.781.935.3068

PHYSICIAN INFORMATION

Practice Name*: The University of VT Medical Center

Physician Provider # (NPI)*:

Address*: 111 Colchester Ave, EP1-100 Specimen Receiving

City*: Burlington | State*: VT | ZIP*:

List ALL appropriate Diagnostic Codes*: _____ _____ _____ _____ _____ _____

Phone*: 1-802-847-4763 | FAX*: 1-802-847-2358

I attest that this patient has been informed about and has given consent for the test(s) I have ordered below. For genetic testing, I have obtained a signed, written consent form from the patient (or their authorized representative) as required by applicable state law and/or regulations; and will maintain all written consent forms as part of the patient file and make them available to ReproSource upon reasonable request.

Ordering Physician (first and last name)*:

Practitioner Signature*:

PATIENT INFORMATION:

Last Name* | First Name* | MI | Primary Phone* | Alternate Phone*

Address* (Apt # Required*) | City* | State* ZIP* | Date of Birth* / / | Gender* ☐ M ☐ F

BILLING INFORMATION: PLEASE CHECK ONE OF THE FOLLOWING:* ☐ Advance Pay ☐ Bill Account ☐ Submit to Insurance (Medicare/Medicaid not accepted)

If Advance Pay, please review the following with patient: a valid email address or mobile telephone number is required for Advance Pay participation. By providing an email address and/or mobile telephone number, the patient consents to receive emails and/or text messages with a link to the Advance Pay web portal (Normal message and data rates may apply). The patient will receive up to three unencrypted messages, which means there is some risk that the information in these communications could be intercepted or accessed and read by someone else, particularly if sharing a device. The messages will not include test information or results. For more information, the patient may call 1.800.667.8893. Mobile phone: | Email:

INSURANCE INFORMATION: ➤ PLEASE ATTACH COPY OF FRONT & BACK OF PATIENT INSURANCE CARD*

PRIMARY Insurance Company Name | Plan Type (check one) ☐ PPO ☐ HMO ☐ Other | Member # | Group #

Address | City | State | ZIP | Phone

Secondary Insurance Company Name | Phone | Subscriber's Name (if NOT the same as patient)

Member # | Group # | DOB ___/___/___ | SSN

AVAILABLE TESTS

OAR: OVARIAN ASSESSMENT REPORT WITH PHYSICIAN INTERPRETATION

Panel Evaluation: AMH, FSH, estradiol, LH, Inhibin B

NOTE: Serum Drawn on Menstrual Cycle Day 2-4

600 ☐ OAR (REI FORMAT)

P0605 ☐ OAR (OB FORMAT)

INDIVIDUAL HORMONES

630 ☐ AMH (Anti-Müllerian Hormone)

565 ☐ Inhibin B (Male)

P2578 ☐ Testosterone Panel (Total, Free, Bioavailable)

T3321 ☐ Prolactin

T6727 ☐ TSH

T3323 ☐ DHEA Sulfate

P4003 ☐ Vitamin D 25 Hydroxy (Total, D2, D3 by LC/MS)

GENETICS

T4411 ☐ Karyotype

YCMD ☐ YCMD 3.0 (Y Chromosome MicroDeletion)

T4101 ☐ Fragile X

440 ☐ Cystic Fibrosis (>100 variants & intron 8 Poly-T)

S4099 ☐ QHerit® Expanded Carrier Screen

T4200 ☐ **CHROMOSOMAL MICROARRAY, POC CliniSure® Oligo-SNP**

TO ORDER: Special collection pack and requisition required

Contact client services for supplies

ASR2.0 ☐ **ADVANCED SEMEN REPORT 2.0**

SDFA (Sperm DNA Frag.) & OSA (Oxidative Stress)

P7203 ☐ **COMPREHENSIVE SEMEN ANALYSIS with @Home Collection.** Includes: @HOME

Motility, Concentration, Count, Kruger Strict Morph, Viability, White Blood Cell (CD45+)

REQUIRED: FAX COMPLETED REQUISITION TO 1.781.935.3068

THROMBOPHILIA

805 ☐ Antithrombin Activity**

125 ☐ APTT (Activated Partial Thromboplastin Time)

T8150 ☐ Factor V (APC Resistance)-Coag**

820 ☐ Fasting Homocysteine**

825 ☐ PAI-1 Activity**

830 ☐ Protein C Activity**

835 ☐ Protein S Activity**

840 ☐ Prothrombin (G20210A PCR)

905 ☐ Antithrombin Antigen

T3309 ☐ PAI-1 Antigen

925 ☐ Protein C Antigen

930 ☐ Protein S Free Antigen

935 ☐ Protein S Total Antigen

910 ☐ Factor V (Leiden) (R506Q PCR)

915 ☐ MTHFR (C677T/A1298C PCR)

T3190 ☐ PAI 4G/5G Polymorphism

T3191 ☐ Factor XIII (V34L PCR)

** ☐ *Request Auto-reflex testing if abnormal (at an additional charge)*

IMMUNOLOGY

306 ☐ HLA Genotype Panel

HLA A, B, C, DR, DQα, DQβ

S3105 ☐ RIP (Reproductive Immunophenotyping)

P3113 ☐ TH1/TH2 Cytokine Ratio

P3106 ☐ KIR Panel

215 ☐ Ovarian Ab

214 ☐ Anti-Adrenal/21 Hydroxylase Ab

T2205 ☐ TPO (Thyroperoxidase Ab)

T2225 ☐ THAB (Thyroglobulin Ab)

210 ☐ ANA Screen, IFA, with Reflex to Titer and Pattern

ANTIPHOSPHOLIPID ANTIBODIES

151 ☐ APA Report 1.0 Standard Panel

Includes: ACA/aCL, APhL®, aβ2-GP1

161 ☐ APA Report 1.0 Expanded Panel

Standard Panel plus aPE, aPS, aPA, aPG, aPI

115 ☐ Lupus Anticoagulant

P7300 ☐ **RPL STANDARD PANEL**

Includes: TSH, Lupus Anticoagulant w/Reflex, antiglycoprotein 1 IgG, IgM, anticardiolipin IgG, IgM

TO ORDER: Special collection pack and requisition required

Contact client services for supplies

Pregnancy History

Gravida _____ Para _____ SABs _____ TABs _____

How many fetuses ☐ 1 ☐ 2 ☐ 3

Gestational Age: _____ Weeks _____ Days ____ ☐ unknown fetal

Fetal Gender ☐ male ☐ female ☐ unknown

Fetal Karyotype: ☐ 46,XX ☐ 46,XY ☐ Not performed ☐ Pending ☐ Abnormal*

NIPT Results ☐ Not performed ☐ Normal ☐ Abnormal*

*If fetal karyotype or NIPT results were ABNORMAL, please enclose copy of report

Have DNA studies been performed on any other family member? ☐ Yes ☐ No ☐ Unsure

If yes, describe who and results:

Miscarriage Analysis Please check as applicable

☐ Recurrent Pregnancy Loss

☐ Miscarriage/Spontaneous Abortion

☐ Missed Abortion

☐ Male Partner of patient with recurrent pregnancy loss

☐ Other _____

☐ Intrauterine Fetal Demise

☐ Therapeutic Abortion

☐ Stillbirth

Other Clinical Impressions or Notes:

SPECIMEN COLLECTION

For remote specimen collection: Check collection method & FAX test requisition to 1.781.935.3068

☐ Off-Site Phlebotomy Service ☐ Home Semen Collection ☐ Send Kit to Patient ☐ Patient Has Collection Kit

Specimen Collection Date* | Specimen Collection Time (am/pm)*

THE University of Vermont MEDICAL CENTER

PATHOLOGY AND LABORATORY MEDICINE

PACKAGING LABORATORY SAMPLES FOR TRANSPORT WITH COURIER

Each office is responsible for getting samples ready for the courier to pick up for delivery to the lab, and we appreciate your help with this. In order to ensure optimal service for all of our clients, we ask that samples be packaged and ready to go prior to the courier arriving. Each time the courier has to wait for a sample, other offices and patients are likely to be inconvenienced by a delayed sample pickup.

1. Inspect each **primary container** (the container in direct contact with the sample) prior to packaging for courier pick-up. Look for evidence of leaks and please carefully turn screw-capped containers upside down to ensure that their lids are on securely. A leaky sample may contaminate other patient samples and could render one or more samples unacceptable for testing.
2. If you have a collection and you do not have time to allow the sample to clot and centrifuge, it might be a better choice to process the sample correctly and wait until the following day for the sample to be picked up. Improper handling can affect laboratory results and ultimately patient care.
3. For physician offices and clinics, UVM Medical Center provides a medium size bag for packaging samples. When properly sealed, this bag is a watertight barrier between the primary container and the person transporting the sample. The exterior of the bag must remain clean so that it can be carried safely without wearing gloves.
4. Package like sample types together at the appropriate temperature.
5. Put the requisitions corresponding to the samples in the back pocket of the specimen transport bag. If a patient has multiple samples that require storage at different temperatures, place a copy of the laboratory requisition with **each sample.**
6. Do not put more than 12 tubes of blood in one bag. It is important not to overfill specimen transport bags. If there are too many samples in a bag, some of the specimens may not be maintained at the proper temperature,
7. On the front of each bag check off the storage requirement for the samples contained within; this ensures that the courier will store the samples appropriately during transport.
8. Keep a record of what you give to the courier for transport. Make sure you have packed all of the samples for the tests requested.
9. Please make sure that all of the specimens are handed off to the courier upon arrival.
10. If a sample container has a flat bottom, it should be placed so that is sits upright.
11. If testing is STAT, place a STAT sticker on the same side as the storage requirements, and notify the lab (1-800-991-2799 or 847-5121) and the courier that the testing is STAT.

Specimen Transport Bags

All primary sample containers must be contained inside a secondary or outer container. The secondary container must be a watertight barrier, such as a sealed plastic bag. For outside clients that are transported by a couier, the secondary packaging has a biohazard warning attached to it. The exterior of the outer container must remain clean so that the package can be carried safely without wearing gloves.

Plastic biohazard bags are available to use as a secondary container for laboratory samples. These bags have an outer sleeve in which to place the laboratory requisition and an inner sleeve in which the primary sample container can be sealed. We provide biohazard bags in several different sizes for use by offices and hospitals that send samples to us. Below is a summary of guidelines for use of plastic biohazard bags.

It is important not to overfill specimen transport bags. If there are too many samples in a bag, some of the specimens may not be maintained at the proper temperature.

Bag Size	Usage
Small:	For hospital client use only. Dimensions: 6 x 8.5 inches.
	Holds a maximum of 6 samples.
	Bags are color coded by temperature: white for room temperature, pink for refrigerated, and yellow for frozen.
	These bags contain a sheet of absorbent material.
Small:	For inpatient units and UVMMC Main Campus clinics. Dimensions: 6 x 8.5 inches.
	Holds a maximum of 6 samples. Bags are transported by medical personnel and are not marked (clear) and should be brought to the laboratory immediately.
Medium:	For client doctors' offices. Dimensions: 8 x 12 inches.
	Holds a maximum of 12 samples.
	Package samples by temperature; check temperature box that applies.
	These bags do not contain absorbent material.
Large:	All clients. Dimensions: 12 x 13.5 inches.
	Holds a maximum of 20 samples.
	Package samples by temperature; check temperature box that applies.
	These bags do not contain absorbent material.

Sample Transport Temperature Requirements

Please package similar sample types that are transported at the same temperature together.

Refrigerated Specimens: 21°C (Wet Ice or ice pack)

- If you use an ice pack, do not put the ice pack directly on the primary container or the tube might freeze.
- Place all refrigerated blood tubes and Aptima containers into a medium-sized (small for hospitals) specimen bag (or bags) with accompanying requisitions.
- Place all other refrigerated samples, i.e. urines or swabs, into a **separate** medium-sized specimen bag (or bags) with accompanying requisitions.
- Hospitals Only: Place smaller bags into a large specimen bag. Mark bag as refrigerated.

Frozen Specimens: 4°C (Dry Ice)

- Place all frozen specimens in a medium-sized (small for hospitals) specimen bag with a copy of each requisition. Mark bag as frozen.

Ambient Specimens: 21°-25°C

- Place ambient specimens in a medium-sized (small for hospitals) specimen bag (or bags) with accompanying requisitions. Mark bag as ambient.

PAP Test (Ambient Temperature)

- Place up to 2 Thin Prep vials into a small or medium-sized bag, with one copy of accompanying requisition. Mark PAP Test on the outside of the bag.
- Hospitals: Place no more than 10 small bags in a large bag. Mark PAP Test on the outside of the bag.

Surgical Pathology Specimens (Ambient Temperature)

- Place specimens from the same patient in one medium-sized bag with requisition. Mark Surgical Pathology on bag.
- Hospitals: Place all Surgical Pathology specimens in large bag. Mark Surgical Pathology on bag.

24-Hour Urine Jugs (Temperature Varies)

Two-liter (half gallon) brown jugs may contain any of a variety of preservatives; store at the temperature appropriate for the particular preservative. Urine jugs must always be transported in an upright position inside a large specimen bag.

Electronic Orders: 24-Hour urine samples should be on a separate order.

Notes: Urine specimen cups and non-stat histology specimens and microbiology specimens can be placed in the bag individually with the requisition in the back pocket. Be sure caps are screwed on securely.

Quest Diagnostics™

Quest Diagnostics Account # _____

Date

Patient Date of Birth / Patient ID #

Patient Name (Last, First)

Ordering Physician Name _____

Address _____

City, State, Zip _____

Phone _____

Fax _____

NPI _____

Select:

☐ MS Pt Program (Medicaid patients excluded)

☐ Medicaid ID # and State: _____

Please check one ICD Code *(Required)*

☐ Multiple Sclerosis (G35)

☐ Crohn's Disease (K5090)

☐ Other _____

(Please write applicable description and code)

Patient Sex ☐ Male ☐ Female

TEST

90257(X) ☒ STRATIFY JCV® Antibody ELISA w/ Reflex to Inhibition Assay

Offered for multiple sclerosis patients only.

The JC Virus (JCV) is associated with progressive multifocal leukoencephalopathy (PML). Detection of antibodies to JCV in serum or plasma is a reliable indicator of exposure to JCV. The analytical performance characteristics were determined for multiple sclerosis patients.

Do Not use this Form to order any other tests; use a separate requisition.

Visit QuestDiagnostics.com to:

- Schedule an appointment (or call 888-277-8772)
- Find Quest Diagnostics locations (or call 800-377-8448)

Walk-in patients are always welcome

UVMMC Test Code: SJCV

BRIGHAM AND WOMEN'S HOSPITAL

Lab Requisition

CAMD

Name

MRN

DOB

M/F

Molecular Diagnostics Requisition

Location/Institution University of Vermont Medical Center

ICD-9 Code(s): (Required)

Ordering Clinician: Please print | **Clinical ID/NPI#**

Clinician Signature (Required)

Collection Information

Date	Time	Drawn by: Phleb. ID:	Drawn by: MD/RN ID MD/PA

Fax Number for Patient Reports 802 847-2358

Clinician's Phone Number 802 847-8400

Contact Name & Phone Number UVMMC Lab Customer Service 802 847-5121

Send Duplicate Reports To: (Name/Address/Fax#/Phone)

Hematopathology UVMMC Laboratory, 111 Colchester Ave, Burlington, VT 05401 fax 802 847-3987 (ph 847-5505)

Indication:

Acute myeloid leukemia, new diagnosis

☐ BWH Surgical Pathology Accession/ Paraffin Block # _____ (Include H&E slide, if available)

SPECIMEN SUBMITTED: ☐ Bone Marrow ☐ Blood ☐ Tissue ☐ Cell Pellet ☐ CSF ☐ Vitreous Fluid ☐ Slide ☐ Other _____

☐ Tissue Type:_____ ☐ Fresh ☐ Frozen ☐ Paraffin ☐ Fixative: ☐ Formalin ☐ DECAL ☐ Bouin's ☐ B+

Molecular Diagnostics

Leukemia/Myeloproliferative

- ☐ **BCR-ABL1 RT-PCR** (quantitative b2a2, b3a2) for CML P
- ☐ **BCR-ABL1 RT-PCR** (qualitative e1a2, b2a2, b3a2) P ☐ CML ☐ ALL
- ☐ ***JAK2* c.1849G>T (p.V617F)** (qualitative) P
- ☐ **PML-RARA RT-PCR** (qualitative) P
- ☐ ***KIT* D816V mutation only** (for mastocytosis) P
- ☐ **Abl Kinase Domain Mutation (**for drug resistance**)**

Lymphoma

- ☐ ***BCL2-IGH@ (JH)* translocation** (PCR) (qualitative) P
- ☐ ***IGH@* gene rearrangement** (PCR) P
- ☐ ***TRG@* gene rearrangement** (PCR)(TCR gamma) P
- ☐ ***NOTCH1* c.7541_7542 del CT** (PCR) P
- ☐ ***MYD88* L265P mutation analysis** P
- XX **Rapid Heme Panel** (PB or BMAsp,NextGenSeq, 95 Genes) P

Virus

- ☐ **HPV Hybrid Capture 2** (cervical cytology)
- ☐ **HPV genotyping** P (tissue specimens)

Solid Tumors

- ☐ ***BRAF* c.1799T>A (p.V600E) mutation analysis** P R
- ☐ ***EGFR* mutation analysis** (sequence exons 18-21) P
- ☐ ***EGFR*, Rapid** (exon 19 deletions, L858R mutation) P
- ☐ ***EGFR*, Acquired resistance** (exon 20, T790M mutation) P
- ☐ ***KIT* sequencing** (exons 8,9,11,13,14,17) P
- ☐ ***KRAS* mutation analysis** P R
- ☐ ***MGMT* promoter methylation** P
- ☐ **MSI (microsatellite instability)** P
- ☐ **Mismatch repair proteins immunohistochemistry**
- ☐ ***MLH1* promoter methylation** P
- ☐ ***NRAS*** (codons 12,13,61) P R
- ☐ ***PDGFRA* sequencing** (exons 12,14,18) P
- ☐ **Lung Panel** (sequential testing: rapid EGFR, KRAS, ALK, ROS1, full EGFR;testing stops after first positive result) P R
- ☐ ***ALK* FISH** (for lung cancer) P R
- ☐ ***ROS1* FISH** P
- ☐ ***RET* FISH** P
- ☐ **Onco-Panel** (Research only, Patient Consent required)
- ☐ **SqLCN Panel** (Research only, Patient Consent required)
- ☐ **U01** (Research only, Patient Consent required)

P Note: Procedures include Professional Interpretation unless otherwise requested. ☐No Professional interpretation

R Reflex or confirmatory testing, if required, will be performed, reported and billed unless indicated here: ☐No reflex tests.

Brigham and Women's Hospital, Center for Advanced Molecular Diagnostics, CAMD
75 Francis Street Boston, MA 02115 Shapiro 5-5032
Tel: (857) 307-1500 FAX (857)307-1522

Quest Diagnostics™

Quest Diagnostics Account # _____

Date

Patient Date of Birth / Patient ID #

Patient Name (Last, First)

Ordering Physician Name _____

Address _____

City, State, Zip _____

Phone _____

Fax _____

NPI _____

Select:

Call Results To: _____

☐ MS Pt Program (Medicaid patients excluded)

☐ Medicaid ID # and State: _____

Please check one ICD Code *(Required)*

☐ Multiple Sclerosis (G35)

☐ Crohn's Disease (K5090)

☐ Other _____

(Please write applicable description and code)

Patient Sex ☐ Male ☐ Female

TEST

91665(X) ☒ STRATIFY JCV® Antibody ELISA w/ Reflex to Inhibition Assay

Offered for multiple sclerosis patients only.

The JC Virus (JCV) is associated with progressive multifocal leukoencephalopathy (PML). Detection of antibodies to JCV in serum or plasma is a reliable indicator of exposure to JCV. The analytical performance characteristics were determined for multiple sclerosis patients.

Do Not use this Form to order any other tests; use a separate requisition.

Visit QuestDiagnostics.com to:

- Schedule an appointment (or call 888-277-8772)
- Find Quest Diagnostics locations (or call 800-377-8448)

Walk-in patients are always welcome

UVMMC Test Code: SJCV

INTERIM LABORATORY REPORT
PRINTED @ 08/31/2018

TEST,QFTB4 NEG
MRN: LABS9-8338 Loc: LABS9
DOB: 07/11/1968 Sex: M

Clinician: IMMUNOLOGY LAB

F12332 COLL: 08/31/2018 10:26 REC: 08/31/2018 10:27 PHYS: IMMUNOLOGY LAB

QunatiFERON TB Gold		
TB Interpretation	[NEGAT]	
	Negative Reference Range: Negative No interferon-gamma response to M. tuberculosis antigens was detected. Infection with M. tuberculosis is unlikely. A single negative result does not exclude infection with M. tuberculosis. In patients at high risk for M. tuberculosis infection, a second test should be considered in accordance with the 2017 ATS/IDSA/CDC Clinical Practive Guidelines for Diagnosis of Tuberculosis in Adults and Children [Lewinsohn DM et. al. Clin. Infect. Dis. 2017:64(2):111-115]. Results were obtained with the Qiagen QuantiFERON-TB Gold Plus ELISA.	
TB1 Ag minus Nil	0.03	IU/mL
TB2 Ag minus Nil	0.03	IU/mL

END OF REPORT

H = High L = Low * = Critical

INTERIM LABORATORY REPORT
PRINTED @ 08/31/2018

TEST,QFTB4 POS
MRN: LABS9-8337 Loc: LABS9
DOB: 06/25/1975 Sex: F

Clinician: IMMUNOLOGY LAB

F12329 COLL: 08/31/2018 10:25 REC: 08/31/2018 10:26 PHYS: IMMUNOLOGY LAB

QunatiFERON TB Gold			
TB Interpretation	[NEGAT]		
	A **Positive Reference Range: Negative Interferon-gamma response to M. tuberculosis antigens detected, suggesting infection with M. tuberculosis.**		
	Positive results in patients at low-risk for tuberculosis should be interpreted with caution and repeat testing on a new sample should be considered as recommended by the 2017 ATS/IDSA/CDC Clinical Practice Guidelines for Diagnosis of Tuberculosis in Adults and Children.		
	[Lewinsohn DM et. al. Clin. Infect. Dis. 2017:64(2):111-115].		
	False positive results may occur in patients with prior infection with M. marinum, M. szulgai, or M. kansasii. Results were obtained with the Qiagen QuantiFERON-TB Gold Plus ELISA.		
TB1 Ag minus Nil	2.56	IU/mL	
TB2 Ag minus Nil	>10.00	IU/mL	

END OF REPORT

H = High L = Low * = Critical

Sample Type	Viral Tests Available
CSF	Herpes simplex virus 1
	Enterovirus
	Varicella zoster (VZV)
Muco-cutaneous	Herpes simplex virus types 1 & 2
	Varicella zoster (VZV)
Ocular	Herpes simplex virus types 1 & 2
	Varicella zoster (VZV)
Respiratory	Influenza A/B and RSV
	Rinovirus
	Adenovirus
	Parainfluenza Virus
	Human Metapneumovirus
Urine CMV	Cytomegalovirus

PATHOLOGY & LABORATORY MEDICINE
111 Colchester Avenue-233MP1
East Pavilion, Level 1
Burlington, VT 05401

PHONE
(802) 847-5121
(800) 991-2799

FAX
(802) 847-5905

ONLINE
http://uvmlabs.testcatalog.org/

10/31/2018

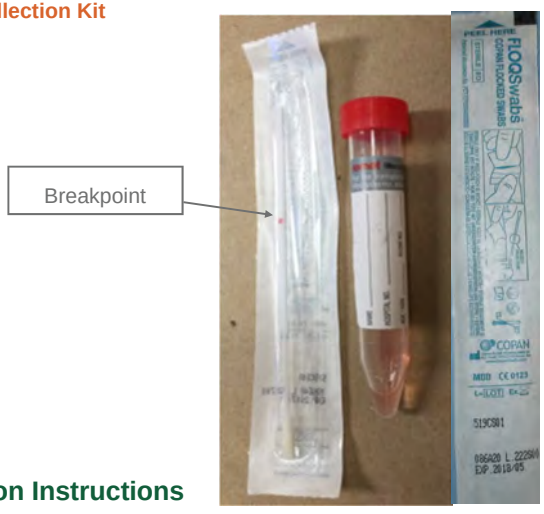
Virology Sample Collection

THE University of Vermont MEDICAL CENTER

VIRAL STUDIES

Please collect samples with swabs provided by UVM Medical Center Laboratory. Pediatric Collection Kits are also available. Other swabs may not be acceptable. Wooden shafted swabs are inappropriate for microbiology testing. Chemicals within the shaft can be inhibitory to some bacteria and can inhibit PCR reactions. Samples on wooded shafted swabs will be rejected. Swabs are available from Lab Customer Service at (802) 847-5121 or (800) 991-2799.

Viral Collection Kit



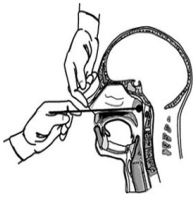
Collection Instructions for Viral Studies

- Keep sample kit at room temperature.
- After collecting Virology samples from the appropriate site break the swab into the Viral transport media, and securely recap the vial.
- Label the vial with patient name, DOB and date of collection and send to the Microbiology laboratory for testing. Refrigerate.

FLUID SAMPLES FOR VIRAL STUDIES

Sterile fluids and Bronchial washings or BAL samples should be submitted in a sterile container and Not placed in media for viral requests from these sites. Refrigerate.

Nasopharyngeal Swab Technique for respiratory viral specimen collection. (Nasopharyngeal swabs are available upon request)



Test Name	Sample Information
Inpatient/ Outpatient Influenza, RSV PCR*	Collect a nasopharyngeal specimens using a Viral Collection Kit (M6), refrigerate. Respiratory fluids should be collected in a sterile container, 1 ml minimum volume, refrigerate.
ED, Urgent Care Influenza, RSV PCR	Collect a nasopharyngeal specimens using a Viral Collection Kit (M6), refrigerate.
Expanded Respiratory Viral Panel, PCR	Collect a nasopharyngeal specimens using a Viral Collection Kit (M6), refrigerate. Respiratory fluids should be collected in a sterile container, 1 ml minimum volume, refrigerate.
Enterovirus PCR, CSF	1 ml CSF submitted in sterile container, refrigerate
Herpes Simplex Virus, PCR	Collect a swab using a Viral Collection Kit (M6), Refrigerate. CSF should be collected in a sterile container, 1 ml minimum volume, refrigerate.
Varicella zoster Virus, PCR	Collect a swab using a Viral Collection Kit (M6), refrigerate. CSF should be collected in a sterile container, 1 ml minimum volume, refrigerate.
CMV, Molecular Detection, PCR	Varies, refer to Mayo Medical Laboratories (MML) specimen requirements for details

CDC's Response to **Zika**

WHAT HAPPENS WHEN I AM TESTED FOR ZIKA AND WHEN WILL I GET MY RESULTS?

Getting tested for Zika virus is different from a flu, strep, or pregnancy test, which can be done in a doctor's office. Only a few laboratories (labs) in the U.S. are certified to test for Zika. As a result, specimens often have to be shipped to a lab for testing. Several state and local health departments are certified to perform Zika testing. If your health department doesn't currently perform Zika testing, it will coordinate testing with CDC. CDC is receiving hundreds of samples each week. Depending on the lab's workload, processing and reporting times may take 2 to 4 weeks. Reporting times may take longer during summer months or when other viruses spread by mosquitoes increase. Here's how testing occurs:

1 Need for testing determined

- When you visit your doctor, you'll discuss any recent travel and symptoms. Tell your doctor if you are pregnant or planning to become pregnant.
- Your doctor may decide to test for Zika and other viruses like dengue or chikungunya.

2 Health department contacted

- If Zika testing is needed, your doctor will get approval from the health department before collecting samples (blood, urine, saliva).

3 Samples collected

- Your doctor will send you to a laboratory that will collect samples for testing.
- Your doctor will select the test(s) that need to be performed and complete paperwork for the health department.

4 Samples shipped

- After samples are collected, the laboratory ships them to the health department.
- The health department logs receipt of the samples.

5 Samples tested

- If your health department has been certified to perform Zika testing, then your samples will be tested there.
- If your health department is not able to perform testing, your samples will be shipped to CDC and tested.

6 Results reported

- If your health department performed testing, it will send the results to your doctor.
- If CDC performed testing, CDC will report results to your health department, which will report the results to your doctor. Your doctor will then report lab test results to you.

U.S. Department of Health and Human Services
Centers for Disease Control and Prevention

CS267458-A July 28, 2016

VT DEPARTMENT OF HEALTH CLINICAL LABORATORY SPECIMEN COLLECTION for ZIKA VIRUS

Specimen submission must be pre-approved by Infectious Disease Epidemiology
24/7 Phone Number: (802) 863-7240

Testing Process:

1. Identify patient who needs testing
2. Collect the required information
3. Call Infectious Disease Epidemiology at the VT Department of Health for specimen submission approval at their 24/7 phone number (802) 863-7240
4. Collect the appropriate specimens
5. Fill out the VT Department of Health Laboratory (VDHL) Clinical Test Request Form Micro 220 to submit with the specimen

1. Patient who meets criteria for testing

- ☐ Any symptomatic* person with travel to an area with active Zika transmission within previous **2 weeks** of symptom onset, **OR**
- ☐ Any symptomatic* person who had unprotected sexual exposure to a person** who had previously traveled to an area with active Zika transmission, **OR**
- ☐ A pregnant woman WITH or WITHOUT symptoms* who had a history of travel to an area with active Zika transmission within the previous **12 weeks, OR**
- ☐ A pregnant woman WITH or WITHOUT symptoms* who had unprotected sexual exposure to a person** within the previous **12 weeks,** who had previously traveled to an area with active Zika transmission

**Symptoms consistent with Zika virus include acute febrile illness, rash, arthralgia, conjunctivitis, myalgia or headache*
***Person does NOT need to be a confirmed Zika virus case*

NOTE: Current CDC research suggests that Guillain-Barre Syndrome (GBS) is strongly associated with Zika; however, only a small proportion of people with recent Zika virus infection get GBS. If you have a patient with a GBS diagnosis and a recent travel history to an area with active Zika transmission, call the VT Department of Health at (802) 863-7240 for further guidance on specimen collection for Zika lab testing.

Testing will **not** be approved for asymptomatic men, children or women considering pregnancy. The current CDC recommendation is for women to wait 8 weeks after return from travel to attempt conception.

Men should wait at least 6 months after symptoms start, or last possible exposure, before attempting to impregnate a woman. Men should use condoms or not have sex for at least 6 months after travel to area with active transmission (if asymptomatic) **or** for at least 6 months from the start of symptoms (or Zika diagnosis).

2. Required Information

- ☐ Patient's name
- ☐ Patient's demographic information
- ☐ If pregnant, estimated delivery date or date of LMP
- ☐ Symptom onset dates
- ☐ Patient's DOB
- ☐ Pertinent travel history (locations and dates)
- ☐ Clinical symptoms, if symptomatic
- ☐ Specimens collected and dates of collection

3. Call Infectious Disease Epidemiology at the VT Department of Health: (802) 863-7240

Micro 400 rev: 10/27/2016

4. Collect the appropriate specimens

Person to be tested	Number of days between symptom onset and specimen collection	Type of test	What to collect
Symptomatic, non-pregnant	<14 days	rRT-PCR assay *	1-2 mL of urine AND 1 mL of serum AND 1 mL of whole blood in EDTA lavender-top tube
	≥14 days to 12 weeks	Zika IgM MAC ELISA	1 mL of serum
Pregnant and symptomatic	< 14 days	rRT-PCR assay *	1-2 mL of urine AND 1 mL of serum AND 1 mL of whole blood in EDTA lavender-top tube
	≥14 days to 12 weeks	Zika IgM MAC ELISA	1 mL of serum
	>12 weeks after return from travel or exposure	Not available	Testing currently not available
Pregnant and asymptomatic	Specimen collected <14 days after return from travel or exposure	rRT-PCR assay**	1-2 mL of urine AND 1 mL of serum AND 1 mL of whole blood in EDTA lavender-top tube
	2 – 12 weeks after return from travel or exposure	Zika IgM MAC ELISA	1 mL of serum
	>12 weeks after return from travel or exposure	Not available	Testing currently not available

* The rRT-PCR assay tests for Dengue, Chikungunya, and Zika. If negative for all three viruses, the Zika IgM MAC ELISA will be performed
** If negative, the health care provider should request collection of a follow-up serum specimen 2-12 weeks following exposure or return from travel. Follow up specimen will be tested by Zika IgM MAC ELISA.

Specimen collection and storage instructions

- Serum needs to be collected in serum separator tube and centrifuged prior to shipment. Urine needs to be in a sterile screw top tube. Collect whole blood in a filled EDTA lavender-top tube.
- Ship specimens cold (2–6°C) or frozen (-70°C) by courier to VDHL.

5. Complete the Vermont Department of Health Laboratory Micro 220 Clinical Test Request Form

Under the Virology section on page 2, beside “Other”, write in “Zika”. Testing is performed at no charge.

Send to: Vermont Department of Health Laboratory
359 South Park Drive
Colchester, VT 05446
(800) 660-9997 or (802) 338-4724
(802) 338-4706 (FAX)

Policies

Policies
Mayo Clinic Laboratories

POLICY STATEMENTS

Animal Specimens
We do not accept animal specimens for laboratory testing.

Billing
Client—Each month you will receive an itemized invoice/ statement which will indicate the date of service, patient name, CPT code, test name, and test charge. Payment terms are net 30 days. When making payment, please include our invoice number on your check to ensure proper credit to your account.

Patient—Mayo Clinic Laboratories does not routinely bill patient's insurance; however, if you have made advanced arrangements to have Mayo Clinic Laboratories bill your patient's insurance, please include the following required billing information: responsible party, patient's name, current address, zip code, phone number, Social Security number, and diagnosis code. Providing this information will avoid additional correspondence to your office at some later date. Please advise your patients that they will receive a bill for laboratory services from Mayo Clinic Laboratories for any personal responsibility after insurance payment. VISA® and MasterCard® are acceptable forms of payment.

Billing—CPT Coding
It is your responsibility to determine correct CPT codes to use for billing. While this catalog lists CPT codes in an effort to provide some guidance, CPT codes listed only reflect our interpretation of CPT coding requirements and are not necessarily correct. Particularly, in the case of a test involving several component tests, this catalog attempts to provide a comprehensive list of CPT codes for all of the possible components of the test. Only a subset of component tests may be performed on your specimen. You should verify accuracy of codes listed. Where multiple codes are listed, you should select codes for tests actually performed on your specimen. **MAYO CLINIC LABORATORIES ASSUMES NO RESPONSIBILITY FOR BILLING ERRORS DUE TO RELIANCE ON CPT CODES LISTED IN THIS CATALOG.** For further reference, please consult the CPT Coding Manual published by the American Medical Association. If you have any questions regarding use of a code, please contact your local Medicare carrier.

Business Continuity and Contingency Planning
In the event of a local, regional, or national disaster, Mayo Clinic and Mayo Clinic Laboratories' performing sites have comprehensive contingency plans in place in each location to ensure that the impact on laboratory practice is minimized. With test standardization between our performing sites and medical practice locations throughout the country, we have worked to ensure that patient care will not be compromised.

Cancellation of Tests
Cancellations received prior to test setup will be honored at no charge. Requests received following test setup cannot be honored. A report will be issued automatically and charged appropriately.

Chain-of-Custody
Chain-of-custody, a record of disposition of a specimen to document who collected it, who handled it, and who performed the analysis, is necessary when results are to be used in a court of law. Mayo Clinic Laboratories has developed packaging and shipping materials that satisfy legal requirements for chain-of-custody. This service is only offered for drug testing.

Compliance Policies
Mayo Clinic Laboratories is committed to compliance with applicable laws and regulations such as the Clinical Laboratory Improvement Amendments (CLIA). Regulatory agencies that oversee our compliance include, but are not limited to, the Centers for Medicare and Medicaid Services (CMS), the Food and Drug Administration (FDA), and the Department of Transportation (DOT). Mayo Clinic Laboratories develops, implements, and maintains policies, processes, and procedures throughout our organization which are designed to meet relevant requirements. We expect clients utilizing our services will ensure their compliance with patient confidentiality, diagnosis coding, anti-kick back statutes, professional courtesy, CPT-4 coding, CLIA proficiency testing, and other similar regulatory requirements. Also see "Accreditation and Licensure," "HIPAA Compliance," and "Reportable Disease."

Confidentiality of Results
Mayo Clinic Laboratories is committed to maintaining confidentiality of patient information. To ensure Health Insurance Portability and Accountability Act of 1996 (HIPAA) and the College of American Pathologists (CAP) compliance for appropriate release of patient results, Mayo Clinic Laboratories has adopted the following policies:

Phone Inquiry Policy—One of the following unique identifiers will be required:

- Mayo Clinic Laboratories' accession ID number for specimen; **or**
- Client account number from Mayo Clinic Laboratories along with patient name; **or**
- Client accession ID number interfaced to Mayo Clinic Laboratories; **or**
- Identification by individual that he or she is, in fact, "referring physician" identified on requisition form by Mayo Clinic Laboratories' client

Under federal regulations, we are only authorized to release results to ordering physicians or health care providers responsible for the individual patient's care. Third parties requesting results including requests directly from the patient are directed to the ordering facility. We appreciate your assistance in helping Mayo Clinic Laboratories preserve patient confidentiality. Provision of appropriate identifiers will greatly assist prompt and accurate response to inquiries and reporting.

Critical Values
The "Critical Values Policy" of the Department of Laboratory Medicine and Pathology (DLMP), Mayo Clinic, Rochester, Minnesota is described below. These values apply to Mayo Clinic patients as well as external clients of Mayo Clinic Laboratories. Clients should provide "Critical Value" contact information to Mayo Laboratory Inquiry to facilitate call-backs. To facilitate this process, a customized form is available at mayocliniclabs.com.

Definition of Critical Value—A critical value is defined as a value that represents a pathophysiological state at such variance with normal (expected values) as to be life-threatening unless something is done promptly and for which some corrective action could be taken.

Abnormals are Not Considered Critical Values— Most laboratory tests have established reference ranges, which represent results that are typically seen in a group of healthy individuals. While results outside these reference ranges may be considered abnormal, "abnormal" results and "critical values" are not synonymous. Analytes on the DLMP Critical Values List represent a subgroup of tests that meet the above definition.

Action Taken when a Result is Obtained that Exceeds the Limit Defined by the DLMP Critical Values List—In addition to the normal results reporting (eg, fax, interface), Mayo Clinic Laboratories' staff telephone the ordering physician or the client-provided contact number within 60 minutes following laboratory release of the critical test result(s). In the event that contact is not made within the 60-minute period, we continue to telephone until the designated party is reached and the result is conveyed in compliance and adherence to the CAP.

Semi-Urgent Results— Semi-Urgent Results are defined by Mayo Clinic as those infectious disease-related results that are needed promptly to avoid potentially serious health consequences for the patient (or in the case of contagious diseases, potentially serious health consequences to other persons exposed to the patient) if not acknowledged and/or treated by the physician. While not included on the Critical Values List, this information is deemed important to patient care in compliance and adherence to the CAP.

To complement Mayo Clinic Laboratories' normal reporting mechanisms (eg, fax, interface), Mayo Clinic Laboratories' staff will telephone results identified as significant microbiology findings to the ordering facility within 2 hours following laboratory release of the result(s). In the event that contact is not made within the 2-hour period, we will continue to telephone until the responsible party is reached and the result is conveyed. In addition, in most instances, you will see the comment **SIGNIFICANT RESULT** appear on the final report.

For information regarding the Mayo Clinic Critical Value List, contact Mayo Laboratory Inquiry at 800-533-1710 or 507-266-5700 or visit mayocliniclabs.com.

Disclosures of Results
Under federal regulations, we are only authorized to release results to ordering physicians or other health care providers responsible for the individual patient's care. Third parties requesting results, including requests directly from the patient, are directed to the ordering facility.

Extracted Specimens
Mayo Clinic Laboratories will accept extracted nucleic acid for clinical testing, provided it is an acceptable specimen source for the ordered test, if the isolation was performed in a CLIA-certified laboratory or a laboratory meeting equivalent requirements as determined by the CAP and/or the CMS.

Fee Changes
Fees are subject to change without notification and complete pricing per accession number is available once accession number is final. Specific client fees are available by calling Mayo Laboratory Inquiry at 800-533-1710 or 507-266-5700 or by visiting mayocliniclabs.com.

Framework for Quality
"Framework for Quality" is the foundation for the development and implementation of the quality program for Mayo Clinic Laboratories. Our framework builds upon the concepts of quality control and quality assurance providing an opportunity to deliver consistent, high-quality and cost-effective service to our clients. In addition, our quality program enhances our ability to meet and exceed the requirements of regulatory/ accreditation agencies and provide quality service to our customers.

A core principle at Mayo Clinic Laboratories is the continuous improvement of all processes and services that support the care of patients. Our continuous improvement process focuses on meeting the needs of you, our client, to help you serve your patients.

"Framework for Quality" is composed of 12 "Quality System Essentials." The policies, processes, and procedures associated with the "Quality System Essentials" can be applied to all operations in the path of workflow (eg, pre-analytical, analytical, and post-analytical). Performance is measured through constant monitoring of activities in the path of workflow and comparing performance through benchmarking internal and external quality indicators and proficiency testing.

Data generated by quality indicators drives process improvement initiatives to seek resolutions to system-wide problems. Mayo Clinic Laboratories utilizes "Failure Modes and Effects Analysis (FMEA)," "Plan Do Study Act (PDSA)," "LEAN," "Root Cause Analysis," and "Six Sigma" quality improvement tools to determine appropriate remedial, corrective, and preventive actions.

Quality Indicators—Mayo Clinic Laboratories produces hundreds of Key Performance Indicators for our business and operational areas, and we review them regularly to ensure that we continue to maintain our high standards. A sampling of these metrics includes:

- Pre-analytic performance indicators
  - Lost specimens*
  - On-time delivery
  - Special handling calls
  - Specimen acceptability*
  - Specimen identification*
  - Incoming defects*
- Analytic performance indicators
  - Proficiency testing
  - Quality control
  - Turnaround (analytic) times
  - Quantity-not-sufficient (QNS) specimens*
- Post-analytic performance indicators
  - Revised reports*
  - Critical value reports*
- Operational performance indicators
  - Incoming call resolution*
  - Incoming call abandon rate
  - Call completion rate
  - Call in-queue monitoring
  - Customer complaints
  - Customer satisfaction surveys

The system provides a planned, systematic program for defining, implementing, monitoring, and evaluating our services.

*Measured using Six Sigma defects per million (dpm) method.

HIPAA Compliance

Mayo Clinic Laboratories is fully committed to compliance with all privacy, security, and electronic transaction code requirements of the Health Insurance Portability and Accountability Act of 1996 (HIPAA). All services provided by Mayo Clinic Laboratories that involve joint efforts will be done in a manner which enables our clients to be HIPAA and the College of American Pathologists (CAP) compliant.

Infectious Material

The Centers for Disease Control (CDC) in its regulations of July 21, 1980, has listed organisms and diseases for which special packaging and labeling must be applied. Required special containers and packaging instructions can be obtained from us by using the “Request for Supplies” form or by ordering from the online Supply Catalog at mayocliniclabs.com/customer-service/supplies/index.php.

Shipping regulations require that infectious substances affecting humans be shipped in a special manner. See “Infectious Material.” A copy of the regulations can be requested from the International Air Transport Association (IATA); they may be contacted by phone at 514-390-6770 or by fax at 514-874-2660.

Informed Consent Certification

Submission of an order for any tests contained in this catalog constitutes certification to Mayo Clinic Laboratories by ordering physician that: (1) ordering physician has obtained “Informed Consent” of subject patient as required by any applicable state or federal laws with respect to each test ordered; and (2) ordering physician has obtained from subject patient authorization permitting Mayo Clinic Laboratories to report results of each test ordered directly to ordering physician.

On occasion, we forward a specimen to an outside reference laboratory. The laws of the state where the reference laboratory is located may require written informed consent for certain tests. Mayo Clinic Laboratories will request that ordering physician pursue and provide such consent. Test results may be delayed or denied if consent is not provided.

Non-Biologic Specimens
Due to the inherent exposure risk of non-biologic specimens, their containers, and the implied relationship to criminal, forensic, and medico-legal cases, Mayo Clinic Laboratories does not accept nor refer non-biologic specimen types. Example specimens include: unknown solids and liquids in the forms of pills, powder, intravenous fluids, or syringe contents.

Patient Safety Goals
One of The Joint Commission National Patient Safety goals for the Laboratory Services Program is to improve the accuracy of patient identification by using at least 2 patient identifiers when providing care, treatment, or services.

Mayo Clinic Laboratories uses multiple patient identifiers to verify the correct patient is matched with the correct specimen and the correct order for the testing services. As a specimen is received at Mayo Clinic Laboratories, the client number, patient name, and patient age date of birth are verified by comparing the labels on the specimen tube or container with the electronic order and any paperwork (batch sheet or form) which may accompany the specimen to be tested. When discrepancies are identified, Mayo Laboratory Inquiry will call the client to verify discrepant information to assure Mayo Clinic Laboratories is performing the correct testing for the correct patient. When insufficient or inconsistent identification is submitted, Mayo Clinic Laboratories will recommend that a new specimen be obtained, if feasible.

In addition, Anatomic Pathology consultation services require the Client Pathology Report. The pathology report is used to match the patient name, patient age and/or date of birth, and pathology case number.
Since tissue blocks and slides have insufficient space to print the patient name on the block, the pathology report provides Mayo Clinic Laboratories another mechanism to confirm the patient identification with the client order and labels on tissue blocks and slides.

Parallel Testing
Parallel testing may be appropriate in some cases to re-establish patient baseline results when converting to a new methodology at Mayo Clinic Laboratories. Contact your Regional Manager at 800-533-1710 or 507-266-5700 for further information.

Proficiency Testing
We are a College of American Pathologists (CAP)-accredited, CLIA-licensed facility that voluntarily participates in many diverse external and internal proficiency testing programs. It is Mayo Clinic Laboratories' expectation that clients utilizing our services will adhere to CLIA requirements for proficiency testing (42 CFR 493.801), including a prohibition on discussion about samples or results and sharing of proficiency testing materials with Mayo Clinic Laboratories during the active survey period.

Mayo Clinic Laboratories' proficiency testing includes participation in CMS-approved programs. Mayo Clinic Laboratories also performs alternative assessment using independent state, national, and international programs when proficiency testing is not available. Mayo Clinic Laboratories also conducts comparability studies to ensure the accuracy and reliability of patient testing, when necessary. We comply with the regulations set forth in Clinical Laboratory Improvement Amendments (CLIA-88), the Occupational Safety and Health Administration (OSHA), or the Centers for Medicare & Medicaid Services (CMS).

It is Mayo Clinic Laboratories' expectation that clients utilizing our services will adhere to CLIA requirements for proficiency testing including a prohibition on discussion about samples or results and sharing of proficiency

testing materials with Mayo Clinic Laboratories during the active survey period. Referring of specimens is acceptable for comparison purposes when an approved proficiency-testing program is not available for a given analyte.

Radioactive Specimens
Specimens from patients receiving radioactive tracers or material should be labeled as such. All incoming shipments arriving at Mayo Clinic Laboratories are routed through a detection process in receiving to determine if the samples have any levels of radioactivity. If radioactive levels are detected, the samples are handled via an internal process that assures we do not impact patient care and the safety of our staff. This radioactivity may invalidate the results of radioimmunoassays (RIA).

Record Retention
Mayo Clinic Laboratories retains all test requisitions and patient test results at a minimum for the retention period required to comply with and adhere to the CAP. A copy of the original report can be reconstructed including reference ranges, interpretive comments, flags, and footnotes with the source system as the Department of Laboratory Medicine's laboratory information system.

Referral of Tests to Another Laboratory
Mayo Clinic Laboratories forwards tests to other laboratories as a service to its clients. This service should in no way represent an endorsement of such test or referral laboratory or warrant any specific performance for such test. Mayo Clinic Laboratories will invoice for all testing referred to another laboratory at the price charged to Mayo Clinic Laboratories. In addition, Mayo Clinic Laboratories will charge an administrative fee per test for such referral services.

Reflex Testing
Mayo Clinic Laboratories identifies tests that reflex when medically appropriate. In many cases, Mayo Clinic Laboratories offers components of reflex tests individually as well as together. Clients should familiarize themselves with the test offerings and make a decision whether to order a reflex test or an individual component. Clients, who order a reflex test, can request to receive an "Additional Testing Notification Report" which indicates the additional testing that has been performed. This report will be faxed to the client. Clients who wish to receive the "Additional Testing Notification Report" should contact their Regional Manager or Regional Service Representative.

Reportable Disease
Mayo Clinic Laboratories, in compliance with and adherence to the College of American Pathologists (CAP) Laboratory General Checklist (CAP GEN. 20373) strives to comply with laboratory reporting requirements for each state health department regarding reportable disease conditions. We report by mail, fax, and/or electronically, depending upon the specific state health department regulations. Clients shall be responsible for compliance with any state specific statutes concerning reportable conditions, including, but not limited to, birth defects registries or chromosomal abnormality registries. This may also include providing patient address/demographic information. Mayo Clinic Laboratories' reporting does not replace the client or physician responsibility to report as per specific state statues.

Request for Physician Name and Number
Mayo Clinic Laboratories endeavors to provide high quality, timely results so patients are able to receive appropriate care as quickly as possible. While providing esoteric reference testing, there are times when we need to contact the ordering physician directly. The following are 2 examples:

When necessary to the performance of a test, the ordering physician's name and phone number are requested as part of "Specimen Required." This information is needed to allow our physicians to make timely consultations or seek clarification of requested services. If this information is not provided at the time of specimen receipt, we will call you to obtain the information. By providing this information up front, delays in patient care are avoided.

In some situations, additional information from ordering physician is necessary to clarify or interpret a test result. At that time, Mayo Clinic Laboratories will request physician's name and phone number so that one of our staff can consult with the physician.

We appreciate your rapid assistance in supplying us with the ordering physician's name and phone number when we are required to call. Working together, we can provide your patients with the highest quality testing services in the shortest possible time.

Special Handling
Mayo Clinic Laboratories serves as a reference laboratory for clients around the country and world. Our test information, including days and time assays are performed as well as analytic turnaround time, is included under each test listing in the Test Catalog on mayocliniclabs.com. Unique circumstances may arise with a patient resulting in a physician request that the specimen or results receive special handling. There are several options available. These options can only be initiated by contacting Mayo Laboratory Inquiry at 800-533-1710 or 507-266-5700 and providing patient demographic information.

There is a nominal charge associated with any special handling.

- ***Hold*:** If you would like to send us a specimen and hold that specimen for testing pending initial test results performed at your facility, please call Mayo Laboratory Inquiry. We will initiate a hold and stabilize the specimen until we hear from you.
- ***Expedite*:** If you would like us to expedite the specimen to the performing laboratory, you can call Mayo Laboratory Inquiry and request that your specimen be expedited. Once the shipment is received in our receiving area, we will deliver the specimen to the performing laboratory for the next scheduled analytic run. We will not set up a special run to accommodate an expedite request.
- ***STAT*:** In rare circumstances, STAT testing from the reference laboratory may be required for patients who need immediate treatment. These cases typically necessitate a special analytic run to turn results around as quickly as possible. To arrange STAT testing, please have your pathologist, physician, or laboratory director call Mayo Laboratory Inquiry. He/she will be connected with one of our medical directors to consult about the patient's case. Once mutually agreed upon that there is a need for a STAT, arrangements will be made to assign resources to run the testing on a STAT basis when the specimen is received.

Specimen Identification Policy
In compliance with and adherence to the CAP and the Joint Commission's 2008 Patient Safety Goals (1A), Mayo Clinic Laboratories' policy states that all specimens received for testing must be correctly and adequately labeled to assure positive identification. Specimens must have **2** person-specific identifiers on the patient label. Person-specific identifiers may include: accession number, patient's first and last name, unique identifying number (eg, medical record number), or date of birth. Specimens are considered mislabeled when there is a mismatch between the person-specific identifiers on the specimen and information accompanying the specimen (eg, computer system, requisition form, additional paperwork).

When insufficient or inconsistent identification is submitted, Mayo Clinic Laboratories will recommend that a new specimen be obtained, if feasible.

Specimen Rejection
All tests are unique in their testing requirements. To avoid specimen rejection or delayed turnaround times, please check the "Specimen Required" field within each test. You will be notified of rejected or problem specimens upon receipt.

Please review the following conditions prior to submitting a specimen to Mayo Clinic Laboratories:

- Full 24 hours for timed urine collection

- pH of urine
- Lack of hemolysis/lipemia
- Specimen type (plasma, serum, whole blood, etc.)
- Specimen volume
- Patient information requested
- Proper identification of patient/specimen
- Specimen container (metal-free, separation gel, appropriate preservative, etc.)
- Transport medium
- Temperature (ambient, frozen, refrigerated)

Specimen Volume
The "Specimen Required" section of each test includes 2 volumes - preferred volume and minimum volume. Preferred volume has been established to optimize testing and allows the laboratory to quickly process specimen containers, present containers to instruments, perform test, and repeat test, if necessary. Many of our testing processes are fully automated; and as a result, this volume allows hands-free testing and our quickest turnaround time (TAT). Since patient values are frequently abnormal, repeat testing, dilutions, or other specimen manipulations often are required to obtain a reliable, reportable result. Our preferred specimen requirements allow expeditious testing and reporting.

When venipuncture is technically difficult or the patient is at risk of complications from blood loss (eg, pediatric or intensive care patients), smaller volumes may be necessary. Specimen minimum volume is the amount of sample necessary to provide a clinical relevant result as determined by the Testing Laboratory.

When patient conditions do not mandate reduced collection volumes, we ask that our clients submit preferred volume to facilitate rapid, cost-effective, reliable test results. Submitting less than preferred volume may negatively impact quality of care by slowing TAT, increasing the hands-on personnel time (and therefore cost) required to perform test.

Mayo Clinic Laboratories makes every possible effort to successfully test your patient's specimen. If you have concerns about submitting a specimen for testing, please call Mayo Laboratory Inquiry at 800-533-1710 or 507-266-5700. Our staff will discuss the test and specimen you have available. While in some cases specimens are inadequate for desired test, in other cases, testing can be performed using alternative techniques.

Supplies
Shipping boxes, specimen vials, special specimen collection containers, and request forms are supplied without charge. Supplies can be requested using one of the following methods: use the online ordering functionality available at mayocliniclabs.com/supplies or call Mayo Laboratory Inquiry at 800-533-1710 or 507-266-5700.

Test Classifications
Analytical tests offered by Mayo Clinic Laboratories are classified according to the FDA labeling of the test kit or reagents and their usage. Where appropriate, analytical test listings contain a statement regarding these classifications, test development, and performance characteristics.

Test Development Process
Mayo Clinic Laboratories serves patients and health care providers from Mayo Clinic, Mayo Health System, and our reference laboratory clients worldwide. We are dedicated to providing clinically useful, cost-effective testing strategies for patient care. Development, validation, and implementation of new and improved laboratory methods are major components of that commitment.

Each assay utilized at Mayo Clinic, whether developed on site or by others, undergoes an extensive validation and performance documentation period before the test becomes available for clinical use. Validations follow a standard protocol that includes:

- Accuracy

- Precision
- Sensitivity
- Specificity and interferences
- Reportable range
- Specimen stability
- Specimen type comparisons, if applicable
- Urine preservative studies: stability at ambient, refrigerated, and frozen temperatures and with 7 preservatives; at 1, 3, and 7 days
- Comparative evaluation with current and potential methods, if applicable
- Reference intervals: reference intervals provided by Mayo Clinic Laboratories are derived from studies performed in our laboratories or adopted from the manufacturer package insert after internal verification. When reference intervals are obtained from other sources, the source is indicated in the "Reference Values" field.
- Workload recording
- Limitations of the assay
- Clinical utility and interpretation: written by Mayo Clinic medical experts, electronically available (MayoAccess™)

Test Result Call-Backs
Results will be phoned to a client when requested from the client (either on Mayo Clinic Laboratories' request form or from a phone call to Mayo Clinic Laboratories from the client).

Time-Sensitive Specimens
Please contact Mayo Laboratory Inquiry at 800-533-1710 or 507-266-5700 prior to sending a specimen for testing of a time-sensitive nature. Relay the following information: facility name, account number, patient name and/or Mayo Clinic Laboratories' accession number, shipping information (ie, courier service, FedEx®, etc.), date to be sent, and test to be performed. Place specimen in a separate Mayo Clinic Laboratories' temperature appropriate bag. Please write "Expedite" in large print on outside of bag.

Turnaround Time (TAT)
Mayo Clinic Laboratories' extensive test menu reflects the needs of our own health care practice. We are committed to providing the most expedient TAT possible to improve diagnosis and treatment. We consider laboratory services as part of the patient care continuum wherein the needs of the patient are paramount. In that context, we strive to fulfill our service obligations. Our history of service and our quality metrics will document our ability to deliver on all areas of service including TAT.

Mayo Clinic Laboratories defines TAT as the analytical test time (the time from which a specimen is received at the testing location to time of result) required. TAT is monitored continuously by each performing laboratory site within the Mayo Clinic Department of Laboratory Medicine and Pathology. For the most up-to-date information on TAT for individual tests, please visit us at mayocliniclabs.com or contact Mayo Laboratory Inquiry at 800-533-1710 or 507-266-5700.

Unlisted Tests
Mayo Clinic Laboratories does not list all available test offerings in the paper catalog. New procedures are developed throughout the year; therefore, some tests are not listed in this catalog. Although we do not usually accept referred tests of a more routine type, special arrangements may be made to provide your laboratory with temporary support during times of special need such as sustained instrumentation failure. For information about unlisted tests, please call Mayo Laboratory Inquiry at 800-533-1710 or 507-266-5700.