SUMMER 2022

THE University of Vermont MEDICAL CENTER

Pathology & Laboratory Medicine

Communiqué

IN THIS ISSUE

Where did the phrase, “The Dog Days of Summer”, originate?

In ancient times, people associated the hottest days of the year with the rising of the brightest star, Sirius, alongside the sun. Sirius, whose nickname is “the dog star”, is derived from the Greek word “Seirios”, meaning glowing or scorching. The belief was that the appearance of these two stars concurrently is what made these days the hottest of the year. The phrase is a translation of the Latin “dies caniculares”, meaning "dog star days.", which eventually became just “dog days”.

EXTRA EXTRA*ORDINARY*

Successful NYS Inspection at UVMMC!

We would like to congratulate everyone on a successful NYS inspection! There were very few preliminary findings and we expect a full, finalized report within a few weeks. The inspectors were very complimentary of our laboratory and staff. One of them commented that they would not hesitate a second to come to UVMMC for care and laboratory work.

This is a huge compliment to all of you! Your dedication to our patients and quality laboratory work is very evident. Thank you for everything you do each and every day!

Shared by Cindy Nelson, Administrative Director, Pathology and Laboratory Medicine.

Laboratory Operations

Phlebotomy— New Flavor Glucola in Stock for Glucose Tolerance Test

UVMMC Phlebotomy introduces a new flavor of Glucola beverages: Lemon-Lime Glucocrush (100g and 50g options). This was in response to patient feedback and has replaced the Fruit Punch Glucocrush previously offered.

In addition, these new beverages are:

- Brominated Vegetable Oil Free (BVO)
- Caffeine, Dairy, and Gluten Free
- Certified Kosher
- Free of Food Dyes
- Manufactured according to WHO and ADA Standards

We are excited to offer this healthier alternative beverage!

Long Term Care Facilities: Collection and Processing of Serum Copper Test Specimens

Serum Copper (COPR) is a test infrequently ordered by Long-Term Care Facilities. It requires collection of blood into special Royal Blue Top metal-free tubes, followed by centrifugation, and pour-off of the serum into special metal-free aliquot tubes. Please see specific details for Serum Copper (COPR) specimen collection and processing in the UVMMC online test catalog.

If your facility does not have Royal Blue Top metal-free tubes to collect Serum Copper (COPR), you must contact Lab Customer Service at (802) 847-5121 to request them. It is important that the Royal Blue Top tube be centrifuged after collection, and a serum aliquot be made in the proper metal-free aliquot tube within four (4) hours of collection.

UVMMC Lab recognizes that aliquoting serum is not a task performed by staff at Long-Term Care Facilities. Therefore, it is our recommendation that, should a Serum Copper (COPR) sample be collected, it should be centrifuged and placed in the refrigerator. Your staff should call Lab Customer Service at (802) 847-5121 to request a STAT courier pickup for this sample, so that UVMMC Lab staff can make the serum aliquot into the proper metal-free tube within four (4) hours of collection.

For questions and concerns, please contact Lab Customer Service at (802) 847-5121

Outpatient Laboratory Service / Phlebotomy Area Hours and Locations

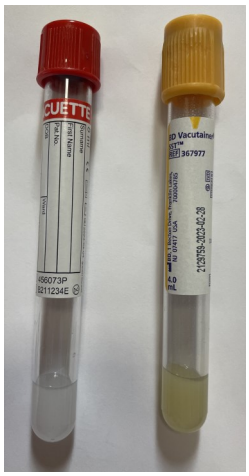
BURLINGTON: MAIN CAMPUS 111 Colchester Avenue, Main Pavilion, Level 2 **Hours: Monday—Friday, 7:00 am to 6:00 pm** **Saturday & Sunday, 7:00 am to 1:00 pm** Number of Collection Chairs: 6 **COLCHESTER: FANNY ALLEN CAMPUS** 792 College Parkway, Medical Office Building, Suite 104; Appointment only (802) 847-8864 **Hours: Monday—Friday, 6:30 am to 6:00 pm** Number of Collection Chairs: 4	**BURLINGTON: 1 SOUTH PROSPECT STREET** 1st Floor Lobby **Hours: Monday—Friday, 7:00 am to 5:00 pm** Number of Collection Chairs: 4

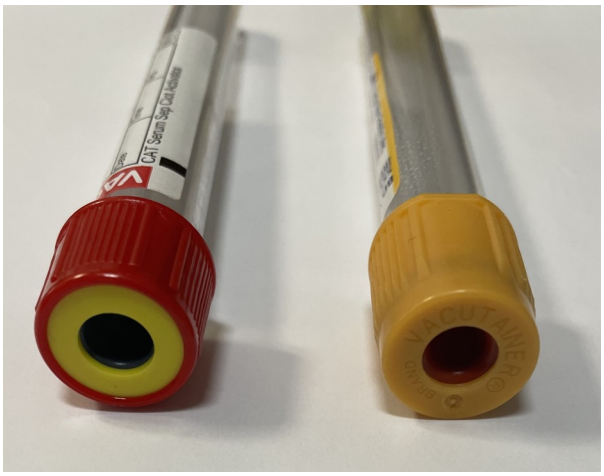
Laboratory Operations

Red Top Serum Separator Tube (SST) Substitute

There is currently a national shortage of serum separator tubes (SST). UVMMC is working to acquire as many Greiner SST tubes (red cap, yellow ring) as possible. Clients may receive 5.0 ml or 4.0 ml versions of this tube, depending on our supply.

To ensure we have sufficient supply to meet our clients' needs, UVMMC will also have a Becton-Dickinson (BD) alternative SST that looks different than our current Greiner tubes. The BD SST has a gold top and UVMMC may distribute 5.0 ml or 4.0 ml versions of this tube, depending on our supply. The images below show both the current Greiner SST and the substitute BD SST. There is no set date on which gold top BD tubes will go into circulation. This bulletin is merely to provide advance notice of this potential supply change.





If you have any questions about these changes, please contact UVMMC Lab Outreach at laboutreach@uvmhealth.org.

New Test Updates

Genomic DNA Test (Population Health Screen)

UVMMC Genomic Medicine's genomic population health test, a.k.a. the Genomic DNA Test, now has a dedicated, interfaced orderable code in Epic. When selected, the order creates two sub-orders that are interfaced with Invitae labs in California. Results, including searchable text for Epic Lab "Comments" and full multipage PDF reports, are returned electronically to the lab. Genomic Medicine adds an "Action Plan (GMAP)" based on the results to guide PCPs and patient's use of them. When these are made final in Beaker, they appear in Epic's Labs tab as for any common lab order. Combined with the electronic consenting signature process developed late last year, these two IS "firsts" make possible a completely paper-free experience for the ordering provider and their office staff and removes a major barrier to provider uptake of this innovative preventative health offering.

This test is only available to trained, UVMHN primary care providers in Family Medicine and Adult Primary care sites, primarily South Burlington Family Medicine and Porter Family Medicine. It can be performed on consented adult patients with ACO-attributed insurance of any health status. For more information on the test, eligibility, and what is and isn't covered, and to review the FAQ and consent form, visit Https://uvmhealth.org/GenomicDNAtest .

New Test Updates

Genomic DNA Test (Population Health Screen) (contd)

New Orderable	Epic Code	CPT Code
Genomic DNA Test	LAB15611	N/A

Container	Specimen	Temperature	Collect Vol	Submit Vol	Min Vol	Stability
*Lavender Top (EDTA) x2	Whole Blood	Refrigerate	4 mL each	4 mL each	4 mL each	7 days

2 Lavender Tops are required for testing

Contact the Genomic Medicine Resource Center for more information (DNAtest@uvmhealth.org) or phone (802) 847-8135)

Mayo Tests

Vedolizumab Quantitation with Reflex to Antibodies, Serum :

New Orderable	Epic Code	Atlas Code	Mayo Test ID	Order LOINC	CPT Code
Vedolizumab Quant with Reflex to Abs, S	LAB15113	LAB15113	VEDOL	90805-3	80280
Result Component Name	**Epic Code**	**Atlas Code**	**Mayo Test ID**	**Result LOINC**	
Vedolizumab Qn, S	12301012068	12301012068	602807	90805-3	
Patient Preparation:					
For 12 hours before specimen collection do not take multivitamins or dietary supplements containing biotin (vitamin B7), which is commonly found in hair, skin, and nail supplements and mutlivitamins Nivolumab (Opdivo) must be discontinued at least 4 weeks prior to testing for vedolizumab quantitation in serum.					
Container	**Specimen**	**Temperature**	**Collect Vol**	**Submit Vol**	**Stability**
SST (preferred)	Serum	Refrigerate	3 mL	1.5 mL	28 days
Collection Instructions:					
Draw blood immediately before next scheduled dose (trough specimen). Centrifuge within 2 hours of collection.					

New Reflex-Only Test (not orderable)	Epic Code	Atlas Code	Mayo Test ID	Order LOINC	CPT Code
Vedolizumab Ab, S.	LAB17543	LAB17543	VEMAB	in process	82397
Result Component Name	**Epic Code**	**Atlas Code**	**Mayo Test ID**	**Result LOINC**	
Vedolizumab Ab, S.	12301019746	12301019746	603298	86899-2	
VEMAB Interpretation	12301019747	12301019747	603299	59462-2	

Mold Panel, Serum :

New Orderable	Epic Code	Atlas Code	Mayo Test ID	Order LOINC	CPT Code
Mold Panel	LAB15611	LAB15611	MOLD1	30183-8	86003
Result Component Name	**Epic Code**	**Atlas Code**	**Mayo Test ID**	**Result LOINC**	
Mold Panel	12301013960	12301013960	MOLD1	30183-8	
Container	**Specimen**	**Temperature**	**Collect Vol**	**Submit Vol**	**Stability**
SST (preferred)	Serum	Refrigerate	1 mL	0.5 mL	14 days

New Test Updates

Mayo Tests (contd)

Effective 8/16/22, Mayo test ID PLA2R, LAB3700, was obsolete and replaced by Mayo Test ID PMND1, LAB17551, which has two reflex-only tests associated with it.

New Orderable	Epic Code	Atlas Code	Mayo Test ID	Order LOINC	CPT Code
Primary Membranous Nephropathy Diagnostic Cascade, S	LAB17551	LAB17551	PMND1	73737-9	83520
Result Component Name	**Epic Code**	**Atlas Code**	**Mayo Test ID**	**Result LOINC**	
Phospholipase A2 Receptor, ELISA, S.	12301019818	MEURO	EURO	73737-9	
Container	**Specimen**	**Temperature**	**Collect Vol**	**Submit Vol**	**Stability**
SST (preferred); Red Top (acceptable)	Serum	Refrigerate	2 mL	1 mL	14 days

New Reflex-Only Test (not orderable)	Epic Code	Atlas Code	Mayo Test ID	Order LOINC	CPT Code
PLA2R, Immunofluorescence, S	LAB17552	LAB17552	PLA2I	82991-1	86255
Result Component Name	**Epic Code**	**Atlas Code**	**Mayo Test ID**	**Result LOINC**	
PLA2R, Immunofluorescence, S	12301019819	MPLA2I	PLA2I	82991-1	

New Reflex-Only Test (not orderable)	Epic Code	Atlas Code	Mayo Test ID	Order LOINC	CPT Code
THSD7A Ab, S	LAB17553	LAB17553	THSD7	93339-0	86255
Result Component Name	**Epic Code**	**Atlas Code**	**Mayo Test ID**	**Result LOINC**	
THSD7A Ab, S	12301019820	MTHSD7	THSD7	93339-0	

Current Orderable to be Inactivated	Epic Code	Atlas Code	Mayo Test ID	Order LOINC	CPT Code
Phospholipase A2 Receptor Abs, S.	LAB3700	PLA2	PLA2R	in process	83520, 86255

EXTRA EXTRA*ORDINARY*

Sharing our expertise on a national level!

Val Cortright and Donald Dukette from UVMMC autopsy service were asked by pathologists at Cape Fear Valley Health System (North Carolina) and Stanford University (California) to advise them on setting up a paperless system for the discharge of decedents. Val and Donald did an amazing job, smoothly maneuvering through EPIC and Beaker on test sites, demonstrating how the death navigator and morgue census lists worked. Both skillfully answered questions about this rather complicated process. Well done! Nice to be recognized as a national leader in this important and under recognized area of service.

Shared by Dr. Sharon Mount, Medical Director Autopsy Service

Compliance Updates

Insurance Denials due to Lack of Prior Authorization (PA)

Laboratory tests that require Prior Authorization (PA) are being denied by insurance companies when a PA is not received. ***It is the responsibility of the ordering provider to obtain a PA.***

Identifying tests requiring PA for each insurance carrier is challenging and changes frequently. The two tests below have the highest rate of denials by BCBS of Vermont.

Test Name	CPT Code	Test Application
High Sensitivity CRP	86141	Cardiac risk assessment ONLY. If evaluating for acute inflammation, order C Reactive Protein.
CA-125	86304	Identify / monitor GYN carcinomas

**** Prior Authorization is required for these tests EVEN when covering diagnosis codes are provided. ****

To assist in the education about Prior Authorizations, a UVMMC Lab Outreach Specialist will be contacting physician offices that are ordering tests that are being denied due to the lack of Prior Authorization.

Please contact the UVMMC Lab Compliance Team or your UVMMC Lab Outreach Specialist with questions.

Note: Additional tests requiring PA by BCBS of Vermont are listed below. This is not a complete list of tests. Some CPT codes are used for more than one test, i.e. CPT code 83520.

Test	CPT Codes
Adalimumab, Infliximab, Vedolizumab	83520, 82397, 82397
Anaerobic Culture	87075
Fungal Culture	87102
Ova & Parasite Examination & Trichrome Stain	87177, 87209
Anti Mullerian Hormone	83520
1,25 Dihydoxycholecalciferol	82652
Phospholipase A2 Receptor antibodies	83520
Fat/lipid feces-Quantitative	82710
Bile acids-total	82339
Thyrotropin receptor Antibody	83520
Tryptase	83520
ARUP Supersaturation panel, 24 hr. urine	83986
Myomarker Panel 3 plus	83520
Sensory Neuropathy panel	83520
Sedimentation Rate	82652
All Genetic tests: Ex. MYD88, BCL/ABL, MPN JAK2 V617F, Hematolymphoid Gene Panel	Various CPTs (81XXX)

Previously Distributed Test Updates

Cytogenetics

Chromosome Analysis, Whole Blood

Due to staffing levels and increasing workloads the UVMMC Cytogenetics Lab will no longer be performing Chromosome Analysis Testing on Congenital Bloods in house. This change will take effect on 8/1/22 and remain in effect until further notice. We will continue to provide in-house chromosome analysis on newborn bloods.

To avoid disruption for providers ordering in Epic the UVMMC orderable test code will stay in place. We have defined the Mayo Test Code as a send out as Lab Use ONLY across the network. We are asking that all of the network lab staff d/c the UVMMC order and please send the specimen directly to Mayo Medical Laboratory using the network defined Mayo Test Code: **CHRCB Chromosome Analysis, Congenital Disorders, Blood**.

This testing is useful for:

Diagnosis of congenital chromosome abnormalities, including aneuploidy, structural abnormalities, and balanced rearrangements

Specimen Type: Whole blood

Container/Tube: Green top (sodium heparin)

Specimen Volume: 4 mL

Collection Instructions:

1. Invert several times to mix blood.
2. Other anticoagulants are not recommended and are harmful to the viability of the cells.
3. Label specimen as whole blood.

EAP Name	Charge Code	Units	CPT	UVMMC Pt Price
CHROMOSOME ANALYSIS, CONGENTIAL DISORDERS, BLOOD (LAB USE ONLY) (Mayo Code CHRCB)				
HC - CHROMOSOME CULTURE, BLOOD (MAYO)	3108823004	1	88230	$154.10
HC - CHROMOSOME ANALYSIS, CONGENITAL BLOOD (MAYO)	3108826203	1	88262	$803.40

Chromosome Analysis, Bone Marrow

Due to staffing levels and increasing workloads, the UVMMC Cytogenetics Lab is forwarding Chromosome Analysis Testing on Bone Marrows to Mayo Medical Laboratories temporarily. This change went into effect on 8/10/22 and will remain in effect until further notice.

We ask that our Health Network Partners send bone marrow specimens directly to Mayo Medical Laboratory using the following orderable, which is for lab use only:

New Orderable for Lab Use Only	Epic Code	Mayo Test ID
Chromosome Analysis, Hematologic Disorders, Bone Marrow	LAB17549	CHRBM

Please reach out with any questions or concerns 802-847-3565.

Previously Distributed Test Updates

Microbiology

Change in Susceptibility Reporting and Treatment

Beginning June 13, 2022, the UVMMC Microbiology Laboratory will implement a change in susceptibility reporting. The Infectious Disease Society of America (IDSA) has been working to improve recommendations for optimizing antibiotic therapy for difficult to treat organisms. In December 2021, the IDSA published updated guidance for therapy for organisms that have the potential for *ampC* B-lactamase production. In this document, the IDSA divides the previously known organisms of the MYSPACE/SPICE acronym into moderate-high risk and low risk for *ampC* B-lactamase production.

Moderate-high risk *ampC* B-lactamase induction	**Low risk *ampC* B-lactamase induction (<5%)**
Enterobacter cloacae complex	*Serratia marcescens*
Klebsiella (Enterobacter) aerogenes	*Morganella morganii*
Citrobacter freundii	*Providencia sp.*

It is recommended to avoid penicillins (including piperacillin-tazobactam) and 1st – 3rd generation cephalosporins for treatment of *Enterobacter cloacae, Klebsiella aerogenes, and Citrobacter freundii.*

Treatment for infections caused by *Serratia marcescens, Morganella morganii, and Providencia sp.* can be guided by our local antibiogram and individual culture susceptibility data, unless the patient has an infection where source control is difficult (ie, endocarditis or ventriculitis), then therapy with cefepime is recommended. *Proteus vulgaris* and *Proteus penneri* (indole-positive *Proteus sp.)* can also be treated based on antibiogram and individual culture susceptibility data as these organisms do not contain chromosomal *ampC* genes.

For questions or concerns, contact the Clinical Director of Microbiology, Dr. Christina Wojewoda at 802)847-5140.

Molecular Vaginitis/Vaginosis—LAB17401

Effective Immediately: Reagent issues from early June have been resolved and UVMMC Lab again requires ONLY a single swab for this assay.

Clinicians should submit a single **Orange Aptima Multitest** swab (pictured below) for the Molecular Vaginitis/Vaginosis test.

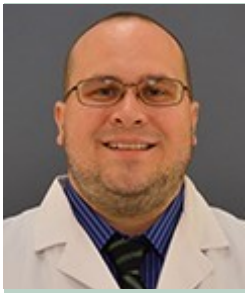
This test includes results for:

- Candida species group
- Candida glabrata
- Trichomonas vaginalis
- BV (Bacterial Vaginosis)

For more information regarding this assay, please refer to the entry in the UVMMC Online Test Catalog. Please contact Laboratory Customer Service at (802) 847-5121 with any questions.

Previously Distributed Test Updates
Chemistry

Reference Range Update for Lead, Blood



Clayton Wilburn, MD
Medical Director
Clinical Chemistry
Phone: 847-9657

On July 1st 2022, the UVMMC laboratory will update the reference range for blood lead levels, capillary and venous, in conjunction with the new blood lead testing guidelines adopted by the Vermont Department of Health (VDH).[1] This update follows the recent revision to the CDC Blood Lead Reference Value.[2] The guidelines are given below for both capillary and venous blood collections.

The detection limit of the UVMMC blood lead test performed on a graphite furnace atomic absorption instrument is 2.0 ug/dL. Therefore, in concordance with the upcoming VDH blood lead testing guidelines, ***the new reference range for both capillary and venous blood lead will be <2.0 ug/dL***. All values of 2.0 ug/dL and above will be flagged as abnormal.

Orderable Name	Epic Code	Atlas Code	Mayo Access ID	Order LOINC
Lead, Blood	LAB98	LEAD	FAH134	10912-4

When to Confirm Capillary Blood Lead Tests:

If Capillary Blood Lead Level is:	Confirm with Venous Test Within:
<2.0 µg/dL	Confirmation not needed
2.0 – 3.4 µg/dL	Within 6 months (capillary sample or venous)
3.5 – 9.9 µg/dL	Within 3 months
10.0 – 19.9 µg/dL	Within 1 month
20.0 – 44.9 µg/dL	Within 2 weeks
45.0 – 59.9 µg/dL	48 hours
60.0+ µg/dL	Immediately as an emergency test

When to Follow Up with a Venous Blood Lead Re-test:

If Venous Blood Lead Level is:	Follow-Up	Late Follow-Up (blood lead level declining)
<2.0 µg/dL	Venous re-test not required	Venous re-test not required
2.0 – 3.4 µg/dL	6 – 9 months	6 - 9 months
3.5 – 9.9 µg/dL	3 months	6 – 9 months
10.0 – 19.9 µg/dL	1 – 3 months	3 – 6 months
20.0 – 44.9 µg/dL	2 weeks – 1 month	1 – 3 months
45.0+ µg/dL	Initiate chelation and re-test in 7 – 21 days	As clinically indicated

(Ref Range Lead, Blood continued)

Previously Distributed Test Updates

Reference Range Update for Lead, Blood (cont)

Lastly, the approved sample type for blood lead testing is EDTA whole blood. We occasionally see heparinized samples submitted for this testing as prior assays utilized this sample type. Moving forward, ***heparinized samples will no longer be accepted for this testing.***

Acceptable Specimen	Specimen	Temp	Collect/Submit Volume	Min Vol	Stability
Lavender Top Tube	Whole Blood	Refrigerate	2 mL	0.3 mL	7 days
Lavender Microtainer	Whole Blood	Refrigerate	0.6 mL	0.2 mL	7 days

If you have any questions or concerns please reach out to the Medical Director of Clinical Chemistry (clayton.wilburn@uvmhealth.org).

References:

1. Pediatric Blood Lead Testing Guidelines (healthvermont.gov)
2. https://www.cdc.gov/nceh/lead/data/blood-lead-reference-value.htm

Testosterone and SHBG Update

Effective May 6, 2022, the UVMMC laboratory will resume testing for Testosterone, Total and Free, S. and Sex Hormone Binding Globulin. These tests were temporarily forwarded to Mayo Medical Laboratory due to a reagent shortage. Reagents for these assays are no longer backordered and in-house testing can resume.

A **notable difference** is that UVMMC requires a **SST** and Mayo prefers a Red Top tube for its Testosterone, Total and Free, S. testing.

UVMMC tests to be Reactivated:

Test Name	Epic Code	Atlas Code	Mayo Access ID
Testosterone, Total and Free, S.	LAB173	FTES2	FAH5762
Sex Hormone Binding Globulin	LAB839	SHBG2	FAH5764

Mayo Medical tests to be Inactivated:

Test Name	Epic Code	Atlas Code	Mayo Test ID
Testosterone, Total and Free, S.	LAB17495	LAB17495	TGRP
Sex Hormone Binding Globulin	LAB17496	LAB17496	SHBG1

If you have any questions or concerns, please reach out to UVMMC Laboratory Customer Service at (802) 847-5121.

Previously Distributed Test Updates

Update to Syphilis Serology Reflex Testing

Effective 7/5/2022, the UVMMC Clinical Chemistry Laboratory will be updating the Mayo reflex tests performed as part of the reflex algorithm for in-house Syphilis testing. UVMMC performs Syphilis Serology screening (LAB3037) in-house and forwards any reactive patients to Mayo for further testing. Currently, we order Mayo RPRT1, RPR w/Reflex to Titer, S. (LAB17443), which can reflex a RPR Titer if the RPR is reactive. If the RPR is non-reactive, we currently have to order Mayo TPPA, Syphilis Ab, TP-PA, S. (LAB15361) separately, as this is not an automatic reflex for Mayo RPRT1. Mayo now offers a RPR test, Mayo RPRT3, RPR w/ Reflex to TP-PA, S. (LAB17540) that will automatically reflex to either a RPR Titer or Syphilis Ab by TP-PA. So, we will be switching to this new test ***as the initial reflex test in our reflex algorithm.*** Mayo RPRT1 will remain as a stand-alone orderable to be used for monitoring a response to therapy.

Note: The new Mayo tests are reflex-only and **not** orderable as stand-alone tests.

New Mayo Reflex-only Tests (not orderable):

New Reflex-only Test Name	Epic Code	Atlas Code	Mayo Test ID	Order LOINC
RPR w/Reflex to TP-PA, S	LAB17540	LAB17540	RPRT3	20507-0
Resultable Name	**Epic Code**	**Atlas Code**	**Mayo Test ID**	**Result LOINC**
RPR w/Reflex to TP-PA, S	12301019736	M616970	616970	20507-0
CPT Code				
86592				
Notes:				
Reflex-only test for Syphilis Serology, LAB3037. Replaces Mayo RPRT1, LAB17443, ***as the reflex-only test for Syphilis Serology**. *Mayo RPRT1, RPR Screen w/Reflex to Titer, S.,LAB17443, will remain as a stand-alone orderable. It is for monitoring response to therapy.				

New Reflex-only Test Name	Epic Code	Atlas Code	Mayo Test ID	Order LOINC
RPR Titer, S	LAB17541	LAB17541	RPRT4	31147-2
Resultable Name	**Epic Code**	**Atlas Code**	**Mayo Test ID**	**Result LOINC**
RPR Titer, S	12301019737	M616971	616971	31147-2
CPT Code				
86593				
Notes				
Reflex-only test for Mayo RPRT3, LAB17540.				

Previously Distributed Test Updates

Update to Syphilis Serology Reflex Testing (contd)

New Reflex-only Test Name	Epic Code	Atlas Code	Mayo Test ID	Order LOINC
Syphilis Ab by TPPA, S	LAB17542	LAB17542	RTPPA	24312-1
Resultable Name	**Epic Code**	**Atlas Code**	**Mayo Test ID**	**Result LOINC**
Syphilis Ab by TPPA, S	12301019738	M34512	34512	24312-1
CPT Code				
86780				
Notes				
Reflex-only test for Mayo RPRT3, LAB17540.				

Immunology

Update to Celiac Disease Panel Testing

Effective on 6/29/22, the testing for the diagnosis of celiac disease will be modified across the UVM Health Network (UVMHN). This is part of the process to improve standardization of laboratory testing across the UVMHN, is evidence-based, in-line with the American College of Gastroenterology clinical guidelines for celiac testing, and the current practice of UVMMC gastroenterology providers.[1]

For the evaluation of a patient suspected of having celiac disease, please order the following test:

Orderable Name	Epic Code	Atlas Code	Mayo Access ID	Order LOINC
Celiac Disease Panel	LAB2736	CDP	FAH5797	69726-8
Resultable Name	**Epic Code**	**Atlas Code**	**Mayo Access ID**	**Result LOINC**
Tissue Transglutaminase Ab, IgA	12301002597	TTAB	FAH5587	46128-5
IgA	12301002021	IGA	FAH5813	2458-8
Celiac Disease Interpretation	12301000618	CDPI	FAH5798	69048-7

Specimen Container	Specimen	Temperature	Collect Vol	Submit/Min Vol	Stability
SST (preferred)	Serum	Refrigerate	4 mL	2 mL/1 mL	7 days
Collection Instructions:					
Red Top Tube is acceptable. 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.					
CPT Codes: 82784, 86364					

This testing includes serum measurement of Tissue Transglutaminase IgA (TTG-IgA) antibody and total IgA. This test is the single best test for the initial evaluation of the majority of patients suspected of having celiac disease. [1,2] For patients with high suspicion for celiac disease or in special populations when the TTG-IgA is negative and total IgA is low, TTG-IgG and/or Gliadin (Deamidated) Ab IgG, S can be ordered by reaching out to the UVMMC laboratory (802-847-5121) to add on the testing to the patient's sample.

Previously Distributed Test Updates

Update to Celiac Disease Panel Testing (contd)

Mayo Tests to be Restricted to the Laboratory:			
Restricted Orderable Name	**Epic Code**	**Atlas Code**	**Mayo Test ID**
Gliadin (Deamidated) Ab IgA, S	LAB2739	N/A	DAGL
Gliadin (Deamidated) Ab IgG, S	LAB2738	N/A	DGGL
Tissue Transglutaminase Ab, IgG, S	LAB2737	N/A	TTGG

The TTG-IgG and Gliadin (Deamidated) Ab IgA and IgG will become restricted to the UVMMC laboratory as their use should be tailored to the specific patient clinical picture in consultation with lab medicine and gastroenterology. The upfront ordering of all these tests for diagnosis of celiac disease in the general population, which is seen in the Mayo test Celiac Disease Comprehensive Cascade, Serum and Whole Blood, leads to decreased specificity for diagnosis of celiac disease and may lead to over diagnosis and unnecessary treatment.[1,2] As such, the following Mayo tests will be inactivated:

Mayo Tests to be INACTIVATED:

Orderable to be Inactivated	Epic Code	Atlas Code	Mayo Test ID
Celiac Disease Comprehensive Cascade, Serum and Whole Blood	LAB2735	N/A	CDCOM
Gliadin (Deamidated) Abs Evaluation, IgG and IgA, S	LAB15503	N/A	DGLDN
Tissue Transglutaminase Ab, IgA, S	LAB17175	N/A	TTGA

It is important to note that all serology testing for the diagnosis of celiac disease should be performed on patients currently eating a gluten containing diet. Testing options in patients that have already initiated a gluten free diet can be discussed in consultation with lab medicine and gastroenterology.

If you have any questions, please reach out to the Medical Director of Clinical Chemistry, Dr. Clayton Wilburn (clayton.wilburn@uvmhealth.org).

Mayo Tests

Copper, Serum:

New Orderable Name	Epic Code	Atlas Code	Mayo Test ID	Order LOINC	CPT Code
Copper, Serum	LAB17536	LAB17536	CUS1	5631-7	82525
Resultable Name	**Epic Code**	**Atlas Code**	**Mayo Test ID**	**Result LOINC**	
Copper, S.	12301019722	M616155	616155	5631-7	
Container	**Specimen**	**Temperature**	**Collect Vol**	**Submit Vol**	**Stability**
Royal Blue Top (metal-free)	Serum	Refrigerate	2.5 mL	0.8 mL	28 days

Current Orderable Name	Epic Code	Atlas Code	Mayo Test ID	Order LOINC	CPT Code
Copper, Serum	LAB817	COPR	CUS	5631-7	82525

Previously Distributed Test Updates

Zinc, Serum:

New Orderable Name	Epic Code	Atlas Code	Mayo Test ID	Order LOINC	CPT Code
Zinc, Serum	LAB17535	LAB17535	ZN_S	5763-8	84630
Resultable Name	**Epic Code**	**Atlas Code**	**Mayo Test ID**	**Result LOINC**	
Zinc, S.	12301019721	M7735	7735	5763-8	
Container	**Specimen**	**Temperature**	**Collect Vol**	**Submit Vol**	**Stability**
Royal Blue Top (metal-free)	Serum	Refrigerate	2.5 mL	0.8 mL	28 days

Current Orderable Name	Epic Code	Atlas Code	Mayo Test ID	Order LOINC	CPT Code
Zinc, Serum	LAB581	ZINC	ZNS	5763-8	84630

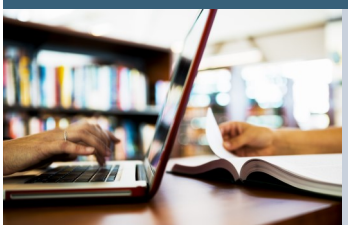
Hereditary Hemochromatosis HFE Test :

New Orderable Name	Epic Code	Atlas Code	Mayo Test ID	Order LOINC	CPT Code
Hereditary Hemochromatosis HFE Test, B	LAB17537	LAB17537	HFET	in process	81256
Resultable Name	**Epic Code**	**Atlas Code**	**Mayo Test ID**	**LOINC**	
Result Summary	12301019723	M614667	614667	50397-9	
Result	12301019724	M614668	614668	82939-0	
Interpretation	12301019725	M614669	614669	69047-9	
Specimen	12301019726	M614670	614670	31208-2	
Source	12301019727	M614791	614791	31208-2	
Method	12301019728	M614792	614792	85069-3	
Released by	12301019729	M614793	614793	18771-6	
Container	**Specimen**	**Temperature**	**Collect Vol**	**Submit Vol**	**Stability**
Lavender Top (EDTA)	Whole Blood	Ambient	2.5 mL	0.8 mL	4 days

Current Orderable Name	Epic Code	Atlas Code	Mayo Test ID	Order LOINC	CPT Code
Hemochromatosis HFE Gene Analysis, B	LAB3	HEMCH	HFE	34519-9	81256

If you have any questions about these changes, please contact UVMMC Lab Outreach at laboutreach@uvmhealth.org.

LAB AMBASSADOR



Do you have a technical or operations question for the lab?

Contact LabAmbassador@UVMHealth.org for assistance!

Previously Distributed Test Updates

Serotonin Release Assay UFH, MS Serum:

Effective 6/30/22, Mayo Medical Laboratory will replace Serotonin Release Assay, Unfractionated Heparin, Serum (Mayo FPORC) with the new test, Serotonin Release Assay, UFH, MS, Serum (Mayo SRAU).

Notable changes include:

- SST will no longer be acceptable – only Plain Red Top will be accepted
- CPT code will change from 86022 to 82542
- Preferred storage temperature will change from refrigerate to **frozen**
- Collection instructions will change (see below)

New Test to replace Mayo FPORC:

New Orderable Name	Epic Code	Atlas Code	Mayo Test ID	Order LOINC	CPT Code
Serotonin Release Assay, UFH, MS, Serum	LAB5236	LAB5236	SRAU	in process	82542
Resultable Name	**Epic Code**	**Atlas Code**	**Mayo Test ID**	**Result LOINC**	
Low Heparin Serotonin Release	12301019730	M616230	616230	50728-5	
High Heparin Serotonin Release	12301019731	M616231	616231	50727-7	
Serotonin Release Assay Result	12301019732	M616232	616232	66488-8	
Interpretation	12301019733	M616233	616233	50733-5	
Comment	12301019734	M616234	616234	77202-0	
Disclaimer	12301019735	M616235	616235	62364-5	
Specimen Container	**Specimen**	**Temperature**	**Collect Vol**	**Submit Vol**	**Stability**
Red Top Tube	Serum	Frozen	2 mL	1 mL	2 years

Collection Instructions

- SST is **NOT** acceptable
- Specimen should sit at ambient temperature for a minimum of 1 hour in order to clot completely.
- Fasting specimen is preferred, but no required.
- Patient should not be on ticagrelor (BRILINTA) as this may interfere with the assay, yielding a false-negative result.
- Refrigerate temperature is acceptable; Stability = 7 days

Test to be inactivated:

Orderable to be inactivated	Epic Code	Atlas Code	Mayo Test ID	Order LOINC	CPT Code
Serotonin Release Assay, Unfractionated Heparin	LAB2694	SRAPOR	FPORC	50736-8	86022

If you have any questions about these changes, please contact UVMMC Lab Outreach at laboutreach@uvmhealth.org.

Previously Distributed Test Updates

Cystic Fibrosis (CF) Mutation Panel

Effective 8/23/22, Mayo Medical Laboratory replaced Cystic Fibrosis Mutation Analysis, 106 Mutation Panel (Mayo CFP) with the new test, Cystic Fibrosis (CF) Mutation Panel (Mayo CFMP).

Notable changes include:

- CPT code changed from 81220 to ***81220 and 81222***
- Specimen volume changed from 2.5 mL to 3 mL

New Orderable Test Name	Epic Code	Atlas Code	Mayo Test ID	Order LOINC	CPT Code(s)
Cystic Fibrosis (CF) Mutation Panel	LAB17555	LAB17555	CFMP	in process	81220, 81222
Resultable Name	**Epic Code**	**Atlas Code**	**Mayo Test ID**	**Result LOINC**	
Result Summary	12301019821	M606027	606027	50397-9	
Result	12301019822	M606028	606028	82939-0	
Interpretation	12301019823	M606029	606029	69047-9	
Additional Information	12301019824	M606030	606030	48767-8	
Method	12301019825	M606031	606031	85069-3	
Specimen	12301019826	M606032	606032	31208-2	
Source	12301019827	M606033	606033	31208-2	
Released by	12301019828	M606034	606034	18771-6	
Specimen Container	**Specimen**	**Temperature**	**Collect Vol**	**Submit Vol**	
Lavender Top (EDTA)	Whole Blood	Ambient	3 mL	3 mL	
Collection Instructions					
- Invert the tube several times to mix blood. - Send whole blood in original tube. Do not aliquot. - Specimen preferred to arrive within 96 hours of collection.					

Orderable to be Inactivated	Epic Code	Atlas Code	Mayo Test ID	Order LOINC	CPT Code(s)
Cystic Fibrosis Mutation Analysis, 106 Mutation Panel	LAB2450	CFIB1	CFP	38404-0	81220

This test is subject to Local Coverage Determination (LCD) **Molecular Pathology Procedures (L35000).**

Please check with the patient's insurance to determine if prior authorization is necessary. If in doubt about the coverage for a Medicare patient, please obtain an ABN.

For questions or concerns, please contact UVMMC Lab Outreach at laboutreach@uvmhealth.org.

GET TEST RESULTS ONLINE!

MyChart

Did you know that your patients can get their UVM Medical Center test results online by signing up for a MyChart account?

To sign up visit: MyChart.UVMHealth.org

Previously Distributed Test Updates

Newly Defined Mayo Tests

Effective 9/21/22, the following newly defined Mayo tests will be available to order at UVMMC:

1. RAST Respiratory Profile, Region 1, North Atlantic (CT, MA, ME, NJ, NH, NY, PA, RI, VT), Serum

New Orderable	Epic Code	Atlas Code	Mayo Test ID	Order LOINC	CPT Codes
RAST Resp Profile, Reg 1, North Atlantic	LAB15366	LAB15366	RPR1	48824-7	82785, 86003x25
Result Component Name	**Epic Code**	**Atlas Code**	**Mayo Test ID**	**Result LOINC**	
Immunoglobulin E (IgE), S	12301014199	12301014199	IGE	19113-0	
House Dust Mites/D.P., IgE	1188	DP	DP	6096-2	
HOUSE DUST MITE/D. F., IGE	12301005075	DF	DF	6095-4	
Cat Epithelium, IgE	1156	CAT	CAT	6833-8	
Dog Dander, IgE	12301000660	DOGD	DOGD	6098-8	
Bermuda Grass, IgE	12301000604	12301000604	BERG	6041-8	
Timothy Grass, IgE	119	TIMG	TIMG	6265-3	
Cockroach, IgE	12301014253	12301014253	COCR	6078-0	
Penicillium, IgE	12301005682	PENL	PENL	6212-5	
Cladosporium, IgE	1161	CLAD	CLAD	53760-5	
Aspergillus Fumigatus, IgE	1144	ASP	ASP	6025-1	
Alternaria Tenuis, IgE	1141	ALTN	ALTN	6020-2	
Box Eld/Maple, S, IgE	12301000608	BXMPL	BXMPL	7155-5	
Silver Birch, IgE	1148	BIR	BIR	15283-5	
Mountain Cedar, IgE	12301014254	12301014254	CED	6178-8	
Oak, IgE	1192	OAK	OAK	6189-5	
Elm, IgE	12301018725	12301018725	ELM	6109-3	
Walnut Tree, IgE	1224	MRWALT	WALN	6274-5	
Eastern Sycamore, IgE	12301014255	12301014255	ESYC	6263-8	
Cottonwood, IgE	12301014256	12301014256	CTWD	6090-5	
White Ash, IgE	12301014257	12301014257	ASHW	6278-6	
Mulberry, IgE	12301014258	12301014258	MULB	6281-0	
Short Ragweed, IgE	1166	SRW	SRW	6085-5	
Mugwort, IgE	1198	MRMUGW	MUG	6183-8	
Rough Pigweed, IgE	12301014259	12301014259	RRRP	6233-1	
Red Sorrel, IgE	12301014260	12301014260	SORR	6244-8	
Container	**Specimen**	**Temperature**	**Collect Vol**	**Submit Vol**	**Stability**
SST (preferred)	Serum	Refrigerate	3.5 mL	1.8 mL	14 days

New Test Updates

Newly Defined Mayo Tests (Contd)

2. Apolipoprotein B, Serum

New Orderable	Epic Code	Atlas Code	Mayo Test ID	Order LOINC	CPT Code
Apolipoprotein B, S	LAB15656	LAB15656	APOLB	1884-6	82172
Result Component Name	**Epic Code**	**Atlas Code**	**Mayo Test ID**	**Result LOINC**	
Apolipoprotein B, S	12301013797	12301013797	APOLB	1884-6	
Container	**Specimen**	**Temperature**	**Collect Vol**	**Submit Vol**	**Stability**
SST (preferred)	Serum	Refrigerate	2 mL	1 mL	8 days

3. Anti HMGCR Autoantibodies

New Orderable	Epic Code	Atlas Code	Mayo Test ID	Order LOINC	CPT Code
Anti HMGCR Autoantibodies	LAB3704	HMGCR	HMGCR	93493-5	83520
Result Component Name	**Epic Code**	**Atlas Code**	**Mayo Test ID**	**Result LOINC**	
Anti-HMGCR Ab	12301000597	12301000597	607414	93493-5	
Container	**Specimen**	**Temperature**	**Collect Vol**	**Submit Vol**	**Stability**
SST (preferred)	Serum	Refrigerate	2 mL	1 mL	28 days

4. Lacosamide, Serum

New Orderable	Epic Code	Atlas Code	Mayo Test ID	Order LOINC	CPT Code
Lacosamide, S	LAB3196	LACO	LACO	59297-2	80235
Result Component Name	**Epic Code**	**Atlas Code**	**Mayo Test ID**	**Result LOINC**	
Lacosamide, S	12301007109	62772	62772	59297-2	
Container	**Specimen**	**Temperature**	**Collect Vol**	**Submit Vol**	**Stability**
SST (preferred)	Serum	Refrigerate	2 mL	1 mL	28 days
Collection Instructions:					
Red Top tube is acceptable. Draw blood immediately before next scheduled dose. For sustained-release formulations ONLY, draw blood a minimum of 12 hours after last dose. Centrifuge and aliquot serum into plastic vial within 2 hours of collection.					

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WEBSITE
UVMHealth.org/MedCenterLabs

Syringe Disposal

The University of Vermont Medical Center does not accept sharps for disposal from patients. Chittenden Solid Waste District (CSWD) will accept needles that are packaged according to the instructions outlined in their pamphlet “GET THE POINT: Be safe with syringes and other sharps”. CSWD also has bright orange stickers to attach to a syringe container to warn handlers to be careful. These items are available at any CSWD location. You can also order them so that they are available for patients at your office 872-8111 or visit www.cswd.net

Patient Instruction Brochures

We have several brochures for patients that need to collect samples at home. The following are available on online by visiting UVMHealth.org/MedCenterLabServices or you can contact Lab Customer Service to receive some via mail.

- Feces Sample Collection
- Fecal Occult Blood Collection
- Sputum Sample Collection
- Urine Sample Collection