

TEST NAME	ABDOMINAL FLUID CYTOLOGY	See: Cytology Section Peritoneal Fluid
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POWERCHART NAME	ABO + RH(D) BLOOD TYPING		
MERCY TEST NAME	ABO GROUP/RH TYPE	MERCY LAB CODE	ABRX

Includes: Includes ABO group and Rh type. ABO and Rh are not ordered separately.

Included In: Type & Screen, Crossmatch, Prenatal Profile, Cord Blood Routine, and RHIG Evaluation.

- Specimen:
- Preferred in house: One 6 ml pink (EDTA) top tube.
 - Preferred reference lab; One 6 ml pink (EDTA) top tube.
 - Also acceptable: purple top (EDTA) whole blood in original tube.

Stability: 3 days refrigerated.

Performed: Within 8 hours of receipt. Available stat.

Method: Serological

- CPT Code:
- ABO+ 86900
 - RH+ 86901

TEST NAME	ABG (ARTERIAL BLOOD GASES)	Done by Cardio-Vascular & Pulmonary. For capillary gases see COLLECTION CHARGE CAPILLARY BLOOD GASES.
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POWERCHART NAME	ACETAMINOPHEN (TYLENOL) LEVEL		
MERCY TEST NAME	ACETAMINOPHEN	MERCY LAB CODE	ACMN

Specimen: 0.5 ml serum

Stability: Specimens may be stored for up to 8 hours at 20-25 °C or stored frozen for up to 45 days at -20°C

Performed: Within 8 hours of receipt. Available stat.

Therapeutic Range: 10-20 mcg/mL
Refer to the Acetaminophen Concentration Nomogram in the special help section of the LTI.

Method Description: The Atellica CH Acetaminophen (Acet) assay is based on the conversion of acetaminophen by acyl amidohydrolase to produce *p*-aminophenol is then converted to a colored complex produced by reacting with 8-hydroxyquinoline-5-sulfonic acid.

CPT Code: 80143

POWERCHART NAME	ACETYLCHOLINE RECEPTOR BINDING ANTIBODY		
MERCY TEST NAME	ACET RECP BNDG*	MERCY LAB CODE	ACHRBA

Specimen: 2 ml serum from a no additive serum tube or a Serum Separator Tube (SST).

Stability: 28 days refrigerated: 72 hours ambient, frozen OK

Processing: Send **refrigerated** to Mayo. Mayo order code (**ARBI**).

Performed: Report available in 3 to 6 days.

Reference value: Included in report

Method: Radioimmunoassay (RIA)

CPT Code: 86041

POWERCHART NAME	ACTH Adrenocorticotropic		
MERCY TEST NAME	ACTH*	MERCY LAB CODE	ACTH

Comment: Morning (0600 – 1030) specimens are desirable.
For the 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 multivitamins.

- Specimen:
- Draw 5 ml blood into pre-chilled purple top (EDTA) tubes.
 - Tubes **MUST** be ice-cooled before collection.

- Immediately place tubes in ice after collection.
- Immediately separate plasma in refrigerated centrifuge and freeze immediately

Cause for rejection: Severe hemolysis is unacceptable.

Processing: Send 1.0 ml plasma frozen to Mayo. Mayo order code (ACTH).

Performed: 4 days. Test set up Monday through Saturday.

Reference value: Included in report.

Method: Electrochemiluminescence Immunoassay

CPT Code: 82024

POWERCHART NAME	AFB CULTURE OTHER		
MERCY TEST NAME	ACID FAST CLT/SMR*	MERCY LAB CODE	AFBCLT

Comment: Specify collection site when ordering.

Specimen: Submit each specimen in a sterile container with a tight-fitting lid.

- Body fluids: Minimum of 5 ml specimen. 60 ml preferred.
- Bronchus washings/brushings: Minimum of 5 ml bronchus washings/brushings.
- Cerebrospinal fluid: 1 ml CSF minimum in a sterile plastic screw cap tube.
- Gastric washings: 1 ml specimen minimum.
- Sputum: Minimum of 5 ml specimen. A first morning specimen is recommended.
- Stool: Submit a pea size sample. No preservative.
- Tissue: Submit a pea size sample. Can be placed in a small amount of saline to prevent drying out.

- Urine: Minimum of 50 ml of urine. The first morning specimen is recommended.
- Bone Marrow: Send using lithium heparin tubes.

Cause for rejection:

Serum is submitted for testing.

Processing:

- Send to the laboratory immediately after collection.
- Specimens are referred to Mayo Medical Laboratories, Rochester, MN for an AFB smear and culture.

RL Client Comments:

- Write AFB Culture/Smear on the order form. Indicate the specimen source.
- Send specimens refrigerated to Mercy lab.

Performed:

Smear: Monday through Sunday. Mayo will contact Mercy Lab if positive.

Final: 42 days for negative results. Mayo will notify Mercy Lab if culture is positive prior to 8 weeks.

- If tissue is submitted for testing, an additional charge will be assessed for processing.
- If a bacteremia due to mycobacterium is suspected, see BLOOD CULTURE/ACID FAST ORGANISMS

Reference values: AFB smear: No acid-fast organisms seen.

If the smear is positive: Mycobacterium tuberculosis, Amplified Direct Test is available at an additional charge.

AFB culture: No acid-fast organisms isolated.

If the culture is positive for Mycobacterium: Antimicrobial Susceptibility testing is available at an additional charge. This testing has to be **requested** by the ordering location or provider.

Method: AFB smear: Auramine-Rhodamine Stain
 AFB culture: Automated Detection plus 7H10-11 agar
 Identification of AFB isolates by rapid methods: Nucleic Acid Probes, DNA Sequencing and Real-Time PCR, when appropriate.

CPT Code: 87206- Smear
 87116- Culture, Mycobacterium
 87150 - Microbial Probe, Fungus Ident (if appropriate)
 87153 - Mycobacteria Ident by Sequencing (if appropriate)
 87176- Tissue Processing (if appropriate) 87015 - Mycobacteria Culture, Concentration (if appropriate)

POWERCHART NAME	AG RATIO (Albumin Globulin Ratio)		
MERCY TEST NAME	AG RATIO	MERCY LAB CODE	AG

Specimen: 0.5 ml serum

Stability: N/A

Comment: AG Ratio is a calculation and not orderable by itself. Included in CMPL, GHP, HFPL, NUTP, DPNL

Performed: Within 8 hours of receipt. Available stat.

Reference range: 1.0-2.3

Method
Description: Calculation

CPT Code: N/A

POWERCHART NAME	ALBUMIN LEVEL		
MERCY TEST NAME	ALBUMIN	MERCY LAB CODE	ALB

Specimen: 0.5 ml serum

Stability: Specimens may be stored for up to 3 days at 2-8°C or stored frozen for up to 30 days at -20°C.

Comment: Do not use hemolyzed samples

Performed: Within 8 hours of receipt. Available Stat.

Reference Range:	0 - 30 days	2.9 - 5.5 g/dl
	1 - 3 months:	2.8 - 5.0 g/dl
	4 - 11 months:	3.9 - 5.1 g/dl
	1 - 59 years:	3.5 - 5.0 g/dl

60 - 79 years: 3.2 - 4.8 g/dl
 > 79 years: 3.1 - 4.6 g/dl

Method Description: The Atellica CH Albumin BCP (AlbP) assay is an adaptation of the bromocresol purple (BCP) dye-binding method

CPT Code: 82040

POWERCHART NAME	ALCOHOL (ETHANOL) LEVEL		
MERCY TEST NAME	ALCOHOL ETHYL BLD	MERCY LAB CODE	ALCO

Specimen: 0.5 ml serum

Stability: Specimens must be stored in capped or sealed containers. Specimens may be stored for up to 2 days at room temperature. Serum may be stored for up to 2 weeks at 2-8°C or indefinitely when stored frozen at -20°C or indefinitely when stored frozen at -20°C or below.

Comment: Laboratory personnel will not draw legal alcohols, if a legal issue is involved, refer to Nursing Supervisor.

Performed: Within 8 hours of receipt. Available stat.

Reference Range: <10 mg/dL

Method: The Atellica CH Ethyl Alcohol (ETOH) assay is based on an enzymatic reaction. Reagent 1 contains the buffering system. Reagent 2 contains alcohol dehydrogenase (ADH), the coenzyme nicotinamide adenine dinucleotide (NAD), buffer, acetaldehyde. During this reaction, NAD is reduced to NADH.

CPT Code: 82077

POWERCHART NAME	ALDOLASE		
MERCY TEST NAME	ALDOLASE*	MERCY LAB CODE	ALDL

Specimen: 1 ml serum from a **no additive serum tube. (0.5 ml minimum)**

Cause for rejection: **Hemolysis, lipemia, and icterus**

Processing: Send **refrigerated** to Mayo. Frozen acceptable.
Mayo test order code **ALS**

Performed: 1-3 days. Test set up Monday through Saturday.

Reference value: Included with test results.

Method: Photometric

CPT Code: 82085

POWERCHART NAME	ALDOSTERONE LEVEL
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MERCY TEST NAME	ALDOSTERONE*	MERCY LAB CODE	ALDS
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- Specimen:
- 1.2 ml serum from a Serum Separator Tube (SST) or a no additive serum tube. 0.6 ml minimum.
 - Collect at 0800. 8 a.m. draw time (after the patient is active for 2 hours) is recommended; preferably no later than 10 a.m. This is the preferred time because of normal range but will accept other times.
 - **Specify specimen source as multiple specimens may be collected during a procedure**

Processing: Send **frozen** to Mayo. Refrigerated and ambient acceptable. Mayo order code (ALDS).

Performed: Monday - Friday

Reference value: Included with report

Method: Liquid Chromatography-Tandem Mass Spectrometry (LC-MS/MS)

CPT Code: 82088

POWERCHART NAME	ALDOSTERONE 24 HOUR URINE		
MERCY TEST NAME	ALDOSTERONE, 24UR*	MERCY LAB CODE	ALDOU

Includes: Aldosterone, Urine Collection Duration, Urine Volume

- Comment:
- Add 25 ml of 50% Acetic Acid as preservative at start of collection.
 - Children
 - Keep Refrigerated.
 - Addition of preservative may occur within 4 hours of completion of collection.

Cause for Rejection: pH of aliquot is outside of the range of 2.0 – 4.0.

Processing: ○ 10 ml in a 13 ml aliquot tube from a measured 24 -hour specimen. 1 ml minimum.
 ○ Record 24-hour volume on aliquot.
 ○ Send refrigerated. Frozen acceptable. Ambient acceptable with preservative. Mayo order code (ALDU).

Performed: Monday, Thursday; 3 p.m.

Reference Value: Included with test results.

Method: Liquid Chromatography/Tandem Mass Spectrometry (LC-MS/MS)

CPT Code: 82088

POWERCHART NAME	ALKALINE PHOSPHATASE		
MERCY TEST NAME	ALK PHOS	MERCY LAB CODE	ALKP

Specimen: 0.5 ml serum

Stability: Specimens may be stored for up to 8 hours at 25°C or for up to 7 days at 2–8°C or stored frozen for up to 6 months at -20°C or colder.

Comment: Avoid repeated freezing and thawing.

Performed: Within 8 hours of receipt. Available stat.

Reference Range:	Female:	Male:
	4 yrs.	169-372 units/L 4 yrs 149-369 units/L
	5 yrs.	162-355 units/L 5 yrs 179-416 units/L
	6 yrs.	169-370 units/L 6 yrs 179-417 units/L
	7 yrs.	183-402 units/L 7 yrs 172-405 units/L

8 yrs.	199-440 units/L 8 yrs	169-401 units/L
9 yrs.	212-468 units/L 9 yrs	175-411 units/L
10 yrs.	215-476 units/L 10 yrs	191-435 units/L
11 yrs.	178-526 units/L 11 yrs	185-507 units/L
12 yrs.	133-485 units/L 12 yrs	185-562 units/L
13 yrs	120-449 units/L 13 yrs	182-587 units/L
14 yrs	153-362 units/L 14 yrs	166-571 units/L
15 yrs	75-274 units/L 15 yrs	138-511 units/L
16 yrs	61-264 units/L 16 yrs	102-417 units/L
17-23 yrs	52-144 units/L 17 yrs	69-311 units/L
24-45 yrs	37-98 units/L 18 yrs	52-222 units/L
46-50 yrs	39-100 units/L >19 yrs	45-115 units/L
51-55 yrs	41-108 units/L	
56-60 yrs	46-118 units/L	
61-65 yrs	55-142 units/L	

Method Description: The Atellica CH Alkaline Phosphatase, concentrated (ALP_2c) assay is based on the primary reference procedure for the measurement of catalytic activity of alkaline phosphatase at 37°C as described by the International Federation of Clinical Chemistry (IFCC).

CPT Code: 84075

POWERCHART NAME	ALKALINE PHOSPHATASE BONE SPECIFIC		
MERCY TEST NAME	BONE ALK PHOS*	MERCY LAB CODE	BALP

Specimen: 0.6 ml serum from a Serum Separator Tube (SST) or a no additive serum tube. 0.5 ml minimum

Cause for Rejection: **Hemolyzed and/or Lipemic specimens are unacceptable.**

Processing: Send **refrigerated** to Mayo. Frozen acceptable. Mayo test order code **BAP**.

Performed: 1 - 3 day(s). Test performed Monday through Friday 5 a.m.-midnight, Saturday 6 a.m.- 6 p.m.

Reference value: Included with test results.

Method: Immunoenzymatic Assay

CPT Code: 84080 Bone Alkaline Phosphatase

POWERCHART NAME	ALKALINE PHOSPHATASE ISOENZYMES		
MERCY TEST NAME	ALK PHOSPH ISO	MERCY LAB CODE	ALKI

Includes: Total Alkaline Phosphatase; Bone, Intestine and Liver Isoenzymes.

Specimen:

- 1.0 ml serum from a Serum Separator Tube (SST) or a no additive serum tube. Send two 0.5 ml aliquots of serum frozen in plastic vials.
- Minimum: 0.5 ml divided into 2 tubes each containing 0.25 ml.

Cause for Rejection: **Hemolyzed specimens are unacceptable.**

Processing: Send **frozen** to Mayo. Refrigerated acceptable. Mayo (ALKI).

Performed: 2-4 days. Test performed Monday through Friday.

Reference value: Included with report.

Method: Photometric, P-Nitrophenyl Phosphate
Electrophoresis, Densitometry

CPT Code: 84080 Alk Phos Isoenzymes
84075 Alk Phos Total

TEST NAME	ALLERGEN MULTIPLE SCREEN*		
MERCY TEST NAME	MISC GENERAL LAB	MERCY LAB CODE	CMIS

Comment: The multiple allergen screen is a very sensitive first-order test for allergic disease. Also includes Immunoglobulin E testing.

Send 1 miscellaneous chemistry order for **each** multiple allergen screen requested, putting allergen screen name in comment field.
(Example: you would need 1 order for major molds allergen screen, another order for dairy allergen screen, etc...)

Please contact the Lab if you need help to determine which allergen screen is appropriate or need to know what specific allergens are being tested in a particular allergen screen.

Mayo offers the following multiple allergen screens:

Geographical area panels for trees, grasses, and weeds. Seasonal recommendations are provided by Mayo. Food panels include dairy, fish, grains, meats, nuts, seafood. Other significant allergen groups including molds, household, epithelia groupings.

Specimen: 0.5 ml serum (enough for 1 multiple allergen screen) from a SST tube.
 Minimum volume calculation: $(0.05\text{ul} \times \# \text{ of allergens}) + 0.25 \text{ ul}$

- Processing:
- See Mayo catalog or Special Helps section of Lab Test Index for special instructions for specific Mayo ordering numbers for each allergen group.
 - Mayo requests that each allergen screen is to have its own Mayo number.
 - Send a separate vial of serum for each allergen screen ordered.
 - Send refrigerated to Mayo.

POWERCHART NAME	RAST ALLERGEN		
MERCY TEST NAME	ALLERGEN IGE*	MERCY LAB CODE	ALRG

Comment: This test is useful principally to confirm the Allergen specificity in patients with clinically documented allergic disease.

Please note:

This test is for a specific allergen requested. (Such as alfalfa grass or corn grass or birch tree, etc.) If the doctor is looking to see if the patient is allergic to grasses or trees, etc., then an allergen multiple screens should be ordered. Call Lab for help in ordering.

Send 1 order per specific allergen requested. Designate specific allergen to be tested. **Refer to Special Helps Section of the Lab Test Index for a complete list of allergens available for testing and their corresponding test order codes.**

Specimen: 0.5 ml serum from a Serum Separator Tube (SST) or no additive serum tube

Processing: ○ See Mayo catalog, special instructions for specific Mayo ordering numbers for each allergen.
 ○ Send **refrigerated** to Mayo.
 ○ **Mercy Lab staff** will order on Mayo Access.

Performed: 1 day. Test set up Monday through Friday.

Reference value: Included with report.

Method: Fluorescence Enzyme Immunoassay (FEIA)

CPT Code: 86003

MERCY TEST NAME	ALLERGY FOOD PED 6*	MERCY LAB CODE	ALRG6
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Comment: This profile includes, egg whites, milk, cod fish, wheat, peanut, and soybean.

Specimen: 1.5 ml serum from a Serum Separator Tube (SST) or no additive serum tube.
 Minimum volume calculation: (0.05ul x # of allergens) + 0.25 ul

Processing: Send refrigerated to Mayo.
 Mayo test order code (**PR207**).

Performed: 1-5 days. Test set up Monday through Friday.

Reference value: Included with report.

Method: Fluorescence Enzyme Immunoassay (FEIA)

CPT Code: 86003 x6

MERCY TEST NAME	ALLERGY FOOD 12*	MERCY LAB CODE	ALRG12
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Comment: This profile includes, egg whites, milk, cod fish, wheat, peanut, soybean, melon, tomato, banana, baker's yeast, egg yolk and apple.

Specimen: 3.0 ml serum from a Serum Separator Tube (SST) or no additive serum tube.
Minimum volume calculation: (0.05ul x # of allergens) + 0.25 ul

Processing: Send refrigerated to Mayo.
Mayo test order code (**PR350**).

Performed: 1-5 days. Test set up Monday through Friday.

Reference value: Included with report.

Method: Fluorescence Enzyme Immunoassay (FEIA)

CPT Code: 86003 x12

MERCY TEST NAME	ALLERGY PROFILE 15*	MERCY LAB CODE	ALRG15
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Comment: This profile includes cat epithelium, dog epithelium, house dust mites DP, house dust mites DF, Alternaria tenuis, giant ragweed, short ragweed, timothy grass, silver birch, mugwort, epicoccum purpurascens, corn pollen, box elder/maple, oak and Johnson grass.

Specimen: 4.0 ml serum from a Serum Separator Tube (SST) or no additive serum tube.
Minimum volume calculation: (0.05ul x # of allergens) + 0.25 ul

Processing: Send refrigerated to Mayo.
Mayo test order code (**PR894**).

Performed: 1-5 days. Test set up Monday through Friday.

Reference value: Included with report.

Method: Fluorescence Enzyme Immunoassay (FEIA)

CPT Code: 86003 x15

TEST NAME	ALLERGEN PROFILE 138	MERCY LAB CODE	PR138
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Comment: This profile includes English Plantain, Epicoccum purpurascens, Firebush (Kochia), Helminthosporium halodes, Lamb's Quarter, Mugwort

Specimen: 4.0 ml serum from a Serum Separator Tube (SST) or no additive serum tube.
Minimum volume calculation: (0.05ul x # of allergens) + 0.25 ul

Processing: Send refrigerated to Mayo.
Mayo test order code (**PR138**)

Performed: 1-5 days. Test set up Monday through Friday.

Reference value: Included with report.

Method: Fluorescence Enzyme Immunoassay (FEIA)

CPT Code: 86003 x7

POWERCHART NAME	ALPHA FETOPROTEIN MATERNAL		
MERCY TEST NAME	SINGLE MARKER AFP*	MERCY LAB CODE	SMAFP

Specimen: 1 ml serum from a Serum Separator Tube (SST) (Preferred) or no additive serum tube also acceptable. Spin down immediately

Comment:

- To be run between the 15th and 22nd gestational week.

- The Mayo information form must be completed and sent with the patient/specimen.
- Forms available from the Laboratory or from the intranet LTI - Special Helps Section. AFP Form.
- Do not collect specimen after amniocentesis as this could affect results.
- 1.0 ml serum **refrigerated** to Mayo. Frozen and ambient also acceptable.
- Mayo test order code (**MAFP1**).
- Must send the Mayo AFP form with the specimen.

Processing:

Performed: 1-3 days Monday through Friday

Reference value: Included with test results

Methods: Two-Site Immunoenzymatic (Sandwich) Assay

CPT Code: 82105 – AFP

POWERCHART NAME	ALPHA FETOPROTEIN QUAD TEST		
MERCY TEST NAME	QUAD SCRIN 2ND TRI*	MERCY LAB CODE	QUADM

Specimen: 1 ml serum from a Serum Separator Tube (SST) (Preferred) or no additive serum tube. Spin down immediately.

- Comment:
- Do not collect specimen after amniocentesis as this could affect results.
 - To be run between the 15th and 22nd gestational week.
 - Assessments for trisomy 21 (Down Syndrome) and Trisomy 18 (Edwards syndrome) are only available between 14 weeks and 22 weeks.

- The Mayo information form must be completed and sent with the patient/specimen. Forms available from the Laboratory or from the intranet LTI - Special Helps Section. **AFP Form.**
- Initial or repeat testing is determined in the laboratory at the time of report and will be reported accordingly. To be considered a repeat test for the patient, the testing must be within the same pregnancy and trimester, with interpretable results for the same test, and both tests are performed at Mayo Clinic.
- 1.0 ml serum **refrigerated (Preferred) to Mayo.** Frozen and ambient also acceptable.
- Mayo test order code (**QUAD1**).
- Must send the Mayo AFP form with the specimen.

Processing:

Performed: 1-4 days, Monday through Friday

Reference value: Included with test results

Method: Immunoenzymatic Assay

CPT Code: 81511

POWERCHART NAME	ALPHA FETOPROTEIN TUMOR MARKER		
MERCY TEST NAME	AFP TUMOR MARKER	MERCY LAB CODE	AFPT

Specimen: 0.5 ml serum

Stability: Specimens that are tightly capped may be stored at room temp for less than 8 hours or refrigerated at 2-8°C. Freeze samples at ≤ -20°C if the assay is not completed within 48 hours. Freeze samples only 1 time and mix thoroughly after thawing.

Comment: Keep tubes capped at all times. Do not use specimens that have been stored at room temperature for longer than 8 hours.

Performed: Within 8 hours of receipt. Available Stat.

Reference Range: 0.0-9.0 ng/mL

Method Description: The Atellica IM AFP assay is a 2-site sandwich immunoassay using direct chemiluminescent technology

CPT Code: 82105

POWERCHART NAME	ALPHA-1 ANTITRYPSIN		
MERCY TEST NAME	ALPHA1 ANTITRYP*	MERCY LAB CODE	ALPA

Specimen: 1 ml serum from a Serum Separator Tube (SST) or a no additive serum tube

Processing: Send refrigerated to Mayo. Frozen or ambient acceptable.
Mayo test order code **AAT**

Note: ****Included in Alpha-1 Antitrypsin Phenotype testing Mercy Lab Code ALAN, do not order both.**

Performed: Test set up Monday through Saturday.
 Reference value: Included with test results.
 Method: Rate Nephelometry
 CPT Code: 82103

POWERCHART NAME	ALPHA-1 ANTITRYPSIN PHENOTYPE		
MERCY TEST NAME	ALPH1 ANTITRYP PHEN*	MERCY LAB CODE	ALAN

Specimen: 1.25 ml serum a no additive serum tube. Serum from a SST is also acceptable.
 Processing: Send refrigerated to Mayo. Frozen or ambient acceptable.
 Mayo test order code **A1APP**
 Note: ****Do not order ALPHA - Alpha-1 Antitrypsin in addition to this order, it would be a duplicate.**
 Alpha-1 Antitrypsin is included in this ALAN - Alpha-1 Antitrypsin Phenotype testing.
 Performed: 2-6 Days; Monday through Friday.
 Reference value: Included with test results.
 Method: Isoelectric Focusing: Nephelometry
 CPT Code: 82103 - Alpha-1 Antitrypsin
 82104 - Alpha-1 Antitrypsin Phenotype

POWERCHART NAME	ALT/SGPT		
MERCY TEST NAME	ALT	MERCY LAB CODE	ALT

Specimen: 0.5 ml serum

Stability: Separated specimens may be stored for up to 7 days at 2–8°C or stored frozen for up to 30 days at -20°C or colder.

Comment: Avoid repeating freezing and thawing. Venipuncture should occur prior to Sulfasalazine administration due to the potential for falsely depressed results.

Performed: Within 8 hours of receipt. Available stat.

Reference Range: 10-49 Units/L

Method Description: The Atellica CH Alanine Aminotransferase (ALT) assay is based on a reaction initiated by the addition of α -Ketoglutarate as a second reagent. The concentration of reduced nicotinamide adenine dinucleotide (NADH) is measured.

CPT Code: 84460

POWERCHART NAME	ALUMINUM LEVEL		
MERCY TEST NAME	ALUMINUM SERUM*	MERCY LAB CODE	ALUM

- Specimen:
- 1.2 ml serum from a navy blue top no additive trace metal tube. 0.3 ml minimum.
 - Always draw this tube first if multiple tubes are being drawn.
 - Use alcohol, not iodine to cleanse venipuncture site.

- If a syringe is needed, use only Mayo blue-labeled metal-free polypropylene syringe.

Cause for rejection:

The use of other tubes is unacceptable.

Processing:

- **Allow to clot well.**
- After centrifugation, pour (DO NOT use transfer pipette or wooden sticks) serum into blue-labeled 5ml Mayo metal-free, screw-capped polypropylene vial.
- Send refrigerated to Mayo. Ambient and frozen also acceptable.
- Mayo test order code **AL**
- If specimen will be stored more than 48 hours, send frozen.

Performed:

1-5 days. Wednesday, Friday, 5 p.m.

Reference value:

Included with report.

Method:

Dynamic Reaction Cell-Inductively Coupled Plasma-Mass Spectrometry

CPT Code:

82108

POWERCHART NAME	AMIKACIN LEVEL PEAK		
MERCY TEST NAME	AMIKACIN PEAK*	MERCY LAB CODE	AMIKP

Specimen:

- 0.5 ml serum from a Serum Separator Tube (SST) or no additive serum tube.
- Specimen should be drawn 30 to 60 minutes after last dose. Spin specimen down within 2 hours of draw. Send serum specimen in a plastic vial

Mayo Test number/Code:

Mayo order code (PAMIK).

RL Comment: Send specimen refrigerated to Mercy Lab. Frozen and Ambient specimens are acceptable.

Processing: Send 0.5 ml serum refrigerated to Mayo.

Performed: 1 day. Monday through Sunday; continuously

Reference: Included with results.

Method: Kinetic interaction of microparticles in solution (KIMS).

CPT Code: 80150

POWERCHART NAME	AMIKACIN LEVEL		
MERCY TEST NAME	AMIKACIN RANDOM*	MERCY LAB CODE	AMIKR

- Specimen:
- 0.5 ml of serum from a Serum Separator Tube (SST) or no additive serum tube.
 - Spin specimen down within 2 hours of draw. Send serum specimen in a plastic vial.

Mayo Test number/Code: Mayo order code (RAMIK).

RL Comment: Send specimen refrigerated to Mercy Lab. Frozen and ambient specimens are acceptable.

Processing: Send 0.5 ml serum refrigerated to Mayo.

Performed: 1 day. Monday through Sunday; continuously

Reference: Included with results.

Method: Kinetic interaction of microparticles in solution (KIMS).

CPT Code: 80150

POWERCHART NAME	AMIKACIN LEVEL TROUGH		
MERCY TEST NAME	AMIKACIN TROUGH*	MERCY LAB CODE	AMIKT

Specimen: o 0.5 ml of serum from a Serum Separator Tube (SST) or no additive serum tube.
 o Draw blood immediately before next scheduled dose. Spin specimen down within 2 hours of draw. Send serum specimen in a plastic vial.

Mayo Test number/Code: Mayo order code (**TAMIK**).

RL Comment: Send specimen refrigerated to Mercy Lab. Frozen and ambient specimens are acceptable.

Processing: Send 0.5 ml serum refrigerated to Mayo.

Performed: 1 day. Monday through Sunday; continuously

Reference: Included with results.

Method: Kinetic interaction of microparticles in solution (KIMS).

CPT Code: 80150

TEST NAME	AMINOPHYLLINE	See: Theophylline
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POWERCHART NAME	AMIODARONE LEVEL		
MERCY TEST NAME	AMIODARONE*	MERCY LAB CODE	AMDR

Specimen:

- 1.5 ml serum from no additive serum tube.
- **Gel tube not acceptable (Serum Separator Tube, SST).**
- Draw blood no sooner than 12 hours (trough value) after last dose or immediately before next scheduled dose.
- Centrifuge within 2 hours of draw and aliquot to remove serum from spun RBC's

Comment: Indicate time last dose in comment.

Processing: Send 1.5 ml serum refrigerated to Mayo. Frozen acceptable.
Mayo test code (**AMIO**).

Performed: 2-5 days. Test set up Monday through Saturday; 4 p.m.

Reference value: Included with results

Method: Liquid Chromatography Mass Spectrometry (LC - MS/MS)

CPT Code: 80151

POWERCHART NAME	AMITRIPTYLINE + NORTRIPTYLINE LEVEL		
MERCY TEST NAME	AMITRIP NORTRP*	MERCY LAB CODE	AMNP

Specimen:

- 1 ml serum in a no additive serum tube.
- **Collect 12 hours after last dose.**
- Spin down **within 2 hours of draw.**

Cause for rejection: Serum from SST tubes.

Comment: Indicate time of last dose in comment field.
Alias: Elavil or Pamiliar

Processing:

- Centrifuge and remove serum within 2 hours after collection.

- Send **refrigerated** to Mayo. Ambient or frozen also acceptable. Mayo order code **(AMTRP)**.

Performed: 2 days. Test set up Monday through Friday.
 Reference Value: Included with results.
 Method: Liquid Chromatography-Tandem Mass Spectrometry (LC-MS/MS).
 CPT Code: 80335/G0480

POWERCHART NAME	AMMONIA LEVEL		
MERCY TEST NAME	AMMONIA	MERCY LAB CODE	AMM

Specimen: 0.5 ml plasma from a lithium heparin green top tube. The tube should be completely filled and placed on ice and centrifuged without delay.

Comment: Serum samples will be rejected. Hemolyzed samples will be rejected. Lipemic or icteric samples may yield invalid results. Venipuncture should occur prior to Sulphapyridine administration due to the potential for falsely depressed results.

Venipuncture should occur prior to Sulfasalazine administration due to the potential for falsely elevated results.

Stability: Separated specimens may be stored for up to 2 hours at 2–8°C. The tube should be completely filled, stored tightly capped on ice and centrifuged without delay.

Samples should be analyzed within 30 minutes of centrifugation. Concentrations may more than double in plasma when stored at room temperature for 6 hours.

Performed: Within 8 hours of receipt. Available stat.

Reference Range: 0-14 days 64-107 µmol/L
15-30 days 56-92 µmol/L
> 1 month 16-53 µmol/L

Method Description: The Atellica CH Amm assay is an enzymatic assay that uses glutamate dehydrogenase (GLDH) and a stabilized NADPH analog. Ammonia reacts with α-ketoglutarate and reduced cofactor to form L-glutamate and the cofactor. The reaction is catalyzed by glutamate dehydrogenase.

CPT Code: 82140

TEST NAME	AMPHETAMINES	See: Drug Abuse Random Urine	
MERCY TEST NAME	AMPHETAMINES UR* CONFIRMATION	MERCY LAB CODE	UAMPHT

Specimen: 20 ml random urine specimen in a 60 mL urine bottle, no preservative

Processing: Send refrigerated to Mayo - Mayo order code (**AMPHU**).
Performed: Monday - Thursday, Sunday
Reference value: Included in report
Method: Liquid Chromatography-Mass Spectrometry (LC-MS/MS).

CPT Code: G0480

POWERCHART NAME	AMYLASE		
MERCY TEST NAME	AMYLASE	MERCY LAB CODE	AMY

Specimen: 0.5 ml serum

Stability: Separated serum specimens may be stored for up to 8 days at room temperature or up to 31 days at 2-8°C or stored frozen for at least 1 year at -20°C.

Performed: Within 8 hours of receipt. Available stat.

Reference Range: 29-103 U/L

Method Description: The Atellica CH AMY_2 assay uses ethylidene blocked.

p-nitrophenyl-maltoheptaoside as substrate. The indicator enzyme α -glucosidase, used to release *p*-nitrophenol (PNP), is also employed in the assay. The terminal glucose of the substrate is chemically blocked, preventing cleavage by the indicator enzymes.

CPT Code: 82150

POWERCHART NAME	AMYLASE BODY FLUID		
MERCY TEST NAME	AMYLASE BF	MERCY LAB CODE	FAMY

Specimen: 0.5 ml body fluid

Stability: Specimens may be stored for up to 8 days at room temperature or for up to 31 days at 2-8°C or stored frozen for at least 1 year at -20°C.

Comment: Indicate source in comment field.

Performed: Within 8 hours of receipt. Available stat.

Reference Range: No reference range has been established

Method Description: The Atellica CH AMY_2 assay uses ethylidene blocked *p*-nitrophenyl- maltoheptaoside as substrate. The indicator enzyme α -glucosidase, used to release *p*-nitrophenol (PNP), is also employed in the assay. The terminal glucose of the substrate is chemically blocked, preventing cleavage by the indicator enzymes.

CPT Code: 82150

POWERCHART NAME	AMYLASE ISOENZYMES		
MERCY TEST NAME	AMYLASE ISOENZYMES*	MERCY LAB CODE	AMISO

Specimen: 1 mL serum from a Serum Separator Tube (SST)(Preferred) or no additive serum tube.

Serum gel tubes should be centrifuge within 2 hours of collection. Red-top tubes should be centrifuged and the serum aliquoted into a plastic vial within 2 hours of collection.

Processing: Send refrigerated (preferred) to Mayo. Ambient or frozen is also acceptable. Mayo order code (**AMISO**).

Performed: 1-3 days. Monday through Sunday.

Reference value: Reference ranges included with report.

Method: AMYSE, AMYPA: Colorimetric Rate Reaction; AMYSA: Calculation

CPT Code: 82150 X 2

TEST NAME	AMYLASE 12 - HOUR URINE	See: Amylase 24-Hour Urine
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POWERCHART NAME	AMYLASE 24 HOUR URINE		
MERCY TEST NAME	AMYLASE 24UR	MERCY LAB CODE	VAMY

- Specimen:
- 5 ml from a 24-hour or 12-hour urine collection.
 - No preservative needed.
 - Refrigerate during collection.
- Comment:
- A 24-hour collection is the preferred specimen.
 - **Note in comment if a 12-hour collection is submitted.**
 - If less than a 12-hour collection, order Amylase Quantitative Urine.
- Processing: Aliquot 5 ml and indicate total 24-hour volume. Refrigerate.
- Performed: Within 8 hours of receipt.
- Reference value: 120-648 U/24 Hours
- Method: Enzymatic Rate
- CPT Code: 82150

POWERCHART NAME	AMYLASE QUANTITATIVE URINE		
MERCY TEST NAME	AMYLASE QUANTITATIVE URINE	MERCY LAB CODE	XAMY

Specimen: 5 ml urine

Stability: Urine amylase is unstable in acidic urine. Adjust urine to a pH \geq 7 before storage. Adjusted urine specimens may be stored for up to 10 days at room temperature⁶ or for up to 31 days at 2-8°C.

Performed: Within 8 hours of receipt. Available Stat.

Comment: Includes Volume (mls) Amylase (U/L)
Collection duration (hours) Calculated Amylase (U/HR)

Reference Value: 5-27 U/hour

Method: The Atellica CH AMY_2 assay uses ethylidene blocked *p*-nitrophenyl- maltoheptaoside as substrate. The indicator enzyme α -glucosidase, used to release *p*-nitrophenol (PNP), is also employed in the assay. The terminal glucose of the substrate is chemically blocked, preventing cleavage by the indicator enzymes.

CPT Code: 82150

POWERCHART NAME	AMYLASE RANDOM URINE		
MERCY TEST NAME	AMYLASE R UR	MERCY LAB CODE	UAMY

Specimen: 5 ml urine

Stability: Adjusted urine specimens may be stored for up to 10 days at room temperature⁶ or for up to 31 days at 2–8°C.

Comment: Urine amylase is unstable in acidic urine. Adjust urine to a pH ≥ 7 before storage.

Performed: Within 8 hours of receipt. Available stat.

Reference Range: 20-1,500 units/L

Method Description: The Atellica CH AMY_2 assay uses ethylidene blocked *p*-nitrophenyl-maltoheptaoside as substrate. The indicator enzyme α-glucosidase, used to release *p*-nitrophenol (PNP), is also employed in the assay. The terminal glucose of the substrate is chemically blocked, preventing cleavage by the indicator enzymes.

CPT Code: 82150

TEST NAME	ANAEROBIC CULTURE + SMEAR		
MERCY TEST NAME	ANAEROBIC CLT/GS	MERCY LAB CODE	ANER

Order: Specify collection site when ordering.

Specimen: DO NOT USE AEROBIC TRANSPORTER!

A Port-A-Cul Cary Blair tube or Port-A-Cul anaerobic transport vial should be used. Both transport systems contain an indicator which will turn purple when oxygen is present. **DO NOT USE** the transporter if the indicator is purple prior to opening the transporter.

Swab specimens: Embed swab deeply into Port-A-Cul Cary Blair tube and cap tightly. Two swabs from the same specimen site should be submitted in one transport tube.

Fluid or pus aspirates: Inject specimen into Port-A-Cul vials. **DO NOT inject air into vial.**

ACCEPTABLE specimens for anaerobic culture:

- Exudates or aspirated pus from deep wounds/abscesses
- Surgical specimens
- Normally sterile body fluids
- Transtracheal aspirates
- Suprapubic urine from:
 - Percutaneous bladder aspiration
 - Nephrostomy tubes
 - Suprapubic catheter
- Genital specimens **ONLY** as follows:
 - Cul de sac aspiration
 - Culdocentesis
- Nasal Sinus (Aspirate)
- Bartholin's gland inflammation/secretions
- Bronchoscopy secretions (protected specimen brush)

UNACCEPTABLE specimens for anaerobic culture:

- Superficial wounds

- Specimens contaminated with intestinal flora -such as intestinal contents, colostomy sites, drainage from a pilonidal sinus, or bowel perforations.
 - Feces/rectal swabs
 - Throat/nasopharyngeal/Endotracheal Swab or Tracheostomy secretions
 - Sputum/Bronchoalveolar lavage/Bronchoalveolar wash
 - Vaginal/cervical swabs
 - Midstream or catheterized urine specimens
 - Female: Vaginal/cervical/perineal
 - Male: Urethral swabs/prostrate or seminal fluid
- Comments:
- Specimens will be processed according to site. Only predominant anaerobes will be reported from cultures contaminated with oral, genital, or intestinal flora.
 - Identification to genus and species will only be performed on isolates from blood, CSF and other normally sterile body fluids.
 - Anaerobic susceptibility testing will not be performed. Anaerobic isolates may be referred to Mayo Laboratories, Rochester, MN for susceptibility testing upon special request. Contact the Mercy Microbiology Lab for information.
- RL Client
Comments:
- Write ANAEROBIC CULTURE on the order form. Indicate the specimen source.
 - Send anaerobic transporters at room temperature to Mercy lab.
- Performed:
- Gram stain: Within 8 hours of receipt.
Preliminary report: 2 - 4 days
Final report: 7 days
- Reference values: No anaerobes isolated (applies to normally sterile body sites). Varies with site of collection.
- Method: Standard culture techniques.

CPT Code: 87205 Gram Stain
87075 Anaerobic Clt

POWERCHART NAME	ANGIOTENSIN 1CONVERTING ENZYME (ACE)		
MERCY TEST NAME	ANGIOTENS CONV*	MERCY LAB CODE	ANGV

Patient preparation: Patient must be fasting.
Specimen: 0.5 ml serum from a Serum Separator Tube (SST) or no additive serum tube.
Cause for rejection: Hemolyzed specimens are unacceptable.
The use of ACE-inhibiting antihypertensive drugs will cause decreased values.
Processing: Send **refrigerated** to Mayo.
Mayo test code (**ACE**).
Performed: 1-3 days. Test set up Monday through Saturday.
Reference Value: Included with report
Method: Spectrophotometry
CPT Code: 82164

TEST NAME	ANION GAP
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Specimen: 0.5 ml serum

Stability: Specimens may be stored for up to 7 days at 2-8°C or stored frozen for up to 30 days at -20°C.

Comment: Anion gap is a calculation and is not orderable by itself. Included in METB, CMPL, LYTE, GHP, RPNL, NUTP, TPNL

Performed: Within 8 hours of receipt. Available stat.

Reference value: 6 - 16 mmol/L

Method
Description: Calculation

CPT Code: N/A

TESTNAME	ANTIBODY IDENTIFICATION
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Comment: To be ordered by Lab only.

Regional Lab Clients: Order Antibody Screen. An antibody identification will be ordered and charged only if screen is positive. Please see Special Helps Section for further information.

Specimen: Two (2) 6 ml pink top tubes. Refrigerate.
May also be done on an eluate from the patient's red cells or from cord blood red cells.

Cause for
rejection: Serum

Performed: Within 24 hours of receipt.

Method: Serological

CPT Code: 86870

POWERCHART NAME	ANTIBODY SCREEN		
MERCY TEST NAME	ANTIBODY SC	MERCY LAB CODE	ABSN

Specimen: One 6ml pink top tube. Refrigerate.
Included in: Crossmatch, RHIG Evaluation, Type & Screen, or may be ordered separately.
Cause for rejection: Serum
Comment:

- o If RHIG is to be given, RHIG Lot # must be ordered also.
- o If antibody screen is positive, Lab will order and charge for an Antibody Identification.

Performed: Within 24 hours of receipt. Available stat.
Reference value: Negative
Method: Serological
CPT Code: 86850

POWERCHART NAME	ANTIBODY TITRATION		
MERCY TEST NAME	ANTIBODY TITER	MERCY LAB CODE	ABTT

Specimen: 1-6 ml pink top tube. All tubes must be labeled with the patient's name, date, and medical record number. Refrigerate.
Cause for rejection: SST tube is unacceptable.

- Comment:
- Blood Bank will order and charge for an Antibody Screen, and if positive, order and charge for an Antibody Identification if one has not been done within the previous 72 hours.
 - Titer will be performed by LifeServe Blood Center if Titer is indicated.

Mercy Medical Center-North Iowa Blood Bank Staff will order and perform an antibody screen using both solid phase and LIS method. If solid phase antibody screen is positive, antibody ID will be performed at MMC-NI. After the initial testing is performed at MMC-NI, the specimen will be forwarded to LifeServe Blood Center if titer is indicated.

Performed: Monday--Friday 1300 cutoff
 Method: Serological
 CPT Code: 886850/86870/86886(x2)

POWERCHART NAME	ANTI ENA ANTIBODY		
MERCY TEST NAME	AB EXTRCT NUCLR AG*	MERCY LAB CODE	ENAE

Specimen: 0.5 ml serum from a no additive serum tube or a Serum Separator Tube (SST) is acceptable.
 Processing: Send refrigerated to Mayo. Frozen is acceptable. Mayo order code (**ENAE**).
 Performed: 1-2 days. Monday through Saturday; 4 P.M.
 Reference Value: Included in report
 Method: Multiplex Flow Immunoassay
 CPT Code: 86235 x6

TEST NAME	ANTIMULLERIAN HORMONE		
MERCY TEST NAME	ANTIMULLERIAN HORM*	MERCY LAB CODE	AMH

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 multivitamins

Specimen: 1.0 ml serum from a Serum Separator Tube (SST) or no additive serum tube

Processing: Send refrigerated to Mayo. Ambient and Frozen are also acceptable.
Mayo order code (**AMH1**).

Performed: Report available in 1-3 days.

Reference value: Included in report.

Method: Electro chemiluminescent Immunoassay (ECLIA)

CPT Code: 82166

TEST NAME	ANTINUCLEAR ANTIBODY SCREEN		
MERCY TEST NAME	ANTINUCLEAR AB*	MERCY LAB CODE	ANA2S

Specimen: 1.0 ml serum from a Serum Separator Tube (SST) or no additive serum tube

Processing: Send refrigerated to Mayo. Ambient and Frozen are also acceptable.
Mayo order code (**ANA2**).

Performed: 1 day. Testing performed Monday through Saturday.

Reference value: Included in report.

Method: Enzyme-Linked Immunosorbent Assay (ELISA)

CPT Code: 86038

TEST NAME	ANTINUCLEAR AB HEP-2 SUBSTRATE		
MERCY TEST NAME	ANA HEP2 SUBSTRATE* (ANA titer)	MERCY LAB CODE	ANAH2

Specimen: 0.5 ml serum from a Serum Separator Tube (SST) or no additive serum tube
Processing: Send refrigerated to Mayo. Frozen is also acceptable.
Mayo order code (**NAIFA**).
Performed: 1 day. Testing performed Monday through Saturday
Reference value: Included with results
Method: Indirect Immunofluorescence
CPT Code: 86039

TEST NAME	ANTIGEN TYPING		
MERCY TEST NAME	MISC IMMUNOHEM	MERCY LAB CODE	MISI

Specimen: One 6 ml pink top tube or a purple top tube. Red Cells are needed for testing.
Comment:

- Order Miscellaneous Immunohematology. Enter specific antigen to be tested in comment.
- **Reference Lab Clients:** Mark OTHER on requisition form. Write antigen typing and the specific antigen(s) to be tested.

Processing: Centrifuge. Refrigerate specimen.
Performed: Within 8 hours of receipt.
Method: Serological

CPT Code: 86905

POWERCHART NAME	ANTI SMITH ANTIBODY		
MERCY TEST NAME	SM AB IGG*	MERCY LAB CODE	SMB

Specimen: 0.5 mL serum from a Serum Separator Tube (SST) or no additive serum tube.
Processing: Send refrigerated to Mayo. Mayo order code **(SM)**
Performed: 1-2 days. Monday through Saturday; 4 p.m.
Reference value: Included in report.
Method: Multiplex Flow Immunoassay
CPT Code: 86235

POWERCHART NAME	SMOOTH MUSCLE ANTIBODIES		
MERCY TEST NAME	ANTI SMOOTH MUS AB*	MERCY LAB CODE	SMAB

Specimen: 0.8 ml serum from a Serum Separator Tube (SST) or no additive serum tube
Processing: Send refrigerated to Mayo. Ambient and frozen also acceptable. Mayo order code **(SMAS)**.
Performed: 2 days. Test set up Monday through Saturday.
Reference value: Included in report.
Method: Indirect Immunofluorescence
CPT Code: 86015 Screen
86015 If Appropriate

POWERCHART NAME	ANTITHROMBIN III ACTIVITY		
MERCY TEST NAME	ANTITHROMBIN ACTIV*	MERCY LAB CODE	ATTFB

Specimen: 1.0 mL platelet-poor plasma light-blue citrate tube

Processing: Spin down, remove plasma, and spin plasma again and place 1.0 mL platelet poor plasma in plastic aliquot vial. Freeze immediately.

Double-centrifuged specimen is critical for accurate results as platelet contamination may cause spurious results. Coagulation Consultation Patient Information Sheet must be sent with specimen. Send frozen. Mayo order code (**ATTF**).

Performed: 1-3 days. Monday through Friday

Reference Value: Included in Report

Method: Chromogenic Assay

CPT Code: 85300

POWERCHART NAME	ANTITHROMBIN III ANTIGEN		
MERCY TEST NAME	ANTITHROMBIN AG*	MERCY LAB CODE	ATTI

Specimen: Draw a blue top tube (sodium citrate) filled appropriately with amount of blood listed on label. Draw enough citrated whole blood to spin down and aliquot 1.0 mL platelet poor plasma.

Note: Patient should not be receiving Coumadin or heparin.
Test should not be ordered with a Thrombophilia Profile (AATHR) because of duplication of testing.
Refer to Mayo lab test index for special processing instructions.

Processing Instructions: Spin down, remove plasma, and spin plasma again. Remove plasma and place 1.0 mL platelet poor plasma in plastic aliquot vial. Freeze specimens immediately at ≤ -40 degrees C, if possible. Label specimens as plasma.

Double-centrifuged specimen is critical for accurate results. Coagulation Consultation Patient Information Sheet must be sent with specimen.

Shipping Instructions: Send plasma frozen. Mayo order code (**ATTI**).

Performed: 4 days. Monday through Friday.

Reference value: Included in report.

Method: Automated Latex Immunoassay (LIA)

CPT Code: 85301

TEST NAME	ASCITES FLUID CYTOLOGY	See: Cytology Section Peritoneal Fluid
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POWERCHART NAME	ASO (Antistreptolysin O Quantitative)		
MERCY TEST NAME	ASO	MERCY LAB CODE	ASO

Specimen: 0.5 ml serum

Stability: Specimens are stable when separated for up to 2 days at 2–8°C or stored frozen for up to 6 months at -20°C or colder.

Performed: Within 8 hours of receipt.

Reference Range: 0-250 IU/ML

Method Description: The Atellica CH ASO_2 assay measures ASO antibodies in serum or plasma by a latex-enhanced immunoturbidimetric method.

CPT Code: 86060

POWERCHART NAME	ASPERGILLUS ANTIGEN EIA		
MERCY TEST NAME	ASPERGILLUS AG*	MERCY LAB CODE	ASPAG

Specimen: 1.5 ml serum in am Serum Separator Tube (SST) ****DO NOT ALIQUOT****

Processing: **DO NOT ALIQUOT** Send serum in original tube, send refrigerated to Mayo. Mayo test order code: ASPAG

Performed: 1-3 days. Monday through Friday 9-4, Sunday 8

Reference Value: Included in Report

Method: Enzyme Immunoassay (EIA)

CPT Code: 87305

POWERCHART NAME	AST/SGOT		
MERCY TEST NAME	AST	MERCY LAB CODE	AST

Specimen: 0.5 ml serum

Stability: Separated specimens may be stored for up to 3 days at 20–25°C or for up to 7 days at 2–8°C or stored frozen for up to 30 days at -20°C or colder.

Comment: Hemolyzed serum is unacceptable.

Performed: Within 8 hours of receipt. Available stat.

Reference Range: <34 units/L

Method Description: The concentration of reduced nicotinamide adenine dinucleotide (NADH) is measured, and the rate of absorbance decrease is proportional to the AST activity.

CPT Code: 84450

POWERCHART NAME	AUTOIMMUNE LIVER DISEASE PANEL		
MERCY TEST NAME	AUTO IMM LIVER PNL*	MERCY LAB CODE	ALDP

Specimen: 1.5 mL serum from a Serum Separator Tube (SST) or no additive serum tube.

Comment: Duplicate testing if ordered with MTAB (Mayo **AMA**) or SMAB (Mayo **SMAS**)

Processing: Send refrigerated to Mayo. Mayo order code (**ALDG2**).

Performed: 3-4 days, Monday through Saturday.

Reference value: Included in report.

Method: AMA: Enzyme Immunoassay (EIA) NAIFA, SMAS, SMAT: Indirect Immunofluorescence

CPT Code: 86381
86039

86015

86015 (if appropriate)

POWERCHART NAME	CULTURE IDENTIFICATION BACTERIAL		
MERCY TEST NAME	BACTERIAL ID RL	MERCY LAB CODE	MCID

Specimen: **Submit each organism to be identified on a separate plate.** Colonies should be well isolated.

Comment:

- 1 organism should be submitted PER request.
- Write MCID on the order form. Indicate the specimen source.
- A Reference Bacterial Examination form should be submitted with each order. Send this form with the order form.
- On the Reference Bacterial Examination form, indicate if susceptibility testing is needed. Susceptibilities will be performed at an additional charge.
- A copy of the Reference Bacteria Form is also located in the "Forms" section.

Processing: Seal the culture plate and send at room temperature to Mercy lab.

Method: Standard culture techniques

CPT Code: 87077

MERCY TEST NAME	BARBITURATES UR* CONFIRMATION	MERCY LAB CODE	UBARBT
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Specimen: 20 ml random urine specimen in 60 mL urine bottle, no preservative

Processing: Send to Mayo Refrigerated, Mayo order code (BARBU).

Performed: Monday - Thursday, Sunday

Reference value: Included with test results.

Method: Gas Chromatography - Mass Spectrometry (GC - MS) Confirmation and Quantification

CPT Code: 80345 / G0480 (if appropriate)

TEST NAME	BARR BODY SMEAR	See: Cytology Section Barr Body Smear
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POWERCHART NAME	BARTONELLA ANTIBODY PANEL IGG IGM		
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TEST NAME	BARTONELLA AB PNL*	MERCY LAB CODE	BARTO
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Specimen: 0.5 mL serum from a Serum Separator tube (SST) or no additive serum tube

Stability: 30 days refrigerated (preferred), 30 days frozen.

Performed: 1-3 days, Monday through Saturday; 9 a.m.

Reference value: Included with test results.

Method: Immunofluorescence Assay (IFA) technique using antigen substrate slides consisting of 2 separates cell cultures infected with Bartonella henselae or Bartonella Quintana.

CPT Code: 86611 x 4

POWERCHART NAME	(BMP) BASIC METABOLIC PANEL		
TEST NAME	BASIC METABOLIC PNL	MERCY LAB CODE	METB

Specimen: 0.5 mL serum

Stability: Specimen may be stored for up to 7 days at 2-8 °C or frozen for up to 30 days at -20°C.

Comment: Includes Anion Gap, BUN, BUN/Creatinine Ratio, Calcium, Chloride, CO2, Creatinine, eGFR, Potassium, Sodium, Glucose

Performed: Within 8 hours of receipt. Available stat.

Reference value: See individual test entry.

Method: See individual test entry.

CPT Code: 80048

POWERCHART NAME	BCR ABL QUANT PCR		
MERCY TEST NAME	BCRAB MRNA DETECT (BCR ABL P210 MRNA DETECTION)	MERCY LAB CODE	BCRAB

Submit only 1 of the following:

- Specimen:
- 10 mL whole blood from lavender top tube (EDTA)
 - 3 mL bone marrow from lavender top tube (EDTA)
- Process: Send to Mayo lab refrigerated. Specify on requisition specimen type. Order Mayo test (BCRAB).
Specimen must arrive at Mayo within 72 hours of collection.
- Performed: 3-6 days. Test set up Monday through Friday.
- Reference value: Included in report.
- Method: Quantitative Reverse Transcription-Polymerase Chain Reaction (RT-PCR) using GeneXpert
- CPT Code: 81206

POWERCHART NAME	BETA 2 GLYCOPROTEIN I IGA ANTIBODY		
MERCY TEST NAME	BETA 2 GP1 AB IGA*	MERCY LAB CODE	AB2GP

- Specimen: 0.5 ml serum from a Serum Separator tube (SST) or no additive serum tube.
- Processing: Send refrigerated to Mayo, Frozen is acceptable. Mayo order (**AB2GP**).
- Performed: 3 - 5 days, Monday, Wednesday, Friday
- Reference value: Included in report.
- Method: Enzyme-Linked immunosorbent Assay (ELISA)
- CPT Code: 86146

POWERCHART NAME	BETA 2 GLYCOPROTEIN I IGG ANTIBODY		
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MERCY TEST NAME	BETA 2 GLYCOPRT AB*	MERCY LAB CODE	GB2GP
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Specimen: 0.5 ml serum from a Serum Separator tube (SST) or no additive serum tube.
 Processing: Send refrigerated to Mayo, Frozen is acceptable. Mayo order (**GB2GP**).
 Performed: Monday through Saturday; 8 a. m.
 Reference value: Included in report.
 Method: Enzyme-Linked immunosorbent Assay (ELISA)
 CPT Code: 86146

POWERCHART NAME	BETA 2 GLYCOPROTEIN I IGG IGM		
MERCY TEST NAME	BETA2 GPI IGG IGM*	MERCY LAB CODE	B2GMG

Specimen: 0.5 ml serum from a Serum Separator tube (SST) or no additive serum tube.
 Processing: Send refrigerated to Mayo, Frozen is acceptable. Mayo order code (**B2GMG**).
 Performed: 1-6 days. Monday through Saturday; 8 a. m.
 Reference value: Included in report.
 Method: Enzyme-Linked immunosorbent Assay (ELISA)
 CPT Code: 86146 x2

POWERCHART NAME	BETA-2 MICROGLOBULIN		
MERCY TEST NAME	BETA 2 MICROGLBN*	MERCY LAB CODE	B2MG

Specimen: 1.0 ml serum from a Serum Separator tube (SST) or no additive serum tube.

Processing: Send refrigerated to Mayo, ambient or frozen. Mayo order code (**B2M**).
 Performed: Monday - Saturday, 3 PM
 Reference value: Included in report.
 Method: Nephelometry
 CPT Code: 82232

POWERCHART NAME	BETA-2 TRANSFERRIN: Detection of Spinal Fluid in Other Body Fluid		
MERCY TEST NAME	General Miscellaneous	MERCY LAB CODE	CMIS

Order General Miscellaneous Lab, specify in comment: Mayo order code (**BETA2**) Beta-2 Transferrin, and source of specimen.

0.5 ml body fluid such as ear or nasal fluid, or other fluid. Indicate specimen type.

Specimen:

NOTE: Although results may be obtainable on smaller specimens (perhaps as little as 0.05ml, depending on the protein concentrations and percentage of spinal fluid in the specimen), Reliable results are best obtained with an adequate specimen volume.

Processing: Send frozen to Mayo. Mayo test code (**BETA2**).
 Performed: Monday - Saturday, 1 PM
 Method: Electrophoresis/Immunofixation-Peroxidase Antisera/Dimethylformamide visualization
 CPT Code: 86335

POWERCHART NAME	Beta Hydroxybutyrate Level		
MERCY TEST NAME	Beta Hydroxybutyrate Level	MERCY LAB CODE	BHOB

Alias ACETONE (KETONES) QUALITATIVE SERUM

Specimen: 0.5 mL serum

Stability: 7 days refrigerated

Performed: Within 8 hours of receipt. Available stat.

Reference value: 0.020-0.270 pg/mL

Method: Enzymatic quantitation of B-hydroxybutyrate by B-hydroxybutyrate dehydrogenase

CPT Code: 82010

POWERCHART NAME	BILE ACIDS TOTAL		
MERCY TEST NAME	BILE ACIDS TOTAL*	MERCY LAB CODE	BILEA

Specimen: 0.5 mL serum from a Serum Separator tube (SST) or no additive serum tube

***Patient must be fasting 8 hours minimum. Do not order on patients receiving bile acid therapy.**

Processing: Serum gel tubes should be centrifuged within 2 hours of collection. Red top tubes should be centrifuged and aliquoted within 2 hours of collection. Send to Mayo refrigerated. Frozen is acceptable. Mayo code (**BILEA**)

Performed: 1-2 days. Monday through Sunday; continuously

Reference value: Included in reports.

Method: Enzymatic

CPT Code: 82239

POWERCHART NAME	BILI DIRECT		
MERCY TEST NAME	BILI DIRECT	MERCY LAB CODE	BID

Specimen: 0.5 mL serum

Stability: Specimen should be stored at 4°C and analyzed within 5 days. Specimens may be stored frozen for up to 3 months at -70°C with no light exposure.

Comment: Bilirubin is extremely photosensitive. Care should be taken to protect sample from both daylight and fluorescent light to avoid photodegradation.

Performed: Within 8 hours of receipt. Available stat.

Reference value: 0-14 days: 0.0-0.6 mg/dl
 15 days-<1 month: 0.0-0.3 mg/dl
 ≥1 month: 0.0-0.5 mg/dl

Method: The Atellica CH Direct Bilirubin_2 (DBIL_2) assay is based on a chemical oxidation method using vanadate as an oxidizing agent.

CPT Code: 82248 Bili, Direct

POWERCHART NAME	BILIRUBIN TOTAL AND DIRECT		
MERCY TEST NAME	BILI PNL	MERCY LAB CODE	BILI

Specimen: 0.5 mL serum

Stability: Specimen should be stored at 4°C and analyzed within 5 days. Specimens may be stored frozen for up to 3 months at -70°C with no light exposure.

Comment: Bilirubin is extremely photosensitive. Care should be taken to protect sample from both daylight and fluorescent light to avoid photodegradation. Panel includes total bilirubin, direct bilirubin, and indirect bilirubin.

Performed: Within 8 hours of receipt. Available stat.

Reference value: **Total:** 0-1 days: 2.0-6.0 mg/dl

2-5 days: 6.0-10.0 mg/dl

6 days- <1 month: 4.0-8.0 mg/dl

≥1 month: 0.3-1.2 mg/dl

Direct: 0-14 days: 0.0-0.6 mg/dl

15 days- <1 month: 0.0-0.3 mg/dl

≥1 month: 0.0-0.5 mg/dl

Indirect: 0-1 day: 1.4-6.0 mg/dl

2-5 days: 5.4-10.0 mg/dl

6-14 days: 3.4-8.0 mg/dl

15-30 days: 3.7-8.0 mg/dl

>30 days: 0.0-1.2 mg/dl

Method: The Atellica CH Bilirubin assay is based on a chemical oxidation method using vanadate as an oxidizing agent.

CPT Code: 82247 Bili, Total

82248 Bili, Direct

POWERCHART NAME	BILIRUBIN TOTAL		
MERCY TEST NAME	BILI TOTAL	MERCY LAB CODE	BIT

Specimen: 0.5 mL serum

Stability: Specimen should be stored at 4°C and analyzed within 5 days. Specimens may be stored frozen for up to 3 months at -70°C with no light exposure.

Comment: Bilirubin is extremely photosensitive. Care should be taken to protect sample from both daylight and fluorescent light to avoid photodegradation. Panel includes total bilirubin, direct bilirubin, and indirect bilirubin.

Performed: Within 8 hours of receipt. Available stat.

Reference value: 0-1 days: 2.0-6.0 mg/dl

2-5 days: 6.0-10.0 mg/dl

6 days- <1 month: 4.0-8.0 mg/dl

≥1 month: 0.3-1.2 mg/dl

Method: The Atellica CH Total Bilirubin_2 (TBil_2) assay is based on a chemical oxidation method using vanadate as an oxidizing agent.

CPT Code: 82247

POWERCHART NAME	BK VIRUS QUANTITATIVE PCR		
MERCY TEST NAME	BK VIRUS PCR QUANT	MERCY LAB CODE	QBK

Specimen: 1.5 mL plasma from EDTA tube. Centrifuge within 2 hours of collection and removed plasma.

Stability: 84 days frozen (preferred), 6 days refrigerated

Processing: Send frozen to Mayo. Mayo order code (**PBKQN**).
If a Tacrolimus is ordered at same time a separate tube is required.

Performed: 2 days. Monday through Saturday

Reference value: Included in reports.

Method: Real-Time Polymerase Chain Reaction (rtPCR)

CPT Code: 87799

POWERCHART NAME	BLASTOMYCES AB (ID)		
MERCY TEST NAME	BLASTOMYCES Ab*	MERCY LAB CODE	BLAST

Specimen: 1 mL serum from a Serum Separator Tube (SST) (Preferred). Serum from a no additive serum tube is also acceptable. Centrifuge within 2 hours of collection. For red-top tubes, immediately aliquot serum into a plastic vial. For serum gel tubes, aliquot serum into a plastic vial within 24 hours of collection.

Processing: Send refrigerated to Mayo. Frozen is also acceptable. Mayo order code (**BLAST**).

Performed: 1-3 days. Monday through Friday.

Reference value: Reference ranges included with report.

If result is equivocal or positive, Blastomyces antibody by immunodiffusion will be performed at an additional charge.

Method: Enzyme Immunoassay (EIA)

CPT Code: 86612

POWERCHART NAME	BLEEDING DIATHESIS LIMITED PROFIL
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MERCY TEST NAME	BLEEDING DIATH PRF*	MERCY LAB CODE	BDIAL
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5 ml platelet-poor plasma (from light-blue top, citrate tube).

Specimen: **Patient should not be receiving Coumadin or heparin.**

Refer to Mayo lab test index for special processing instructions.

Processing: Draw enough citrated whole blood to spin down and aliquot 5.0 mL platelet poor plasma in 5 plastic aliquot vials. Spin down, remove plasma, and spin plasma again. Remove plasma and place in plastic aliquot vials. Freeze immediately at < or = -40 degrees C, if possible. Label specimens as plasma.

Double-centrifuged specimen is critical for accurate results. Coagulation Consultation Patient Information Sheet must be sent with specimen.

Shipping Instructions: Send plasma frozen. Mayo code (**ALBLD**).

Performed: 7-21 days. Test run Monday - Friday.

Reference value: Included with test results.

Method: Clot-Based Assay, Prothrombin Time Clot-Based Assay, Activated Partial Thromboplastin Time-Based Clotting Assay, Activated Partial Thromboplastin Time (APTT) Mixing Test, Ristocetin Induced Agglutination of Washed Normal Platelets, Automated Latex

Immunoassay, Immunoturbidimetric, Clauss Methodology, Latex Particle Enhanced Immunoassay

CPT codes for Bleeding Diathesis Limited Profile:

Coagulation factor VIII assay – 85240, von Willebrand factor antigen – 85246
Factor IX – 85250, Clot solubility factor XIII – 85291
D-dimer – 85379, Fibrinogen – 85384
von Willebrand factor activity – 85397, PT – 85610
Thrombin Time – 85670, APTT - 85730

If indicated, the following reflex tests will be ordered by Mayo at an additional cost:

CPT Code:

Factor II - 85210
Factor V - 85220
Factor VII - 85230
Ristocetin cofactor - 85245
Von Willebrand factor multimer - 85247
Factor X - 85260
Factor XI - 85270
Factor XII – 85280, Plasminogen Activity - 85420
Bethesda units – 85335, PAI-1 Ag - 85415
Platelet neutralization for lupus inhibitor – 85597, Chromogenic FVIII,P-85130
Reptilase time – 85635, Chromogenic IX,P - 85130
APTT mix 1:1 – 85732, Antithrombin Antigen -85301
Factor V Inhibitor screen – 85335, Antithrombin Activity - 85300
Factor VIII Inhibitor screen – 85335, PT-Fibrinogen - 85385
Factor IX Inhibitor screen – 85335, Soluble Fibrin Monomer - 85366

Alpha-2 Plasmin Inhibitor - 85410, HEX LA,P - 85598
 PTT mix 1:1 – 85611, DRVVT - 85613
 DRVVT mix – 85613, DRVVT - 85613

POWERCHART NAME	BLOOD CULTURE		
MERCY TEST NAME	BLOOD CLT	MERCY LAB CODE	BLC

Order: If yeast or fungus is suspected, see Blood Culture/Fungus. If Mycobacteremia (AFB/TB) is suspected, see Blood Culture/Acid Fast Organisms.

Specimen: Specimens must be collected using sterile techniques.

- Cleanse site with Chlorhexidine Chloroprep device, according to procedure.
- Remove & discard the plastic cover(s) from the culture bottle.
- Disinfect the rubber septum of each bottle with a 70% alcohol pad.
- Do not touch venipuncture site, after it has been cleansed. Draw the blood according to the lab's protocol.
- **For syringe draws only:** Place a new transfer safety device on the syringe. Put blood into blood culture bottles, using the following procedure:

Pediatric (<13yrs): Inject 1-4 ml whole blood into the BacTec FX Pediatric blood culture vial (pink lid) Avoid injecting air into the bottle. Invert to mix. **Patients > 13 yrs old:** Draw 20 ml blood. Inject 10 ml blood into the aerobic bottle (blue lid) and 10 ml of whole blood into the anaerobic bottle (purple) Avoid injecting air into the bottles. Invert to mix.

- Comments:
- **A minimum of two sets of blood cultures within a 24-hour period is recommended.**
 - Culture is tested daily by continuous monitoring technology.
 - Culture detects both aerobic and anaerobic bacteria.
 - The aerobic and pediatric bottles contain resin beads which will aid in the recovery of organisms if antimicrobial therapy was initiated before the culture was obtained.
 - ALL POSITIVE BLOOD CULTURE RESULTS WILL BE PHONED TO THE PHYSICIAN, NURSING PERSONNEL OR ORDERING LOCATION RESPONSIBLE FOR THE PATIENT.
 - **Susceptibility testing** will routinely be performed on ALL aerobic isolates. (**EXCEPT** diphtheroids, Bacillus species, Viridians Streptococcus and Micrococcus species).
- RL Client
Comments:
- Mark BLOOD CULTURE on the order form. Indicate the specific draw site on the form (Line draw, Rt arm, etc.).
 - Blood cultures drawn using Mercy lab's bottles (Bactec FX) should be left at room temperature until the Mercy courier picks up the samples. **DO NOT PLACE THE BOTTLES IN ANY INCUBATOR AT YOUR LAB.**
 - Send the blood culture bottles at room temperature to Mercy lab, the same day they are drawn (preferred). If there is a delay in sending the blood culture bottles, the delay should not exceed 36 hours.

Performed: Preliminary report: Daily Final report: 5 days

Reference value: No growth

Method: Automated Continuous Monitoring Technology

CPT Code: 87040

MERCY TEST NAME	BLOOD CULTURE ID	MERCY LAB CODE	BLCID
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Specimen: The specimen submitted should be the positive blood culture bottle.

- o This order is to be user ONLY by Reference Lab clients that have a positive blood culture, at their facility, which requires further workup at Mercy Lab.
- o Do not submit any media plates if this order is used. The actual blood culture bottle should be submitted.

Comment:

- o Fax the white Reference Lab Examination_sheet that indicates specifics about the specimen. The Mercy Microbiology fax number is found at the top of the form.
- o Please place the Blood Culture ID labels on the neck of the bottle to alert Mercy staff of the ID only.

Performed: Daily.

Method: Routine culture method.

CPT Code: 87040

TEST NAME	BLOOD CULTURE/ACID FAST ORGANISMS*		
MERCY TEST NAME	MISC MICROBIOLOGY	MERCY LAB CODE	MISM

Order: Order Miscellaneous microbiology. Specify Mayo code: CTBBL MYCOBACTERIAL CULTURE, BLOOD in comment

Specimen: Draw 10 ml heparinized (green top tubes) whole blood using aseptic technique. Invert tubes to mix.

Processing: Specimens need to be processed immediately upon being drawn. **SPECIMENS MUST ARRIVE AT MAYO LAB WITHIN 72 HOURS OF BEING DRAWN**

RL Client ○ Write MYCOBACTERIAL CULTURE, BLOOD (Mayo order code **CTBBL**) on order form.

Comments: ○ Send the specimen to **Mayo Lab within 72 hours of drawing** the specimen.

 ○ Send the heparinized green top vacutainer tubes to Mercy lab at room temperature or refrigerated.

Performed: Monday through Sunday; Continuously

Reference value: Included in report.

Method: Continuously Monitored Automated Broth Culture Instrument with Conventional Methods for Identification of Mycobacteria

CPT Code: 87116 (Additional CPT codes may be added if the culture is positive).

POWERCHART NAME	BLOOD CULTURE FUNGUS		
MERCY TEST NAME	BLOOD CLT/FUNGUS	MERCY LAB CODE	BLF

Comment: See beginning of section for ordering help and codes.

Specimen: Patients 6 yrs of age and older: 10 ml whole blood drawn into Isolator 10 tube. Short samples decrease the already low number of organisms.

Patients 5 years of age and under: 1.5 ml whole blood drawn into pediatric Isolator tube.

Specimens are to be collected using the following instructions:

- Disinfect the stopper of Isolator tube with alcohol.
- Cleanse and disinfect the venipuncture site and maintain aseptic technique.
- Collect blood sample with the patient's arm in a downward position. (1.5 ml for patient 5 yrs and under) (10 ml for patients over 5 years.)
- Gently invert the tube 8 to 10 times immediately after collection. Incomplete mixing causes small clots to form. Clotted samples are unacceptable and must be redrawn.
- Transport promptly to the lab.
- 1.5 ml Isolator tubes need to be processed on the same shift the sample was drawn. 10 ml Isolator tubes need to be processed within 16 hours of being drawn.
- Write in Blood Culture/Fungus on RL order form. Indicate source on order form.
- Send specimen the same day it is drawn. Send specimen at room temperature: Samples drawn in the 1.5 Isolator tube need to be processed immediately. Samples drawn in the 10 ml Isolator tube need to be processed within 16 hours of the sample being drawn

RL Client
Comments:

Performed: Preliminary report: 5 days Final report: 4 weeks

Reference value: No fungus isolated. Positives will have fungus identified.

Method Lysis centrifugation and standard culture techniques.

CPT Code: 87103

TEST NAME	BLOOD GAS ANALYSIS	Arterial Blood Gases are collected and performed by Cardio-Vascular & Pulmonary. Capillary Blood
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Gases see: COLLECTION CAPILLARY CHARGE BLOOD GASES

Venous Blood Gases:

Powerchart user selects **Blood Gas Venous Order Set (MC)** from the Powerchart order dictionary. "Venous Blood" is defaulted in for the user as the "additional instructions/comments."

The Powerchart paper order sheet prints to the printer in Cardiovascular Pulmonary (CVP). The Venous Blood comment is visible for them.

Draw in green Heparin no gel tube, 4.0 mL.

The order CVBG-collect venous blood gas, appears on the collection handheld device. This will be the notification to the lab that a venous blood gas has been ordered and needs to be collected. Lab will go to the patient and if CVP is not there will call switchboard to reach CVP. Lab will enter as the result to CVBG who they handed the specimen off to in CVP.

Outpatient Draw Station- Order CVBG for venous blood gas collections. Label will print at designated printer for ordering location. Call switchboard to reach CVP and make arrangements to hand specimen off to CVP for testing. Result the CVBG test via function ME and

		worksheet BEDS with the name of the CV&P tech spoken to, the date and time the specimen was tubed, and where the specimen was tubed.
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POWERCHART NAME	BLOOD PARASITES (MALARIA SMEAR)		
MERCY TEST NAME	BLOOD PARASITES (MALARIA SMEAR)	MERCY LAB CODE	MAL

Specimen: Non-anticoagulated venous blood or peripheral blood from finger or earlobe preferred. Prepare 3 thick and 3 thin smears on separate slides. EDTA blood can be used and should also be sent with the slides.

Prepare slides as follows:

THIN SMEARS: Prepare at least 3 thin blood smears with a feathered edge in the same manner as for a differential and then fixed in alcohol.

THICK SMEARS: Place a drop of blood on a slide. Using the corner of a clean slide spread the blood in a circle about 20 times until the size of a quarter by literally scratching the blood onto the carries slide. Prepare at least 2 slides. This technique allows the blood to dry quickly and adhere well to the slide. If proper thickness is achieved, ordinary print should barely be visible through the wet center.

Allow both thick and thin films to air dry without heating. The thick smear must dry 8-10 hours before staining.

Comment: Collection available stat. Collection time is determined by the fever pattern. Consult the Microbiology Department. If the smear is considered positive, it will be referred to Mayo for identification and will incur extra charges.

Performed: Within 24-72 hours of receipt.

Reference value: No malaria or blood parasites seen.

Method: Microscopy, Giemsa/Wright-stained smears.

CPT Code: 87207

POWERCHART NAME	BLOOD PATCH COLLECTION		
MERCY TEST NAME	BLOOD PATCH COLL	MERCY LAB CODE	PTCH

Specimen: Specimen is collected for use in conjunction with anesthesia procedure.

PROCEDURE (FOUND IN PHLEBOTOMY PROCEDURE MANUAL, #29)

The floors will call the lab and ask that a phlebotomist come to the patient's room to assist the Anesthesiologist in the blood drawing for the epidural blood patch.

- Comment:
- The floor will place an order on the Powerchart system the test name is Blood Patch Collection.
 - This is a "sterile procedure". Anesthesia staff will explain the procedure to the patient while the Phlebotomist is putting on the gown, gloves, and mask.
 - With the patient lying on their side, the Phlebotomist will stand in front of the patient. The patient's arm is to be extended toward you.

- As the doctor is preparing the site on the patients back, the Phlebotomist will prepare the arm site to perform the venipuncture, using chloraprep to cleanse, allow to air dry. The doctor provides a sterile 20cc syringe. The Phlebotomist will provide a 20g sterile needle or a 21g sterile butterfly.
- When the doctor is in the epidural cavity of the spine, they will say, "Okay, draw". The Phlebotomist will quickly draw 20 cc of blood from the vein, keeping a sterile field, and hand the syringe to the doctor.
- The doctor will inject the blood into the spinal cavity of the patient.
- Place a gauze and paper tape over the venipuncture site and return to the lab.
- Use function CLVS to verify the collect time in Sunquest. For the phlebotomy workload code, use PA, comma then enter the length of time the procedure took. DO NOT add a collect charge.
- In function ME, use worksheet PHL, type in PATC and accept.

Performed: Available stat
 Method: Venipuncture
 CPT Code: G0001

POWERCHART NAME	BNP (B-TYPE NATRIUREIC PEPTIDE)		
MERCY TEST NAME	BNP	MERCY LAB CODE	BNP

Specimen: 1 mL EDTA plasma collected in a plastic blood collection tube.

Stability: If plasma samples are not tested within 24 hours, store samples in plastic tubes and freeze at $\leq -20^{\circ}\text{C}$. Do not store in a frost-free freezer.
 Samples may undergo up to 4 freeze-thaw cycles without degradation.

Samples are stable for up to 9 months when stored at $\leq -20^{\circ}\text{C}$.
 Mix samples thoroughly after thawing and store at $2-8^{\circ}\text{C}$ until use.
 Samples should be tested within 8 hours after thawing.

Comment: After centrifugation, store separated plasma samples at $2-8^{\circ}\text{C}$ until testing.

For optimal recovery of BNP values, it is suggested that plasma samples be tested within 24 hours. The average percentage of BNP recovery in EDTA plasma after 24-hour-storage at $2-8^{\circ}\text{C}$ was 91%. It is recommended not to store EDTA-plasma at room temperature.

Performed: Within 8 hours of receipt. Available stat.

Reference Range: 0-100 pg/mL

Method Description: The Atellica IM BNP assay is a fully automated 2-site sandwich immunoassay using direct chemiluminescent technology which uses constant amounts of 2 monoclonal antibodies.

CPT Code: 83880

POWERCHART NAME	BODY FLUID FOR CRYSTALS		
MERCY TEST NAME	BODY FL CRYSTALS	MERCY LAB CODE	BCRY

Specimen: Put 1 ml body fluid in a plain red top tube. Refrigerate.

Cause for rejection: EDTA (purple top tube) is not acceptable.

Comment: Indicate specimen source in comment.
 Performed: Within 8 hours of receipt.
 Reference value: Negative
 Method: Microscopic examination using polarized filter.
 CPT Code: 89060

POWERCHART NAME	BODY FLUID CULTURE +SUSECEPTIBILITY + SMEAR DIRECT		
MERCY TEST NAME	BODY FLD CLT/GS	MERCY LAB CODE	FLDC

Order: Specify site when ordering.

Specimen: Collect aseptically by needle aspiration or surgical procedure. **Submit all specimens in a sterile syringe with the needle discarded or sterile screw top container or tube. Specimen stability: All listed specimens are stable ≤24 hours, room temperature EXCEPT Pericardial. Pericardial samples are stable ≤24 hours refrigerated.**

- Bone marrow: 1.5 ml placed in a Wampole Isolator tube (available from lab)
- CSF fluid: 1 ml minimum, placed in sterile screw capped tube. Do not refrigerate.
- Joint: 1 ml aspirate
- Pericardial: 1 ml aspirate
- Peritoneal: 1-2 ml aspirate
- Pleural: 5-10 ml aspirate
- Thoracic: 5-10 ml aspirate

Cause for rejection: **Fluid injected into a CULTURETTTE is unacceptable. A SWAB SPECIMEN IS NOT ADEQUATE.**

- Comments:
- Recovery of microorganisms from these sites is dependent on the volume of specimen received.
 - ALL POSITIVE GRAM STAINS, on the above listed sterile body sites, will be phoned to the Provider, nursing personnel or ordering location responsible for the patient.
 - Positive CSF Cultures will be phoned to the Provider, nursing personnel or ordering location responsible for the patient.
 - Susceptibility testing will be performed on significant isolates.
- RL Comments:
- Write BODY FLUID CULTURE on order form. Include source on the form. If ordering in the computer, use order code FLDC.

Gram Stain will be performed next day by 1st shift UNLESS ordered to be called STAT with a specific phone number indicated.

Performed: Gram stain: Within 8 hours of receipt, unless ordered STAT Preliminary reports: Days 1 and 2
Final report: 3 days

Reference value: No growth (applies to normally sterile sites).

Method: Standard culture techniques

CPT Code: 87205 Gram stain 87070 Body Fld Clt

POWERCHART NAME	BODY FLUID DIFF
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MERCY TEST NAME	BODY FLUID DIFF	MERCY LAB CODE	BFCC
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Comment:

- Body Fluid Differential is included in Cell Count Body Fluid.
- To be ordered by Regional Hospitals when they are doing the cell counts at their facility and want to refer the differential to Mercy.

Specimens: Send 2 cytoentrifuge prepared slides, unstained or 1.0 ml of body fluid may be sent refrigerated, and Mercy will prepare the slides.

Performed: Within 8 hours of receipt. Available stat.

Method: Microscopic exam of Wright's-stained smear.

CPT Code: NA

POWERCHART NAME	BONE MARROW COLLECTION		
MERCY TEST NAME	BONE MARROW CL AS	MERCY LAB CODE	BM

Comment: Not available stat. **Nursing service must also fill out a yellow Surgical Specimen Slip and a white bone marrow history form to include patient history and clinical diagnosis.** Available Monday through Friday, 0700-1500. If a bone marrow examination is needed outside these hours, special arrangements may be made by contacting the Laboratory. Send Lab a message of all bone marrows scheduled (include date and time). **Nursing Service is to schedule with:**

- Cancer Center for patients seen by the Cancer Center physicians.
- ER for all other patients.

Reference Lab Clients:

- Please **completely** fill out the pink Pathology Specimen Form, include patient history and clinical diagnosis.
- Send a copy of your CBC results and 2 peripheral smear slides. Order Diff Manual and a Cell Morphology. Send 2 unstained slides. Fix 1 by dipping in Methanol for 10 seconds. CBC results **must** be included. **OR** send a purple top tube. Order a CBC with Manual Diff and a Cell Morphology. Mercy Lab will do a CBC and prepare the slides.
- Send 8 unstained bone marrow slides.
- **MERCY LAB:** Do not order BM in Misys.

Specimen: Procedure will include collection of the following: 6 smears for Wright's Stain, smear for Iron Stain, CBC and Cell Morphology, 2 peripheral smears, Bone Marrow Clot and Biopsy. Lab will order the CBC if one has not been done within the previous 24 hours.

Performed: 2--4 days

Reference value: Descriptive report will be sent.

Method: Microscopic examination of Wright stained and Iron-stained smears. Clot and core biopsy also examined microscopically.

CPT Code: 85097

POWERCHART NAME	BREATH ALCOHOL		
MERCY TEST NAME	BREATH ALCOHOL TESTING	MERCY LAB CODE	BATHW

Comment: ○ Patient must have identification and should be accompanied by designated person.

- Post accident should be performed within 2 hours.

Performed: Monday - Friday 1630-0800. Performed by Healthworks from 0800-1630. Saturday and Sunday, available 24 hours.

Method: Fuel cell sensor.

TEST NAME	BRONCHIAL BRUSH/WASH CYTOLOGY	See: Cytology Section Bronchial
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POWERCHART NAME	BRONCHIAL QUALITATIVE + SMEAR DIRECT OTHER		
MERCY TEST NAME	BRONCH QAL CLT/GS	MERCY LAB CODE	BQAL

Order: Specify from which bronchus the specimen is collected when ordering.

Specimen: Minimum of 5 ml of bronchus washings collected through the inner chamber of the bronchoscope. Submit in a sterile plastic container with a tight-fitting lid.

Comments:

- Only significant respiratory isolates will be reported.
- Susceptibility testing will be performed on significant isolates.

RL Comments:

- Write QUALITATIVE BRONCHUS CULTURE on the order form. Indicate the specimen source on form.
- Send at room temperature.

Performed: Gram stain: 1st shift RL: Next day.
1st shift Preliminary report: 1 day
Final report: 2 days

Reference value: Normal flora of the upper respiratory tract.

Method: Standard culture techniques

CPT Code: 87205 Gram Stain 87070 Bronch Clt

POWERCHART NAME	BRONCHIAL QUANTITATIVE + SMEAR DIRECT OTHER		
MERCY TEST NAME	BRONCH QNT CLT/GS	MERCY LAB CODE	BQNT

Order: Specify from which bronchus the specimen is collected from.

To be ordered ONLY on Protected Brush Bronch Specimens (PSB). (Other Bronch sources should be ordered as a QUAL culture).

Specimen: 1 ml protected specimen brushings (PSB) placed in 1 ml normal saline. Submit in a sterile plastic container with a tight-fitting lid. Quantity of saline added is critical for accurate quantitation.

Comments:

- Includes quantitation in colony forming units (CFU/ml).
- Susceptibility testing will be performed on significant isolates.

RL Client Comments:

- Write QUANTITATIVE BRONCHUS CULTURE on order form. Indicate source on the form.
- To be ordered ONLY on Protected Brush Bronch Specimens
- Send specimen(s) at room temperature to Mercy lab.

Performed: Gram stain: 1st shift RL: Next day, 1st shift Preliminary report: 1-day Final report: 2 days

Reference value: No growth or Scant Normal flora of the upper respiratory tract.

Method: Standard culture techniques.

CPT Code: 87205 Gram Stain+ 87070 Bronch Clt+

TEST NAME	BUCCAL SMEAR	See: Cytology Section <u>Barr Body Smear</u>
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POWERCHART NAME	BULLOUS PEMPHIGOID AG 180 AND 230 IGG		
MERCY TEST NAME	BULLOUS PEMPH IGG*	MERCY LAB CODE	BP

Specimen: 1 ml serum from a no additive serum tube

Processing: Send to Mayo Refrigerated, Ambient and Frozen are acceptable. Mayo order code (**BPAB**).

Performed: Once or twice weekly.

Reference value: Included with test results.

Method: Enzyme-Linked Immunosorbent Assay (ELISA).

CPT Code: 83516 x 2

POWERCHART NAME	BUN		
MERCY TEST NAME	BUN	MERCY LAB CODE	BUN

Specimen: 0.5 mL of serum

Stability: Separated blood urea nitrogen is stable in separated serum or plasma and may be stored for up to 3-5 days at room temperature or for up to 7 days at 4°C or stored frozen indefinitely at -20°C.

Comment: Blood samples from some patients with monoclonal gammopathies may produce falsely elevated results.

Performed: Within 8 hours of receipt. Available stat.

Reference Range: 0-2 years: 4-15 mg/dl
 3-16 years: 9-18 mg/dl
 17-64 years: 8-22 mg/dl
 ≥ 65 years: 10-28 mg/dl

Method Description: Urea is hydrolyzed in the presence of water and urease to produce ammonia and carbon dioxide. The ammonia reacts with 2-oxoglutarate in the presence of glutamate dehydrogenase and reduced nicotinamide adenine dinucleotide (NADH). The oxidation of NADH to oxidized nicotinamide adenine dinucleotide (NAD).

CPT Code: 84520

TEST NAME	BUN/CREATININE RATIO
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Specimen: 0.5 mL of serum

Stability: Separated serum may be stored for up to 3-5 days at room temperature or for up to 7 days at 4°C or stored frozen indefinitely at -20°C.

Comment: BUN/Creatinine Ratio is a calculation and not orderable by itself. Included in the METB, CMPL, GHP, RPNL, NUTP, OPNL, DPNL, ATPN, TPNL.

Performed: Within 8 hours of receipt. Available stat.

Reference Range: 10-20

Method Calculation

Description:

CPT Code: N/A

POWERCHART NAME	BUN Post Dialysis		
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MERCY TEST NAME	BUN POST DIALYSIS	MERCY LAB CODE	BUNP
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Specimen: 0.5 mL of serum

Stability: Separated blood urea nitrogen is stable in separated serum or plasma and may be stored for up to 3-5 days at room temperature or for up to 7 days at 4°C or stored frozen indefinitely at -20°C.

Comment: To be ordered by Dialysis only.

Blood samples from some patients with monoclonal gammopathies may produce falsely elevated results.

Performed: Within 8 hours of receipt. Available stat.

Reference Range: 0-2 years: 4-15 mg/dl
3-16 years: 9-18 mg/dl
17-64 years: 8-22 mg/dl
≥ 65 years: 10-28 mg/dl

Method Description: Urea is hydrolyzed in the presence of water and urease to produce ammonia and carbon dioxide. The ammonia reacts with 2-oxoglutarate in the presence of glutamate dehydrogenase and reduced nicotinamide adenine dinucleotide (NADH). The oxidation of NADH to oxidized nicotinamide adenine dinucleotide (NAD).

CPT Code: 84520

POWERCHART NAME	BUPRENORPHINE
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MERCY TEST NAME	MISCELLANEOUS GENERAL LAB Designate: Mayo order code - BUPM	MERCY LAB CODE	CMIS
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POWERCHART NAME	C3 COMPLEMENT		
MERCY TEST NAME	C3 COMPLEMENT	MERCY LAB CODE	C3

Specimen: 0.5 mL of serum

Stability: Specimens may be stored for up to 3 days at 2-8°C or stored frozen for up to 3 weeks at -20°C.

Performed: Within 8 hours of receipt. Available Stat.

Reference Range: 87-200 mg/dL

Method Description: The Atellica CH Complement C3 (C3) assay measures the concentration of complement C3 in serum using an immunoturbidimetric assay. The complements are part of a complex biological system, which works in conjunction with antibody and other factors to protect the body from invasion of pathogens. When activated by either the classical or alternate pathway, complements act on biological membranes and may cause cell death. The human complements consist of several distinct plasma proteins, such as complement C3 and complement C4.

CPT Code: 86160

POWERCHART NAME	C4 COMPLEMENT		
MERCY TEST NAME	C4 COMPLEMENT	MERCY LAB CODE	C4

Specimen: 0.5 mL of serum

Stability: Specimens may be stored for up to 3 days at 2–8°C or stored frozen for up to 3 weeks at -20°C.

Performed: Within 8 hours of receipt. Available Stat.

Reference Range: 19-25 mg/dl

Method Description: The Atellica CH Complement C4 (C4) assay measures the concentration of complement C4 in serum using an immunoturbidimetric assay. The complements are part of a complex biological system, which works in conjunction with antibody and other factors to protect the body from invasion of pathogens. When activated by either the classical or alternate pathway, complements act on biological membranes and may cause cell death. The human complements consist of several distinct plasma proteins, such as complement C3 and complement C4.

CPT Code: 86160

POWERCHART NAME	CA 125		
MERCY TEST NAME	CA 125	MERCY LAB CODE	CA125

Specimen: 0.5 mL of serum

Stability: Tightly cap and refrigerate specimens at 2–8°C if the assay is not completed within 8 hours. Freeze samples at ≤ -20°C if the sample is not assayed within 24 hours. Thoroughly mix thawed samples before using.

Comment: Do not interpret levels of CA 125 as absolute evidence of the presence or the absence of malignant disease. Before treatment, patients with confirmed ovarian carcinoma frequently have levels of CA 125 within the range observed in healthy individuals. Elevated levels of CA 125 can be observed in patients with nonmalignant disease. Measurements of CA 125 should always be used in conjunction with other diagnostic procedures, including information from the patient's clinical evaluation.

The concentration of CA 125 in a given specimen determined with assays from different manufacturers can vary due to differences in assay methods, calibration, and reagent specificity. CA 125 determined with different manufacturers' assays will vary depending on the method of standardization and antibody specificity. Therefore, it is important to use assay specific values to evaluate quality control results.

CA 125II assay testing is not recommended as a screening procedure to diagnose cancer in the general population.

Do not use samples that contain fluorescein. Evidence suggests that patients undergoing retinal fluorescein angiography can retain amounts of fluorescein in the body for up to 72

hours post-treatment. In the cases of patients with renal insufficiency, including many diabetics, retention could be longer. Such samples can produce either falsely elevated or falsely depressed values when tested with this assay and should not be tested.

Patient samples may contain heterophilic antibodies that could react in immunoassays to give falsely elevated or depressed results. This assay is designed to minimize interference from heterophilic antibodies.

Performed: Within 8 hours of receipt. Available Stat.

Reference Range: 0-35 units/mL

Method Description: The Atellica IM CA 125II assay is a 2-site sandwich immunoassay using direct chemiluminometric technology, which uses 2 mouse monoclonal antibodies specific for CA 125. The first antibody is directed toward the M11 antigenic domain and is labeled with acridinium ester. The second antibody is directed toward the OC 125 antigenic domain and is labeled with fluorescein. The immunocomplex formed with CA 125 is captured with mouse monoclonal anti-fluorescein antibody coupled to paramagnetic particles in the Solid Phase.

CPT Code: 86304

TEST NAME	CA15-3		
MERCY TEST NAME	CA 15-3	MERCY LAB CODE	CA153B

Specimen: 0.5 ml of serum

Stability: Tightly cap and refrigerate specimens at 2–8°C if the assay is not completed within 8 hours. Freeze samples at ≤ -20°C if the sample is not assayed within 24 hours. Mix thoroughly after thawing.

Comment: Do not use samples that have been stored at room temperature for longer than 8 hours. Do not use the Atellica IM CA 15-3 assay as a screening test or for diagnosis. Normal levels of CA 15-3 do not always preclude the presence of disease.

Processing: Stable 8 hours at room temp or 48 hours refrigerated. Freeze if analysis will be delayed >48 hours.

Performed: Within 8 hours of receipt. Available Stat.

Reference Range: 0-31.3 units/mL

Method Description: The Atellica IM CA 15-3 assay is a fully automated, 2-step sandwich immunoassay using direct chemiluminescent technology.

CPT Code: 86300

TEST NAME	CA19-9		
MERCY TEST NAME	CA 19-9	MERCY LAB CODE	CA199

Specimen: 0.5 ml serum

Stability: Tightly cap and refrigerate specimens at 2°–8°C if the assay is not completed within 8 hours. Freeze samples at ≤ -20°C if the sample is not assayed within 48 hours. Freeze samples only 1 time and mix thoroughly after thawing

Comment: Do not use samples that have been stored at room temperature for longer than 8 hours. This device is not indicated for screening or the early detection of pancreatic cancer or as a diagnostic tool to confirm the presence or absence of malignant pancreatic disease. Do not predict disease recurrence solely on levels of Atellica IM CA 19-9. Normal levels of Atellica IM CA 19-9 do not always preclude the presence of disease.

Performed: Within 8 hours of receipt, 7 days a week.

Reference value: 0-35 units/mL

Method Description: The Atellica IM CA 19-9 assay is a 2-step sandwich immunoassay using direct chemiluminescent technology that uses a single monoclonal antibody, 1116-NS-19-9, for both the Solid Phase and Lite Reagent.

CPT Code: 86301

TEST NAME	CA 27.29		
MERCY TEST NAME	CA 2729*	MERCY LAB CODE	C2729

Specimen: 0.5 ml serum from a Serum Separator Tube (SST) or no additive serum tube.

Performed: 1-2 days. Test set up Monday through Friday.

Processing: Centrifuge and aliquot serum into a plastic vial within 2 hours of collection. Send refrigerated to Mayo. Mayo order code (**C2729**).

Cause for Rejection: **Specimens that have not been aliquoted will be canceled.**

Reference: Included in report.

Method: Chemiluminometric Immunoassay

CPT Code: 86300

POWERCHART NAME	CALCITONIN		
MERCY TEST NAME	CALCITONIN*	MERCY LAB CODE	CLCN

Caution: This test is not useful for evaluating calcium metabolic diseases.

Note: **Patient preparation: 12 HOURS before this blood test do not** take vitamins or dietary supplements containing biotin or vitamin B7, which are commonly found in hair, skin, and nail supplements and vitamins.

Specimen: 1.0 mL serum from a Serum Separator Tube (SST) or no additive serum tube.

Place specimen on ice immediately after collection

Performed: 3 days. Test set up Monday through Saturday.

Processing: **Refrigerate specimen during centrifugation and immediately transfer serum to plastic vial.** Send frozen to Mayo. Mayo order code (**CATN**).

Reference: Included in report.
 Method: Electrochemiluminescence Immunoassay
 CPT code: 82308

POWERCHART NAME	CALCIUM TOTAL		
MERCY TEST NAME	CALCIUM	MERCY LAB CODE	CA

Specimen: 0.5 mL of serum

Stability: Separated serum/plasma specimens may be stored for up to 8 hours when stored at room temperature or for at least 2 days at 4°C or stored frozen for at least 6 months at -20°C.

Performed: Within 8 hours or receipt. Available Stat.

Reference Range: 0-10 days: 7.6-10.4 mg/dL
 11 days- ≤ 2 years: 9.0-11.0 mg/dL
 2-12 years: 8.8-10.8 mg/dL
 ≤ 13 years: 8.6-10.3 mg/dL

Method Description: Calcium ions form a colored complex with Arsenazo III. The amount of calcium present in the sample is directly proportional to the intensity of the colored complex formed.

CPT Code: 82310

POWERCHART NAME	CALCIUM IONIZED		
MERCY TEST NAME	CALCIUM IONIZED	MERCY LAB CODE	CAI

- Alias:
- Calcium Free
- Specimen:
- 0.5 ml whole blood from lithium heparin green top tube.
 - Keep the tube capped until analysis.
 - For single ionized calcium orders, **completely fill** a separate tube.
 - Deliver to the Lab within one hour.
 - Reference Lab Clients - If not delivered to lab within one hour **refrigerate and send on ice. Preferred specimen is a dark green tube. If not available, a light green tube may be used if tape is placed over the cap with DO NOT SPIN indicated on it.**
- Stability: 12 hours if capped and **refrigerated and sent on ice.**
- Cause for rejection: **Hemolyzed specimens or specimens other than unopened green top tubes, except for capillary specimens in green top microtainers tubes.**
- Performed: Within 2 hours of receipt. Available stat.
- Reference value: Cord blood: 1.30 - 1.60 mmol/L
 < 1 day: 1.21 - 1.46 mmol/L
 1 - 2 days: 1.10 - 1.36 mmol/L
 3 - 4 days: 1.15 - 1.42 mmol/L
 5 days - 11 months: 1.22 - 1.48 mmol/L

1 - 17 years: 1.20 - 1.38 mmol/L

> 17 years: 1.16 - 1.32 mmol/L

Method: Ion selective electrode direct

CPT Code: 82330

POWERCHART NAME	CALCIUM 24 HOUR URINE		
MERCY TEST NAME	CALCIUM 24UR	MERCY LAB CODE	VCAL

Specimen: 5 mL of preserved urine

Stability: Urine specimens should be collected in a bottle containing 10 mL of 6 M HCl per 24-hour specimen to prevent calcium salt precipitation.

Performed: Within 8 hours or receipt. Available Stat.

Reference Range: 100-300 mg/24 Hours

Method Description: Calcium ions form a colored complex with Arsenazo III. The amount of calcium present in the sample is directly proportional to the intensity of the colored complex formed.

CPT Code: 82340

POWERCHART NAME	CALCIUM RANDOM URINE		
MERCY TEST NAME	CALCIUM R UR	MERCY LAB CODE	UCAL

Specimen: 5 mL of random urine
Stability: Urine specimens should be collected in a bottle containing 10 mL of 6 M HCl per 24-hour specimen to prevent calcium salt precipitation.

Performed: Within 8 hours of receipt. Available Stat

Reference Range: 1.00-32.00 mg/dL

Method: Calcium ions form a colored complex with Arsenazo III. The amount of calcium present in the sample is directly proportiona to the intensity of the colored complex formed.

CPT Code: 82310

TEST NAME	CALCIUM/CREATININE RATIO
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Comment: Order Calcium Random Urine and Creatinine Random Urine.
This is a calculation which is done by the physician/nursing service.

Calcium/Creatinine Ratio = $\frac{\text{Calcium Random Urine (mg/dl)}}{\text{Creatinine Random Urine (mg/dl)}}$

Specimen: 5 ml random urine. Refrigerate.

Performed: Within 8 hours of receipt.

****NOTE**** If the urine calcium/creatinine ratio is greater than 0.18, one source recommends quantifying with 24-hour urine.

POWERCHART NAME	CALPROTECTIN STOOL		
MERCY TEST NAME	CALPROTECTIN*	MERCY LAB CODE	CALPR

Specimen: 5 g fresh random fecal specimen in a stool container. No preservative.
Separate specimens must be submitted when multiple tests are ordered. Specimens must be split prior to transport.

Additional Info: Testing cannot be added on to a previously collected specimen.

Processing: If specimen is sent refrigerated, send immediately after collection. If specimen cannot be sent immediately, freeze and send frozen (preferred). Send frozen to Mayo. Mayo order code (**CALPR**).

Performed: 3-5 days, Monday through Friday

Reference: Included in report.

Method: Enzyme-linked Immunosorbent Assay (ELISA)

CPT code: 83993

POWERCHART NAME	CARBAMAZEPINE (TEGRETOL) LEVEL		
MERCY TEST NAME	CARBAMAZEPINE	MERCY LAB CODE	CAR

Alias: Carbatrol or Tegretol

Specimen: 0.5 mL serum

Stability: Specimens may be stored for up to 8 hours at 25°C or for up to 2 days at 2-8°C or stored frozen for up to 30 days at -20°C.

Performed: Within 8 hours of receipt. Available stat.

Therapeutic range: 4-12 mcg/mL

Method Description: The methodology for Carb involves a homogeneous particle-enhanced turbidimetric inhibition immunoassay (PETINIA) technique which uses a synthetic particle-carbamazepine conjugate (PR) and carbamazepine-specific, monoclonal antibody (Ab).

CPT Code: 80156

POWERCHART NAME	CARBON DIOXIDE LEVEL		
MERCY TEST NAME	CO2	MERCY TEST CODE	CO2

Alias: Bicarb or HC03

Specimen: 0.5 ml from a serum

Stability: Specimens may be stored for up to 3 days at 2-8°C or stored frozen for up to 60 days at -20°C

Performed: Within 8 hours of receipt. Available stat.
 Reference Range: 20- 34 mmol/L
 Method The Atellica CH CO2_c assay is based on phosphoenolpyruvate carboxylase (PEPC) catalyzed
 Description: reaction followed by an indicator reaction
 CPT Code: 82374

POWERCHART NAME	CARBONMONOXIDE SATURATION ARTERIAL		
TEST NAME	CARBOXYHGB, ARTERIAL	MERCY TEST CODE	COSATA

Specimen: Arterial Whole Blood collected in a Heparinized syringe. Minimum volume of 1 ml.

- **The tube must be walked to its destination. Do NOT send through the tube station.**

Comment: Respiratory or RN will call lab 87256 to come pick up Arterial specimen that Respiratory is collecting.

Rejection Criteria: Air in the sample, clotted, hemolyzed, unlabeled specimens

Performed: Within 10 minutes of specimen collection.

Reference value: 0-3%

Method: ABL80 CO-OX Flex

CPT Code: 82375

POWERCHART NAME	CARBONMONOXIDE SATURATION VENOUS		
MERCY TEST NAME	CARBOXYHGB, VENOUS	MERCY TEST CODE	COSATV
Specimen:	Venous Whole Blood collected in a Lithium Heparin tube. Minimum volume 1 ml. Lab may collect. <ul style="list-style-type: none">○ The tube must be walked to its destination. Do NOT send through the tube station.○ Testing can be done no matter how old the specimen is. There are no time restrictions for this test.○ This tube may not be used for other testing.○ Do not open the tube until analysis.○ Serum specimens, SST, and purple top EDTA tubes are unacceptable.○		
Reference Lab Clients:	Send specimen on ice.		
Rejection Criteria:	Clotted, hemolyzed, unlabeled specimens.		
Performed:	Within 10 minutes of specimen collection.		
Reference value:	0-3%		
Method:	ABL80 CO-OX Flex		
CPT Code:	82375		

POWERCHART NAME	CARDIAC ENZYMES (CK, LD, AST)		
MERCY TEST NAME	CARDIAC ENZYME	MERCY LAB CODE	CENZ

Specimen: 0.5 ml of serum

Stability: Specimens may be stored for up to 3 days at 20-25°C or for up to 7 days at 2-8°C or stored frozen for up to 30 days at -20°C or colder

Comment: Panel includes CK, AST, and LD. Hemolyzed specimens are not acceptable.

Performed: Within 8 hours of receipt. Available stat.

Reference Range: Refer to individual tests

Method Refer to individual tests

Description:

CPT Code: 82550 CK
84450 AST
83625 LD

POWERCHART NAME	CARDIOLIPIN ANTIBODIES		
MERCY TEST NAME	CARDIOLIPIN ATBY*	MERCY LAB CODE	CRLA

Specimen: 0.5 ml serum from a Serum Separator Tube (SST) or no additive serum tube

Processing: Send refrigerated to Mayo. Frozen acceptable. Mayo order code (**CLPMG**).

Performed: 1-2 days. Monday - Saturday; 4 p.m.

Reference Value: Included in report.

Method: Enzyme-Linked Immunosorbent Assay (ELISA)

CPT Code: 86147 x 2

POWERCHART NAME	CARDIOLIPIN ANTIBODY IGA		
MERCY TEST NAME	CARDIOLIPIN AB IGA*	MERCY LAB CODE	ACLIP

Specimen: 0.5 mL of serum from a Serum Separator Tube (SST) or no additive serum tube.

Processing: Send refrigerated (preferred) to Mayo. Frozen is also acceptable. Mayo order code (**ACLIP**).

Performed: Monday, Wednesday, Friday; Report available 3-5 days from receipt.

Reference Value: Included in report.

Method: Enzyme-Linked Immunosorbent Assay (ELISA)

CPT Code: 86147

POWERCHART NAME	CATECHOLAMINE FRACTIONATION URINE		
MERCY TEST NAME	CATECH FR 24UR* (alternate name Catecholamine Fractionation, Free)	MERCY TEST CODE	CTCH

Comment:

- A single 24-hour urine collection may be used for CATECHOLAMINE FRACTIONATION, METANEPHRINES [METN24U] and VMA [VMA24UR].
- **The specimen must be kept refrigerated during collection.**

Patient preparation:

- This assay is of most value when the specimen is collected during a hypertensive episode.
- Discontinue any epinephrine, norepinephrine, or dopamine injections/infusions at least 12 hours before specimen collections, UNLESS drug monitoring is the goal.
- Discontinue drugs that release or hinder metabolism of epinephrine, norepinephrine or dopamine for at least 1 week before obtaining the specimen. If this is not possible for medical reasons, contact Mayo laboratory to discuss whether a shorter drug-withdrawal period may be acceptable.
- Do not perform the test on patients withdrawing from legal or illegal drugs known to cause rebound plasma catecholamine release during withdrawal.

Cautions:

- Many alterations in physiologic and pathologic states can profoundly affect catecholamine concentrations.
- Any environmental factors that may increase endogenous catecholamine production should be avoided. These include noise, stress, discomfort, body position, and the consumption of food, caffeinated beverages, and nicotine. Caffeine and nicotine effects are short term, a few minutes to hours only.
- Other substances and drugs that may affect the results include:
Substances that result in increased release or diminished metabolism of endogenous catecholamines
Monoamine oxidase inhibitors (MOIs)-a class of anti-depressants with marked effects on catecholamine levels, particularly if the patient consumes tyrosine rich foods, such as nuts, bananas , or cheese.
Catecholamine reuptake inhibitors including cocaine and synthetic cocaine derivatives, such as many local anesthetics, which also can be antiarrhythmic drugs (e.g., lidocaine)
Some anesthetic gases, particularly halothane.
Withdrawal from sedative drugs, medical or recreational.
Vasodilator drugs (e.g., calcium antagonists, alpha-blockers)
Tricyclic antidepressants usually exert a negligible effect.
- Substances that reduce or increase plasma volume acutely (e.g., diuretics, radiographic contrast media, synthetic antidiuretic hormone {e.g., desmopressin 1-deamino-8-d-arginine vasopressin: DDAVP})

Specimen:

- Before start of collection, add 25 ml 50% acetic acid preservative to the container (15 ml 50% acetic acid for children)
- Collect for 24 hours.
- RL Clients, please call Mercy Lab to have a jug prepared with preservative.
- **Refrigerate during collection.**

Reference Lab:

Adjust pH to 2.0-4.0 with 50% acetic acid. Aliquot 20 ml and indicate the 24-hour volume.

- Processing:
- Separate aliquots must be submitted for Metanephrines and VMA if collected with this specimen.
 - Identify which specimen is for Catecholamine Fractionation.
- Mercy lab Processing:
- 2 ml in a 10 ml urine tube. Mayo order code (**CATU**).
 - Send refrigerated to Mayo. Frozen acceptable. Ambient with preservative acceptable.
- Performed: 2-4 days. Test set up Monday through Saturday.
- Reference Value: Included with test results.
- Method: High Performance Liquid Chromatography (HPLC)
- CPT Code: 82384

POWERCHART NAME	CATHETER TIP CULTURE		
MERCY TEST NAME	CATHETER TIP CLT	MERCY LAB CODE	CTC

Order: Specify site of insertion (subclavian, peripherally inserted central catheter, etc.)

Specimen: 2 inches of **Blood Catheter Tip**.

- Aseptically remove the catheter tip from the patient.
- Using sterile scissors, cut the catheter 2 inches from the tip.
- Only submit 2 inches of the blood catheter tip.
- Aseptically place catheter tip in a sterile **PLASTIC CONTAINER** with a tight-fitting lid. DO NOT send the catheter tip in a Culturette device.
- Specimen should be sent to Mercy lab at room temperature.

Cause for rejection: **Foley Tip catheters will not be accepted.**

Comments:

- o Quantitation will be reported for each isolate. >15 colony forming units (CFU) is considered significant.
- o Susceptibility testing will be performed on significant isolates.

Method: Standard culture techniques

Reference value: No growth

Performed: Preliminary report: 1 day
Final report: 2 days

CPT Code: 87070

POWERCHART NAME	CBC		
MERCY TEST NAME	CBC	MERCY LAB CODE	CBC

Includes: WBC RBC HCT
 MCV HGB PLATELETS
 RDW MCHC NUCLEATED RBC
 MPV

No differential included.

Comment: Cell morphology will be ordered and charged if established criteria/diagnosis are met.

Specimen: 1 purple top (EDTA) tube.
 Stability: 24 hours room temp, or 48 hours refrigerated.
 Performed: Within 8 hours of receipt. Available stat.
 Reference value: Included with test results. Complete listing in Special Helps section of Lab Test Index.
 Method: Automated cell counter.
 CPT Code: 85027

POWERCHART NAME	CBC with DIFFERENTIAL		
MERCY TEST NAME	CBC with Diff	MERCY LAB CODE	CBCAD

Includes: WBC RBC HGB HCT
 MCV MCH MCHC PLATELETS
 RDW MPV Automated NUCLEATED RBC
 Differential
 (Includes absolute cell counts)

Manual differential (includes only absolute segmented neutrophil and bands, lymphs, monocytes, eosinophils and basophils count) is done if indicated by test results.

Comment: Cell morphology will be ordered and charged if established criteria/diagnosis are met.
 Specimen: Draw 1 purple top (EDTA) tube.
 Stability: 24 hours at either room temp or 48 hours refrigerated.
 Performed: Within 8 hours of receipt. Available stat.
 Reference value: Included with test results. Complete listing in Special Helps section of Lab Test Index.
 Method: Automated cell counter.
 CPT Code: 85025

POWERCHART NAME	CBC with MANUAL DIFFERENTIAL		
MERCY TEST NAME	CBC Diff MANUAL	MERCY LAB CODE	CBCD

Includes:

WBC	RBC	HGB	HCT
MCV	MCH	MCHC	PLATELETS
RDW	MPV	Manual Differential NUCLEATED RBC (Includes only absolute segmented neutrophil, band, lymphocytes, monocytes, eosinophils and basophil count).	

Specimen: Draw 1 purple top (EDTA) tube.

Comment: **To be ordered only when physician orders are CBC with Manual diff.**

Cell morphology will be ordered and charged if established criteria/diagnosis are met.

Stability; 24 hours at either room temp or 48 hours refrigerated.

Performed: Within 8 hours of receipt. Available stat.

Reference value: Included with test results. Complete listing in Special Helps section of Lab Test Index.

Method: Automated cell counter and microscopic exam of Wright-stained smear.

CPT Code: 85027 CBC

85007 Manual Differential

POWERCHART NAME	CD4		
MERCY TEST NAME	CD4 T-CELL COUNT*	MERCY LAB CODE	CD4A

Includes: CD3, CD4, CD8 and CD45 Lymphocytes, CD4/CD8 Ratio

Note: Draw specimens as close to shipping time as possible

- Specimen:
- 3 mL whole blood EDTA lavender tube, ambient temperature
 - Send specimen in original tube, **DO NOT ALIQUOT**
 - Send specimens to Mayo within 24 hours of collection

Processing: Send specimens ambient to Mayo Medical Laboratories, Mayo order code (**TCD4**).

Performed: Monday – Sunday

Reference Value: Age-related reference values will be provided on the report

Method: Flow Cytometry, Single Platform (CD3, CD4, CD8, CD45)

CPT Code: 86359

86360

POWERCHART NAME	CEA
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MERCY TEST NAME	CEA*	MERCY LAB CODE	CEA
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Specimen: 0.5 ml serum

Stability: Tightly cap and refrigerate specimens at 2-8°C if the assay is not completed within 8 hours. Freeze samples at ≤20°C if the sample is not assayed within 48 hours. Freeze samples only 1 time and mix thoroughly after thawing.

Comment: Do not use samples that have been stored at room temperature for longer than 8 hours. Do not interpret levels of CEA as absolute evidence of the presence or the absence of malignant disease. Measurements of CEA should always be used in conjunction with other diagnostic procedures, including information from the patient's clinical evaluation.

Performed: Within 8 hours of receipt. Available Stat.

Reference Range: 0.25 ng/mL

Method Description: The Atellica IM CEA assay is a 2-site sandwich immunoassay using direct chemiluminometric technology which uses constant amounts of 2 antibodies.

CPT Code: 82378

TEST NAME	CELIAC DISEASE PROFILE	Order: IgA and TISTA
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Patient Preparation: Fasting is recommended to avoid lipemia which may interfere with the test.

Specimen: 0.5 ml serum for IgA and 1.0 ml serum for TISTA from a Serum Separator Tube (SST) or no additive serum tube. Send refrigerated

Cause for Rejection: Hemolysis or gross lipemia

Comment: TISTA is a new assay that performs the Tissue Transglutaminase and deamidated Gliadin simultaneously for IgA. There is no need for a separate order for the tTG and deamidated gliadin. Ordering the TISTA will cover for both assays, simultaneously, but will be reported as one result for IgA and one result for IgG

Processing: IgA can be refrigerated for up to 21 days. Send TISTA refrigerated to Mayo. (Mayo order code **(TSTGP)** Frozen is acceptable for both.

Performed: IgA-Within 8 hours of receipt
TISTA-Monday thru Saturday at Mayo

Reference Value: Included with the report

Method: IgA-Immuno-turbidimetric
TISTA-EIA

CPT Code: 82784-IgA
83516x2-TISTA

POWERCHART NAME	CELL COUNT BODY FLUID		
MERCY TEST NAME	CELL COUNT BF	MERCY LAB CODE	BFCC

Includes: WBC Differential RBC (All fluids except synovial fluids)
Description of color, clarity, and source

Specimen:

- o 1-2 ml body fluid **immediately** placed in a purple top tube by nursing personnel after collection.
- o Invert tube several times.
- o Tubes are available from the Laboratory.
- o Pleural and peritoneal fluids in purple top tubes are stable up to 48 hours refrigerated.

Stability:

- Synovial fluids should be examined within 2 hours of collection. If synovial fluid examination will be delayed > 2 hours, refrigerate specimen in purple top tube.

Comment: Indicate specimen source in comment field.
 Performed: Within 8 hours of receipt. Available stat.
 Method: Hemacytometer counting chamber and microscopic exam of Wright-stained smear.
 CPT Code: 89050 Cell Count
 or
 89051 Cell Count with Differential

POWERCHART NAME	CELL COUNT CSF		
MERCY TEST NAME	CELL COUNT CSF	MERCY LAB CODE	CCSF

Includes: RBC WBC Differential if indicated
 Specimen: 1 ml CSF. Deliver to the Laboratory within 15 minutes of collection.
 Stability: 1 hour room temp
 Comment: Specimen must be transported in a screw top container.
 Processing: Must be tested within 1 hour of collection.
 Performed: Within 8 hours of receipt. Available stat.
 Reference value: WBC: 0-1 month 0 - 30 /mcl
 >1 month 0 - 5 /mcl

WBC DIFFERENTIAL Neutrophil Lymphocyte Monocyte
 0 - 11 months: 0-8% 5-35% 50-90%
 1 year - adult: 0-6% 40-80% 15-45%

RBC: 0/mcl

Method: Hemacytometer counting chamber.
Microscopic exam of Wright-stained smear if >5 WBC/mcl.

CPT Code: 89050 Cell Count
or
89051 Cell Count with Differential

POWERCHART NAME	CELL MORPHOLOGY		
MERCY TEST NAME	CELL MORPHOLOGY	MERCY LAB CODE	CM

- Comment:
- Order a CBC with DIFFERENTIAL
 - Indicate in comment if previous specimen is to be used.
 - Lab will order and charge for a cell morphology on any patient meeting established Laboratory guidelines.
 - If pathologist review is needed on a body fluid specimen, please order Cytology. Send specimen (and slide if available) for Cytology. See the Cytology Section for fluid preservation.

Alias: Slide review for Pathologists or Peripheral Blood Smear.

Specimen: Blood smear prepared from a purple top tube.
Regional Lab Clients - Send a purple top tube (ALWAYS), two unstained slides, patient's demographic sheet and either:

- Copy of your CBC results that include the CBC normal ranges for that patient's age and sex. Order Diff Manual and a Cell Morphology. Send completed Cell Morphology Information form.

OR

- Order a CBC with DIFFERENTIAL and a Cell Morphology. Mercy Lab will do a CBC with differential.
- Send completed Cell Morphology Information form.
- 36 hours room temp or refrigerated.
- If a manual diff or slide review was already done on the specimen, CM may be added anytime because the slide is already prepared.

Stability:

Performed: 2 days

Results: Descriptive report is sent.

Method: Pathologist evaluation of Wright-stained smears.

CPT Code: 85060

POWERCHART NAME	CENTROMERE ANTIBODY IGG		
MERCY TEST NAME	CENTROMERE IGG AB*	MERCY LAB CODE	CENTR

Specimen: 0.5 ml serum from a serum separator tube (SST)

Processing: Send refrigerated to Mayo. Frozen is also acceptable.
Mayo order code **(CMA)**.

Performed: 1-3 days. Monday through Saturday; 4 p.m.

Reference Value: Included in report

Method: Multiplex Flow Immunoassay

CPT Code: 83516

POWERCHART NAME	CERULOPLASMIN		
MERCY TEST NAME	CERULOPLASMIN*	MERCY LAB CODE	CRLPSM

Alias Name(s): Copper Oxidase

Specimen: 1 ml serum from a Serum Separator Tube (SST) or no additive serum tube.

4 hour fasting specimen is preferred, non-fasting is acceptable

Performed: 3 days. Test Performed by Mayo Monday through Friday continuously.

Processing: Send to Mayo refrigerated. Mayo order code **CERS**

Method: Nephelometric Assay

CPT code: 82390

POWERCHART NAME	CHLAMYDIA PNEUMONIAE BY PCR*		
MERCY TEST NAME	CHLAMYDIA PNEUMONIAE BY PCR*	MERCY LAB CODE	MISM

- Specimen:
- Bronchial Wash/Lavage
 - Collect 1 mL in a sterile leak-proof container.
 - Sputum
 - Collect 1 mL in a sterile plastic container.
 - Respiratory specimen (throat or Nasopharyngeal)

- Collect specimen on a plastic shafted swab and place in M4 transport media.

RL Client Comments: ○ Write CHLAMYDIA PNEUMONIAE PCR on order form. Indicate the specimen source on order form.

- Send specimen refrigerated to Mercy lab.

Days Performed: Specimen referred M-F to UHL, Iowa City for testing

Method: Real-Time PCR

Reference Value: Not Detected

CPT Code: 87486

TEST NAME	Chlamydia trachomatis, Miscellaneous Sites, by Nucleic Acid Amplification (OTHER SITES not genital or urine) *		
MERCY TEST NAME	MISCELLANEOUS GENERAL LAB Designate: Mayo order code - MCRNA	MERCY LAB CODE	CMIS

Specimen: Swab specimen collected using the **APTIMA** Collection Vaginal Swab (the APTIMA Unisex Swab can also be used). **Collection kits are available from Mercy Lab.**

Mayo approved: The following sites are approved for Chlamydia testing at Mayo Med Labs, ONLY (Mercy Lab is not approved to do testing on these sites):

- Sites:
- Rectal/anal
 - Ocular (corneal/conjunctiva)

- Oral/throat
- Pelvic wash, cul-de-sac fluid (this source requires the APTIMA specimen transfer tube T652, available from Mercy lab).

NOTE: If provider wants both Chlamydia and GC testing done on rectal, ocular, oral or pelvic, a separate order will have to be placed for each test.

Cause for rejection:

- Transport tubes that are received without collection swabs inside.
- Transport tubes that have expired.
- Transport tubes received with a swab different from the one provided in the collection kit.
- Sources other than those listed above.

Comment:

In the case of suspected child abuse, culture is the only recommended procedure. See: Chlamydia Trachomatis Culture listed below

RL Client Comments:

- If ordering the test at your facility, order a CMIS and put in comment the test is for MCRNA and include the source (rectal, ocular, oral, pelvic). If you will order using a requisition, write CMIS on the order form and indicate the testing is for MCRNA and include the source (rectal, ocular, oral, pelvic).
- Send the APTIMA transporter refrigerated to Mercy lab.

Processing:

Refrigerate sample after collection and sent to Mayo Med Labs refrigerated. Mayo order MCRNA (C. trach, Misc., Amplified RNA)

POWERCHART NAME	CHLORIDE LEVEL
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MERCY TEST NAME	CHLORIDE	MERCY LAB CODE	CL
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Specimen: 0.5 ml serum
 Stability: Serum may be stored for up to 7 days at 2-8°C or stored frozen for up to 30 days at -20°C.

Comment: Thawed or frozen specimens which are turbid must be clarified by centrifugation prior to testing

Performed: Within 8 hours of receipt. Available stat.

Reference range: 97 - 109 mmol/L

Method Description: The methods for measurement of electrolytes include flame photometry, spectrophotometry and direct or indirect ion selective electrode potentiometry. The A-LYTE Na, K, and Cl assays are indirect Integrated Multisensor Technology (IMT). There are four electrodes used to measure electrolytes. Three of these electrodes are ion-selective for sodium, potassium, and chloride. A reference electrode is also incorporated in the multisensor.

CPT Code: 82435

POWERCHART NAME	CHLORIDE 24 HOUR URINE		
MERCY TEST NAME	CHLORIDE 24HR UR	MERCY LAB CODE	VCL

Specimen: 5 mL unpreserved urine from a 24-hours urine collection that was refrigerated during collection.

Stability: Twenty-four-hour collection should be made without addition of preservatives and stored refrigerated at 2-8°C or frozen for delayed analysis.

Comment: Indicate volume of urine collection

Performed: Within 8 hours of receipt. Available Stat.

Reference Range: 110-250 mmol/L/24 Hours

Method: The A-LYTE Na, K, and Cl assays use indirect Integrated Multisensor Technology (IMT). There are four electrodes used to measure electrolytes. Three of these electrodes are ion-selective for sodium, potassium, and chloride. A reference electrode is also incorporated in the multisensor.

CPT Code: 82436

POWERCHART NAME	CHLORIDE RANDOM URINE		
MERCY TEST NAME	CHLORIDE RAND UR	MERCY LAB CODE	UCL

Specimen: 5 mL random urine.

Stability: Urine collection should be made without addition of preservatives and stored refrigerated at 2-8°C or frozen for delayed analysis.

Performed: Within 8 hours of receipt. Available stat.

Reference Range: 20.0-330.0 mmol/L

Method: The A-LYTE Na, K, and Cl assays use indirect Integrated Multisensor Technology (IMT). There are four electrodes used to measure electrolytes. Three of these electrodes are ion-selective for sodium, potassium, and chloride. A reference electrode is also incorporated in the multi-Sensor.

CPT Code: 82436

POWERCHART NAME	CHOLESTEROL		
MERCY TEST NAME	CHOLESTEROL	MERCY LAB CODE	CHOL

Specimen: 0.5 ml serum
Stability: Specimens may be stored for up to 8 hours at 25°C or for up to 2 days at 2-8°C or for longer storage, specimens may be frozen at -20°C or colder
Performed: Within 8 hours of receipt. Available Stat.
Reference Range: 130-200 mg/dl
Method: The Atellica CH Cholesterol_2 (Chol_2) assay is based on enzymatic method using cholesterol esterase and cholesterol oxidase conversion followed by a Trinder endpoint.
Description:
CPT Code: 82465

TEST NAME	CHOLINESTERASE	MERCY LAB CODE	See: Pseudocholinesterase, Total Acetylcholinesterase RBC
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Note: If only cholinesterase is written, please clarify with provider as to whether it is pseudocholinesterase or acetylcholinesterase RBC.

POWERCHART NAME	CHROMOGRANIN A		
MERCY TEST NAME	CHROMOGRANIN A*	MERCY LAB CODE	CGA

Specimen: 0.5 ml serum from a Serum Separator Tube (SST) or no additive serum tube

Comment: Proton pump inhibitor drugs should be discontinued at least 2 weeks before collection.

Processing: Send specimen frozen to Mayo. Mayo order code (**CGAK**).

Performed: Monday through Saturday.

Reference value: Included in the report.

Method: Automated Immunofluorescent Assay

CPT Code: 86316

POWERCHART NAME	CHROMOSOME HEMATOLOGIC BLOOD		
MERCY TEST NAME	CHRM ANALYS BLD*	MERCY LAB CODE	CHRB

Comment: This test is not appropriate for detecting constitutional/congenital chromosome abnormalities.

Specimen:

- 5-10 ml whole blood collected in yellow top (ACD) (Preferred), Sodium heparin, EDTA tubes

Processing:

- Send WHOLE BLOOD. DO NOT CENTRIFUGE.
- Send **ambient** to Mayo. DO NOT FREEZE. Refrigerated also acceptable. Mayo Code (**CHRHB**) for Chromosome Analysis, Hematologic Disorders, Blood.
- **Mercy Lab staff** will order on Mayo Access
- Reason for referral will need to be entered on Mayo Access when ordering.

Performed: Monday – Friday 9-11 days

Reference value: An interpretive report will be provided.

Method: Cell culture without mitogens followed by chromosome analysis.

CPT Code: 88237, 88291- Tissue culture for neoplastic disorders; bone marrow, blood, Interpretation and report
88264 w/ modifier 52-Chromosome analysis with less than 20 cells (if appropriate)
88264-Chromosome analysis with 20 to 25 cells (if appropriate)
88264,88285- Chromosome analysis with greater than 25 cells (if appropriate)
88283-Additional specialized banding technique (if appropriate)

POWERCHART NAME	CHROMOSOME CONGENITAL BLOOD		
MERCY TEST NAME	CHRM CONGENITAL BLOOD*	MERCY LAB CODE	CHRC

- Specimen:
- Blood: 5 ml whole blood collected in SODIUM HEPARIN tubes. 2 ml minimum.
 - Cord Blood: whole blood collected in sodium heparin tube. Send as much as possible. Please label as cord blood.
 - Other anticoagulants may be harmful to the viability of the cells.
- Processing:
- Send WHOLE BLOOD. DO NOT CENTRIFUGE.
 - Put Genetics Request information under internal notes on the Mayo system.
 - Send ambient to Mayo. Refrigerated acceptable. DO NOT FREEZE. Mayo Code (**CHRCB**).
 - **Mercy Lab** staff will order on Mayo Access.
- Performed: 10 days. Monday through Sunday.

Reference values: 46, XX or 46, XY. No apparent chromosome abnormality. An interpretive report will be provided.

Method: Cell culture with mitogens followed by chromosome analysis

CPT Code: 88230 - Tissue culture for chromosome analysis (if appropriate)
 88262 - With modifier 52 (if appropriate)
 88291
 88280
 88283 - (if appropriate)

POWERCHART NAME	CHROMOSOME STUDY BONE MARROW		
MERCY TEST NAME	CHRM ANALYS BM*	MERCY LAB CODE	BMC

- Specimen:
- o 2-3 ml of bone marrow placed in yellow top (ACD), sodium heparin, or EDTA tubes
- Comment:
- o Complete the Hematopathology portion of Mayo Connect Additional Test Information form.
 - o Send a copy of CBC and/or bone marrow report.
 - o Chromosome analysis is not recommended for plasma cell neoplasms due to limited clinical utility; therefore effective 12/7/2020, Mayo will cancel the BMC (Mayo CHRBM) if ordered concurrently with a plasma cell FISH tests such as Mayo's PCPDS, MSMRT or MFCF
- Processing:
- o See Mayo Test Catalog for complete instructions.
 - o Send **ambient** to Mayo. Refrigerated acceptable. **Mayo CHRBM**

Cause for Rejection: Specimen sent frozen will be rejected.
 Performed: 9-11 days. Samples processed Monday through Sunday
 Reference value: Interpretation included with test results.
 Method: Cell culture without mitogens followed by chromosome analysis.

CPT Code: 88237, 88291-Tissue culture for neoplastic disorders; bone marrow, blood, interpretation, and report
 88264 w/ modifier 52-Chromosome analysis with less than 20 cells (if appropriate)
 88264-Chromosome analysis with 20 to 25 cells (if appropriate)
 88264, 88285-Chromosome analysis with greater than 25 cells (if appropriate)
 88283-Additional specialized banding technique (if appropriate)

POWERCHART NAME	CITRATE EXCRETION 24 HR URINE		
MERCY TEST NAME	CITRATE EXCRT 24UR*	MERCY LAB CODE	CITRAT

Patient preparation: Any drug that causes alkalemia or acidemia may be expected to alter citrate excretion and should be avoided, if possible. The patient must avoid laxative use for 24-hour collection period.

- Specimen:
- 24-hour urine collection.
 - Add 5 mL of diazolidinyl urea (Germall) as a preservative at start of collection OR refrigerate specimen during and after collection.
 - Refrigerate during collection.

Processing: ○ Transfer 4 ml urine to 5 mL plastic tube. Mix well before aliquot is taken.
 ○ Indicate total 24-hour volume.
 ○ Send **refrigerated** to Mayo. Mayo order code (**CITR**).

Performed: Results 1 day. Monday through Saturday.

Method: Enzymatic

CPT Code: 82507

POWERCHART NAME	CK (CREATINE KINASE)		
MERCY TEST NAME	CK	MERCY LAB CODE	CK

Specimen: 0.5 ml serum

Stability: Specimens may be stored for up to 4 hours at 25°C or for up to 5 days at 2-8°C or stored **frozen for up to 2 months at -20°C.**

Comment: Do not use hemolyzed samples, as they may cause significant interference with this assay.

Performed: Within 8 hours of receipt. Available stat.

Reference Range: Male:49-397 units/L
 Female:38-234 units/L

Method Description: The Atellica CH CK_L assay is an adaptation of the IFCC Reference Method. Creatine Kinase reacts with creatine phosphate and adenosine diphosphate (ADP) to form adenosine triphosphate (ATP), which is coupled to the hexokinase-G6PD (glucose-6-phosphate dehydrogenase) reaction, generating NADPH (reduced nicotinamide adenine dinucleotide phosphate).

CPT Code: 82550

POWERCHART NAME	CK-MB TOTAL		
MERCY TEST NAME	CKMB	MERCY LAB CODE	CKMB

Specimen: 0.5 ml serum

Stability: Tightly cap and refrigerate specimens at 2-8°C if the assay is not completed within 4 hours. Freeze samples at ≤20°C if the sample is not assayed within 48 hours. Freeze samples only 1 time and mix thoroughly after thawing.

Comment: Do not use samples that have been stored at room temperature for longer than 4 hours.

Performed: Within 8 hours of receipt. Available Stat.

Reference Range: 0-4.99 ng/mL

Method: The Atellica IM CKMB assay is a 2-site sandwich immunoassay using direct

Description: chemiluminescent technology, which uses constant amounts of 2 antibodies

CPT Code: 82553

POWERCHART NAME	CLOSTRIDIUM DIFFICILE (MOLECULAR)		
MERCY TEST NAME	CLOSTRIDIUM DIFFICILE TOXIN GENE	MERCY LAB CODE	CDIFFM

Test stool for C. difficile on all patients with clinically significant diarrhea AND history of recent antibiotic use or exposure to C. difficile.

Specimen: **FRESH SPECIMEN ONLY:**

2 grams of fresh stool submitted in a tight-fitting lid container, refrigerated.

Refrigerated (2-8 C) stools are stable for 5 days.

Room temperature stools (never refrigerated) are stable for 24 hours.

The sample should NOT be frozen at any time after collection.

Consider C. Difficile testing as an alternative to routine microbiologic studies for INPATIENTS that have been hospitalized for more than 3 days.

Cause for
Rejection:

- **Formed stools are not indicative of Clostridium difficile associated disease and will not be test.**

Comment:

- Specimens collected within 24 hours of barium or bismuth enema.
- Specimens contaminated with toilet water or urine.
- Specimens that are sent frozen
- Patient should be passing 3 or more liquid or soft stool that conforms to the container per 24 hours to be tested for Clostridium difficile.
- Not to be used for children
- Not to be used as a "test of cure," as this test will also detect non-viable organisms that persist after treatment.
- Useful as an aid in diagnosis of antibiotic associated pseudomembranous colitis.
- Collect samples at least 24 hours post barium or bismuth enema.
- All positive results will have reflex C. diff antigen and toxin testing to determine carrier state vs active infection. See CTOXAT section for further details.

RL Comments:

- Mark CLOSTRIDIUM DIFFICILE on the order form.
- Fresh stool should be refrigerated immediately. Send stool to Mercy lab refrigerated. A refrigerated stool is stable for 5 days.
- The sample should NOT be frozen after collection

Performed: Daily

Reference value: Negative for Toxigenic Clostridium Difficile

Method: Amplified DNA

CPT Code: 87493

POWERCHART NAME			
MERCY TEST NAME	CLOSTRIDIUM DIFFICLE TOXIN AND ANTIGEN	MERCY LAB CODE	CTOXR

Specimen: Frozen or preserved stool specimen

Comment: To be used only be our regional hospital Community Works sites or for regional hospital correlation purposes. These order / results are not available within Cerner Powerchart. This is NOT PCR or molecular testing.

For all other testing purposes, see Clostridium difficile molecular / CDIFFM.

Performed: Daily

Reference value: Negative for Clostridium difficile toxin
Negative for Clostridium difficile antigen

Method: Enzyme Immunoassay

CPT Code: 87324 & 8744

POWERCHART NAME	ACT (ACTIVATED CLOTTING TIME) POCT for Docking Purposes		
MERCY TEST NAME	ACTIVATED CLOTTING TIME	MERCY LAB CODE	ACTLT

Specimen: ○ 0.5 ml whole blood in non-siliconized syringe.
 ○ Test must be performed at bedside immediately after blood specimen is collected.

Processing: This is only an order to collect and will be resultated with “performed” once collected. The result will be generated from POCT testing at the bedside and will generate a second order. The result will be found Activated Clotting Time (ACT) POCT (Upload) in Cerner Powerchart.

Performed: Immediately after specimen collection. Available STAT.

Reference value: 74 - 125 seconds

Method: iStat instrument

CPT Code: 85347

POWERCHART NAME	CLOZAPINE NORCLOZAPINE LEVELS		
MERCY TEST NAME	CLOZAPINE*	MERCY LAB CODE	CLZ

Specimen: 1 ml serum from a no additive serum tube

Processing: Send **refrigerated** to Mayo. Mayo order code (CLZ).

Performed: Monday through Friday

Reference value: Included on the report

Method: Liquid Chromatography - Tandem Mass Spectrometry (LC - MS/MS)
CPT Code: 80159

POWERCHART NAME	CARBON DIOXIDE LEVEL		
MERCY TEST NAME	CO2	MERCY LAB CODE	CO2

Specimen: 0.5 ml of serum
Stability; Specimens may be stored for up to 3 days at 2-8°C or stored frozen for up to 60 days at -20°C.
Performed: Within 8 hours of receipt. Available stat.
Reference Range: 20-34 mmol/L
Method Description: The Atellica CH CO2_c assay is based on a phosphoenolpyruvate carboxylase (PEPC) catalyzed reaction followed by an indicator reaction.
CPT Code: 82374

POWERCHART NAME	COCCIDIOIDES ANTIBODY		
MERCY TEST NAME	COCCIDIOIDES AB*	MERCY LAB CODE	COCD

Specimen: 2 mL Serum from a Serum Separator Tube (SST) or no additive serum tube
Processing: Send refrigerated to Mayo. Mayo code -(**COXIS**)

Comment: If this initial Coccidioides Antibody testing is positive then additional reflex testing (Mayo code - RSCOC) Coccidioides Antibody by Complement Fixation, and Immunodiffusion (IgG, IgM) will be performed at an additional charge.

Performed: Monday - Friday, Sunday 9 am
Reference value: Included in report
Method: Enzyme Immunoassay (EIA)
CPT Code: 86635 Coccidioides Antibody
86635 Coccidioides CF (If applicable)
86635 Coccidioides IgG (If applicable)
86635 Coccidioides IgM (If applicable)

MERCY TEST NAME	COCAINE UR* CONFIRMATION	MERCY LAB CODE	UCOKE
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Specimen: 20 ml random urine specimen in a 60 mL urine bottle, no preservative

Processing: Send refrigerated to Mayo. Mayo order code (**COKEU**).
Performed: Monday - Thursday, Sunday
Reference value: Included in report
Method: Gas Chromatography - Mass Spectrometry (GC - MS) Confirmation and Quantification
CPT Code: G0480 / 80353

POWERCHART NAME	COLD AGGLUTININ SCREEN		
MERCY TEST NAME	COLD AGGLUT	MERCY LAB CODE	COLD

Specimen:

- Preferred specimen: 1 ml plasma from pink top tube. Draw a separate tube if ordered with Type & Screen or Crossmatch.
- Also acceptable: EDTA plasma from purple top tube or serum from plain red top tube.

Cause for rejection: SST is unacceptable. Hemolyzed specimens are unacceptable.

Processing:

- Incubate pink EDTA tube in a 37-degree water bath for 10-15 minutes.
- Centrifuge 10 minutes at room temperature.
- Remove plasma immediately.
- Refrigerate plasma/serum if not tested immediately.
- **Reference Lab Clients:** Follow above procedure, then remove aliquot and freeze immediately.

Performed: Daily with 2000 cutoff. Available stat

Reference value: 0 - 15

Method: Hemagglutination at 4°C.

CPT Code: 86157

POWERCHART NAME	COLLECTION CAPILLARY BLOOD GASES		
MERCY TEST NAME	COLLECT CHG CBG	MERCY LAB CODE	CCBG

Specimen:

- The patient’s heel or finger must be warmed prior to specimen collection.
- Refer to Phlebotomy Procedure Manual for complete specimen collection instructions.

Comment:

- Available stat.
- Included in the capillary venous blood gas order set.

- Outpatients-order CBGCVP for the blood gas test along with the CCBG for collect charge.
- Lab collects and testing performed by CV&P.
- This can **NOT** be used for venous collections.

Method: Heel stick, Fingerstick
 CPT Code: 36416

POWERCHART NAME	COLLECTION DONOR CANDIDATE		
MERCY TEST NAME	COLLECT CHG DONOR	MERCY LAB CODE	MDONOR

- Specimen: ○ Collect tubes are in kit.
- Comment: ○ Patient is registered in the HealthQuest system by outpatient registration staff and instructed to go to the laboratory on the second floor.
- Client services order MDONOR.
- Service is done at no charge to the patient.
- No additional processing charges or collection charge is added.

POWERCHART NAME	COMPLEMENT C1q		
MERCY TEST NAME	COMPLEMENT C1Q*	MERCY LAB CODE	C1Q

Specimen: 1 mL serum from a red no additive serum tube

Processing: Send refrigerated to Mayo. Mayo order code (**C1Q**)

Performed: 1-3 days. Monday through Friday.

Reference value: Included in report.

Method: Nephelometry

CPT Code: 86160

POWERCHART NAME	COMPLEMENT TOTAL (CH50)		
MERCY TEST NAME	COMPLEMENT TTL*	MERCY LAB CODE	CMPT

Specimen: 1 ml serum from a no additive serum tube or Serum Separator Tube (SST).

Stability: **Immediately after drawing the specimen, place the tube on wet ice.**

Processing:

- Separate from clot and freeze immediately.
- Send **frozen** to Mayo. Mayo order code (**COM**).

Performed: 2 days. Test set up Monday through Friday; 3 p.m..

Reference value: Included in report.

Method: Automated Liposome Lysis Assay

CPT Code: 86162

POWERCHART NAME	COMPREHENSIVE METABOLIC PANEL		
MERCY TEST NAME	COMP METABOLIC PNL	MERCY LAB CODE	CMPL

Specimen: 1 ml of serum

Stability: Specimens may be stored for up to 3 days at 2-8°C or stored frozen for up to 60 days at -20°C.

Comment: Avoid hemolyzed samples for potassium. Hemolyzed samples may give incorrect elevated potassium. Panel includes Glucose, BUN, Creatinine, BUN/Creatinine Ratio, eGFR, Total Bilirubin, Total Protein, Albumin, A/G Ratio, Calcium, Alkaline Phosphatase, AST, ALT, Sodium, Potassium, Chloride, CO2, Anion Gap

Performed: Within 8 hours of receipt. Available Stat.

Reference Range: See individual test entry.

Method: See individual test entry.

Description: See individual test entry.

CPT Code: 80053

POWERCHART NAME	CONNECTIVE TISSUE DISEASE CASCADE (Replaces ANA Screen)		
MERCY TEST NAME	CONN TIS DIS CASC*	MERCY LAB CODE	CTDC

Alias: ANA (ANTINUCLEAR ANTIBODY SCREEN), Antinuclear Antibodies, Autoimmunity Panel,

Specimen: 1 ml serum from a Serum Separator Tube (SST) or no additive serum tube. Testing includes Antinuclear Antibodies (ANA) and Cyclic Citrullinated Peptide (CCP) IgG Antibody. If antinuclear antibodies are > or =3.0 U, then antibodies to double-stranded DNA (dsDNA), extractable nuclear antigen evaluation, ribosome P, and centromere are performed at an additional charge. If result from dsDNA test is borderline, then dsDNA antibody by Crithidia IFA will be performed at an additional charge.

Comment:

Processing: Send refrigerated to Mayo. Mayo order code (**CTDC**).

Performed: 3-4 days. Monday through Saturday

Reference value: Included with report.

Method: Enzyme-Linked Immunosorbent Assay (ELISA)

CPT Code: 86038
86200

POWERCHART NAME	COOMBS DIRECT		
MERCY TEST NAME	COOMBS DIRECT (DAT (DIRECT ANTIGLOBULIN TEST))	MERCY LAB CODE	CMBS

Comment: **For newborns:** Order a Cord Blood Routine whenever a Direct Coombs is needed if the cord blood is available, and this is the initial Direct Coombs order.

Specimen: One 6 ml pink top tube or purple top tube. Do not spin. Refrigerate.
Performed: Within 8 hours of receipt. Available stat.
Reference value: Negative
Method: Serological
CPT Code: 86880

POWERCHART NAME	COPPER LEVEL		
MERCY TEST NAME	COPPER*	MERCY LAB CODE	COPP

Specimen:

- Draw before any other tubes are drawn. 0.8 ml serum from **Navy blue monoject-no additive**, trace element blood collection tube.
- Use alcohol, not iodine to cleanse venipuncture site.

Cause for rejection: The use of other tubes is unacceptable.

Processing:

- **Allow to clot well (for at least 30 minutes before spinning).** Then centrifuge the specimen to separate serum from the cellular fraction. Serum must be removed from the cells within **4 hours** of specimen collection. Pour serum into a Mayo **Metal FREE** vial. **Do NOT** use a transfer pipet or wooden sticks. Avoid hemolysis.
- Send to Mayo refrigerated. Ambient acceptable. Mayo order code (**CUS1**).

Performed: 1-3 days. Monday through Saturday.

Reference value: Included with report

Method: Dynamic Reaction Cell Inductively Coupled Plasma Mass Spectrometry (DRC-ICP-MS)

CPT Code: 82525

POWERCHART NAME	CORD BLOOD STUDIES		
MERCYONE TEST NAME	CORD BLD ROUTINE	MERCY LAB CODE	CRDB

Specimen:

- 5-10 ml whole blood collected from the umbilical cord. Blood is to be placed in a **red top tube and purple top tube.** Refrigerate.
- **NOTE:** Tubes must be labeled with baby's identification, mother's FULL name, date and time of delivery.

Comment:

- **Enter mother's FULL name in comment field.**
- Includes ABO Group/RH Type and Direct Coombs (DAT).
- If the Direct Coombs is positive, Lab will order and charge for a CBC, Cell Morphology, Bilirubin from the cord blood and Antibody ID from the eluate.

Performed: Within 8 hours of receipt. Available stat.

Reference value: Direct Coombs: NEGATIVE

Method: Serological
CPT Code: 86900 ABO
86901 RH
86880 Direct Coombs

POWERCHART NAME	CORONAVIRUS (COVID-19/SARS-CoV-2) POCT		
MERCY TEST NAME	COVID 19 SARS COV2	MERCY LAB CODE	COV19P

Specimen: Two Nasal Swab in Sterile conical tube, each collected from both nares.
Request **ID NOW** Covid collection kit from Lab.

Performed: Daily, available stat

Reference value: NEGATIVE

Method: NAAT PCR Methodology on Abbott ID Now instrumentation

CPT Code: 87635

POWERCHART NAME	CORONAVIRUS, FLU A/B, RSV Panel
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MERCY TEST NAME	COVID, FLU A/B, RSV	MERCY LAB CODE	CEPH41
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Specimen: Nasopharyngeal swab specimen is collected and placed into a viral transport tube containing 3 mL transport medium. The specimen is briefly mixed by rapidly inverting the collection tube 5 times (Preferred).
Nasal swab placed in 3 mL of viral transport media.
Mid-Turbinate Swab placed in 3 mL of viral transport media.
Nasal Wash/Aspirate.

Includes: SARS-CoV-2, Influenza A virus, Influenza B virus and RSV.

Comment: No age restriction for RSV testing.

Processing: Nasal Wash/Aspirate-using a clean 300 uL transfer pipette (supplied), transfer 600 uL of the sample (two draws using the same transfer pipette) into the 3 mL transport medium tube then cap the tube.

Performed: Daily, available stat.

Reference value: Sars_CoV-2 NEGATIVE
Influenza A NEGATIVE
Influenza B NEGATIVE
RSV NEGATIVE

Method: Rapid Multiplexed real-time RT-PCR Methodology on Cepheid Xpert instrument.

CPT Code: U0241

POWERCHART NAME	Coronavirus and Influenza A/B Panel (COVID AND FLU A/B AG) **For Clinic Use Only***		
MERCY TEST NAME	COVID AND FLU A/B AG	MERCY LAB CODE	SARFLU

POWERCHART NAME	SARS CoV2 COVID Coronavirus Antibody IgG		
MERCY TEST NAME	SAR COVID 2 IGG AB	MERCY LAB CODE	COR2G

Specimen: 0.5 mL of serum

Stability: Separated samples are stable for up to 7 days at room temperature, and for up to 14 days at 2–8°C. Thawed frozen specimens must be clarified by centrifugation prior to testing. Do not store in a frost-free freezer. Avoid more than 4 freeze-thaw cycles. Freeze samples, devoid of red blood cells, at ≤ -20°C for longer storage.

Comment:

- This assay has not been evaluated with fingerstick specimens.
- Samples should only be tested from individuals who are 15 days or more post symptom onset.

Performed: Monday through Sunday Cut off 0900 and 1900

Reference Range: 0.00-1.00 Index

Method Description: The Atellica IM SARS-CoV-2 IgG (sCOVG) assay is a chemiluminescent immunoassay intended for qualitative and semi-quantitative detection of IgG antibodies to SARS-CoV-2 in human serum and plasma (lithium heparin) using the Atellica IM Analyzer.

CPT Code: 86769

POWERCHART NAME	Coronavirus (COVID-19/SARS-CoV-2) Antigen POCT		
MERCY TEST NAME	COVID19 AG POCT	MERCY LAB CODE	COVAGP

Specimen: Nasal swab provided by lab
 Send to lab immediately for testing
 Do not place swab back in original paper package

Comment: This test is to be ordered if hospitalized patient is being transferred to a nursing home. **MUST BE ORDERED AS STAT IN POWERCHART.**

Performed: Daily, available stat

Reference value: Negative

CPT Code: 87811

POWERCHART NAME	CORTISOL Total		
MERCY TEST NAME	CORTISOL Total	MERCY LAB CODE	CORT

Specimen: 0.5 mL of serum

Stability: Tightly cap and refrigerate specimens at 2–8°C if the assay is not completed within 8 hours.
 Freeze samples at ≤ -20°C if the assay is not completed within 48 hours.
 Freeze samples only 1 time and mix thoroughly after thawing.

Comment: Do not use samples that have been stored at room temperature for longer than 8 hours.
 The performance of the assay has not been established with neonatal specimens.

Performed: Within 8 hours of receipt. Available Stat

Reference Range: AM Reference range 6.7-22.6 mcg/dL

PM Reference range 2.0-14.0 mcg/dL

Method: The Atellica IM Cor is a competitive immunoassay using direct chemiluminescent
Description: technology.
CPT Code: 82533

POWERCHART NAME	Cortisol Challenge		
MERCY TEST NAME	CORTISOL ACTH RES	MERCY LAB CODE	CORT 3 orders

Specimen: 0.5 ml serum

3 separate specimens, **requiring 3 separate CORT orders**, one prior to and two following injection of 0.25 mg Cortrosyn, given IV bolus, at times specified by Nursing Service.

- Baseline: Collect prior to injection
- 2. 30 minutes following injection
- 3. 60 minutes following injection

Nursing service will obtain Cortrosyn from Pharmacy.

Stability: Tightly cap and refrigerate specimens at 2–8°C if the assay is not completed within 8 hours.
Freeze samples at ≤ -20°C if the assay is not completed within 48 hours.
Freeze samples only 1 time and mix thoroughly after thawing.

Comment: **Mercy lab clients:** Testing is done in the Mercy Cancer Center. Ordering clinic will fill out form OMH-146, following the directions on the form for the information required. Fax order and accompanying information to Mercy First Call at 641-428-6140, who will fax the

information to Mercy's Cancer Center. Mercy Cancer Center will schedule the appointment and call the patient with instructions.

Performed: Within 8 hours of receipt

Reference Range: Expected values during ACTH stimulation: over twice (usually 2-3 times) reference a.m. level.

Method Description: The Atellica IM Cor assay is a competitive immunoassay using direct chemiluminescent technology

CPT Code: 82533x3

POWERCHART NAME	CORTISOL WITH CORTISONE FREE 24-HOUR URINE		
MERCY TEST NAME	CORTSL/CORTSNE 24U*	MERCY LAB CODE	CRTF

Specimen:

- o Collect a 24-hour urine specimen.
- o At start of collection, add 25 ml of 50% acetic acid preservative. (15 ml 50% acetic acid for children)

Processing:

- o Aliquot 5 ml and indicate total volume.
- o Send **refrigerated** in 10 ml urine tube to Mayo. Frozen acceptable. Mayo order code (**COCOU**).
- o Click on 24-hour urine preservative chart for other acceptable temperatures and additives.

Performed: 2-5 days. Test set up Monday through Saturday; 1 p.m.

Reference value: Included with results.

CAUTIONS:

- o Acute stress (including hospitalization and surgery), alcoholism, depression, and many drugs (ex: exogenous cortisone, anticonvulsants), can obliterate normal

diurnal variation, affect response to suppression/stimulation tests, and cause elevated baseline levels.

- Renal disease (decreased clearance) may cause falsely low values.
- Values may be elevated to twice normal in pregnancy.

Method: Liquid Chromatography/Tandem Mass Spectrometry (LC/MS/MS)
 CPT Code: 82542
 82530

POWERCHART NAME	C-PEPTIDE		
MERCY TEST NAME	C-PEPTIDE	MERCY LAB CODE	CPEPT

Specimen: 1 mL of serum

Stability: Do not use samples that have been stored at room temperature for longer than 8 hours. Separate serum from the red blood cells before storage at 2–8°C or -20°C. Tightly cap and refrigerate specimens at 2–8°C if the assay is not completed within 8 hours. Freeze samples at ≤ -20°C if the assay is not completed within 24 hours. Freeze samples only 1 time and mix thoroughly after thawing.

Reference Range: Female: 0.730-4.370 ng/mL
 Male: 0.81-3.85 ng/mL

Method Description: The Atellica IM CpS assay is a 2-site sandwich immunoassay using direct chemiluminescent technology which uses constant amounts of 2 antibodies

CPT Code: 84681

POWERCHART NAME	CREATININE		
MERCY TEST NAME	CREATININE (CREAT AND GFR)	MERCY LAB CODE	CREAT

Specimen: 0.5 ml serum

Stability: Separated serum and plasma specimens may be stored for up to 2 days at 2-8°C or stored frozen at or below -20°C.

Comment: eGFR estimated Glomerular Filtration Rate is calculated and reported with creatinine

Performed: Within 8 hours of receipt. Available stat

Reference Range: Male: 0.7-1.3 mg/dl
Female: 0.6-1.2 mg/dl

Method Description: The Atellica CH Enzymatic Creatinine_2 (ECre_2) assay is based on the enzymatic reaction.

CPT Code: 82565

POWERCHART NAME	Creatinine Body Fluid		
MERCY TEST NAME	CREATININE BODY FL	MERCY LAB CODE	FCREA

Specimen: 0.5 mL body fluid

Stability: Specimens may be stored for up to 2 days at 2-8°C or stored frozen at or below -20°C.

Performed: Within 8 hours of receipt. Available stat

Reference Range: No reference range established

Method Description: The Atellica CH Enzymatic Creatinine_2 (ECre_2) assay is based on the enzymatic reaction.
 CPT Code: 82570

POWERCHART NAME	Creatinine 24 HOUR URINE. Not available in Powerchart orders		
MERCY TEST NAME	CREAT 24UR	MERCY LAB CODE	VCRT

Specimen: 5 mL of unpreserved urine from a 24-hour urine specimen that was refrigerated during collection.

Stability: Urine specimens may be stored for up to 4 days at 2-8°C or stored frozen at or below -20°C.

Comment: Includes volume (ml/24 hours) and calculated creatinine (g/24 hours)

Performed: Within 8 hours of receipt. Available Stat

Reference Range: Creatinine **Male** **Female**
 0.8-2.8 g/24 hrs. 0.8-2.8 g/24 hrs.

Method Description: The Atellica CH Enzymatic Creatinine_2 (ECre_2) assay is based on the enzymatic reaction.
 CPT Code: 82570

POWERCHART NAME	CREATININE CLEARANCE 24 HOUR URINE		
MERCY TEST NAME	CREAT CL 24UR	MERCY LAB CODE	VCCL

Specimen: 0.5 ml of serum

5 mL of unpreserved urine from a 24-hour urine specimen that was refrigerated during collection.

Stability: Urine specimens may be stored for up to 4 days at 2-8°C or stored frozen at or below -20°C

- Comment:
- **Outpatients and Inpatient**, Mercy Laboratory will order the appropriate serum creatinine (CRTMM) if a serum creatinine has not been completed within 48 hours. This will be done at no additional charge. The patient needs to have blood drawn when the container is picked up or delivered. In order to avoid possible duplication, the serum creatinine is not to be ordered by the physician office, the hospital floor or admitting.
 - **Regional Lab Clients**, send 0.5 ml serum for the creatinine at the same time that the urine specimen is sent. This enables analysis of both specimens by the same method for accuracy.
Mercy Laboratory will order the serum creatinine at no charge. Do not order a single creatinine on the requisition.

Includes Volume (ml/24 hours) Raw Creatinine (mg/dl) and Calc. Creatinine (g/24 hours) Creatinine Clearance (ml/min)

Performed: Within 8 hours of receipt. Available Stat

Reference value:	Creatinine	Male	Female
		0.8 - 2.8 g/24hrs	0.8 - 2.8 g/24hrs
	Creatinine clearance	Male	Female
		Age	
		< 41 Yrs:	71 - 137
		41 - 50 Yrs:	71 - 131
		51 - 60 Yrs:	71 - 125
			71 - 128 ml/minute
			71 - 122 ml/minute
			71 - 116 ml/minute
			70 - 110 ml/minute

61 - 70 Yrs: 71 - 119 64 - 104 ml/minute
 >70 Yrs: 71 - 113

Method
 Description: The Atellica CH Enzymatic Creatinine_2 (ECre_2) assay is based on the enzymatic reaction.
 CPT Code: 82575

POWERCHART NAME	CREATININE RANDOM URINE		
MERCY TEST NAME	CREAT R UR	MERCY LAB CODE	UCRT

Specimen: 5 ml random urine.
 Stability: Urine specimens may be stored for up to 4 days at 2-8°C or stored frozen at or below -20°C.
 Performed: Within 8 hours of receipt. Available Stat
 Reference Range: 2.00-245.00 mg/dL
 Method The Atellica CH Enzymatic Creatinine_2 (ECre_2) assay is based on the enzymatic reaction.
 Description:
 CPT Code: 82570

POWERCHART NAME	TRANSFUSION ORDER SET CROSSMATCH		
MERCY TEST NAME	CROSSMATCH (Type and Cross)	MERCY LAB CODE	XMI

Includes: ABO Group/RH Type, Antibody Screen, and compatibility testing.
 Comment:

- A Type & Screen is included in a crossmatch order. Do NOT order separately.
- Irradiation or CMV negative blood, see step 2.

- For PAT patients: If surgery is scheduled for more than two days from the date the specimen is drawn, order a Type & Screen instead of a crossmatch. A crossmatch will need to be ordered and done when the patient is admitted.
- A hemoglobin must be ordered if one has not been performed at Mercy Medical Center-North Iowa Laboratory within one week prior to transfusion for **outpatients**.
- Indicate number of units to be crossmatched in units ordered field. Packed cells will be processed for all crossmatches.
- If irradiation or CMV negative blood is needed, indicate so in the comment field for each order. It is not sufficient to send a message to cover all orders. Prestorage leuko-reduced red cells (CMV safe) will be provided if CMV negative is ordered. Call the Lab when irradiated blood is ordered as special arrangements may be necessary.

Specimen:

- Preferred specimen: One 6 ml pink top tube.
- Also acceptable: purple top tube.
- Refrigerate.
- SST is unacceptable.

All patients drawn for possible blood product transfusion MUST be correctly identified and MUST BE WEARING an armband with their FULL NAME and MEDICAL RECORD NUMBER before the patient is drawn.

A check mark MUST be put by the Medical Record number on the tubes drawn for a Crossmatch by the person drawing the specimen indicating the phlebotomist has matched the medical record number on the Specimen with the medical record number on the Patient Armband and it is identical along with the name and other

pertinent information. Date, time, and initials of the individual collecting the specimen must be on the tube.

FOR OUTPATIENT AND PRE-SURGICAL PATIENTS:

All the above guidelines must be followed The PATIENT is also to be informed to leave the armband on and if the armband is removed, they will need to be redrawn and testing repeated. **Qualified staff may remove the armband and replace it with another armband after careful matching.

Processing: **Regional Lab Clients:** Crossmatch verification by transfusing facility is recommended for all units crossmatched at Mercy.

Performed: Within 8 hours of receipt. Available stat.

Method: Serological

CPT Code: 86900 ABO+

86901 RH+

86850 Antibody Sc

86920 Unit Compatibility (1 for each unit ordered)

For each unit issued: P9021 Packed Red Cells (Proc)*

POWERCHART NAME	CRP (C-Reactive Protein)		
MERCY TEST NAME	CRP	MERCY LAB CODE	CRP

Specimen: 0.5 ml of serum

Stability: Specimens may be stored for up to 3 days at 4–8°C or stored frozen for up to 6 months at -20°C or colder.

Performed: Within 8 hours of receipt. Available stat.

Reference Range: 0.0-0.9 mg/dl

Method: The Atellica CH C-Reactive Protein_2 (CRP_2) assay measures CRP in serum by a latex-enhanced immunoturbidimetric assay.

Description:

CPT Code: 86140

POWERCHART NAME	CRP HIGH SENSITIVITY (CARDIAC)		
MERCY TEST NAME	CRP SENS (CARDIAC)	MERCY LAB CODE	HSCRIP

Specimen: 0.5 mL of serum

Stability: Specimens may be stored for up to 3 days at 4–8°C or stored frozen for up to 6 months at -20°C.15 Avoid repetitive freezing and thawing of specimens. Centrifuge samples containing precipitates before performing the assay

Performed: Within 8 hours of receipt. Available stat.

Reference Range: 0.0-0.3 mg/dL

Method: The Atellica CH High Sensitivity C-Reactive Protein (hsCRP) latex reagent is a suspension of uniform polystyrene latex particles coated with anti-CRP antibody.

Description:

CPT Code: 86141

POWERCHART NAME	CRYOGLOBULIN		
MERCY TEST NAME	CRYOGLOBULIN* (CRYOGLOBULIN AND CRYOFIBRINOGEN PANEL)	MERCY LAB CODE	CRYG

Specimen: 5 ml serum from a no additive serum tube **plus** 1 ml EDTA plasma. Minimum 3 ml serum and 0.5 ml plasma. **Testing requires both specimens.**

- Processing:
- **Deliver to Lab immediately!**
 - Keep specimens at 37°C, 98.6°F until delivered, by holding tubes in hands, may wrap tubes in a heel warmer. Place plasma and serum in appropriately labeled plastic vials and **mark each corresponding aliquot as serum or plasma.**
 - **Regional Lab Clients:** Keep specimens at 37°C, 98.6°F until the plasma and serum are removed from the cells. It is very important that the specimen remain at 37 degrees C until after separation of plasma/serum from red cells. Place plasma and serum in appropriately labeled plastic vials and **mark each corresponding aliquot as serum or plasma.**
 - Send refrigerated. Frozen acceptable. Mayo order code (CRGSP).

Cause for rejection: A SST tube is not acceptable.

Performed: 2-10 days. Test set up Monday through Friday.

Reference value: Included with report.

Method: Quantitative and Qualitative typing. Precipitation at 1°C. Includes cryofibrinogen.

CPT Code: 82595 Cryoglobulin +*
82585 Cryofibrinogen +*

86334/Immunofixation (if appropriate)

Notes: If cryoglobulin has a result other than negative, then Mayo order code IMFXC "immunofixation cryoglobulin" will be performed at an additional charge. Positive cryoglobulins of ≥ 0.1 ml of precipitate will be typed once.

POWERCHART NAME	TRANSFUSION ORDER SET CRYOPRECIPITATE FOR INFUSION		
MERCY TEST NAME	CRYO FOR INFUS	MERCY LAB CODE	CRYO

- Comment:
- Indicate number of units desired.
 - An order of 1 will be filled with a pre-pooled product equivalent to 5 individual cryo units.
 - Cryoprecipitate contains factor VIII and fibrinogen.

Specimen: No specimen needed.
 Performed: Allow 30 minutes thawing time. Available stat.
 Method: Thawed and pooled.
 CPT Code: 86927 Cryoprecipitate (1 for each unit)
 86595 Cryoprecipitate Pool (Admin) (1 for each pool)
 P9012 Cryoprecipitate (Proc)* (1 for each unit)

POWERCHART NAME	FIBRIN GLUE ORDER SET CRYOPRECIPITATE NOT FOR INFUSION		
MERCY TEST NAME	CRYO NOT FOR INFUS	MERCY LAB CODE	CRYX

- Comment:
- To be ordered by Nursing Service at the same time an order is placed to Pharmacy for Fibrin Glue.

- One order of Cryoprecipitate is necessary for each unit of Fibrin Glue requested.
- Used in the preparation of Fibrin Glue, a topical hemostatic agent used in surgery.

Specimen: None needed
 Processing: Group specific cryoprecipitate is not needed.
 Performed: Allow 10-30 minutes thawing time. Available stat.
 Method: Thawed.
 CPT Code: P9012 Cryoprecipitate (Proc)* (1 for each unit ordered)

POWERCHART NAME	CRYPTOCOCCAL CULTURE + DIRECT SMEAR CSF		
MERCY TEST NAME	CRYPTO CLT/GS	MERCY LAB CODE	CRYP

Specimen:

- 1 ml CSF minimum. Submit in sterile plastic screw cap tube.
- **DO NOT refrigerate specimen.**

RL Client

- Write CRYPTOCOCCAL CULTURE on order form. Indicate source (CSF).

Comments:

- Send specimen at room temperature to Mercy lab.

Performed: Direct gram Stain: Daily 1600 cutoff
 Preliminary report: 1 and 2 weeks
 Final report: 3 weeks

Reference value: Direct Gram stain: No yeast seen.
 Culture: No Cryptococcus neoformans isolated.

Method: Culture: Standard culture techniques

CPT Code: 87205 Gram Stain
87102 Yeast Clt

POWERCHART NAME	CRYPTOCOCCUS ANTIGEN SCREEN		
MERCY TEST NAME	CRYPTOCOCCUS AG*	MERCY LAB CODE	CRYPA

Specimen: 1 mL serum from a Serum Separator Tube (SST) or no additive serum tube
 Processing: Send Refrigerated to Mayo, Mayo code - (**SLFA**)
 Comment: If this initial Cryptococcus Antigen testing is positive, then additional reflex testing (Mayo code - SLFAT) Cryptococcus Antigen Titer by Later Flow Assay (LFA) will be performed at an additional charge.
 Performed: 1-2 days. Monday through Friday: 11 a.m. Saturday, Sunday; 1 p.m.
 Reference value: Included in report
 Method: Lateral Flow Assay
 CPT Code: 87899 Cryptococcus Ag Screen
87899 Cryptococcus Ag Titer (if applicable)

POWERCHART NAME	CSF CYTOLOGY		
MERCY TEST NAME	CSF CYTOLOGY SPEC	MERCY LAB CODE	

Comment: All CSF Cytology specimens must be accompanied by the manual CSF Cytology requisition form which includes patient history, etc.

Specimen: 1 ml CSF. Deliver to Lab immediately.

Processing: After Chemistry testing is completed, take specimen to Cytology, preserve properly, and place in the Cytology refrigerator.

POWERCHART NAME	DIFFERENTIAL CSF		
MERCY TEST NAME	CSF DIFF	MERCY LAB CODE	CSFD

Comment:

- o CSF Differential is included in Cell Count CSF if ≥ 6 WBC/mcl are present.
- o To be ordered by Regional Hospitals when they are doing the cell counts at their facility and want to refer the differential to Mercy.

Specimen:

- o Send 2 cytocentrifuge prepared slides, unstained.
- o If a cytocentrifuge is not available, mix 1 drop of 22% albumin with 3-5 drops of CSF. Place a drop on the slide and allow to air dry, do not spread.

Stability: 1 hour room temp

Cause for rejection:

- o Up to 40% of cells in CSF lyse within 1 hour after collection.
- o It is not acceptable to send CSF fluid.

Performed: Within 8 hours of receipt. Available stat.

Reference values:

Age	Neutrophil	Lymphocyte	Monocyte
0 - 1 year	0 - 8%	5 - 35%	50 - 90%
> 1 year	0 - 6%	40 - 80%	15 - 45%

Method: Microscopic exam of Wright-stained smear.

CPT Code: NA

POWERCHART NAME	CS (Cardiac Surgery) PANEL		
MERCY TEST NAME	CS PANEL	MERCY LAB CODE	CSPL

Comment: Orderable only by Cardiac Surgery Personnel. Used for specimens collected outside of the open-heart surgery suite (OR10).

Includes: Hemogram
Glucose
Ionized calcium
Potassium
Sodium

Specimen: 2 ml whole blood from purple top tube AND 0.5 ml whole blood from green top (lithium heparin) tube without gel.

Reference value: See individual test entry

Method:

- Sodium, Potassium, Ionized calcium by direct ion selective electrode potentiometry.
- Glucose by amperometrically.
- Hemogram by automated cell counter.

CPT Code: 85027 Hemogram
82947 Glucose
84132 Potassium
84295 Sodium
82330 Calcium, Ionized

POWERCHART NAME	Cardiac Surgery Perfusion Perform
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Comment: Order only for specimens being performed while patient is in the open-heart surgery suite (OR10). Order is in the Surgery Express ORDER set.

Includes: Blood Gas Glucose Ionized calcium
Potassium Sodium Hematocrit and calculated Hemoglobin

Reference value: Included with results. Varies based on type of specimen.

Method: Direct electrochemical

CPT Code: 82947 Glucose
84132 Potassium
82330 Calcium, Ionized
85014 Hematocrit
82805 Blood Gas w/ O2 Sat

MISM Mayo - CTBBL	CULTURE TB or AFB BLOOD CULTURE/ACID FAST ORGANISMS
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POWERCHART NAME	CUTANEOUS IMMUNOFLUOR-BIOPSY		
MERCY TEST NAME	CUTAN IMMU BIOP*	MERCY LAB CODE	CUTBX

Specimen: 4 MM punch biopsy of recent lesion and small portion of normal tissue placed into Mayo's special transport media.

Comment: If a specimen is to be sent to pathology in addition to a specimen sent for Mayo testing, fill out both the pink Pathology /Dermatology Request Form and the Mayo Additional test

Information form. Include patient's age, sex, diagnosis, biopsy site, sun exposure of specimen (exposed, unexposed) and involvement of specimen (perilesional, involved, uninvolved).

Processing: Send Ambient (Frozen and refrigerated specimens are acceptable) to Mayo with request form. Mayo order code (CIB).

Performed: 1-3 days. Test set up Monday through Friday

Reference value: Included in report

Method: Direct Immunofluorescence staining of cryostat prepared skin biopsy sections for IgG, IgM, IgA, C3, and Fibrinogen deposition.

CPT Code: 88346
88350 x5

POWERCHART NAME	CUTANEOUS IMMUNOFLUOR-SEROLOGY		
MERCY TEST NAME	CUTAN IMMU IGG*	MERCY LAB CODE	CUT

Specimen: 2 ml serum from a SST or plain red top tube. Minimum 0.5 ml.

Processing: Send refrigerated to Mayo in a screw cap plastic vial. Ambient or frozen acceptable. Mayo order code (CIFS).

Performed: 2-7 days. Test set up Monday through Friday; 7 a.m.-5 p.m.

Reference value: Included in report.

Method: Detection of IgG anti-intercellular substance (ICS) and anti-basement membrane zone (BMZ) antibodies by indirect immunofluorescence technique using Rhesus monkey esophagus substrate and human NaCl split-skin substrate. Serum is tested for presence and titer of

antibodies. Titer is obtained on monkey esophagus substrate, and pattern of BMZ fluorescence is determined on split-skin substrate.

CPT Code: 88346
88350

POWERCHART NAME	CYCLIC CITRULLINATED PEPTIDE ANTIBODY IgG		
MERCY TEST NAME	CCP ANTIBODIES	MERCY LAB CODE	CCPAB

Specimen: 1.0 ml serum from a SST.
 Processing: Stable 22 hours room temp, or 7 days refrigerated. If >7 days freeze.
 Cause for rejection: Gross Hemolysis
 Performed: Within 8 hours of receipt.
 Reference range: 0.0-4.99 U/mL
 Method: Chemiluminescent microparticle immunoassay.
 CPT 86200

POWERCHART NAME	CYCLOSPORA STAIN		
MERCY TEST NAME	CYCLOSPORIN STAIN (stool specimen required)	MERCY LAB CODE	CYSTN

Specimen: Submit only 1 of the following specimens:

Preserved stool:

- Transfer enough stool specimen to bring the liquid level up to the fill line indicated on the ECOFIX preservative. DO NOT OVERFILL.
- Mix thoroughly. Pieces should be pea size or less.
- Send ambient.

Unpreserved stool:

- 5-10 gm of feces submitted in clean container with tight fitting lid.
- Send refrigerated within 3 days of collection.

Comments: Patient should avoid use of anti-diarrheal medication (i.e., Loperamide or Pepto-Bismol)

The presence of barium will interfere with this test.

Processing: Ambient transport for preserved specimen. Refrigerated ok.
Refrigerated transport for unpreserved specimen. Mayo order code (CYCL).

Performed: 2-4 days. Test set up at Mayo Monday through Saturday.

Reference value: Included in report

Method: Safranin stain.

CPT Code: 87015-Concentration
87207-Stain

POWERCHART NAME	CYCLOSPORIN LEVEL
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MERCY TEST NAME	CYCLOSPORIN*	MERCY LAB CODE	CYCL
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Comment:

- Occasionally patients will come in with orders to have their Cyclosporin sent to another reference Lab.
- Follow the instructions the patient presents for specimen collection and transportation.
- These patients have a “processing charge” ordered.
- Please include time and date of last dose.

Specimen: 3 ml EDTA (purple top) whole blood. Minimum 1 ml. Do not spin down.

Processing: Send refrigerated to Mayo. Send specimen in original collection tube. Mayo order code (CYSPR).

Performed: 1 day. Test set up at Mayo Monday through Sunday.

Reference value: Included in report

Method: High Performance Liquid Chromatography/Tandem Mass Spectrometry (Hplc-ms/ms)

CPT Code: 80158

TEST NAME	CYSTATIN C WITH ESTIMATED GFR		
MERCY TEST NAME	CYSTATIN C EGFR*	MERCY LAB CODE	CSTCE

Specimen: 0.5 ml serum from a Serum Separator Tube (SST) or no additive serum tube.

Performed: 1-3 days. Test set up Monday through Sunday.

Processing: Centrifuge and aliquot serum into a plastic vial within 2 hours of collection. Send refrigerated to Mayo. Mayo order code (**CSTCE**).

Reference: Included in report.

Method: Immunoturbidimetric

CPT Code: 82610

POWERCHART NAME	CYSTIC FIBROSIS MUTATION PANEL		
MERCY TEST NAME	CYSTIC FIB MUT ANL*	MERCY LAB CODE	CFMA
Specimen:	3 mL whole blood lavender top (EDTA) or yellow top (ACD)		
Patient Preparation:	A previous bone marrow transplant from an allogenic donor will interfere with testing. Call 800-533-1710 for instructions for testing patients who have received a bone marrow transplant.		
Processing:	Send specimen in original tube. Do NOT aliquot. Specimen must arrive to Mayo labs within 96 hours of collection. Specimens can only be sent Monday through Thursday.		

	Send to Mayo ambient. Frozen and refrigerated also acceptable. Mayo order code (CFMP).
Additional Information:	To ensure minimum volume and concentration of DNA is met, the preferred volume of blood must be submitted. Testing may be cancelled if DNA requirements are inadequate.
Performed:	14-42 days. Thursday and Sunday
Reference value:	Included in report
Method:	Targeted Genotyping Array
CPT Code:	81220 81222

TEST NAME	CYTOKINE PANEL 13		
MERCY TEST NAME	CYTOKINE PANEL 13*	MERCY LAB CODE	FCYTP

Specimen: 1 mL serum from a serum gel tube. Plain red top tube is acceptable.

Processing: Spin down within 2 hours and send 1 mL of serum Frozen to Mayo. Mayo order code **(FCYTP)**.

Performed: 1-8 days, performed Monday, Wednesday, Friday

Reference Value: Included in report

Method: Quantitative Multiplex Bead Assay

CPT Code: 83520 x 12
83529

POWERCHART NAME	CYTOMEGALOVIRUS (CMB) ANTIBODY IgG & IgM		
MERCY TEST NAME	CMV AB, IGG/IGM QN *	MERCY LAB CODE	CMVGM

Specimen: 1 ml of serum from a plain red-top or SST tube.
Cause for rejection: Hemolysis and Lipemia.
Processing: Send refrigerated to Mayo. Frozen acceptable. Mayo order code (CMVP).
Performed: Within 3 days from order. Monday through Saturday.
Reference Value: Included with test results.
Method: Multiplex Flow Immunoassay (MFI)

CPT Code: IgG 86644
IgM 86645

POWERCHART NAME	CYTOMEGALOVIRUS DNA DETECT AND QUANT		
MERCY TEST NAME	CYTOMEGALOVIRUS DNA*	MERCY LAB CODE	CMVQU

Specimen: 1.2 mL of plasma from purple top (EDTA).
Spin down and remove plasma from cells within 6 hours of collection.

Processing: Send frozen to Mayo. Mayo order code (CMVQN).

Performed: Monday through Saturday; 7 am - 4 pm

Reference Value: Included in report.

Method: CMVQN: Reverse Transcription Polymerase Chain Reaction (RT-PCR)

CPT Code: 87497

TEST NAME	CYTOMEGALOVIRUS PCR (CMV PCR)		
MERCY TEST NAME	CYTOMEGALOVIRUS PCR*	MERCY LAB CODE	CMVPCR

Specimen: Must indicate specimen source. Submit only 1 of the following specimens:

Body fluid (Spinal, pleural, peritoneal, ascites, pericardial, amniotic, or ocular) – 0.5 mL of fluid in a sterile, screwcap, 5-mL aliquot tube (preferred) or sterile container. **Do not centrifuge.** Send to Mayo in Sarstedt Aliquot Tube (T914) or sterile container.

Respiratory (Bronchial washing, bronchoalveolar lavage, nasopharyngeal aspirate or washing, sputum, or tracheal aspirate) – 1.5 mL of fluid in a sterile, screwcap, 5-mL aliquot tube (preferred) or sterile container. **Do not centrifuge.** Send to Mayo in a Sarstedt Aliquot Tube, 5 mL (T914).

Genital swab (Cervix, vaginal urethra, anal/rectal, or other genital sources) – Culturette (BBL Culture Swab) (T092). Send swab to Mayo in multimicrobe media (M4-RT, M4 or M5).

Swab (Dermal, eye, nasal, saliva, or throat) – Culturette (BBL Culture Swab) (T092). Send swab to Mayo in multimicrobe media (M4-RT, M4 or M5).

Tissue (Brain, colon, kidney, liver, lung, etc.) - Whole collection in a Multimicrobe media (M4-RT) (T605) (Preferred) or Sterile container with 1–2 mL of sterile saline. Submit only fresh tissue.

Urine – 1 mL of a random urine in a sterile container.

Bone Marrow – 0.5 mL of bone marrow in an EDTA tube. Send bone marrow in original tube. **Do not aliquot.**

Cautions: A negative result does not eliminate the possibility of cytomegalovirus (CMV) infection.

This assay is only to be used for patients with a clinical history and symptoms consistent with CMV infection and must be interpreted in the context of the clinic picture.

Processing: Send refrigerated (preferred) to Mayo. Frozen is also acceptable. Mayo order code (**CMVPV**).

Performed: 1-4 days. Monday through Sunday.

Reference value: Reference ranges included with report.

Method: Real-Time Polymerase Chain Reaction (PCR)/DNA Probe Hybridization

CPT Code: 87496

POWERCHART NAME	NEUTROPHIL CYTOPLASM ANTIBODY ID		
MERCY TEST NAME	CYTOPLASMIC NEUT AB*	MERCY LAB CODE	ANCA

Specimen: 0.5 ml serum from a SST tube or plain red top tube. Minimum 0.4 ml.

Processing: Send **refrigerated** to Mayo. Frozen is acceptable. Mayo order code ANCA.

Performed: 3 – 4 days. Monday through Saturday.

Reference Values: Included with test results.

Method: Indirect Immunofluorescence

CPT Code: 86036 x2 Screen

86256 Titer (if appropriate)

POWERCHART NAME	D-DIMER		
MERCY TEST NAME	D-DIMER TEST	MERCY LAB CODE	DDIMER

Specimen: Draw a blue top tube (3.2% citrate) filled appropriately with amount of blood listed on label.

Stability: 4 hours room temp, freeze if > 4 hours, good for 4 weeks frozen.

Cause for
rejection:
Processing:

Improperly filled tubes will **NOT** be tested. Avoid gross hemolysis.

Processing:**In-house patients:** Centrifuge immediately. Test within 4 hours of collection.

If testing will be delayed longer than 4 hours. Double spin coagulation specimens to ensure that all platelets are removed and freeze.:

- Centrifuge specimen. Aliquot plasma (leaving some above the cells) to a plastic centrifuge tube.
- Centrifuge the aliquot tube. Pipette plasma (leaving some above the bottom of the tube) to another plastic aliquot tube.
- Store plasma in freezer. Label aliquot vial "CITRATED PLASMA."

Regional Lab Clients:

- Centrifuge immediately.
- Aliquot specimen (leaving some above the cells) to a plastic centrifuge tube.
- Centrifuge the aliquot tube. Pipette plasma (leaving some above the bottom of the tube) to another plastic aliquot tube.
- Send refrigerated if testing can be performed within 4 hours of collection.
- If testing will not be performed within 4 hours freeze specimen and send frozen.
- Label aliquot vial "CITRATED PLASMA."

Performed: Within 8 hours of receipt. Available stat.

Reference value: 0-500 ng/mL FEU

The cutoff for suspected DVT or PE is 500 ng/mL FEU.

Elevated levels of DDIMER are found in clinical conditions such as DVT, PE, and DIC. DDIMER

levels also rise during normal pregnancy, but very high levels are associated with complications.

Method: Turbidimetric method on IL ACL TOP500.

CPT Code: 85379

TEST NAME	DEPAKEN or DEPAKOTE	See: Valproic Acid
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POWERCHART NAME	DERMATOLOGY CHEMISTRY PANEL		
MERCY TEST NAME	DERM PANEL (Accutane Panel)	MERCY LAB CODE	ATPN

Specimen: 0.5 ml serum

Stability:

Specimens may be stored for up to 2 days at 2-8°C or stored frozen at or below -20°C.

Comment: Includes Alk Phos, ALT, AST, BUN, BUN/Creat ratios, Cholesterol, Creatinine, eGFR, Glucose, Total Protein, Triglyceride.

Performed: Within 8 hours or receipt. Available stat.

Reference Range: See individual test entry.

Method
Description: See individual test entry.

CPT Code: See individual test entry.

POWERCHART NAME	DERMATOPHYTE CULTURE		
MERCY TEST NAME	DERMATOPHYTE CLT	MERCY LAB CODE	DERMCT

- Specimen:
- o Skin scrapings, hair or nail clippings.
 - o Culture media will be inoculated directly by the dermatology office.
- Comment:
- o Label DTM agar with the patient's name, date, and time of collection, and source.
 - o Do not cover agar slant with label.
- Processing:
- o Specimen to be collected in dermatology office and inoculated directly to DTM agar.
 - o The specimen should be sent at room temperature to Mercy lab.
- Performed: Positive cultures reported when detected.
Negative Cultures reported after 30-35 days
- Method: Plated to Mycobiotic Agar
- CPT Code: 87101
Additional identification panels reflex ordered as appropriate.

POWERCHART NAME	DHEA-S (DEHYDROEPIANDROSTERONE SULFATE)		
MERCY TEST NAME	DHEAS BATTERY	MERCY LAB CODE	DHEASB

Specimen: 0.5 ml serum

Stability: Tightly cap and refrigerate specimens at 2–8°C for no longer than 6 days if the assay is not completed within 4 hours. If longer storage is necessary, freeze samples at ≤ -20°C for up to 1 month. Do not store in a frost-free freezer. Freeze samples only 1 time and mix thoroughly after thawing.

Comment: Test samples as soon as possible after collecting. Do not use samples stored at room temperature for no longer than 4 hours.

Performed: Within 8 hours of receipt. Available Stat.

Reference Range:	Age (Years)	Female	Male
	18-21	51-321	24-537
	21-30	18-391	85-690
	31-40	23-366	106-464
	41-50	19-231	70-495
	51-60	8-188	38-313
	61-70	12-133	24-244
	>70	7-177	5-253

Reference ranges have not been established for children under 18 years of age.

Method: The Atellica IM DHEAS assay is a quantitative competitive immunoassay that uses direct chemiluminescent technology.

CPT Code: 82627

POWERCHART NAME	DIALYSIS CHEMISTRY PANEL		
MERCY TEST NAME	DIALYSIS PANEL	MERCY LAB CODE	DPNL

Specimen: 1 ml serum

Stability: Specimens may be stored for up to 2 days at 2-8°C or stored frozen at or below -20°C

Comment: For use by Dialysis Unit only. Includes A/G Ratio, Albumin, Alkaline Phosphatase AST(SGOT), BUN, BUN/Creatinine Ratio, Calcium, CO2, Creatinine, eGFR, LDH, Phosphorus, Potassium, Sodium, and Total Protein

Performed: Within 8 hours of receipt. Available Stat.

Reference Range: See individual test entry

Method: See individual test entry

Description: See individual test entry

CPT Code: See individual test entry

TEST NAME	DIAPHRAGM WASHINGS	See: Cytology Section Peritoneal Fluid
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POWERCHART NAME	DIAZEPAM AND NORDIAZEPAM LEVEL		
MERCY TEST NAME	DIAZEP NORDIAZ*	MERCY LAB CODE	DIAN

Specimen: 0.5 ml serum from a no additive serum tube
Processing: Separate from cells. Send refrigerated to Mayo. Ambient or frozen acceptable. Mayo order code (DIA).
Performed: Tuesday 11 AM
Reference values: Included with test results

Method: Liquid Chromatography-Tandem Mass Spectrometry (LC-MS/MS)
CPT Code: G0480 / 80346

POWERCHART NAME	DIC PANEL		
MERCY TEST NAME	DIC PANEL	MERCY LAB CODE	DICPNL

Includes: Fibrinogen D-Dimer
Protome/INR Thrombin Time
PTT

Specimen: 2 Blue top tubes (3.2% Citrate) filled appropriately with amount of blood listed on label.
Stability: 4 hours room temp, freeze if >4 hours, good for 4 weeks frozen.
Cause for rejection: Gross hemolysis. Improperly filled tubes will not be tested.
Processing:

- Centrifuge immediately.

- Separate plasma within 2 hours of collection.
- Double spin and freeze plasma if testing delayed longer than 4 hours.
- Label frozen vial "Citrated Plasma."

Preformed: Within 8 hours of receipt. Available stat.

Method: Photo-optical clot detection

CPT Code: 85380 D-Dimer
85610 PT
85384 Fibrinogen
85730 PTT

POWERCHART NAME	DIFFERENTIAL		
MERCY TEST NAME	DIFFERENTIAL MANUAL	MERCY LAB CODE	DIFF

Specimen: Purple top tube adequately filled and mixed immediately.

Stability: 4 hours room temp, 36 hours refrigerated.

Comment:

- Includes differential count of white cells and morphology of red cells.
- May be performed on a CBC specimen which was ordered and reported within the previous 36 hours.
- Indicate in comment if previous days specimen is to be used.
- Please send a copy of the CBC results from your instrument.

Performed: Within 8 hours of receipt. Available stat

Reference value: Included with test results. See Special Helps section for complete listing.

Method: Microscopy, Wright-stained smear.

CPT Code: 85007

POWERCHART NAME	DIGOXIN LEVEL		
MERCY TEST NAME	DIGOXIN	MERCY LAB CODE	DIG

Specimen: 0.5 ml serum
Stability: Separated specimens may be stored for up to 8 hours at 20–25°C or for up to 7 days at 2–8°C or stored frozen for up to 6 months at -20°C or colder.
Comment: Do not use hemolyzed samples.
Alias: Lanoxin
Performed: Within 8 hours of receipt. Available stat.
Reference Range: Therapeutic range: 0.8-2.0 ng/ml
Method: The Atellica CH Digoxin (Dgn) assay measures digoxin in serum by a latex-enhanced
Description: immunoturbidimetric method.
CPT Code: 80162

POWERCHART NAME	LDL CHOLESTEROL DIRECT		
MERCY TEST NAME	DIRECT LDL CHOL (Low Density Liopro	MERCY LAB CODE	DLDL

Specimen: 0.5 ml serum
Stability: Specimens are stable for up to 5 days at 2–8°C.9. Specimens may be frozen for up to 14 days at ≤ -20°C.9 Do not store in a frost-free freezer. Thoroughly mix thawed specimens and centrifuge before using.
Comment: Venipuncture should occur prior to metamizole (sulpyrine) administration due to the

Performed: potential for falsely depressed results.
Within 8 hours of receipt. Available stat.

Reference Range: 60-130 mg/dl

The National Cholesterol Education Program of the National Heart, Lung, and Blood Institute has announced the following guidelines:

Optimal: <100mg/dl

Near Optimal: 100-129mg/dl

Borderline high: 130-159mg/dl

High: 160-189mg/dl

Very High: ≥190mg/dl

Method Description: The Atellica CH LDLC assay is a homogeneous assay for directly measuring LDL-C levels in serum

CPT Code: 83721

POWERCHART NAME	DONOR COLLECTION		
MERCY TEST NAME	COLLECT CHG DONOR	MERCY LAB CODE	MDONOR

- Comment:
- When a potential bone marrow, tissue, or organ donor comes to the lab to be drawn for compatibility, we will do the collection at no charge to the donor.
 - DO NOT add a collect charge or a processing charge.
 - The test code "MDONOR" is ordered simply to track that the patient did have a specimen drawn, but there is no charge associated with the test.
 - Patient may bring in their own kit, or kit may be located in processing department.
 - Process and send out kit as instructed.

POWERCHART NAME	DOXEPIN (SINEQUAN) LEVEL		
MERCY TEST NAME	DOXEPIN NORDOXEPIN*	MERCY LAB CODE	DXPN

Specimen:

- 1 ml serum from a no additive serum tube.
- Collect immediately before next scheduled dose (minimum 12 hours after last dose.)
- Spin down within 2 hours of draw. If serum is not removed within this time, TCA levels may be falsely elevated due to drug release from red blood cells.

Cause for rejection: Hemolysis is NOT acceptable. Serum gel tube is NOT acceptable.

Processing:

- Centrifuge within 2 hours of collection.
- Send **refrigerated** to Mayo. Frozen or ambient acceptable. Mayo order code (DXPIN).

Performed: 2 days. Test set up Monday through Saturday.

Reference value: Included in report.

Method: Liquid Chromatography-Tandem Mass Spectrometry (LC-MS/MS)

CPT Code: 80335/G0480

POWERCHART NAME	COLLECTION DRUG SCREEN HEALTH WORKS
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MERCY TEST NAME	DRUG ABUSE TESTING FOR EMPLOYMENT, PRE-EMPLOYMENT, POST-ACCIDENT, CDL (Commercial Driver's License), NON-CDL	CCDAH
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- Comment:
- Employers each have specific procedures. Certain industries are mandated by DOT regulations. Chain-of-custody available.
 - Refer Healthworks clients to Healthworks at Mercy, Chelsea Creek, 8:00 AM to 5:00 PM. 1-800-622-6352 or 421-5244.
 - After hours, Laboratory support services staff will collect the urine specimens. Clients are to register in patient registration or through ER.
 - An Employer representative must accompany the employee and the employee must have a photo ID. (Exception: Post accident or out of area).
 - The Lab will refrigerate the sealed package in a locked box and secure paperwork.

POWERCHART NAME	DRUG OF ABUSE OVERDOSE PANEL URINE		
MERCY TEST NAME	URINE OVERDOSE PNL	MERCY LAB CODE	ODDRUG

Comment: Performed at Mercy in Mason City. No chain of custody is kept.
Regional Lab Clients: Refer to Drug Abuse with Chain of Custody for legal actions.

Screens for: Screens for these types of drugs:

AMP Amphetamine (d-Amphetamine)	500ng/mL	OPI Opiates (Morphine)	100 ng/mL
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BAR Barbiturates (Butalbital)	200ng/mL	OXY Oxycodone (Oxycodone)	100 ng/mL
BZO Benzodiazepines (Nordiazepam)	150 ng/mL	PCP Phencyclidine (Phencyclidine)	25 ng/mL
BUP Buprenorphine (Buprenorphine)	10 ng/mL	PPX Propoxyphene (Norpropoxyphene)	300 ng/mL
COC Cocaine (Benzoylecgonine)	150 ng/mL	THC Cannabinoids (11-nor-9-carboxy- Δ 9-THC)	50 ng/mL
MAMP Methamphetamine (d-Methamphetamine)	500 ng/mL	TCA Tricyclic Antidepressants (Desipramine)	300 ng/mL
MTD Methadone (Methadone)	200 ng/mL		

Screening test for medical decisions, not for legal chain of custody. Should not be used for drug compliance testing. Please refer to DRUG ABUSE WITH CHAIN OF CUSTODY (Regional Lab Clients)

Comment:
Specimen:
Stability:

If urine alcohol is needed, refer to Alcohol Ethyl Urine.
10 ml urine. No preservative.
2 days refrigerated, freeze if > 2 days.

Performed: Available stat. Performed at Mercy Laboratory.

Reference value: Negative

Method: Homogeneous Enzyme Immunoassay

CPT Code: 80306

POWERCHART NAME	DRUG OF ABUSE SCREEN URINE		
MERCY TEST NAME	DRUG AB R UR	MERCY LAB CODE	DRUG

Specimen: 5 mL of unpreserved urine.

Stability: Specimens may be stored for up to 7 days at 25°C or for up to 30 days at 2-8°C or stored frozen for up to 12 months at -20°C.

Comment: Not used for Chain of Custody testing.

Screens for these types of drugs:

1. Amphetamine cutoff: 500 ng/mL
2. Barbiturate cutoff: 200 ng/mL
3. Benzodiazepine cutoff: 200 ng/mL
4. Cocaine cutoff: 150 ng/mL
5. Opiates cutoff: 300 ng/mL
6. Cannabinoid cutoff: 50 ng/mL

Performed: Screening test done within 8 hours of receipt. Available stat.

Reference Range: None detected

Method Description: The Atellica CH Am, Bnz, Thc, Coc, Op, and Brb assay is a homogeneous enzyme immunoassay technique used for the analysis of specific compounds in human urine.

CPT Code: 80307

TEST NAME	DRUG ABUSE WITH CHAIN OF CUSTODY (Regional Lab Clients)
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Comment: Regional Lab clients need to order the collection kit directly from MEDTOX. Regional Lab clients are responsible for the collection process, chain of custody, mailing kit, billing, and reporting.

MEDTOX Laboratories
402 West County Road D
St. Paul, MN 55112
Phone number: 800-832-3244.
CLIA ID# 24D0665278

TEST NAME	DRUG SCREEN AUTOPSY*
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Specimen: Urine, Blood, Vitreous fluid, Gastric fluid, or Tissue.

Comment: Ordered by Lab personnel on autopsy specimens as directed by pathologist or pathology assistant.

Processing: Performed at Mercy Medical Center – North Iowa, send to Mayo, send to Medtox, send to Aegis Analytical Lab, or as indicated on the Mercy Drug Screen Autopsy form.

Refer To: Drug Abuse Random Urine performed at Mercy North Iowa
 DGS - Drug Screen Blood, Mayo order code DSS
 OTCU - OTC/Rx Drug Screen Urine Mayo order code PSDU.

POWERCHART NAME	DRUG SCREEN COMPREHENSIVE SERUM		
MERCY TEST NAME	DRUG SCN BLOOD*	MERCY LAB CODE	DGS

Comments: Detection and identification of prescription or over the counter drugs frequently found in drug overdose or used with a suicidal intent.

Qualitatively identifying drugs present in the specimen; quantifications of identified drugs, when available, may be performed upon client request.

This test is **NOT intended for** therapeutic drug monitoring or compliance testing.

This test is **NOT intended for** use in employment-related testing.

This test is **NOT useful for** drugs of abuse or illicit drug testing, including benzodiazepines, opioids, barbiturates, cocaine, amphetamine type stimulants.

Specimen: 2.75 mL serum from no additive serum tube. Serum from a Serum Separator Tube (SST) is **NOT** acceptable.

Centrifuge and aliquot serum into plastic vial within 2 hours of collection.

Processing: Send refrigerated (Preferred) to **Mayo**. Ambient or frozen is also acceptable. Mayo order code (**DSS**).

Performed: 3 days. Monday through Sunday.

Reference value: Reference ranges included with report.

Method: Gas Chromatography-Mass Spectrometry (GC-MS)

CPT Code: 80307

POWERCHART NAME	DRUG SCREEN URINE PRESCRIPTION - OTC		
MERCY TEST NAME	OTC/Rx Drug Urine*	MERCY LAB CODE	OTCU

Comment: This test is limited to prescription and OTC drugs. Drugs of abuse testing will need to be ordered separately if desired.

This test looks for a broad spectrum of prescription and over-the-counter drugs. It is designed to detect drugs that have toxic effects. It is intended to help physicians manage an apparent overdose of an intoxicated patient, to determine if a specific set of symptoms might be due to the presence of drugs, or to evaluate a patient who might be abusing these drugs intermittently. This test does not test for all possible drugs.

Specimen: 5 mL random urine in a Sarstedt Aliquot Tube (preferred) or plastic urine container. No preservative.

Processing: Send refrigerated (preferred) to Mayo. Frozen is also acceptable. Mayo order code (**PDSU**).

Performed: 2-4 days. Monday through Friday.

Reference value: Reference ranges included with report.

Method: Gas Chromatography-Mass Spectrometry (GC-MS)

CPT Code: 80307

POWERCHART NAME	QUICK DRUG SCREEN CHAIN OF CUSTODY - ORDERABLE ONLY BY LAB		
MERCY TEST NAME	DRUG SCRNCOC QUICK	MERCY LAB CODE	QDRUG

Comment Refer clients to Healthworks at Mercy, Chelsea Creek, 8:00 AM to 5:00 PM. 1-800-622-6352 or 428-5244.

After hours, Laboratory support services staff will collect the urine specimens using the chain of custody and perform the Quick Drug screen testing. Employers each have specific procedures. When Larson Manufacturing employees present to the lab the Quick Drug kit 11+4 is to be used. When Curries/Graham Manufacturing employees present to the lab the CRLSTAT kit is used. An Employer representative must accompany the employee. The forms and kits for this testing are kept on site in the draw station room off of the lab waiting room.

Order the test CCDAHW and QDRUG and result as "TCOM" test completed. See specific procedure for the handling of the paperwork.

CPT Code: 80307

TEST NAME	DNA DOUBLE STRANDED AB		
MERCY TEST NAME	DSDNA AB REF IGG*	MERCY LAB CODE	ADNAR

Specimen: 0.3 ml serum from a serum separator tube (SST)
 Processing: Send refrigerated to Mayo. Frozen is also acceptable.
 Mayo order code **(ADNA1)**.
 Performed: 4 days. Test set up Monday through Saturday
 Reference value: Included in report.
 Method: ADNAR: Enzyme-Linked Immunosorbent Assay (ELISA)
 CPT Code: 86225

POWERCHART NAME	EAR CULTURE		
MERCY TEST NAME	EAR CLT/GS	MERCY LAB CODE	EARC

Specimen: Collect sample on a routine Culturette. Cleanse the external canal. Collect exudate or scrapings of ear canal.

Comments: Susceptibility testing will be performed on significant isolates.

- Haemophilus, Neisseria, & Streptococcus pneumoniae will be screened for penicillin resistance only.
- This order is for **INTERNAL ear** samples only. If the EXTERNAL portion of the ear is to be cultured, order as a wound culture.

RL Client
 Comments:

- Write EAR CULTURE on the order form.
- Send specimen at room temperature to Mercy lab.

Processing: Send at room temperature.

Performed: Gram Stain: Within 8 hours of receipt
 Preliminary report: 1,2,3,4 days
 Final report:5 days

Reference value: No growth (commensal skin flora may be present).

Method: Standard culture techniques

CPT Code: 87070 Culture
 87205 Gram Stain

POWERCHART NAME	ELECTROLYTE PANEL		
MERCY TEST NAME	ELECTROLYTES	MERCY LAB CODE	LYTE

Specimen: 0.5 ml serum

Stability: Specimens may be stored for up to 2 days at 2–8°C or stored frozen at or below -20°C.

Comment: Includes Anion Gap, Chloride, CO₂, Potassium and Sodium. Hemolyzed specimens not acceptable.

Performed: Within 8 hours of receipt. Available stat.

Reference Range: Please see individual test entries

Method: Refer to individual test entries.

Description:

CPT Code: 80551

POWERCHART NAME	ENDOMYSIAL IgA AUTOANTIBODY		
MERCY TEST NAME	ENDOMYSIAL ATBY*	MERCY LAB CODE	ENDA

Specimen: 2 ml serum from a Serum Separator Tube (SST) or no additive serum tube

Comment: Useful for the diagnosis of dermatitis herpetiformis and celiac disease and for monitoring adherence to gluten-free diet in patients with dermatitis herpetiformis and celiac disease.

Note: If Endomysial Antibodies (IgA), Serum is positive or indeterminate, Mayo (**EMAT**) /Endomysial (IgA) Titer, Serum will be performed at an additional charge.

Processing: Send **refrigerated** to Mayo. Ambient or frozen acceptable. Mayo order code (**EMA**).

Performed: 2-7 days. Test set up at Mayo Monday through Friday; 7 a.m.-5 p.m.

Reference value: Report includes presence and titer of circulating anti-endomysia antibodies. Negative in normal individuals, also negative in dermatitis herpetiformis or celiac disease patients adhering to gluten-free diet.

Method: Indirect Immunofluorescence (EMA)

CPT Code: 86231

86231 titer (if appropriate)

POWERCHART NAME	ENTEROVIRUS RNA DETECTOR		
MERCY TEST NAME	ENTEROVIRUS BY PCR*	MERCY LAB CODE	ENTRPC

Specimen: Spinal Fluid: 0.5 mL collected in a sterile screw-capped container. **DO NOT CENTRIFUGE.**

Note: If ordering for other specimen type than CSF, order as CMIS-Mayo code LENT. Must specify specimen type and source.

Processing: Send refrigerated to Mayo. Frozen is also acceptable. Mayo order code (**LENT**).

Performed: 1-3 days. Monday through Sunday.

Reference value: Reference ranges included with report.

Method: Real-Time Polymerase Chain Reaction (PCR)/RNA Probe Hybridization

CPT Code: 87498

POWERCHART NAME	SMEAR FOR EOSINOPHIL URINE		
MERCY TEST NAME	EOSINOPHIL URINE	MERCY LAB CODE	EOUA

Specimen: 10 ml random urine. Deliver to Lab within 1 hour of collection. Refrigerate.

Reference Lab Clients: Refrigerate for transport

Stability: 8 hours refrigerated.

Performed: Within 8 hours of receipt.

Reference value: None seen

< 1 % may indicate urinary tract infection

1 - 5% is not a good predictor of Acute Interstitial Nephritis

> 5 % may be a valuable predictor of Acute Interstitial Nephritis and may indicate Chronic Urinary Tract infection.

Method: Microscopy, Wright-stained smear.

CPT Code: 87205

POWERCHART NAME	EPSTEIN BARR VIRUS PANEL		
MERCY TEST NAME	EPSTEIN BARR AB QL (qualitative)	MERCY LAB CODE	EBVA

Comment: Includes VCA IgG Ab, VCA IgM Ab, EBNA IgG Ab, and Interpretation. Testing is qualitative. If quantitative test is required, specimen will need to be sent to Mayo.

Specimen: 1 ml serum from a Serum Separator Tube (SST).

Processing: Specimens can be sent refrigerated. Frozen is acceptable. Mayo order code **(SEBV)**

Cause for rejection: Grossly hemolyzed, lipemic, or icteric samples.

Performed: 2-14 days. Monday through Friday; Continuous 9 a.m. – 6 p.m. Sunday; 6 a.m.

Method: Multiplex Flow Immunoassay

CPT Code: 86665 x2-VCA, IgG and IgM
86664 EBNA

POWERCHART NAME	EPSTEIN BARR VIRUS DNA PCR QUANT PLASMA		
MERCY TEST NAME	EBV DNA DET QNT*	MERCY LAB CODE	EBVQN

Specimen: 1.5 mL EDTA plasma from EDTA tube.
Centrifuge with 2 hours of collection. Aliquot plasma into a plastic vial.

Processing: Send specimen frozen on dry ice only. If shipment will be delayed for more than 24 hours, freeze plasma at -20 to -80 degrees C (up to 84 days) until shipment on dry ice. Refrigerated is also acceptable. Mayo order code (**EBVQN**).

Performed: 1-3 days. Monday through Saturday.

Reference value: Reference ranges included with report.

Method: Real-Time Polymerase Chain Reaction (RT-PCR)

CPT Code: 87799

POWERCHART NAME	ERYTHROPOIETIN LEVEL		
MERCY TEST NAME	ERYTHROPOIETIN*	MERCY LAB CODE	EPO

Specimen: 0.6 ml serum

Comment: Morning samples taken between 7:30 am and 12:00 noon have been recommended.

Performed: Report available in 1-3 days.

Reference Range: Included with report.

Method

Description: Two site immunoenzymatic (sandwich) assay.

CPT Code: 82668

POWERCHART NAME	ESTRADIOL LEVEL		
MERCY TEST NAME	ESTRADIOL	MERCY LAB CODE	ESTD

Specimen: 0.5 ml serum

Stability: Tightly cap and refrigerate specimens at 2-8°C if the assay is not completed within 20 hours.
Freeze samples at ≤ -20°C if the assay is not completed within 48 hours.
Keep samples frozen for no more than 6 months. Do not store in a frost-free freezer.
Freeze samples only 1 time and mix thoroughly after thawing.

Comment: Do not use samples that have been stored at room temperature for longer than 20 hours.
 Performed: Within 8 hours of receipt. Available Stat
 Reference Rang: Male: 0 - 47 pg/mL

Female: Estradiol Expected Values
 for Ovulating non-pregnant females
 based on the hLH peak as Day 0.
 Day -6 to -8 Mid-Follicular 27-122 pg/mL
 Day -1 Peri-Ovulatory 95-433 pg/mL
 Day +6 to +8 Mid-Luteal 49-291 pg/mL
 Post-Menopausal Female <15-40 pg/mL

Method Description: The Atellica IM eE2 assay uses a competitive assay format
 CPT Code: 82670

TEST NAME	ESTROGEN/PROGESTERONE RECEPTOR ASSAY QUANTITATIVE (PARAFFIN BLOCK)		
MERCY TEST NAME	ERA/PRA BLOCK	MERCY LAB CODE	EPRB

Comment: Ordered on paraffin block. Routinely ordered on breast carcinoma.

Processing: Paraffin Block
 Performed: Test set up Tuesday and Friday.
 Reference value: Included with pathology report.
 Method: Labeled-Streptavidin Biotin Immunoperoxidase stain.

CPT Code: 88342 X2 Immunocytochem+ X2

TEST NAME	ETHOSUXIMIDE (ZARONTIN) LEVEL		
MERCY TEST NAME	ETHOSUXIMIDE*	MERCY LAB CODE	ETX

Specimen: 0.5 ml of serum from Serum Separator Tube (SST).
Processing: Send refrigerated. Ambient or frozen acceptable. Mayo order code (**ETX**).
Performed: 1 day. Test set up Monday through Saturday
Reference value: Included with report.

Method: Enzyme-Multiplied Immunoassay Technique (EMIT)
CPT Code: 80168

TEST NAME	EVEROLIMUS LEVEL		
MERCY TEST NAME	EVEROLIMUS*	MERCY LAB CODE	EVROL

Specimen: 3.0 ml of whole blood lavender top (EDTA) tube.
Processing: Send refrigerated. Ambient or frozen are acceptable. **DO NOT** centrifuge. Send in original tube. Mayo order code (**EVROL**)
Performed: 1-2 days. Monday through Sunday; 1 p.m.
Reference value: Included with report.

Method: Liquid Chromatography-Tandem Mass Spectrometry (LC-MS/MS)
CPT Code: 80169

POWERCHART NAME	EYE CULTURE OTHER		
MERCY TEST NAME	EYE CLT/GS	MERCY LAB CODE	EYEC

Order: Indicate which eye when ordering. See beginning of section for ordering help and codes.

Specimen:

- **Conjunctivitis:**
Touch the involved area with a sterile swab moistened with sterile saline. Ideally, inoculate directly to the appropriate media (Contact Microbiology). However, the specimen may be transported on a routine Culturette to the lab.
- **Corneal scrapings:**
The cornea may be anesthetized with 0.5% proparacaine hydrochloride, but better results are obtained if the scrapings are collected without the use of a topical anesthetic. A topical anesthetic may have an antimicrobial effect. Scrape the base and margin of the ulcer. Inoculate these scrapings directly to the appropriate media.

Comment:

- Deliver to Lab immediately. The organisms involved in eye infections are often fastidious in nature.
- Susceptibility testing will be performed on significant isolates.
- This order is for **INTERNAL eye** specimens only. If an external eye culture is needed, order as a wound culture.

RL Client

Comments:

- Write EYE CULTURE on the order form. Indicate which eye was cultured.
- Send the specimen room temperature to Mercy lab.

Performed: Gram Stain: Within 8 hours of receipt
Preliminary reports: Days 1 & 2
Final report: 3 days

Reference value: No growth (commensal skin flora may be present)

Method: Standard culture techniques.

CPT Code: 87070 Culture+
87205 Gram Stain+

POWERCHART NAME	FACTOR V LEIDEN F5 LEVEL		
MERCY TEST NAME	F5 LEIDEN R506Q MU*	MERCY LAB CODE	FACTV

Patient Preparation: A previous bone marrow transplant from an allogenic donor will interfere with testing. Call 800-533-1710 for instructions for testing patients who have received a bone marrow transplant.

Specimen: 3 mL whole blood in EDTA (Preferred). Yellow top (ACD solution B) and sodium citrate also acceptable. Invert several times to mix blood.

Processing: Send ambient in original tube. **DO NOT ALIQUOT.** Mayo order code F5DNA. Coagulation Consultation Patient Information Sheet must be sent with specimen.

Performed: 3-5 days, Weekly.

Reference Value: Included in Report

Method: Polymerase Chain Reaction/Fluorescence Monitoring

CPT Value: 81241

POWERCHART NAME	FACTOR VIII LEVEL		
MERCY TEST NAME	COG FAC VIII ASSAY*	MERCY LAB CODE	F8A

- Specimen:
- Draw 2 blue top tubes filled appropriately with the amount of blood listed on the label.
 - Avoid gross hemolysis.
 - Patient must NOT be receiving coumadin or heparin therapy.
- Processing: Double centrifuge specimen, place 1 mL double spun platelet poor plasma into vial. Freeze specimen immediately. Send **FROZEN** to Mayo. Mayo code - **F8A**
- Performed: 1-3 Days, performed Monday through Friday
- Reference value: Included in report
- Method: Activated Partial Thromboplastin Clot-Based Assay
- CPT Code: 85240

POWERCHART NAME	FACTOR Xa		
MERCY TEST NAME	FACTOR X A	MERCY LAB CODE	FTENA

Specimen: Draw a blue top tube filled appropriately with amount of blood listed on the label.
Stability: 4 hours refrigerated, freeze if >4 hours.
Comment: Used to monitor dose of Low Molecular Weight Heparin. To monitor unfractionated Heparin dose, order HEPARIN UNFRAC.

Cause for Rejection: Improperly filled tubes will NOT be tested. Gross Hemolysis unacceptable.

Processing: Double spin and freeze plasma if testing not done within 4 hours of collection.

Label vial "citrated plasma".

Double spin coagulation specimens to ensure that all platelets are removed: 1. Centrifuge specimen. Aliquot plasma (leaving some above the cells) to a plastic centrifuge tube. 2. Centrifuge the aliquot tube. Pipette plasma (leaving some above the bottom of the tube) to another plastic aliquot tube. 3. Store plasma as required for the test ordered.

Performed: Available stat. Performed within 8 hours of receipt.

Reference Value: Peak levels (4 hours post dose) are recognized as the best measures of safety and efficacy. Desired levels are as follows:

- For prevention of venous thromboembolism (VTE) (DVT & PE) a peak Factor X A drawn 4 hours post SQ injection range is 0.1 - 0.2 U/ml.

- Treatment levels recommended are 0.4 - 1.1 U/ml for twice daily dosing or 1.0 - 2.0 U/ml for once daily dosing.
- NOTE:** Levels >0.8 - 1.0 U/ml may be associated with increased risk of bleeding.

Method: Chromogenic Substrate
 CPT Code: 85520

POWERCHART NAME	FACTOR X ACTIVITY		
MERCY TEST NAME	CHROMOGEN FACTOR X*	MERCY LAB CODE	FXCH

- Specimen:
- Draw a blue top tube filled appropriately with the amount of blood listed on the label.
 - Avoid gross hemolysis.
 - Patient must NOT be receiving coumadin or heparin therapy.

Processing: Double centrifuge specimen, place 1 mL double spun platelet poor plasma into vial. Freeze specimen immediately. Send **FROZEN** to Mayo. Mayo code- (**FXCH**), Coagulation Factor X Chromogenic Activity Assay, Plasma.

Performed: 1-3 Days, performed Monday through Friday

Reference Value: Included in report.

Method: Chromogenic

CPT Code: 85260

POWERCHART NAME	FAT QUALITATIVE FECES		
MERCY TEST NAME	FAT FECES QUALITATIVE	MERCY LAB CODE	FFQ

Specimen:

- o 2 gm random stool specimen.
- o Submit in a clean container with a tight-fitting lid.
- o Deliver to Lab within 6 hours of collection.

Processing: Refrigerate.

Reference Lab Clients: Refrigerate. Specimen must be delivered to lab within 72 hours of collection.

Performed: As received.

Reference value: Negative. Descriptive report if positive for fat

Method: Sudan red stain, microscopic examination.

CPT Code: 82705

POWERCHART NAME	FAT QUANTITATIVE FECES		
MERCY TEST NAME	FAT FECES QNT*	MERCY LAB CODE	FTFC

Patient Preparation: Patient should be on a controlled diet, 100-150 grams fat per day during collection.

- Specimen:
- 48- or 72-hour stool specimen collected in a special container obtained from the Lab.
 - 48- or 72-hour specimen preferred, but a 24 hour or random specimen will be accepted.
 - Refrigerate the specimen during and after collection (portable refrigerator available from the Lab for inpatients).
 - 5 grams of stool specimen is required for testing. Continue collection until 5 grams collected.
- Comment:
- Must indicate length of collection period in comment.
 - Barium in the stool will interfere with the test.
 - It is essential that laxatives (particularly mineral oil and castor oil) are **NOT** used during the collection period.
 - Synthetic fat substitutes such as Olestra interfere with test procedure.
 - Wait a minimum of 48 hours following a barium procedure before beginning specimen collection.
- Processing:
- Send entire specimen in container that is no more than three-fourths full.
 - Indicate length of collection period.
 - Send **frozen** to Mayo. Mayo order code FATF.
- Performed: 3 days. Test set up Monday through Friday.
- Reference Value: Included with report.
- Method: Nuclear Magnetic Resonance Spectroscopy (NMR).
- CPT Code: 82710
- Comment:
- To be ordered on MISYS when a test result is to be faxed or called to a location in addition to the normal reporting location.
- Include the fax telephone number, mailing address, to whom the report should be directed, and for which tests.

POWERCHART NAME	FEBRILE AGGLUTININ		
MERCY TEST NAME	FEBRIL AGGLUTS*	MERCY LAB CODE	MISM

Includes: Brucella Ab (Total), Tularemia Ab (Total) and Leptospira Igm Ab
Specimen: 2 ml serum from a Serum Separator Tube (SST) or no additive serum tube. Refrigerate
Cause for rejection: Hemolysis.
Comment: **Reference Lab Clients:** Mark "Other" and specify Febrile Agglutinins
Processing: Send to University Hygienic Lab, Iowa City.
Performed: 7 days.
Method: Microagglutination, Tube Agglutination and EIA
CPT Code: 86622 (Brucella), 86668 (Tularemia), 86720 (Leptospira)

POWERCHART NAME	FELBAMATE (FELBATOL) LEVEL		
MERCY TEST NAME	FELBAMATE*	MERCY LAB CODE	FELBA

Specimen: 1 ml serum from a no additive serum tube (Preferred). Also acceptable Serum Separator Tube (SST).
Draw blood immediately before next scheduled dose. Centrifuge and aliquot serum into plastic vial within 2 hours of collection.

Processing: Send refrigerated (Preferred) to Mayo. Ambient or frozen also acceptable. Mayo code (FELBA).

Performed: 1-3 days. Monday, Wednesday, Friday.

Reference Value: Included in report.

Method: Liquid Chromatography-Tandem Mass Spectrometry (LC-MS/MS)

CPT Code: 80167

POWERCHART NAME	FERRITIN LEVEL		
MERCY TEST NAME	FERRITIN	MERCY LAB CODE	FRR

Specimen: 0.5 ml serum
Tightly cap and refrigerate specimens at 2–8°C if the assay is not completed within 8 hours.

Stability: Freeze samples at ≤ -20°C if the sample is not assayed within 48 hours.
Freeze samples only 1 time and mix thoroughly after thawing. The handling and storage information provided here is based on data.

Comment: Do not use samples that have been stored at room temperature for longer than 8 hours.

Serum ferritin values are elevated in the presence of the following conditions and do not reflect actual body iron stores:

- inflammation
- significant tissue destruction
- liver disease
- malignancies such as acute leukemia and Hodgkin’s disease

- therapy with iron supplements

Performed: Within 8 hours of receipt. Available Stat

Reference Range: 0-1 month: 25-200 ng/ml
1-2 months: 200-600 ng/ml
2-5 months: 50-200 ng/ml
6 months- 14 years: 10-140 ng/ml
Adult male: 24-336 ng/ml
Adult female: 11- 307 ng/ml

Method Description: The Atellica IM Fer assay is a 2-site sandwich immunoassay using direct chemiluminescent technology, which uses constant amounts of 2 anti-ferritin antibodies.
CPT Code: 82728

POWERCHART NAME	SEMEN ANALYSIS FERTILITY		
MERCY TEST NAME	FERTILITY TEST SEMEN	MERCY LAB CODE	SMNFER

Note: To be ordered for Reference Lab Clients only.

- Specimen:
- Semen – Total Ejaculate.
 - Patient should have 2-7 days of sexual abstinence at the time of semen collection for accurate results.
 - Mayo kit (supply T178) must be obtained prior to collection from Mercy Laboratory

Causes for Rejection: Specimen will be **rejected** if: not the total ejaculate, specimen not sent in preservative, or if specimen is received at Mayo >24 hours from collection

- Processing:
- Send at ambient temperature to Mayo order code (SEMB).

- Specimen must arrive within 24 hours of collection.
- Send specimen Monday through Thursday **ONLY**, and **NOT** the day before a holiday.
- Specimen should be collected and packaged as close to shipping time as possible.
- Measure and observe semen volume, viscosity, pH, appearance (color), and number of days of sexual abstinence and document on
- Place specimen in preservative (preservative is stored refrigerated until specimen is added)

Performed: Monday through Friday; 3 p.m.
1-4 days.

Reference Value: Included in report.

Method: Parameters of test done per The World Health Organization (WHO) Laboratory Manual

CPT Code: 89322 Semen Analysis with Strict Morphology

POWERCHART NAME	FETAL FIBRONECTIN		
MERCY TEST NAME	FETAL FIBRONECTIN	MERCY LAB CODE	FFNT

Specimen: Specimen Collection Kit may be obtained from the Lab. This kit is the only acceptable collection system available.

Specimen Collection Precautions and Warnings:

- Specimens for Fetal Fibronectin should be collected prior to culture specimens. Collection of vaginal specimens for culture requires aggressive collection

techniques which may abrade the cervical or vaginal mucosa.

Cellular debris may potentially interfere with sample preparation.

- Specimens should be obtained prior to digital cervical examination or vaginal probe ultrasound exam as manipulation of the cervix may cause the release of fetal fibronectin.
- Patient specimens should not be tested if the patient has had sexual intercourse within 24 hours prior to the sampling time because semen and/or sperm may increase the possibility of the test giving a false positive result.
- Care must be taken not to contaminate the swab or cervicovaginal secretions with lubricants, soaps, or disinfectants.
- Patient using Tafazol, a vaginal cream used for yeast infection, should wait 24 hours before collecting a specimen.
- Rupture of membranes should be ruled out prior to specimen collection since fetal fibronectin is found in both amniotic fluid and the fetal membranes.
- Specimens should not be obtained from patients with suspected or known placental abruption or placenta previa.
- Not intended for use in patients with cancers of the reproductive tract.
- Not intended for use in patients with moderate or gross bleeding

Specimen Collection Instructions are included in the collection kit.

Regional Lab: Send specimen on ice or refrigerated.
Performed: Within 8 hours of receipt. Available **STAT**
Reference value: Included with report.
Method: Solid Phase Immunoassay, Optional Reflectance
CPT Code: 82731

POWERCHART NAME	FETAL MATERNAL ERYTHROCYTES		
MERCY TEST NAME	FETAL/MAT ERYTH	MERCY LAB CODE	FME

Vaginal bleed specimen: Screens for fetal bleed.

Specimen: 2 slides prepared at bedside or submit swabs to the Lab.

Performed: Within 8 hours of receipt. Available stat.

Whole blood specimen:

Specimen: 2 ml whole blood from purple (EDTA) top tube. Refrigerate.

Stability: 2 weeks refrigerated but should be processed as soon as possible.

- May be ordered before delivery to determine if fetal bleed has occurred.

Comment: ○ Ordered by Lab when Fetal/Maternal Screen is positive.

Processing: Store specimen refrigerated. Test within 24 hours of collection.

Performed: Daily. Available stat.

Method: Keilhauer Betke stain, microscopic examination.

CPT Code: 85460

POWERCHART NAME	FETAL SCREEN		
MERCY TEST NAME	FETAL/MAT SCREEN	MERCY LAB CODE	FETS

Specimen: One 6 ml Pink top tube. Refrigerate.

- Comment:
- Test will be ordered by Lab when RHIG workup tests indicate that the patient is eligible to receive Rh immune globulin.
 - The Lab will order a Fetal/Maternal Ratio when the Fetal Screen is positive.
 - Test may also be ordered by outside clients.

NOTE: Test can be done only when maternal blood type is known to be Rh negative and fetal blood type is Rh positive. If Rh type of fetus is unknown, order Fetal/Maternal Erythrocyte Ratio.

Performed: Within 24 hours of collection.
 Reference value: Negative (Indicates
 Method: Serological
 CPT Code: 85461

POWERCHART NAME	FIBRINOGEN ACTIVITY		
MERCY TEST NAME	FIBRINOGEN	MERCY LAB CODE	FIBR

- Specimen:
- Draw 1 blue top tube filled appropriately with amount of blood listed on label.
 - 1 ml plasma needed.
 - Avoid hemolysis.

Other: Improperly filled tubes will **NOT** be tested.

- Processing:
- Centrifuge and separate plasma within 2 hours.
 - Store in refrigerator up to 4 hours.
 - Double spin and freeze plasma if storage will be longer than 4 hours.
 - Label vial "CITRATED PLASMA".

Double spin coagulation specimens to ensure that all platelets are removed: 1. Centrifuge specimen. Aliquot plasma (leaving some above the cells) to a plastic centrifuge tube. 2.

Centrifuge the aliquot tube. Pipette plasma (leaving some above the bottom of the tube) to another plastic aliquot tube. 3. Store plasma as required for the test ordered.

Performed: Within 8 hours of receipt. Available stat

Reference value: 145-450 mg/dL

Method: Clauss, photo optical clot detection.

CPT Code: 85384

POWERCHART NAME	LIVER FIBROSIS FIBRO TEST ACTITEST PANEL		
MERCY TEST NAME	FIBROTEST ACTITEST*	MERCY LAB CODE	FIBRO

Specimen: 3 mL serum from a Serum Separator Tube, no additive serum tube acceptable.

Centrifuge and aliquot serum into an amber vial within 2 hours of collection. It must be protected from light.

Cause for

Rejection: **Specimen not protected from light.**

Processing: Centrifuge and aliquot serum into an amber vial or wrap the aliquot tube in foil within 2 hours of collection. Send refrigerated. Mayo (**FIBRO**).

Performed: 2 days, HAPTF, A2MF: Monday through Saturday
ALTF, GGTF, TBILF: Monday through Sunday
APOAF: Monday through Saturday

Reference Value: Included in Report

Method: INTF: Algorithm and Interpretation provided through BioPredictive
APOAF: Automated Turbidimetric Immunoassay
A2MF, HAPTF: Nephelometry
ALTF: Photometric Rate, L-Alanine with Pyridoxal-5-Phosphate
GGTG: Photometric Rate
TBILF: Photometric, Diazonium Salt (DPD)

CPT Code: 81596

POWERCHART NAME	FOLATE SERUM		
MERCY TEST NAME	FOLATE	MERCY LAB CODE	FOL

Specimen: 0.5 ml serum
Tightly cap and refrigerate specimens at 2–8°C if the assay is not completed within 8 hours. Freeze serum samples at ≤ -20°C if the assay is not completed within 48 hours. Freeze serum samples only 1 time and mix thoroughly after thawing. Frozen specimens can remain frozen for up to 30 days. Do not store in a frost-free freezer. If serum samples will be stored for longer than 30 days, then they must be frozen at ≤ -80°C.

Stability:

Comment: Hemolysis significantly increases folate values in serum due to the high folate concentrations found in red blood cells.

Methotrexate and leucovorin interfere with folate measurement because these drugs cross-react with folate binding proteins.

Performed: Within 8 hours of receipt. Available stat.

Reference Range: >12.19 ng/mL

Method Description: The Atellica IM Fol assay is a competitive immunoassay using direct chemiluminescent technology.

CPT Code: 82746

TEST NAME	FOLIC ACID RBC / FOLATE RBC	See: FOLATE SERUM
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Comment: Recommended Alternate testing: Folate Serum

True folate deficiency in the current era of FDA-mandated folic acid supplementation is exceedingly rare. There is no evidence to support routine ordering of RBC or serum folate, but serum folate concentrations provide equivalent clinical information to RBC folate in the assessment and diagnosis of folate deficiency. Based on these statistics, and because serum folate provides equivocal results to RBC folate in almost all clinical scenarios, routine ordering of RBC folate is no longer warranted.

Furthermore, investigation of megaloblastic anemia should preferentially be initiated with vitamin B12 testing instead of folate due to the low incidence of modern folate deficiency. In the absence of B12 deficiency, it is more cost effective to simply supplement with folic acid

rather than routinely test and monitor a patient's folate status, similar to other nutritional deficiencies such as vitamin D.

Information provided by Mayo Medical laboratories.

POWERCHART NAME	FRACTIONAL EXCRETION SODIUM		
MERCY TEST NAME	FRACT EXCRET SODIUM	MERCY LAB CODE	VFES

Specimen: Random urine specimen plus 1 ml serum. Blood specimen must be collected within 1 hour of urine specimen.

Stability: Sodium in serum and urine may be stored for up to 7 days at 2–8°C or stored frozen for up to 30 days at -20°C.

Comment: Includes random urine sodium, random urine creatinine, and Fractional Excretion Sodium Interpretation.

Lab will place an order for a SERUM Sodium and SERUM Creatinine when the urine specimen is received in the Lab.

Performed: Within 8 hours of receipt. Available Stat.

Reference Range: Interpretation table is included with results. Calculations are based on Urine Sodium, Urine Creatinine, Serum Sodium and Serum Creatinine.

Method: Refer to individual test entry

Description:

CPT Code: 84300 Sodium Ur+

82570 Creat R UR

POWERCHART NAME	CHROMOSOME STUDY FRAGILE X		
MERCY TEST NAME	FRAG X MOL ANLYS*	MERCY LAB CODE	FXMA

Specimen: 2.5 ml EDTA whole blood from purple top tubes or a yellow ACD tube. Minimum 1 ml. Draw as much as possible, as Mayo preserves some for more testing, and also for repeat testing.

NOTE: Amniotic fluid and chorionic villus may also be tested. DO NOT collect these specimens before consultation with Mayo Medical Laboratories. Complete collection instructions are found in the Mayo catalog. Call the Lab for a copy of these instructions.

Comment: Useful for documentation of carrier status and prenatal diagnosis for fragile X syndrome. Prior consultation with a medical geneticist is recommended.

Processing:

- **Send whole blood at room temperature. DO NOT CENTRIFUGE!**
- Samples should arrive at Mayo within 72 hours of collection.
- Reason for referral and relevant clinical and family information must be submitted with specimen.
- Complete a Molecular Genetics Information sheet and Genetics request form and send with specimen.
- **Send at room temperature ONLY.** Mayo order code (FXS).
- **Mercy Lab** staff will order on Mayo Access.

Performed: 4 days. Test set up Monday, Wednesday; 10 a.m.

Method: Polymerase Chain Reaction (PCR)-Based Assays.

CPT Code: 81243

POWERCHART NAME	FROZEN PLASMA ORDER SET		
MERCY TEST NAME	FFP FOR INFUS	MERCY LAB CODE	TFFP

- Specimen: EDTA plasma in a pink or purple top tube. MRN must be check marked.
- Use: Usage is indicated in the treatment of clotting factor deficiencies.
- Comment:
- **Use one order for up to 6 units.**
 - **In Powerchart, if plasma is needed "STAT", in the "Transfusion Priority" drop down select "STAT".**
 - **In Powerchart, if plasma is needed for a FUTURE DATE and TIME**, in the "Transfusion Priority" drop down select "TIMED" and select future date and time to when you want the infusion.
 - If blood type has not been ordered for the episode, order "ABO+Rh(D) Blood Typing."
 - Indicate number of units in the units ordered field.
 - Allow 6 minutes thawing time for each unit ordered of FFP.
 - If FFP is for routine use, the process to receive a unit is to send the "Blood Product Request" slip when the unit is ready to be transfused. When the request form is received the product will be thawed and the blood bank will call the requesting location to tell them the product is ready to be picked up.
 - During **Massive Transfusion** or **Emergency Release**, units will automatically be thawed according to orders.
- Processing: Give group specific or compatible disregarding Rh. Refer to procedure if specific group is unavailable.
- Performed: Available stat.
- Method: Thawed

CPT Code: 86927 FFP (Admin) (1 for each unit)
P9017 FFP (Proc)* (1 for each unit)

TEST NAME	FROZEN SECTION TISSUE EXAMINATION
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Includes: Tissue Exam Gross and Microscopic.

Comment: Complete manual Pathology Specimen requisition form and Frozen Section Consultation requisition.
Pre-op diagnosis, patient history, and specimen source must be included.
When sending breast biopsy for frozen section, please forward appropriate mammogram.

Specimen: Tissue specimen, fresh, without formalin.

Reference Lab Clients: Fresh tissue specimen (no formalin) must be kept on ice and transported to Mercy Histology Lab immediately. Notify the Histology Lab (641-428-7486) that the specimen is coming.

Performed: Pathologist report will be called to the physician within 15 minutes of receipt.

Reference Lab Clients: Pathologist report will be called and faxed.

Reference value: Interpretation will be provided.

Method: Pathologist microscopic evaluation

CPT Code: 88331 Frozen/Consult
88332 Frozen Additional

POWERCHART NAME	FRUCTOSAMINE LEVEL		
MERCY TEST NAME	FRUCTOSAMINE, SERUM*	MERCY LAB CODE	FRUCT

Specimen: 1 ml serum from a Serum Separator Tube (SST) or no additive serum tube.
Processing: Send Refrigerated to Mayo. Ambient or Frozen also acceptable. Mayo Code (FRUCT).

Performed: Daily

Reference Value: Reference Ranges included in report
Method: Colorimetric rate reaction
CPT Code: 82985

POWERCHART NAME	FSH LEVEL (FOLLICLE STIMULATING HORMONE LEVEL)		
MERCY TEST NAME	FSH	MERCY LAB CODE	FSH
Specimen:	0.5 ml serum		
Stability:	Tightly cap and refrigerate specimens at 2-8°C if the assay is not completed within 8 hours. Freeze samples at ≤ -20°C if the sample is not assayed within 48 hours. Freeze samples only 1 time and mix thoroughly after thawing.		
Comment:	Do not use samples that have been stored at room temperature for > 8 hours.		
Performed:	Within 8 hours of receipt. Available Stat.		
Reference Range:	Male	1-7 days 8-15 days	≤3.0 mIU/mL ≤1.4

	<p>Puberty onset occurs for boys at a median age of 11.5 (+/- 2) years. For boys, there is no proven relationship between puberty onset and body weight or ethnic origin. Progression through tanner stages is variable. Tanner stage V (adult) should be reached by age 18.</p>	<p>6 days to 3 years 4-6 years 7-8 years 9-10 years 11 years 12 years 13 years 14 years 15 years 16 years 17 years Tanner Stage I Tanner Stage II Tanner Stage III Tanner Stage IV Tanner Stage V</p>	<p>≤2.5 ≤6.7 ≤4.1 ≤4.5 0.4-8.9 0.5-10.5 0.7-10.8 0.5-10.5 0.4-18.5 ≤9.7 2.2-12.3 ≤3.7 ≤12.2 1.2-11.4 0.3- 8.2 1.1-12.9</p>
	<p>Female</p> <p>Puberty onset (transition from Tanner stage I to Tanner stage II) occurs for girls at a median age of 10.5 (+/- 2) years. Progression through Tanner stages is</p>	<p>1-7 days 8-15 days 16 days- 6 years 7-8 years 9-10 years 11 years 12 years 13 years 14-16 years</p>	<p>≤3.4 ≤1.0 ≤3.3 ≤11.0 0.4-6.9 0.4-9.0 1.0-17.2 1.8-9.9 0.9-12.4</p>

	variable. Tanner stage V (adult) should be reached by age 18.	17 years >= 18 years	1.2-9.6 Premenopausal Follicular: 3.9-8.8 Mid Cycle: 4.5-22.5 Luteal: 1.8-5.1 Postmenopausal: 16.7-113.6
		Tanner Stage I Tanner Stage II Tanner Stage III Tanner Stage IV Tanner Stage V	0.4-6.7 0.5-8.7 1.2-11.4 0.7-12.8 1.0-11.6
Method Description:	The Atellica IM FSH assay is a 2-site sandwich immunoassay using direct chemiluminescent technology, which uses constant amounts of 2 antibodies that have specificity for the intact FSH molecule.		
CPT Code:	83001		

POWERCHART NAME	FUNGITELL TEST		
MERCY TEST NAME	FUNGITELL*	MERCY LAB CODE	FUNGS

Specimen: 1 ml serum in a Serum Separator Tube (SST). ****DO NOT ALIQUOT****
Processing: Centrifuge specimen within 2 hours of collection ****DO NOT ALIQUOT**** Ship serum gel tube refrigerated to Mayo. Mayo code: (SFUNG)

Alias: (1,3) Beta-D glucan FORWARD

Performed: 1 day, Monday through Friday, 9 a.m.

Reference Value: Reference Ranges included in report

Method: Protease Zymogen-Based Colorimetric Assay Based on the Limulus Amebocyte Lysate (LAL) Pathway

CPT Code: 87449

POWERCHART NAME	CULTURE FUNGUS + SMEAR DIRECT ORDER SET		
MERCY TEST NAME	FUNGUS CLT/GS	MERCY LAB CODE	FUNG

Order: Specify site when ordering.

Specimen: **To prevent aerosolization, specimens must be submitted in a sterile container with a tight-fitting screw top lid. Culturette must be capped snugly.** Submit according to the following guidelines:

- Body fluid: 5 ml minimum. Collect in sterile screw-capped vial.
- Bone marrow aspirate: 1.5 ml in small Wampole Isolator tube.
- Bone marrow biopsy: Transport in a sterile screw-capped container with 1 ml sterile normal saline.
- Bronchus washings/brushings: 5 ml minimum. Collect in sterile screw-capped vial.

- Corneal scraping or donor cornea: Ophthalmologist is to collect and plate. Contact Microbiology for media.
- Ear: Collect sample on a routine Culturette.
- Hair: Collect hair and base of shaft in screw-capped vial.
- Nail cuttings: Submit cuttings in a screw-capped vial.
- Skin scrapings: Submit scrapings in a **sterile** screw-capped container.
- Sputum: 5 ml minimum. Collect in a screw-capped vial.
- Stool: Freshly passed specimen. Submit specimen in a screw-capped vial.
- Tissue: Place tissue in 1-2 mL sterile saline in a screw-capped vial.
- Urine: 25-50 ml of clean catch, first morning specimen. Submit urine in a sterile screw-capped vial. Catheterized and suprapubic specimens are also acceptable.

RL Client

Comments:

- Write FUNGUS CULTURE on order form. Indicate specimen source.
- Send specimens at room temperature to Mercy lab.

Performed:

Direct preparation: 1 day
 Preliminary report: 2,3 weeks
 Final report: 4 weeks

Reference value:

Direct exam: No yeast or hyphal elements seen.
 Culture: No fungus isolated.

Method:

Standard culture techniques

CPT Codes:

87205 Gram Stain
 87102 Fungus Clt

TEST NAME	CULTURE IDENTIFICATION FUNGUS		
MERCY TEST NAME	FUNGAL ID	MERCY LAB CODE	FNID

Specimen: Submit each yeast or fungus to be identified on a **separate** plate. 1 yeast or fungus per request.

RL Client Comments:

- Write FUNGAL IDENTIFICATION on the order form. Indicate the source of the specimen.
- Send the culture plates **sealed** and at room temperature to Mercy lab.

Method: Standard Culture Techniques.

CPT Code: 87102

FUNGAL SURVEY, FUNGAL ANTIBODY PANEL - Discontinued 05/06/14 by Mayo Laboratories. Please refer to the April 2014 Lab Links for more details. The following tests can be ordered individually.

- Histoplasma Antibody Screen, Mercy code **HSTAB**
- Blastomyces Antibody, Mayo code **BLAST**
- Cryptococcus Antigen, Mayo code **SLFA**
- Coccidioides Antibody, Mayo code **COXIS**

POWERCHART NAME	GABAPENTIN (NEURONTIN) LEVEL		
MERCY TEST NAME	GABAPENTIN*	MERCY LAB CODE	GABP

Specimen: ○ 1.0 ml serum from a no additive serum tube.
 ○ Draw immediately before next scheduled dose.
 ○ Spin within 2 hours of collection.

Processing: Send refrigerated to Mayo. Ambient or frozen acceptable. Mayo order code (GABA).
 Performed: 2-3 days. Set up Tuesday through Saturday 12 A.M.
 Saturday at 4 P.M.

Method: Liquid Chromatography-Tandem Mass Spectrometry (LC-MS/MS)
 CPT Code: 80171

POWERCHART NAME	G6PD QUANTITATIVE (GLUCOSE-6-PHOSPHATE DEHYDROGENASE)		
MERCY TEST NAME	G6PD*	MERCY LAB CODE	G6PD

Specimen: 6.0 ml whole blood drawn in EDTA tube or yellow top (ACD solution A) tube.
 Do not spin down.

Processing: Send refrigerated to Mayo. Mayo order code (**G6PD1**).
 Do not transfer blood to other containers/send in original tube.
 Do not allow specimen to freeze.
 Use bubble wrap to protect specimen.

Performed: Test set up at Mayo Monday through Sunday.

Reference value: Included with the report.

Method: Kinetic Spectrophotometry (KS)
 CPT Code: 82955

POWERCHART NAME	GALECTIN 3 LEVEL		
MERCY TEST NAME	GALECTIN-3*	MERCY LAB CODE	GAL3

Specimen: 1.0 ml serum from a no additive serum tube.
Processing: Send FROZEN to Mayo, Mayo order code **GAL3**.
Performed: 8 days. Performed Monday at 9 A.M.
Reference value: >17 years is <=22.1 ng/mL
Method: Enzyme-linked Immunosorbent Assay (ELISA)
CPT Code: 82777

POWERCHART NAME	GAMMA GLUTAMYL TRANSFERASE (GGT)		
MERCY TEST NAME	GAMMA GT	MERCY LAB CODE	GGT

Specimen: 0.5 ml Serum
Stability: Specimens may be stored for up to 7 days at 25°C or for up to 7 days at 2-8°C or stored frozen for up to 6 months at -20°C.
Performed: Within 8 hours of receipt. Available stat.
Reference Rang: Female:<38 units/L
Male:<73 units/L
Method Description: The Atellica CH Gamma-Glutamyl Transferase (GGT) assay is based on the reaction with synthetic substrate (L-γ-glutamyl-3-carboxy-4-nitroanilide), glycylglycine acts as an acceptor for the γ-glutamyl residue and 5-Amino-2-Nitrobenzoate (ANB) is liberated.

CPT Code: 82977

POWERCHART NAME	GASTRIN LEVEL		
MERCY TEST NAME	GASTRIN*	MERCY LAB CODE	GSTR

Patient preparation: Patient must be fasting.
Specimen: 1 ml serum from a Serum Separator Tube (SST) or no additive serum tube.
Processing: Send **frozen** to Mayo. Mayo order code GAST.
Performed: 3 days. Test set up Monday through Friday; 5 a.m.-12 a.m., Saturday; 6 a.m.-6 p.m.
Reference value: Included in report
Method: Automated Chemiluminescent Immunometric Assay.
CPT Code: 82941

POWERCHART NAME	GASTROCCULT® BODY FLUID		
MERCY TEST NAME	GASTROCCULT® BODY FLD	MERCY LAB CODE	GASO

Specimen: 1 ml gastric aspirate obtained by nasogastric intubation or vomitus. Nursing Service is to collect in specimen container with tight fitting lid and send to the Lab for testing.
Comment: Specimen must arrive in the laboratory within 2 hours of collect time. Indicate source in comment field (Nasogastric or specific site).
Processing: Testing performed using Gastrocult® blood slides. DO NOT use Hemocult® slides as those are for fecal material only.

Performed: Within 8 hours of receipt. Available stat.
 Reference value: Negative
 Method: Guaiac paper test
 CPT Code: 82271

MERCY TEST NAME	GASTROINTESTINAL PATHOGEN PANEL PCR, FECES	MERCY LAB CODE	CMIS
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Specimen: Fresh stool placed in an orange-topped Cary Blair stool preservative. Enough stool should be added to the preservative vial to bring the level of the preservative fluid up to the red line, on the preservative container.

- It is NOT recommended that the following tests be concomitantly ordered if this test is ordered as this is considered duplicate testing: Vibrio culture, rotavirus antigen, adenovirus, giardia antigen, cryptosporidium antigen, Cyclospora stain, stool culture, Shiga toxin, or clostridium difficile toxin.
- Mayo test code - **GIP**

Stability: **Specimen must be received by MAYO Medical Labs within 96 hours of collection.**
 Performed: Monday through Sunday; continuously at Mayo Medical Labs
 Reference value: Negative (for all targets)
 Method: Multiplex PCR FilmArray
 CPT Code: 87507

POWERCHART NAME	GC & Chlamydia PCR
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MERCY TEST NAME	GC & Chlamydia PCR	MERCY LAB CODE	GCCM
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Specimen: **Urine:** First void urine specimens must be transferred from the collection cup to the Xpert CT/NG Urine Transport Reagent Tube (Yellow Cap) immediately (preferred) or within 24 hours of collection when kept at Room Temperature or within 8 days of collection when stored at 2–8°C.

Urine specimens in Xpert CT/NG Urine Transport Reagent Tubes should be kept between 2°C and 30°C during transport and can be stored for up to 3 days at this temperature.

Urine Specimen Collection:

- Collect the specimen in a sterile, preservative-free specimen collection cup.
- The patient should collect the first 20–60 mL of voided urine (the first part of the stream - not midstream) into a urine collection cup.
- Cap and label the urine collection cup with patient identification and date/time collected.

Vaginal/Endocervical: Collect using only the Xpert Swab Specimen Collection Kit (Pink Cap). Swab samples in Xpert Swab Transport Reagent are stable up to 60 days at 2–30°C.

Cause for Rejections

- Improperly collected samples.

Comment:

In the case of suspected child abuse, culture is the only recommended procedure. See: **GC Culture.**

Results are directly dependent on specimen quality. Inadequate or improperly collected specimens may give false negative results.

Processing Store at 2-30 °C

Performed: Performed daily. Available STAT.

Reference value: *Chlamydia trachomatis* & *Neisseria gonorrhoeae* Not Detected

Method: DNA Extraction

CPT Code: 87491 Chlamydia
87591 GC

TEST NAME	GC (Neisseria gonorrhea, Miscellaneous Sites, by Nucleic Acid Amplification) (OTHER SITES not genital or urine) *		
MERCY TEST NAME	MISCELLANEOUS GENERAL LAB	MERCY LAB CODE	CMIS

Specimen: Swab specimen collected using the **APTIMA** Collection Vaginal Swab (the APTIMA Unisex Swab can also be used). **Collection kits are available from Mercy lab.**

Mayo Approved Sites: The following sites are approved for GC testing at Mayo Med Labs, ONLY (Mercy Lab is not approved to do testing on these sites)

- Rectal/anal
- Ocular (corneal/conjunctiva)
- Oral/throat

- Pelvic wash, cul-de-sac fluid (this source requires the APTIMA specimen transfer tube T652, available from Mercy lab).

NOTE: If provider wants both Chlamydia and GC testing done on a rectal, ocular, oral or pelvic, a separate order will have to be placed for each test.

- Comment:
- In the case of suspected child abuse, culture is the only recommended procedure. See GC culture.
- RL Client Comments:
- If ordering the test at your facility, order a CMIS and put in comment the test is for MGRNA and include the source (rectal, ocular, oral). If you will order using a requisition, write CMIS on the order form and indicate the testing is for MGRNA and include the source (rectal, ocular, oral).
- Cause for rejection:
- Send the APTIMA transporter refrigerated to Mercy lab.
 - Transport tubes that are received without collection swabs inside.
 - Transport tubes that have expired.
 - Transport tubes received with a swab different from the one provided in the collection kit.
 - Sources other than those listed above.
- Processing:
- Refrigerate sample after collection and send to Mayo Med Labs refrigerated. **Mayo order code MGRNA** (N. gonorr, Misc., Amplified RNA)

POWERCHART NAME	GENERAL HEALTH PANEL		
MERCY TEST NAME	GENERAL HEALTH PANEL	MERCY LAB CODE	GHP

- Specimen:
- 2.0 mL serum

- Lavender top (EDTA) tube

Stability:

- Serum: Specimens may be stored for up to 2 days at 2–8°C or stored frozen at or below -20°C.
- EDTA tube: 36 hours room temperature or refrigerated.

Comment:

Includes: CBC with automated differential, Comprehensive Metabolic Panel, TSH

Grossly hemolyzed specimens are not acceptable.

EDTA tube must be received at Mercy within 36 hours of collection.

Performed:

Within 8 hours of receipt. Available stat

Reference range:

See individual test entry.

Method:

See individual test entry.

CPT Code:

80050

POWERCHART NAME	GENITAL CULTURE		
MERCY TEST NAME	GENITAL LOW CLT	MERCY LAB CODE	GENL

Order:

Indicate site when ordering.

This culture will NOT determine the presence of Neisseria gonorrhoeae. For presence of N. gonorrhoeae, see GC culture.

Specimen:

Vulva, Vagina, Cervix, or Urethra. Submit in a double Culturette.

Comment:

- This culture screens for the presence of Group B Beta Streptococcus, Staphylococcus aureus, Gardnerella vaginalis, and a predominance of yeast.

- Susceptibility testing will routinely be performed on significant isolates of *Staphylococcus aureus*.

RL Comments: Write Genital Tract Lower Culture on RL order form. Indicate Collection site. Send specimen at Room temp.

Performed: Gram Stain: 1st shift
Final report: 2 days

Reference value: Normal flora of the lower genital tract.

Method: Standard culture techniques.

CPT Code: 87070 Culture
87205 Stain

POWERCHART NAME	GENTAMICIN LEVEL		
MERCY TEST NAME	GENTAMICIN INT	MERCY LAB CODE	GNI

Specimen: 0.5 ml serum

Stability: Specimens may be stored for up to 8 hours at room temperature or for up to 2 days at 2-8°C or stored frozen for up to 30 days at -20°C.

Comment: Indicate time last dose in comment. Consult Pharmacy to establish collection time.

Performed: Within 8 hours of receipt. Available Stat.

Therapeutic values: 2-7 mcg/ml

Method Description: The methodology for Atellica CH Gent involves a homogeneous particle-enhanced turbidimetric inhibition immunoassay (PETINIA) technique which uses a synthetic particlegentamicin conjugate (PR) and gentamicin-specific monoclonal antibody (Ab).
 CPT Code: 80170

POWERCHART NAME	GENTAMICIN PEAK LEVEL		
MERCY TEST NAME	GENTAMICIN PEAK	MERCY LAB CODE	GNPK

Specimen: 0.5 ml serum
 Stability: Specimens may be stored for up to 8 hours at room temperature or for up to 2 days at 2-8°C or stored frozen for up to 30 days at -20°C.
 Comment: Indicate time last dose in comment. Consult Pharmacy to establish collection time.
 Performed: Within 8 hours of receipt. Available Stat
 Therapeutic range: 5-10 mcg/ml
 Method Description: The methodology for Atellica CH Gent involves a homogeneous particle-enhanced turbidimetric inhibition immunoassay (PETINIA) technique which uses a synthetic particlegentamicin conjugate (PR) and gentamicin-specific monoclonal antibody (Ab).
 CPT Code: 80170

POWERCHART NAME	GENTAMICIN TROUGH LEVEL		
MERCY TEST NAME	GENTAMICIN TRGH	MERCY LAB CODE	GNTR

Specimen: 0.5 ml serum

Stability: Specimens may be stored for up to 8 hours at room temperature or for up to 2 days at 2–8°C or stored frozen for up to 30 days at -20°C.
 Comment: Specimen must not be hemolyzed, lipemic or icteric.
 Performed: Within 8 hours of receipt. Available Stat.
 Therapeutic range: <1.0 mcg/mL
 Method Description: The methodology for Atellica CH Gent involves a homogeneous particle-enhanced turbidimetric inhibition immunoassay (PETINIA) technique which uses a synthetic particlegentamicin conjugate (PR) and gentamicin-specific monoclonal antibody (Ab).
 CPT Code: 80170

POWERCHART NAME	eGFR estimated Glomerular Filtration Rate		
MERCY TEST NAME	eGFR estimated Glomerular Filtration Rate	MERCY LAB CODE	

Specimen: 0.5 mL of serum

Stability: Separated serum and plasma specimens may be stored for up to 2 days at 2–8°C or stored frozen at or below -20°C.
 Comment: eGFR is a calculation and not orderable by itself. eGFR is reported with every creatinine test ordered.
 Performed: Within 8 hours of receipt. Available Stat
 Reference Range: ≥ 60 mL/min/1.73m²
 eGFR will not calculate if the patient is under age 18 or if the patient sex is not specified as male or female.

Method: The Laboratory is using the Chronic Kidney Disease Epidemiology Collaboration (2021 CKD-EPI)

$$eGFR_{cr} = 142 \times \min(S_{cr}/k, 1)^\alpha \times \max(S_{cr}/k, 1)^{-1.200} \times 0.9938^{Age} \times 1.012 \text{ [if female]}$$

S_{cr} = standardized serum creatinine in mg/dL
 k = 0.7 (females) or 0.9 (males)

α = -0.241 (female) or -0.302 (male)

$\min(S_{cr}/k, 1)$ is the minimum of S_{cr}/k or 1.0.

$\max(S_{cr}/k, 1)$ is the maximum of S_{cr}/k or 1.0.

Age (years)

CPT Code: NA

POWERCHART NAME	GIARDIA + CRYPTOSPORIDIUM ANTIGEN		
MERCY TEST NAME	GIARDIA/CRYP RAPID	MERCY LAB CODE	GLCP

Specimen: 2 grams fresh feces. Collect sample in a container with a tight-fitting lid. Deliver to Mercy lab as soon after collection as possible. Testing needs to occur within 72 hours of collection. Transport refrigerated.

Fresh stool specimens can also be frozen, after collection, if testing cannot be performed within 72 hours of collection. Frozen samples are stable for 90 days. Transport frozen.

This method can also be tested with the ParaPak C&S (orange lid) preservative. Testing needs to occur within 72 hours of collection. Transport at room temperature if a stool culture is also ordered on this same C&S vial.

Cause for rejection:

- Specimens collected within 7 days of barium or bismuth enema are not acceptable.
- Specimens should not be contaminated with toilet water or urine.

Comment: Detects Giardia and Cryptosporidium antigens. Tests are not available separately.

RL Comments:

- Mark GIARDIA/CRYP RAPID STOOL on the order form.

Performed: Daily 1500 cutoff.
***Not more than one specimen in 24 hr. period.**

Method: Rapid immunoassay.

Reference value: Not detected.

CPT Code: 87328 Cryptosporidium
 87329 Giardia

POWERCHART NAME	Global Hemostasis TEG		
MERCY TEST NAME	TEG GH	MERCY LAB CODE	GHEMO

Specimen: Properly filled blue top sodium citrate tube

Stability: 4 hours room temp

Reference Value:

CK Reference Ranges

Citrated Blood Parameter	N	Range
R (min)	157	4.6 – 9.1
K (min)	157	0.8 – 2.1
Angle (deg)	155	63 - 78
MA (mm)	151	52 - 69

CRT Reference Ranges

Citrated Blood Parameter	N	Range
MA (mm)	152	52 - 70

CKH Reference Ranges

Citrated Blood Parameter	N	Range
R (min)	155	4.3 – 8.3

CFF Reference Ranges

Citrated Blood Parameter	N	Range
MA (mm)	151	15 - 32
FLEV (mg/dl)	152	278 - 581

Method: Whole Blood Hemostasis System

CPT Code: 85347, 85384 & 85576

POWERCHART NAME	Global Hemostasis with Lysis TEG		
MERCY TEST NAME	G HEMOSTASIS LYSIS	MERCY LAB CODE	GHLYS

Specimen: Properly filled blue top sodium citrate tube

Stability: 4 hours room temp

Reference Value:

CK Reference Ranges

Citrated Blood Parameter	N	Range
R (min)	157	4.6 – 9.1
LY30 (%)	132	0.0 – 2.6

CRT Reference Ranges

Citrated Blood Parameter	N	Range
MA (mm)	152	52 – 70

CFF Reference Ranges

Citrated Blood Parameter	N	Range
MA (mm)	151	15 – 32

Method: Whole Blood Hemostasis System

CPT Code: 85347, 85384 & 85576

POWERCHART NAME	GLOMERULAR BASEMENT MEMBRANE ANTIBODY IgG AB		
MERCY TEST NAME	G BASE MEMBRAN IGG*	MERCY LAB CODE	GBM

Specimen: 0.5 mL serum from a Serum Separator Tube (SST) or no additive serum tube.

Cause for Rejection: Hemolysis, Lipemia

Processing: Send refrigerated to Mayo. Frozen acceptable. Mayo order code GBM.

Performed: Monday – Friday, Sunday; 11 a.m.

Method: Multiplex flow immunoassay

CPT Code: 83516

POWERCHART NAME	GLUCOSE LEVEL		
MERCY TEST NAME	GLUCOSE	MERCY LAB CODE	GLUC

Specimen: 0.5 ml serum
Stability: 72 hours at 4°C; variable stability is observed with longer storage conditions.
Comment: Glycolysis decreases serum glucose by approximately 5% to 7% per hour in normal, uncentrifuged, coagulated blood at room temperature.
Performed: Within 8 hours of receipt. Available stat.
Reference Value: 0-2 days: 40-60 mg/dl
3 days- ≤ 1YEAR: 60-100 mg/dl
1 year-6 years: 70-130 mg/dl
≥ 7 years: 70-110 mg/dl

Method Description: The Atellica CH Glucose Hexokinase_3 (GluH_3) assay uses a two-component reagent
CPT Code: 82947

POWERCHART NAME	GLUCOSE LEVEL RAPID		
MERCY TEST NAME	GLUCOSE (GLUCOSE DONE BY LAB ON WHOLE BLOOD)	MERCY LAB CODE	GLUCR

Specimen: 1 mL whole blood collected in a dark green sodium heparin tube
Stability: 8 hours room temperature, 48 hours refrigerated
Performed: Available stat.

Reference value: 0-2 days: 40-60 mg/dl
 3 days-11 months: 60-100 mg/dl
 1 year-6 years: 70-130 mg/dl
 >6 years: 70-110 mg/dl

Method: Glucose Oxide Enzyme, Electrode
 CPT Code: 82947

POWERCHART NAME	GLUCOSE BODY FLUID		
MERCY TEST NAME	GLUCOSE BF	MERCY LAB CODE	FGLU

Specimen: 1 ml body fluid in plain red top tube
 Stability: Stable up to 72 hours at 4°C.
 Comment: Indicate specimen source in comment.
 Performed: Within 8 hours of receipt. Available stat.
 Reference Range: No established reference range available
 Method
 Description: The Atellica CH Glucose Hexokinase_3 (GluH_3) assay uses a two-component reagent.
 CPT Code: 82945

POWERCHART NAME	GLUCOSE CSF		
MERCY TEST NAME	GLUCOSE CSF	MERCY LAB CODE	CGLU

Specimen: 0.5 ml spinal fluid. Hemolyzed specimens should not be used.
 Stability: CSF may be contaminated with bacteria or other cells and should be analyzed immediately for glucose. If a delay in measurement is unavoidable, the sample should be centrifuged and stored at 4°C or -20°C.
 Comment: Specimen must be transported in a screw top container.
 Performed: Within 8 hours of receipt. Available stat
 Reference Range: 1-13 days: 40-60 mg/dl
 >13 days: 40-70 mg/dl

Method Description: The Atellica CH Glucose Hexokinase_3 (GluH_3) assay uses a two-component reagent.
 CPT Code: 82945

POWERCHART NAME	GLUCOSE TOLERANCE GESTATIONAL		
MERCY TEST NAME	GLUCOSE GEST	MERCY LAB CODE	GLUG

Specimen: Preferred in house: 0.5 ml lithium heparin plasma.
 Collect specimen 60 minutes after the administration of 50 G glucose. A venous specimen is preferred.

Stability: Stable at 72 hours at 4°C

Comment: Perform between 24- and 28-weeks' gestation on all pregnant women not identified as having glucose intolerance. Screening is performed without regard to the time of day or last meal.

Test available:
 Performed: Outpatient Drawing/Core Lab – Monday-Friday 0800-1700
 Core Lab – Saturday and Sunday 0800 - -1200

Within 8 hours of receipt.

Reference Range: 90-135 mg/dl

Method Description: The Atellica CH Glucose Hexokinase_3 (GluH_3) assay uses a two-component reagent

CPT Code: 82950

POWERCHART NAME	FOR GLUCOSE TOLERANCE 2 HOUR order the following GLUCOSE TOLERANCE FASTING, GLUCOSE TOLERANCE 1 HOUR, and GLUCOSE TOLERANCE 2 HOUR		
MERCY TEST NAME	GLUC TOL 2HR (ORDER FASTING, 1 HOUR AND 2 HOUR TESTS)	MERCY LAB CODE	GLUC0T (FASTING) GLUC1T (1 HOUR) GLUC2T (2 HOUR)

Specimen: 0.5ml lithium heparin plasma from a PST tube.

- o A fasting specimen will be tested before administration of the glucose solution.
- o If the fasting glucose level is 135 mg/dl or less, the Glucose Drink will be given to the patient.

- o If the fasting level is ≥ 136 mg/dl, the Glucose Tolerance Test will be canceled, and the provider's office will be notified.

Stability: Stable at 72 hours at 4°C

Comment: Test available Monday through Saturday, 0645 - 1200.
Call Lab for special ordering instructions if 1/2-hour collections are necessary.

Patient preparation:

- o Patient should have a regular diet with adequate carbohydrates for three days before test.
Excessive amounts of sugars should be avoided. Reducing diets are not satisfactory.
- o Patient should maintain normal activities with no excessive vigorous exercise.
- o Patient should not be acutely ill. Test should not be performed during acute medical or surgical stress and not for several months after an acute myocardial infarction.
- o Patient should be fasting for at least 8 hours. Moderate amounts of water are permissible.
- o Discontinue medications as directed by physician.
- o Patient should remain seated and should not smoke throughout the test.
- o No other tests or procedures should be scheduled during a Glucose Tolerance Test.
Outpatients having tolerance testing in the Laboratory should be prepared to stay in the Laboratory waiting area for the duration of the test.

Pediatric patients: The amount of glucose given to pediatric patients is by weight for patients 25-95 lbs. See Policy in PolicyStat for details.

Performed: Monday through Saturday 1200 cutoff

Reference Range: Non-pregnant Men and Women
Fasting: 70-110 mg/dl
1 hour: 120-170 mg/dl
2 hours: 70-120 mg/dl

Pregnancy Normal Ranges
Fasting: 70-110 mg/dl
1 hour: Less than 180 mg/dl
2 hours: Less than 155 mg/dl

Method Description: The Atellica CH Glucose Hexokinase_3 (GluH_3) assay uses a two-component reagent
CPT Code: 82951

POWERCHART NAME	FOR GLUCOSE TOLERANCE 3 HOUR order the following GLUCOSE TOLERANCE FASTING, GLUCOSE TOLERANCE 1 HOUR, GLUCOSE TOLERANCE 2 HOUR, and GLUCOSE TOLERANCE 3 HOUR
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MERCY TEST NAME	GLUCOSE TOL 3HR (ORDER FASTING, 1 HOUR, 2 HOUR, AND 3 HOUR TESTS)	MERCY LAB CODE	GLUC0T (FASTING) GLUC1T (1 HOUR) GLUC2T (2 HOUR) GLUC3T (3 HOUR)
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Specimen: 6ml lithium heparin plasma from a PST tube.

- o A fasting specimen will be tested before administration of the glucose solution.
- o If the fasting glucose level is 135 mg/dl or less, the Glucose Drink will be given to the patient.
- o If the fasting level is ≥ 136 mg/dl, the Glucose Tolerance Test will be canceled, and the provider's office will be notified.

Stability: Stable at 72 hours at 4°C

Comment: Test available Monday through Saturday, 0645 - 1200.
Call Lab for special ordering instructions if 1/2-hour collections are necessary.

Patient preparation:

Patient should have a regular diet with adequate carbohydrates for three days before test. Excessive amounts of sugars should be avoided. Reducing diets are not satisfactory. Patient should maintain normal activities with no excessive vigorous exercise.

Patient should not be acutely ill. Test should not be performed during acute medical or surgical stress and not for several months after an acute myocardial infarction.
Patient should be fasting for at least 8 hours. Moderate amounts of water are permissible.
Discontinue medications as directed by physician.
Patient should remain seated and should not smoke throughout the test.
No other tests or procedures should be scheduled during a Glucose Tolerance Test.
Outpatients having tolerance testing in the Laboratory should be prepared to stay in the Laboratory waiting area for the duration of the test.

Pediatric patients: The amount of glucose given to pediatric patients is by weight for patients 25-95 lbs. See Policy in PolicyStat for details.

Performed: Monday through Saturday 1200 cutoff

Reference Non-pregnant Men and Women

Range: Fasting: 70-110 mg/dl
1 hour: 120-170 mg/dl
2 hours: 70-120 mg/dl
3 hours: 70-115 mg/dl

Pregnancy Normal Ranges

Fasting: 70-110 mg/dl
1 hour: Less than 180 mg/dl
2 hours: Less than 155 mg/dl
3 hours: Less than 140 mg/dl

CPT Code: 82951

POWERCHART NAME	GLUCOSE 24 HR Urine		
MERCY TEST NAME	GLUCOSE 24HR UR	MERCY LAB CODE	VGLU

Specimen: 5 ml refrigerated, unpreserved urine from a 24- hour collection.

Stability: Urine should be stored at 4°C during collection. Urine samples may lose as much as 40% of their glucose after 24 hours at room temperature.

Performed: Within 8 hours of receipt. Available stat.

Reference Range: No established reference range available

Method

Description: The Atellica CH Glucose Hexokinase_3 (GluH_3) assay uses a two-component reagent.

CPT Code: 82945

POWERCHART NAME	GLUCOSE Random Urine		
MERCY TEST NAME	Misc. General Lab (CMIS) Designate: test name GLUCOSE RANDOM URINE in comment	MERCY LAB CODE	CMIS

POWERCHART NAME	GLUTAMIC ACID DECARBOXYLASE AUTOANTIBODIES		
MERCY TEST NAME	GAD65 ANTBY*	MERCY LAB CODE	GAD

Test included: This included testing for Glutamic Acid Decarboxylase Autoantibodies, Mayo order (GD65S)
 NOTE* If physician ordered both Glutamic Acid Decarboxylase Autoantibodies (Mayo GD65S) and Islet Antigen 2 Antibody (Mayo IA2) See: I2GAD

Specimen: 1.0 ml serum from a no additive serum tube or a Serum Separator Tube (SST).
 Processing: Send refrigerated to Mayo. Mayo order code (GD65S) Frozen acceptable. Ambient
 Performed: 2-6 days, Sunday thru Thursday; 10 PM
 Reference value: Included with results.
 Method: Radioimmunoassay (RIA)
 CPT Code: 86341

POWERCHART NAME	GRAM STAIN		
MERCY TEST NAME	GRAM STAIN DIRECT	MERCY LAB CODE	GRAM

Order: Specify site when ordering.
 A gram stain is already included in a Body Fluid Culture, Respiratory Culture, Wound Culture, and an Anaerobic Culture.

Specimen:

- **Fluid specimens:** Submit in a sterile screw top container.
- **Other specimens:** Submit in a sterile plastic container with a tight-fitting lid or submit on a routine Culturette.

Comment:

- Any source can be submitted for a gram stain.
- This test is used as the screening test for yeast in vaginal specimens when specifically noted on the order.

RL Comment:

- This test is used as the screening test for Gardnerella vaginalis.
- Write Gram Stain on RL order form. Indicate source/site.
- Send specimen at Room Temp

Performed: Within 8 hours of receipt.

RL: Next day, 1st shift unless ordered STAT with a specific phone number indicated

Reference value: Varies by site of collection.

Method: Direct microscopy of stained slide.

CPT Code: 87205

POWERCHART NAME	GROUP B STREP CULTURE		
MERCY TEST NAME	GRP B STREP CLT	MERCY LAB CODE	GBOB

Order: Place only 1 order for Culturette (sites). Specify the source(s) when ordering (i.e.: vag-rect).

Specimen: Both vaginal and rectal specimens are recommended.
Preferred Specimen: Separate Culturette from each site, labeled with specimen source. One double Culturette with rectal/vag swab is acceptable.

Comment: ○ Culture screens for Group B Streptococcus only and is recommended for screening obstetric patients for carrier status.
 ○ Do not order if patient has a Penicillin Allergy. See GBOBS.

RL Comments: ○ Mark GROUP B STREP CULTURE (OBSTETRICS) on RL order form. Only 1 order is needed for both specimens. Write collection site(s) on source line.
 ○ Send specimen at room temp.

Performed: Preliminary report: 1 day
 Final report: 2 days

Reference value: No Group B Streptococcus isolated.

Method: Standard culture techniques.

CPT Code: 87081

POWERCHART NAME	GROUP B STREP CULTURE W SENSITIVITY		
MERCY TEST NAME	GRP B STREP CLT/SENS	MERCY LAB CODE	GBOBS

Order: Place only 1 order for Culturette (sites). Specify the source(s) when ordering (i.e.: vag-rect).

Specimen: Both vaginal and rectal specimens are recommended.
 Preferred Specimen: Separate Culturette from each site, labeled with specimen source. One double Culturette with rectal/vag swab is acceptable.

Comment:

- Culture screens for Group B Streptococcus only and is recommended for screening obstetric patients for carrier status with Penicillin Allergy
- Do not order if patient does not have a Penicillin Allergy

RL Comments:

- Mark GROUP B STREP CULTURE (OBSTETRICS) on RL order form and indicate MIC is needed. Only 1 order is needed for both specimens. Write collection site(s) on source line.
- Send specimen at room temp.

Performed: Preliminary report: 1 day
Final report: 2 days

Reference value: No Group B Streptococcus isolated.

Method: Standard culture techniques.

CPT Code: 87081

POWERCHART NAME	GROWTH HORMONE (HGH) LEVEL		
MERCY TEST NAME	GROWTH HORMONE*	MERCY LAB CODE	GRTH

Patient preparation: **Patient must be fasting. (Overnight - 8 hours)**

Specimen: 0.6 ml serum from a SST or plain red top tube. Minimum 0.5 ml.

Processing: Send **refrigerated** to Mayo. Frozen acceptable. Mayo order code HGH.

Performed: 1- 3 days. Monday through Friday 5 a.m. - 12 a.m., Saturday 6 a.m.- 6 p.m.

Reference value: Included in report.

Method: Immunoenzymatic immunoassay
CPT Code: 83003

POWERCHART NAME	HAPTOGLOBIN		
MERCY TEST NAME	HAPTOGLOBIN	MERCY LAB CODE	HAPT

Specimen: 0.5 mL serum
Stability: specimens may be stored frozen for up to 14 days at -20°C.
Comment: Do not use hemolyzed samples.
Performed: Within 8 hours of receipt. Available Stat.

Reference Range: 36-195 mg/dl

Method Description: The Atellica CH Haptoglobin (Hapt) assay is based upon the reaction between antibody and haptoglobin in a serum sample.

CPT Code: 83010

POWERCHART NAME	HCG QUANTITATIVE		
MERCY TEST NAME	HCG QUANT SERUM	MERCY LAB CODE	HCGQ

Specimen: 0.5 mL serum

Stability: Tightly cap and refrigerate specimens at 2–8°C if the assay is not completed within 8 hours. Freeze samples at $\leq -20^{\circ}\text{C}$ if the sample is not assayed within 48 hours. Freeze samples only 1 time and mix thoroughly after thawing.

Comment: Do not use samples that have been stored at room temperature for longer than 8 hours.

This test may be used for detecting pregnancy by the first day of the missed menstrual period.

All *in vitro* assays can generate erroneous results, both clinically false positive results (test results suggesting a condition that is absent) and clinically false negative results (test results failing to identify a condition that is present).

Performed: Within 8 hours of receipt. Available Stat.

Reference Range: Male: 0-3 IU/L

Non-Pregnant Female 18-39 years: 0-1 IU/L

Non-Pregnant Female over 39 years: 0-3 IU/L

Peri- and post-menopausal female: 0-12 IU/L.

Post-menopausal HCG originates from the pituitary gland.

Gestational age:

1 week: 5 - 50 IU/L

1-2 weeks: 50 - 500 IU/L

2-3 weeks: 100 - 5,000 IU/L

3-4 weeks: 500 - 10,000 IU/L

4-5 weeks: 1,000 - 50,000 IU/L

5-6 weeks: 10,000 - 100,000 IU/L

6-8 weeks: 15,000 - 200,000 IU/L
 8-12 weeks: 10,000 - 100,000 IU/L
 3rd trimester: 5,000 - 50,000 IU/L

During the first six weeks of pregnancy, serum HCG concentrations have a doubling time of approximately 2 days. A maximum is reached by the second to third month and followed by a decrease to as low as 5000 by the third trimester (6-9 months). Following delivery, HCG concentrations rapidly decrease and usually return to normal within several days post-partum.

Method Description: The Atellica IM ThCG assay is a 2-site sandwich immunoassay using direct chemiluminescent technology, which uses constant amounts of 2 antibodies.

CPT Code: 84702

POWERCHART NAME	HCG (HUMAN CHORIONIC GONADOTROPIN) TUMOR MARKER		
MERCY TEST NAME	HCG TUMOR MARKER*	MERCY LAB CODE	HCGM

Specimen: 1 ml serum from a Serum Separator Tube (SST) or no additive serum tube.

Note: 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 multivitamins.

Processing: Send to Mayo refrigerated. Frozen acceptable. Mayo order code (**BHCG**).

Performed: 1-3 days. Test set up Monday through Saturday Varies
 Method: Electrochemiluminescence Immunoassay
 CPT Code: 84702

POWERCHART NAME	HDL CHOLESTEROL		
MERCY TEST NAME	HDL CHOL (High Density Lioprotein)	MERCY LAB CODE	HDL

Specimen: 0.5 ml serum
 Stability: Specimens are stable for up to 8 days at 2-8°C. Specimens may be frozen for up to 30 days at ≤ -20°C.
 Performed: Within 8 hours of receipt. Available Stat.
 Reference Range: Reference intervals for healthy adults was established by the National Cholesterol Education Program (NCEP):
 Low: <40mg/dl
 Acceptable: 40-59 mg/dl
 Optimal: ≥60 mg/dl
 Method Description: The Atellica® CH HDL Cholesterol (HDLC) assay is a two-reagent format and depends on the Accelerator Selective Detergent methodology.
 CPT Code: 83718

POWERCHART NAME	HELICOBACTER PYLORI FECES / H. PYLORI FECES		
MERCY TEST NAME	H. PYLORI FECES	MERCY LAB CODE	HPSTL

Specimen: 5 grams FRESH stool.

Cause for rejection: Very mucoid stool; or a watery, diarrheal specimen; stool in transport media, swab or preservative.

Processing: Send refrigerated specimen in screw capped plastic container. Refrigerated specimen acceptable ≤72 hrs. Freeze for longer storage.

Comment: This is a qualitative not a quantitative test. Positive results indicate presence of **Helicobacter pylori antigen** in the stool. Negative result indicates absence of detectable antigen but does not eliminate the possibility of infection due to Helicobacter pylori. Falsely negative results may be obtained within 2 weeks of treatment with antimicrobials, bismuth, or proton pump inhibitors. A negative test result in such a situation should be followed up with a repeat at least 2 weeks after discontinuing therapy.

Performed: Daily, cutoff 0900 & 1300

Reference Value: Negative

Method: Enzyme-Linked Immunosorbent Assay (ELISA)

CPT Code: 87338

TEST NAME	HELICOBACTER SCREEN
MERCY TEST NAME	HELICOBACTER SCN

Order: Use pink **Pathology Specimen Form** for ordering. Write on request form "Look for Helicobacter".

Specimen: Gastric mucosal biopsy, 2-3 mm in diameter.

- Biopsy should be from normal looking tissue.
- Patients should not have taken antibiotics or bismuth salts for at least 3 weeks prior to endoscopy/ biopsy.
- Place specimen in 10% formalin.

Processing: Send to Lab immediately.

Method: Histological stain

Reference value: No Helicobacter identified.

Performed: 1 week

CPT Code: 87072

POWERCHART NAME	HEMATOCRIT		
MERCY TEST NAME	HEMATOCRIT	MERCY LAB CODE	HCTX

Specimen: 1 purple top (EDTA) tube.

Processing: 24 hours room temperature or 48 hours refrigerated.

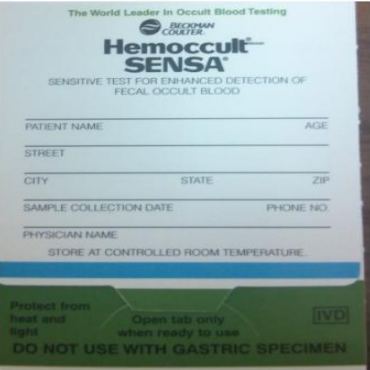

Performed: Within 8 hours of receipt. Available stat.

Reference value: Included with test results. Complete listing in Special Helps section of Lab Test Index.
 Method: Automated cell counter.
 CPT Code: 85014

POWERCHART NAME	OCCULT BLOOD FECAL DIAGNOSTIC OCCULT BLOOD FECAL		
MERCY TEST NAME	HEMOCCULT®, DIAGNOST HEMOCCULT®, SCREEN	MERCY LAB CODE	HEMC NHOS

- Comment:
- Current card is Beckman Coulter Hemocult® green/yellow card.
 - The Diagnostic order should be placed if the patient has documented symptoms.
 - The Screening order should be placed if the testing is being performed in the absence of documentation.
 - **This is for stool specimens only. See GASTROCCULT® BODY FLUID for all other body fluids.**
 - **If using the Beckman Counter Hemocult® ICT blue card SEE: Occult Blood Fecal ICT Screen**
- Patient preparation:
- Patients should be placed on the Special Diagnostic Diet starting at least 48 hours prior to and continuing through the test period. This diet can increase the accuracy of the test results.
 - Patients on unrestricted diets who test positive on one or more of the initial 3 slides is recommended to be retested after being placed on the special diet.
- Specimen:
- Fresh, unpreserved stool specimen
 - NOTE: Fecal samples should not be collected if hematuria or obvious rectal bleeding, such as from hemorrhoids, is present. Pre-menopausal women should not collect fecal samples during or in the 3 days following a menstrual period.

- Collect a small fecal sample on one end of the applicator stick (may use tongue depressor) Apply a small thin smear inside box A. Use the other end of the applicator to obtain a second sample from a different area of the stool. Apply a thin smear inside box B and close the cover.
- The test slide MUST be labeled with patient first and last name, date, and time of collection.

Card Appearance	Test Name	Mercy Lab Code
	<p>Hemocult®, Diagnostic</p> <p>Hemocult®, Screening</p> <p>(Must decide at ordering time whether testing is being done as screening or as diagnostic)</p>	<p>HEMC</p> <p>NHOS</p>
	<p>Occult Blood Fecal ICT Screen</p> <p>See: Occult Blood Fecal ICT Screen</p>	<p>OBFS</p>

Performed: Within 8 hours of receipt. Available stat. Must be received in laboratory within 14 days of collection.
 Reference value: Negative
 Method: Guaiac paper test
 CPT Code: 82272

POWERCHART NAME	HEMOCHROMATOSIS GENOTYPE		
MERCY TEST NAME	HF E GENE ANALYSIS*	MERCY LAB CODE	HHEMO

Specimen: 2.5 mL whole blood in lavender top (EDTA) or yellow top (ACD).
 Processing: Send ambient to Mayo. Mayo order code (**HFET**)
 Performed: 6 - 7 days. Monday through Friday
 Reference value: Included with test results
 Method: Droplet Digital Polymerase Chain Reaction (ddPCR)
 CPT Code: 81256

POWERCHART NAME	HEMOGLOBIN		
MERCY TEST NAME	HEMOGLOBIN	MERCY LAB CODE	HGBX

Specimen: 1 purple top (EDTA) tube.
 Stability: 24 hours room temperature or 48 hours refrigerated.
 Performed: Within 8 hours of receipt. Available stat.
 Reference value: Included with test results. Complete listing in Special Helps section of Lab Test Index.

Method: Automated Cell counter.
CPT Code: 85018

POWERCHART NAME	HEMOGLOBIN POST DIALYSIS		
MERCY TEST NAME	HGB POST DIALYSIS	MERCY LAB CODE	HGBXPD

Specimen: 1 purple top (EDTA) tube.
Comment: To be ordered by Dialysis only.
Stability: 24 hours room temperature or 48 hours refrigerated.
Performed: Within 8 hours of receipt. Available stat.
Reference value: Included with test results. Complete listing in Special Helps section of Lab Test Index.
Method: Automated cell counter.
CPT Code: 85018

POWERCHART NAME	HEMOGLOBIN A1C		
MERCY TEST NAME	HEMOGLOBIN A1C	MERCY LAB CODE	GLYCO

Specimen: 0.5 ml EDTA whole blood from purple top tube or 1 full purple capillary tube.
Stability: Specimens may be stored for up to 48 hours at room temperature, 8 for up to 7 days at 2-8°C, or stored frozen for up to 21 months (with one freeze-thaw) at -70°C.

Comment: Also included is a calculated mean blood glucose.

Performed: Within 8 hours of receipt. Available stat.

Reference Range: 4.0-5.6%

Method Description: The Atellica CH A1c_E assay consists of two separate measurements: glycated hemoglobin (A1c_E) and total hemoglobin (tHb_E). The two measurements are used to determine the %HbA1c (NGSP units) or the hemoglobin A1c_E/tHb_E ratio in mmol/mol (IFCC units). The individual concentration values of A1c_E and tHb_E generated by this assay are used only for calculating the %HbA1c or A1c_E/tHb_E ratio.

CPT Code: 83036

POWERCHART NAME	HEMOGLOBIN ELECTROPHORESIS		
MERCY TEST NAME	HEMOGLBN ELECT*	MERCY LAB CODE	HGBE

Specimen: 10 ml EDTA **whole blood** from a EDTA tube. ACD (solution B) or sodium heparin is also acceptable.

Comment: Include recent transfusion information.

Include most recent complete blood cell count results.

Metabolic Hematology Patient Information (T810) is strongly recommended. Testing may proceed without this information, however if the information requested is received, any

pertinent reported clinical features and data will drive the focus of the evaluation and be considered in the interpretation.

The laboratory has extensive experience in hemoglobin variant identification and many cases can be confidently classified without molecular testing. However, molecular confirmation is always available, subject to sufficient sample quantity (e.g., multiplex ligation-dependent probe amplification testing requires at least 2 mLs of sample in addition to protein testing requirements). If no molecular testing or specific molecular tests are desired, utilize the appropriate check boxes on the form. If the form or other communication is not received, the reviewing hematopathologist will select appropriate tests to sufficiently explain the protein findings which may or may not include molecular testing.

Processing:

- Send **refrigerated** to Mayo. Mayo order code HBEL1.
- **DO NOT** allow to freeze.
- Use bubble wrap to protect specimen.
- **Do NOT** transfer specimen to other containers.
- Include recent transfusion information and most recent complete blood cell count results.
- Patient's age is required.
- Please complete a Thalassemia/Hemoglobinopathy Information Sheet and forward with specimen.

Performed: Test set up Monday through Saturday.

Reference value: Included with report.

Method: Capillary Electrophoresis (HGBCE)
Cation Exchange/High-Performance Liquid Chromatography (HPLC)
Isoelectric Focusing (IEF)
Mass Spectrometry (MASS)

Flow Cytometry (HPFH)
 Isopropanol and Heat Stability (UNHB)
 CPT Code: 83020-Quantitation by electrophoresis
 83021-Quantitation by HPLC
 82664 (if appropriate)
 83068 (if appropriate)
 83789 (if appropriate)
 88184 (if appropriate)

POWERCHART NAME	HEMOGLOBIN S SCREEN		
MERCY TEST NAME	HEMOGLBN S SCN* (Sickle Cell)	MERCY LAB CODE	HGBS

Specimen: 1 ml EDTA whole blood from EDTA tube.

Cause for rejection: Specimen cannot be FROZEN!

Processing:

- Include recent transfusion information in the Mayo computer system.
- Send **refrigerated** to Mayo. Mayo -order code (**SDEX**).

Performed: Test set up Monday through Saturday.

Reference value: Included in report

Method: Hemoglobin S Solubility

CPT Code: 85660

POWERCHART NAME	HEMOGRAM WITH PLATELET COUNT		
MERCY TEST NAME	HEMOGRAM PLATELET CT	MERCY LAB CODE	See: CBC

POWERCHART NAME	HEMOQUANT FECES		
MERCY TEST NAME	HEMOQUANT, FECES*	MERCY LAB CODE	HMQF

- Patient preparation:
- Patient should be instructed to refrain from red meat and aspirin for 3 days prior to specimen collection.
 - **IMPORTANT:** Note on order whether patient has complied with instructions.
- Specimen:
- 1 gram of feces from a single defecation is to be collected using a spoon-like sampler from the kit supplied by the Laboratory.
 - Place sample in screw-capped tube.
- Processing:
- Send **refrigerated** to Mayo.
 - Mayo code order code (**HQ**).
- Performed: Test set up Monday through Saturday
- Reference value: Included in report
- Method: Fluorescence Quantitation.
- CPT Code: 84126

POWERCHART NAME	HEMOSIDERIN QUALITATIVE URINE		
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Double spin coagulation specimens to ensure that all platelets are removed: 1. Centrifuge specimen. Aliquot plasma (leaving some above the cells) to a plastic centrifuge tube. 2. Centrifuge the aliquot tube. Pipette plasma (leaving some above the bottom of the tube) to another plastic aliquot tube. 3. Store plasma as required for the test ordered.

Performed: Available stat. Performed within 8 hours of receipt except for special studies to establish therapeutic PTT ranges.
 Reference value: 0.3-0.7 u/ml
 Method: Chromogenic Substrate
 CPT Code: 85520

TEST NAME	HEPARIN INDUCED THROMBOCYTOPENIA SCREEN		
MERCY TEST NAME	HIT SCREEN (DONE AT MERCY)	MERCY LAB CODE	HITSCR

Specimen:

- o 0.5 mls plasma from a properly filled blue top tube.
- o Remove plasma by a double spin method and freeze if testing will not be performed within 2 hours of draw time.

o
 Performed: Same shift, Sunday through Saturday. Available stat.
 Reference value: Negative
 Method: Particle ImmunoFiltration Assay (PIFA)
 CPT Code: 86022

TEST NAME	HEPARIN PF4 ANTIBODY
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MERCY TEST NAME	HEPARIN PF4 AB	MERCY LAB CODE	HITPF4
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Specimen: 1.0 ml serum from a no additive serum tube
 Processing: Send **frozen** to Mayo. Mayo order (**HITIG**)
 Performed: 1-3 days. Monday through Sunday
 Reference value: Included with Mayo report.
 Method: Enzyme-linked Immunosorbent Assay (ELISA)
 CPT Code: 86022

POWERCHART NAME	HEPATIC FUNCTION PANEL		
MERCY TEST NAME	HEPATIC (Liver) FUNCTION PNL	MERCY LAB CODE	HFPL

Specimen: 0.5 mL serum

Stability: Specimens may be stored for up to 8 hours at 25°C or for up to 7 days at 2–8°C or stored frozen for up to 6 months at -20°C or colder.

Comment: Includes: Albumin, Alkaline Phosphatase, ALT, AST, Total Bilirubin, Direct Bilirubin, Indirect Bilirubin, Total Protein, and A/G Ratio

Performed: Within 8 hours of receipt. Available stat.

Reference value: See individual test entry

Method: See individual test entry

CPT Code: 80076

POWERCHART NAME	HEPATITIS A IgM ANTIBODY		
MERCY TEST NAME	HEPATITIS A IgM AB	MERCY LAB CODE	HAVMAB

Specimen: 1 ml serum from a Serum Separator Tube (SST). Centrifuge within 2 hours of collection.
Stability: 8 hours room temp, or 48 hours refrigerated. Freeze if >48 hours.
Included in: Hepatitis Acute Panel or may be ordered separately.
Cause for rejection: The following samples are unacceptable and will not be tested; heat treated, hemolyzed, cadaveric specimens, body fluid other than serum or plasma.

Performed: Within 8 hours of receipt. Available stat.

Reference value: Non-Reactive

Method: Chemiluminescent Microparticle Immunoassay
CPT Code: 86709

POWERCHART NAME	HEPATITIS A ANTIBODY TOTAL		
MERCY TEST NAME	HEPATITIS A TOTAL AB	MERCY LAB CODE	HAVG

Specimen: 1 ml serum from a Serum Separator Tube (SST).
Processing: Stability: 12 hours room temp, or 7 days refrigerated. Freeze if >7 days.

Performed: Within 8 hours of receipt.

Reference value: Non-Reactive. Reactive specimens will have Hepatitis A IgM Antibody (HAVMAB) performed at an additional charge.

Method: Chemiluminescence Immunoassay

CPT Code: 86708

POWERCHART NAME	HEPATITIS A ANTIBODY IGG		
MERCY TEST NAME	HEP A IGG AB*	MERCY LAB CODE	HAIGG

Specimen: 1.0 mL serum from a Serum Separator Tube (SST). Centrifuge within 2 hours of collection and aliquot into plastic vial.

Processing: Send **refrigerated** to Mayo. Mayo order code (**HAIGG**).

Performed: Monday through Saturday.

Reference value: Included with report

Method: Chemiluminescent Microparticle Immunoassay (CMIA)

CPT Code: 86708

POWERCHART NAME	HEPATITIS ACUTE PANEL		
MERCY TEST NAME	HEPATITIS ACUTE	MERCY LAB CODE	HPACUT

Includes: Hepatitis B Surface Antigen, Hepatitis B Core IgM Antibody, Hepatitis C Antibody, Hepatitis A Antibody IgM

Specimen: 4 ml serum from a Serum Separator Tube (SST).

Stability: Refrigerate if not tested immediately. 48 hours refrigerated, freeze if >48 hours.

Cause for rejection: The following samples are unacceptable and will not be tested; heat treated, hemolyzed, **heparinized**, cadaveric specimens, body fluids other than serum and plasma.

Performed: Within 8 hours of receipt. Available stat.

Comment:

- If Hepatitis B Surface antigen is Reactive, specimen will be forwarded to Mayo Medical Laboratories for additional testing. Mayo code HBAG, HBGNT if appropriate.
- If Hepatitis C is Reactive, Confirmatory Hepatitis C RNA, Mayo HCVQU will be performed and charged.

Reference value: Hepatitis B Surface Antigen - Non-Reactive
Hepatitis A Antibody, IgM Antibody - Non-Reactive
Hepatitis B Core, IgM Antibody - Non-Reactive
Hepatitis C Antibody - Non-Reactive

Method: Chemiluminescent Microparticle Immunoassay

CPT Code: 80074 Acute profile
87340 HBAG (if appropriate)

87341 HBGNT (if appropriate)

87522 HCVQU (if appropriate)

POWERCHART NAME	HEPATITIS CHRONIC PROFILE SCREENING		
MERCY TEST NAME	HEPATIT CH SCREEN	MERCY LAB CODE	HPCHRS

86706Includes: Hepatitis B Surface Antigen, Hepatitis B Surface Antibody, Hepatitis C Antibody, Hepatitis B Core Total Antibody

Specimen: 4 ml serum from a Serum Separator Tube (SST)

Stability: Refrigerate if not tested immediately. 3 days refrigerated or freeze if > 3 days.

Performed: Within 8 hours of receipt. Available stat.

Comment

- If Hepatitis B Surface antigen is reactive, specimen will be forwarded to Mayo Medical laboratories for additional testing Mayo code HBAG, HBGNT if appropriate.
- If Hepatitis C is reactive, Confirmatory hepatitis C virus, Mayo test HCVQU (Hepatitis C RNA) will be performed and charged.

Reference value: Hepatitis B Surface Antigen - Non-Reactive
Hepatitis C Antibody - Non-Reactive
Hepatitis B Core Total Antibody - Non-Reactive
Hepatitis B Surface Antibody - Reactive - Indicates immunity or exposure of HBV, Non-Reactive - No immunity to HBV

Method: Chemiluminescent Microparticle Immunoassay

CPT Code: G0499 - HBSA
 87341 - HBGNT (if appropriate)
 G0472 - HCVAB
 87522 - HCVRNA (if appropriate)
 G0499 - HBCTAB
 86705 - HBCMAB (if appropriate)
 G0499 - HPBSAB

POWERCHART NAME	HEPATITIS CHRONIC ACUTE		
MERCY TEST NAME	HEPATITIS CHRONIC ACUTE	MERCY LAB CODE	HPCHAC

Includes: Hepatitis B Surface Antigen, Hepatitis B Core IgM Antibody, Hepatitis C Antibody, Hepatitis A Antibody IgM, Hepatitis B Surface Antibody, Hepatitis B Core Total Antibody

Specimen: 4 ml serum from a Serum Separator Tube (SST).

Stability: Refrigerate if not tested immediately. 48 hours refrigerated, freeze if >48 hours.

Cause for rejection: The following samples are unacceptable and will not be tested; heat treated, hemolyzed, **heparinized**, cadaveric specimens, body fluids other than serum and plasma.

Performed: Within 8 hours of receipt. Available stat.

Comment:

- If Hepatitis B Surface antigen is Reactive, specimen will be forwarded to Mayo Medical Laboratories for additional testing. Mayo code HBAG, HBGNT if appropriate.

- If Hepatitis C is Reactive, Confirmatory Hepatitis C RNA, Mayo HCVQU will be performed and charged.

Reference value: Hepatitis B Surface Antigen - Non-Reactive
 Hepatitis A Antibody, IgM Antibody - Non-Reactive
 Hepatitis B Core, IgM Antibody - Non-Reactive
 Hepatitis C Antibody - Non-Reactive
 Hepatitis B Surface Antibody - Reactive
 Hepatitis B Core Total Antibody - Non-Reactive

Method: Chemiluminescent Microparticle Immunoassay

CPT Code: 80074 Acute Profile
 G9499 HBSA
 G0499 HBCTAB
 G0499 HPBSAB
 87340 HBAG (if appropriate)
 87341 HPGNT (if appropriate)
 87522 HCVQU (if appropriate)

POWERCHART NAME	HEPATITIS B CORE TOTAL ANTIBODY		
MERCY TEST NAME	Hepatitis B Core Total Antibody	MERCY LAB CODE	HBCTAB

Specimen: 0.5 ml serum from a Serum Separator Tube (SST).
 Stability: 12 hours room temp, 3 days refrigerated, or freeze if >3 days.
 Included in: Hepatitis Chronic Profile or is available separately.
 Performed: Within 8 hours of receipt. Available stat.

Reference value: Not Detected

Comment: If Hepatitis B Core Total Antibody is detected, Hepatitis B Core, IgM Antibody will be performed and charged.

Method: Chemiluminescent Microparticle Immunoassay

CPT Code: 86704- HBCTAB
86705-HBCMAB (if appropriate)

POWERCHART NAME	HEPATITIS B VIRUS DNA (PCR) QUANTITATIVE		
MERCY TEST NAME	HEP B VIRUS DNA*	MERCY LAB CODE	HBVQ

Specimen: 1.5 mL serum from a Serum Separator Tube (SST). Centrifuge within 2 hours of collection and aliquot into plastic vial.

Processing: Send **frozen** to Mayo. Mayo order code (**HBVQN**).

Performed: 3 days, Monday through Saturday

Reference value: Included with report

Method: Real-Time Polymerase Chain Reaction (RT-PCR)

CPT Code: 87517

POWERCHART NAME	HEPATITIS BE ANTIBODY
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MERCY TEST NAME	HEP BE AB*	MERCY LAB CODE	HEAB
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Patient Preparation: For 24 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 multivitamins.

Specimen: 1 mL serum from a Serum Separator Tube (SST). Centrifuge within 2 hours of collection and aliquot serum into a plastic vial.

Processing: Send frozen to Mayo. Mayo order code (**HEAB**).

Performed: 1-2 days. Monday through Sunday.

Reference value: Included with report.

Method: Chemiluminescence Immunoassay

CPT Code: 86707

POWERCHART NAME	HEPATITIS BE ANTIGEN		
MERCY TEST NAME	HEP BE AG*	MERCY LAB CODE	EAG

Patient Preparation: For 24 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 multivitamins.

Specimen: 1 mL serum from a Serum Separator Tube (SST) or plain, no additive serum tube. Centrifuge within 2 hours of collection and aliquot into plastic vial.

Processing: Send frozen (preferred) to Mayo. Mayo order code (**EAG**).

Performed: 1-3 days. Monday through Saturday.

Reference value: Included with report.
 Method: Chemiluminescence Immunoassay
 CPT Code: 87350

POWERCHART NAME	HEPATITIS Be ANTIGEN AND ANTIBODY		
MERCY TEST NAME	HEP BE AG AB*	MERCY LAB CODE	HEAG

Patient Preparation: For 24 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 multivitamins.

Specimen: 1.5 mL serum from a Serum Separator Tube (SST). Centrifuge within 2 hours of collection and aliquot serum into a plastic vial.

Processing: Send frozen to Mayo. Mayo order code (**HEAG**).

Performed: 1-2 days. Monday through Saturday.

Reference value: Included with report.

Method: Chemiluminescence Immunoassay
 CPT Code: 87350
 86707

POWERCHART NAME	HEPATITIS CHRONIC PROFILE		
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MERCY TEST NAME	HEPATIT CH UK*	MERCY LAB CODE	HPCHRN
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86706 Includes: Hepatitis B Surface Antigen, Hepatitis B Surface Antibody, Hepatitis C Antibody, Hepatitis B Core Total Antibody

Specimen: 4 ml serum from a Serum Separator Tube (SST).

Stability: Refrigerate if not tested immediately. 3 days refrigerated or freeze if > 3 days.

Performed: Within 8 hours of receipt. Available stat.

Comment

- If Hepatitis B Surface antigen is detected, specimen will be forwarded to Mayo Medical laboratories for additional testing Mayo code HBAG, HBGNT if appropriate.
- If Hepatitis C is detected, Confirmatory hepatitis C virus, Mayo test HCVQU (Hepatitis C RNA) will be performed and charged.

Reference value: Hepatitis B Surface Antigen - Non-Reactive
Hepatitis C Antibody - Non-Reactive
Hepatitis B Core Total Antibody - Non-Reactive
Hepatitis B Surface Antibody - Reactive - Indicates immunity or exposure of HBV, Non-Reactive - No immunity to HBV

Method: Chemiluminescent Microparticle Immunoassay

CPT Code: 87340 - HBSA
87341 - HBGNT (if appropriate)
86803 - HCVAB
87522 - HCVRNA (if appropriate)
86704 - HBCTAB
86705 - HBCMAB (if appropriate)
86706 - HPBSAB

POWERCHART NAME	HEPATITIS B SURFACE ANTIGEN		
MERCY TEST NAME	HEPATITIS B SURF Ag	MERCY LAB CODE	HBSA

Specimen: 1 ml serum from a Serum Separator Tube (SST)
Stability: 24 hours room temp, 14 days refrigerated, freeze if >14 days.
Included in: Prenatal Profile, Hepatitis Acute Panel, Hepatitis Chronic/Unknown Panel, or may be ordered separately.

Cause for rejection: The following samples are unacceptable and will not be tested; heat treated, hemolyzed, **heparinized**, cadaveric samples, body fluids other than serum or plasma.
Comments:

- If Hepatitis B Surface Antigen is detected, specimen will be forwarded to Mayo Medical Laboratories for additional testing. Mayo code - HBAG, HBGNT if appropriate.
- Performance has not been established for newborns, cord blood, body fluids.

Performed: Within 8 hours of receipt. Available stat.
Reference value: Non-Reactive.
Method: Chemiluminescent Microparticle Immunoassay
CPT Code: 87340 HBSA
87340 HBsAg if indicated, Mayo code HBAG
87341 HBsAg Confirmation if indicated, Mayo code HBGNT

POWERCHART NAME	HEPATITIS B SURFACE ANTIBODY
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MERCY TEST NAME	HEPATITIS ANTI HBS	MERCY LAB CODE	HPBSAB
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Comment: Test to detect immunity from vaccination and/or exposure to HBV

Specimen: 1 ml serum from a Serum Separator Tube (SST).

Stability: 7 days refrigerated.

Included in: Hepatitis Acute Panel, Hepatitis Chronic/Unknown Panel, or may be ordered separately.

Performed: Within 8 hours of receipt. Available stat.

Reference value: Reactive -Indicates immunity or exposure to HBV; Non-Reactive - Indicated no immunity to HBV

Method: Chemiluminescent Microparticle Immunoassay

CPT Code: 86706

POWERCHART NAME	HEPATITIS B CORE IgM ANTIBODY		
MERCY TEST NAME	HEP B CORE IgM AB	MERCY LAB CODE	HBCMAB

Specimen: 1 ml serum from a Serum Separator Tube (SST).

Stability: 8-hour room temp, 48 hours refrigerated, freeze if >48 hours.

Included in: Hepatitis Acute Panel or may be ordered separately.

Performed: Within 8 hours of receipt. Available stat.

Reference value: Non-Reactive

Method: Chemiluminescent Microparticle Immunoassay

CPT Code: 86705

POWERCHART NAME	HEPATITIS C ANTIBODY		
MERCY TEST NAME	HEPATITIS C AB	MERCY LAB CODE	HCVAB

Specimen: 1 ml serum from a Serum Separator Tube (SST).
Stability: Refrigerate if not tested immediately. 7 days refrigerated, freeze if >7 days.
Included in: Hepatitis Acute Panel, Hepatitis Chronic/Unknown Panel, or may be ordered separately.
Comment: Confirmatory Hepatitis C Virus, Mayo test code **HCVQU** will be performed and charged when screen is positive.
Performed: Within 8 hours of receipt. Available stat.
Reference value: Non-Reactive
Method: Chemiluminescent Microparticle Immunoassay
CPT Code: 86803
87522 (If Appropriate)

MERCY TEST NAME	HEPATITIS C AB HIGH RISK (used only for Medicare screening)	MERCY LAB CODE	HCVABR
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Specimen: 1 ml serum from a Serum Separator Tube (SST).
Stability: Refrigerate if not tested immediately. 7 days refrigerated, freeze if >7 days.
Comment: This test should only be ordered for high-risk screening on Medicare patients.
Confirmatory Hepatitis C Virus, Mayo test code **HCVQU** will be performed and charged when screen is positive.
Performed: Within 8 hours of receipt. Available stat.
Reference value: Non-Reactive
Method: Chemiluminescent Microparticle Immunoassay

CPT Code: G0472
87522 (If Appropriate)

POWERCHART NAME	HEPATITIS C RNA (QUANT)		
MERCY TEST NAME	HCV RNA DETECT/QN*	MERCY LAB CODE	HCVRNA

Specimen: 1.5 ml serum from a Serum Separator Tube (SST).
Comment: This test is intended to be used to monitor known HCV positive infections. Hepatitis C Viral Load
This test is not intended for primary detection of HCV infections.
If Mercy's Hepatitis C antibody is positive this test is reflexed and referred to Mayo at an additional charge.

Processing:

- Spin down. **Remove serum from cells within **2** hours of collection. Freeze aliquoted serum immediately for transport.
- Send frozen to Mayo. Mayo code - **HCVQN**.

Performed: 1-3 days. Monday through Saturday; 7 a.m. - 4 p.m.

Reference Value: Included with results.

Method: Real-Time Reverse Transcription-Polymerase Chain Reaction (RT-PCR)

CPT Code: 87522

POWERCHART NAME	HEPATITIS C VIRUS GENOTYPE ANALYSIS
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MERCY TEST NAME	HEP C VIRUS GENO*	MERCY LAB CODE	HCVGS
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Specimen: 5.0 mL serum from a Serum Separator Tube (SST) or no additive serum tube. Centrifuge within 2 hours of collection and aliquot into plastic vial.

Note: 1. Specimens should contain a recommended minimum hepatitis C virus (HCV) viral load of 500 IU/mL.

2. Serum specimens previously submitted to other laboratories for non-microbiology tests are **not** acceptable for add-on test requests, due to possible sample-to-sample carryover from automation used for those tests.

Processing: Send **FROZEN** to Mayo. Mayo order code (**HCVG**).

Performed: Monday through Friday.

Reference Value: Included with report

Method: Reverse Transcriptase-Polymerase Chain Reaction (RT-PCR) followed by Hybridization with Sequence-Specific, Fluorescent-Labeled Oligonucleotide Probes

CPT Code: 87902

POWERCHART NAME	HERPES SIMPLEX DNA (PCR) MC		
MERCY TEST NAME	HERPES BY PCR*	MERCY LAB CODE	HSVPCR

Ordering Guidance: **HSVPCR is for non-blood and non-CSF specimens.**

If Herpes Simplex Virus (HSV) is suspected in blood, order as SQ: **CMIS** – Mayo: LHSVB / Herpes Simplex Virus (HSV), Molecular Detection, PCR, Blood.

If HSV is suspected in cerebrospinal fluid (CSF), order SQ: **HSVC** – Mayo HSVC / HSV 1 and 2 DNA Qualitative CSF.

Specimen: Must indicate specimen source. Submit only 1 of the following specimens:

Body fluid (Pleural, peritoneal, ascites, pericardial, amniotic, or ocular) – 0.5 mL of fluid in a sterile container. **Do not Centrifuge.** Send to Mayo in sterile container.

Swab (Genital, dermal, ocular, nasal, throat, or oral) - Culturette (BBL Culture Swab) (T092). Send swab to Mayo in multimicrobe media (M4-RT, M4 or M5).

Respiratory (Bronchial washing, bronchoalveolar lavage, nasopharyngeal aspirate or washing, sputum, or tracheal aspirate) – 1.5 mL of specimen in a sterile container. Send to Mayo in sterile container.

Tissue (Brain, colon, kidney, liver, lung, etc.) - Whole collection in a Multimicrobe media (M4-RT) (T605) (Preferred) or Sterile container with 1–2 mL of sterile saline. Submit only fresh tissue.

Urine (<1-month old infant) – 0.5 mL of urine in a sterile container.

Cautions: A negative result does not eliminate the possibility of herpes simplex virus (HSV) infection.

Although the reference range is typically “negative” for this assay, this assay may detect viral nucleic acid shedding in asymptomatic individuals. This may be especially relevant when dermal or genital sites are tested since intermittent shedding without noticeable lesions has been described.

This assay is only to be used for patients with a clinical history and symptoms consistent with HSV infection and must be interpreted in the context of the clinical picture.

Processing: Send refrigerated (preferred) to Mayo. Frozen is also acceptable. Mayo order code (**HSVPV**).

Performed: 1-4 days. Monday through Saturday.

Reference value: Reference ranges included with report.

Method: Real-Time Polymerase Chain Reaction (PCR)/DNA Probe Hybridization

CPT Code: 87529 x 2

POWERCHART NAME	HSV 1 and 2 DNA QUALITATIVE CSF		
MERCY TEST NAME	HERPES SIMPLEX PCR CSF*	MERCY LAB CODE	HSVC

Specimen: 0.2 mL Spinal Fluid in a sterile container (12 x 75 mm screw cap vial)

Processing: Specimen should be aliquoted and sent refrigerated. Mayo order code HSVC

Reference Range: Included in report.

Performed: Daily at Mayo Medical Laboratories

Method: Herpes Simplex Virus, PCR, CSF

CPT Code: 87529x2

POWERCHART NAME	HERPES SIMPLEX TYPE I AND TYPE II ANTIBODIES		
MERCY TEST NAME	HSV TYPES 1 & 2 AB*	MERCY LAB CODE	HSVT12

Specimen: 1.0 ml serum from a no additive serum tube or a Serum Separator Tube (SST).

Processing: Specimen should be aliquoted and sent refrigerated. Mayo order code (**HSVG**).

Reference Range: Included in report.

Performed: Monday - Saturday; 9 a.m.
Results available 1-2 days from collection.

Method HS2G and HS1G: Multiplex Flow Immunoassay
HSMR: Immunofluorescence Assay (IFA)

CPT Code: 86695 HSV IgG Type 1
86696 HSV IgG Type 2

TEST NAME	HERPES SKIN SCRAPING FOR CYTOLOGY	See: Cytology Section Tzanck Smear
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POWERCHART NAME	HIAA-5 HYDROXYINDOLE ACETIC ACID URINE		
MERCY TEST NAME	HIAA 5 24UR*	MERCY LAB CODE	HIAA

Patient preparation: For 48 hours before starting the 24-hour collection and during the collection do not eat any of the following: avocados, bananas, butternut, cantaloupe, dates, eggplant, hickory nut, grapefruit, honeydew melon, kiwi fruit, nuts, pecans, pineapples, plantain, plums, tomatoes, tomato products and walnuts.

Specimen:

- o 24-hour urine collection.
- o Before start of collection, add 25 ml 50% acetic acid preservative (15 ml for children)
- o Refrigerate during collection.

Processing:

- o Aliquot 5 ml into a 13 mL urine tube and indicate total 24-hour volume.
- o Adjust pH to 2.0-4.0 with 50% acetic acid.
- o Send **refrigerated** to Mayo. Frozen acceptable. Mayo order code HIAA.

Performed: 2 days. Test set up Monday through Friday;11 a.m.

Reference value: included with report

Method: Liquid Chromatography-tandem mass spectrometry (LC-MS/MS)

CPT Code: 83497

POWERCHART NAME	HISTOPLASMA ANTIBODY SCREEN		
MERCY TEST NAME	HISTOPLASMA ANTBODY	MERCY LAB CODE	HSTAB

Specimen: 0.7 ml serum from a Serum Separator Tube (SST) or a no additive serum tube

Processing: Send to Mayo refrigerated. Frozen is acceptable. Mayo order code (**SHSTO**).

Performed: 1 day. Monday through Friday 930 AM.
 Reference value: Included in report.
 Method: Complement Fixation (CF)/ Immunodiffusion
 CPT Code: 86698x3

POWERCHART NAME	HISTOPLASMA ANTIGEN URINE		
MERCY TEST NAME	HISTOPLASMA AG UA	MERCY LAB CODE	HSTOU

Specimen: 4 mL urine from random urine collection in plastic 5 mL aliquot tube. No preservative.

Processing: Send to Mayo refrigerated. Mayo order code (**HSTQU**).

Note: If Histoplasma Antigen test result is indeterminate, the MVista Histoplasma Ag Mayo order code (FMVHU) will be performed at an additional cost.

Performed: 1-2 days. Monday through Sunday

Reference value: Included in report.

Method: Enzyme Immunoassay (EIA).

CPT Code: 87385

POWERCHART NAME	HIV 1 HIV 2 ANTIBODY HIV 1 p24 ANTIGEN		
MERCY TEST NAME	HIV	MERCY LAB CODE	HIV

Specimen: 1.5 ml serum from a Serum Separator Tube (SST) for initial testing done at Mercy.

Stability: Serum: 24 hours room temp, 14 days refrigerated.
Cause for rejection: Cord blood is not an acceptable specimen for HIV testing. The mother's serum should be tested.

Comment: If this initial HIV testing is reactive, then laboratory will place an additional order for (Sunquest HIVDI / Mayo HIVDI) - HIV 1 HIV 2 Ab Differentiation confirmation testing, which is performed at Mayo Medical Laboratories at an additional charge. Additional testing may be performed and charged based on the HIVDI result.

Performed: HIV is included in the Prenatal Profile with HIV test (PNP)
Within 8 hours of receipt. Available stat.
Reference value: Non-Reactive
Method: Chemiluminescent Microparticle Immunoassay
CPT Code: 87389-HIV-1 and HIV-2 Antibody, HIV 1 p24 Antigen single assay.
G0475 for Medicare patients
86701-HIV-1 Differentiation (if appropriate)
86702-HIV-2 Differentiation (if appropriate)
87535-HIV-1 Probe & Reverse Transcrp (if appropriate)
87538-HIV-2 Probe & Reverse Transcrp (if appropriate)

POWERCHART NAME	HIV 1 RNA (PCR)		
MERCY TEST NAME	HIV 1 DETECT QUANT* (HIV Viral Load)	MERCY LAB CODE	HIVDQ

Specimen: Requires 2 purple top EDTA tubes. This test requires 1.5 mL of plasma from EDTA whole blood collection. 1 EDTA tube may not provide enough plasma.

Processing: Spin down and remove plasma within 6 hours of collection. Send **FROZEN** plasma specimen to Mayo (refrigerated is acceptable) Mayo code - (**HIVQN**)

Performed: Monday - Thursday 1 day, Friday and Saturday, 3 days. Monday - Saturday testing performed 7 a.m. - 4 p.m.

Reference value: Included in report.

Method: Real Time Reverse Transcription - Polymerase Chain Reaction (RT-PCR)

CPT Code: 87536

POWERCHART NAME	HIV 1 HIV 2 DIFFERENTIATION		
MERCY TEST NAME	HIV 1 2 Ab CONF*	MERCY LAB CODE	HIVDI

Specimen: 1.5 mL serum from SST.

Processing: Aliquot 1.5 mL serum to plastic vial, send FROZEN to Mayo Medical Laboratories. Mayo Code – HIVDI.

Comment: This test is reflexed from our in-house HIV testing. If the initial HIV testing is reactive lab will send to Mayo for this HIVDI confirmation/differentiation testing at an additional charge. Mayo may perform additional testing beyond the HIVDI at an additional charge.

This test is also available to order if patient is previously identified as HIV positive and additional testing is desired to follow patient's condition.

Performed: Monday - Friday
 Reference value: Included in report
 Method: Real-time polymerase chain reaction (PCR) assay
 CPT Code: 86701 - HIV 1 Ab
 86702 - HIV 2 Ab
 87535-HIV-1 Probe & Reverse Transcrp (if appropriate)
 87538-HIV-2 Probe & Reverse Transcrp (if appropriate)

POWERCHART NAME	HIV OCCUPATION EXPOSURE (Performed on Source Patient ONLY)		
MERCY TEST NAME	HIVSRV	MERCY LAB CODE	HIVS

Specimen:

- 1 ml serum for initial testing done at Mercy.

This test is designed to be done on the SOURCE patient only, following an exposure (blood and/or body fluids). The source patient is not required to sign an informed consent when an exposure has occurred but should be informed that testing will be taking place. Orders need to be sent on a manual form.

Autopsy specimens are sent to UHL-order HIVAUT

Stability 24 hours room temp, 14 days refrigerated.

Cause for rejection: Cord blood is not an acceptable specimen for HIV testing. The mother's serum should be tested.

- Comments:
- **If employee exposure testing is needed, order a routine HIV.** The routine HIV test will be done and tests for HIV1 and HIV2 antibodies and HIV1 p24 Antigen.
 - To be ordered by Mercy Employee Health, Nursing Supervisor or any outside location requiring source patient testing.
 - Reports are hand delivered to in-house Nursing Supervisors, or ED providers. Results are faxed to Employee Health and ASC. **Results do not go to Powerchart.**
 - If this initial HIV testing is reactive, then laboratory will place an additional order for HIVDI- HIV 1 HIV 2 Ab Differentiation confirmation testing, which is performed at Mayo Medical Laboratories at an additional charge.
 - If the primary instrument in Lab is down, the rapid Alere Determine HIV-1/2 Ag/Ab Combo kit will be performed on the source patient only.

Reference value: Non-Reactive

Method: Chemiluminescent Microparticle Immunoassay

CPT Code: 87389-HIV-1 and HIV-2 Antibody, HIV 1 p24 Antigen single assay.

86701-HIV-1 Differentiation (if appropriate)

86702-HIV-2 Differentiation (if appropriate)

87535-HIV-1 Probe & Reverse Transcrp (if appropriate)

87538-HIV-2 Probe & Reverse Transcrp (if appropriate)

POWERCHART NAME	HLA B27		
MERCY TEST NAME	HLA B27*	MERCY LAB CODE	HLAB27

Specimen: 6 ml whole blood collected **EDTA**. Minimum 1.0 ml.
Specimen must arrive at Mayo reference lab within 96 hours of collection.

Processing:

- Submit in original lavender top tubes, do not transfer blood to other containers.
- Send **Ambient** Do **NOT refrigerate** and clearly label "DO NOT REFRIGERATE."
Mayo order code (**LY27B**).

Performed: 2-6 days. Monday through Friday 730 AM and 500 PM.

Reference value: Included with test results

Method: Flow cytometry. All positive test results will be confirmed by complement dependent cytotoxicity (CDC).

CPT Code: 86812

POWERCHART NAME	HOMOCYSTEINE LEVEL		
MERCY TEST NAME	HOMOCYSTEIN TL PL	MERCY LAB CODE	HCYS

Specimen: 0.5 ml EDTA plasma

Stability: Centrifuge samples and remove serum or plasma from red blood cells as soon as possible to ensure accurate measurement. Samples that cannot be separated soon after collection should be stored on ice until centrifugation. Do not store samples at room temperature.

Tightly cap and refrigerate specimens at 2-8°C for up to 48 hours. Freeze samples at ≤ -20°C if the sample is not assayed within 48 hours. Samples may be stored at ≤ -20°C for up to 13 weeks. Freeze samples only 1 time and mix thoroughly after thawing.

Performed: Within 8 hours of receipt, Available stat.
 Reference Range: 3.7-13.9 μmol/L
 Method: The Atellica IM HCY assay is a competitive immunoassay using direct chemiluminescent.
 Description: Technology.
 CPT Code: 83090

POWERCHART NAME	HUMAN PAPILLOMAVIRUS DNA HIRSK		
MERCY TEST NAME	HPV DETECTION-HIGH RISK TYPES*	MERCY LAB CODE	HPVHR

Specimen: Cervical or Vaginal specimen in a ThinPrep solution vial. Indicate source of specimen on container.

Note: This is **NOT** a reflex test. It requires a specific request from the provider.

Processing: Send specimens Ambient to Mercy Medical Center - Des Moines

Performed: 3-6 days. Monday through Friday
 Reference value: Included in report.
 Method: Real-Time Polymerase Chain Reaction (PCR)
 CPT Code: 87624

POWERCHART NAME	HYDROXYPROGESTERONE 17-D LEVEL		
MERCY TEST NAME	HYDROXYPROGESTRN 17*	MERCY LAB CODE	HYPG

Specimen: 0.6 ml serum from a no additive serum tube

Processing: Send refrigerated to Mayo. Frozen or ambient acceptable. Mayo order code (**F17HY**).

Performed: 10 days. Test set up is Sunday through Friday.

Reference value: Included in Report

Method: Chromatography/Mass Spectrometry

CPT Code: 83498

TEST NAME	HYPERSENSITIVITY PNEUMONITIS	See: Farmers Lung Serology*
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POWERCHART NAME	IA-2 ANTIBODY		
MERCY TEST NAME	IA2 ANTIBODY*	MERCY LAB CODE	IAB2

Includes: Islet Antigen 2 (IA-2) Antibody

NOTE* If physician orders Islet Antigen 2 Antibody (Mayo IA2) and Glutamic Acid Decarboxylase Autoantibodies (Mayo GD65S) see I2GAD

Specimen: 1.0 mL serum from no additive serum tube or a Serum Separator Tube (SST).
 Processing: Send **refrigerated** to Mayo. Mayo order code (IA2).
 Performed: Tuesday, Friday at 1000 PM
 Reference value: Included with report
 Method: Radioimmunoassay (RIA)

CPT Code: 86341

POWERCHART NAME	IGA GAMMAGLOBULIN		
MERCY TEST NAME	IGA (Total)	MERCY LAB CODE	IGA

Specimen: 0.5 ml serum
 Stability: Specimens may be stored for up to 3 days at room temperature or for up to 7 days at 2-8°C or stored frozen for up to 6 months at -20°C.
 Performed: Within 8 hours of receipt. Available Stat
 Reference Range: Both Male and Female (mg/dL)
 0-4 months: 7-37
 5 - 8 months: 16-50
 9-14 months: 27-66
 15 -24 months: 36-79
 2-3 years: 27-246
 4-6 years: 29-256
 7-9 years: 34-274
 10-12 years: 42-295
 13-15 years: 52-319

16-17 years: 60-337

≥18 years: 66-433

Method

The Atellica CH IGA_2 assay is a PEG-enhanced immunoturbidimetric method.

Description:

CPT Code:

82784

POWERCHART NAME	IGE GAMMAGLOBULIN		
MERCY TEST NAME	IGE (Total)	MERCY LAB CODE	IGE

Specimen:

0.5 ml serum

Stability

Tightly cap and refrigerate specimens at 2–8°C if the assay is not completed within 8 hours. Freeze samples at ≤ -20°C if the sample is not assayed within 48 hours. Freeze samples only 1 time and mix thoroughly after thawing.

Comment:

Do not use samples stored at room temperature for longer than 8 hours.

Performed:

Within 8 hours of receipt. Available Stat

Reference Range:

0-5 Months: 0-13 IU/ML

6-11 Months: 0-34 IU/ML

1-2 Years: 0-97 IU/ML

3 years: 0-199 IU/ML

4-6 years: 0-307 IU/ML

7-8 years: 0-40 IU/ML

9-12 years: 0-696 IU/ML

13-15 years: 0-537 IU/ML

16-17 years: 0-537 IU/ML

≥18 years: 0-214 IU/ML

Method Description: The Atellica IM tIgE assay is a 2-site sandwich immunoassay using direct chemiluminescent technology, which uses constant amounts of 2 antibodies to IgE.

CPT Code: 82785

POWERCHART NAME	IGG GAMMAGLOBULIN		
MERCY TEST NAME	IGG (Total)	MERCY LAB CODE	IGG

Specimen: 0.5 ml serum
 Stability: Specimens may be stored for up to 7 days at 2-8°C or stored frozen for up to 3 months at -20°C.

Comment: Do not use hemolyzed samples.
 Performed: Within 8 hours of receipt. Available Stat

Reference Range: 0-4 months: 100-334 mg/dL
 5 - 8 months: 164-588 mg/dL
 9-14 months: 246-904 mg/dL
 15 -24 months: 313-1170 mg/dL
 2-3 years: 295-1156 mg/dL
 4-6 years: 386-1470 mg/dL
 7-9 years: 462-1682 mg/dL
 10-12 years: 503-1719 mg/dL
 13-15 years: 509-1580 mg/dL
 16-17 years: 487-1327 mg/dL
 ≥18 years: 635-1741 mg/dL

Method Description: The Atellica CH IgG_2 assay is a PEG-enhanced immunoturbidimetric method. Sample containing human IgG is suitably diluted and then reacted with specific antiserum to form a

CPT Code: precipitate
82784

POWERCHART NAME	IGG INDEX CSF		
MERCY TEST NAME	IGG INDEX CSF*	MERCY LAB CODE	CIGG

Specimen: 1 ml spinal fluid plus 2 mL serum from Serum Separator Tube SST or plain red top tube. **2 individual serum samples are required. 2 mL in 2 plastic vials, each containing 1 mL.**

Comment: Nursing Service must notify the Lab when the CSF is collected so that the CSF and serum specimens can be collected within 1 week of each other.

Processing:

- Include both CSF and serum specimens, label specimens appropriately.
- Send refrigerated to Mayo. Ambient and Frozen specimens are acceptable. Mayo order code **(SFIG)**.

Performed: Test set up Monday through Friday.

Reference value: Included with report

Method: SFINC, SFIGS: Nephelometry
ALBSI: Photometric

CPT Code: 82040 Albumin, serum
82042 Albumin, spinal fluid
82784 x2 IgG, serum and spinal fluid

POWERCHART NAME	IGG SUBCLASSES		
MERCY TEST NAME	IGG SUBCLASS*	MERCY LAB CODE	IGS

Comment: **This test includes Total IGG** with subclasses IGG1, IGG2, IGG3 and IGG4. This test should **not be ordered with IMMIG**. Order IGM and IGA separately if needed along with IGS.

Specimen: 1 ml serum from a Serum Separator Tube (SST) or no additive serum tube

Processing: Send aliquoted serum **refrigerated** to Mayo. Ambient, or frozen are acceptable. Mayo code (**IGGS**).

Performed: Monday through Saturday.

Reference value: Included with report

Method: Turbidimetry

CPT Code: 82787 x4 IgG Subclasses
82784 IgG, Total

POWERCHART NAME	IGM GAMMAGLOBULIN		
MERCY TEST NAME	IGM (Total)	MERCY LAB CODE	IGM

Specimen: 1 mL serum
Stability: Specimens may be stored for up to 7 days at 2-8°C or stored frozen for up to 3 months at -20°C.

Performed: Within 8 hours of receipt. Available Stat

Reference Range: 0-4 months: 26-122 mg/dL
5 - 8 months: 32-132 mg/dL
9-14 months: 40-143 mg/dL
15 -24 months: 46-152 mg/dL
2-3 years: 37-184 mg/dL
4-6 years: 37-224 mg/dL
7-9 years: 38-251 mg/dL
10-12 years: 41-255 mg/dL
13-15 years: 45-244 mg/dL
16-17 years: 49-201 mg/dL
≥18 years: 45-281 mg/dL

Method Description: The Atellica CH IgM_2 assay is a PEG-enhanced immunoturbidimetric method.

CPT Code: 82784

POWERCHART NAME	IMIPRAMINE & DESIPRAMINE LEVEL		
MERCY TEST NAME	IMIPRA DESIPRA* (Norpramin)	MERCY LAB CODE	IMDS

Specimen: ○ 1 ml serum in a no additive serum tube

- Collect 12 hours after the last dose.
- **Spin down within 2 hours of draw.**

Cause for rejection: Serum from SST tube.

Comment: Indicate time of last dose in comment.

Processing:

- Remove plasma from cells within 2 hours of collection.
- Send **refrigerated** to Mayo. Ambient or frozen also acceptable. Mayo order code (IMIPR).

Performed: 2 days. Test set up Monday through Saturday.

Reference value: Included in report.

Method: Liquid Chromatography-Tandem Mass Spectrometry (LC-MS/MS).

CPT Code: 80335/G0480

POWERCHART NAME	IMMUNOFIXATION DELTA AND EPSILON		
MERCY TEST NAME	IMMUNOFIX D AND E*	MERCY LAB CODE	IFXED

Specimen: 1.0 ml serum in a SST or a no additive serum tube

Processing: Send refrigerated to Mayo. Mayo order code (**IFXED**).

Performed: Monday through Saturday

Reference Value: Included in report.

Method: Immunofixation

CPT Code: 86334

POWERCHART NAME	IMMUNOGLOBULIN FREE LIGHT CHAIN		
MERCY TEST NAME	IMMUNO FR LT CHAIN* Alias: Kappa and Lambda Free Light Chains	MERCY LAB CODE	IFLC

Specimen: 1.0 ml serum in a SST or a no additive serum tube
Processing: Send refrigerated to Mayo. Mayo order code (FLCS).
Performed: Monday through Saturday
Reference Value: Included in report.

Method: Turbidimetry

CPT Code: 83521x2

POWERCHART NAME	IMMUNOGLOBULIN G, A, M PANEL		
MERCY TEST NAME	IMMUNOGLOB A, G, M	MERCY LAB CODE	IMMG

Specimen: 0.5 ml serum

Stability:

Specimens may be stored for up to 7 days at 2–8°C or stored frozen for up to 3 months at -20°C.

Comment:

Do not use hemolyzed samples. Includes IGA, IGG and IGM.

Performed: Within 8 hours of results. Available Stat
Reference Range: See individual test entry
Method: See individual test entry
Description: See individual test entry
CPT Code: 82784 x3

POWERCHART NAME	INSULIN LEVEL		
MERCY TEST NAME	INSULIN	MERCY LAB CODE	INS

Specimen: 0.5 ml serum
Stability: Tightly cap and refrigerate specimens at 2–8°C if the assay is not completed within 8 hours. Freeze samples at ≤ -20°C if the assay is not completed within 24 hours. Freeze samples only 1 time and mix thoroughly after thawing.
Comment: Do not use samples that have been stored at room temperature for longer than 8 hours.
Performed: Within 8 hours of receipt.
Reference Range: 2.60-37.60 mIU/ml
Performed: Within 8 hours of receipt.
Reference value: 1.9-23.0 mIU/ml
Method: The Atellica IM IRI assay is a 2-site sandwich immunoassay using direct chemiluminescent technology which uses constant amounts of 2 antibodies.
Description: technology which uses constant amounts of 2 antibodies.
CPT Code: 83525

POWERCHART NAME	INSULIN LIKE GROWTH FACTOR 1		
MERCY TEST NAME	INSULIN LIKE GF 1* (SOMATOMEDIN-C)	MERCY LAB CODE	INGF

Specimen: ○ 0.5 ml serum from a Serum Separator Tube (SST) or no additive serum tube.
 ○ Spin down, promptly remove serum from cells.

Processing: Send frozen to Mayo order code (**IGFMS**).

Performed: Sunday through Friday at 1200 PM

Reference value: Reference ranges included with results.

Method: Liquid Chromatography - Mass Spectrometry (LC/MS)

CPT Code: 84305

POWERCHART NAME	INTRINSIC FACTOR ANTIBODY		
MERCY TEST NAME	INTRINSIC FACTOR	MERCY LAB CODE	IFAB

Specimen: 1.0 ml serum from a fasting patient for at least 8 hours.

Stability: Specimens may be stored for up to 14 days at 2-8°C or stored frozen at -20°C.

Comment: This test should not be performed on patients who have received a vitamin B12 injection or radiolabeled vitamin B12 injection within the previous 2 weeks.

Performed: 1-3 days. Monday through Friday. Mayo order code (**IFBA**).

Reference Value: Included in report

Method: Immunoenzymatic Assay

CPT Code: 86340

POWERCHART NAME	IRON BINDING CAPACITY PROFILE		
MERCY TEST NAME	IRON (FE) IBC	MERCY LAB CODE	IIBC

Specimen: 0.5 ml serum

Stability: Separated specimens may be stored for up to 4 days at room temperature or for up to 7 days at 2-8°C or stored frozen for up to 2 months at -20°C.

Comment: Use the following formula to obtain serum UIBC from serum TIBC and iron: $TIBC - Iron = UIBC$ (µg/dL or µmol/L).

Performed: Within 8 hours of receipt. Available Stat.

Reference Range: 250-425 mcg/dL

Method Description: The Atellica CH Total Iron Binding Capacity (TIBC) assay uses two reagents in a sequential process that is monitored spectrophotometrically.

CPT Code: 83540

TEST NAME	ISLET CELL IgG ANTIBODY		
MERCY TEST NAME	IAB2 - GAD	MERCY LAB CODE	I2GAD

Includes: IAB2 (Mayo 89588/IA2) and GAD (Mayo order code GD65S).

Specimen: 3.0 ml serum from no additive serum tube or a Serum Separator Tube (SST).

Processing: Send 1.5 ml serum refrigerated

Performed: IA2 Tuesday, Friday; 10:00 a.m.
GAD Monday through Thursday; 10 p.m.

Method: IA2 Radioimmunoprecipitation
GAD Radioimmunoassay (RIA)

CPT Code: IA2 86341
GAD65 86341

TEST NAME	ITRACONAZOLE LEVEL		
MERCY TEST NAME	ITRACONAZOLE	MERCY LAB CODE	ITCON

Specimen: 1 mL serum from a no additive serum tube.

Stability: 14 days refrigerate, 14 days ambient, 14 days frozen

Processing: Send refrigerated to Mayo. Mayo order code ITCON

Performed: 1-3 days. Tuesday through Saturday 800 AM.

Reference Value: Included in report.

Method: Liquid Chromatography Tandem Mass Spectrometry (LC-MS/MS)

CPT Code: 80189

TEST NAME	JAK2 (V617F) Mutation (PCR)		
MERCY TEST NAME	JAK2 V617F MUTAT*	MERCY LAB CODE	JAK2B

Specimen: 4 ml EDTA whole blood from purple top EDTA tube.

Processing:

- o Included a completed Hematopathology Patient Information sheet
- o Send ambient to Mayo. Mayo order code (JAK2B).

Performed: 2-5 days. Test set up Monday through Friday 12 p.m.

Reference value: Included with report

Method: Point Mutation Detection in DNA Using Quantitative Polymerase Chain Reaction

CPT Code: 81270

POWERCHART NAME	JO1 ANTIBODY		
MERCY TEST NAME	JO 1 AB IGG*	MERCY LAB CODE	JO1B

Specimen: 0.5 mL serum from a Serum Separator Tube (SST).

Processing: Send refrigerated to Mayo. Mayo order code **(JO1)**

Performed: 1-2 days. Monday through Saturday; 4 p.m.

Reference value: Included with report

Method: Multiplex Flow Immunoassay

CPT Code: 86235

POWERCHART NAME	KIDNEY STONE ANALYSIS (MAYO)		
MERCY TEST NAME	KIDNEY STONE ANAL	MERCY LAB CODE	KIDST

Comment: For Mercy patients: Order on Powerchart. Indicate specimen source in comment field.

Specimen: Submit entire dried calculi specimen.

Collection Instructions:

1. Have patient collect specimen using the Patient Collection Instructions for Kidney Stones.
2. Prepare stone by cleaning any blood or foreign material from the stone with deionized water.

3. Place stone on a clean filter or paper towel and let dry at ambient temperature for a minimum of 24 hours. A dry stone will not stick to the walls of the container.

4. **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.

5. Indicate source of specimen on the outside of the container (e.g., left kidney, bladder, right ureter).

6. Repeat steps for each stone received.

-Do not send stone in formalin, surgical gel, or any other liquid as it interferes with the analytic procedure.

-Do not tape specimen to anything. Tape interferes with the analytical procedure.

-Do not send filter.

If multiple stones are collected and individual testing is desired for each stone, place each stone into its own container. Testing must be ordered separately on each stone. Each order will be charged separately.

Processing: Send Ambient (Preferred) to Mayo. Refrigerated or frozen is also acceptable. Mayo order code (**KIDST**).

Performed: 4-6 days. Monday through Saturday.

Reference value: Reference ranges included with report.

Method: Infrared Spectrum Analysis

CPT Code: 82365

POWERCHART NAME	KOH PREP OTHER		
MERCY TEST NAME	KOH PREP	MERCY LAB CODE	KOH

Order: This test looks for yeast and hyphal elements (fungus) in the sample submitted.

Order the specific KOH test code if the sample is scrapings, hair, skin, nails, tissue.

Order GRAM STAIN DIRECT if the specimen is from the genital tract.

Specimen: **Scrapings, hair, nails, and tissue:** Submit in a sterile plastic container with a tight-fitting lid.

Genital tract sample: collect the specimen on a routine red-lidded Culturette.

Comment: A concurrent fungus culture is strongly recommended as a confirmatory test.

RL Comments:

- Write in KOH Prep on RL order form. Indicate source on form.
- Send at room temperature.
- Order a gram stain if a genital specimen is being sent and the provider is looking for yeast.

Performed: Daily.

Reference value: No yeast or hyphal elements seen

Method: Direct microscopy

CPT Code: 87220

POWERCHART NAME	LACOSAMIDE LEVEL		
MERCY TEST NAME	LACOSAMIDE*	MERCY LAB CODE	LACO

Specimen: ○ 1 ml serum from a no additive serum tube or from a Serum Separator Tube (SST).
 ○ Draw specimen immediately before next scheduled dose or at least a minimum of 12 hours after last dose.

Processing: Send refrigerated to Mayo. Ambient or frozen also acceptable. Mayo order code (LACO).

Performed: 1-4 days. Test set up Monday through Saturday.

Reference value: Reference ranges included with report.

Method: Liquid Chromatography-Tandem Mass Spectrometry (LC-MS/MS)

CPT Code: 80235

POWERCHART NAME	LACTATE BODY FLUID		
MERCY TEST NAME	LACTATE BF	MERCY LAB CODE	FLCT

Specimen: 0.5 ml body fluid. Place tube immediately on ice and deliver to the Lab within 15 minutes of collection.

Stability: For body fluid, centrifuge before analysis. Separated CSF samples, may be stored for up to 24 hours at 2-8°C or stored frozen for up to 1 month at -20°C.

Performed: Within 8 hours of receipt. Available stat

Reference Range: 0.0 - 1.8 mmol/L

Method Description: The Atellica CH Lac_2 assay measures lactate in plasma by an enzymatic assay.

CPT Code: 83605

POWERCHART NAME	LACTATE CSF		
MERCY TEST NAME	LACTATE CSF	MERCY LAB CODE	CLCT

Specimen: 5 ml body fluid. Place tube immediately on ice and deliver to the Lab within 15 minutes of collection.

Stability; For CSF, centrifuge before analysis. Separated CSF samples, may be stored for up to 24 hours at 2-8°C or stored frozen for up to 1 month at -20°C.

Performed: Within 8 hours of receipt. Available stat

Reference Range: 0.0 - 1.8 mmol/L

Method Description: The Atellica CH Lac_2 assay measures lactate in plasma by an enzymatic assay.

CPT Code: 83605

POWERCHART NAME	LACTATE LEVEL		
MERCY TEST NAME	LACTATE PLASMA	MERCY LAB CODE	LCT

Specimen: 0.5 ml Sodium Fluoride plasma from gray top tube. Place tube in ice bath immediately after collection.

Stability: specimens may be stored for up to 1 day at 2–8°C or stored frozen for up to 30 days at -20°C.

Comment: Serum not acceptable

Performed: Within 8 hours of receipt. Available stat

Reference Range: 0.5-2.0 mmol/L

Method Description: The Atellica CH Lac_2 assay measures lactate in plasma by an enzymatic assay.

CPT Code: 83605

POWER CHART NAME	LACTOFERRIN STOOL
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MERCY TEST NAME	FECAL LACTOFERRIN	MERCY LAB CODE	LCTF
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Specimen: Mercy Medical Center - North Iowa Microbiology department performs a stool LACTOFERRIN, to determine the presence of fecal white cells in a stool sample. A fecal smear is no longer performed.

- Comment:
- Fresh specimen only. Collect fecal specimens in a clean, screw-topped container with no preservatives.
 - Specimens should be submitted to Mercy lab REFRIGERATED (Frozen stool samples are also acceptable)
 - Specimens should be submitted within 2 weeks of collection
 - Due to Lactoferrin being present in breast milk, fecal samples from breast fed infants should not be used with this assay.
 - Call Mercy Micro Lab (ext. 8-7494) for further directions if testing on a breast fed infant is needed.
- RL Client Comment:
- Write in Fecal Lactoferrin LCTF on order form
 - Send the specimen refrigerated (frozen is also acceptable, but not necessary) to Mercy Lab.
 - Send within 2 weeks of collection

Performed: Daily, test is available STAT

Reference Value: Negative, result indicates the absence of fecal leukocytes and intestinal inflammation.

Method: Immunochromatographic test

CPT Code: 83630

POWERCHART NAME	LAMOTRIGINE (LAMICTAL) LEVEL		
MERCY TEST NAME	LAMOTRIGINE*	MERCY LAB CODE	LAMO

Specimen: 1 mL serum from no additive serum tube (Preferred). Serum from a Serum Separator Tube (SST) is also acceptable.
 Draw specimen immediately before next scheduled dose. For sustained-release formulations only, draw blood a minimum of 12 hours after last dose. Centrifuge within 2 hours of collection. For red-top tubes, immediately aliquot serum into a plastic vial. For serum gel tubes, aliquot serum into a plastic vial within 24 hours of collection.

Processing: Send refrigerated (Preferred) to Mayo. Ambient or Frozen is also acceptable. Mayo order code (LAMO).

Performed: 1-2 days. Monday through Sunday.

Reference Value: Reference ranges included with report.

Method: Liquid Chromatography-Tandem Mass Spectrometry (LC-MS/MS)

CPT Code: 80175

POWERCHART NAME	RHEUMATOID FACTOR		
MERCY TEST NAME	LATEX RA	MERCY LAB CODE	RA

Specimen: 0.5 ml serum

Stability: Separated specimens may be stored for up to 7 days at 2-8°C. Specimens may be stored

Comment: frozen for up to 3 months at -20°C.
 Do not use hemolyzed samples.
 Performed: Within 8 hours of receipt. Available stat
 Reference Range: 0 -14 IU/ML

Method Description: The Atellica CH RF Reagent 2 is a suspension of uniform polystyrene latex particles coated with human IgG.
 CPT Code: 86431

POWERCHART NAME	LDH (LACTATE DEHYDROGENASE)		
MERCY TEST NAME	LD	MERCY LAB CODE	LD

Specimen: 0.5 ml serum
 Stability: Separated specimens may be stored for up to 7 days at 20–25°C, 4 days at 4–8°C or 42 days at -20°C.
 Comment: Do not use hemolyzed samples.
 Performed: Within 8 hours of receipt. Available stat.

Reference Range: 1-30 days: 135-750 U/L
 31 days-11 months: 180-435 U/L
 1-3 years: 160-370 U/L
 4-6 years: 145-345 U/L
 7-9 years: 143-290 U/L
 10-12 years: 120-283 U/L
 13-15 years: 110-233 U/L

16-17 years: 105-233 U/L

≥ 18 years: 122-222 U/L

Method

Description:

CPT Code:

Lactate dehydrogenase (LD) catalyzes the conversion of L-lactate to pyruvate in the presence of nicotinamide adenine dinucleotide (NAD).

83615

POWERCHART NAME	LDH (LACTATE DEHYDROGENASE) BODY FLUID		
MERCY TEST NAME	LD BF	MERCY LAB CODE	FLLD

Specimen: 0.5 ml body fluid placed in a sterile container.

Stability: Separated specimens may be stored for up to 7 days at 20–25°C, 4 days at 4–8°C or 42 days at -20°C.

Comment: Indicate specimen source in comment. Do not use hemolyzed samples.

Performed: Within 8 hours of receipt. Available stat.

Reference Range: No reference range has been established.

Method

Description:

CPT Code:

Lactate dehydrogenase (LD) catalyzes the conversion of L-lactate to pyruvate in the presence of nicotinamide adenine dinucleotide (NAD).

83615

TEST NAME	LDL CALCULATED (Low Density Lipoprotein)
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Included in: Lipid Panel. Cannot be ordered individually.

Comment: Calculation invalid when triglyceride is >400 mg/dl.

Reference value: The National Cholesterol Education Program of the National Heart, Lung, and Blood Institute has announced the following guidelines:

Optimal-----<100mg/dl
 Near Optimal-----100 - 129mg/dl
 Borderline high-----130 - 159mg/dl
 High-----160 - 189mg/dl
 Very High-----≥190mg/dl

Method: Calculation

POWERCHART NAME	LEAD LEVEL		
MERCY TEST NAME	LEAD WHOLE BLD*	MERCY LAB CODE	PB1

Specimen:

- 500 mcl whole blood from purple top (EDTA tube). Minimum: 200 mcl is acceptable for capillary collection specimens.
- Alternatively, use blue top (sodium citrate) or green top (sodium heparin) tubes.
- Venous samples (3.0 ml) are required for follow-up of elevated lead levels.

Stability: EDTA specimens are stable 14 days refrigerated.

Cause for rejection: Clotted specimens.

Processing: **Complete Blood Lead form from University Hygienic Lab (UHL).**
 Apply bar code label from UHL to the above form. Attach corresponding tube label from UHL to specimen. Send by U.S. Mail to address below.

Regional Lab Clients: Please order the collection kit directly from University Hygienic Lab. Regional lab clients are responsible for collection process, mailing kit, billing, and reporting.

University Hygienic Laboratory
Iowa Laboratories Facility
PO Box 249
Ankeny, IA 50021-9959
515-725-1600

Performed: 2 days
Reference value: < 16 years: 0 - 10 mcg/dl
16 and older: 0 - 20 mcg/dl

CPT Code: 83655

POWERCHART NAME	LEGIONELLA ANTIGEN EIA URINE		
MERCY TEST NAME	LEGIONELLA R UR*	MERCY LAB CODE	ULEG

Specimen: 0.5 ml random urine. Minimum 0.25 ml. No preservative. Refrigerate.
Processing: Send refrigerated to Mayo. Mayo test code **LAGU**.
Performed: 1-4 days. Test set up Monday through Friday; 12 p.m.
Reference value: Included in report.
Method: Immunochromatographic membrane assay
CPT Code: 87899

POWERCHART NAME	CULTURE LEGIONELLA
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MERCY TEST NAME	LEGIONELLA CULTURE*	MERCY LAB CODE	LEGCLT
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Order: Specify site when ordering.

This test no longer includes a Legionella smear. The Legionella PCR test has replaced the smear and will need to be ordered separately, if needed. (See Legionella PCR)

Specimen: Bronchial washings, broncho-alveolar lavage, bronchus fluid, chest fluid, chest tube drainage, empyema, endotracheal specimens, fresh lung tissue, induced sputum, lingual (lung), lung biopsy, pericardial fluid or tissue, heart valves, pleura, pleural fluid, protected catheter brush, sputum, thoracentesis fluid, tracheal secretion, transbronchial biopsy, or trans-tracheal aspirate.

Send in a screw-capped, sterile container.

Refrigerate. Maintain sterility and forward promptly.

Cause for rejection: NO frozen or ambient specimens will be accepted.
Do not transport in Culturette.

RL Client ○ Write LEGIONELLA CULTURE on order form. Indicate source on the form.
Comments: ○ Send refrigerated.

Processing: Send specimen in a screw-capped, sterile container. Maintain sterility. Send refrigerated to Mayo.
Mayo order code (LEGI)

Performed: Monday through Sunday; Continuously

Reference value: Negative
(Positive specimens will be identified/speciated by 16S rRNA gene sequencing, at an additional charge)

Method: Conventional culture

CPT Code: 87081 Culture
87176 Tissue processing (if appropriate)
87077 Ident by MALDI-TOF Mass Spec (if appropriate)
87153 Aerobe Ident by sequencing (if appropriate)

POWERCHART NAME	LEGIONELLA PCR		
MERCY TEST NAME	LEGIONELLA PCR	MERCY LAB CODE	LEGPCR

Specimen: 1 mL Bronchial washings, bronchoalveolar lavage, lung tissue, pleural fluid, sputum, transtracheal aspirate, or tracheal secretions.
Send in a screw-capped, sterile container.
Send Refrigerated. Maintain sterility and forward promptly.
Specimen source is required **Mayo order code (LEGRP)**

Performed: 3 days. Monday through Sunday

Reference value: Included with report.

Method: Rapid Polymerase Chain Reaction (PCR)

CPT Code: 87801

POWERCHART NAME	LEUKEMIA-LYMPHOMA IMMUNOPHENOTYPING BY FLOW CYTOMETRY		
MERCY TEST NAME	LEUK LYMPH PHNO TYP*	MERCY LAB CODE	LKLYPH

Specimen: Blood, Bone marrow, tissue (lymph nodes) other than blood or bone marrow, fluids from serous effusions.

Peripheral blood: 6 ml peripheral blood in ACD (preferred) or EDTA and sodium heparin are acceptable. Send whole blood. Include 5-10 unstained peripheral blood smears if possible.

Bone marrow: 1-5 ml bone marrow in EDTA or sodium heparin. Bone marrow specimen is stable 4 days. On request, we may hold specimen pending pathologists report and request that test be sent out.

Refer to Mayo catalog for tissue or fluid specimens.

Processing: Send to Mayo LCMS at room temperature. DO NOT FREEZE.

Performed: 1-4 days. Test set up at Mayo Monday through Saturday.

Reference value: An interpretation of the immunophenotypic findings and correlation with the morphologic features will be provided for every case.

Method: Flow cytometric immunophenotyping

CPT Code: 88184-Flow cytometry; first cell surface, cytoplasmic or nuclear marker x 1

88185-Flow cytometry; additional cell surface, cytoplasmic or nuclear marker (each)

88187-Flow Cytometry Interpretation, 2 to 8 Markers (if appropriate)
 88188-Flow Cytometry Interpretation, 9 to 15 Markers (if appropriate)
 88189-Flow Cytometry Interpretation, 16 or More Markers (if appropriate)

POWERCHART NAME	LEVETIRACETAM (KEPPRA) LEVEL		
MERCY TEST NAME	LEVETIRACETAM*	MERCY LAB CODE	LEVTR

Specimen:

- 1.0 ml serum from a no additive serum tube or a Serum Separator Tube (SST).
- 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.

Processing: Send refrigerated to Mayo. Ambient or frozen acceptable. Mayo order code (LEVE).

Performed: Monday through Sunday

Reference value: Included with report

Method: Liquid Chromatography-Tandem Mass Spectrometry (LC-MS/MS)

CPT Code: 80177

POWERCHART NAME	LH (Luteinizing Hormone)
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MERCY TEST NAME	LH	MERCY LAB CODE	LH
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Specimen: 0.5ml serum

Stability: Tightly cap and refrigerate specimens at 2–8°C if the assay is not completed within 8 hours. Freeze samples at $\leq -20^{\circ}\text{C}$ if the sample is not assayed within 48 hours. Freeze samples only 1 time and mix thoroughly after thawing. The handling and storage information provided here is based on data.

Comment: Do not use samples that have been stored at room temperature for longer than 8 hours.

Performed: Within 8 hours of receipt. Available stat.

Reference Range:	0-15 days	
	16 days-10 years	Not Established
	11 years	0.3-2.8 mIU/mL
	12 years	0.3-1.8 mIU/mL
	13 years	0.3-4.0 mIU/mL
	14 years	0.3-6.0 mIU/mL
	15-16 years	0.5-7.9 mIU/mL
	17 years	0.5-10.8 mIU/mL
	≥ 18 years	0.9-5.9 mIU/mL
	Tanner Stage I	1.3-8.6 mIU/mL
Male	Tanner Stage II	0.3-2.7 mIU/mL
	Tanner Stage III	0.3-5.1 mIU/mL
	Tanner Stage IV	0.3-6.9 mIU/mL
	Tanner Stage V	0.5-5.3 mIU/mL
		0.8-11.8 mIU/mL

	0-15 days	
	16 days-6 years	Not Established
	7-8 years	0.3-1.9
	12 years	≤ 3.0
	13 years	0.4-9.9
	14 years	0.3-5.4
	15 years	0.5-20.7
	16 years	0.5-20.7
	17 years	0.4-29.4
	≤ 18 years	1.6-12.4
Female	Premenopausal	
	Follicular	
	Mid Cycle	2.1-10.9
	Luteal	19.2 -103.0
	Post-menopausal	1.2-12.9
	Tanner Stage I	10.9-58.6
	Tanner Stage II	≤ 2.0
	Tanner Stage III	≤ 6.5
	Tanner Stage IV	0.3-17.2
	Tanner Stage V	0.5-26.3
		0.6-13.7

Method

Description:

The Atellica IM LH assay is a 2-site sandwich immunoassay using direct chemiluminescent technology, which uses constant amounts of 2 antibodies that have specificity for the beta subunit of the intact LH molecule.

CPT Code:

83002

POWERCHART NAME	LIDOCAINE LEVEL		
MERCY TEST NAME	LIDOCAINE	MERCY LAB CODE	LIDO

Specimen: 0.5 ml serum from a no additive serum tube. A Serum Separator Tube (SST) is **NOT** acceptable.

Stability: 6 hours room temp, 7 days refrigerated.

Performed: Within 8 hours of receipt. Available stat.

Reference value: Therapeutic range: 1.5-5.0 mcg/mL

Method: Particle Enhanced Turbidimetric Inhibition Immunoassay

CPT Code: 80176

POWERCHART NAME	LIPASE		
MERCY TEST NAME	LIPASE	MERCY LAB CODE	LIPS

Specimen: 0.5ml serum

Stability: Specimens may be stored for up to 24 hours at room temperature or for up to 7 days at 2–8°C or stored frozen for up to a year at -20°C or colder.

Performed: Within 8 hours of receipt. Available stat.

Reference Range: 12-53 IU/L

Method Description: The Atellica CH Lipase (Lip) assay measures the activity of the enzyme lipase in serum and plasma by the lipase enzymatic reaction producing methylresorufin, which is determined spectrophotometrically.

CPT Code: 83690

POWERCHART NAME	LIPID PANEL		
MERCY TEST NAME	LIPID PNL	MERCY LAB CODE	LIPD

Specimen: 0.5 ml serum

Stability: Separated specimens in the primary collection device are stable for up to 7 days at 2–8°C.7 Separated specimens may be frozen for up to 30 days at ≤ -20°C.7 Do not store in a frost-free freezer. Thoroughly mix thawed specimens and centrifuge before using.

Comment: Includes: Cholesterol, Triglyceride, HDL Cholesterol, Calculated LDL, Cholesterol/HDL Ratio.

Patient must be fasting 9-12 hours with no alcohol 24 hours prior to specimen collection.

Performed: Within 8 hours of receipt. Available stat.

Reference Range: Cholesterol: Low risk Level <200 mg/dL, moderate risk level 200-239 mg/dL, and high-risk level ≥ 240 mg/dL.

LDL Cholesterol: Optimal <100 mg/dL, near optimal 100-129 mg/dL, Borderline high 130-159 mg/dL, high 160-189 mg/dL, and very high ≥ 190 mg/dL.

HDL Cholesterol: Low <40 mg/dL and high ≥ 60 mg/dL.

Triglycerides: Normal <150, borderline high 150-199, high 200-499, and very high ≥ 500.

The National Cholesterol Education Program recommends that individuals be seated for at least 5 minutes prior to phlebotomy to avoid hemo-concentration.

Method: See individual test entry.

CPT Code: 80061

TEST NAME	LIPOPROTEIN PROFILE*		
MERCY TEST NAME	LIPOPROTEIN PROFILE*	MERCY LAB CODE	LPPROF

- Patient preparation: ○ Draw following an overnight (12 – 14 hour) fast.
 ○ Patient must not consume any alcohol for 24 hours before specimen is drawn.
- Specimen: 5 ml serum from a Serum Separator Tube (SST) or no additive serum tube.
- Processing: Send **refrigerated** to Mayo. Frozen acceptable. Mayo order code (LMPP).
- Comment: **Patient's age and gender are required on request form for processing.**
- Performed: 3-4 days. Test set up Monday through Saturday; 4pm.
- Method: Ultracentrifugation/Electrophoresis/Automated Enzymatic Colorimetric Analysis
- CPT Code: 80061 Lipid Panel
 82172 Apolipoprotein B
 83700 Electrophoresis Cholesterol Lp (a)

POWERCHART NAME	LITHIUM LEVEL		
MERCY TEST NAME	LITHIUM	MERCY LAB CODE	LI

Specimen: 1 mL serum from a Serum Separator Tube (SST) or no additive serum tube.

Draw specimen 8-12 hours after last dose (trough specimen). Serum gel tubes should be centrifuged within 2 hours of collection. Red-top tubes should be centrifuged and aliquoted within 2 hours of collection.

Peak serum concentrations do not correlate with symptoms.

Processing: Red-top tubes should be centrifuged and aliquoted within 2 hours of collection.

Separated specimens in gel tubes are stable at room temperature 24 hours. Refrigerated up to 7 days.

Performed: Within 8 hours. Available Stat.

Reference value: Therapeutic interval for lithium is 1.00-1.20 mmol/L

Lithium is toxic at concentrations above 1.50 mmol/L

Method: Colorimetric

CPT Code: 80178

POWERCHART NAME	LIVER KIDNEY MICROSOMAL ANTIBODIES		
MERCY TEST NAME	LIV/KID MICROS T1*	MERCY LAB CODE	LKM1

Specimen: 0.5 ml serum from a Serum Separator Tube (SST) and no additive serum tube.
Comment: Useful for evaluation of patients with chronic hepatitis (autoimmune).
Processing: Send refrigerated to Mayo. Refrigerated <= 7 days, or frozen acceptable. Mayo order code (LKM).
Performed: 1-4 days. Test set up Monday, Wednesday, Friday at Mayo.
Reference value: Included with test results.

Method: Enzyme – Linked immunosorbent Assay (ELISA)
CPT Code: 86376

POWERCHART NAME	LUPUS ANTICOAGULANT PROFILE		
MERCY TEST NAME	LUPUS ANTI PROF*	MERCY LAB CODE	LUPUS

Specimen: 5.0 mL platelet poor plasma from light-blue top (citrate) tube.

Note: **Patient should not be receiving Coumadin or heparin.
Test should not be ordered with a Thrombophilia Profile (AATHR) because of duplication of testing.
Refer to Mayo lab test index for special processing instructions.**

Processing Instructions: Spin down, remove plasma, and spin plasma again. Remove plasma and place in plastic aliquot vials. Place 5 mL in 5 plastic vials each containing 1 mL. Freeze specimens immediately at < or = -40 degrees C, if possible. **Coagulation Patient Information Sheet** must be sent with specimen,

Shipping instructions: 1-7 days, Send specimen frozen. Mayo order code (**ALUPP**).

Reference Value Included in report.

Method: PTC, PTMX, APTTB, DRVT, TT, RPTL, DRVTM, DRVTC, APTTM, STLA: Clot-Based Assay
DIRM: Automated Latex Immunoassay (LIA)
PNP: Activated Partial Thromboplastin Time (APTT) Mixing Test
F_2, FACTV, F_7, F_10, IBETH, F8IS: Prothrombin Clot-Based Assay
F8A, F_9, F_11, F_12: Activated Partial Thromboplastin Clot-Based Assay
FIBC: Clauss Methodology
SFM: Immunoturbidimetric

CPT Code: 85610
85613
85730

If indicated, additional reflex tests will be ordered by Mayo at an additional cost.

D-Dimer - 85379 Reptilase Time, P - 85635
Bethesda Units - 85335 Coag Factor II Assay, P - 85210
Coag Factor VIII Assay - 85240, Fibrinogen - 85384
Coag Factor V Assay, P - 85220 Soluble Fibrin Monomer - 85366
Coag Factor VII Assay, P - 85230 Platelet Neutralization Procedure - 85597
Thrombin Time (Bovine) - 85670 PT Mix 1:1 - 85611

Coag Factor IX Assay, P - 85250 APTT Mix 1:1 - 85732
 Coag Factor X Assay, P - 85260 DRVVT Mix -85613
 Coag Factor XI Assay, P - 85270 DRVVT Confirmation - 85613
 Coag Factor XII Assay, P - 85280 HEX LA,P - 85598
 Chromogenic FVIII-85130
 Chromogenic FIX-85130, Ristocetin cofactor – 85245
 von Willebrand factor antigen – 85246, von Willebrand factor multimer – 85247
 Factor V inhibitor screen – 85335
 PT-Fibrinogen – 85385, von Willebrand factor activity – 85397
 APTT mix 1:1 - 85732, Factor VIII inhibitor screen – 85335
 26-special coagulation interpretation-85390

POWERCHART NAME	LYME DISEASE EVALUATION		
MERCY TEST NAME	LYME DIS SERO EVAL	MERCY LAB CODE	LYME

Specimen: 1.0 ml serum from a Serum Separator Tube (SST) or no additive serum tube.
 Processing: Specimen is stable 14 days refrigerated. (A frozen specimen is also acceptable, but not required)
 Comment: This test detects Lyme Disease antibodies IgG and IgM. Each antibody will be reported separately, along with which proteins the antibodies are detected against.

Note due to reagent supply issues, testing is NOT being performed in house and will be sent to Mayo.

RL Client Comments: Send 1.0 ml of serum refrigerated to Mercy lab. (Frozen is acceptable, but not necessary)
 Performed: Available 2-3 days from collection

Method: Immunoblot Microarray
 Reference Range: Negative IgG and IgM
 CPT Code: 86617 x 2

POWERCHART NAME	MAGNESIUM LEVEL		
MERCY TEST NAME	MAGNESIUM	MERCY LAB CODE	MG

Specimen: 0.5 ml serum
 Stability: Serum specimens may be stored for up to 7 days at 2–8°C. Separated serum and plasma specimens may be stored frozen for up to 12 months at -20°C or colder.
 Comment: Do not use hemolyzed samples.
 Performed: Within 8 hours of receipt. Available stat
 Reference Range: 1.8-2.5 mg/dl
 Method
 Description: The Atellica CH Magnesium (Mg) assay is based on the modified xylydyl blue reaction.
 CPT Code: 83735

POWERCHART NAME	Magnesium 24 Hour Urine		
MERCY TEST NAME	Misc. General Lab Designate: MAGNESIUM 24 HOUR URINE in comment	MERCY LAB CODE	CMIS

Specimen: 5 mL of preserved urine from a 24-hour urine collection.

Stability: Urine specimens may be stored for up to 7 days at 2–8°C.

Comment: Collect urine samples in a metal-free container. Urine samples should be acidified to pH 1 with concentrated HCl to prevent precipitation of magnesium ammonium phosphate.

Performed: Within 8 hours of receipt. Available stat

Reference Range: No reference range has been established.

Method Description: The Atellica CH Magnesium (Mg) assay is based on the modified xylidyl blue reaction.

CPT Code: 83735

POWERCHART NAME	Magnesium Random Urine		
MERCY TEST NAME	Misc. General Lab Designate: MAGNESIUM RANDOM URINE in comment	MERCY LAB CODE	CMIS

Specimen: 5 ml of random urine

Stability: Urine specimens may be stored for up to 7 days at 2–8°C.

Comment: Collect urine samples in a metal-free container. Urine samples should be acidified to pH 1 with concentrated HCl to prevent precipitation of magnesium ammonium phosphate.

Performed: Within 8 hours of receipt. Available stat

Reference value: No reference range has been established

Method Description: The Atellica CH Magnesium (Mg) assay is based on the modified xylidyl blue reaction

CPT Code: 83735

POWERCHART NAME	MANGANESE LEVEL		
MERCY TEST NAME	MANGANESE*	MERCY LAB CODE	MNS

Special Precautions: Patients with high concentrations of Gadolinium, Iodine and Barium are known to interfere with most metal tests. If either Gadolinium-, Iodine, or Barium-containing contrast media has been administered, a specimen cannot be collected for 96 hours.

- Specimen:
- **Draw tubes for metal BEFORE any other tubes are drawn.**
 - 2 ml Plain, royal blue-top Vacutainer plastic trace element blood collection tube.
 - Use alcohol, not iodine to cleanse venipuncture site.
- Processing:
- Allow the specimen to clot for 30 minutes, and then centrifuge to separate serum from the cellular fraction. Serum must be removed from cellular fraction within 4 hours of draw. Avoid Hemolysis.
 - Remove the stopper. Carefully pour specimen into a Mayo metal-free, polypropylene vial, while avoiding transfer of the cellular components of blood. **DO NOT** insert a pipet into the serum to accomplish transfer, and **DO NOT** ream the specimen with a wooden stick to assist with serum transfer.
 - Send refrigerated to Mayo. Ambient and frozen also acceptable. Mayo order code **MNS**. See Mayo's LTI for special instructions.

Performed: 1-6 days. Test set up Tuesdays
 Reference value: Included with Report.
 Method: Dynamic Reaction Cell-Inductively Coupled Plasma-Mass Spectrometry (DRC-ICP-MS)
 CPT Code: 83785

TEST NAME	MATURATION INDEX		
MERCY TEST NAME	MATURATION INDEX	MERCY LAB CODE	MTR

Patient preparation: Patient should not douche, use any medications or creams in the vagina, or have intercourse for 24 - 48 hours prior to specimen collection. Specimen collection is not recommended during a patient's menstrual cycle.

Specimen: A vaginal smear from the mid lateral vaginal wall is the area of choice, therefore ensuring an accurate index evaluation. Obtaining the specimen from any other area will not always reflect an accurate or true maturation index.

Comment: Please include all appropriate information on the cytology requisition form.
 Processing: After slide preparation, cytofixative spray must be applied immediately to ensure preservation.
 Slides must be labeled with patient first and last name in pencil.

Performed: Monday through Friday.
 Reference value: Within normal limits. Parabasal/intermediate/superficial.
 Method: Papanicolaou stain.
 CPT Code: 88155

POWERCHART NAME	MERCURY LEVEL		
MERCY TEST NAME	MERCURY* (Hg)	MERCY LAB CODE	MERC

- Specimen:
- Full tube of whole blood from navy blue top EDTA trace metal tube. Minimum 0.3 ml.
 - Always draw this tube first if multiple tubes are being drawn.
 - Use alcohol, not iodine to cleanse venipuncture site.
 - If a syringe is needed, use only Mayo EDTA yellow labeled, metal-free syringe.
- Processing:
- Leave specimen in tube for shipping.
 - Send refrigerated to Mayo. Ambient also acceptable. Mayo order code (**HG**).
- Performed: 1-3 days. Test set up Monday through Saturday.
- Reference value: Included with report.
- Method: Inductively Coupled Plasma-Mass Spectrometry (ICP-MS)
- CPT Code: 83825

POWERCHART NAME	HEAVY METALS SCREEN BLOOD		
MERCY TEST NAME	METAL HVY BLD*	MERCY LAB CODE	MTHV

Comments:

- Mayo Medical Laboratories (MML) is **requiring the completion of the T491, Lead/Heavy Metal Reporting form**. Due to state requirements and CDC recommendations, MML is required to report patient demographic information to each state on all leads and heavy metals testing. Please click on this link, [Mayo Lead/Heavy Metals Form](#) to complete the form, print, and send with the specimen.
- To be used primarily for Hazardous Materials Teams, such as EMT's or firefighters. Screens only for Arsenic, Cadmium, Lead and Mercury.

Special Precautions: Patients with high concentrations of Gadolinium and Iodine are known to interfere with most metal tests. If either Gadolinium or Iodine containing contrast media has been administered, a specimen cannot be collected for 96 hours.

Specimen:

- **Draw tubes for metal BEFORE any other tubes are drawn.**
- At least 2.5 ml needs to be in the tube. 1 royal blue top EDTA (Monoject trace element blood collection tube) tube.
- Use alcohol, not iodine to cleanse venipuncture site.

Processing:

- EDTA metal free tube: Send as is. **Do not centrifuge or aliquot.**
- Send refrigerated to Mayo. Ambient and frozen also acceptable. Mayo order code **(HMDB)**.

Performed: 3 days. Test set up Monday through Saturday

Reference value: Included with report.

Method: Inductively Coupled Plasma-Mass Spectrometry (ICP-MS)

CPT Code: 82175 Arsenic
82300 Cadmium

83655 Lead
83825 Mercury

POWERCHART NAME	HEAVY METALS SCREEN 24 HOUR URINE		
MERCY TEST NAME	HEAVY METALS, URINE*	MERCY LAB CODE	VMET

Includes: Arsenic Cadmium Lead Mercury

Note* If arsenic concentration is greater than or equal to 35 mcg/L, then arsenic speciation will be performed at an additional charge

Patient Instructions:

- Do not eat seafood for 48 hours before starting or during the collection of the 24 Hr. urine.
- High concentrations of gadolinium and iodine are known to interfere with most metals' tests. If either gadolinium- or iodine-containing contrast media has been administered, a specimen cannot be collected for 96 hours.
- **24-Hour volume is required** on request form for processing.

Specimen:

- 24-hour urine specimen.
- Collect in clean, plastic urine container with **no metal cap or glued inserts**.
- Refrigerate during collection. No preservative

Processing:

- Aliquot 10 ml and indicate total 24-hour volume. Send specimen in clean, plastic aliquot container with no metal cap or glued insert or into a 6.0 mL urine tube. Mix well before aliquot is taken.
- Refrigerate specimen within 4 hours of completion of 24-hour collection and send refrigerated to Mayo. Mayo order code (**HMU24**).

- The addition of preservative or application of temperature controls must occur within 4 hours of completion of the collection. See Mayo Test Catalog for special instructions on collections with preservatives

Performed: 1-4 days. Test set up Monday - Saturday
 Reference value: Included with report
 Method: Inductively Coupled Plasma-Mass Spectrometry (ICP-MS).
 CPT Code: 82175 Arsenic
 82300 Cadmium
 83655 Lead
 83825 Mercury
 82175 Arsenic Speciation (if indicated)

POWERCHART NAME	METANEPHRINES FRACTIONATION FREE PLASMA		
MERCY TEST NAME	METANEPHEPHRINES FRAC*	MERCY LAB CODE	PMET

Specimen: 1 mL plasma from lavender top (EDTA) tube.

Stability: 14 days frozen, 7 days refrigerated

Lab Processing: Send frozen to Mayo. Mayo order code (**PMET**).

Performed: 2 - 4 days. Monday through Saturday; 1 p.m. -Not reported on Sunday.
 Reference value: Included with test results.
 Method: Liquid Chromatography-Tandem Mass Spectrometry (LC-MS/MS)
 CPT Code: 83835

POWERCHART NAME	METANEPHRINES FRACTIONATION 24 HOUR URINE		
MERCY TEST NAME	METANEPH, FRAC 24UR*	MERCY LAB CODE	MTPH

- Comment:
- Tricyclic antidepressants, labetalol and sotalol medications may elevate levels of metanephrines producing results which cannot be interpreted. If clinically feasible, it is optimal to discontinue these medications at least 1 week before collection. For advice assessing the risk of removing patients from these medications and alternatives, you may consider consultation with a specialist in endocrinology or hypertension.
 - A single 24- hour urine collection may be used for CATECHOLAMINE FRACTIONATION [CTCH], METANEPHRINES and VMA [VMA].
 - **The specimen must be kept refrigerated during collection.**
- Specimen:
- At start of collection, add 25 ml 50% acetic acid preservative. Use 15 ml 50% acetic acid for children.
 - **Refrigerate during collection. Click on 24-hour urine preservative chart for other acceptable temperatures and additives.**
- Reference:
- Adjust pH to 2.0-4.0 with 50% acetic acid.
 - Aliquot 10 ml and indicate total 24-hour volume.
- Lab Processing: Separate aliquots must be submitted for Catecholamine Fractionation and VMA if collected with this specimen. Identify which specimen is for Metanephrine.
- Mercy lab processing: Send 10 ml in a 10 ml urine tube **refrigerated** to Mayo. Ambient and frozen also acceptable. Mayo order code (**METAF**).
- Performed: 2 days. Test set up Monday through Saturday; 12 p.m. Not reported on Sundays.
- Reference value: Included with test results.

Method: Liquid Chromatography-Tandem Mass Spectrometry (LC-MS/MS) Stable Isotope Dilution Analysis
 CPT Code: 83835

POWERCHART NAME	METHEMOGLOBIN QUANTITATIVE ARTERIAL		
MERCY TEST NAME	METHEMOGLOBIN, ARTERIAL	MERCY LAB CODE	METHBG

Specimen: Arterial Whole Blood collected in a Heparinized syringe. Minimum volume of 1 ml.

- **The tube must be walked to its destination. Do NOT send through the tube station.**

Comment: Respiratory or RN will call lab 87256 to come pick up Arterial specimen that Respiratory is collecting.

Rejection Criteria: Air in sample, clotted, hemolyzed, unlabeled specimens.

Performed: Within 10 minutes of receiving sample.

Reference Value: 0-4.9%

Method: ABL80 CO-OX Flex

CPT Code: 83050

POWERCHART NAME	METHOTREXATE LEVEL		
MERCY TEST NAME	METHOTREXATE*	MERCY LAB CODE	METH

Specimen: 0.5 ml serum from a Serum Separator Tube (SST).

Processing: Protect specimen from light. Send refrigerated to Mayo. Ambient and frozen specimens acceptable. Mayo order code (**MTHX**).

Performed: 1 day. Test set up Monday through Sunday; continuously.

Reference value: Included in report.

Method: Immunoassay

CPT Code: 80204

POWERCHART NAME	METHYLMALONIC ACID LEVEL		
MERCY TEST NAME	METHYLMALONIC ACID	MERCY LAB CODE	MMAS

Specimen: 1.5 mL serum from a Serum Separator Tube (SST) or no additive serum tube.

Processing: Send **refrigerated** to Mayo. Frozen and ambient acceptable. Mayo order code (**MMAS**).

Performed: Monday through Friday; Continuous until noon.

Reference Value: Included in report.

Method: Liquid Chromatography-Tandem Mass Spectrometry (LC-MS/MS)

CPT Code: 83921

POWERCHART NAME	MICROALBUMIN 24 HOUR URINE		
MERCY TEST NAME	MICROALBUMIN 24UR	MERCY LAB CODE	VACL

Comment: ○ **Avoid strenuous physical activity for 24 hours prior to collection.**

- A 24-hour collection is the preferred specimen. Note in comment if a 12-hour collection is submitted. If less than a 12-hour collection, order MICROALBUMIN RANDOM URINE.

Specimen: 5 ml aliquot from 24-hour collection. No preservative. Refrigerate.
Specimen must not be visibly contaminated with blood or menstrual fluid.

Stability: 72 hours refrigerated. Freezing specimen is not recommended.

Processing: Aliquot and indicate total volume. Centrifuge prior to analysis.

Performed: Within 8 hours of receipt

Reference values: Normal: Calculated Microalbumin: Microalbumin Clearance:
Micro: 0-30 mg/24 Hours 0-20 mcg/MIN
Macro: 30-300 mg/24 Hours 20-200 mcg/MIN
>300 mg/24 Hours >200 mcg/MIN

Method: Turbidimetric

CPT Code: 82043

POWERCHART NAME	MICROALBUMIN + CREATININE URINE		
MERCY TEST NAME	MICROALB CRT R UR	MERCY LAB CODE	UMAL

Specimen: 5 ml random urine

Stability: Specimens may be stored for up to 14 days at 2–8°C or stored frozen for up to 5 months at

-20°C.

Comment: Includes Microalbumin, Creatinine, Microalbumin/creatinine ratio.

Performed: Within 8 hours of receipt. Available stat

Reference Range: 0.3-38.0 mg/dL

Method The Atellica CH μ ALB_2 assay is a PEG-enhanced immunoturbidimetric assay.

Description:

CPT Code: 82043 Microalbumin Urine
82570 Creat R UR

POWERCHART NAME	MISCELLANEOUS GENERAL LAB		
MERCY TEST NAME	MISC GENERAL LAB	MERCY LAB CODE	CMIS

Specimen: Specimen dependent on test ordered.

Comment: Indicate test in comment field.

POWERCHART NAME	General Lab Miscellaneous (MC) Non-Blood or Miscellaneous Lab Procedure (MC) Non-Blood		
MERCY TEST NAME	MISC GNERAL NONBLD*	MERCY LAB CODE	CMISN

Specimen: Specimen dependent on test ordered. This should be for **non-Blood** specimens only. Please refer to reference lab test catalog for specimen requirements.

Comment: Indicate reference lab test code with name of test desired.

If ordering in Cerner Powerchart a task will be created for nursing to collect specimen.

POWERCHART NAME	MISCELLANEOUS IMMUNOHEMATOLOGY		
MERCY TEST NAME	MISC IMMUNOHEM	MERCY LAB CODE	MISI

Specimen: Specimen dependent on test ordered.

Comment: Indicate test in comment field.

POWERCHART NAME	MITOCHONDRIAL ANTIBODY (M2)		
MERCY TEST NAME	MITOCHOND AB, M2*	MERCY LAB CODE	MTAB

Specimen: 0.5 ml serum from a Serum Separator Tube (SST) or no additive serum tube

Comment: Duplicate testing if ordered with ALDP

Processing: Send **refrigerated** to Mayo. Mayo test code (**AMA**).

Performed: 1 day. Test set up Monday through Saturday; 11 a.m.

Reference value: Included with test results.

Method: Enzyme Immunoassay (EIA)

CPT Code: 86381

POWERCHART NAME	General Lab Miscellaneous Non-Blood (MONKEY POX) ORTHOPOX, conclusion, Qualitative Real- Time PCR*		
MERCY TEST NAME	MISC GENERAL NONBLOD* (MONKEY POX) ORTHOPOX, conclusion, Qualitative Real- Time PCR*	MERCY LAB CODE	CMISN
Requirements:	<p>Clinicians must report suspected monkeypox cases to the IDPH Center for Acute Disease Epidemiology (CADE) as soon as monkeypox is suspected and PRIOR TO COLLECTING SPECIMENS.</p> <p>Specimens approved by IDPH for testing at SHL should be submitted using a current IDPH Epidemiological Investigation Test Request Form (TRF) obtained by contacting IDPH CADE.</p> <p>IDPH will consult with CDC and SHL to determine the need and plan for laboratory testing.</p> <p>Contact Information:</p> <p>IDPH CADE..... (business hours) 515-242-5935 (non-business hours) 515-323-4360</p> <p>SHL..... 319-335-4500 or 1-800-421-4692</p> <p>Clinics should not send specimen to MercyOne North Iowa Medical Center. Do not order enter an order for MercyOne North Iowa. Refer to SHL and CDS website for</p>		

	<p>ordering and transporting. Contact CDS courier to schedule pick-up of specimens: http://cdsofiowa.com / or 515-289-9990</p>
Specimen:	<p>Monkeypox Dry Swab Kit or Monkeypox VTM Kit, order at www.shl.uiowa.edu/kitsquotesforms/clinicalkit.xml</p> <p>The provider must contact the IDPH to be provided access to the IDPH Epidemiological Investigation Test Request Form (TRF).</p> <p>MercyOne North Iowa Laboratory will have a limited number of kits.</p> <p>Each lesion will require an order. The recommendation is to select two lesions to swab.</p> <p>Use one kit per lesion.</p> <p>The kit will have 2 swabs. Swab one selected lesion vigorously with both swabs from a kit. Each swab must be placed into its own container and labeled. The swab may be placed in viral transport media (VTM) or a dry swab tube. Lesion crust is also acceptable. Place both swabs for the single lesion back into the kit's bag. Each kit (two swabs of the same lesion) must be accompanied by the completed IDPH Epidemiological Investigation Test Request Form (TRF).</p> <p>2 lesions require 2 orders and 2 kits. Per kit: two swabs and one TRF.</p>

Transport	<p>Inpatient or ED should walk to lab properly packaged specimen. Lab will order on SHL website and schedule for transport.</p> <p>Other sites: Contact CDS courier to schedule pick-up of specimens: http://cdsofiowa.com/ or 515-289-9990</p> <p>Refrigerated specimens- ship on ice packs; acceptable 7 days. Frozen specimens- ship on dry ice; acceptable 30 days</p> <p>Reject if cotton or rayon swabs; wooden swabs; M4 media, UTM; FlexTrans or Room Temp</p>
Days Performed:	Specimen referred to State Hygienic Laboratory at University of Iowa; Set up daily; Report available: 2-3 days
Method:	Real-Time PCR
Reference value:	<p>Orthopoxvirus DNA OPX3 Not Detected</p> <p>Monkeypox Virus DNA, VAC1 Not Detected</p>

POWERCHART NAME	MONOCLONAL PROTEIN STUDY 24 HOUR URINE		
MERCY TEST NAME	MONOCLONAL PRT STY, 24UR*	MERCY LAB CODE	MCPSU

Cautions: Monoclonal gammopathies are rarely seen in patients younger than 30 years of age.

Hemolysis may cause a discrete band on protein electrophoresis, which will be negative on M-protein isotyping.

Penicillin may split the albumin band.

Radiographic agents may produce an uninterpretable pattern.

Specimen: 50 mL urine from a 24-hour collection (no preservative).

Refrigerate specimen during collection and send refrigerated.

Processing: Aliquot between 30 mL and 50 mL urine into plastic, 60-mL urine bottle.

Send refrigerated to Mayo. Mayo order code (**MPU**).

Performed: 4-6 days. Monday through Friday.

Reference value: Reference ranges included with report.

Methods: PTU: Turbidimetry, PEU: Agarose Gel Electrophoresis, MPTU: Matrix-Assisted Laser Desorption/Ionization Time-of-Flight Mass Spectrometry (MALDI-TOF MS)

CPT Code: 84156

84166

0077U

POWERCHART NAME	MONOCLONAL PROTEIN STUDY QUANTITATIVE		
MERCY TEST NAME	MONCL PRT STY QNT*	MERCY LAB CODE	QMPSS

Specimen: 2 mL serum from Serum Separator Tube (SST)

NOTE: Clients should order both Mayo QMPSS and Mayo FLCs for diagnostic cases. QMPSS should be ordered on its own for monitoring cases.

Processing: 2 mL total serum in 2 separate plastic vials, each containing 1 mL of serum. Send refrigerated. Mayo order code (**QMPSS**)

Stability: 28 days refrigerated (preferred), 28 days frozen or 7 days ambient.

Reference Values: Included with test results.

Methods: QMPTS: Matrix-Assisted Laser Desorption/Ionization Time-of-Flight Mass Spectrometry (MALDI-TOF MS)
IGG, IGA, IGM: Nephelometry
TMAB: Patient Information

CPT Code: 82784x3
0077U

POWERCHART NAME	MONOCLONAL PROTEIN STUDY RANDOM URINE
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MERCY TEST NAME	MONO PRT STY R UR*	MERCY LAB CODE	MPSUR
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Specimen: 50 mL urine from a random collection. No preservative.

Processing:

- Aliquot specimen among one plastic, 60mL urine bottle.
- **Send refrigerated to Mayo.** Frozen acceptable. Ambient within 24 hours. Mayo order code (**RMPU**).

Cautions:

- Monoclonal gammopathies are rarely seen in patients < 30 years of ages.
- Penicillin may split the albumin band.
- Radiographic agents may produce an uninterpretable pattern.

Comment: **see MCPSU for 24^o collection**

Performed: Result available 4-6 days from collection. Monday – Friday.

Reference Values: Included with test results.

Method: Matrix-Assisted Laser Desorption/Ionization-Time of Flight Mass Spectrometry (MALDI-TOF MS)

Agarose Gel Electrophoresis

Turbidimetry/Enzymatic Colorimetric Assay

CPT Code: 84156
82570
84166
0077U

POWERCHART NAME	MONOCLONAL PROTEIN QUANT 24 HR URINE		
MERCY TEST NAME	MONCL PRT QNT 24UR*	MERCY LAB CODE	VELC

Comment: 05/16/2023 Mayo Update: Electrophoresis, Protein, 24 Hour, Urine (Mayo: EPU) was made obsolete and replaced with Monoclonal Protein Quantitation, 24 Hour, Urine (Mayo: MPQU). This is due to an improved methodology to detect monoclonal proteins.

Cautions: Patients suspected of having a monoclonal gammopathy may have a normal urine protein electrophoretic pattern, and these patients should have M-protein isotyping performed.

Monoclonal gammopathies are rarely seen in patients younger than 30 years of age.

Hemolysis may cause a discrete band on protein electrophoresis, which will be negative on M-protein isotyping.

Penicillin may split the albumin band.

Radiographic agents may produce an uninterpretable pattern.

Specimen: 50 mL urine from a 24-hour collection (no preservative).

Refrigerate specimen during collection and send refrigerated.

Processing: Aliquot between 30 mL and 50 mL urine into plastic, 60-mL urine bottle.

Send refrigerated to Mayo. Mayo order code (**MPQU**).

Performed: 4-6 days. Monday through Friday.

Reference value: Reference ranges included with report.

Methods: PTU: Turbidimetry, PEU: Agarose Gel Electrophoresis, MPTU: Matrix-Assisted Laser Desorption/Ionization Time-of-Flight Mass Spectrometry (MALDI-TOF MS)

CPT Code: 84156

84166

0077U (if appropriate)

POWERCHART NAME	MONOCLONAL PROTEIN QUANTITATION RANDOM URINE		
MERCY TEST NAME	MONO PRT QNT R UR*	MERCY LAB CODE	REPU

Specimen: 50 mL from a random collection. No preservative.

Stability: Refrigerated 14 days, Frozen 5 days, Ambient 24 hours.

Processing: **Mercy Lab Processing only:** Aliquot into 60-mL urine bottle. Send **refrigerated**. Mayo order code (**RMPQU**).

Performed: 4-6 days. Electrophoresis Monday through Friday.

Reference values: Included with report.

Method: Turbidimetry/Enzymatic Colorimetric Assay
Agarose Gel Electrophoresis
Matrix-Assisted Laser Desorption/Ionization-Time of Flight Mass Spectrometry (MALDI-TOF MS)

CPT Code: 84156
82570
84166
007U (if appropriate)

POWERCHART NAME	MONO SCREEN		
MERCY TEST NAME	MONOSCREEN (Heterophile Titer)	MERCY LAB CODE	MOSC

Specimen:

- o 0.5 ml serum from a Serum Separator Tube (SST) or no additive serum tube.
- o Heparin or EDTA plasma.
- o Remove serum in no additive serum tube or plasma from cells.

Stability: 48 hours refrigerated. Freeze if >48 hours.

Processing: Freeze if not done within 48 hours.

Performed: Within 8 hours of receipt. Available stat.

Reference value: Negative

Method: Immunochromatographic dipstick technology.

CPT Code: 86308 Monoscreen

POWERCHART NAME	MRSA NASAL		
MERCY TEST NAME	MRSA NASAL	MERCY LAB CODE	MRSANX

Specimen: Nasal, collect using routine Culturette.

Comments: **Make sure collection site (Nasal) is indicated on Culturette label also.**

If the provider is checking for a nasal infection and wants to treat the patient, contact the Microbiology lab department for correct ordering of this type of request.

Intended Use: Testing is used to monitor Vancomycin de-escalation in the treatment of pneumonia.

Enter **“Vancomycin de-escalation”** as the Reason for Laboratory Order.

If the need is screen or to determine colonization/decolonization status, use order MRSA Nasal Surveillance. Mercy Lab Code MRSANS.

Regional Laboratory clients: Use order MRSANX for any of your submissions.

Stability: Send Culturette at room temperature within 24 hours. Stable for 5 days refrigerated.

Performed: Within 8 hours of receipt.

Reference value: Negative

Method: PCR

CPT Code: 87641

POWERCHART NAME	MRSA NASAL SURVEILLANCE		
MERCY TEST NAME	MRSA NASAL SCREEN	MERCY LAB CODE	MRSANS

Specimen: Nasal, collect using routine Culturette.

Comments: **Make sure collection site (Nasal) is indicated on Culturette label also.**

If the provider is checking for a nasal infection and wants to treat the patient, contact the Microbiology lab department for correct ordering of this type of request.

Intended Use: The intended use of this surveillance assay is to **screen** patients for **MRSA colonization/decolonization**. There is **NO** susceptibility testing performed with this assay.

Pharmacy/Providers: If the test is being used for **Vancomycin de-escalation in the treatment of pneumonia: Refer to MRSA NASAL**. Mercy Lab Code of **MRSANX**.

For non-Mercy Locations: Order code will be **MRSANX**. This testing will be billed back to the ordering facility.

Stability: Send Culturette at room temperature within 24 hours. Stable for 5 days refrigerated.

Performed: Within 8 hours of receipt.

Reference value: Negative

Method: PCR

CPT Code: 87641

POWERCHART NAME	MRSA PCR (MRSA Wound Surveillance)		
MERCY TEST NAME	MRSA by PCR	MERCY LAB CODE	MRSAWD

Specimen: Superficial wound, skin swab, Collect using a routine Culturette.

Comments: This order is to screen for **colonization** ONLY.

Enter site of collection in specimen source area. **Make sure collection site is indicated on Culturette.**

If the provider is checking for infection and wants to treat the patient, see Culture wound other (WND/ABS CLT/GS).

Intended Use: The intended use of this assay is to **screen** Mercy Hospital patients for MRSA **colonization**.

CLINICS: The wound surveillance assay is not intended for clinic use. Nasal surveillance assay is the only appropriate assay, in this instance. Wounds should continue to be ordered as a culture, to look for MRSA.

HOSPITAL REFERENCE LABS: The wound surveillance assay is not intended for hospital reference lab use, unless a wound surveillance protocol has been established by the reference lab's infection prevention department for this type of specimen.

NON-Mercy locations: The non-Mercy orders should be placed as MRSAWX (wound).

Stability: Send Culturette at room temperature within 24 hrs., 5 days refrigerated.

Performed: Within 8 hours of receipt.

Reference value: Negative

Method: PCR

CPT Code: 87641

POWERCHART NAME	MS (MULTIPLE SCLEROSIS) PANEL		
MERCY TEST NAME	MS PROFILE*	MERCY LAB CODE	MSPROF

Comment: **This test requires both CSF and serum.** Please notify Lab when this test is ordered so that a blood specimen can be collected at the same time.

Includes: Kappa Free Light Chain, CSF, possible additional test result if appropriate for serum bands, CSF bands, CSF Olig Bands Interpretation

Specimen: **1.0 ml CSF and 1.0 ml serum from no additive serum tube or Serum Separator Tube (SST).** Minimum 0.5 ml CSF and 0.5 ml serum. Nursing Service must notify the Lab when CSF is collected so that the CSF and serum specimens can be collected. Spinal Fluid must be obtained within 1 week of serum draw.

- Processing:
- **DO NOT perform any CSF testing at Mercy Laboratory until AFTER CSF specimen has been processed for Mayo testing.**
 - **1 ml CSF**, send in original tube when possible. Label tube as CSF.
 - **1 ml serum** in vial labeled as such.

Mayo Code order code **(MSP3)**

Record on Mayo batch list: # of ml of CSF sent.

SEND ALL SPECIMENS FROZEN TO MAYO. LABEL 1 ALIQUOT CSF (1.0 ML) AND 1 ALIQUOT SERUM (1.0 ML)

Performed: Monday through Saturday; 7 a.m. – 12 p. m.
 Reference value: Included with test results
 Method: Refer to individual tests.
 CPT Code: 83521-MSP3
 83916 x 2 (if appropriate)

TEST NAME	MUMPS ANTIBODY IgG		
MERCY TEST NAME	MUMPS IgG Screen	MERCY LAB CODE	MUMPGG

Comment: This test is for immune status only.

Specimen: 0.5 ml serum from a Serum Separator Tube (SST) or no additive serum tube.
 Cause for Rejection: Grossly hemolyzed, lipemic or icteric serum.
 Processing: Samples can be sent Refrigerated. Frozen is acceptable. Mayo order code (**MPPG**)
 Performed: Monday through Saturday; 9 a.m.
 Method: Multiplex Flow Immunoassay (MFI)
 CPT Code: 86735

TEST NAME	MUMPS ANTIBODY IgG IgM		
MERCY TEST NAME	MUMPS IGG, IGM*	MERCY LAB CODE	MUMP

Specimen: 1 ml Serum from a Serum Separator Tube (SST) or no additive serum tube
 Processing: Send refrigerated to Mayo (Frozen is acceptable). Mayo order code (**MMPGM**).
 Performed: Monday through Saturday
 Reference Value: Included in report
 Method: Mumps IgG - Multiplex Flow Immunoassay (MFI) Mumps IgM - Enzyme Immunoassay (EIA)
 CPT Code: 86735 - IgG
 86735 - IgM

TEST NAME	MUMPS Virus PCR
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MERCY TEST NAME	MUMPS Virus PCR	MERCY LAB CODE	MISM
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Comment: This surveillance testing is for symptomatic patients only. The State Hygienic Lab Mumps surveillance is a buccal (mouth) PCR. A SHL Viral and Bacterial PCR Test Request Form will be required for testing.

Specimen: 1 buccal swab (mouth).

Collection: Collect sample using a SHL Virus Isolation and Detection Kit (contains M4-RT viral transport medium and swab) or equivalent virus transport media. Kits may be request through MercyOne North Iowa Lab.

Buccal (Oral) Swab: The buccal cavity is the space between the cheek and teeth. The parotid duct drains in the space near the upper molars. Massage the parotid gland area just in front of the ear and near the angle of the jaw for 30 seconds prior to collecting secretions on the swab. Swab the buccal cavity by sweeping the swab near the upper molar to the lower molar. Place swab in M4-RT viral transport medium and do not remove swab.

Send sample refrigerated (2-8°C)

Reason for rejection include Frozen samples, sample obtained on cotton-tipped, wooden-shafted, or calcium alginate swabs.

Performed: Monday through Friday, at State Hygienic Lab, Iowa City, Ia.

Method: PCR

CPT Code: 87798

TEST NAME	MUSCLE BIOPSY
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MERCY TEST NAME	MUSCLE BIOPSY*	MERCY LAB CODE	MSCX
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- Comment:
- Notify Pathology Department 24 hours in advance. Test done Monday through Wednesday only.
 - Complete a manual Pathology Specimen form and a Muscle Histochemistry Information sheet.

These forms are available from the Histology Laboratory.

Specimen: Excise 2 samples using sterilized muscle clamps. Sterilized biopsy forceps are available from the Histology Department. Send immediately to the Histology Laboratory for processing.

Processing: Send specimen frozen on dry ice to Mayo. Mayo test code (**MPCT**).

Preformed: 7 days. Test set up 1-2 times a week at Mayo.

Reference value: Interpretive report provided.

CPT Code: 88314 X 7 acetic non-specific esterase, acid phosphatase, alpha-naphthyl, cytochrome oxidase, NADH dehydrogenase, phosphorylase, and succinic dehydrogenase stains.
88314 X 3 ATPase acid-alkaline stain
88313 X 4 Hematoxylin-and-eosin, oil red O, periodic-acid Schiff, and trichrome stains.
88305 surgical pathology exam.

POWERCHART NAME	MYASTHENIA GRAVIS PANEL		
MERCY TEST NAME	MYASTHN GRAV*	MERCY LAB CODE	MYASA

Specimen: 3 ml serum from a Serum Separator Tube (SST) or no additive serum tube. Hemolyzed specimen is unacceptable.
NOTE: Patient should have no general anesthesia or muscle-relaxant drugs in the previous 24 hours. Avoid Hemolysis.

Processing: Send **refrigerated** to Mayo. Mayo code: **(MGMR)**

Performed: Report available in 3-10 days.

Reference value: Included with report

Method: ARBI, MUSK: Radioimmunoassay (RIA)
 ACMFS: Flow Cytometry

CPT Code: 86041
 86043 (if appropriate)
 86366 (if appropriate)

POWERCHART NAME	MYCOPHENOLIC ACID LEVEL		
MERCY TEST NAME	MYCOPHENOLIC ACID*	MERCY LAB CODE	MYPA

Specimen: 1.0 ml of serum from a red top tube. Serum gel/SST is NOT acceptable.

Processing: Send refrigerated. Frozen and ambient acceptable. Mayo order code **(MPA)**.

Performed: 1-3 days. Monday through Sunday; Varies

Reference value: Included in report.

Method: Tandem Mass Spectrometry (MS/MS)

CPT Code: 80180

POWERCHART NAME	MYCOPLASMA PNEUMONIAE DNA PCR		
MERCY TEST NAME	MYCPLSMA PNEUN PCR*	MERCY LAB CODE	MYCPCR

Specimen: Specimen Type: Respiratory
Sources: Bronchial washing, bronchoalveolar lavage, tracheal secretions, sputum
Container: Sterile container
Specimen Volume: 1 mL

Specimen Type: Fluid
Sources: Pleural, pericardial, cerebrospinal
Container: Sterile container
Specimen Volume: 0.5 mL

****Update: 10/10/23: Respiratory fluid and body fluid specimens submitted for this test will no longer be accepted if sent in viral transport media (VTM). These fluids should be transported in a sterile container not containing media.**

Clearly indicate specimen source, this information is required for testing.

RL Client Comments: Write Mycoplasma Pneumoniae by PCR, Mayo code - MPRP on the requisition, Specimen Source information is required.
Send specimen refrigerated to Mercy Lab

Processing: Send specimen refrigerated to Mayo. Mayo order code (**MPRP**).

Performed: 3-4 days, Monday through Sunday

Reference value: Included with results.

Method: Rapid Polymerase Chain Reaction (PCR) using Light Cycler and Fluorescent Resonance Energy Transfer (FRET)

CPT Code: 87581
87798-Mycoplasma pneumoniae Macrolide Resist PCR (if appropriate)

POWERCHART NAME	MYCOPLASMA PNEUMONIAE IgG IgM		
MERCY TEST NAME	MYCO.PNEUM IGG, IGM*	MERCY LAB CODE	MYCOGM

Specimen: 0.5 ml of serum from a Serum Separator Tube (SST) or no additive serum tube.

Processing: Send specimen refrigerate. Frozen acceptable. Mayo order code (**MYCO**).

Performed: 1 day, Monday through Friday; 9 A.M.

Comment: **Cautions:** The use of hemolyzed, lipemic, bacterially contaminated, or heat-inactivated specimens should be avoided. The continued presence or absence of antibodies cannot be used to determine the success or failure of therapy.

Reference value: Included with results.

Method: Enzyme Immunoassay (EIA)

CPT Code: 86738 x 2
 86738-Mycoplasma pneumoniae by indirect IFA (if appropriate)

POWERCHART NAME	MYELODYSPLASTIC SYNDROME (MDS) BY FLOW CYTOMETRY BONE MARROW		
MERCY TEST NAME	MDS BONE MARROW*	MERCY LAB CODE	MYEFL

Specimen: 2-5 ml bone marrow specimen in ACD (preferred), EDTA and Sodium heparin bone marrow samples are also acceptable.

Processing: Label specimen as Bone Marrow. Include 5 to 10 unstained bone marrow aspirate smears. Send AMBIENT to Mayo Medical Laboratories for testing. Mayo Code - **(MYEFL)**.

**Specimen must be received within 72 hours of collection.

Performed: Specimens are processed and reported Monday-Saturday. Maximum Laboratory time 4 days

Reference value: Included in report

Method: Flow Cytometry Immunophenotyping

CPT Code: 88184 - Flow Cytometry; First Cell Surface, cytoplasmic or nuclear marker x1
 88185 - Flow Cytometry; Additional Cell Surface, cytoplasmic or nuclear marker (each) x18

POWERCHART NAME	MYELOPEROXIDASE (MPO) ANTIBODIES		
MERCY TEST NAME	MYELOPEROXIDASE AB*	MERCY LAB CODE	MYPOX

Specimen: 0.5 ml serum from a Serum Separator Tube (SST) or no additive serum tube.
Comment: Useful for evaluation of patients with vasculitis and renal disease. If Cytoplasmic Neutrophil ABS is ordered, and p-ANCA is positive, Myeloperoxidase Antibodies, serum will be done and charged per Mercy Medical Center – North Iowa Lab policy. Test is also included in Cytoplasmic Neutrophil Antibodies Vasculitis Panel (VAPNL).

Processing: Send refrigerated to Mayo. Frozen acceptable. Mayo order code (**MPO**).
Performed: 4 days. Test set up Monday through Saturday; 4 p.m..
Reference value: Reference ranges included with results.
Method: Multiplex flow immunoassay.
CPT Code: 83516

POWERCHART NAME	MPN JAK2 V617F WITH REFLEX TO CALR AND MPL		
MERCY TEST NAME	MYELO NEOPLSM JAK2*	MERCY LAB CODE	MPNR

Specimen: Peripheral Blood: 3 mL whole blood in EDTA or yellow top ACD. Send specimen in original tube. Do NOT aliquot. Label specimen as blood.

Bone marrow: 2 mL bone marrow in EDTA or yellow top ACD. Send specimen in original tube. Do NOT aliquot. Label specimen as bone marrow.

Processing: Send at room temperature. Refrigerated is acceptable. Mayo order code (**MPNR**).

Performed: 7-10 days. Test set up Monday through Friday.

Reference value: Included with report.

Method: Quantitative Polymerase Chain Reaction (qPCR)

CPT Code: 81270
81219 (CALR if appropriate)
81339 (MPL if appropriate)

POWERCHART NAME	MYOGLOBIN		
MERCY TEST NAME	MYOGLOBIN	MERCY LAB CODE	MYO

Specimen: 0.5 ml serum

Stability: Tightly cap and refrigerate specimens at 2–8°C if the assay is not completed within 8 hours. Freeze samples at ≤ -20°C if the sample is not assayed within 48 hours. Freeze samples only 1 time and mix thoroughly after thawing.

Comment: Do not use samples that have been stored at room temperature for longer than 8 hours.

Performed: Within 8 hours of receipt. Available stat.

Reference value: Female: 14 - 66 ng/ml
Male: 17 - 106 ng/ml

Method: The Atellica IM MYO assay is a 2-site sandwich immunoassay using direct chemiluminescent technology, which uses constant amounts of 2 antibodies.

CPT Code: 83874

POWERCHART NAME	MYOGLOBIN URINE		
MERCY TEST NAME	MYOGLOBIN R UR*	MERCY LAB CODE	MYOU

Specimen: 5 ml preservative free random urine in 10 mL plastic **myoglobin transport tube**.

Processing:

- If sample is ambient, aliquot the urine to a urine myoglobin transport tube within one hour of collection (Supply T691). Refrigerate specimen.
- If sample is refrigerated, aliquot the urine to a urine myoglobin transport tube within two hours of collection.

NOTE: Urinary myoglobin is highly unstable unless alkalinized with Na₂CO₃ preservative. Even with alkalinization, myoglobin deterioration is variable and sample dependent (approximately averages of 10% at 1 day, 20 % at 3 days, and 30% at 7 days. MAYO order code (**MYGLU**).

- Send refrigerated.

Caution: An elevated level of myoglobin in urine does not identify the clinical disorder. Urine collected with acid as preservative will NOT be valid because acid interferes with analyte integrity.

Performed: 1-2 days. Test set up Monday through Sunday, continuously.

Reference value: Included with test results

Method: Latex Particle-Enhanced Immunoturbidimetric Assay.

CPT Code: 83874

POWERCHART NAME	NEONATAL METABOLIC SCREEN		
MERCY TEST NAME	NEONT MET SCR*	MERCY LAB CODE	NNT

Includes: Hypothyroidism Phenylketonuria Expanded Screening Disorders
Hemoglobinopathies Biotinidase Deficiency Congenital Adrenal Hyperplasia
Galactosemia Cystic Fibrosis Severe Combined Immunodeficiency

Specimen:

- Capillary blood specimen collected by Laboratory on INMSP form.
- Instructions for collection technique on the INMSP form must be carefully followed to avoid rejection of the specimen.
- The specimen should be collected when the infant is more than 24 hours old and less than 5 days but must be collected prior to discharge.
- A repeat specimen must be collected within 14 days of age when the first specimen was collected prior to 24 hours after birth.

Processing: Send to University Hygienic Laboratory, Des Moines.

Performed: 7 days

Reference value: See State Laboratory report for reference values.

Method: Phenylketonuria: No longer reported separately 9/3/05 included in Expanded Screening Disorders.

Galactosemia (Classic): Quantitative Fluorometric Assay

Hemoglobinopathy: High Precision liquid Chromatography Hemoglobin Electrophoresis

Congenital Adrenal Hyperplasia: Fluoroimmunoassay for 17 alpha-OH Progesterone (17 OHP)

Hypothyroidism: Fluoroimmunoassay for Thyrotropin (TSH)

Biotinidase Deficiency: Qualitative Assay for Biotmidase
 Expanded Screening Disorders: Tandem Mass Spectrometry (MS/MS)
 Cystic Fibrosis: Immuno Reactive Trypsinogen (IRT)
 Severe Combined Immunodeficiency

CPT Code: Newborn Metabolic Screen S3620

Comment: If the State lab requests the patient to be retested due to the results from the initial testing, Laboratory staff can order the **NEONT MET SCR RPT***, **Sunquest order code NNTR**. Neonate Met Scr Rprt* is not orderable from Powerchart. Lab must order. Connected to the Sunquest order code **NNTR** is a processing fee only. The NNTR is not to be used when a second collection is required due to an error in the collection process. Recollection due to a lab error should be the Sunquest order code NNT with the first test being credited. Nursery is to notify ER as to which baby will be returning. A repeat INMSP form will be provided to the Lab by the State Lab. A repeat specimen must be collected within 14 days of age if the first specimen was collected prior to 24 hours after birth.

POWERCHART NAME	NEWBORN METABOLIC SCREEN REPEAT		
MERCY TEST NAME	NEONT MET SCR RPT*	MERCY LAB CODE	NNTR

Includes: Hypothyroidism Galactosemia Expanded Screening Disorders
 Hemoglobinopathies Congenital Adrenal Hyperplasia Biotinidase Deficiency
 Phenylketonuria Cystic Fibrosis Severe Combined Immunodeficiency

Comment:

- To be used when the neonatal metabolic screen is to be repeated by the State Lab.
- The patient will be charged a processing fee only.
- Nursery is to notify ER as to which baby will be returning.

- A repeat INMSP form will be provided to the Lab by the State Lab.
- A repeat specimen must be collected within 14 days of age if first specimen was collected prior to 24 hours after birth.

Specimen: Capillary blood specimen collected by Laboratory on INMSP form. Instructions for collection technique on the INMSP form must be carefully followed to avoid rejection of the specimen.

Processing: Send to University Hygienic Laboratory, Des Moines.

Performed: 7 days

Reference value: Send to University Hygienic Laboratory, Des Moines

Method: Phenylketonuria: No longer reported separately 9/3/05 included in Expanded Screening Disorders

Galactosemia (Classic): Quantitative Fluorometric Assay

Hemoglobinopathy: High Precision liquid Chromatography Hemoglobin Electrophoresis

Congenital Adrenal Hyperplasia: Fluoroimmunoassay for 17 alpha-OH Progesterone (17 OHP)

Hypothyroidism: Fluoroimmunoassay for Thyrotropin (TSH)

Biotinidase Deficiency: Qualitative Assay for Biotmidase

Expanded Screening Disorders: Tandem Mass Spectrometry (MS/MS)

Cystic Fibrosis: Immuno Reactive Trypsinogen (IRT)

Severe Combined Immunodeficiency

CPT Code: 99001

POWERCHART NAME	NICOTINE AND METABOLITE SCREEN		
MERCY TEST NAME	NICOTINE METABOLITE*	MERCY LAB CODE	NICOT

Specimen: 0.8 ml serum from a no additive serum tube.
 Processing: Send refrigerated to Mayo. Ambient and frozen also acceptable. Mayo order code (NICOS).
 Performed: 2-4 days. Monday through Saturday; 11 a.m., Sunday; 4 p.m.
 Reference value: Included with results.
 Method: Liquid Chromatography-Tandem Mass Spectrometry (LC-MS/MS)
 CPT Code: G0480 / 80323

POWERCHART NAME	NICOTINE AND METABOLITES URINE		
MERCY TEST NAME	NICOT METABOLIT UR*	MERCY LAB CODE	NICOU

Specimen: 3.0 mL urine from random urine specimen in 5 mL urine tube.

Processing: Send refrigerated to Mayo. Ambient and frozen also acceptable. Mayo order code (**NICOU**).
 Performed: 2-5 days, Monday through Sunday.
 Reference value: Included with results.
 Method: Liquid Chromatography-Tandem Mass Spectrometry (LC-MS/MS)
 CPT Code: G0480 / 80323

POWERCHART NAME	NUTRITION PANEL		
MERCY TEST NAME	NUTRITION PNL	MERCY LAB CODE	NPNL

Specimen: 0.5 ml serum and 1 unspun Lithium Heparin tube on ice.

Stability: Specimens may be stored for up to 3 days at 2–8°C or stored frozen for up to 30 days at -20°C.

Comment: Includes: A/G Ratio, Albumin, Anion Gap, BUN, BUN/Create Ratio, Calcium, Ionized Calcium, Chloride, Cholesterol, Creatinine, CO₂, Glucose, Magnesium, Phosphorus, Potassium, Prealbumin, Sodium, Total Protein, Triglycerides, GFR.

Performed: Within 8 hours of receipt. Available stat.

Reference Range: See individual test entry.

Method: See individual test entry.

Description: See individual test entry.

CPT Code: 82330 Calcium Ionized+
84134 Prealbumin
82465 Cholesterol
84155 Prot TTL
80069 Renal Function Panel
84478 Triglyceride
83735 Magnesium

TEST NAME	OCCULT BLOOD		
MERCY TEST NAME	OCCULT BLOOD FECAL ICT SCREEN	MERCY LAB CODE	OBFS

Comment:

- **Must use Beckman Counter Hemocult® ICT blue card**
- **This is for stool specimens only.**
- If using the Beckman Coulter Hemocult® green/yellow card, SEE Hemocult®

Specimen:

- Fresh, unpreserved stool specimen
- No dietary restrictions are required.
- NOTE: Fecal samples should not be collected if hematuria or obvious rectal bleeding, such as from hemorrhoids, is present. Pre-menopausal women should not collect fecal samples during or in the 3 days following a menstrual period.
- Collect a small fecal sample on one end of the applicator stick (may use tongue depressor) Apply a small thin smear inside box A. Use the other end of the applicator to obtain a second sample from a different area of the stool. Apply a thin smear inside box B and close the cover.
- The test slide **MUST** be labeled with patient first and last name along with date and time of collection.



CPT Code: G0328
82274

POWERCHART NAME	OLIGOCLONAL BANDING CSF	Also included in: MS Panel/Myelin Basic Protein*
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MERCY TEST NAME	OLIGOCLONL BANDING*	MERCY LAB CODE	OLGBND
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Comment:

- **This test requires both CSF and serum.**
- Please notify Lab when this test is ordered so that a blood specimen can be collected at the same time.

Includes: Oligoclonal Bands: CSF bands, serum bands

Specimen:

- **0.5 ml CSF and 0.5 ml serum from plain red top tube or serum gel tube.**
- Minimum 0.4 ml CSF and 0.4 ml serum.
- Nursing Service must notify the Lab when CSF is collected so that the serum specimen can be collected.
- Spinal Fluid must be obtained within 1 week of serum draw.

Processing:

- **DO NOT perform any CSF testing at Mercy Laboratory until AFTER CSF specimen has been processed for Mayo testing.**
- **0.5 ml CSF**, send in original tube when possible. Label tube as CSF.
- **0.5 ml serum** in vial labeled as such.
- Record on Mayo batch list: # of ml of CSF sent.
- **SEND ALL TESTS REFRIGERATED TO MAYO. LABEL 1 ALIQUOT CSF (0.5 ml) AND 1 ALIQUOT SERUM (0.5 ml). Mayo - (OLIG). AMBIENT AND FROZEN ACCEPTABLE.**

Performed: Monday through Saturday

Reference value: Included with test results

Method: Isoelectric Focusing (IEF) with IgG Immunoblot Detection

CPT Code: 83916 Oligoclonal Banding x2 (CSF and Serum)

TEST NAME	OPIATES	See: Drug Abuse Random Urine Drug Screen Body Fluid* Drug Screen Serum*	
MERCY TEST NAME	OPIATES UR* CONFIRMATION	MERCY LAB CODE	UOPIAT

Specimen: 20 ml random urine specimen in 60 mL urine bottle, no preservative

Processing: Send refrigerated to Mayo. Mayo code (**OPATU**)

Performed: Monday-Friday

Reference Value: Included in report.

Method: Liquid Chromatography - Tandem Mass Spectrometry (LC - MS/MS)

CPT Code: G0480/ 80361 / 80365

POWERCHART NAME	ORTHOPEDIC PANEL		
MERCY TEST NAME	ORTHOPEDIC PANEL	MERCY LAB CODE	OPNL

Specimen: 0.5 mL serum

Stability: Specimens may be stored for up to 3 days at 2–8°C or stored frozen for up to 30 days at -20°C.

Comment: Includes: Sodium, Potassium, Glucose, BUN, Creatinine, BUN/Creatinine Ratio, eGFR, Calcium, Alkaline Phosphatase, Gamma GT, Albumin.

Performed: Within 8 hours of collection. Available stat.

Reference Range: See individual test entry.

Method: See individual test entry.
Description: See individual test entry.
CPT: See Individual test entry

POWERCHART NAME	OSMOLALITY SERUM		
MERCY TEST NAME	OSMOLALITY BLOOD	MERCY LAB CODE	OSM

Specimen: 2 ml serum from a Serum Separator Tube (SST)

Stability: 7 days refrigerated.

Performed: Within 8 hours of receipt. Available stat.

Reference value: 280-300 mOsm/kg

Method: Freezing point depression.

CPT Code: 83930

POWERCHART NAME	OSMOLALITY URINE		
MERCY TEST NAME	OSMOLALITY R UR	MERCY LAB CODE	UOSM

Specimen: 5 mL from a random urine specimen

Stability: 7 days refrigerated.

Performed: Within 8 hours of receipt. Available stat.

Reference value: 300-1000 mOsm/kg

Method: Freezing point depression.

CPT Code: 83935

POWERCHART NAME	OXALATE 24 HOUR URINE		
MERCY TEST NAME	OXALATE 24UR*	MERCY LAB CODE	VOXL

Patient preparation: Avoid taking large doses (greater than 2.0 g orally/ 24 hours) of Vitamin C during collection.

Specimen:

- 24-hour urine collection.
- Add 5 mL of diazolidinyl urea (Germall) as a preservative at start of collection OR refrigerate specimen during and after collection.
- Collect in metal free container with no metal cap or glued insert.
- Refrigerate during collection.
- Specimen pH should be between 4.5 and 8 and will stay in this range if kept refrigerated during and after collection. Specimens with pH > 8 indicate bacterial contamination, and testing will be cancelled.

Cause for rejection:
Processing:

- DO NOT attempt to adjust pH as it will adversely affect results.
- Samples collected in or sent in containers with metal caps will not be tested.
- Transfer 4 ml urine to 5 mL metal-free container. Mix well before the aliquot is taken.
 - Indicate total 24-hour volume.
 - Send **refrigerated** to Mayo. Mayo order code (**OXU**). Frozen and Ambient are acceptable.
 - Click on 24-hour urine preservative chart for other acceptable temperatures and additives.
 - Diazolidinyl Urea (Germall) is listed as preferred, but Mercy Lab does not have this in our inventory.

Performed: Results 3-5 days. Monday through Saturday.
Method: Enzymatic using Oxalate Oxidase.
CPT Code: 83945

POWERCHART NAME	OXCARBAZEPINE (TRILEPTAL) LEVEL		
MERCY TEST NAME	OXCARBAZEPINE MET*	MERCY LAB CODE	OXCARB

Specimen: 1 mL serum from a no additive serum tube. a Serum Separator Tube (SST) are NOT acceptable.

- Collect specimen immediately before next scheduled dose.
- Centrifuge and aliquot serum into plastic vial within 2 hours of collection.

Processing: Send refrigerated to Mayo. Mayo order code (**OMHC**).

Performed: 1-3 days. Tuesday through Saturday.

Reference Value: Included in report.

Method: High-Turbulence Liquid Chromatography Mass Spectrometry (HTLC-MS/MS)

CPT Code: 80183

POWERCHART NAME	OXYGEN SATURATION		
MERCY TEST NAME	OXYGEN SATURATION	MERCY LAB CODE	O2SAT

Specimen: Arterial, mixed venous, venous collected in a Heparinized syringe. Minimum volume of 1 ml. non-Heparinized syringes are also acceptable.

- **The tube must be walked to its destination. Do NOT send through the tube station.**

Comment: RN will page lab on pager #420 to pick up specimen after collect.

Rejection Criteria: Air in sample, clotted, hemolyzed, unlabeled specimens, or received greater than 10 minutes after collection.

Performed: Within 10 minutes of specimen collection.

Reference Value: Included with results.

Method: ABL80 CO-OX Flex

CPT Code: 82810

POWERCHART NAME	PANCREATIC ELASTASE 1 FECAL		
MERCY TEST NAME	PANCREATIC ELASTASE STOOL*	MERCY LAB CODE	PANCS

Specimen: Collect 5 gm random stool submitted in a container with a tight-fitting lid. No preservative

Processing: Specimen may be stored refrigerated up to 72 hours following collection. Send frozen to Mayo. Mayo order code **(ELASF)**.

Separate specimens must be submitted when multiple tests are ordered. If only a single specimen is collected, it must be split prior to transport.

Performed: 3-5 days; Monday through Friday

Reference Values: Included in report

Method: Enzyme-Linked Immunosorbent Assay (ELISA)

CPT Code: 82653

POWERCHART NAME	PARANEOPLASTIC AUTOANTIBODIES		
MERCY TEST NAME	PARANEOPLASTIC AB*	MERCY LAB CODE	PAVAL

Specimen: 4 mL serum from no additive serum tube (Preferred). Serum from a Serum Separator Tube (SST) is also acceptable.

Patient Preparation:

- For optimal antibody detection, specimen collection is recommended prior to initiation of immunosuppressant medication or intravenous immunoglobulin treatment.
- This test should not be requested for patients who have recently received radioisotopes, therapeutically or diagnostically, because of potential assay interference. The specific waiting period before specimen collection will depend on the isotope administered, the dose given, and the clearance rate in the individual patient. Specimens will be screened for radioactivity prior to analysis. Radioactive specimens received in the laboratory will be held 1 week and assayed if sufficiently decayed or canceled if radioactivity remains.

Processing: Send refrigerated (Preferred) to Mayo. Ambient or frozen is also acceptable. Mayo order code (**PAVAL**).

Performed: 10-17 days. Profile Tests: Monday through Sunday; Reflex tests: Varies.

Reference value: Included with report.

Method: *Methodology abbreviations: Immunofluorescence assay (IFA), Cell-binding assay (CBA), Western blot (WB), Radioimmunoassay (RIA), and Immunoblot (IB)

CPT Code: 86255 x 9, 83519, 86596 If Indicated: 84182-AGNBS, 84182-AMIBS, 84182-AN1BS, 84182-AN2BS, 86255-CS2CS, 84182-CRMWS, 86255-LG1CS, 84182-PC1BS, 84182-PCTBS, 86256-AGNTS, 86256-APHTS, 86256-AN1TS, 86256-AN3TS, 86256-CRMTS, 86256-PC1TS, 86256-PC2TS, and 86256-PCTTS.

POWERCHART NAME	PARASITE EXAM		
MERCY TEST NAME	PARASITE EXAM* (Ova & Parasites or O & P)	MERCY LAB CODE	PARSIT

Note: This test should be ordered when suspicion of parasitic infection is based on travel history in endemic areas or when a patient is immunocompromised.

Comments: It is strongly recommended that multiple stool specimens be submitted for ova and parasite analysis. At least 3 specimens should be collected, 1 each day or on alternate days (over a maximum 10-day period).

Parasites are shed irregularly in stool and examination of a single specimen does not guarantee detection.

Test will **NOT** detect Cryptosporidium. See "Cryptosporidium" if this test is desired.

This test is useful for patients who have traveled to foreign countries, or an area of the USA where helminth (worm) infections have been reported with some frequency.

For patients who have not traveled, order Giardia and Cryptosporidium Antigen testing (GLCP) instead of Parasitic Exam, performed at MercyOne Lab.

Patient Preparation: Specimen collection should be delayed for 7 to 10 days after administration of barium, bismuth, kaolin, magnesia, castor oil or mineral oil, and 2 to 3 weeks after antibiotics have been given since these may interfere with identification of protozoa.

Specimen: Stool delivered within **30 minutes** of collection: 5-10 gm of feces submitted in a clean container with tight fitting lid. Mercy lab will transfer the stool into the Ecofix transporter (within **30 minutes** of collection).

If stool will not be delivered within **30 minutes** of collection: The patient will need to transfer the stool into an Ecofix transporter before the delivery of specimen to the lab. Transfer enough stool to bring the liquid level up to the fill line, indicated on the Ecofix preservative vial. Mix the contents of the tube with the spoon, twist the cap tightly closed and shake vigorously until the contents are well mixed.

Do NOT fill above the line indicated on the container.

Deliver Ecofix transporter to lab within 5 days of collection.

Mercy Inpatient Comments: **Specimens collected from inpatients after the fourth hospital day will NOT be tested without prior approval from the Microbiology Department.**

Processing: Send ambient (preferred) to Mayo. Refrigerated is also acceptable. Mayo order code (**OPE**).

Performed: 3-6 days. Monday through Saturday.

Reference value: Reference ranges included with report.

Method: Microscopic

CPT Code: 87177
87209

POWERCHART NAME	PARATHYROID HORMONE (PTH) INTRAOPERATIVE		
MERCY TEST NAME	PTH INTRAOPERATIVE	MERCY LAB CODE	PTHIO

Specimen: 0.5 ml serum from a Serum Separator Tube (SST)

Comment: Creatinine, Calcium, Phosphorus is not included and must be ordered separately or as part of another panel if desired

Stability: Plasma: 8 hours room temperature, 48 hours refrigerated, freeze if >48 hours.

Serum: 4 hours room temperature, 8 hours refrigerated, freeze if >8 hours.

Performed: Stat will take approximately 25 minutes from receipt to result.

For Intraoperative Mode of testing in patients undergoing parathyroidectomy for primary hyperparathyroidism, the following practices are recommended:

Baseline samples should be drawn at pre-operation/exploration and pre-excision.

Samples should be drawn at 5- and 10-minutes post-resection of the hyperfunctioning parathyroid tissue.

At least a 50% reduction in PTH value should be observed when the highest baseline sample is compared to the post-resection samples.

The Intraoperative Mode testing is NOT recommended for use in routine PTH testing

Reference value: 12-88 pg/ml

Method: Immunoenzymatic("sandwich") assay.

CPT Code: 83970 Parathyroid Hormone

POWERCHART NAME	PARATHYROID HORMONE INTACT		
MERCY TEST NAME	PTH INTACT	MERCY LAB CODE	PTHINT

Specimen: 0.5 ml serum

Stability: Specimens may be stored for up to 8 hours at 25°C, 2-8°C for up to 8 hours, or stored frozen for up to 1 month at ≤ 20°C.

Comment: For serum specimens, complete clot formation should take place before centrifugation.

Serum should be physically separated from cells as soon as possible with a maximum limit of 2 hours from the time of collection.

Performed: Within 8 hours of receipt. Available stat. May be used for Intraoperative testing as well.

Reference Range: 12-88 pg/ml

Method: The Atellica IM PTH assay is a 2-site sandwich immunoassay using direct chemiluminescent technology, which uses constant amounts of 2 anti-human PTH antibodies.

Description: technology, which uses constant amounts of 2 anti-human PTH antibodies.

CPT Code: 83970 Parathyroid Hormone

POWERCHART NAME	PARVOVIRUS B19 IgG IgM ANTIBODIES		
MERCY TEST NAME	PARVOVIRUS B19*	MERCY LAB CODE	HPB

Specimen:

- 0.5 ml serum from a Serum Separator Tube (SST) or no additive serum tube.
- Maintain sterility of specimen.
- Send to Mayo refrigerated. Frozen and ambient also acceptable.
- Mayo order code (PARVs).

Cause for rejection: Hemolyzed specimens not acceptable.
 Performed: 1 day. Test set up Monday through Friday; 11 a.m.
 Reference Values: Included in report

Method: Enzyme Immunoassay.
 CPT Code: 86747 x2 (IgG, IgM)

POWERCHART NAME	PERTUSSIS PCR		
MERCY TEST NAME	PERTUSSIS PCR*	MERCY LAB CODE	BPC

Specimen: Nurse to collect. Use the kit provided by Mercy Microbiology Lab.

- Collect one nasopharyngeal swab (provided in kit) by passing the swab through the nares of the patient until resistance signifies the swab has reached the posterior wall of the pharynx. Rotate axially and hold for 30-60 seconds or until coughing occurs or the patient resists. Perform this same technique for both nares, using the one swab provided.
- Place the swab in the empty tube provided and cut the swab off, ensuring it is cut short enough to allow the lid to be screwed on the tube. Screw the lid on the tube securely. Write the patient's name, date, and time of collection on the tube that contains the swab.
- Complete the patient information form and return with the specimens to Mercy Lab. Submit specimen at room temperature.

Alias:

- BORDETELLA PERTUSSIS PCR

RL Client Comments: ○ Collection kits can be requested directly from the State Hygienic Lab if RL clients would like to send the kits directly from their site, otherwise kits can be requested from Mercy Microbiology.

Processing: Specimens are sent to State Hygienic Lab, Iowa City (SHL)

Performed: TAT within 1-3 days, from time of receipt at SHL

Reference value: Not Detected

Method: PCR

CPT Code: 87798

POWERCHART NAME	pH BLOOD VENOUS		
MERCY TEST NAME	pH VENOUS	MERCY LAB CODE	PHV

Specimen: ○ 0.5 ml whole blood from green top tube.
 ○ Keep the tube capped until analysis.
 ○ For single pH Venous orders, completely fill a separate tube.
 ○ Place on ice and deliver to the Lab immediately.

Processing: Perform test within 1 hour.

Performed: Immediately upon receipt. Available stat.

Normal values: 7.31 - 7.41

Method: Direct Potentiometry

CPT code: 82800

POWERCHART NAME	pH NASOGASTRIC		
MERCY TEST NAME	PH NASOGASTRIC	MERCY LAB CODE	NGPH

Specimen: ○ 0.5 ml nasogastric specimen.
 ○ Collect in clean dry container.
 ○ Deliver to Lab within 1 hour of collection.

Performed: Within 8 hours of receipt. Available stat.

Normal values: 1.5 - 3.5

Method: pH indicator strips.

CPT Code: 83986

POWERCHART NAME	pH Pleural Fluid		
MERCY TEST NAME	pH Pleural Fluid	MERCY LAB CODE	PHPLEU

Specimen: ○ 0.5 ml Pleural Fluid collected in a syringe.
 ○ Keep the syringe capped until analysis.
 ○ Place on ice and deliver to the Lab immediately.

Processing: Perform test within 1 hour.

Performed: Immediately upon receipt. Available stat.

Normal values: Normal Range has not been established. The test must be integrated into the clinical context for interpretation.

Method: Direct Potentiometry

CPT code: 82800

MERCY TEST NAME	PHENCYCLIDINE UR* PCP CONFIRMATION	MERCY LAB CODE	UPCP
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Specimen: 20 ml random urine specimen in 60 mL urine bottle, no preservative
Processing: Send refrigerated to Mayo laboratories, Mayo code - **(PCPU)**.
Performed: Mondays
Reference value: Included with report
Method: Gas Chromatography - Mass Spectrometry (GC - MS) Confirmation and Quantitation
CPT Code: G0480 / 83992

POWERCHART NAME	PHENOBARBITAL LEVEL		
MERCY TEST NAME	PHENOBRB	MERCY LAB CODE	PHNB

Specimen: 0.5 mL

Stability: Specimens may be stored for up to 8 hours at 25°C or for up to 2 days at 2-8°C or stored frozen for up to 30 days at -20°C.

Comment: Indicate time of last does in comment field.

Performed: Within 8 hours of receipt. Available stat.

Therapeutic Range: 15-40 mcg/mL

Method Description: The Atellica® CH Phenobarbital (Phnb) assay is a homogeneous particle-enhanced turbidimetric inhibition immunoassay (PETINIA) technique which uses a synthetic particle-phenobarbital reagent (PR) and phenobarbital-specific monoclonal antibody (Ab).

CPT Code: 80184

POWERCHART NAME	PHENYTOIN (DILANTIN) TOTAL AND FREE		
MERCY TEST NAME	PHENYTOIN TTL&FREE	MERCY LAB CODE	PHYF

Alias: **DILANTIN/ DIPHENYLHYDANTOIN (Free)**

Specimen: 2 mL serum from plain red-top tube.

Stability: 7 days refrigerated

Comment: Includes Free and Total Phenytoin.

Grossly hemolyzed specimens will be rejected.

Performed: Completed at Mayo laboratories with 1 day's turnaround time: Mayo code - **(PNTFT)**

Reference Range: Included in the report.

Method Description: Free phenytoin is isolated from serum by ultrafiltration. The phenytoin assay is based on the kinetic interaction of microparticles in a solution (KIMS). Phenytoin antibody is covalently coupled to microparticles, and the drug derivative is linked to a macromolecule.

CPT Code: 80186 Phenytoin Free*
80185 Phenytoin Total*

POWERCHART NAME	PHLEBOTOMY THERAPEUTIC		
MERCY TEST NAME	PHLEBOTOMY	MERCY LAB CODE	PHLB

Comment: Test available ONLY Monday-Friday 0800-1530 by appointment only. Appointments can be set up by calling the cancer center scheduling desk at 641 428 6321. Not available stat except with special arrangements between laboratory and staff physician. A written order by the physician is necessary. Lab will order a hemoglobin on any patient, not followed with ferritin values, who has not had a hemoglobin performed at MMC-NI within the past 30 days if the patient present without any pre-phlebotomy orders. If the following criteria are not met, pathologist authorization must be given to proceed with the phlebotomy.

ALL NEW PHLEBOTOMY PATIENTS:

Hemoglobin: Female >12.5 gm/dl Male >13.5 gm/dl

OR above the target set by physician;

OR if ferritin levels are monitored, the previous ferritin obtained within 2 months must be >30 ng/ml or above the target set by physician.

No more than 450 ml whole blood every 24 hours may be collected from the patient.

Method: Venipuncture
CPT Code: 99195 Phlebotomy+

POWERCHART NAME	PHOSPHORUS LEVEL		
MERCY TEST NAME	PHOSPHORUS	MERCY LAB CODE	PHOS

Specimen: 0.5 ml serum
Stability: 2-8°C or stored frozen for up to several months at -70°C for serum.
Performed: Within 8 hours of receipt. Available stat.
Reference Range: 2.4-5.1 mg/dl
Method Description: The Atellica CH Inorganic Phosphorus (IP) assay is based on the Daly and Ettingshausen procedure, which relies on the formation of a UV absorbing complex between phosphorus and molybdate.

CPT Code: 84100

POWERCHART NAME	PHOSPHORUS 24 HOUR URINE		
MERCY TEST NAME	PHOSPHORUS 24UR	MERCY LAB CODE	VPHS

Specimen: Aliquot of 5 ml from a 24-hour urine specimen refrigerated during collection.

Stability: Refrigerated acidified specimens are stable for up to 6 months at 2–8°C.
 Comment: Acidify with HCl after collection to achieve a pH of < 3.
 Performed: Within 8 hours of receipt.
 Reference Range: 0.4-1.3 g/24 hours
 Method Description: The Atellica CH Inorganic Phosphorus (IP) assay is based on the Daly and Ettingshausen procedure, which relies on the formation of a UV absorbing complex between phosphorus and molybdate.

CPT Code: 84105

POWERCHART NAME	PINWORM EXAM		
MERCY TEST NAME	PINWORM PREP	MERCY LAB CODE	PIN

Specimen: Collect the specimen on a pinworm paddle. Paddles are available from the Microbiology Department.

- Collect in the morning, before the patient has bathed.
- Touch the sticky side of the paddle to several areas directly around the anal opening.
- Place the paddle back in the transport tube.

Cause for rejection: Stool specimens will not be accepted for pinworm examination. Pinworm ova are RARELY seen in stool specimens.

RL Client

Comments: o Write PINWORM PREP on the order form.

Processing: Send at room temperature.

Performed: Monday - Friday 1400 cutoff

Reference value: No Enterobius vermicularis ova seen

Method: Direct microscopy

CPT Code: 87172

POWERCHART NAME	PLASMA CELL DNA CONTENT PROLIFERATION		
MERCY TEST NAME	PLASMA CELL DNA	MERCY LAB CODE	PCPRO

Specimen: o 4.0 ml processed bone marrow.
 o Collected in ACD (preferred), EDTA or sodium heparin tubes acceptable.

Processing: Samples **MUST arrive within 72 hours** of collection. Include patient history. Send ambient to Mayo. Mayo test code (**PCPRO**).

Performed: 2 days. Specimens are processed Monday-Sunday. They are reported Monday-Friday.

Reference value: Included with test results

Method: Flow Cytometry, DNS Content, Cell Cycle analysis

CPT Code: 88182 Flow Cytometry Cell cycle or DNA Analysis
 88184 Flow Cytometry First Marker
 88185 (x5) Flow Cytometry, Each Additional Marker
 88187 Flow interpretation: 2 to 8 markers

POWERCHART NAME	PLASMA HEMOGLOBIN		
MERCY TEST NAME	PLASMA HEMOGLOBIN	MERCY LAB CODE	PHGB

Specimen: 2 ml EDTA plasma from purple top tube.
 Cause for rejection: Serum unacceptable and will not be tested.
 Processing:

- Centrifuge and separate immediately, plasma must be separated within 2 hours of collection.
- **IMPORTANT**-Results could be falsely elevated due to artifactual post draw RBC lysis, if not spun down within 2 hours.
- Send **refrigerated** to Mayo. Mayo test code (**PLHBB**). Frozen and ambient also acceptable.

 Performed: Test set up Monday through Sunday.
 Reference value: Included with test results.
 Method: Spectrophotometry
 CPT Code: 83051

POWERCHART NAME	PLATELET COUNT		
MERCY TEST NAME	PLATELET COUNT	MERCY LAB CODE	PLTX

Specimen: 1 purple top (EDTA) tube.
 Processing: Specimen stable 24 hours at room temperature or 48 hours refrigerated.
 Performed: Within 8 hours of receipt. Available stat.
 Reference value: Included with test results. Complete listing in Special Helps section of Lab Test Index.
 Method: Automated cell counter.
 CPT Code: 85049

POWERCHART NAME	IMMATURE PLATELET FRACTION		
MERCY TEST NAME	IMMATURE PLATELET	MERCY LAB CODE	IPFP

Includes: Platelet Immature Platelet Fraction (IPF)

Specimen: 1 purple top (EDTA) tube
 Stability: 24 hours room temperature, or 48 hours refrigerated

Performed: Within 8 hours of receipt. Available STAT

Reference value: Immature Platelet Fraction / IPF 1.0 - 7.0%

Method: Sysmex XN automated hematology analyzer
 CPT Code: 85055

POWERCHART NAME	PLATELET INHIBITION ASPIRIN
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MERCY TEST NAME	PLT INHIB ASPIRIN	MERCY LAB CODE	PLTASR
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Specimen: Draw one waste tube (blue top tube or plain red top tube.) followed by 2 blue top Greiner tubes. Blue top Greiner tubes fill only half full. Use 21 gauge or larger needle to draw. If drawing with a syringe, use first syringe to draw waste or other tests, change syringe and use 2nd syringe for this test. GENTLY invert tube 5 times to mix. DO NOT shake or send in pneumatic tube system. DO NOT refrigerate or centrifuge. Always draw blue top tubes before purple top tubes. **Flag top of tubes for indication not to spin.**

Cause for rejection: Specimen older than 4 hours, refrigerated, or centrifuged.

Performed: Within 2 hours of receipt. Available stat.

Reference range: Results are reported in ARU (Aspirin Reaction Units).
 ≥ 550 ARU - Platelet dysfunction consistent with aspirin has not been detected.

Method: Verify Now System

CPT Code: 85576

Limitations: This assay is not for use in patients with underlying congenital platelet abnormalities, patients with non-aspirin induced acquired platelet abnormalities or in patients receiving non-aspirin anti-platelet agents.
(May be used in patients treated with selective COX-2 inhibitors, e.g., celecoxib (Celebrex).

Verify Now Aspirin Assay is a qualitative assay to aid in the detection of platelet dysfunction due to aspirin ingestion. Other uses of the ARU value are not endorsed by Accumetrics and is not FDA cleared.

Interference Studies:

The following medications may cause a change in platelet function.

Patients who have been treated with eptifibatide (Integrilin) and tirofiban (Aggrastat) should not be tested for 48 hours, or abciximab (ReoPro) for 14 days.

Anti-Platelet agents can inhibit platelet function and may result in a decreased ARU value independent of the effects of aspirin. Average duration times are Plavix and Ticlid - 5 days, Aggrenox - 10 days, Persantine and Platell/Cilostazol - 12 hours.

NSAID's inhibit platelet function, but not irreversibly like aspirin. Average times for inhibitory effects for each drug are Ibuprofen - 8 hours: Naproxen, Diclofenac, Indocin - 24 hours, Feldene 50 hours.

POWERCHART NAME	PLATELET INHIBITION P2Y12		
MERCY TEST NAME	PLT INHIB P2Y12	MERCY LAB CODE	PLTIHB

Includes: PLT Inhibition P2Y12

Comment: This test may be used to follow patients taking any approved thienopyridines drugs, including Plavix (Clopidogrel), Ticlid (Ticlopidine) and Effient (Prasugrel).

Specimen: Draw 1 waste tube (plain red top or blue top tube) followed by 2 blue top Vacuette Greiner tubes. Blue top Greiner tubes fill only half full. Use 21 gauge or larger needle to draw. If drawing with a syringe, use first syringe to draw waste or other tests, change syringe and use 2nd syringe for this test. GENTLY invert tube 5 times to mix. DO NOT shake or send in

pneumatic tube system. DO NOT refrigerate or centrifuge. Always draw blue top tubes before purple top tubes. Flag top of tubes for indication not to spin.

Cause for rejection: Specimen older than 4 hours, refrigerated, or centrifuged.

Performed: Within 2 hours of receipt. Available stat.

Therapeutic range: Therapeutic range is

Normal range: PLT Inhibition P2Y12: 194-418 PRU (P2Y12 Reaction Units) for person not taking thienopyridines drugs.

Method: Verify Now System

CPT Code: 85576

Limitations: Patients with inherited platelet disorders such as von Willebrand Factor Deficiency, Glanzmann Thrombasthenia and Bernard-Soulier syndrome have not been studied with this assay. Therefore, this assay is not intended for use with these types of platelet disorders.

Interfering Substances:

- Glycoprotein IIb/IIIa inhibitor (abciximab, eptifibatide, and tirofiban) and antiplatelet agents (cilastazol) inhibit platelet function. Some degree of platelet inhibition by these drugs was detected.
- Drugs that affect platelet function may be detected up to 14 days after ingestion.
- Other classes of commonly used drugs were tested with no significant effect on assay performance: antioxidants, ACE inhibitor, antiarrhythmics, anticoagulants, aspirin, antidepressants, insulin, allopurinol, alcohol, beta blockers, bronchodilators, calcium channel blockers, gastrointestinal medications, betamethasone, lovastatin, NSAIDs (including COX-1 and COX-2 enzyme inhibitors), and the thyroid hormone L-thyroxine.

The thrombolytic agent streptokinase showed no significant inhibition of platelet function.

- Results may not be available for patients with a platelet count <50,000.

POWERCHART NAME	PLATELET MAPPING TEG		
MERCY TEST NAME	PLATELET MAPPING	MERCY LAB CODE	PLTMAP

Specimen: ○ Non-gel heparin dark green top tube

Stability: 2 hours room temp

Reference Values:

Assay	Heparinized Blood Parameter	N	Range
HKH	MA (mm)	149	53 – 68
ActF	MA (mm)	152	2 – 19
ADP	MA (mm)	145	45 – 69
	% Inhibition	145	0 – 17
	% Aggregation	145	83 – 100
AA	MA (mm)	144	51 – 71
	% Inhibition	144	0 – 11
	% Aggregation	144	89 – 100

Method: Whole Blood Hemostasis System

CPT Code: 85576 x3

POWERCHART NAME	TRANSFUSION ORDER SET PLATELET PRODUCT FOR INFUSION		
MERCY TEST NAME	PLATLTS FOR INFUS	MERCY LAB CODE	TPLT

Comment: A Platelet Count must also be ordered if one has not been performed at Mercy Medical Center-North Iowa within one week prior to platelet infusion. Pheresis platelets and Acrodose platelets are stocked depending upon our blood supplier's availability. Both are prestorage leukoreduced and equivalent in dosage to 6-8 random platelets.

An order for pheresis platelets may be filled with either product. If irradiation is need, indicate so in the comment field for EACH order placed. It is not sufficient to send a message to cover all orders. Call the Lab when irradiated platelets are ordered. Orders for irradiated platelets must be entered into the computer and called to the Lab no later than 1515, Monday through Friday. Special arrangements must be made if irradiated products are requested after 1515 or on weekends or holidays.

PHERESIS PLATELETS:

Order PLATELETS FOR INFUSION (TPLT)

Units ordered: The default is 1 unit. Any additional instructions, such as IRRAD (irradiation needed), can be entered also at this time. All pheresis platelets are leuko depleted and therefore a leukocyte (WBC) removal filter is not needed.

Specimen: No specimen is needed provided the patient's blood type is on file in the lab.

Processing: If RH negative units are required, they may have to be specially ordered from TBCCI.

Performed: Available stat.

CPT Code: P9019

POWERCHART NAME	PNEUMONIA PANEL PCR		
MERCY TEST NAME	PNEUMONIA PANEL PCR	MERCY LAB CODE	BFPNEU

Note: This does NOT test for SARS COVID-19.

Specimen:

- o Bronchoalveolar lavage (BAL)
- o Sputum

Stability Refrigerated for up to 1 day (2-8 °C)

Comments

- o Only order with evidence of lower respiratory tract pneumonia.
- o Do not order with Respiratory Panel PCR

Targets:

Bacteria reported with bins of 10 ⁴ , 10 ⁵ , 10 ⁶ , or ≥10 ⁷ copies/mL		
<i>Acinetobacter calcoaceticus-baumannii</i> complex	<i>Klebsiella oxytoca</i>	<i>Serratia marcescens</i>
<i>Enterobacter cloacae</i> complex	<i>Klebsiella pneumoniae</i> group	<i>Staphylococcus aureus</i>
<i>Escherichia coli</i>	<i>Moraxella catarrhalis</i>	<i>Streptococcus agalactiae</i>
<i>Haemophilus influenzae</i>	<i>Proteus</i> spp.	<i>Streptococcus pneumoniae</i>
<i>Klebsiella aerogenes</i>	<i>Pseudomonas aeruginosa</i>	<i>Streptococcus pyogenes</i>

The following atypical bacteria, viruses, and antimicrobial resistance genes are reported qualitatively:

Atypical Bacteria		
<i>Chlamydia pneumoniae</i>	<i>Legionella pneumophila</i>	<i>Mycoplasma pneumoniae</i>
Viruses		
Adenovirus	Human Rhinovirus/Enterovirus	Parainfluenza Virus
Coronavirus	Influenza A	Respiratory Syncytial Virus
Human Metapneumovirus	Influenza B	
Antimicrobial Resistance Genes		
CTX-M	NDM	<i>mecA/C</i> and MREJ
IMP	OXA-48-like	
KPC	VIM	

Performed: Within 8 hours of receipt. Available stat.

Referenced Value: Not Detected

Complete report will be scanned into EMR

Method: Polymerase chain reaction (PCR)

CPT Code: 87633 or 87631 (Medicare/Medicaid)

POWERCHART NAME	PORPHYRIN QUANTITATIVE FRACTION 24 HOUR URINE		
MERCY TEST NAME	PORPHY QNT 24UR*	MERCY LAB CODE	PRPQ

Patient preparation: Patient should abstain from alcohol for 24 hours prior to, as well as during, collection. Include a list of medications the patient is currently taking.

Includes: Uroporphyrins, heptacarboxylporphyrins, hexacarboxylporphyrins, tricarboxyl, pentacarboxylporphyrins, coproporphyrins and porphobilinogen.

Specimen:

- 24-hour urine specimen.
- **Add 5-gram sodium carbonate as a preservative BEFORE starting the collection. * DO NOT substitute sodium bicarbonate for sodium carbonate.**
- Refrigerate during collection.
- **PROTECT FROM LIGHT** specimen must be collected in amber colored 24-hour container and aliquoted in amber colored bottle or covered in foil.
- pH of specimen must be >7.0.

Processing:

- Aliquot 20-50 ml and indicate total 24-hour volume.
- Send **frozen** to Mayo. Mayo order code (PQNU).

Performed: 2-3 days. Test set up Monday through Friday; 7 a.m.

Reference value: Included with report

Method: High-Performance Liquid Chromatography (HPLC) with Fluorometric Detection.

CPT Code: 84120 Porphyrins, Quantitative and Fractionation
 84110 Porphobilinogen, Quantitative

POWERCHART NAME	PORPHYRIN QUANTITATIVE FRACTION RANDOM URINE		
MERCY TEST NAME	PORPHY QNT RNDM UR*	MERCY LAB CODE	PORPHR

Specimen:

- 20 - 50 mL random urine.
- **PROTECTED FROM LIGHT.**
- **Note:** Patient should abstain from alcohol 24 hours prior to collection. Please include list of medications the patient is currently taking and forward with the specimen.

Processing:

- Specimen should be sent frozen **within 72 hours** to Mayo in a amber vial to **PROTECT FROM LIGHT.**
- Mayo order code (**PQNRU**).

Reference value: Included with report

Method: High Performance Liquid Chromatography with Fluorometric Detection (HPLC)

CPT Code: 84120 Porphyrins
 84110 Porphobilinogen

POWERCHART NAME	POTASSIUM LEVEL		
MERCY TEST NAME	POTASSIUM	MERCY LAB CODE	K

Specimen: 0.5 ml serum
 Stability: Serum may be stored for up to 7 days at 2-8°C or stored frozen for up to 30 days at -20°C.
 Comment: Thawed or frozen specimens which are turbid must be clarified by centrifugation prior to testing.
 Performed: Within 8 hours of receipt. Available stat.
 Reference Range: 0 - 2 days: 3.7 - 5.9 mmol/L
 3 days - 11 months: 4.1 - 5.3 mmol/L
 1 - 12 years: 3.4 - 4.7 mmol/L
 > 12 years: 3.5 - 5.1 mmol/L

Method: The methods for measurement of electrolytes include flame photometry, spectrophotometry and direct or indirect ion selective electrode potentiometry.
 The A-LYTE Na, K, and Cl assays use indirect Integrated Multisensor Technology (IMT). There are four electrodes used to measure electrolytes. Three of these electrodes are ion-selective for sodium, potassium, and chloride. A reference electrode is also incorporated in the multisensor.

CPT Code: 84132

POWERCHART NAME	POTASSIUM RANDOM URINE		
MERCY TEST NAME	POTASSIUM R UR	MERCY LAB CODE	UK

Specimen: 5 ml random urine.
 Stability: Urine may be stored for up to 7 days at 2-8°C or stored frozen for up to 30 days at -20°C.
 Performed: Within 8 hours of receipt. Available stat.

Reference Range: No established reference range available. Random urine potassium values average 40 mmol/L. These values are diet dependent. Longer 12- or 24-hour urine collections are preferred.

Method Description: The methods for measurement of electrolytes include flame photometry, spectrophotometry and direct or indirect ion selective electrode potentiometry. The A-LYTE Na, K, and Cl assays use indirect Integrated Multisensor Technology (IMT). There are four electrodes used to measure electrolytes. Three of these electrodes are ion-selective for sodium, potassium, and chloride. A reference electrode is also incorporated in the multisensor.

CPT Code: 84133 Potassium Urine

POWERCHART NAME	POTASSIUM 24 HOUR URINE		
MERCY TEST NAME	POTASSIUM 24 UR	MERCY LAB CODE	VK

Specimen: 5 ml of urine from an unpreserved, refrigerated, 24-hour urine specimen.

Stability: Twenty-four-hour urine collection should be made without addition of preservatives. Store refrigerated at 2-8°C or frozen for delayed analysis.

Performed: Within 8 hours of receipt. Available stat.

Reference Range: Potassium:25-125 mmol/24 HR

Method Description: The methods for measurement of electrolytes include flame photometry, spectrophotometry and direct or indirect ion selective electrode potentiometry. The A-LYTE Na, K, and Cl assays use indirect Integrated Multisensor Technology (IMT). There are four electrodes used to measure electrolytes. Three of these electrodes are ion-selective for sodium, potassium, and chloride. A reference electrode is also incorporated in the multisensor.

CPT Code: 84133

POWERCHART NAME	PREALBUMIN		
MERCY TEST NAME	PREALBUMIN	MERCY LAB CODE	PAB

Specimen: 0.5 ml serum
Stability: Separated specimens may be stored for up to 8 hours at room temperature or for up to 2 days at 2-8°C or stored frozen at -20°C or colder.

Performed: Within 8 hours of receipt. Available Stat
Reference Range: 17-34 mg/dl
Method: The Atellica® CH Prealbumin (PreAlb) assay measures prealbumin in serum by an
Description: immunoturbidimetric assay.
CPT Code: 84134

POWERCHART NAME	PRE-ECLAMPTIC PANEL		
MERCY TEST NAME	PRE-ECLAMPTIC PNL	MERCY LAB CODE	PEPN

Specimen: Whole blood from EDTA tube and 0.5 ml serum
Stability: EDTA tube: 36 hours room temp or refrigerated, and serum may be stored for up to 8 hours at room temperature or for up to 2 days at 2-8°C or stored frozen at -20°C or colder.

Comment: Includes CBC with automated diff, ALT, AST, LD, Uric Acid, and Creatinine
Performed: Within 8 hours of receipt. Available stat.

Reference Range: See individual test entry.

Method

See individual test entry.

Description:

CPT Code:

85025 CBC

84460 ALT

84550 Uric Acid

84450 AST

82565 Creat

83615 LD

POWERCHART NAME	PREGNANCY TEST QUALITATIVE SERUM		
MERCY TEST NAME	PREG TEST SERUM	MERCY LAB CODE	HCGS

Specimen:

- Preferred: 1 ml serum from a Serum Separator Tube (SST).
- Hemolysis and icterus do not interfere with testing.

Cause for
rejection:

Plasma is not acceptable.

Stability:

8 hours room temp, 48 hours refrigerated, freeze if >48 hours. May be frozen only once.

Performed:

Within 8 hours of receipt. Available stat

Reference value:

Negative: Non-pregnant females and healthy males

Positive: HCG present is equal to or greater than 10 MIU/ML

Method:

Immunoassay with monoclonal antibody.

CPT Code:

84703

POWERCHART NAME	PREGNANCY TEST URINE		
MERCY TEST NAME	PREG TEST UR QAL	MERCY LAB CODE	HCGU

Specimen: 5 ml fresh urine specimen (first AM specimen preferred)
Stability: 48 hours refrigerated.
Performed: Within 8 hours of receipt. Available stat.
Reference value: Negative: Non-pregnant females and healthy males
Positive: HCG present is equal to or greater than 10 MIU/mL

Method: Immunoassay with monoclonal antibody.
CPT Code: 81025

POWERCHART NAME	PRENATAL PANEL WITH HIV		
MERCY TEST NAME	PRENATAL PROFILE (WITH HIV)	MERCY LAB CODE	PTY5 & PNP

Includes: Rubella Ab IgG
CBC with Diff
Hep B Surface Ag (HBsAg)
HIV 1 & 2 Ab
Syphilis Total Ab
ABO Group/RH Type

Antibody screen, Antibody ID (when antibody screen is positive)

Comment: Blood Bank Antibody titer is not included. If desired, it must be ordered separately by the physician.

All reflex testing will be completed at an additional charge. This includes the following:

- Antibody screen is positive; the antibody ID will be done.
- HIV test is positive; a HIV evaluation will be done.
- Hep B Surface Ag is positive, neutralization testing will be done.
- Syphilis test is positive, RPR testing will be done.

Specimen: Two 8.5 mL Serum Separator Tubes (SST), One 6 mL pink top (EDTA) tube, and one 3 mL purple top (EDTA) tube.

Specimen Minimums:

Pink tube: 2 mL for ABO/RH & Antibody Screen.

Purple tube: 1 mL for CBC. May also use a capillary tube minimum of 300 mcl.

SST tube: 3-4 mL serum.

Processing: CBC is stable 36 hours at either room temperature or refrigerated.
HBsAg, HIV, Syphilis, and Rubella: Centrifuge within 6 hours of draw and leave in original tube.
-**Label 1st tube:** HBsAg & HIV. **Label 2nd tube:** Rubella & Syphilis.

Type & Screen: One Pink top tube, centrifuged, **Do NOT Aliquot.**

Performed: Type & Screen: Daily.
Syphilis: Monday-Friday 0800 cutoff.
Rubella, HIV, and HBsAg: Within 8 hours of receipt.
CBC: Within 8 hours of receipt.

Reference value: See individual test entries.

Method: See individual test entries.

CPT Code: 85025 CBC with Diff
87340 Hepatitis B Surface Ag
87389 HIV 1 & 2 Ab
86762 Rubella Ab IgG
86780 Treponema Pallidum (Syphilis)
86850 Antibody Screen RBC
86900 Blood Typing ABO
86901 Blood Typing RH (D)

POWERCHART NAME	PRENATAL PANEL (NO HIV)		
MERCY TEST NAME	PRENATAL PROF (NO HIV)	MERCY LAB CODE	PNPO & PTYS

Includes:

- Rubella Ab IgG
- CBC with Diff
- Hep B Surface Ag (HBsAg)
- Syphilis Total Ab
- ABO Group/RH Type
- Antibody screen, Antibody ID (when antibody screen is positive)

Comment: Blood Bank Antibody titer is not included. If desired, it must be ordered separately by the physician.

All reflex testing will be completed at an additional charge. This includes the following:

- Antibody screen is positive; the antibody ID will be done.
- Hep B Surface Ag is positive, neutralization testing will be done.
- Syphilis test is positive, RPR testing will be done.

Reference Lab Clients: Please specify on order form **PNP/NO HIV**. If nothing is specified, a Prenatal Profile with HIV will be done.

Specimen: Two 8.5 mL Serum Separator Tubes (SST), One 6 mL pink top (EDTA) tube, and one 3 mL purple top (EDTA) tube.

Specimen Minimums:

Pink tube: 2 mL for ABO/RH & Antibody Screen.

Purple tube: 1 mL for CBC. May also use a capillary tube minimum of 300 mcl.

SST tube: 3-4 mL serum.

Processing: CBC is stable 36 hours at either room temperature or refrigerated.

HBsAg, Syphilis, and Rubella: Centrifuge within 6 hours of draw and leave in original tube.

-**Label 1st tube:** HBsAg. **Label 2nd tube:** Rubella & Syphilis.

Type & Screen: One Pink top tube, centrifuged, **Do NOT Aliquot.**

Performed: Type & Screen: Daily.

Syphilis: Monday-Friday 0800 cutoff.

Rubella and HBsAg: Within 8 hours of receipt.

CBC: Within 8 hours of receipt.

Reference value: See individual test entries.

Method: See individual test entries.

CPT Code: 85025 CBC with Diff
 87340 Hepatitis B Surface Ag
 86762 Rubella Ab IgG
 86780 Treponema Pallidum (Syphilis)
 86850 Antibody Screen RBC
 86900 Blood Typing ABO
 86901 Blood Typing RH (D)

POWERCHART NAME	PRIMIDONE (MYSOLINE) WITH PHENOBARBITAL LEVEL		
MERCY TEST NAME	PRIMIDON PHENOBRB*	MERCY LAB CODE	PRIM

Comments: **DO NOT order an additional Phenobarbital.** Indicate time last dose in the comment field.

Specimen: 0.5 ml serum from a Serum Separator Tube (SST). Send specimen Refrigerated. Mayo order code (**PRMB**).

Performed: 1 day. Monday through Sunday.

Reference value: Included with test results.

Method: Immunoassay

CPT Code: 80188 Primidone
80184 Phenobarbital

POWERCHART NAME	PROCALCITONIN LEVEL		
MERCY TEST NAME	PROCALCITONIN	MERCY LAB CODE	PCTB

Specimen: 0.5 mL of serum

Stability: Do not use samples that have been stored at room temperature for longer than 8 hours.

Tightly cap and refrigerate specimens at 2–8°C if the assay is not completed within 8 hours. Freeze samples at ≤ -20°C if the sample is not assayed within 48 hours. Freeze samples up to 5 times and mix thoroughly after thawing.

Performed: Within 8 hours of receipt. Available stat.

Reference Range: 0-0.10 ng/mL

Method: The Atellica IM BRAHMS PCT assay is a 2-site sandwich immunoassay using direct chemiluminescent technology that uses 3 mouse monoclonal antibodies specific for PCT.

CPT Code: 84145

POWERCHART NAME	PROCESSING COLLECTION KIT		
MERCY TEST NAME	PROCESSING CHG	MERCY LAB CODE	PRCS

Comment: To be ordered on any specimen collected for shipping and testing at an outside facility when the order and results are not handled through Mercy.

POWERCHART NAME	PROGESTERONE LEVEL		
MERCY TEST NAME	PROGESTERONE	MERCY LAB CODE	PROG

Specimen: 0.5 ml serum

Stability: Do not use samples that have been stored at room temperature for longer than 8 hours. Tightly cap and refrigerate specimens at 2–8°C if the assay is not completed within 8 hours. Freeze samples at ≤ -20°C if the sample is not assayed within 48 hours. Freeze samples only 1 time and mix thoroughly after thawing.

Comment: Storing progesterone samples in gel barrier tubes can affect progesterone results. Progesterone samples collected in gel barrier tubes should be tested within 24 hours.

Performed: Within 8 hours of receipt. *Available stat.*

Reference Range: Male: 0 - 1 years: 0.87 - 3.37 ng/ml
 Male: 2 - 9 years: 0.12 - 0.14 ng/ml
 Male: 10 - 18 years: Adult levels are attained by puberty
 Male, adult: 0.1 - 2.1 ng/ml
 Female: 0 - 1 years: 0.87 - 3.37 ng/ml
 Female: 2 - 9 years: 0.20 - 0.24 ng/ml
 Female: 10 - 18 years: Values increase through puberty and adolescence.
 Non-pregnant female: mid-follicular phase: 0.3 - 1.5 ng/ml.
 mid-Luteal phase: 5.2 - 18.6 ng/ml

Post menopausal, (not on hormone replacement therapy):
 Pregnant female: first trimester: 4.7 - 50.7 ng/ml.
 second trimester: 19.4 - 45.3 ng/ml.

Method: The Atellica IM PRGE assay is a competitive immunoassay using direct chemiluminescent
 Description: Technology.
 CPT Code: 84144

POWERCHART NAME	PROLACTIN LEVEL		
MERCY TEST NAME	PROLACTIN	MERCY LAB CODE	PRL

Specimen: 0.5 ml serum
 Stability: Do not use samples that have been stored at room temperature for longer than 8 hours. Tightly cap and refrigerate specimens at 2–8°C if the assay is not completed within 8 hours. Freeze samples at ≤ -20°C if the sample is not assayed within 48 hours. Freeze samples only 1 time and mix thoroughly after thawing.
 Comment: Pregnancy, lactation, and the administration of oral contraceptives can increase prolactin concentrations.
 Performed: Within 8 hours of receipt. Available stat.
 Reference Range: Male: 2.6 - 13.1 ng/ml
 Female: >50 years: 2.7 - 19.6 ng/ml
 ≤50 years: 3.3 - 26.7 ng/ml

Method Description: The Atellica IM Prolactin assay is a 2-site sandwich immunoassay using direct chemiluminescent technology, which uses constant amounts of 2 antibodies.

CPT Code: 84146

POWERCHART NAME	PROSTATIC ACID PHOSPHATASE		
MERCY TEST NAME	PROSTATIC ACID PHOS*	MERCY LAB CODE	ACPH

Specimen: 1 ml serum from a Serum Separator Tube (SST).
Processing: Send refrigerated to Mayo. Mayo test code (**PACP**).
Performed: 1-3 days. Test set up Monday through Friday; 5 a.m.- 12 a.m., Saturday; 6 a.m.- 6 p.m..
Reference value: Included in report.
Method: Automated Chemiluminescent Immunometric Assay.
CPT Code: 84066

POWERCHART NAME	PROTEINASE 3 AUTOANTIBODY		
MERCY TEST NAME	PROTEINASE 3 AB*	MERCY LAB CODE	PRT3AB

Comment: If Cytoplasmic Neutrophil ABS is ordered and p-ANCA is positive, Proteinase 3 Autoantibodies will be done and charged per Mercy Medical Center - North Iowa Lab policy. Test is also included in Cytoplasmic Neutrophil Antibodies Vasculitis Panel. (VAPNL)

Specimen: 0.5 mL serum from a Serum Separator Tube (SST) or no additive serum tube.
Processing: Send refrigerated to Mayo. Mayo order code (**PR3**).

Performed: 1 day. Monday through Saturday.
 Reference Value: Reference ranges included with results.

Method: Multiplex flow immunoassay.
 CPT Code: 83516

POWERCHART NAME	PROTEIN C ACTIVITY		
MERCY TEST NAME	PROTEIN C ACTIVITY*	MERCY LAB CODE	PRTCA

Specimen: 1 mL platelet-poor plasma from blue top (citrate) tube.
 Processing: Double spin specimen to ensure that all platelets are removed:

- Centrifuge specimen.
- Aliquot plasma (leaving some above the cells) to a plastic centrifuge tube.
- Centrifuge the aliquot tube.
- Pipette plasma (leaving some above the bottom of the tube) to another plastic aliquot tube.
- Send frozen to Mayo. Mayo order code (**CFX**).

Performed: 1 - 3 days. Monday through Friday.
 Reference value: Included with test results.
 Method: Amylolyis of Chromogenic Substrate
 CPT Code: 85303

POWERCHART NAME	PROTEIN C ANTIGEN
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MERCY TEST NAME	PROTEIN C AG*	MERCY LAB CODE	PCAG
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Note: Due to manufacturer supply backorder at Mayo, PCAG is temporarily unavailable. Recommended alternative test is Mayo: FPCTA. **Order CMIS: FPCTA** (Protein C, Total Antigen). See Mayo Lab Test Index for specimen requirements.

POWERCHART NAME	PROTEIN CREATININE RATIO RANDOM URINE		
MERCY TEST NAME	PROTEIN/CREATININE RATIO URINE	MERCY LAB CODE	UPCRTO

Specimen: 5 ml random urine

Stability: Urine specimens may be stored for up to 4 days at 2-8°C or stored frozen at or below -20°C.

Performed: Within 8 hours of receipt. Available stat.

Reference Range: Protein Random Urine: 0 - 13.5 mg/dl
Creatinine Random Urine: no reference value available
Protein/Creatinine Ratio Urine:>3.5 is in the nephrotic range.

Method: See individual test entry.

Description:

CPT Code: 82570 Creatinine Urine
84156 Protein Total Urine

POWERCHART NAME	PROTEIN S ACTIVITY		
MERCY TEST NAME	PROTEIN S ACTIVITY*	MERCY LAB CODE	PRSA

Specimen: 1 mL platelet-poor plasma from blue top (citrate) tube.

Processing: Double spin specimen to ensure that all platelets are removed:

- Centrifuge specimen.
- Aliquot plasma (leaving some above the cells) to a plastic centrifuge tube.
- Centrifuge the aliquot tube.
- Pipette plasma (leaving some above the bottom of the tube) to another plastic aliquot tube.
- Send frozen to Mayo. Mayo test code (**SFX**).

Performed: 1 - 4 days. Monday through Friday.

Reference value: Included with test results.

Method: Optical Clot-Base

CPT Code: 85306

POWERCHART NAME	PROTEIN S ANTIGEN		
MERCY TEST NAME	PROTEIN S ANTIGEN*	MERCY LAB CODE	PSAG

Specimen: 1.0 mL platelet-poor plasma from blue top (citrate) tube. Must send 0.5 mL in 2 separate aliquot tubes.

Processing: Double spin specimen to ensure that all platelets are removed:

- Centrifuge specimen
- Aliquot plasma (leaving some above the cells) to a plastic centrifuge tube.
- Centrifuge the aliquot tube.
- Pipette plasma (leaving some above the bottom of the tube) to another plastic aliquot tube.
- Send frozen to Mayo. Mayo order code - **(PSTF)**

Comment If this initial Protein S Antigen free testing is abnormal, the Protein S Antigen Total will be performed at an additional charge.

Performed: 1 - 3 days. Monday through Friday

Reference value: Included in report

Method: Automated Latex Immunoassay (LIA)

CPT Code: 85306 Free Protein S Antigen
85305 Protein S Antigen Total (If Appropriate)

POWERCHART NAME	PROTEIN		
MERCY TEST NAME	PROT TTL	MERCY LAB CODE	TP

Specimen: 0.5 ml serum

Stability: Separated specimens may be stored for up to 8 hours at room temperature⁶ or for up to 3 days at 2–8°C or stored frozen for up to 180 days at -20°C.

Performed: Within 8 hours of receipt. Available Stat.

Reference Range: <1 month: 4.4 - 7.6 g/dl
1 -3 months: 4.2 - 7.4 g/dl
4 - 11 months: 5.6 - 7.2 g/dl
≥ 1 year: 5.7 - 7.8 g/dl

Method Description: The Atellica CH Total Protein II (TP) assay is based on the method of Weichselbaum using biuret reagent.

CPT Code: 84155

POWERCHART NAME	PROTEIN BODY FLUID		
MERCY TEST NAME	PROT TTL BF	MERCY LAB CODE	FPRT

Specimen: 1 ml body fluid placed in a sterile container
Stability: Analyze fresh specimens or store at 4°C for less than 72 hours. Frozen specimens are stable at -20°C for 6 months.
Comment: Indicate specimen source in comment field. Centrifuge before analysis.
Performed: Within 8 hours of receipt. Available Stat.
Reference Range: No established reference range available.

Method Description: The Atellica CH UCFP assay is an adaptation of pyrogallol red-molybdate method.
CPT Code: 84157

POWERCHART NAME	PROTEIN CSF		
MERCY TEST NAME	PROT TTL CSF	MERCY LAB CODE	CPRT

Specimen: 0.5 ml spinal fluid.

Stability: Analyze fresh specimens or store at 4°C for less than 72 hours. Frozen specimens are stable at -20°C for 6 months.

Comment: Centrifuge every CSF specimen and analyze the supernatant. Specimens should not contain blood and should avoid hemolysis.

Performed: Within 8 hours of receipt. Available stat

Reference Range: 0-3 months: 20-100 mg/dl
>3 months: 15-45 mg/dl

Method Description: The Atellica CH UCFP assay is an adaptation of pyrogallol red-molybdate method.

CPT Code: 84157

POWERCHART NAME	PROTEIN 24 HOUR URINE		
MERCY TEST NAME	PROT TTL 24UR	MERCY LAB CODE	VPRT

Specimen: 5 mL of urine from an unpreserved 24-hour urine specimen that was refrigerate during collection.

Stability: After 24 hours, store urine aliquots at 2-4°C for < 72 hours or frozen at -20°C for up to 1 year.

Performed: Within 8 hours of receipt. Available stat.

Reference Range: 0 - 150 mg/24 hours

Method Description: The Atellica CH UCFP assay is an adaptation of pyrogallol red-molybdate method.

CPT Code: 84156

POWERCHART NAME	PROTEIN RANDOM URINE		
MERCY TEST NAME	PROT TTL R UR	MERCY LAB CODE	UPRT

Specimen: 5 ml random urine.
Stability: After 24 hours, store urine aliquots at 2–4°C for < 72 hours or frozen at -20°C for up to 1 year.
Performed: Within 8 hours of receipt. Available stat.
Reference Range: 0 - 13.5 mg/dl
Method Description: The Atellica CH UCFP assay is an adaptation of pyrogallol red-molybdate method.
CPT Code: 84156

POWERCHART NAME	PROTHROMBIN G20210A MUTATION		
MERCY TEST NAME	PROTHROMBIN G20210*	MERCY LAB CODE	PTG202

Patient Preparation: A previous bone marrow transplant from an allogenic donor will interfere with testing. Call 800-533-1710 for instructions for testing patients who have received a bone marrow transplant.
Specimen: 3 ml whole blood in an EDTA tube.
Processing: **Send ambient in original tube. DO NOT ALIQUOT.** Mayo order code (PTNT). **Coagulation Consultation Patient Information Sheet** must be sent with specimen.
Performed: 3-5 days, weekly.
Reference Value: Included with test results
Method: Direct Mutation Analysis

CPT Code: 81240

POWERCHART NAME	PROTIME		
MERCY TEST NAME	PROTIME INR	MERCY LAB CODE	PTR

Specimen: Draw a blue top tube (3.2% Citrate) filled appropriately with amount of blood listed on label.

Cause for rejection: Improperly filled tubes will NOT be tested. Gross hemolysis unacceptable.

Processing: **Store refrigerated.** Unopened, unspun tubes are stable 24 hours from time of collection. If the order is for **only** a Protime, freeze if testing will not be done within 24 hours. Freeze plasma if testing not done within **4 hours of collection if a PTT is also ordered.** Label frozen vial "CITRATED PLASMA". **NOTE:** Specimens for PTT MUST be removed from cells and tested within 4 hours of collection or frozen.

Double spin coagulation specimens to ensure that all platelets are removed: 1. Centrifuge specimen. Aliquot plasma (leaving some above the cells) to a plastic centrifuge tube. 2. Centrifuge the aliquot tube. Pipette plasma (leaving some above the bottom of the tube) to another plastic aliquot tube. 3. Store plasma as required for the test ordered.

Performed: Within 8 hours of receipt. Available stat.

Reference value: Protime INR Normal range (for patient not receiving anticoagulant): 0.8 - 1.2

Therapeutic range: Protime INR range:
2.0 - 3.0

Indications:

Prophylaxis and treatment of venous thrombosis

Treatment of pulmonary embolism

Prevention of systemic embolism

Tissue heart valves

INR range: 3.0 - 4.5

Acute myocardial infarction
Valvular heart disease
Atrial fibrillation (valvular and nonvalvular)
Indications:
Recurrent systemic embolism
Mechanical prosthetic valves
(recommendation currently under review)

PT in seconds: 9.5 – 13.3

Method: Photo-optical Clot Detection
CPT Code: 85610

POWERCHART NAME	PROTIME		
MERCY TEST NAME	PROTIME- POINT OF CARE	MERCY LAB CODE	PTR

Specimen: Fingerstick specimen obtained off first drop of blood or venous specimen collected in a non-heparinized syringe.

Cause for rejection: Results greater than or equal to 6.0 will require a lab draw to be ran on the analyzer. Clinic performed INR testing: Refer to the specific clinic procedure for the INR threshold that will require a venipuncture specimen for analysis.

Reference value: Protime INR Normal range (for patient not receiving anticoagulant): 0.8 - 1.2

Method: Point of Care
CPT Code: 85610

POWERCHART NAME	PSA DIAGNOSTIC		
MERCY TEST NAME	PSA	MERCY LAB CODE	PSA

Specimen: 0.5 ml serum

Stability: Tightly cap and refrigerate specimens at 2–8°C if the assay is not completed within 8 hours. Freeze samples at ≤ -20°C if the assay is not completed within 48 hours. Do not store in a frost-free freezer. Freeze samples only 1 time and mix thoroughly after thawing.

Comment: Do not use specimens that have been stored at room temperature for longer than 8 hours.

Obtain Specimen before prostate manipulation procedures.

Performed: Within 8 hours of receipt. Available stat.

Reference value: **MALE**

0 - 49: 0 - 2.5 ng/ml
50 - 59: 0 - 3.5 ng/ml
60 - 69: 0 - 4.5 ng/ml
> 69: 0-6.5 ng/ml

Method Description: The Atellica IM PSA assay is a 2-site sandwich immunoassay using direct chemiluminescent technology, which uses constant amounts of 2 antibodies.

CPT Code: 84153

POWERCHART NAME	PSA SCREENING		
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MERCY TEST NAME	PSAS	MERCY LAB CODE	PSAS
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Specimen: 0.5 ml serum

Stability: Tightly cap and refrigerate specimens at 2–8°C if the assay is not completed within 8 hours. Freeze samples at ≤ -20°C if the assay is not completed within 48 hours. Do not store in a frost-free freezer. Freeze samples only 1 time and mix thoroughly after thawing.

Comment: ****Only for Medicare Screening**** The screening prostate specific antigen PSAS test should be ordered only if **all** the following conditions are true:

Patient is 50 years of age or older.
Test is being ordered for screening (no medically necessary signs, symptoms, or diagnosis on the Local Medical Review Policy).
At least 12 months have passed following the month in which the last PSAS was performed.
Do not use specimens that have been stored at room temperature for longer than 8 hours.
Obtain Specimen before prostate manipulation procedures.

Performed: Within 8 hours of receipt. Available stat.

Reference value: **MALE**
0 - 49: 0 - 2.5 ng/ml
50 - 59: 0 - 3.5 ng/ml
60 - 69: 0 - 4.5 ng/ml
> 69: 0 - 6.5 ng/ml

Method Description: The Atellica IM PSA assay is a 2-site sandwich immunoassay using direct chemiluminescent technology, which uses constant amounts of 2 antibodies.

CPT Code: 84153
G0103

POWERCHART NAME	PSA FREE AND TOTAL		
MERCY TEST NAME	PSA, TOTAL/FREE*	MERCY LAB CODE	FP5A

Specimen: 1.0 ml serum from a Serum Separator Tube (SST) or no additive serum tube.
Processing: Send frozen to Mayo, (**PSAFT**).
Performed: 3 days. Monday through Saturday
Reference value: Included in report.
Method: *Electrochemiluminescent Immunoassay (ECLIA)*

CPT Code: 84153 PSA, Total
84154 PSA, Free

POWERCHART NAME	PSEUDOCHOLINESTERASE		
MERCY TEST NAME	PSUDOCOLNSTRAS TTL*	MERCY LAB CODE	CLNS

Specimen: 1.0 ml serum from a Serum Separator Tube (SST) or no additive serum tube.
Processing: Sent **refrigerated** to Mayo. Mayo order code (PCHE1).
Performed: 1-2 days, Monday through Sunday; continuously.

Reference value: Included with test results.

Method: Colorimetric Assay

CPT Code: 82480

POWERCHART NAME	PTT Partial Thromboplastin Time (aPTT)		
MERCY TEST NAME	PTT (Partial Thromboplastin Time)	MERCY LAB CODE	PTT

Specimen: Draw a blue top tube (3.2% citrate) filled appropriately with amount of blood listed on label.

Cause for rejection: Improperly filled tubes will NOT be tested. Avoid gross hemolysis.

Processing: **In-house patients:** Centrifuge immediately. Refrigerate. Test within 4 hours of collection.

if testing will be delayed longer than 4 hours. Double spin coagulation specimens to ensure that all platelets are removed:

- Centrifuge specimen. Aliquot plasma (leaving some above the cells) to a plastic centrifuge tube.
- Centrifuge the aliquot tube. Pipette plasma (leaving some above the bottom of the tube) to another plastic aliquot tube.
- Store plasma in freezer. Label aliquot vial "CITRATED PLASMA."

Regional Lab Clients:

- Centrifuge immediately.
- Aliquot specimen (leaving some above the cells) to a plastic centrifuge tube.

- Centrifuge the aliquot tube. Pipette plasma (leaving some above the bottom of the tube) to another plastic aliquot tube.
- Send refrigerated if testing can be performed within 4 hours of collection.
- If testing will not be performed within 4 hours freeze specimen and send frozen.
- Label aliquot vial "CITRATED PLASMA."

Performed: Within 8 hours of receipt. Available stat.

Reference value: 23.2-34.2 seconds. Applies only to PTT performed at MMC-NI using IL reagent SynthASil lot # N0670635.

Therapeutic range: 60-102 seconds. Applies only to PTT performed at MMC-NI using IL reagent SynthASil lot # N0670635.

Method: Photo-optical clot detection.

CPT Code: 85730

POWERCHART NAME	RENAL FUNCTION PANEL		
MERCY TEST NAME	RENAL (Kidney) FUNCTION PANEL	MERCY LAB CODE	RPNL

Specimen: 0.5 ml serum

Stability: Serum may be stored for up to 7 days at 2-8°C or stored frozen for up to 30 days at -20°C.

Comment: Includes: Albumin, Anion Gap, BUN, Bun/Creatinine Ratio, Calcium, CO2, Chloride, Creatinine, eGFR, Glucose, Phosphorus, Potassium, Sodium

Thawed or frozen specimens which are turbid must be clarified by centrifugation prior to testing.

Performed: Within 8 hours of receipt. Available stat.

Reference Range: See individual test entry.

Method See individual test entry.

Description:

CPT Code: 80069

POWERCHART NAME	RENIN LEVEL		
MERCY TEST NAME	RENIN ACTIVITY*	MERCY LAB CODE	RNN

Comment: There can be 2 types of specimens drawn. Please check orders carefully as there are different requirements for each specimen type.

non-venous specimens: Schedule with Radiology and indicate in the comment field if specimen is to be other than venous collection. Consult Lab for patient preparation.

Venous specimens: Enter in comment field: venous specimen. Consult lab for patient preparation.

Specimen: **Non-venous:** Lab is to draw in conjunction with radiology procedure. Need 2 ml plasma from **pre-chilled purple top tubes**. Draw blood with chilled syringe, from a patient in a seated position, place in chilled tube, mix immediately and place in an ice water bath until thoroughly chilled.

Venous: Need 2 ml plasma from **pre-chilled purple top tubes**. Draw with a vacutainer from patient in seated position.

Mix immediately and place in an ice water bath until thoroughly chilled.

Processing: Centrifuge in refrigerated centrifuge. Separate immediately and freeze. Indicate specimen source on specimen tube and on order form. Send frozen to Mayo. Mayo order code PRA.

Mercy Lab Processing Note: Due to volumes showing that we are now only using a single peripheral collection, the source has been hidden on the report and no longer needs to be resulted. However, if a patient should require collections during a procedure that are non-venous, the result of HIDE will need to be changed to the specific source of collection.

Performed: 2-5 days. Test set up Monday through Friday ;1 p.m.
Reference value: Included with test results
Method: Liquid Chromatography - Tandem Mass Spectrometry (LC-MS/MS)
CPT Code: 84244

POWERCHART NAME	RESPIRATORY CULTURE + SMEAR DIRECT OTHER		
MERCY TEST NAME	RESP UP CLT/GS	MERCY LAB CODE	RESP

Order: Specify site when ordering.

Specimen: Nasopharyngeal, Nose or Sputum

- **Nasopharyngeal:** Use a Mini-Tip Culturette to collect. Insert swab gently through the nose to the posterior nasopharynx. Gently rotate the swab. After several seconds, gently withdraw the swab. Insert the swab back into the Culturette tube. **Specimen stability: ≤24 hours room temperature**
- **Nose:** Submit specimen on a swab(s) in a double Culturette. **Specimen stability: ≤24 hours room temperature.**

- **Sputum:** 2 ml minimum. Submit in a sterile plastic container with a tight-fitting lid. The specimen of choice is an expectorant obtained after a deep cough, preferably early in the morning. The patient should avoid contaminating the specimen with saliva. **Specimen stability: Expecterated sputum: ≤24 hours 4°C Induced sputum: ≤24 hours room temperature**
- **Sinus & Sinus meatus:** Collected by ENT physician, using the ESWAB specimen collection device. **Specimen stability: deliver to lab same day as collection.**

THROAT specimens are not an acceptable specimen for a Respiratory culture. If a throat specimen is collected, please contact the microbiology lab for other order options.

Comments:

- Gram stain is done to assess sputum quality using the following criteria:
 - >25 epithelial cells/low power field: The specimen is UNACCEPTABLE for culture due to the large number of squamous epithelial cells present. This is indicative of saliva. The specimen must be recollected for culture. Nursing personnel will be notified by the laboratory.
 - 11-25 epithelial cells/low power field: The specimen is probably a mixture of lower respiratory secretions and saliva. The culture will be done, but results may be unreliable.
 - 0-10 epithelial cells/low power field: This is indicative of a good specimen. Culture will be processed.
 - Sinus Cultures are held for 7 days, and all bacterial growth is identified. Susceptibility testing is done when possible.
 - The gram stain report will also indicate the amount of epithelial cells seen, the amount of WBCs, and any bacteria that may be present.
 - Susceptibility testing will be routinely performed on significant isolates.
 - Mark RESPIRATORY UPPER CULTURE/GRAM STAIN on order form.
- Write collection site on SOURCE line.
If ordering in the computer, order test code RESP

RL Client

Comments:

Method: Standard culture techniques

Reference value: Normal flora of the upper respiratory tract

Performed: Gram stain: Within 1 day
Preliminary report: 1 day
Final report: 2 days

CPT Code: 87205 Gram Stain
87070 Resp Up Clt

POWERCHART NAME	RESPIRATORY PANEL PCR with COVID-19		
MERCY TEST NAME	RESP PNL COVID19	MERCY LAB CODE	BFRESC
Note:	This DOES INCLUDE test for SARS COVID-19.		
Specimen:	Nasopharyngeal swab in transport media (VTM or ESwab) Obtain kit from Lab		
Stability	<ul style="list-style-type: none"> ○ Room temperature for up to 4 hours (15-25 °C) ○ Refrigerated for up to 3 days (2-8 °C) ○ Frozen (≤ -15 °C or ≤ -70°C) (for up to 30 days) 		
Comment:	Do not order with Pneumonia Panel PCR		

Targets:	<ul style="list-style-type: none"> ○ Adenovirus ○ Coronavirus 229E ○ Coronavirus HKU1 ○ Coronavirus NL63 ○ Coronavirus OC43 ○ Human Metapneumovirus ○ Human Rhinovirus/Enterovirus ○ Influenza A, including subtypes H1, H1-2009, and H3 ○ Influenza B ○ Parainfluenza Virus 1 ○ Parainfluenza Virus 2 ○ Parainfluenza Virus 3 ○ Parainfluenza Virus 4 ○ Respiratory Syncytial Virus ○ <i>Bordetella parapertussis</i> (IS1001) ○ <i>Bordetella pertussis</i> (ptxP) ○ <i>Chlamydia pneumoniae</i> ○ <i>Mycoplasma pneumoniae</i>
Performed:	Within 8 hours of receipt. Available stat
Reference value:	<p>Not Detected</p> <p>Complete report will be scanned into EMR</p> <p>SARS COVID-19 will be resulted discretely and found within the Cerner Powerchart Results Viewer</p>
Method:	Polymerase chain reaction (PCR)
CPT Code:	0202U

MERCY TEST NAME	RESP PROFILE REG 8	MERCY LAB CODE	RPRS
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Comment: This profile includes Immunoglobulin E, house dust mites DP, house dust mites DF, cat epithelium, dog epithelium, Bermuda grass, timothy grass, cockroach, penicillium, Cladosporium, Aspergillus fumigatus, Alternaria alternata, maple box elder, mountain cedar, white oak, elm, walnut tree, eastern sycamore, cottonwood, white ash, pecan hickory, mulberry, short ragweed, Russian thistle, rough pigweed, rough marsh elder

Specimen: 4.0 ml serum from a Serum Separator Tube (SST) or no additive serum tube.
Minimum volume calculation: (0.05ul x # of allergens) + 0.25 ul

Processing: Send refrigerated to Mayo.
Mayo test order code (**RPR8**)

Performed: 1-5 days. Test set up Monday through Friday.

Reference value: Included with report.

Method: Fluorescence Enzyme Immunoassay (FEIA)

CPT Code: 86003 x26

POWERCHART NAME	RETICULOCYTE COUNT (% AND #)		
MERCY TEST NAME	RETICULOCYTE CNT	MERCY LAB CODE	RETIC

Specimen: 1 ml whole blood from purple top tube or capillary specimen. Specimen stable 24 hours room temp and 48 hours when refrigerated.

Performed: Within 8 hours of receipt. Available stat.

Reference value: Retic %: 0.54 – 2.59
Retic Absolute: 0.019 – 0.110 m/mcl
Reticulocyte Hemoglobin (RET-He): 29.0-37.8 pg
Immature Retic Fraction: Male 2.3-13.4% Female 3.0-15.9%

Method: Sysmex XN automated hematology analyzer

CPT Code: 85045

POWERCHART NAME	RHIG ELIGIBILITY STUDIES		
MERCY TEST NAME	RHIG ADM TESTS	MERCY LAB CODE	RHEL

Comment: Ordered by Blood Bank personnel only. Will be ordered by Blood Bank personnel when RH IMMUNE GLOBULIN WORKUP indicates eligibility for RH Immune Globulin.

Includes: ABO/RH, Antibody Screen, and Fetal/Maternal Screen on the mother.

Specimen: One 6 ml Pink top tube.

Cause for rejection: Specimens collected prior to delivery are not satisfactory for the Fetal/Maternal Screen.

Performed: Within 8 hours of receipt.

Method: Serological

CPT Code: 86900 ABO+
 86901 RH+
 86850 Antibody Sc
 85461 Fetal/Mat Screen+

POWERCHART NAME	RHIG LOT NUMBER		
MERCY TEST NAME	RHIG LOT # (RH IMMUNE GLOBULIN LOT#)	MERCY LAB CODE	RHG

Comment: Please call the Lab when order is placed.

NOTE: If the mother's type is unknown, an ABO Group/Rh Type should be ordered prior to ordering RHIG. Order in the following conditions on Rh negative mothers: Per physician's order when the RHIG injection only is ordered prenatally or following miscarriage, amniocentesis, or after any event which may allow fetal cells to enter the mother's circulation. If the physician also orders an antibody screen, order Antibody Screen.

Specimen: No specimen needed.
 Performed: Within 8 hours of receipt.
 CPT Code: NA

POWERCHART NAME	RHIG STUDIES
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MERCY TEST NAME	RHIG WORKUP (RH IMMUNE GLOBULIN WORKUP or RHOGAM)	MERCY LAB CODE	RHGW
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Comment: Order on the mother after delivery. A Cord Blood Routine must be ordered on the neonate.
Includes: ABO/RH and Direct Coomb's (DAT) results for Cord Blood Routine on the neonate.
If mother is eligible for Rh immune globulin injection, Lab will order RHIG Eligibility Studies.

Specimen: None.
Performed: Within 8 hours of receipt.
Method: Decisional to establish eligibility of mother to receive RHIG.
CPT Code: NA

POWERCHART NAME	RIBOSOMAL P PROTEIN IGG ANTIBODY		
MERCY TEST NAME	RIBOSOME P AB IGG*	MERCY LAB CODE	RIBB

Specimen: 0.5 mL serum from a Serum Separator Tube (SST)
Processing: Send refrigerated to Mayo. Mayo order code (**RIB**)
Performed: 1-3 days. Monday through Saturday; 4 p.m.
Method: Multiplex Flow Immunoassay
CPT Code: 83516

POWERCHART NAME	RNA POLYMERASE III AB IGG		
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MERCY TEST NAME	RNA POLYMERASE AB*	MERCY LAB CODE	RNAP
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Specimen: 0.5 mL serum from a Serum Separator Tube (SST).
 Processing: Send refrigerated to Mayo. Mayo order code (**RNAP**)
 Performed: 1-7 days. Wednesday
 Reference Value: Included with report
 Method: Enzyme-Linked Immunosorbent Assay (ELISA)
 CPT Code: 83516

POWERCHART NAME	RNP ANTIBODIES, IGG		
MERCY TEST NAME	RNP AB IGG*	MERCY LAB CODE	RNPB

Specimen: 0.5 mL serum from a Serum Separator Tube (SST) or no additive serum tube.
 Processing: Send refrigerated to Mayo. Mayo test order code (**RNP**)
 Performed: 1-2 days. Performed Monday through Saturday; 4 p.m.
 Reference Value: Included with report
 Method: Multiplex Flow Immunoassay
 CPT Code: 86235

POWERCHART NAME	ROTAVIRUS ANTIGEN FECES		
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MERCY TEST NAME	ROTAVIRUS FECES	MERCY LAB CODE	RTAV
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Specimen: Minimum of 1 gm of a random stool specimen submitted in a clean container with a tight-fitting lid. Deliver to the laboratory immediately after collection. Send to Mercy Lab refrigerated. Specimen is stable 72 hours refrigerated.

Freeze specimen if testing will not occur within 72 hours.

- RL Client
- Comments:
- Mark ROTAVIRUS on the order form.
 - Refrigerate specimen if unable to deliver to the lab immediately.
 - Freeze specimen if specimen will not be delivered and tested within 72 hours of collection. Specimen **MUST** remain frozen until testing. **NOTE: There may be a loss of sensitivity of the test procedure when frozen specimens are used. Do not freeze and thaw specimens repeatedly.**

Performed: Daily. Available STAT.

Reference value: Negative

Method: EIA

CPT Code: 87425

POWERCHART NAME	RSV ANTIGEN
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MERCY TEST NAME	RSV DIR ATGN	MERCY LAB CODE	RSVS
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Note: **Do not order this test on patients greater than 18 years old.**

Specimen: **Nasal wash/aspirate or Nasopharyngeal swab stored at 2° C - 30° C for up to 8 hours prior to testing.**

Comment:

- Test is very specimen dependent. False negatives may be reported if the specimen is inadequate or poorly collected.
- If Pertussis by PCR is also ordered, collect the Pertussis PCR swabs **first**.
- Although testing is always available whenever a diagnosis of RSV is suspected, testing for RSV is not recommended outside of the respiratory virus season or in the absence of an outbreak due to low specificity of the test.

RL Client Comments:

- Order test code RSVS or mark RSV ANTIGEN on order form.

Processing: Deliver to lab immediately.

Performed: Daily. Available stat.

Reference value: Negative for Respiratory Syncytial Virus

Method: EIA

CPT Code: 87807

POWERCHART NAME	RUBELLA ANTIBODY IgG		
MERCY TEST NAME	RUBELLA IMM	MERCY LAB CODE	RBLA

Specimen: 0.5 ml serum

Stability: Store specimens at 2–8°C for up to 7 days. Specimens may be stored on the clot. Freeze samples, devoid of red blood cells, at ≤ -20°C for longer storage. Do not store in a frost-free freezer.

Comment: The performance of the assay has not been established with cord blood, neonatal specimens, cadaver specimens, or body fluids other than serum or plasma, such as saliva, urine, amniotic fluid, or pleural fluid.

The performance of the assay has not been established for populations of immunocompromised or immunosuppressed patients.

Performed: Within 8 hours of receipt. Available stat.

Reference Range: Immune
Within 8 hours of receipt

Method: The Atellica IM Rub G assay is a sandwich immunoassay using direct chemiluminescent

Description: Technology.

CPT Code: 86762

POWERCHART NAME	RUBEOLA ANTIBODY IGG		
MERCY TEST NAME	RUBEOLA AB IGG* (Measles)	MERCY LAB CODE	ROPG

Comment: **This testing is for the determination of immune status only.** Contact the microbiology department for ordering and collection information should testing for measles as an active disease state be required.

Specimen: 0.5 ml serum from a Serum Separator Tube (SST) or no additive serum tube.

Cause for rejection: Grossly hemolyzed, lipemic or icteric specimens

Performed: 1-3 days. Monday through Saturday.

Method: Multiplex Flow Immunoassay (MFI)

CPT Code: 86765

POWERCHART NAME	RUPTURE OF MEMBRANES		
MERCY TEST NAME	RUPTURE OF MEMBRANES	MERCY LAB CODE	ROM

Specimen: **Specimen Collection Precautions and Warnings:**

- AmniSure should not be used earlier than 6 hours after the removal of any disinfectant solution or medicines from the vagina.
Cellular debris may potentially interfere with sample preparation.
- Specimens should not be obtained from patients with suspected or known placenta previa.
- Intended for use in patients with gross bleeding.

Specimen Collection Instructions are included in the collection kit.

Regional Lab: Refrigerate if not tested within 30 minutes. Must be tested within 6 hours.

Performed: Within 6 hours of receipt. Available **STAT**
 Reference value: Included with report.
 Method: Rapid Non-instrumented qualitative immunochromatography
 CPT Code: 84112

POWERCHART NAME	SALICYLATE LEVEL		
MERCY TEST NAME	SALICYLATES (ASPIRIN)	MERCY LAB CODE	SLY

Specimen: 0.5 ml of serum
 Stability: Specimens are stable for 7 days at 20–25°C or for 14 days at 2–8°C or stored frozen for 6 months at -20°C or colder.
 Performed: Within 8 hours of receipt. Available stat
 Therapeutic range: <30.0 mg/dL
 Method: The Atellica CH Sal assay is based on the reaction of salicylate hydroxylase with salicylate and reduced nicotinamide adenine dinucleotide (NADH).
 Description:
 CPT Code: G0480 / 80179

POWERCHART NAME	ANTI SCLERODERMA (SCL-70)		
MERCY TEST NAME	SCK 70 AB IGG*	MERCY LAB CODE	SCL70B

Specimen: 0.5 mL serum from a Serum Separator Tube (SST) or no additive serum tube.
 Processing: Send refrigerated to Mayo. Mayo order code (**SCL70**)
 Performed: 1-2 days. Monday through Saturday; 4 p.m.

Reference value: Included in report
 Method: Multiplex Flow Immunoassay
 CPT Code: 86235

POWERCHART NAME	SED RATE - ERYTHROCYTE		
MERCY TEST NAME	SED RATE	MERCY LAB CODE	ESR

Specimen: On Campus; preferred specimen: 1.5 ml whole blood collected in purple top EDTA tube or 500 mcl collected in MAP capillary tube. Draw 2 tubes if CBC and ESR are ordered. Do not draw in pink top EDTA tubes.

Processing: Refrigerated specimen best if run within 24 hours but will be accepted up to 36 hours.

Performed: Within 8 hours of receipt. Available stat

Reference value: AGE MALE FEMALE
 1-30 days 0-2 0-2 MM/HR
 30 days - 11 yr. 3-13 3-13 MM/HR
 12 - 49 years 0 - 15 0 - 20 MM/HR
 > 49 years 0 - 20 0 - 30 MM/HR

Method: Automated, ISED analyzer NOTE: Results from the ISED are not affected by low patient HCT. Therefore, it may be necessary to establish a new patient baseline.

CPT Code: 85652

POWERCHART NAME	SELENIUM LEVEL
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MERCY TEST NAME	SELENIUM*	MERCY LAB CODE	SES
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- Specimen:
- Draw before any other tubes are drawn. 0.8 ml serum from **Navy blue monoject-no additive**, trace element blood collection tube.
 - Use alcohol, not iodine to cleanse venipuncture site.
- Processing:
- **Allow to clot well (for at least 30 minutes before spinning)**. Then centrifuge the specimen to separate serum from the cellular fraction. Serum must be removed from the cells within **4 hours** of specimen collection. Pour serum into a Mayo **Metal FREE** vial. **Do NOT** use a transfer pipet or wooden sticks.
 - Send to Mayo refrigerated. Ambient acceptable. Mayo order code (**SES**)
- Performed: 1-3 days. Monday through Saturday.
- Reference value: Included in report
- Method: Dynamic Reaction Cell-Inductively Coupled Plasma-Mass Spectrometry (DRC-ICP-MS)
- CPT Code: 84255

POWERCHART NAME	SELENIUM LEVEL RBC		
MERCY TEST NAME	SELENIUM BLOOD*	MERCY LAB CODE	SEWB

- Specimen:
- Draw before any other tubes are drawn. 0.8 ml whole blood from metal free Royal blue top EDTA additive, blood collection tube.
 - Use alcohol, not iodine to cleanse venipuncture site.
- Processing:
- Send specimen in original tube.
 - Send to Mayo refrigerated. Ambient and frozen are acceptable. Mayo order code (**SEWB**)
- Performed: 1-7 days. Monday
- Reference value: Included in report

Method: Inductively Coupled Plasma Mass Spectrometry

CPT Code: 84255

TEST NAME	SEMEN ANALYSIS FERTILITY	See: Fertility Test Semen (RL Clients ONLY)
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POWERCHART NAME	SEMEN ANALYSIS		
MERCY TEST NAME	SEMEN ANALYSIS	MERCY LAB CODE	SMEN

Note: For Semen Analysis from Reference Lab Clients please refer to Fertility Test Semen.
Comment: Specimen accepted Monday-Thursday only, not the day before a holiday, until 8 PM nightly.

Mayo courier picks up specimens at Mercy after 8PM. Specimen should be collected as close to shipping time as possible. If ONLY a sperm count is ordered, see SPERM COUNT.

Includes: Semen analysis includes description of Appearance, Ph, Volume, Sperm Count, Motility Evaluation and Sperm Morphology.

Specimen: Semen specimen collected in Semen Collection Kit provided by Mayo. Patient is to deliver the specimen, packed in the collection kit, to Mercy Lab within 1 hour of collection. For accurate results, the patient should have 2-7 days of sexual abstinence prior to specimen collection. It is critical to keep specimen at room temperature.

Processing: Processing must be completed as soon as possible after collection.
Send Semen Fertility to Mayo, Mayo order code (SEMB).

Performed: 2 Days. Monday-Thursday

Reference value: Ph: 7.2 - 8.0
 Volume: > 2.0ml
 Motility, Count, Morphology: See Mayo report

Method: Includes color, volume, viscosity, pH, % motility, concentration, grade of motility, viability, morphology, and presence of cellular elements.

CPT Code: 89322 Semen Analysis with Strict Morphology
 99001 Processing (For specimens processed at Mercy only)

TEST NAME	SEX CHROMATIN	See: Cytology Section Barr Body Smear
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POWERCHART NAME	SEX HORMONE BINDING GLOBULIN		
MERCY TEST NAME	SEX HORM BIND GLOB*	MERCY LAB CODE	SHBG

Specimen: 1 mL serum from a Serum Separator Tube (SST) or no additive serum tube.
 Processing: Send refrigerated to Mayo. Mayo order code (**SHBG1**)
 Performed: 1-3 days. Monday through Friday; 5 a.m. - 3 p.m., Saturday; 6 a.m. - 3 p.m.
 Reference value: Included in report
 Method: Immunoenzymatic Assay
 CPT Code: 84270

POWERCHART NAME	SIROLIMUS (RAPAMYCIN) LEVEL		
MERCY TEST NAME	SIROLIMUS*	MERCY LAB CODE	SIRO

Specimen: 3 mL EDTA (Purple Top) whole blood

When a Sirolimus and Tacrolimus are ordered on the same patient **2** tubes must be collected, one for each test.

Processing: **Send specimen in original collection tube. Send Refrigerated to Mayo. Mayo order code SIIRO**

Performed: Daily

Reference value: Included in report

Method: Liquid Chromatography / Tandem mass spectrometry

CPT Code: 80195

POWERCHART NAME	ANTI SCLERODERMA (SCL-70)		
MERCY TEST NAME	SCK 70 AB IGG*	MERCY LAB CODE	SCL70B

Specimen: 0.5 mL serum from a Serum Separator Tube (SST) or no additive serum tube.

Processing: Send refrigerated to Mayo. Mayo order code **(SM)**

Performed: 1-2 days. Monday through Saturday; 4 p.m.
 Reference value: Included in report
 Method: Multiplex Flow Immunoassay
 CPT Code: 86235

POWERCHART NAME	SODIUM LEVEL		
MERCY TEST NAME	SODIUM	MERCY LAB CODE	NA

Specimen: 0.5 ml of serum
 Stability: Serum may be stored for up to 7 days at 2-8°C or stored frozen for up to 30 days at -20°C.
 Comment: Thawed or frozen specimens which are turbid must be clarified by centrifugation prior to testing.
 Reference Range: 0-2 days: 133-146 mmol/L
 3 days-11 months: 139 - 146 mmol/L
 1-12 years: 138 - 145 mmol/L
 ≥13 years: 133 - 146 mmol/L

Method Description: The methods for measurement of electrolytes include flame photometry, spectrophotometry and direct or indirect ion selective electrode potentiometry.
 The A-LYTE Na, K, and Cl assays use indirect Integrated Multisensor Technology (IMT). There are four electrodes used to measure electrolytes. Three of these electrodes are ion-selective for sodium, potassium, and chloride. A reference electrode is also incorporated in the multisensor.

CPT Code: 84295

POWERCHART NAME	SODIUM 24 HOUR URINE		
MERCY TEST NAME	SODIUM 24 HOUR URINE	MERCY LAB CODE	VNA

Specimen: 5 ml of urine from a unpreserved, refrigerated, 24-hour urine specimen.

Stability: Twenty-four-hour urine collection should be made without addition of preservatives. Store refrigerated at 2-8°C or frozen for delayed analysis.

Performed: Within 8 hours of receipt. Stat available.

Reference Range: 40-220 mmol/24 hours

Method Description: The methods for measurement of electrolytes include flame photometry, spectrophotometry and direct or indirect ion selective electrode potentiometry. The A-LYTE Na, K, and Cl assays use indirect Integrated Multisensor Technology (IMT). There are four electrodes used to measure electrolytes. Three of these electrodes are ion-selective for sodium, potassium, and chloride. A reference electrode is also incorporated in the multisensor.

CPT Code: 84300

POWERCHART NAME	SODIUM AND POTASSIUM LEVELS		
MERCY TEST NAME	RAPID SOD POT	MERCY LAB CODE	NAK

Specimen: 0.5 mL serum
OR
0.5 ml whole blood from green top (lithium heparin) tube without gel for ICU patients

Stability: Serum may be stored for up to 7 days at 2-8°C or stored frozen for up to 30 days at -20°C.

Comment: Thawed or frozen specimens which are turbid must be clarified by centrifugation prior to
Performed: testing.
Within 8 hours of receipt. Available stat.

Reference Range: **Sodium**
0 - 2 days: 133 -146 mmol/L
3 days-11 months: 139 - 146 mmol/L
1 - 12 years: 138 - 145 mmol/L
>12 years: 133 - 146 mmol/L

Potassium
0 - 2 days: 3.7 -5.9 mmol/L
3 days-11 months: 4.1 - 5.3 mmol/L
1 -12 years: 3.4 - 4.7 mmol/L
>12 years: 3.5 - 5.1 mmol/L

Method Description: The methods for measurement of electrolytes include flame photometry,
spectrophotometry and direct or indirect ion selective electrode potentiometry.
The A-LYTE Na, K, and Cl assays use indirect Integrated Multisensor Technology (IMT). There
are four electrodes used to measure electrolytes. Three of these electrodes are ion-selective
for sodium, potassium, and chloride. A reference electrode is also incorporated in the
multisensor.

CPT Code: 84295 Sodium
84132 Potassium

POWERCHART NAME	SODIUM AND POTASSIUM 24 HOUR URINE		
MERCY TEST NAME	SOD POT 24UR	MERCY LAB CODE	VLTY

Specimen: 5 ml of urine from an unpreserved, refrigerated, 24-hour urine specimen.

Stability: Twenty-four-hour urine collection should be made without addition of preservatives. Store refrigerated at 2-8°C or frozen for delayed analysis.

Performed: Within 8 hours of receipt. Stat available.

Reference Range: Sodium: 40 - 220 mmol/24 HR
Potassium: 25 - 125 mmol/24 HR

Method Description: The methods for measurement of electrolytes include flame photometry, spectrophotometry and direct or indirect ion selective electrode potentiometry. The A-LYTE Na, K, and Cl assays use indirect Integrated Multisensor Technology (IMT). There are four electrodes used to measure electrolytes. Three of these electrodes are ion-selective for sodium, potassium, and chloride. A reference electrode is also incorporated in the multisensor.

CPT Code: 84300 Sod Urine +
84133 Pot Urine +

POWERCHART NAME	SODIUM AND POTASSIUM BODY FLUID		
MERCY TEST NAME	SOD POT BF	MERCY LAB CODE	FLYT

Specimen: 0.5 ml body fluid

Stability: 7 days at 2-8°C or stored frozen for up to 30 days at -20°C.

Comment: Indicate specimen source in comment

Performed: Within 8 hours of receipt. Available stat.

Reference Range: No established reference range available.

Method Description: The methods for measurement of electrolytes include flame photometry, spectrophotometry and direct or indirect ion selective electrode potentiometry.

The A-LYTE Na, K, and Cl assays use indirect Integrated Multisensor Technology (IMT). There are four electrodes used to measure electrolytes. Three of these electrodes are ion-selective for sodium, potassium, and chloride. A reference electrode is also incorporated in the multisensor.

CPT Code: 84295 Sodium
84132 Potassium

POWERCHART NAME	SODIUM AND POTASSIUM RANDOM URINE		
MERCY TEST NAME	SOD POT R UR	MERCY LAB CODE	ULYT

Specimen: 5 ml random urine. .

Stability: 7 days at 2-8°C or stored frozen for up to 30 days at -20°C.

Performed: Within 8 hours of receipt. Available stat.

Reference Range: No established reference range available.

Method Description: The methods for measurement of electrolytes include flame photometry, spectrophotometry and direct or indirect ion selective electrode potentiometry. The A-LYTE Na, K, and Cl assays use indirect Integrated Multisensor Technology (IMT). There are four electrodes used to measure electrolytes. Three of these electrodes are ion-selective for sodium, potassium, and chloride. A reference electrode is also incorporated in the multisensor.

CPT Code: 84300 Sod Urine+
84133 Pot Urine+

POWERCHART NAME	SODIUM RANDOM URINE		
MERCY TEST NAME	SODIUM R UR	MERCY LAB CODE	UNA

Specimen: 5 ml random urine.

Stability: 7 days at 2–8°C or stored frozen for up to 30 days at -20°C.

Performed: Within 8 hours of receipt. Available stat.

Reference Range: No established reference range available.

Method Description: The methods for measurement of electrolytes include flame photometry, spectrophotometry and direct or indirect ion selective electrode potentiometry. The A-LYTE Na, K, and Cl assays use indirect Integrated Multisensor Technology (IMT). There are four electrodes used to measure electrolytes. Three of these electrodes are ion-selective for sodium, potassium, and chloride. A reference electrode is also incorporated in the multisensor.

CPT Code: 84300 Sod Urine+

TEST NAME	SOMATOMEDIN-C PLASMA*	See: Insulin-Like Growth Factor I*
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POWERCHART NAME	SPERM COUNT		
MERCY TEST NAME	SPERM COUNT	MERCY LAB CODE	SPC

Comment: This is also the test to be ordered when checking for sperm after a vasovasostomy procedure- slides will come from surgery. Under comment: enter Vasovasostomy and source. Obtain specimen on a slide and place in the surgery pass through. Notify the Lab that a specimen is there.

Specimen: Semen specimen collected in a clean plastic container. Deliver to the Lab within 12 hours of collection. The specimen should not be collected or delivered in a condom. For accurate results, the male should not ejaculate semen for a minimum of two days prior to specimen collection.

Processing: Test within 12 hours of collection

Performed: Monday - Friday 0600 - 2000. Saturday and Sunday 0600 - 1500.

Reference value: None seen.

Method: Microscopy

CPT Code: 89321

TEST NAME	SPUTUM CYTOLOGY	See: Cytology Section Sputum
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POWERCHART NAME	SJOGREN'S ANTIBODIES (SSA)		
MERCY TEST NAME	SSA ARO AB IGG*	MERCY LAB CODE	SSAB

Specimen: 0.5 mL serum from a Serum Separator Tube (SST) or no additive serum tube.
Processing: Send refrigerated to Mayo. Mayo order code (**SSA**)
Performed: 1-2 days. Monday through Saturday; 4 p.m.
Reference value: Included in report
Method: Multiplex Flow Immunoassay
CPT Code: 86235

POWERCHART NAME	SJOGREN'S ANTIBODIES (SSA/SSB)		
MERCY TEST NAME	SSA AND SSB AB IGG	MERCY LAB CODE	SSABB

Specimen: 0.5 mL serum from a Serum Separator Tube (SST) or no additive serum tube.
Processing: Send refrigerated to Mayo. Frozen is also acceptable.
Mayo order code (**SSAB**).
Performed: 1-3 days. Test set up Monday through Saturday; 4 p.m.
Reference value: Included in report
Method: Multiplex Flow Immunoassay
CPT Code: 86225x2

POWERCHART NAME	SJOGREN'S ANTIBODIES (SSB)		
MERCY TEST NAME	SS BLA AB IGG*	MERCY LAB CODE	SSBB

Specimen: 0.5 mL serum from a Serum Separator Tube (SST) or no additive serum tube.
Processing: Send refrigerated to Mayo. Mayo order code (**SSB**)
Performed: 1-3 days. Monday through Saturday; 4 p.m.
Reference value: Included in report
Method: Multiplex Flow Immunoassay
CPT Code: 86235

POWERCHART NAME	STOOL PATHOGENS PCR		
MERCY TEST NAME	STOOL PATHOGENS PCR	MERCY LAB CODE	STLPCR

Specimen: **Preferred Sample: Cary-Blair preserved liquid or soft stool specimens.**

Also acceptable: Unpreserved liquid or soft stool specimen in a dry, clean container.

MercyOne lab staff will transfer unpreserved stool sample immediately into a Cary-Blair preservative container for possible serotyping of any positive result on receipt.

Cause for rejection:

- Formed specimen.
- Specimens contaminated with toilet water or urine.
- Avoid using during collection: Nystatin cream, Spermicidal lubricant, hydrocortisone cream, and Vagisil. These substances have proven to interfere with testing.

- Inpatient orders whose length of stay is more than three days, and whose admitting diagnosis was not gastroenteritis. Clostridium difficile testing should be considered.
 - Exposure to excessive heat
 - Inpatient samples should be delivered to lab within 1 hour of collection.
 - **RL Clients:** Deliver to MercyOne Lab as soon as possible but no later than 4 days after collection if kept at 2–8 °C in Cary- Blair Transport Container.
 - Specimens should be kept between 2 °C and 25 °C during transport.
 - Inpatient samples should be delivered to lab within 1 hour of collection.
 - **RL Clients:** Deliver to MercyOne Lab as soon as possible but no later than 4 days after collection if kept at 2–8 °C in Cary- Blair Transport Container.
 - Specimens should be kept between 2 °C and 25 °C during transport.
- Collection Comments:
- Result Comments:
- Reference value: Negative for Salmonella, Shigella, Campylobacter, Yersinia, and Enterotoxigenic E. Coli (ETEC), Shiga toxin producing bacteria, Vibrio, or Plesiomonas shigelloides
- Performed: Daily, 0900 cut off time for morning run and 1900 cut off time for evening run
- Method: Amplified DNA
- CPT Code: 87506

POWERCHART NAME	STREP PNEUMONIAE ANTIGEN URINE		
MERCY TEST NAME	STREP PNEUM AG, UR*	MERCY LAB CODE	SPNAU

Specimen: Collect random urine specimen.
2 ml random urine in a 10 mL plastic urine tube, no preservative, Refrigerate

Caution: Streptococcus pneumoniae vaccine may cause false-positive results, especially in patients who have received the vaccine within 5 days of having test performed.
 The performance of this assay in patients who have received antibiotics for > 24 hours has not been established.
 The accuracy of this assay has not been proven in small children

Processing: Send Refrigerated to Mayo. Mayo order code (SPNEU).
 Performed: Results available 1-2 days, test set up Monday - Friday, 12 p.m.
 Reference value: Included in report
 Method: Immunochromatographic Membrane Assay
 CPT Code: 87899

POWERCHART NAME	STREP PNEUMONIAE IGG ANTIBODIES 23 SEROTYPES		
MERCY TEST NAME	STREP PNEUMO AB*	MERCY LAB CODE	PN23

Specimen: 0.5 ml serum from a Serum Separator Tube (SST) or a plain red top tube.

Processing: Send refrigerated to Mayo. Mayo code (**PN23M**)

Performed: 4-6 days. Monday through Friday.

Reference value: Included in report.

Method: Microsphere Photometry

CPT Code: 86317 x23

POWERCHART NAME	STREP SCREEN THROAT RAPID		
MERCY TEST NAME	STREP SCRIN THRT	MERCY LAB CODE	GAS

Specimen: Collect the specimen from the tonsils and pharynx using 2 swabs. Submit in a double Culturette.

Comments:

- A throat culture will be ordered and charged by lab personnel on all negative Rapid Strep Screens in order to detect very low numbers of beta strep Group A and other significant beta streptococci.
- This test is very specimen dependent. False negative results may be reported if the specimen is inadequate or poorly collected.

RL Client Comments:

- Write GROUP A STREP SCREEN on the order form.
- Send Culturette at room temperature.

Performed: Within 8 hours of receipt.

Reference value: Negative for Group A streptococcus

Method: EIA

CPT Code: 87880

POWERCHART NAME	CULTURE SURVEILLANCE MERCY VRE (VANCOMYCIN RESISTANT ENTEROCOCCUS)
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MERCY TEST NAME	VRE SRV CLT / MERCY	MERCY LAB CODE	VRES
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Specimen: Rectal swab. Submit on routine Culturette.

Comment:

- This order screens for colonization of Vancomycin Resistant Enterococcus only.
- Contact the microbiology lab if other sites are being submitted to look for VRE.

Performed: Preliminary report: 2 days.

Final report: 3 days.

Reference value: No Vancomycin Resistant Enterococcus isolated.

Method: Standard Culture Techniques.

CPT Code: 87081

POWERCHART NAME	CULTURE SURVEILLANCE EXTERNAL VRE (VANCOMYCIN RESISTANT ENTEROCOCCUS)		
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MERCY TEST NAME	VRE SRV CLT / NON-MERCY	MERCY LAB CODE	VREX
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Specimen: Rectal swab. Submit on routine Culturette.

Comment:

- This order screens for colonization of Vancomycin Resistant Enterococcus only.
- Contact the microbiology lab if other sites are being submitted to look for VRE.
- Send specimen at room temperature.
- Write VRE Screen or VRE Surveillance on the order form.

- This testing will be billed back to the ordering facility.

Performed: Preliminary report: 2 days.
Final report: 3 days.

Reference value: No Vancomycin Resistant Enterococcus isolated.

Method: Standard Culture Techniques.

CPT Code: 87081

POWERCHART NAME	SYPHILIS TOTAL ANTIBODY		
MERCY TEST NAME	SYPHILIS TOTAL ANTIBODY WITH REFLEX	MERCY LAB CODE	SYPHT

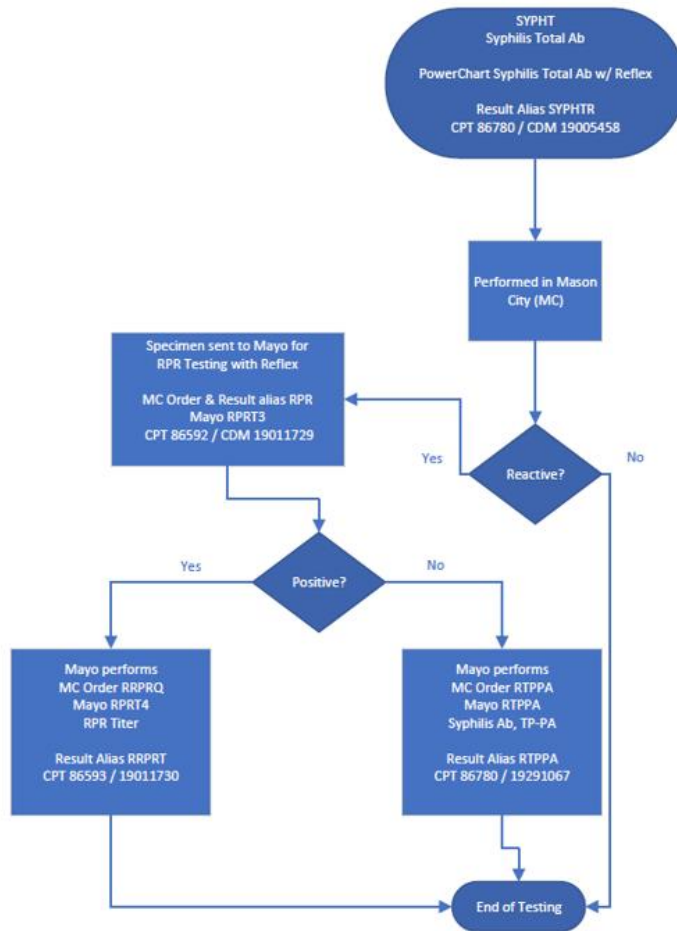
Specimen: 1 ml serum from a Serum Separator Tube (SST).

Processing: Specimen can be refrigerated up to 7 days, before testing. After 7 days specimens should be frozen

Comment: Included in prenatal profiles.

Propose algorithms for syphilis testing:

- For suspected, undiagnosed syphilis, a serum specimen should be submitted for a treponemal-specific antibody test: **Syphilis Total Antibody-SYPHLS performed by Mercy Lab**. Further confirmatory testing will be ordered and performed at Mayo Medical Labs. The confirmatory testing is Mayo test: RPRT3. (RPR, either RPR Titer or RTPPA as indicated).



- For determining the current disease status/evaluating response to therapy for syphilis, Mayo Med Lab Rapid Plasma Reagin (RPR), Response to Therapy, Mayo order code **RPRT1**, testing should be used.

Performed: Within 8 hours of receipt. If additional reflex testing is indicated, results available 1-4 days from receipt.

Reference value: Non-Reactive
Any Reactive or Equivocal result will be referred to Mayo, If Mayo's syphilis RPR is positive, the RPR titer will be performed, at an additional charge. If the RPR is negative, the TP-PA will be performed at an additional charge.

Method: Chemiluminescent Immunoassay (CLIA)

CPT Code: 86780 Syphilis Total Ab
86592 Syphilis Rapid Plasma Reagin Screen
86593 Rapid Plasma Reagin Titer (If appropriate)
86780 Syphilis Antibody by TP-PA (If appropriate)

POWERCHART NAME	T3 (TRIIODOTHYRONINE) FREE		
MERCY TEST NAME	T3 FREE	MERCY LAB CODE	T3F

Specimen: 0.5 ml of serum

Stability: Tightly cap and refrigerate specimens at 2–8°C if the assay is not completed within 8 hours. Freeze samples at ≤ -20°C if the sample is not assayed within 48 hours. Freeze samples only 1 time and mix thoroughly after thawing.

Comment: Do not use samples that have been stored at room temperature for longer than 8 hours.

Performance of this assay has not been established with neonatal specimens.

Performed: Within 8 hours of receipt. Available stat.

Reference Range: 2.5 - 3.9 pg/ml

Method Description: The Atellica IM FT3 assay is a competitive immunoassay using direct chemiluminescent technology.
 CPT Code: 84481

POWERCHART NAME	T3 TOTAL		
MERCY TEST NAME	T3 TOTAL	MERCY LAB CODE	T3

Specimen: 0.5 ml serum.
 Stability: Tightly cap and refrigerate specimens at 2–8°C if the assay is not completed within 8 hours. Freeze samples at ≤ -20°C if the sample is not assayed within 48 hours. Freeze samples only 1 time and mix thoroughly after thawing.
 Comment: Do not use samples that have been stored at room temperature for longer than 8 hours.
 Performed: Within 8 hours of receipt. Available stat.
 Reference Range: 1-23 months: 117-239 ng/dL
 2-12 years: 105-207 ng/dL
 13-20 years: 86-192 ng/dL
 >20 years: 20-181 ng/dL

Method Description: The Atellica IM T3 assay is a competitive immunoassay using direct chemiluminescent technology.
 CPT Code: 84480

POWERCHART NAME	T4 (THYROXINE) FREE		
MERCY TEST NAME	T4 FREE	MERCY LAB CODE	T4F

Specimen: 0.5 ml serum
Stability: Tightly cap and refrigerate specimens at 2–8°C if the assay is not completed within 8 hours. Freeze samples at ≤ -20°C if the sample is not assayed within 48 hours. Freeze samples only 1 time and mix thoroughly after thawing.

Comment: Do not use samples that have been stored at room temperature for longer than 8 hours.

Performance of this assay has not been established with neonatal specimens.

Performed: Within 8 hours of receipt. Available stat.

Reference Range: 0.89-1.76 ng/mL

Method Description: The Atellica IM FT4 assay is a competitive immunoassay using direct chemiluminescent technology.
CPT Code: 84439

POWERCHART NAME	T4 TOTAL		
MERCY TEST NAME	T4 TOTAL	MERCY LAB CODE	T4TL

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 multivitamins.
 Specimen: 1.5 ml serum from a Serum Separator Tube (SST) or no additive serum tube.
 Processing: Sent refrigerated to Mayo. Mayo order code (**T4**).
 Performed: Monday through Friday 5 a.m. - 12 a.m., Saturday 6 a.m. - 6 p.m.
 Reference value: Included with test results

 Method: Electrochemiluminescence Immunoassay
 CPT Code: 84436

POWERCHART NAME	T AND B CELL QUANTITATION BY FLOW CYTOMETRY		
MERCY TEST NAME	T&B CELL QN*	MERCY LAB CODE	TBCL

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 multivitamins.

 Specimen: 3 mL EDTA (purple top) whole blood. Minimum 1.0 mL.

 Processing: Send specimen in original collection tube, DO NOT ALIQUOT. Specimen must be received by Mayo within 24 hr. of collection. **Specimen stable for 52 hours only.** Send Ambient to Mayo. Mayo order code (**TBBS**).

 Performed: Daily, Monday thru Sunday continuously
 Reference value: **Included in report**

Method: Flow cytometry
 CPT Code: 86359 – T Cells, Total Count
 86360 – Absolute CD4/CD8 Count with Ratio
 86355 – B Cells, Total Count
 86357 – Natural Killer (NK) Cells, Total count

POWERCHART NAME	TACROLIMUS LEVEL		
MERCY TEST NAME	TACROLIMUS* (Prograf)	MERCY LAB CODE	TACRO

Specimen: 3 mL whole blood from a (purple top) EDTA. Minimum 1.0 mL.

When a Tacrolimus and Sirolimus are ordered on the same patient **2** tubes must be collected, one for each test.

Processing: Send specimen in original collection tube. Sent **refrigerated** to Mayo. Mayo order code (**TAKRO**).

Performed: Daily

Reference value: **Included in report.**

Method: High-Pressure Liquid Chromatography/Tandem Mass Spectrometry (HPLC-MS/MS)

CPT Code: 80197 - Tacrolimus

POWERCHART NAME	QUANTIFERON TB GOLD IN-TUBE		
MERCY TEST NAME	TB QUANTIFERON*	MERCY LAB CODE	QFT3

Specimen: Special collection kit, QuantiFERON - TB Gold In-Tube collection kit. Kit Includes: Collection directions, 4 tubes, QTB Transport bag. Kit is stored in MercyOne Laboratory. Lab Aide's rack shelf A5.

- Collect 1 mL of blood in each of the 4 tubes. When the tube is upright, blood must meet the small black mark on label.
- **Tubes fill slowly.**
- If butterfly needle is used, first collect other required tubes or use a "purge" tube to remove the air and then proceed with collecting the QTB tubes.
- Shake tubes firmly for 10 times (entire inner surface of tube must be coated with blood)
- Overly energetic shaking may cause gel disruption and could lead to aberrant results.
- Label tubes appropriately
- Maintain tubes at room temperature until incubation portion of test preparation is started.

INCUBATION OF TUBES NEEDS TO BE PERFORMED WITHIN 16 HOURS OF INITIAL COLLECTION OF TUBES

Cause for rejection: Improper collection, incubation, centrifugation, or storage of specimens is cause for rejection

Processing: Collect kit specifically as directed, incubate tubes 16-24 Hr., centrifuge and store as directed in instructions. Send Refrigerated to Mayo Medical Laboratories Mayo code (**QFT4**).

Performed: 2 days, Monday - Friday; 9 A.M.

Reference value: Included in report

Method: Enzyme Linked Immunosorbent Assay (ELISA).

CPT Code: 86480

POWERCHART NAME	TESTOSTERONE TOTAL		
MERCY TEST NAME	TESTOST TTL*	MERCY LAB CODE	TSTT

Specimen: Spin no additive serum tube and remove from red cells 1.0 mls of serum. No other tube type acceptable.

Processing: Send refrigerated to Mayo. Mayo order code (**TTST**). Patients' age and sex are required on requisition for processing.

Performed: 3 days. Test set up Monday through Saturday.

Reference value: Included in report.

Method: Liquid Chromatography – Tandem Mass spectrometry (LC-MS/MS)

CPT Code: 84403

POWERCHART NAME	TESTOSTERONE LEVEL TOTAL + FREE		
MERCY TEST NAME	TESTOST TTL FRE*	MERCY LAB CODE	TSTF

Specimen: Spin no additive serum tube and remove from red cells 2.5 mls of serum. No other tube type acceptable.

Processing: Send refrigerated to Mayo. Mayo order code (**TGRP**).

Performed: Monday through Sunday. Free Testosterone determination may take 10 days.

Reference value: Included with report.

Method: Liquid Chromatography – Tandem Mass spectrometry (LC-MS/MS)
Equilibrium Dialysis

CPT Code: 84403 Testosterone, Total
84402 Testosterone, Free

MERCY TEST NAME	DELTA 8 N 9 THC UR*	MERCY LAB CODE	THCU
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Specimen: 3 ml random urine specimen in 5 mL Sarstedt aliquot tube, no preservative.

Processing: Send refrigerated to Mayo. Mayo order code (**THCU**).

Performed: Monday through Friday

Reference value: Included with report.

Method: Liquid Chromatography Tandem Mass Spectrometry (LC-MS/MS)

CPT Code: G0480 / 80349

POWERCHART NAME	THEOPHYLLINE LEVEL		
MERCY TEST NAME	THEOPHYLLINE	MERCY LAB CODE	THEO

Specimen: 0.5 ml of serum

Stability: Specimens may be stored for up to 8 hours at 25°C or for up to 7 days at 2-8°C or stored frozen for up to 90 days at -20°C.

Comment: Indicate date and time of last dose in comment.

Performed: Within 8 hours of receipt. Available stat.

Therapeutic range: Intermediate: 2.0-7.0 mcg/mL
Peak: 4.0-8.0 mcg/mL
Trough: <1.0 mcg/mL
Toxic Peak: >12.0 mcg/mL

Method Description: The Atellica CH Theo assay is a homogeneous particle-enhanced turbidimetric inhibition immunoassay (PETINIA) technique which uses a synthetic particle-theophylline conjugate (PR) and theophylline-specific monoclonal antibody (Ab).

CPT Code: 80198

POWERCHART NAME	THROAT CULTURE		
MERCY TEST NAME	THRT CLT STREP	MERCY LAB CODE	THSC

Specimen: Collect the specimen with a double swab Culturette. Rub the sterile swabs firmly over the back of the throat (posterior pharynx), both tonsils, and any areas of inflammation. Submit the specimen as soon after collection as possible. If there is a delay in transport, the

specimen should be forwarded within 48 hours of collection. The specimen should be stored and sent at room temperature.

- Comments:
- Screens only for significant Beta Hemolytic Streptococci.
 - If specifically looking for yeast, see Yeast Culture/Direct Prep.
 - Susceptibility testing will NOT routinely be performed, unless requested by the provider at the time of ordering.

- RL Client Comments:
- Mark THROAT CULTURE FOR BETA STREP on order form.
 - Store and send at room temperature within 48 hours of collection.

Performed: Final report: 1-2 days

Reference value: No Group A beta-hemolytic Streptococci isolated.
Normal throat flora.

Method: Routine culture techniques.

CPT Code: 87081

POWERCHART NAME	THROMBIN TIME		
MERCY TEST NAME	THROMBIN TIME	MERCY LAB CODE	TT

Specimen: Draw blue top tube filled with amount of blood listed on label.

Cause for Rejection: Gross hemolysis. Improperly filled tubes will not be tested.

Processing: Centrifuge immediately. Stable 4 hours at room temperature. Test heparin containing specimens within 2 hours. DO NOT FREEZE SPECIMEN.

Performed: Within 8 hours of receipt, available stat.

Reference value: 13.0-17.0 seconds

Method: Photo-optical clot detection.

CPT Code: 85670

POWERCHART NAME	THROMBOPHILIA PROFILE		
MERCY TEST NAME	THROMBOPHILIA PROF*	MERCY LAB CODE	THRMP

Specimen: 3.0 mL whole blood EDTA tube. Yellow top ACD tube and sodium citrate are also acceptable.
AND
 6.0 mL platelet poor **plasma** from light-blue top (citrate) tube. **(Requires at least 6 blue-top tubes)**
 Both whole blood and plasma are required.

Note: **Patient should not be receiving Coumadin or heparin.**
Test should not be ordered with a Lupus Anticoagulation Profile (ALUPP) because of duplication of testing.
Refer to Mayo lab test index for special processing instructions.
Mixing test is not orderable from Mayo, but may be performed based on results as part of the Thrombophilia Profile
We can call Mayo and request they perform the mixing test, regardless of the patient's results.

Processing Instructions: Draw 3.0 mL of whole blood and do not transfer blood to other containers. Label specimen as whole blood. Send ambient.

Draw enough citrated whole blood to spin down and aliquot 6.0 mL platelet poor plasma in 6 plastic vials, each containing 1 mL

Draw enough citrated whole blood to spin down and aliquot 6.0 mL platelet poor plasma in 6 plastic vials, each containing 1 mL.

Spin down, remove plasma, and spin plasma again. Remove plasma and place in plastic aliquot vials. Freeze specimens immediately at < or = -40 degrees C, if possible. Label specimens as plasma.

Double-centrifuged specimen is critical for accurate results. Coagulation Consultation Patient Information Sheet must be sent with specimen.

Shipping Instructions: Send plasma frozen and whole blood ambient. Mayo order code (**AATHR**).

Performed: Results 1-7 days.

Reference value: Included in report.

Method: Clot-Base Assay, Clauss Methodology, Automated Latex Immunoassay, Immunospectrometric, Chromogenic Assay, Direct Mutation Analysis, Activated Partial Thromboplastin Mixing Test

CPT Code: 81240 85730 85613 85303
85300 85610 85384 85307
85670 85379 85306

If indicated the following reflex tests will be ordered by Mayo at an additional cost:

Bethesda Units- 85335 Reptilase Time- 85635
 Coag Factor VIII Assay Inhib Scrn - 85335 Coag Factor II Assay -85210
 Antithrombin Antigen - 85301 Protein C Ag - 85302
 Coag Factor V Assay - 85220 Factor V Leiden (R506Q) Mutation- 81241
 Coag Factor VII Assay - 85230 Platelet Neutralization Procedure - 85597
 Coag Factor IX Assay 85250 PT Mix 1:1 - 85611
 Coag Factor X Assay - 85260 APTT Mix 1:1 - 85732
 Coag Factor XI Assay - 85270 Protein S Ag, Total, P - 85305
 Coag Factor XII Assay 85280 HEX LA,P - 85598
 Coag Factor VIII Activity Assay - 85240 DRWT Mix - 85613
 DRWT Confirmation - 85613 Protein S Activity, P - 85306
 Soluble Fibrin Monomer-85366 PT-Fibrinogen-85385

POWERCHART NAME	THYROGLOBULIN ANTIBODY		
MERCY TEST NAME	THYROGLOBULIN AB SCN *	MERCY LAB CODE	THYBS

Specimen: 1 ml serum from a no additive serum tube. A Serum Separator Tube (SST) is **NOT** acceptable.
 Processing: Send refrigerated. Mayo order code TGAB. If Thyroglobulin Tumor Marker testing is desired and ordered, **DO NOT** order this test. Order a Thyroglobulin Tumor Marker which includes both Thyroglobulin and Thyroglobulin antibody.
 Performed: Test set up Monday through Friday 6 AM - 12 AM, Saturday 6 AM - 6 PM.
 Reference value: Included with results.
 Method: Immunoenzymatic Assay

CPT Code: 86800

POWERCHART NAME	THYROGLOBULIN TUMOR MARKER		
MERCY TEST NAME	THYROGLOBLN TUMOR*	MERCY LAB CODE	THYTMR

Specimen: 1 ml serum from a no additive serum tube. A Serum Separator Tube (SST) is **NOT** acceptable.

Processing: Send refrigerated to Mayo. Mayo order code (**HTG2**). **DO NOT** order a Thyroid Antibody Screen with Thyroglobulin Tumor Marker. The screen is included in Tumor Marker testing and a separate order would be considered duplicate testing.

Performed: Test set up Monday through Saturday

Reference value: Included with results.

Method: Thyroglobulin Mass Spectrometry

CPT Code: 86800 Thyroglobulin Antibody Screen
84432 Thyroglobulin Tumor Marker

POWERCHART NAME	THYROPIN BINDING INHIBITORY IMMUNOGLOBULINS		
MERCY TEST NAME	TBG IMMUNOLOGIC*	MERCY LAB CODE	TBGI

Specimen: 0.5 ml serum from a no additive serum tube.

Cause for rejection: Hemolysis is not acceptable.

Processing: Send refrigerated to Mayo. Mayo order code (**TBGI**).

Performed: 1-3 days. Test set up Monday through Friday; 5 AM - 12 AM, Saturday; 6 AM - 6 PM.
 Reference value: Included with test results.
 Method: Solid-Phase Chemiluminescent Assay
 CPT Code: 84442

POWERCHART NAME	THYROID HYPER PANEL		
MERCY TEST NAME	THYRD HYPER PNL	MERCY LAB CODE	THPE

Specimen: 0.5 ml of serum
 Stability: Tightly cap and refrigerate specimens at 2-8°C if the assay is not completed within 8 hours. Freeze samples at ≤ -20°C if the sample is not assayed within 48 hours. Freeze samples only 1 time and mix thoroughly after thawing.
 Comment: Includes T4 Free and T3 Free

Do not use samples that have been stored at room temperature for longer than 8 hours.

Performance of this assay has not been established with neonatal specimens.

Performed: Within 8 hours of receipt. Available stat.
 Reference Range: See individual test entry.
 Method: See individual test entry.
 Description:
 CPT Code: 84439 T4 Free
 84481 T3 Free

POWERCHART NAME	THYROID HYPO PANEL (TSH SENSITIVE AND FREE T4)		
MERCY TEST NAME	THYRD HYPO PNL	MERCY LAB CODE	THPO

Specimen: 0.5 ml serum
Stability: Tightly cap and refrigerate specimens at 2–8°C if the assay is not completed within 8 hours. Freeze samples at ≤ -20°C if the sample is not assayed within 48 hours. Freeze samples only 1 time and mix thoroughly after thawing.
Comment: Includes T4 Free and TSH

Do not use samples that have been stored at room temperature for longer than 8 hours.

Performance of this assay has not been established with neonatal specimens.

Performed: Within 8 hours of receipt. Available stat.
Reference Range: See individual test entry.

Method

Description: See individual test entry.
CPT Code: 84439 T4 Free
84443 TSH

TEST NAME	THYROID-STIMULATING IMMUNOGLOBULIN SERUM*		
MERCY TEST NAME	THYROID STIM IMGLB*	MERCY LAB CODE	THYIMG

Specimen: 0.5 ml serum from a no additive serum tube or Serum Separator Tube (SST).
 Processing: Send frozen to Mayo. Mayo order code **(TSI)**.
 Performed: 2-6 days. Monday - Friday 10 AM
 Reference Value: Included with results
 Method: Recombinant Bioassay
 CPT Code: 84445

POWERCHART NAME	THYROPEROXIDASE ANTIBODY (TPO)		
MERCY TEST NAME	THYROPEROXIDASE AB (Antithyroid antibody)	MERCY LAB CODE	TPXD

Specimen: 0.5 ml serum
 Stability: Separate serum or plasma from the red blood cells before storage at 2–8°C or -20°C. Tightly cap and refrigerate specimens at 2–8°C if the assay is not completed within 8 hours. Freeze samples at ≤ -20°C if the sample is not assayed within 48 hours. Freeze samples only 1 time and mix thoroughly after thawing.
 Comment: Performance of this assay has not been established with neonatal specimens.
 Performed: Within 8 hours of receipt. Available stat.
 Reference Range: 0-59.9 U/ml
 Method Description: The Atellica IM aTPO assay is a competitive immunoassay using chemiluminescent technology.
 CPT Code: 86376

POWERCHART NAME	THYROTROPIN RECEPTOR AUTOANTIBODY		
MERCY TEST NAME	THYROTROPIN RECEPT*	MERCY LAB CODE	THYRO

Specimen: 1 mL serum from a Serum Separator Tube (SST) (Preferred). Serum from a no additive serum tube is also acceptable.

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, nail supplements and multivitamins.

Patient should not be receiving heparin treatment.

Processing: Send refrigerated (Preferred) to Mayo. Frozen is also acceptable. Mayo order code (**THYRO**).

Performed: 1-3 days. Monday through Friday.

Reference value: Reference ranges included with report.

Method: Electrochemiluminescence Immunoassay

CPT Code: 83520

POWERCHART NAME	TISSUE CULTURE OTHER
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MERCY TEST NAME	TISSUE CLT	MERCY LAB CODE	TISC
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Order: Specify site when ordering.

Specimen: Aseptically place the specimen in a sterile plastic container with a tight-fitting lid. The specimen should be surgically obtained. If unable to transport to the laboratory promptly, add 1 - 2 ml of sterile saline to the specimen container.

Comment: Susceptibility testing will routinely be performed on significant isolates.

RL Client
Comments:

- Write TISSUE CULTURE on the order form. Indicate the specimen source.
- Send specimen at room temperature.

Performed: Preliminary reports: Days 1-4
Final report: 5 days

Reference value: No growth.

Method: Standard culture techniques

CPT Code: 87070

TEST NAME	TISSUE EXAMINATION GROSS & MICROSCOPIC
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Includes: Gross examination and microscopic if indicated.

Comment: Complete manual Pathology Specimen requisition form. Requisition must include pre-op diagnosis and operative findings. Specific specimen source and relevant patient history must be indicated.

Specimen: Tissue specimen covered with 10% Formalin. Transport containers and 10% formalin are available from the Laboratory.

Performed: 2 days.

Reference value: Interpretation will be provided.

Method: Pathologist evaluation.

CPT Code: Varies.

POWERCHART NAME	TISSUE TRANSGLUTAMINASE ANTIBODIES, IgA*		
MERCY TEST NAME	TISSUE TRANSGLUT AB IGA	MERCY LAB CODE	TTA

Specimen: 1.0 ml of serum from a no additive serum tube or Serum Separator Tube (SST). Refrigerated

Cause for rejection: Hemolysis.

Comment: This new assay performs the Tissue Transglutaminase and deamidated Gliadin simultaneously for IgA. There is no need for a separate order for the tTG and deamidated gliadin. Ordering the TTA will cover for both assays, simultaneously, but will be reported as one result for IgA.

Processing: Specimen can be refrigerated for up to 21 days. Send refrigerated to Mayo. Frozen is acceptable. Mayo order code TTGG.

Performed: Monday thru Saturday at Mayo

Reference Value: Included with the report
 Method: EIA
 CPT Code: 86364

POWERCHART NAME	TISSUE TRANSGLUTAMINASE ANTIBODIES, IgA and IgG		
MERCY TEST NAME	TISSUE TRANSGLUT AB*	MERCY LAB CODE	TISTA

Specimen: 1.0 ml of serum from a no additive serum tube or Serum Separator Tube (SST). Refrigerated
 Cause for rejection: Hemolysis.

Comment: This new assay performs the Tissue Transglutaminase and deamidated Gliadin simultaneously for IgA and simultaneously for IgG. There is no need for a separate order for the tTG and deamidated gliadin. Ordering the TISTA will cover for both assays, simultaneously, but will be reported as one result for IgA and one result for IgG

Processing: Specimen can be refrigerated for up to 21 days. Send refrigerated to Mayo. Frozen is acceptable. Mayo order code TSTGP.

Performed: Monday thru Saturday at Mayo

Reference Value: Included with the report

Method: EIA

CPT Code: 86364 x 2.

POWERCHART NAME	TOBRAMYCIN LEVEL
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MERCY TEST NAME	TOBRAMYCIN INT	MERCY LAB CODE	TBI
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Specimen: 0.5 ml of serum
Stability: Specimens may be stored for up to 8 hours at 25°C, stored for up to 72 hours at 2–8°C, or stored frozen for up to 30 days at -20°C.⁵ For patients on penicillin or its derivatives, freeze sample if not analyzed within 4–6 hours.
Comment: Do not use hemolyzed samples.
Performed: Within 8 hours of receipt. Available stat.
Reference Range: 2.0-7.0 mcg/ml
Method Description: The Atellica CH Tob assay involves a homogeneous particle-enhanced turbidimetric inhibition immunoassay (PETINIA) technique which uses a synthetic particle-tobramycin conjugate (PR) and tobramycin-specific monoclonal antibody (Ab).
CPT Code: 80200

POWERCHART NAME	TOBRAMYCIN PEAK LEVEL		
MERCY TEST NAME	TOBRAMYCIN PEAK	MERCY LAB CODE	TBPK

Specimen: 0.5 ml of serum
Stability: Specimens may be stored for up to 8 hours at 25°C, stored for up to 72 hours at 2–8°C, or stored frozen for up to 30 days at -20°C.⁵ For patients on penicillin or its derivatives, freeze sample if not analyzed within 4–6 hours.
Comment: Do not use hemolyzed specimens.
Performed: Within 8 hours of receipt. Available stat.
Therapeutic range: 4.0-8.0 mcg/ml

Method Description: The Atellica CH Tob assay involves a homogeneous particle-enhanced turbidimetric inhibition immunoassay (PETINIA) technique which uses a synthetic particle-tobramycin conjugate (PR) and tobramycin-specific monoclonal antibody (Ab).

CPT Code: 80200

POWERCHART NAME	TOBRAMYCIN TROUGH LEVEL		
MERCY TEST NAME	TOBRAMYCIN TRGH	MERCY LAB CODE	TBTR

Specimen: 0.5 ml of serum

Stability: Specimens may be stored for up to 8 hours at 25°C, stored for up to 72 hours at 2-8°C, or stored frozen for up to 30 days at -20°C. For patients on penicillin or its derivatives, freeze sample if not analyzed within 4-6 hours.

Comment: Do not use hemolyzed samples

Performed: Within 8 hours of receipt. Available stat.

Therapeutic range: <1.0 mcg/mL

Method Description: The Atellica CH Tob assay involves a homogeneous particle-enhanced turbidimetric inhibition immunoassay (PETINIA) technique which uses a synthetic particle-tobramycin conjugate (PR) and tobramycin-specific monoclonal antibody (Ab).

CPT Code: 80200

POWERCHART NAME	TOPIRAMATE (TOPAMAX) LEVEL
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MERCY TEST NAME	TOPIRAMATE*	MERCY LAB CODE	TOPIR
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Specimen: 1 ml serum from a plain, no additive serum tube. **Serum gel/SST are not acceptable.**

Processing: Send refrigerated (Preferred) to Mayo. Ambient or Frozen also acceptable. Mayo order code (TOPI).

Performed: 1-2 Day. Monday through Saturday

Reference Value: Included in report.

Method: Liquid Chromatography-Tandem Mass Spectrometry (LC-MS/MS)

CPT Code: 80201

MERCY TEST NAME	TORCH TEST	MERCY LAB CODE	CMIS
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Includes: This testing includes Mayo Medical Lab's Torch Profile IgG, Toxoplasma gondii Antibody, IgM and Cytomegalovirus (CMV) Antibodies, IgM (Mayo **TRCHG**, **TXM** and **CMVM**).

TRCHG: HSV Type 1 and Type 2 Ab IgG, Toxoplasma Ab IgG, Rubella Ab IgG, Cytomegalovirus Ab IgG

TXM: Toxoplasma gondii Antibody, IgM

CMVM: Cytomegalovirus (CMV) Antibodies, IgM

This testing should be ordered as a Miscellaneous General Chemistry. Indicate that testing is for TORCH.

This test is to be ordered only on neonates, pregnant women or women who have had miscarriages.

If the patient does not meet any of these qualifications, then each test must be ordered separately.

Specimen: 3.5 mL serum from a Serum Separator Tube (SST). Refrigerate.

Cause for rejection: Grossly hemolyzed or grossly lipemic specimens.

Processing: Performed at Mayo Medical Labs, Rochester, MN.

MERCY LAB: Order TRCHG, TXM and CMVM on the Mayo PC. Order all tests under the same order number so all results print on the same report.

Report: 1 week

Method: Multiplex Flow Immunoassay, (MFI)

CPT Code: Toxoplasmosis Ab IgG 86777

Toxoplasmosis Ab IgM 86778

Rubella IgG Ab 86762

Cytomegalovirus Ab IgM 86645

Cytomegalovirus Ab IgG 86644

HSV Ab, IgM 86694

HSV Type 1 Ab IgG 86695

HSV Type 2 Ab IgG 86696

POWERCHART NAME	TOXIC VOLATILE SCREEN		
MERCY TEST NAME	TOXIC VOLATILE SCRIN	MERCY LAB CODE	TVS

Includes: Beta-hydroxybutyrate (Ketone) Alcohol, Ethyl Calculated Osmolality
Interpretation Metabolic Panel Osmolality
Osmolality Gap pH Venous

Comment: **Complete and send to Lab a Toxic Volatile Screen Patient Information Sheet.**

Specimen: 1 Spun Serum Separator Tube (SST). Send refrigerated.
1 no additive serum tube, spun, aliquoted and labeled as no additive serum tube. Send refrigerated
1 gray top Sodium Fluoride. Send refrigerated
1 small dark green top lithium heparin tube completely filled and on ice.

Processing: Use aqueous betadine for cleaning venipuncture site, not alcohol swab.
1.0 ml serum from orange or gold tube for metabolic panel and osmolality. Perform alcohol testing upon first opening. Keep small green top tube closed and on ice for venous pH. Plain red top tube and gray top tube are used only if confirmatory tests are indicated.

Reference value: Refer to individual test entry and Toxic Volatile Screen Laboratory Results for Frequent Situations table which follows on next page. Mercy technical staff, refer to Osmolality procedure for analysis, calculations, & interpretation.

Performed: On receipt. Available stat.

Method: Refer to individual test entry.

CPT codes: 83930 Osmolality
 82800 Ph
 80048 Basic Metabolic Panel
 82010 Beta Hydroxybutyrate Level
 G0480 / 82077 Alcohol (Ethanol)

POWERCHART NAME	TOXOPLASMOSIS ANTIBODY IgG IgM		
MERCY TEST NAME	TOXOPLASMA IGG, IGM*	MERCY LAB CODE	TOXOGM

Includes: Toxoplasma IgG and Toxoplasma IgM
 Specimen: 1.5 ml serum from a Serum Separator Tube (SST) or no additive serum tube.
 Processing: Send refrigerated to Mayo. Mayo order code (**TXMGP**).
 Performed: 1-3 day(s). Test set up Monday through Friday
 Reference Value: Reference ranges included with results.
 Method: IgM: Enzyme Immunoassay (EIA)
 IgG: Multiplex Flow Immunoassay (MFI)
 CPT Code: 86777/IgG
 86778/IgM

POWERCHART NAME	TRANSFERRIN		
MERCY TEST NAME	TRANSFERRIN	MERCY LAB CODE	TRNS

Specimen: 0.5 ml of serum

Stability: Separated specimens may be stored for up to 8 hours at room temperature or for up to 7 days at 2–8°C or stored frozen for up to 1 month at -20°C or 1 year at -70°C.

Performed: Within 8 hours of receipt. Available stat.

Reference Range: 200 - 360 mg/dl

Method: The Atellica CH Trf assay is a polyethylene glycol (PEG) enhanced immunoturbidimetric

Description: assay.

CPT Code: 84466

TEST NAME	TRANSFUSION REACTION WORK-UP
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Comment: MMC-NI Nursing Services should notify the physician and Lab immediately and follow Nursing Policy #602 Blood Transfusion Reaction Investigation which can be found on the Mercy Intranet Home page, Policies, Procedures and By-Laws, Nursing. In this policy under the procedure portion, A.5. follow the helpful link to Documentation Guidelines: Blood Transfusion Reaction. Nursing will fill out "Post Transfusion" documentation form in Powerchart selecting "YES" in the Transfusion Reaction box and any other required fields. Once "YES" is selected the "Transfusion Reaction Workup" will be automatically ordered and generated to the Laboratory.

Nursing should continue with the Transfusion Reaction by delivering the Lab copy of the Blood/Blood Component Transfusion Form and the blood/component bag with all attached tubing and IV solutions to the Lab immediately. Continue to monitor patient. There is no charge to the patient.

Specimen: 6 ml **pink** top tube.

Performed: Immediately on receipt.

Reference value: A Transfusion Reaction Investigation report which includes a written interpretation by a pathologist will be completed.

Method: Serological
CPT Code: NA

POWERCHART NAME	TRAUMA PANEL		
MERCY TEST NAME	TRAUMA PANEL	MERCY LAB CODE	TPNL

Comment: For use by Emergency Center ONLY **and** only in a trauma situation.
Includes: Alcohol, blood Amylase CBC with Diff
Metabolic Panel Protime PTT
Specimen: Draw a Serum Separator Tube (SST), a blue top sodium citrate tube filled appropriately with amount of blood listed on label, 1 purple top (EDTA) tube, 1 pink top tube, and 1 gray top Sodium Fluoride tube on ice for a possible lactic acid.
Performed: Within 8 hours of receipt. Available stat.
Reference value: See individual test entry.
Method: See individual test entry.
CPT Code: 85025 CBC
85610 Protime
85730 PTT
80048 Basic Metabolic Pnl
82150 Amylase
G0480 / 82077 Alcohol Ethyl Bld

TEST NAME	TRAVEL CHARGE
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MERCY TEST NAME	TRAVEL CHG	MERCY LAB CODE	TRVL
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Comment: To be ordered by Lab on any specimen collected by Lab personnel outside the Laboratory facility.

CPT Code: P9604

POWERCHART NAME	TRICHOMONAS VAGINALIS PCR		
MERCY TEST NAME	TRICHOMONAS PCR	MERCY LAB CODE	TRCHM

Specimen: **Urine:** First void urine specimens must be transferred from the collection cup to the Xpert Urine Transport Reagent Tube (Yellow Cap) immediately (preferred) or within 4 hours of collection when kept at Room Temperature or within 4 days of collection when stored at 2–8°C.

Urine specimens in Xpert Urine Transport Reagent Tubes should be kept between 2°C and 30°C during transport and can be stored for up to 14 days at this temperature.

Urine Specimen Collection:

- Collect the specimen in a sterile, preservative-free specimen collection cup.
- The patient should collect the first 20–60 mL of voided urine (the first part of the stream - not midstream) into a urine collection cup.

- Cap and label the urine collection cup with patient identification and date/time collected.

Vaginal/Endocervical/: Collect using only the Xpert Swab Specimen Collection Kit (Pink Cap). Swab samples in Xpert Swab Transport Reagent are stable up to 60 days at 2–30°C.

Performed: Performed daily. Available STAT.

Reference value: Trichomonas Not Detected

Method: DNA Extraction

CPT Code: 87661

POWERCHART NAME	TRIGLYCERIDES		
MERCY TEST NAME	TRIGLYCERIDE	MERCY LAB CODE	TRIG

Specimen: 0.5 ml of serum

Stability: Separated specimens in the primary collection device are stable for up to 7 days at 2–8°C.⁷ Separated specimens may be frozen for up to 30 days at ≤ -20°C.⁷ Do not store in a frost-free freezer. Thoroughly mix thawed specimens and centrifuge before using.

Comment: Do not use hemolyzed samples, as they may cause significant interference with this assay.

Performed: Within 8 hours of receipt. Available stat.

Reference Range: 35-150 mg/dL

Method Description: The Atellica CH Trig_2 assay is based on an enzymatic procedure in which a combination of enzymes is employed for the measurement of serum or plasma triglycerides.
 CPT Code: 84478

POWERCHART NAME	TRIGLYCERIDE BODY FLUID		
MERCY TEST NAME	TRIGLYCERIDE BF	MERCY LAB CODE	FTRG

Specimen: 0.5 ml of body fluid placed in a sterile container
 Stability: Separated specimens in the primary collection device are stable for up to 7 days at 2–8°C.⁷ Separated specimens may be frozen for up to 30 days at ≤ -20°C.⁷ Do not store in a frost-free freezer. Thoroughly mix thawed specimens and centrifuge before using.
 Comment: Indicate body fluid source in comment.
 Performed: Within 8 hours of receipt. Available stat.

Reference Range: No established reference range available.

Method Description: The Atellica CH Trig_2 assay is based on an enzymatic procedure in which a combination of enzymes is employed for the measurement of serum or plasma triglycerides.
 CPT Code: 84478

POWERCHART NAME	T3 REVERSE		
MERCY TEST NAME	T3 REVERSE*	MERCY LAB CODE	RT3B

Specimen: 0.8 ml serum from a no additive serum tube or a Serum Separator Tube (SST).

Performed: 2-6 days. Test set up Monday, Wednesday, Friday: 8:30 a.m.
 Processing: Send refrigerated to Mayo. Mayo order code (RT3).
 Reference value: Included in report.
 Method: Liquid Chromatography-Tandem Mass Spectrometry (LC-MS/MS)
 CPT Code: 84482

POWERCHART NAME	TROPONIN I		
MERCY TEST NAME	TROPONIN I	MERCY LAB CODE	TRPI

Specimen: 0.5 ml of serum
 Stability: Samples are stable up to 8 hours when tightly capped and stored at room temperature. Samples are stable up to 24 hours when tightly capped and stored at 2–8°C. Samples can be frozen at ≤ -20°C for up to 40 days. Do not store in a frost-free freezer. Samples can be frozen at ≤ -70°C for up to 1 year. Freeze samples only once and mix thoroughly after thawing.

Comment: The use of a single sample type (either lithium-heparin plasma or serum) is recommended for troponin analysis when collecting serial samples from the same patient.

For serum specimens, complete clot formation should take place before centrifugation.

Serum should be physically separated from cells as soon as possible from the time of collection.

Performed: Within 8 hours of receipt. Available stat.

Reference Range: Male <53 pg/mL

Female <38 pg/dL

Method: The Atellica IM TnIH is a 3-site sandwich immunoassay using direct chemiluminescent
Description: Technology.
CPT Code: 84484

POWERCHART NAME	TRYPTASE		
MERCY TEST NAME	TRYPTASE*	MERCY LAB CODE	TRYPT

Specimen: 0.5 mL serum from a Serum Separator Tube (SST-preferred), or a no additive serum tube-acceptable

Processing: Aliquot specimen, send FROZEN to Mayo. Mayo order code (TRYPT).

Performed: **1-5 days. Monday - Friday 9 am to 1 pm**

Reference Value: Included in report

Method: Fluorescence Enzyme Immunoassay (FEIA)
CPT Code: 83520

POWERCHART NAME	TSH (THYROID STIMULATING HORMONE)
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MERCY TEST NAME	TSH SENSITIVE	MERCY LAB CODE	TSH
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Specimen: 0.5 ml of serum

Stability: Separated specimens are stable for 24 hours at room temperature or 2 days at 2–8°C. For longer storage, serum and EDTA plasma samples may be frozen for up to 30 days at ≤ -20°C. Lithium heparin samples can be stored at ≤ -20°C for up to 14 days. Freeze samples only 1 time and mix thoroughly after thawing. Thawed specimens that are turbid must be clarified by centrifugation prior to testing.

Comment: This assay has not been validated for testing samples from newborns.

Performed: Within 8 hours of receipt. Available stat.

Reference Range: < 1 year: 0.800-6.300 mIU/L

1-5 years: 0.300-6.000 mIU/L

6 years to adult: 0.300-5.00 mIU/L

Method Description: The Atellica IM TSH3-UL assay is a third-generation assay that employs anti-FITC monoclonal antibody covalently bound to paramagnetic particles, an FITC-labeled anti-TSH capture mouse monoclonal antibody, and a tracer consisting of a proprietary acridinium ester and an anti-TSH mouse monoclonal antibody conjugated to bovine serum albumin (BSA) for chemiluminescent detection.

CPT Code: 84443

POWERCHART NAME	TYPE AND SCREEN
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MERCY TEST NAME	TYPE AND SCRIN	MERCY LAB CODE	TYSC
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Includes: ABO Group/RH Type and Antibody Screen.
Please note: NO units will be crossmatched.

Type and Screen is included in: Crossmatch.

Specimen: One 6 ml pink top tube.

All patients drawn for possible blood product transfusion MUST be correctly identified and MUST BE WEARING an armband with their FULL NAME and MEDICAL RECORD NUMBER before the patient is drawn.

A (check mark) must be put by the Medical Record number on the tubes drawn for a Type and Screen by the person drawing the specimen indicating the phlebotomist has matched the medical record number on the Specimen with the medical record number on the Patient Armband and it is identical along with the name and other pertinent information.

Date, time, and initials of the individual collecting the specimen must be on the tube.

FOR OUTPATIENT AND PRE-SURGICAL PATIENTS:

All the above guidelines must be followed. The PATIENT is also to be informed to leave the armband on and if the armband is removed, they will need to be redrawn and testing repeated. **Qualified staff may remove the armband and replace it with another armband after careful matching.

If a type and screen specimen is subsequently used for a crossmatch order, the crossmatch expiration is 3 days following the day the type and screen specimen was collected.

Performed: Within 8 hours of receipt. Available stat.
 Method: Serological
 CPT Code: 86900 ABO+
 86901 RH+
 86850 Antibody Sc

POWERCHART NAME	UREA BREATH TEST		
MERCY TEST NAME	UREA BREATH TEST	MERCY LAB CODE	HPUBT

Patient Preparation: Patient cannot eat or drink (including chewing gum) 1 hour prior to testing. Must be able to swallow a solution and blow-up balloon. For Further directions please see the Patient Preparation and Specimen Collection Procedure Located in the Special Helps Section.

Processing: Bag of breath must be full. Send specimen ambient. Mayo order code UBT.

Comment: It is not available to inpatients due to the extensive preparation of discontinuing medication.
 Testing for Helicobacter Pylori

Performed: Monday through Friday; 6:30 a.m. - 4:30 p.m.

Reference value: Included with report.

Method: Infrared Spectrophotometry (SP)

CPT Code: 83013

POWERCHART NAME	UREA NITROGEN 24 HOUR URINE		
MERCY TEST NAME	UREA NITROGEN 24UR	MERCY LAB CODE	VUN

Specimen: 5 mL of urine from an unpreserved 24-hour urine specimen kept refrigerate during collection.

Stability: Urine urea nitrogen may be stored for up to 4 days at 4–8°C when preserved with thymol to avoid bacterial action.

Performed: Within 8 hours of receipt. Available stat.

Reference Range: 12 - 20 g/24 hours

Method: The Atellica CH Urea Nitrogen (UN_c) assay is based on the Roch-Ramel enzymatic reaction

Description: using urease and glutamate dehydrogenase.

CPT Code: 84540

POWERCHART NAME	Urea Nitrogen Random Urine		
MERCY TEST NAME	Urea Random Urine	MERCY LAB CODE	RUREA

Specimen: 5 ml of random urine

Stability: Urine urea nitrogen may be stored for up to 4 days at 4–8°C when preserved with thymol to avoid bacterial action.

Performed: Within 8 hours of receipt. Available stat.

Reference Range: No established reference range available.

Method: The Atellica CH Urea Nitrogen (UN_c) assay is based on the Roch-Ramel enzymatic reaction

Description: using urease and glutamate dehydrogenase.

CPT Code: 84540

POWERCHART NAME	UREA CLEARANCE 24 HOUR URINE		
MERCY TEST NAME	UREA CL 24 UR	MERCY LAB CODE	VUCL
Specimen:	0.5 mL serum and 5 mL urine from an unpreserved 24-hour urine specimen kept refrigerate during collection.		
Stability:	<p>Separated blood urea nitrogen is stable in separated serum or plasma and may be stored for up to 3–5 days at room temperature or for up to 7 days at 4°C or stored frozen indefinitely at -20°C.</p> <p>Urine urea nitrogen may be stored for up to 4 days at 4–8°C when preserved with thymol to avoid bacterial action.</p>		
Comment:	<p>Includes: Volume (ml/24 hours) Raw Urea Nitrogen (mg/dl) Calc. Urea Nitrogen (g/24 hours) Urea Nitrogen Clearance (ml/min)</p> <p>Outpatients and Inpatients: MercyOne Laboratory will order and draw the appropriate no charge serum BUN (BUNNC) if a serum BUN has not been completed within 48 hours.</p> <p>Regional Lab Clients: MercyOne Laboratory will order the serum BUN at no charge. Do not order a single BUN on the requisition.</p>		
Performed:	Within 8 hours of receipt. Available stat.		
Reference Range:	No established reference range available		

Method Description:	The Atellica CH Urea Nitrogen (UN_c) assay is based on the Roch-Ramel enzymatic reaction using urease and glutamate dehydrogenase.
CPT Code:	84545

POWERCHART NAME	URIC ACID		
MERCY TEST NAME	URIC ACID	MERCY LAB CODE	URIC

Specimen: 0.5 ml serum
Stability: Specimens may be stored for 3–4 days at ambient temperature, up to 3–5 days at 4°C or stored frozen for up to 6 months at -20°C.
Performed: Within 8 hours of receipt. Available stat.

Reference Range: Male: 4.4-7.6 mg/dl
Female: 2.3-6.6 mg/dl

Method Description: The Atellica CH Uric Acid (UA) assay is based on the Fossati enzymatic reaction using uricase with a Trinder-like endpoint.
CPT Code: 84550

POWERCHART NAME	URIC ACID 24 HOUR URINE		
MERCY TEST NAME	URIC ACID 24UR	MERCY LAB CODE	VURI

Specimen: 5 mL urine from an unpreserved 24-hour urine specimen kept refrigerate during collection.
Stability: Specimens may be stored for 3–4 days at ambient temperature for alkaline urine.

Performed: Within 8 hours of receipt. Available stat.
 Reference Range: 250 - 750 mg/24 hours
 Method The Atellica CH Uric Acid (UA) assay is based on the Fossati enzymatic reaction using uricase
 Description: with a Trinder-like endpoint.
 CPT Code: 84560

POWERCHART NAME	URIC ACID BODY FLUID		
MERCY TEST NAME	URIC ACID BF	MERCY LAB CODE	FURI

Specimen: 0.5 mL of refrigerated joint fluid in a sterile container.
 Stability: Specimens may be stored for 3–4 days at ambient temperature, up to 3–5 days at 4°C or stored frozen for up to 6 months at -20°C.
 Performed: Within 8 hours of receipt. Available stat.
 Reference Range: No established reference range available.
 Method The Atellica CH Uric Acid (UA) assay is based on the Fossati enzymatic reaction using uricase
 Description: with a Trinder-like endpoint.
 CPT Code: 84560

POWERCHART NAME	UA URINALYSIS COMPLETE		
MERCY TEST NAME	UA with MICROSCOPIC	MERCY LAB CODE	UAMC

Includes: Appearance, Glucose, Occult Blood, Urobilinogen, Bilirubin, Ketones, Ph, Leukocytes, Protein, Nitrites, Specific Gravity.

A microscopic description of the specimen will be included.

**This order is for lab generated order only. The order is NOT available in Cerner Powerchart.

Specimen:

Recommend testing volume: 15 mL of freshly voided urine.

4 mL minimum (adults)

2 mL minimum (infant/pediatric)

Deliver specimen to lab as soon as possible after collection.

First morning specimen is preferred for testing, but random collections are acceptable.

Midstream:

Instruct patient of the proper collection technique. Collect in a sterile plastic container with a tight-fitting lid. Provide the patient with 3 antiseptic towelettes.

Use the following collection procedure:

-The patient should thoroughly wash their hands.

-Remove the lid from the container. Do not touch the inside surfaces.

-Remove all clothing from waist down.

-Assume the appropriate position.

-Female: Sit on the toilet seat with legs spread apart.

-Male: Stand facing the toilet or sit on the toilet with legs spread apart.

-Open the towelettes and cleanse perineal area.

-Female: Separate the labia with the thumb and forefinger. Using downward strokes, cleanse one labia with a towelette and discard. Cleanse the other labium and meatus in the same fashion, using a separate towelette for each stroke, and discard. Keep the labia separated.

-Male: If uncircumcised, retract the foreskin before proceeding. Cleanse the head of the penis with a towelette, using a circular motion from the urethral opening to the outer diameter of the penis. Discard towelette. Repeat using all the towelettes.

-Hold container by the outside surface. Begin urinating into the toilet.

- Place container under the stream of urine after a good flow has started.
 - Fill container half full and void remainder of the urine into the toilet.
 - Screw on the sterile cover. Do not touch the inner surface.
- Unpreserved specimens >2 hours at room temperature or >8 hours refrigerated.

Cause for rejection:

Comment:

Indicate time of collection in comment. Indicate method of collection using the following codes:

- MURN Midstream
- CURN Cath
- SURN Suprapubic

Performed:

Within 2 hours of receipt. Available Stat.

Reference Value:

- | | |
|----------------------------|-------------------------|
| Spec. Gravity: 1.001-1.035 | Urine Microscopic: |
| Ph: 4.6-8.0 | WBC: 0-5/HPF |
| Protein: Negative | RBC: 0-2/HPF |
| Glucose: Negative | SQ Epithelial: 0-5/HPF |
| Ketones: Negative | CAST: Rare Hyaline/LPF |
| Bilirubin: Negative | Crystals: None Seen/HPF |
| Occult Blood: Negative | Bacteria: None Seen/HPF |
| Urobilinogen: Negative | Yeast: None Seen/HPF |
| Leukocytes: Negative | |
| Nitrites: Negative | |

Method:

Reagent strip, microscopic examination.

CPT Code:

81001 Urine Routine and Micro

POWERCHART NAME	UA URINALYSIS ROUTINE		
MERCY TEST NAME	URINALYSIS ROUTINE	MERCY LAB CODE	UA

Includes: Appearance, Glucose, Occult Blood, Urobilinogen, Bilirubin, Ketones, Ph, Leukocytes, Protein, Nitrites, Specific Gravity.

A microscopic description of the specimen will be included on hazy and cloudy specimens and those specimens having one or more positive results on the dipstick except Glucose and Ketone. Clear urines with negative dipsticks will not have the microscopic analysis performed.

Specimen: Recommend testing volume: 15 mL of freshly voided urine.
 4 mL minimum (adults)
 2 mL minimum (infant/pediatric)
 Deliver specimen to lab as soon as possible after collection.

First morning specimen is preferred for testing, but random collections are acceptable.

Midstream:

Instruct patient of the proper collection technique. Collect in a sterile plastic container with a tight-fitting lid. Provide the patient with 3 antiseptic towelettes.

Use the following collection procedure:

- The patient should thoroughly wash their hands.
- Remove the lid from the container. Do not touch the inside surfaces.
- Remove all clothing from waist down.
- Assume the appropriate position.
- Female: Sit on the toilet seat with legs spread apart.

- Male: Stand facing the toilet or sit on the toilet with legs spread apart.
- Open the towelettes and cleanse perineal area.
- Female: Separate the labia with the thumb and forefinger. Using downward strokes, cleanse one labia with a towelette and discard. Cleanse the other labium and meatus in the same fashion, using a separate towelette for each stroke, and discard. Keep the labia separated.
- Male: If uncircumcised, retract the foreskin before proceeding. Cleanse the head of the penis with a towelette, using a circular motion from the urethral opening to the outer diameter of the penis. Discard towelette. Repeat using all the towelettes.
- Hold container by the outside surface. Begin urinating into the toilet.
- Place container under the stream of urine after a good flow has started.
- Fill container half full and void remainder of the urine into the toilet.
- Screw on the sterile cover. Do not touch the inner surface.

Nursing Home and Reference Lab Specimens:

- Deliver to the lab within 2 hours of collection if urine has been stored at room temperature, or within 8 hours if the urine has been stored in the refrigerator. Send urines **refrigerated***.

Clinic Laboratories and Nursing Homes:

- If delivery will exceed **2 hours** (for samples kept at room temperature) or **8 hours** (for samples kept refrigerated) from collection to receipt at MercyOne lab, the urine needs to be transferred into the **BD Vacutainer Urinalysis Preservative Plus** conical urine tube (yellow and red marbled lid, with a pointed end).

Send the preserved urine at room temperature to MercyOne Lab.

The stability of the BD Vacutainer Urinalysis Plus preserved specimen is 72 hours.

Samples should be stored protected from light.

The BD Vacutainer Preservative tubes should be filled to the minimum fill line and not to exceed the maximum fill line.

ONLY ROUTINE URINALYSIS TESTING CAN BE PERFORMED from the BD Vacutainer Urinalysis Preservative Plus conical urine tubes. This preservative is NOT acceptable for urine cultures.

Cause for rejection:	Unpreserved specimens >2 hours at room temperature or >8 hours refrigerated.	
Comment:	Indicate time of collection in comment. Indicate method of collection using the following codes: MURN Midstream CURN Cath SURN Suprapubic A microscopic exam is performed and charged if any of the following exist: Clarity is hazy, cloudy, or turbid. All positive Chemstrip results except for positive Glucose or positive Ketones. Providers may specifically request a microscopic be performed by writing "Urinalysis with Micro" on the requisition.	
Performed:	Within 2 hours of receipt. Available Stat.	
Reference Value:	Spec. Gravity: 1.001-1.035 Ph: 4.6-8.0 Protein: Negative Glucose: Negative Ketones: Negative Bilirubin: Negative Occult Blood: Negative Urobilinogen: Negative Leukocytes: Negative Nitrites: Negative	Urine Microscopic: WBC: 0-5/HPF RBC: 0-2/HPF SQ Epithelial: 0-5/HPF CAST: Rare Hyaline/LPF Crystals: None Seen/HPF Bacteria: None Seen/HPF Yeast: None Seen/HPF

Method: Reagent strip, microscopic examination.

CPT Code: 81003 Urinalysis Routine (if microscopic not done)
81001 Urine Routine and Micro (when microscopic is done)

POWERCHART NAME	URINE CULTURE		
MERCY TEST NAME	URINE CLT	MERCY LAB CODE	URNC

Midstream, catheterized, suprapubic, or nephrostomy.

0.5 ML urine minimum.

Send immediately to the lab for culture.

* If immediate delivery will be delayed, the specimen should be refrigerated and delivered refrigerated, within 2 hours of collection.

* If delivery will exceed 2 hours, best practice is to place the specimen in a urine culture transport tube (gray lid) and deliver within 48 hours, at room temperature.

Although not recommended, an unpreserved urine can be used for culture, up to 24 hours old, if the specimen has remained refrigerated.

Specimen:

Midstream:

Instruct patient of the proper collection technique. Collect in a sterile plastic container with a tight-fitting lid. Provide the patient with 3 antiseptic towelettes. Use the following collection procedure:

- The patient should thoroughly wash their hands.
- Remove the lid from the container. Do not touch the inside surfaces.
- Remove all clothing from the waist down.

- Assume the appropriate position:
Female-Sit on the toilet with legs spread apart.
Male-Stand facing the toilet or sit on the toilet with legs spread apart.
- Open the towelettes and cleanse perineal area.
Female: Separate the labia with the thumb and forefinger. Using downward strokes, cleanse one labium with a towelette and discard. Cleanse the other labium and meatus in the same fashion, using a separate towelette for each stroke, and discard. Keep the labia separated.
Male: If uncircumcised, retract the foreskin before proceeding. Cleanse the head of the penis with a towelette, using a circular motion from the urethral opening to the outer diameter of the penis. Discard towelette. Repeat using all the towelettes.
- Hold container by the outside surface. Begin urinating into the toilet.
- Place container under the stream of urine after a good flow has started.
- Fill container half full and void remainder of the urine into the toilet.
- Screw on the sterile cover. Do not touch the inner surface.

In-dwelling catheter:

Obtain the specimen with a needle and syringe. Select a puncture site 1-2 inches distal to the meatus. Clean the area to be punctured with 70% alcohol. Aspirate 10 ml of urine with a sterile needle and syringe.

NOTE: Specimens obtained from the collection bag are NOT clinically useful. FOLEY TIPS WILL NOT BE ACCEPTED.

ALL OUTSIDE CLIENTS (INCLUDING NURSING HOMES)

- If specimen is a Suprapubic or Nephrostomy specimen, write this on the SOURCE line.

- Refrigerate urine immediately after collection and during transport. Deliver to Mercy Lab within 2 hours of collection (**DO NOT LEAVE URINE AT ROOM TEMPERATURE AFTER COLLECTION**).
- If delivery will exceed 2 hours from collection, specimens must be transferred to a urine transport tube. (Available from Mercy Lab.):

1. Fill the urine transport tube with the urine specimen (about 4 ml).
2. If there is <4 ml of urine, remove the rubber stopper from the tube and fill it to the minimum mark with urine. Replace the rubber stopper and mix well.
3. If the specimen was collected from an in-dwelling catheter using a syringe, inject the needle through the rubber stopper and allow the vacuum inside of the tube to draw the correct volume into the tube.
4. Transport at room temperature. Specimen must be received by Microbiology Lab within 48 hours of collection.

- Results will be quantitated in colony forming units/ml.
- Specimens containing more than 3 organisms will NOT routinely have organism identifications or susceptibility testing reported. This is generally indicative of an improperly collected specimen.
- Foley catheter tips will NOT be cultured.
- Susceptibility testing will be routinely performed on all significant isolates.
- Urine culture transport tubes are not acceptable for urinalysis.

Comments:

Performed: Final report: 1 - 2 days

Reference value: No growth (<10,000 CFU/ml)

Method: Standard culture techniques

CPT Code: 87086

POWERCHART NAME	URINE DIPSTICK		
MERCY TEST NAME	URINE DIPSTICK	MERCY LAB CODE	UCS

Includes: Appearance, Glucose, Occult Blood, Urobilinogen, Bilirubin, Ketones, Ph, Leukocytes, Protein, Nitrites, Specific Gravity.

Specimen: Recommend testing volume: 15 mL of freshly voided urine.
4 mL minimum (adults)
2 mL minimum (infant/pediatric)
Deliver specimen to lab as soon as possible after collection.

First morning specimen is preferred for testing, but random collections are acceptable.

Midstream:

Instruct patient of the proper collection technique. Collect in a sterile plastic container with a tight-fitting lid. Provide the patient with 3 antiseptic towelettes.

Use the following collection procedure:

- The patient should thoroughly wash their hands.
- Remove the lid from the container. Do not touch the inside surfaces.
- Remove all clothing from waist down.
- Assume the appropriate position.

- Female: Sit on the toilet seat with legs spread apart.
- Male: Stand facing the toilet or sit on the toilet with legs spread apart.
- Open the towelettes and cleanse perineal area.
- Female: Separate the labia with the thumb and forefinger. Using downward strokes, cleanse one labia with a towelette and discard. Cleanse the other labium and meatus in the same fashion, using a separate towelette for each stroke, and discard. Keep the labia separated.
- Male: If uncircumcised, retract the foreskin before proceeding. Cleanse the head of the penis with a towelette, using a circular motion from the urethral opening to the outer diameter of the penis. Discard towelette. Repeat using all the towelettes.
- Hold container by the outside surface. Begin urinating into the toilet.
- Place container under the stream of urine after a good flow has started.
- Fill container half full and void remainder of the urine into the toilet.
- Screw on the sterile cover. Do not touch the inner surface.

Cause for rejection:

Specimens >2 hours at room temperature or >8 hours refrigerated.

Comment:

Indicate time of collection in comment. Indicate method of collection using the following codes:

MURN Midstream

CURN Cath

SURN Suprapubic

Performed:

Within 2 hours of receipt. Available Stat.

Reference Value: Spec. Gravity: 1.001-1.035
 Ph: 4.6-8.0
 Protein: Negative
 Glucose: Negative
 Ketones: Negative
 Bilirubin: Negative
 Occult Blood: Negative
 Urobilinogen: Negative
 Leukocytes: Negative
 Nitrites: Negative

Method: Reagent strip.

CPT Code: 81003

POWERCHART NAME	URINE MEASUREMENT		
MERCY TEST NAME	URINE MEASUREMENT	MERCY LAB CODE	VMSM

Comment: To be ordered by the Lab on any urine specimen measured by Mercy Lab personnel.
 Method: Manually using a graduated cylinder or container.
 CPT Code: 81050

POWERCHART NAME	URINE MICROSCOPIC ONLY
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MERCY TEST NAME	URINE MICRO ONLY	MERCY LAB CODE	UCM
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Includes: Description of the sediment.

Specimen: Recommend testing volume: 15 mL of freshly voided urine.
 4 mL minimum (adults)
 2 mL minimum (infant/pediatric)
 Deliver specimen to lab within 1 hour of collection.

First morning specimen is preferred for testing, but random collections are acceptable.

Midstream:

Instruct patient of the proper collection technique. Collect in a sterile plastic container with a tight-fitting lid. Provide the patient with 3 antiseptic towelettes.

Use the following collection procedure:

- The patient should thoroughly wash their hands.
- Remove the lid from the container. Do not touch the inside surfaces.
- Remove all clothing from waist down.
- Assume the appropriate position.
- Female: Sit on the toilet seat with legs spread apart.
- Male: Stand facing the toilet or sit on the toilet with legs spread apart.
- Open the towelettes and cleanse perineal area.
- Female: Separate the labia with the thumb and forefinger. Using downward strokes, cleanse one labia with a towelette and discard. Cleanse the other labium and meatus in the same fashion, using a separate towelette for each stroke, and discard. Keep the labia separated.

-Male: If uncircumcised, retract the foreskin before proceeding. Cleanse the head of the penis with a towelette, using a circular motion from the urethral opening to the outer diameter of the penis. Discard towelette. Repeat using all the towelettes.

-Hold container by the outside surface. Begin urinating into the toilet.

-Place container under the stream of urine after a good flow has started.

-Fill container half full and void remainder of the urine into the toilet.

-Screw on the sterile cover. Do not touch the inner surface.

Comment: Indicate time of collection in comment. Indicate method of collection using the following codes:

MURN Midstream

CURN Cath

SURN Suprapubic

Performed: Within 2 hours of receipt. Available Stat.

Reference Value: Urine Microscopic:

WBC: 0-5/HPF

RBC: 0-2/HPF

SQ Epithelial: 0-5/HPF

CAST: Rare Hyaline/LPF

Crystals: None seen/HPF

Bacteria: None seen/HPF

Yeast: None seen/HPF

Method: Microscopic examination.

CPT Code: 81015

TEST NAME	UROPORPHYRINS	See: Porphyrin Quantitative 24Hour Urine* Porphyrins Quantitative Random Urine
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POWERCHART NAME	VALPROIC ACID (DEPAKENE) LEVEL		
MERCY TEST NAME	VALPRO ACID	MERCY LAB CODE	VAL

Specimen: 0.5 ml serum

Stability: Specimens may be stored for up to 8 hours at 25°C or for up to 2 days at 2-8°C or stored frozen for up to 30 days at -20°C.

Comment: Indicate time last dose in comment.

Performed: Within 8 hours of receipt. Available stat.

Therapeutic Range: 50-100 mcg/ml

Method Description: The Atellica CH VPA assay is based on a particle-enhanced turbidimetric inhibition immunoassay (PETINIA) technique which measures the level of valproic acid, an anticonvulsant drug.

CPT Code: 80164

POWERCHART NAME	VANCOMYCIN LEVEL INTERMEDIATE		
MERCY TEST NAME	VANCOMYCIN INT	MERCY LAB CODE	VNI

Specimen: 0.5 mL of serum
 Stability: Specimens may be stored for up to 8 hours at room temperature (25°C), up to 2 days at 2–8°C, or stored frozen for up to 30 days at -20°C.
 Comment: Consult Pharmacy to establish collection time. Indicate time last dose in comment.
 Performed: Within 8 hours of receipt. Available stat.
 Therapeutic Range: The Atellica CH Vanc assay is based on a homogeneous particle enhanced turbidimetric inhibition immunoassay (PETINIA) technique which uses a synthetic particle-vancomycin conjugate (PR) and monoclonal vancomycin specific antibody (Ab).
 Method Description:
 CPT Code: 80202

POWERCHART NAME	VANCOMYCIN TROUGH LEVEL		
MERCY TEST NAME	VANCOMYCIN TRGH	MERCY LAB CODE	VNTR

Specimen: 0.5 mL of serum
 Stability: Specimens may be stored for up to 8 hours at room temperature (25°C), up to 2 days at 2–8°C, or stored frozen for up to 30 days at -20°C.
 Comment: Consult Pharmacy to establish collection time. Indicate time last dose in comment.
 Performed: Within 8 hours of receipt. Available stat.
 Therapeutic Range: 10-20 mcg/mL
 Method Description: The Atellica CH Vanc assay is based on a homogeneous particle enhanced turbidimetric inhibition immunoassay (PETINIA) technique which uses a synthetic particle-vancomycin conjugate (PR) and monoclonal vancomycin specific antibody (Ab).
 CPT Code: 80202

POWERCHART NAME	VARICELLA ZOSTER ANTIBODY IgG		
MERCY TEST NAME	VARI ZOSTER AB IGG*	MERCY LAB CODE	VZVGG

Specimen: 1.0 ml serum from a Serum Separator Tube (SST) or no additive serum tube.
This test is for immune status.

Comment: For diagnosis of recent infection, testing of IgM and IgG antibodies are recommended (VZGM)
Alias: Chicken Pox

Processing: Specimen stability is 14 days when refrigerated. Send refrigerated to Mayo. Mayo order code VZPG.

Performed: Test set up Monday through Saturday.

Reference value: Included with results.

Method: Multiplex Flow Immunoassay (MFI)

CPT Code: 86787

POWERCHART NAME	VARICELLA ZOSTER ANTIBODY IgG IgM		
MERCY TEST NAME	VARIC ZOST IgG IgM*	MERCY LAB CODE	VZGM

Specimen: 1 ml serum from a Serum Separator Tube (SST) or no additive serum tube.

Comment: Includes IgG and IgM results

Processing: Send in screw-capped, round bottom, plastic vial, **refrigerated** to Mayo. Mayo order code (VZGM).

Alias: Chicken Pox

Performed: Test set up Monday through Saturday

Reference value: Included with Results

Method: IgG: Multiplex Flow Immunoassay (MFI)

IgM: Immunofluorescence Assay (IFA)

CPT Code: 86787 x2

TEST NAME	VARICELLA ZOSTER PCR (MC)		
MERCY TEST NAME	VARIC ZST, NOT BLD*	MERCY LAB CODE	LVZV

Specimen: Must indicate specimen source. Submit only 1 of the following specimens:

Body fluid (Spinal, pleural, peritoneal, ascites, pericardial, amniotic, or ocular) – 0.5 mL of fluid in a sterile container. **Do not centrifuge.** Send to Mayo in Sarstedt Aliquot Tube, 5 mL (T914).

Swab (Miscellaneous; dermal, eye, nasal, or throat) – Culturette (BBL Culture Swab) (T092). Send swab to Mayo in multimicrobe media (M4-RT, M4 or M5).

Genital Swab (Cervix, vagina, urethra, anal/rectal, or other genital sources) – Culturette (BBL Culture Swab) (T092). Send swab to Mayo in multimicrobe media (M4-RT, M4 or M5).

Respiratory (Bronchial washing, bronchoalveolar lavage, nasopharyngeal aspirate or washing, sputum, or tracheal aspirate) – 1.5 mL of specimen in sterile container.

Tissue (Brain, colon, kidney, liver, lung, etc.) – Entire collection in a Multimicrobe media (M4-RT) (T605) (Preferred) or Sterile container with 1–2 mL of sterile saline.

Cautions: A negative result does not exclude the possibility of varicella-zoster virus (VZV) infection. The reference range is typically “negative” for this assay. This assay is only to be used for patients with a clinical history and symptoms consistent with VZV infection and must be interpreted in the context of the clinical picture. This test should **not** be used to screen asymptomatic patients.

Processing: Send refrigerated to Mayo. Frozen is also acceptable. Mayo order code (**VZVPV**).

Performed: 1-4 days. Monday through Saturday.

Reference value: Reference ranges included with report.

Method: Real-Time Polymerase Chain Reaction (PCR)/DNA Probe Hybridization

CPT Code: 87798

TEST NAME	VASCULAR ENDOTHELIAL GROWTH FACTOR		
MERCY TEST NAME	VASC ENDO GRW FCTR*	MERCY LAB CODE	VEGF

Collection Instructions:

- Immediately after specimen collection, place the tube on wet ice.
- Centrifuge at 1500 x g for 10 minutes and aliquot plasma into plastic vial.
- Freeze specimen within 30 minutes.

Specimen: 0.5 mL plasma from a Lavender-top (EDTA) tube.

Processing: Aliquoted plasma **MUST** be frozen within 30 minutes of collection
Send **frozen** to Mayo. Mayo order code (**VEGF**).

Performed: 1-8 days, Tuesday & Friday

Reference Value: Reference ranges included with results.

Method: Electrochemiluminescence Immunoassay (ECLIA)

CPT Code 83520

POWERCHART NAME	NEUTROPHIL CYTOPLASM ANTIBODY VASCULITIS PANEL		
MERCY TEST NAME	VASCULITIS ANCA PANEL*	MERCY LAB CODE	VAPNL

Specimen: 1.0 mL serum from a Serum Separator Tube (SST) or no additive serum tube.

Processing: Send **refrigerated** to Mayo. Mayo order code (**VASC**).

Performed: Monday through Saturday

Reference value: **Reference ranges included with results.**

Method: Multiplex flow immunoassay.

CPT Code: 83516 Myeloperoxidase antibodies
83516 Proteinase 3 Antibodies

86255 Cytoplasmic Neutrophil Antibodies (ANCA) Screen - if appropriate

86256 Cytoplasmic Neutrophil Antibodies (ANCA) Titer - if appropriate.

POWERCHART NAME	VDRL CSF QUALITATIVE		
MERCY TEST NAME	VDRL CSF*	MERCY LAB CODE	VDRC

Specimen: 0.5 ml spinal fluid in a CSF tube. Minimum 0.2 mL.
Processing: Send frozen to Mayo. Mayo order code (**VDSF**).
Performed: 1-3 days. Test set up Monday through Friday 12 p.m..
Reference value: Included in report.
Method: Flocculation/Agglutination
CPT Code: 86592

POWERCHART NAME	VISCOSITY		
MERCY TEST NAME	VISCOSITY SERUM*	MERCY LAB CODE	VSCT

Specimen: 3.0 ml serum from a no additive serum tube, serum **gel/SST are NOT acceptable. Keep specimen at 37°C until after centrifugation and separation of cells.**
Processing: Send to Mayo. Mayo order code (**SVISC**).
Performed: 1-3 days. Test set up Monday through Friday; continuously until 2 p.m.
Reference value: Included in report.
Method: Benson BV200 capillary method
CPT Code: 85810

POWERCHART NAME	VITAMIN A (Retinol) LEVEL		
MERCY TEST NAME	VITAMIN A*	MERCY LAB CODE	VITA

Specimen: 0.5 mL serum from a Serum Separator Tube (SST) or no additive serum tube.

Collection:

- o Specimen must be collected following an overnight (12-14 hr.) fast.
- o Infants - draw prior to next feeding.

Processing: Send serum **refrigerated** to Mayo Medical Laboratories. Mayo order code (**VITA**).

Performed: Monday through Friday; first shift

Method: Liquid Chromatography-Tandem mass Spectrometry (LC-MS/MS)

CPT Code: 84590

POWERCHART NAME	VITAMIN B1 (THIAMIN) WHOLE BLOOD		
MERCY TEST NAME	THIAMIN VIT B1*	MERCY LAB CODE	VB1

Specimen: 3 mL **Whole Blood** from a EDTA tube. ****Protect from light****

Processing: Process by transferring whole blood into amber plastic vial to protect from light. Specimen must be **Frozen** within 24 hours of collection. Send to Mayo Medical Laboratories Mayo Code - **TDP**

Cause for Rejection: Specimens other than whole blood.

Performed: Within 6-11 days from receipt at Mayo Labs.

Reference value: Reference ranges included with result

Method: High Performance Liquid Chromatography

CPT Code: 84425 Vitamin B1

POWERCHART NAME	VITAMIN B6 Profile		
MERCY TEST NAME	VITAMIN B6 PROF*	MERCY LAB CODE	B6PRO

Specimen: 1 mL plasma heparin from a sodium or lithium heparin or plasma gel separator tube (PST).
****Protect from light****

Patient Prep: Patient must be fasting overnight (12-14 hours) (infants-collect prior to next feeding)
Patient must not ingest vitamin supplements for 24 hours before specimen collection

Processing: Centrifuge at 4 degrees C within 2 hours of collection, then aliquot all plasma into **amber** vial. Send to Mayo Frozen. Mayo Code - (**B6PRO**)

Performed: 1 - 7 days. Monday through Thursday, Sunday

Reference value: Reference ranges included with result

Method: Liquid Chromatography-Tandem Mass Spectrometry (LC-MS/MS)

CPT Code: 82542

84207

POWERCHART NAME	VITAMIN B12 LEVEL		
MERCY TEST NAME	VITAMIN B12	MERCY LAB CODE	B12

Specimen: 0.5 ml serum

Stability: Tightly cap and refrigerate specimens at 2–8°C if the assay is not completed within 8 hours. Freeze samples at ≤ -20°C if the sample is not assayed within 48 hours. Freeze samples only 1 time and mix thoroughly after thawing.

Comment: Do not use samples that have been stored at room temperature for longer than 8 hours.

Intrinsic Factor (Mayo test IFBA) will be reflex ordered and charged on all specimens with a B12 less than 180 pg/mL.

Preservatives, such as fluoride and ascorbic acid, interfere with the Atellica IM VB12 assay.

Excessive exposure of samples to light may alter vitamin B12 values.

Performed: Within 8 hours of receipt. Available stat.

180-914 pg/mL

Reference Range: Indeterminate Range: 146 - 179 pg/mL

Deficient Range: 0 - 145 pg/mL

Method Description: The Atellica IM VB12 assay is a competitive immunoassay using direct chemiluminescent Technology.

CPT Code: 82607 Vit B12

POWERCHART NAME	VITAMIN B12 AND FOLATE LEVEL		
MERCY TEST NAME	VIT B12 FOLATE	MERCY LAB CODE	B12F

Specimen: 0.5 ml serum
 Comment: Collect before blood transfusion. Folate should not be ordered for patients who have recently received a radioisotope, methotrexate, or other folic acid antagonist. If adequate amount of specimen and the result is below the reference range.

Folate reference range based on populations with folic acid fortification of foods. Deficient folate concentrations are considered to be less than 4ng/mL.

Intrinsic Factor (Mayo test IFBA) will be reflex ordered and charged on all specimens with a B12 less than 180 pg/mL.

Stability: 8 hours room temp, 72 hours refrigerated, or >72 hours frozen.

Cause for rejection: Hemolyzed specimen not acceptable.

Performed: Within 8 hours of receipt. Available stat.

Reference Range: See individual test entry.

Method: See individual test entry.

Description:

CPT Code: 82607 Vit B12+
 82746 Folate+

POWERCHART NAME	VITAMIN D 25 HYDROXY LEVEL		
MERCY TEST NAME	VIT D, 25-HYDROXY	MERCY LAB CODE	VD25H

Specimen: 0.5 ml serum

Stability: Tightly cap and refrigerate specimens at 2–8°C for up to 7 days if the assay is not completed within 24 hours. Specimens may be stored on the clot for up to 6 days.¹⁸
Freeze samples at ≤ -20°C if the sample is not assayed within 7 days. Freeze samples up to 4 times and mix thoroughly after thawing.

Comment: Includes: Total 25-Hydroxyvitamin D (Sum of D2 + D3)

Do not use samples that have been stored at room temperature for longer than 24 hours.

Performed: Within 8 hours of receipt. Available stat.

Reference Range: 10-24 ng/mL (mild to moderate deficiency)
25-80 ng/mL (optimum levels)
>80 ng/mL (toxicity possible)

Method Description: The Atellica IM VitD assay is a competitive immunoassay that uses an anti-fluorescein mouse monoclonal antibody covalently bound to paramagnetic particles

CPT Code: 82306

POWERCHART NAME	25 HYDROXYVITAMIN D2 D3 LEVL		
MERCY TEST NAME	25 HYDROXY VD2 D3*	MERCY LAB CODE	25HDN

Comment: The test will report out three results, 25-Hydroxy D2, 25-Hydroxy D3, and 25-Hydroxy Total

Specimen: 0.5 ml serum from a Serum Separator Tube (SST) or no additive serum tube.
Serum stable 14 days refrigerated.

Processing: Specimen is to be sent refrigerated. Mayo order code (**25HDN**).

Performed: 2-5 days.

Reference Value: Included in report.

Method: Liquid Chromatography-Tandem Mass Spectrometry (LC-MS/MS)
CPT Code: 82306

POWERCHART NAME	VITAMIN D 1,25 DIHYDROXY LEVEL		
MERCY TEST NAME	1,25 DIHYDR VTMN D*	MERCY LAB CODE	DHVD

Specimen: 1.5 mL serum from a Serum Separator Tube (SST) or no additive serum tube.
Collection: Fasting (4-hour preferred but not required)
Instructions: Fasting (4-hour preferred but not required)
Processing: Send serum refrigerated to Mayo. Mayo order code (**DHVD**)
Performed: 2-4 days. Monday through Friday; 3 p.m.
Reference Value: Included with test results.
Method: Extraction/Liquid Chromatography-Tandem Mass Spectrometry (LC-MS/MS).
CPT Code: 82652

POWERCHART NAME	VMA URINE		
MERCY TEST NAME	VMA 24 UR*	MERCY LAB CODE	VVMA

Comment: This assay is of most value when the specimen is collected during a hypertensive episode. For children 14 years old and younger, Mayo order code VH (VMA and Homovanillic Acid, Pediatric urine) is the recommended test.

A single 24-hour urine collection may be used for CATECHOLAMINE FRACTIONATION, METANEPHRINES [METN24U] and VMA [VMA24UR]. **The specimen must be kept refrigerated during collection.**

Patient preparation: Administration of L-dopa may falsely-increase vanillylmandelic acid results; it should be discontinued 24 hours prior to collection of specimens.

Specimen: Add 25 mL 50% acetic acid preservative at the start of the collection. If specimen is refrigerated during collection, preservative may be added up to 4 hours after collection. This preservative is intended to achieve a pH of between approximately 1 and 5. If necessary, adjust urine pH to 1 to 5 with 50% acetic or HCl acid. Patient's age and 24-hour volume required.

Reference Lab Processing: Adjust pH to 1.0-5.0 with 50% acetic acid. Aliquot 20 ml and indicate the 24-hour volume. Separate aliquots must be submitted for Metanephrines and Catecholamines if collected with this specimen. Identify which specimen is for VMA. Mayo order code (**VMA**).

Performed: 2-4 days. Test set up Monday through Friday; 8 a.m..

Mercy lab Processing: Send 5 ml in a 5 ml urine tube to Mayo refrigerated.

Reference value: Included on report.

Method: Liquid Chromatography-tandem mass spectrometry (LC-MS/MS)

CPT Code: 84585 VMA UR+

POWERCHART NAME	FACTOR VIII VON WILLEBRAND ANTIGEN		
MERCY TEST NAME	VON WILL FACT AG*	MERCY LAB CODE	VONW

Specimen: 1 ml plasma from blue top tube filled appropriately with amount of blood listed on the label.
 Processing: Centrifuge, remove plasma, spin plasma again, aliquot to a new plastic tube. Freeze plasma in plastic vial. Send **frozen** to Mayo. Order Von Willebrand Antigen Mayo test code (**VWAG**).

Double spin coagulation specimens to ensure that all platelets are removed: 1. Centrifuge specimen. Aliquot plasma (leaving some above the cells) to a plastic centrifuge tube. 2. Centrifuge the aliquot tube. Pipette plasma (leaving some above the bottom of the tube) to another plastic aliquot tube. 3. Store plasma as required for the test ordered.

Performed: 3 days. Test set up Monday through Saturday.
 Reference value: Included on report.
 Method: Automated Latex Immunoassay (LIA)
 CPT Code: 85246

POWERCHART NAME	VON WILLEBRAND PROFILE		
MERCY TEST NAME	PROFILE VON WILL*	MERCY LAB CODE	VWPR

Specimen: 3 mL plasma from blue top tube filled appropriately with the amount of blood listed on the label.
 Aliquot 3 mL of platelet poor plasma in 3 plastic vials each containing 1 mL.

Processing: Centrifuge, remove plasma, spin plasma again, aliquot to a new plastic tube. Freeze plasma in plastic vial. Send **frozen** to Mayo. Order Mayo (**AVWPR**).

Double spin coagulation specimens to ensure that all platelets are removed:

1. Centrifuge specimen. Aliquot plasma (leaving some above the cells) to a plastic centrifuge tube.

2. Centrifuge the aliquot tube. Pipette plasma (leaving some above the bottom of the tube) to another plastic aliquot tube.

3. Store plasma as required for the test ordered.

Performed: 3 days. Performed Monday through Friday: Varies

Reference value: Included on report.

Method: F8A, F8IS, IBETH: Activated Partial Thromboplastin Time-Based Clotting Assay

VWAG: Automated Latex Immunoassay (LIA)

VWFX: Latex particle Enhanced Immunoassay

RIST: Ristocetin induced Aggregation of Washed Normal Platelets

VWFM: Agarose Gel Electrophoresis/Infrared Dye-Labeled Antibody Detection

CPT Code: 85240-Coagulation factor VIII assay

85246-von Willebrand factor antigen

85397-von Willebrand factor activity

85245-von Willebrand factor ristocetin cofactor activity (if appropriate)

85247-von Willebrand factor multimer (if appropriate)

85335-Bethesda titer (if appropriate)

85335-Coagulation factor VIII inhibitor screen (if appropriate)

85390-26-Special coagulation interpretation (if appropriate)

POWERCHART NAME	WEST NILE VIRUS IgG AND IgM ANTIBODY (Serum)		
MERCY TEST NAME	WEST NILE, IgG & IgM*	MERCY LAB CODE	WNILE

Specimen: 0.5 ml serum from a Serum Separator Tube (SST) or no additive serum tube.

Processing: Send refrigerated to Mayo. Mayo order code (WNS).

Performed: 1-4 days. Monday - Friday: 9 a.m. (June-October)
Monday, Wednesday, Friday; 9 a.m. (November-May)

Reference Value: Included in report

Method: Enzyme-Linked Immunosorbent Assay (ELISA)

CPT code: 86788 WNV, IgM
86789 WNV, IgG

POWERCHART NAME	WEST NILE VIRUS CSF		
MERCY TEST NAME	WEST NILE CSF*	MERCY LAB CODE	WNLCSF

Specimen: 2.0 ml of CSF

Processing: Send refrigerated to Mayo. Mayo order code WNC.

Performed: 1 - 4 days. Monday - Friday (June to Oct), Monday, Wednesday, Friday (Nov to May)

Reference Value: Included in report.

Method: Enzyme-Linked Immunosorbent Assay (ELISA)

CPT code: 86788 - IgM
86789 - IgG

TEST NAME	WET MOUNT	Order Gram Stain Smear Wet Mount Trichomonas
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POWERCHART NAME	WBC AND AUTOMATED DIFFERENTIAL (WBC)		
MERCY TEST NAME	WBC AND AUTOMATED DIFF	MERCY LAB CODE	WBCADI

Includes: WBC and automated differential (include absolute neutrophil counts). Manual differential is done if indicated by test results.

Comment: Cell morphology will be ordered and charged if established criteria/diagnosis are met.

Specimen: 1 purple top (EDTA) tube.

Processing: Specimen stable 36 hours at either room temperature or refrigerated.

Performed: Within 8 hours of receipt. Available stat.

Reference value: Included with test results. Complete listing in Special Helps section of Lab Test Index.

Method: Automated cell counter.

CPT Code: 85048 WBC
85004 AUTOMATED DIFFERENTIAL

POWERCHART NAME	WBC COUNT		
MERCY TEST NAME	WBC	MERCY LAB CODE	WBCX

Specimen: 1 purple top (EDTA) tube.
Processing: Specimen stable 36 hours at either room temperature or refrigerated.
Performed: Within 8 hours of receipt. Available stat.
Reference value: Included with test results. Complete listing in Special Helps section of Lab Test Index.
Method: Automated cell counter.
CPT Code: 85048

POWERCHART NAME	CULTURE WOUND OTHER		
MERCY TEST NAME	WND/ABS CLT/GS	MERCY LAB CODE	WNDC

Order: Specify collection site when ordering.

Specimen: Disinfect the skin. If possible, aspirate purulent material with a sterile needle and syringe. Transfer this material to a sterile plastic container with a tight-fitting lid. If an aspirate is not possible, collect purulent material from a deep area of the wound/abscess on a culture swab device (that contains 2 swabs).
Specimen stability: Aspirate: 24 hours room temperature. Culture Swab: 48 hours room temperature.

Comment: ○ If anaerobic organisms are suspected, collect a second specimen. See Anaerobic Culture/Gram Stain for collection and ordering instructions.

 ○ Susceptibility testing will routinely be performed on significant isolates.

RL Client ○ Mark WOUND CULTURE on order form. Write collection site on SOURCE line.

Comments: If ordering in the computer, use order code WNDC.

 ○ Send specimen at room temperature.

Performed: Gram stain: Within 8 hours of receipt.

 Preliminary report: Days 1 and 2

 Final report: 3 days

Reference value: No growth.

Method: Standard culture techniques.

CPT Code: 87205 Gram Stain+

 87070 Wnd/Abs Clt+

POWERCHART NAME	YEAST CULTURE + DIRECT PREP OTHER		
MERCY TEST NAME	YEAST CLT/DIR PR	MERCY LAB CODE	YEST

Order: Specify site when ordering.

- Specimen:
- **Genital:** Submit specimen on a routine Culturette. Collect urethral exudate or areas of inflammation using a routine Culturette. Cultures from females should be obtained via speculum under direct observation.
 - **Oral:** Submit the specimen on a routine Culturette.
 - **Esophageal:** Submit a minimum of 1 ml of esophageal washings in a sterile plastic container with a tight-fitting lid.
 - **Urine:** Submit 0.5 ml urine in a sterile plastic container with a tight-fitting lid. Refrigerate urine if not delivered to the Lab promptly.
- Comment:
- Screens for yeast only.
 - If a fungus is suspected, see Fungus Culture/Direct Preparation for ordering and collection information.
- RL Client Comments:
- Write YEAST CULTURE/DIRECT PREP on the order form. Indicate the specimen source.
 - Send Culturette at room temperature.
 - Send urine refrigerated.

Performed: Final report: 1 week

Reference value: No yeast isolated.

Method: Standard culture techniques.

CPT codes: 87205 Gram Stain+
87106 Yeast Clt+

MERCY TEST NAME	ZIKA VIRUS	MERCY LAB CODE	MISM
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Specimen: ○ **Serum:** minimum 1.0 mL

- **Urine:** minimum 10 mL but SHL will accept lesser amounts if that is all that is available
- NOTE:** Healthcare providers suspecting a potential case of Zika virus should first contact the Iowa Department of Public Health at: 800-362-2736.

If testing criteria is met, IDPH will fax a test request form for the provider to fill out. This form includes patient history. **THIS FORM MUST ACCOMPANY ANY SAMPLE(S) SENT TO MERCY LAB.**

Send all samples to Mercy Lab refrigerated.

This testing is performed at no charge

Processing: **Mercy Lab:** send to State Hygienic Lab, refrigerated. Place the urine in a biohazard bag, place the serum in a biohazard bag and then place both of those in another biohazard bag (double bagged). Place the form in the outside pocket of the biohazard bag. Place that biohazard bag into the clear Ziploc CDS bag. Follow the CDS send out procedure for scheduling a pickup.

Performed: M-F at State Hygienic Lab, Coralville, Iowa

POWERCHART NAME	ZINC LEVEL		
MERCY TEST NAME	ZINC, SERUM	MERCY LAB CODE	ZINCS

- Specimen:
- Draw before any other tubes are drawn. 0.8 ml serum from **Navy blue monoject-no additive**, trace element blood collection tube.
 - Use alcohol, not iodine to cleanse venipuncture site.

Cause for rejection: The use of other tubes is unacceptable.

Processing:

- **Allow to clot well (for at least 30 minutes before spinning).** Then centrifuge the specimen to separate serum from the cellular fraction. Serum must be removed from the cells within **4 hours** of specimen collection. Pour serum into a Mayo Metal Free vial. **Do NOT** use a transfer pipet or wooden sticks. Avoid hemolysis.
- Send to Mayo refrigerated. Ambient and frozen are acceptable. Mayo order code (ZN_S).

Performed: 1-3 Days. Monday through Saturday.

Reference Values: included with report

Method: Dynamic Reaction Cell Inductively Coupled Plasma Mass Spectrometry (DRC-ICP-MS)

CPT Code: 84630