



MIDLAND HEALTH

2021-2022 LABORATORY SERVICES GUIDE



TABLE OF CONTENTS

| | | |
|----|--|-------------------------|
| 02 | | Contacts |
| 05 | | Accepted Insurances |
| 06 | | STAT & Same Day Testing |
| 09 | | Lab Results |
| 23 | | Lab Orders |
| 35 | | Billing |
| 45 | | Lab Supplements |
| 47 | | Specimen Collection |
| 54 | | Laboratory Services |

CONTACTS

Customer Service

- Results Inquiry
- Schedule a Pickup (Courier)
- Speak with Client Service Representative

432.221.1632

Microbiology Department

432.221.1761

Core Department

432.221.3109

Blood Bank

432.221.1875

Pathology Department

432.221.1758

Supplies

Email form to:
LabOutreach@MidlandHealth.org

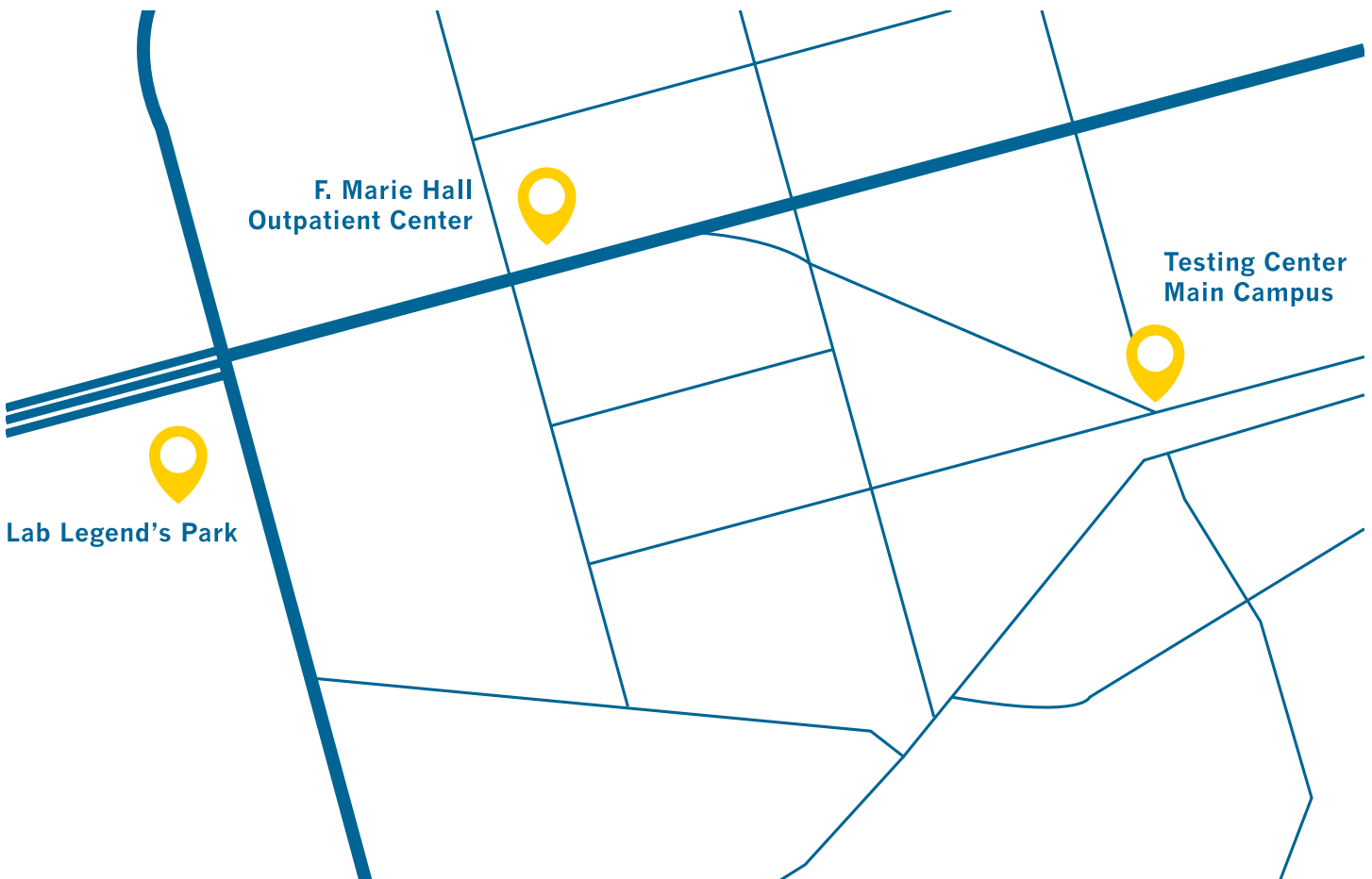
Fax form to:
432.221.1562



LOCATIONS

Midland Memorial Hospital Laboratory Services provides comprehensive outpatient lab services at Patient Service Center locations throughout Midland County, including extended service at Midland Memorial Hospital. Walk-ins are welcome during the day at all locations. Patient Service Center Locations and hours are subject to change.

Call **Midland Memorial Health Laboratory** at **432.221.1632**.



Testing Center Main Campus

400 Rosalind Redfern Grover Pkwy.
Midland, TX 79701
P | 432.221.2911
F | 432.221.2255
7:30AM - 6PM Mon-Fri

Lab Legend's Park

5615 Deauville Blvd.
Midland, TX 79706
P | 432.221.3422
F | 432.221.2255
8AM - 12PM
1PM - 5PM
Mon-Fri

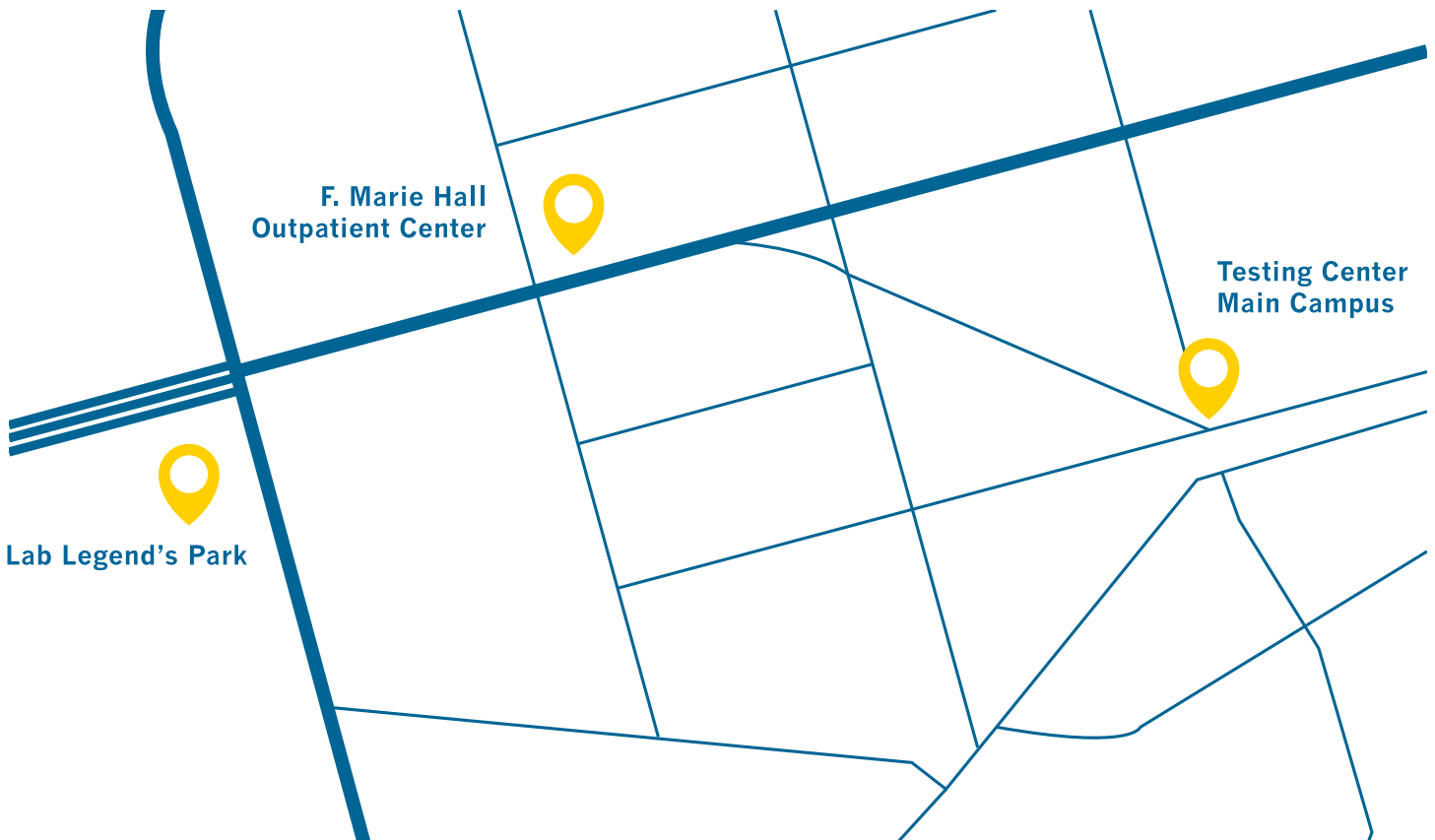
F. Marie Hall Outpatient Center

4214 Andrews Hwy
Midland, TX 79705
P | 432.221.3010
F | 432.221.3011
8AM - 5PM Mon-Fri
Formerly known as West Campus

UBICACIONES

Los Servicios de Laboratorio de Midland Memorial Hospital proporcionan servicios integrales del laboratorio para los pacientes ambulatorios, en los Centro de Servicio al Paciente (Patient Service Center) ubicados a través todo el Condado de Midland, incluyendo servicio extendido en Midland Memorial Hospital. Todos los lugares son accesibles sin citas previas dándole la bienvenida durante el día. Las ubicaciones y los horarios del Centro de Servicio al Paciente están sujetos a cambios.

Comuníquese a **Midland Memorial Health Laboratory** al **432.221.1632**.



Testing Center Main Campus

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F. Marie Hall Outpatient Center

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F | 432.221.3011
8AM - 5PM lun-vie
*Anteriormente conocido como
West Campus*

ACCEPTED INSURANCES

- AARP
- ADMINISTRATIVE CONCEPTS
- AETNA
- AETNA MERITAIN
- ALL SAVERS
- ALLIED NATIONAL
- AMERIGROUP MEDICAID HMO
- BCBS ANTHEM PPO
- BCBS HMO BLUE ADVANTAGE
- BCBS MEDICARE
- BCBS MISD
- BCBS PP
- BOON CHAPMAN
- CAPROCK HEALTH PLANS
- CHIPS SUPERIOR HEALTH PLAN CIGNA
- COMPANION LIFE
- FIRST CARE PPO
- FIRSTCARE MEDICAID HMO
- GEHA
- GOLDEN RULE INSURANCE
- GROUP & PENSION ADMINISTRATORS
- HEALTHSMART
- HUMANA
- INSURANCE MANAGEMENT SERVICES
- INSURANCE SERVICES OF LUBBOCK
- MEDICARE-TRADITIONAL
- MIDLAND COUNTY
- MOLINA HEALTHCARE OF TX
- PHCS
- SUPERIOR HEALTH MEDICAID HMO
- TEXAS MUTUAL
- TML
- MEDICAID-TRADITIONAL
- TRAVELERS
- TRICARE
- UHC MEDICARE
- UNITED HEALTHCARE
- UNITED MEDICAL RESOURCES (UMR)
- VETERAN'S AFFAIRS HEALTH ADMIN. CENTER
- WEB TPA
- ZURICH

STAT AND SAME DAY TESTING

Quick, Convenient Same Day Testing

When patients are drawn at MMH Laboratory Services by 11:30 am, results will be available by 4:00 pm the same day for the tests listed below.

| | | |
|----------------------------------|---|-----------------------------------|
| Ammonia | Gastrointestinal Panel by PCR | SARS IgG |
| Amylase | Gentamicin | SARS COVID-2 PCR |
| AST (Aspartate Aminotransferase) | GGT (Gamma Glutamyltransferase) | Sodium |
| Basic Metabolic Profile | Glucose | Stool Occult Blood |
| Bilirubin, Direct | H&H (Hemoglobin/Hematocrit) | Synovial Fluid Cell Count |
| Bilirubin, Total | HDL (High-Density Lipoprotein) | Theophylline |
| Body Fluid Cell Count | Hemoglobin A1C | Tobramycin |
| Body Fluid Crystal Exam | Hepatic Function Panel (Liver) | Total Protein |
| BUN (Blood Urea Nitrogen) | Iron, Total | Triglycerides |
| Calcium, Total | Kleihauer-Betke (requires >4 hours) | Troponin I |
| Carbamazepine (Tegretol) | Lactate (Lactic Acid) | TSH (Thyroid Stimulating Hormone) |
| CBC with Differential | LDH (Lactate Dehydrogenase) | TIBC |
| Chloride | Lipase | Type/Screen |
| Cholesterol | Lipid Panel | Uric Acid |
| CK (Creatine Kinase) | Magnesium | Urinalysis, Complete |
| Clostridioides Difficile by PCR | Phenobarbital | Valproic Acid (Depakene) |
| CO2, Total | Pro-BNP | Vancomycin |
| Comprehensive Metabolic Profile | PSA, (Prostate Specific Antigen), Total | WBC (White Blood Cell Count) |
| Creatinine | PT (Prothrombin Time) and INR | |
| CRP (C-Reactive Protein) | PTT (Partial Thromboplastin Time) | |
| Eosinophil Smear | RBC (Red Blood Cell Count) | |
| ESR (Sedimentation Rate) | Respiratory Panel by PCR | |
| Ferritin | Reticulocyte Count | |
| Fetal Fibronectin | RSV/Flu A/B/COVID by PCR | |
| Fibrinogen | Salicylates (Aspirin) | |
| FT4 (Free Thyroxine) | SARS Total Ab | |



MMH Laboratory has determined that the follow-up testing and/or confirmation of the following test is medically necessary in order to provide appropriate patient care. See your client account representative for the most up-to-date list of reflex testing.

Reflexive testing permits a physician (approved health care provider) to order a test that will automatically reflex to additional testing when initial test results fall within certain ranges or levels. Those ranges or levels are predetermined based upon medical criteria. The Laboratory performs reflex testing based upon medical criteria established by our pathologists in conjunction with input from the medical staff. Certain reflex tests have been predetermined based on evidence based practice and are accepted as standard of care practice. Individual components of such reflex test may not be available for separate ordering by providers.

Reflex testing is established only when the following criteria are met:

- The reflex test provides additional information necessary to appropriately provide care to a patient.
- The reflex test is a standard medical practice to follow the initial test.
- The reflex test is approved by the Medical Director and the Medical Executive Committee (MEC), annually.
- Documentation of MEC approval will be in the meeting minutes.
- Individual providers wishing to be excluded from the Reflex Test approved by MEC must complete the Laboratory Reflex Testing Provider Exclusion and submit return it to the Laboratory Services Director.

The performance of a reflex test will occur after one of the following:

1. The provider orders the reflex test directly or,
2. The provider orders the initial test AND the criteria for performance of the reflex test are met.
3. If the provider does not want the reflex test to be performed based on the established criteria, the physician MUST indicate on the orders NO REFLEX TESTING. The laboratory is responsible for crediting patient and/or canceling the reflex test, and/or notifying a pathologist who may contact the physician for clarification.

REFLEX TESTS - CHEMISTRY/HEMATOLOGY

| Initial Test | Reflex Criteria or Result(s) | Reflex Test(s) |
|--|--|---|
| Urinalysis | Non-Clear, Protein \geq 100, pH \geq 8.0 Positive for: leukocyte, blood, nitrite, glucose | Microscopic examination |
| Urinalysis | pH > 7.0, dipstick protein positive | SSA protein |
| Urinalysis/Urine Microscopic | >10 WBCs seen, Any Leukocyte Esterase Positive, Nitrite Positive, >Trace Bacteria, Any Yeast Seen (exception-Direct Access/Local ER Patients) | Urine Culture |
| Hemogram w/auto diff | WBC <3,000 or >30,000 Abs lymph > 6,000 (adults > 40 yrs.) Abs grans < 1,000 Hgb < 7.0 or > 19.0 MCV <76 or > 100 > 2yrs (<70 and > 110 \leq 2yrs) PLT <50,000 or > 1,000,000 Morphology: >5 Nucleated RBC, 2+ (poik, spher, target cells) many giant platelets, presence of blasts, metas, myelos or pros | Smear Review (PATHOLOGY) Exception-ONLY patients in the hospital unless specifically ordered |
| Hemogram w/ diff | All newborns less than 24 hours old WBC < 2.0 or > 30 Hemoglobin < 6.0 MCV > 107 (except for newborns) Platelets < 50 or > 800IG%>5.0 Any Left Shift, Atypical Lymph, Blasts/Abn Lympho, WBC ABN Scattergram Flags Or Any Suspect flag (*) | Manual Differential |
| CKMB | >4.0 ng/ml | CPK |
| IgA | IgA<40 AND pediatric patient | Reference Lab IgA |
| Hepatitis C Antibody | Positive | Reference Lab Confirmation |
| Syphilis – IgG screen | Positive | In-house RPR |
| Non-matching Syphilis testing | Positive IgG-Negative RPR | Reference Lab-Treponema pallidum Antibody by TP-PA |
| Hepatitis B Surface Antigen | Positive | Reference Lab Confirmation |
| HIV Screen | Positive | Reference Lab Confirmation |
| COVID-19 Total Antibody | Positive | COVID-19 IgG Antibody |

REFLEX TESTS - MICROBIOLOGY

| Initial Test | Reflex Criteria or Result(s) | Reflex Test(s) |
|------------------------------|--|-------------------------------|
| Group A Strep by PCR | Negative Result | Strep Screen Culture |
| Group B Strep by PCR | Negative OR Positive Result | Group B Strep Screen Culture |
| Culture Blood | Any Positive Blood Culture | Blood Culture ID Panel by PCR |
| AFB Culture | Sputum Specimens | MTB-RIF by PCR |
| Cryptococcal Antigen | Negative OR Positive Result | Fungus Culture |
| Meningitis Panel (CSF) | All Results | CSF Culture & Fungus Culture |
| Clostridium difficile by PCR | Positive Result | C difficile Toxin by EIA |
| GI Panel by PCR | C difficile Positive Result | C difficile Toxin by EIA |
| GI Panel by PCR | Salmonella or Shigella Positive Result | Susceptibility Only Culture |

REFLEX TESTS - BLOOD BANK

| Initial Test | Reflex Criteria or Result(s) | Reflex Test(s) |
|--------------------|------------------------------|---------------------------|
| Antibody Screen | Positive | Antibody ID, auto control |
| Autologous control | Positive | DAT Poly screen |
| DAT Poly screen | Positive | Anti-IgG and Anti-C3 DATs |

LAB RESULTS

Receiving Lab Results the Way You Want Them Makes Your Job Easier

MMH Laboratory Services offers multiple ways to receive laboratory reports. Whether you decide upon courier delivery, faxing, in-office printing, Cerner access, portal access, or EMR interface, you may receive your lab results the way you want them.

The following pages provide reports and forms related to results delivery:

MMH Laboratory Services Portal Report - sample of results as they appear in the portal

MMH and ARUP Laboratory Critical Values - lists critical values that will be called back to physician

MMH Portal Welcome Letter - sample letter providing portal login information

Reflex Tests - lists tests which will automatically reflex when necessary

AUTOFAX Lab Delivery Verification Request Form - complete to start/discontinue faxing of results

If you have any questions or concerns about how you are receiving results from MMH Laboratory Services, please call **432.221.1632** or contact your sales representative.



HealthLife

MIDLAND HEALTH PATIENT PORTAL

One of the most exciting features in our electronic health record system is a patient portal application, HealthLife. This new portal provides 24/7 online access to your health records from any computer, tablet or smartphone.

With HealthLife, you can:

- View Medical Records
- Access Test and Lab Results (Available within 36-72 hours, depending on test type)
- Pay Bills Online
- View/Print Prescribed Medications
- View Health Summaries

How to Get Your Results



The results of your procedure will be faxed directly to the provider that sent you to see us. Your provider will be the one to communicate the results of your procedure to you.



Go to midlandhealth.org/main/medical-records to download a form to request your records



Call Medical Records at **432.221.1600**, Option 1



Create a Midland Health Patient Portal account with **HealthLife** for easy access to view your medical records from your own device. Visit midlandhealth.iqhealth.com/self-enroll to get started today.



| |
|----------------------------|
| REPORT STATUS Final |
|----------------------------|

PATIENT INFORMATION

Test, Brad

MRN: 00101
 DOB: 1/1/2001 Age 20
 GENDER: M
 PHONE: (999) 999-9999

ORDERING PHYSICIAN
MRAZ, CASEY

Specimen Information
 ACCESSION: **21-099-000001**
 REQUISITION: 0203
 COLLECTED: 04/09/2021 13:13
 RECEIVED: 04/09/2021 13:48
 REPORTED: 04/09/2021 13:52

| Test Name | In Range | Out Of Range | Reference Range | Lab |
|----------------------------------|-----------|--------------------|----------------------|-----|
| Sickle Cll Sickle Cell Scr. | Present | | | MMH |
| PSA Scrn PSA Scrn | | 500000.0 H | 0.0-4.0 ng/mL | MMH |
| PTINR Prothrombin Time | | >150.0 H | 9.0-12.0 seconds | MMH |
| INR | 3.00 | | 2.50-3.50 | MMH |
| CBC w/ Diff WBC | 10.000 | | 4.800-10.800 10*3/uL | MMH |
| RBC | 5.00 | | 4.50-5.90 10*3/uL | MMH |
| Hgb | 15.0 | | 13.5-17.5 g/dL | MMH |
| Hct | 45.0 | | 41.0-53.0 % | MMH |
| RDW | 12.0 | | 11.5-14.5 % | MMH |
| MCH | | 32.0 H | 27.0-31.0 pg | MMH |
| MCHC | 34.0 | | 33.0-37.0 g/dL | MMH |
| MCV | 80.0 | | 80.0-94.0 fL | MMH |
| MPV | 10.0 | | 7.4-10.4 fL | MMH |
| Platelets | | 99 L | 150-400 10*3/uL | MMH |
| Slide Review | Man/Morph | | | MMH |
| Neutrophils% | 50.0 | | 40.0-70.0 % | MMH |
| Lymphocytes% | 40.0 | | 22.0-44.0 % | MMH |
| Monocytes% | 8.8 | | 2.5-9.0 % | MMH |

Test, Brad - 21-099-000001

Legend: H= High, L= Low, A= Abnormal, AA= Critical Value



REPORT STATUS **Final**

PATIENT INFORMATION

Test, Brad

MRN: 00101
DOB: 1/1/2001 Age 20
GENDER: M
PHONE: (999) 999-9999

ORDERING PHYSICIAN

MRAZ, CASEY

Specimen Information

ACCESSION: **21-099-000001**
REQUISITION: 0203
COLLECTED: 04/09/2021 13:13
RECEIVED: 04/09/2021 13:48
REPORTED: 04/09/2021 13:52

| Test Name | In Range | Out Of Range | Reference Range | Lab |
|--------------|----------|--------------|-------------------|-----|
| CBC w/ Diff | | | | |
| Eosinophils% | 0.1 | | 0.0-4.0 % | MMH |
| Basophils% | 0.1 | | 0.0-0.8 % | MMH |
| Neutrophils# | 5.00 | | 1.50-8.00 10*3/uL | MMH |
| Lymphocytes# | 4.00 | | 1.00-4.80 10*3/uL | MMH |
| Monocytes# | 0.80 | | 0.12-0.94 10*3/uL | MMH |
| Eosinophils# | 0.01 | | 0.01-0.04 10*3/uL | MMH |
| Basophils# | 0.01 | | 0.01-0.09 10*3/uL | MMH |
| Nuc RBC% | 0.1 | | % | MMH |
| Nuc RBC Cnt | 1.0 | | 10*3/uL | MMH |

{MMH} = Test Performed at Midland Memorial Hospital - 400 Rosalind Redfern Grover Pkwy Midland TX 79701, CLIA# 45D0508673, Medical Director: William Klingensmith, MD

Test, Brad - 21-099-000001

Legend: H= High, L= Low, A= Abnormal, AA= Critical Value



| |
|----------------------------|
| REPORT STATUS Final |
|----------------------------|

PATIENT INFORMATION
Halfpenny, Alpha

MRN: HAAL01
 DOB: 12/31/1999 Age 21
 GENDER: F
 PHONE: (888) 888-8888

ORDERING PHYSICIAN
MRAZ, CASEY

Specimen Information
 ACCESSION: **21-053-000005**
 REQUISITION:
 COLLECTED: 02/22/2021 18:00
 RECEIVED: 03/02/2021 11:55
 REPORTED: 03/02/2021 12:22

| Test Name | In Range | Out Of Range | Reference Range | Lab |
|---|-----------|-----------------|--------------------|-----|
| Order added by GL_CBC_MANDIFF_REFLEX | | | | |
| ManualD | | | | |
| Segs Man | 65 | | 40-70 % | MMH |
| Band Man | 2 | | 0-5 % | MMH |
| Lymph Man | | 15 L | 22-44 % | MMH |
| Monocyte Man | | 11 H | 3-9 % | MMH |
| Eos Man | 2 | | 0-5 % | MMH |
| Meta Man | 3 | | % | MMH |
| Myelo Man | 2 | | % | MMH |
| Plt Estimation | Increased | | Adequate | MMH |
| Schistocytes | None Seen | | None Seen | MMH |
| HIV Scn | | | | |
| HIV-1/2 Abs Screen | Negative | | Negative | MMH |
| Hgb Alc | | | | |
| Hgb Alc. | 6.0 | | 4.6-6.2 % | MMH |
| The American Diabetic Association recommends a therapeutic goal of <7%. | | | | |
| TSH | | | | |
| TSH | | 50.000 H | 0.340-5.600 uIU/mL | MMH |
| PTINR | | | | |
| Prothrombin Time | | 30.0 H | 9.0-12.0 seconds | MMH |
| INR | 3.00 | | 2.50-3.50 | MMH |
| Mono Scrn | | | | |
| Mono Scr. | Positive | | Negative | MMH |

Halfpenny, Alpha - 21-053-000005

Legend: H= High, L= Low, A= Abnormal, AA= Critical Value



REPORT STATUS **Final**

PATIENT INFORMATION

Halfpenny, Alpha

MRN: HAAL01
DOB: 12/31/1999 Age 21
GENDER: F
PHONE: (888) 888-8888

ORDERING PHYSICIAN

MRAZ, CASEY

Specimen Information

ACCESSION: **21-053-000005**
REQUISITION:
COLLECTED: 02/22/2021 18:00
RECEIVED: 03/02/2021 11:55
REPORTED: 03/02/2021 12:22

| Test Name | In Range | Out Of Range | Reference Range | Lab |
|--|----------|------------------|-------------------|-----|
| Mono Scrn | | | | |
| CMP | | | | |
| Glucose Lvl | 100 | | 70-100 mg/dL | MMH |
| BUN. | 20 | | 7-21 mg/dL | MMH |
| Creatinine Level | | 2.00 H | 0.60-1.30 mg/dL | MMH |
| BUN/Creat | | 10.0 L | 11.7-16.2 mg/dL | MMH |
| Sodium Lvl | | 145 H | 136-144 mmol/L | MMH |
| Potassium Lvl | | 7.1 AA | 3.6-5.1 mmol/L | MMH |
| Results Called/Readback to Off (RN Test) by gmw at 3/2/2021 12:20:56 PM CST. | | | | |
| Chloride. | | 110 H | 96-106 mmol/L | MMH |
| CO2. | 30 | | 21-31 mmol/L | MMH |
| AGAP. | 15.0 | | 6.0-16.0 mEq/L | MMH |
| Bili Total | 1.0 | | 0.2-1.2 mg/dL | MMH |
| Alk Phos. | | 20.0 L | 36.0-115.0 unit/L | MMH |
| ALT. | | <5.0 L | 8.0-45.0 unit/L | MMH |
| AST. | | <3 L | 12-35 unit/L | MMH |
| Calcium Lvl | | 7.0 L | 8.9-10.4 mg/dL | MMH |
| Protein Total.. | | 6.0 L | 6.4-8.1 g/dL | MMH |
| Albumin Lvl | 4.0 | | 3.5-4.9 g/dL | MMH |
| Globulin Lvl | | 2.00 L | 2.20-3.80 g/dL | MMH |
| A/G Ratio | | 2.0 H | 0.6-1.5 g/dL | MMH |

CBC w/ Diff

Halfpenny, Alpha - 21-053-000005

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| |
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PATIENT INFORMATION

Halfpenny, Alpha

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Specimen Information

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 REPORTED: 03/02/2021 12:22

| Test Name | In Range | Out Of Range | Reference Range | Lab |
|---------------------|-----------|---------------|----------------------|-----|
| CBC w/ Diff | | | | |
| WBC | 5.000 | | 4.800-10.800 10*3/uL | MMH |
| RBC | | 6.00 H | 4.00-5.20 10*3/uL | MMH |
| Hgb | 13.5 | | 12.0-16.0 g/dL | MMH |
| Hct | 39.0 | | 36.0-48.0 % | MMH |
| RDW | 12.0 | | 11.5-14.5 % | MMH |
| MCH | | 33.0 H | 27.0-31.0 pg | MMH |
| MCHC | 35.0 | | 33.0-37.0 g/dL | MMH |
| MCV | | 95.0 H | 80.0-94.0 fL | MMH |
| MPV | 10.0 | | 7.4-10.4 fL | MMH |
| Platelets | 400 | | 150-400 10*3/uL | MMH |
| Slide Review | Man/Morph | | | MMH |
| Neutrophils% | 60.0 | | 40.0-70.0 % | MMH |
| Lymphocytes% | | 20.0 L | 22.0-44.0 % | MMH |
| Monocytes% | | 20.0 H | 2.5-9.0 % | MMH |
| Eosinophils% | 0.0 | | 0.0-4.0 % | MMH |
| Basophils% | 0.0 | | 0.0-0.8 % | MMH |
| Neutrophils# | 3.00 | | 1.50-8.00 10*3/uL | MMH |
| Lymphocytes# | 1.00 | | 1.00-4.80 10*3/uL | MMH |
| Monocytes# | | 1.00 H | 0.12-0.94 10*3/uL | MMH |
| Eosinophils# | | 0.00 L | 0.01-0.04 10*3/uL | MMH |
| Basophils# | | 0.00 L | 0.01-0.09 10*3/uL | MMH |
| Nuc RBC% | 0.0 | | % | MMH |

Halfpenny, Alpha - 21-053-000005

Legend: H= High, L= Low, A= Abnormal, AA= Critical Value



REPORT STATUS **Final**

PATIENT INFORMATION

Halfpenny, Alpha

MRN: HAAL01
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ORDERING PHYSICIAN

MRAZ, CASEY

Specimen Information

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REQUISITION:
COLLECTED: 02/22/2021 18:00
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REPORTED: 03/02/2021 12:22

| Test Name | In Range | Out Of Range | Reference Range | Lab |
|----------------|----------|--------------|-----------------|-----|
| CBC w/ Diff | | | | |
| Nuc RBC Cnt | 0.0 | | 10*3/uL | MMH |
| Imm Gran Cnt | 0.0 | | 10*3/uL | MMH |
| Imm Gran Ratio | 0.0 | | % | MMH |

{MMH} = Test Performed at Midland Memorial Hospital - 400 Rosalind Redfern Grover Pkwy Midland TX 79701, CLIA# 45D0508673, Medical Director: William Klingensmith, MD

Halfpenny, Alpha - 21-053-000005

Legend: H= High, L= Low, A= Abnormal, AA= Critical Value

LABORATORY CRITICAL DECISION AND SIGNIFICANT CALL VALUES

| Test | Critical Value | Other Significant Call Values |
|--|--|---|
| Acetaminophen | | >50 µg/ml |
| Alcohol <i>excluding Emergency Room</i> | | Any measurable amount |
| ALT (SGPT) | | 1,000 U/L |
| AST (SGOT) | | 2,000 U/L |
| Bilirubin (newborn) | >18 mg/dl | |
| BUN | | >100 mg/dl >150 (Nephrology) |
| Calcium | <7.0 or >13.0 µg/ml | |
| CKMB | | >6.3 mg/dl (initial value only) |
| Creatinine (serum/plasma) | <7.0 or >13.0 µg/ml | >5.0 mg/dl No call values for nephrology |
| CRP- Nursery | > 2.0 mg/dl | |
| Depakene (Valproic Acid) | | > 150 µg/ml |
| Digoxin | > 3.5 ng/ml | |
| Dilantin (Phenytoin) | | > 30µg/ml |
| Drug Screen, Urine <i>Excluding Emergency Room</i> | | Positives |
| Gentamicin | | >10µg/ml Pharmacy |
| Glucose | <50 or >600 mg/dl <40 mg/dl <i>newborn-30days</i> | 50-69 mg/dl <i>Inpatient only</i> |
| Lithium | | >1.5 mEq/l |
| Magnesium | | <1.0 or >6.0 mg/dl |
| Magnesium - Magnesium sulfate patients on Postpartum/Labor and Delivery | >8.0 mg/dl | |
| Phosphorus | | < 1.0 or > 7.0 mg/dl <1.0 or > 15.0 (Nephrology) |
| Potassium | < 2.5 or > 6.5 mmol/L | |
| Salicylate | | >30 mg/dl |
| Sodium | <110 or > 155 mmol/L | |
| Theophylline | | > 30 µg/ml |
| Tobramycin | | 10µg/ml Pharmacy |
| Troponin | | >0.5 ng/ml <i>initial value only</i> |
| Vancomycin | | 50µg/ml Pharmacy |

HEMATOLOGY CRITICAL VALUE LIST

| Test | Critical Value | Other Significant Call Values |
|-------------------|--|-------------------------------------|
| APTT | >130 seconds | |
| Fibrinogen | <100 | |
| Hematocrit | 15% nephrology 21% < 40 newborn | |
| Hemoglobin | < 7.0 g/dl <5.0 g/dl (nephrology) <13 g/dl or >25 g/dl (newborns) | |
| Platelet | <20,000 to >1,000,000/mm | |
| Prothrombin Time | INR ≥ 4.0 | |
| WBC | <2,000 or >50,000 | |
| Urines (Pre-op) | | Large amounts of bacteria/hyphae |
| Urine Microscopic | | Sperm Females < 18 years old |
| CSF Cell Count | | >25 WBC/mm |
| Fetal-dex | | >0.004 |

MICROBIOLOGY CRITICAL VALUE LIST

| Test | Critical Value | Other Significant Call Values |
|--|---------------------------------------|--|
| Blood Culture gram stain | Positive | |
| CSF Culture or gram stain | Positive for either | |
| Sterile Body Fluid Gram Stain or Culture | Positive | |
| Placenta Culture | Positive | |
| C. difficile Toxin EIA | Positive | |
| Meningitis/Encephalitis Panel | Positive | |
| CSF Cryptococcal Antigen | Positive <i>Call Nursing Floor</i> | |
| Chlamydia trachomatis PCR Neisseria gonorrhoeae PCR Neisseria gonorrhoeae Isolated | | Positive: Under the age of 18, Call to Physician (outpatient). |
| AFB Culture/AFB stain | | Positive. Call to physician (outpatient) |
| Identification of Mycobacterium tuberculosis, Blastomyces spp., Coccidioides spp. or Histoplasma spp. by ARUP Laboratories | | Positive. Call to physician (outpatient) |
| Group B Strep (Pregnant Women) Xpert Group B or Culture Isolate | | Positive. Call to physician (outpatient) |
| Mold | Positive | Positive Call to Physician (outpatient) |

SEROLOGY VALUE LIST

| Test | Critical Value | Other Significant Call Values |
|---|----------------|---|
| HIV 1/2 | | Positive Notify Infection Control and physician |
| Confirmation tests for Hepatitis C, Hepatitis B Surface Ag, Hepatitis B Core, HIV 1/2 | | Positive Notify Infection Control and physician |
| Syphilis Screen AND Confirmation test for Syphilis | | Positive Notify Infection Control and physician |
| Employee Health Syphilis or HIV 1/2 screen | | Positive Notify Employee Health |
| Exposure HIV 1/2 | | Positive Notify Infection Control or House Supervisor |

BLOOD BANK LIST

| Test | Critical Value | Other Significant Call Values |
|-----------------|----------------|-------------------------------|
| Antibody Screen | Positive | |
| Cord Blood DAT | Positive | |

AUTOFAX MMH LAB DELIVERY VERIFICATION REQUEST FORM

This document is being sent to you in response to your request to change your delivery of lab reports in your AUTOFAX profile. The following options are available for delivery of lab results. Please complete this form and return via fax to 432.221.1562 in order to implement the requested changes.

AUTOFAX Provider Profile Information

Provider Full Name: _____

Provider Number: _____

Telephone Number: _____ Fax Number: _____

Office Street Address: _____

City, State and Zip: _____

NOTE: If additional Provider(s) please reproduce this letter and return via fax.

Please check the boxes below to indicate your preferences for lab report delivery.

| | Fax | Courier or US Mail | No Delivery |
|--|--------------------------|---------------------------|--------------------------|
| Clinical Laboratory Reports for Hematology, Chemistry, Blood Bank and Microbiology | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| Anatomic Pathology Reports for surgical cases, biopsies, etc. | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| Cytology Reports for PAP Gyn cytology and/or molecular testing for Chlamydia, gonorrhea or HPV | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |

I am requesting that my AUTOFAX lab report delivery be modified because:

_____ I do not refer patients for outpatient testing to any hospital laboratory.

_____ I use Cerner Millennium electronic records to view all patient laboratory results.

_____ I use an internal electronic medical record system to view all laboratory results.

Signature: _____

Date: _____

LAB ORDERS

Making it Easy or You to Order the Tests You Need is Important

The following pages include examples of MMH Laboratory Services requisitions and forms. You will find:

Requisition Form Completion Instructions

- lists information required when completing any requisition

Standard Requisition Form

- includes most commonly ordered tests with room to print or write physician specific tests

For your convenience, we have also included:

Request for Standing Order Renewal Form

- must be completed by your office when renewing a standing order (original standing orders should be written on a requisition or ordered in the MMH Laboratory Services Portal)

Advance Beneficiary Notice of Noncoverage (ABN)

- should be signed by Medicare patients for whom an ordered test may not be covered based upon limited coverage guidelines

Ordering Instructions:

- Requests may come from any Allied Health Provider (AHP) as provided in the Midland Memorial Hospital Bylaws.
- This request may come on a written form or called to the laboratory verbally from the physician's office or nursing floor.
 - Only licensed personnel (Clinical Laboratory Scientists/Technicians) may take a verbal order from AHP.
- All laboratory orders MUST contain at least the following information:
 - The date of the order
 - Patient's name
 - Patient's DOB
 - Test(s) ordered
 - Diagnosis Codes
 - Frequency/duration of testing for reoccurring orders
 - Any special instructions
 - Physicians or other provider signature (may be electronically signed order in the Electronic Health Record EHR)

If you have any questions or concerns about how you are receiving results from MMH Laboratory Services, please call **432.221.1632** or contact your sales representative.



Attention Physician:

You have ordered a Recurring (Standing) Order for your patient

_____.

Standing orders need to be on one of our Midland Memorial Requisitions

We have faxed over a Requisition that needs to be filled out and signed by the physician. Please write clearly, and fill in ALL information requested. Please check the test requested, and if it is not listed, please clearly write on the lines provided. Please do not use abbreviations and write out individual tests (no panels, please).

Thank you for your cooperation

Midland Memorial Hospital Laboratory
400 Rosalind Redfern Grover Pkwy
Midland, TX 79701

Phone 432-221-2911 (Main Campus)
432-221-3010 (West Campus)

Fax 432-221-4979 (Main Campus)
432-221-3011 (West Campus)

Midland Memorial Hospital, Midland, TX 79701
Laboratory Outpatient Requisition



One Time Order Standing Order: Frequency _____ Duration (6 months max) _____

Patient Name: _____ DOB: _____

ICD-10 Code(s) **REQUIRED:** _____ Physician Signature: _____

Testing Center Main Campus

400 Rosalind Redfern Grover
Midland, Texas 79701
(432) 221-2911
Fax: (432) 221-4979

Legend's Park

5615 Deauville Blvd.
Midland, Texas 79706
(432) 221-3422
Fax: (432) 221-2255

F. Marie Hall Outpatient Center (West Campus)

4214 Andrews Hwy
Midland, Texas 79705
(432) 221-3010
Fax: (432) 221-3011

CHEMISTRY PANELS

- Basic Metabolic
Calcium, CO₂, Chloride, Creatinine, Glucose, Potassium, Sodium, Urea Nitrogen (BUN)
- Comprehensive Metabolic
Albumin, Total Bilirubin, Calcium, Chloride, CO₂, Creatinine, Glucose, Alkaline Phosphatase, Potassium, Total Protein, Sodium, AST, ALT, Urea Nitrogen (BUN)
- Electrolyte Panel
CO₂, Chloride, Potassium, Sodium
- Hepatic Function Panel
Albumin, Total Bilirubin, Direct Bilirubin, Indirect Bilirubin, Alkaline Phosphatase, Total Protein, ALT, AST
- Lipid Panel
Total Cholesterol, HDL/LDL, Triglycerides

All other tests need individual requests

INDIVIDUAL CHEMISTRY TESTS

- Beta-HCG
- BUN
- Creatinine
- EBV
- Ferritin
- Free T4
- Glucose
- Hemoglobin A1c
- Hepatitis Bs Ag
- Hepatitis Bs Ab
- Hepatitis C Ab
- HIV 1/2 Screen

- Iron
- Lead
- Lipase
- Mumps
- Neonatal Bilirubin
- NT-Pro BNP
- Pregnancy Test (circle one) Serum Urine
- Procalcitonin
- Progesterone
- PSA
- Rubella
- Syphilis IgG
- Testosterone
- TIBC (includes Iron)
- Triglycerides
- TSH
- Uric Acid
- Varicella
- Vitamin B12
- Vitamin D
- Other _____
- Other _____
- Other _____

HEMATOLOGY

- CBC with Diff
- ESR
- PT/INR
- PTT

URINALYSIS

- Urinalysis with Reflex Microscopic
- Microscopic Analysis Only
- Urine Culture

BLOOD BANK

- Type & Screen

MICROBIOLOGY

- Blood _____
- Sputum _____
- Eye
- Wound: Source _____
- Anaerobic: Source _____
- Other: Source _____
- Influenza A/B, RSV (Nasopharyngeal)
- GI Panel (Stool)
- Respiratory Panel (Nasopharyngeal)
- Meningitis Panel (CSF)
- Chlamydia/GC: Source _____
- MRSA (Nasal)
- Group B Strep (Vaginal)
- Group A Strep (Throat)

DIAGNOSIS

- Anemia D64.9
- Anemia, Unspecified D64.9
- Anticoagulation Therapy Z79.01
- Bacteremia R78.81
- Cirrhosis K74.60
- Diabetes E11
- Diarrhea R19.7
- Dizziness R42
- Fever R50.9
- HIV B20
- Hyperlipidemia E78.5
- Infection A49.9
- Jaundice R17
- Long Term Med Use Z79
- Malaise and Fatigue R53.81
- Throat Pain R07.0
- UTI N39.0
- Other _____
- Other _____



ADVANCED BENEFICIARY NOTICES MEDICAL NECESSITY

It is Midland Memorial Hospital's policy to consistently and fully comply with all laws and regulations pertaining to the delivery of/and billing for services. In accordance with Medicare requirements, a Medicare Advance Beneficiary Notice of Noncoverage (ABN) must be obtained from Medicare beneficiaries for laboratory tests, procedures, and medical services that are not covered by Medicare because they are not deemed reasonable or necessary.

Hospitals must bill Medicare for all medically necessary services and obtain an ABN for outpatient services that are not medically Necessary according to Local Coverage Determinations (LCDs) or National Coverage Determinations (NCDs). This policy and procedure are set forth to delineate appropriate use of the Medicare ABN for outpatient hospital services that are not deemed reasonable or necessary.

Definitions Advance Beneficiary Notice of Noncoverage (ABN): A notice given to Medicare beneficiaries to convey that Medicare is not likely to provide coverage in a specific case on the basis that services are not medically necessary and, therefore, that Midland Memorial Hospital may bill the patient for the care if provided. The ABN informs a Medicare beneficiary why a denial is expected for a service, allowing the patient or their legal guardian to make an informed decision regarding whether to receive care and be financially responsible for that treatment. Local Coverage Determinations (LCDs): Policies developed by Medicare Administrative Contractors (MACs) that specify the criteria for whether and under which clinical circumstances an item/service is covered and considered to be reasonable, necessary, and appropriate. Hospitals are required to use only those LCDs issued by their specific MAC.

National Coverage Determinations (NCDs): Medical review policies issued by the Centers for Medicare & Medicaid Services (CMS) that identify specific medical items, services, treatment procedures, or technologies that can be covered and paid for by Medicare. NCDs apply to services paid by all MACs and can be found in the Medicare National Coverage Determinations Manual (100-03) and the Federal Register.

Outpatient Services: Services rendered to a patient who has not been admitted as an inpatient but is registered as an outpatient and receives services (rather than supplies alone) from the hospital. Outpatient services include but are not limited to observation services; ED treatment; ambulatory surgery; and laboratory, radiology, or other ancillary department services.

ADVANCED BENEFICIARY NOTICE

Your doctor wants to diagnose a condition you may have or evaluate how well your treatment is working. To do that, the doctor needs to have certain diagnostic tests performed. The doctor will tell you what those tests are and why he/she thinks they are necessary. Before a specimen is taken for testing, you may be asked to sign an Advance Beneficiary Notice, or “ABN.” The ABN was prepared by us, Midland Memorial Hospital (MMH). We’ve also prepared this brochure to answer some of the questions you may have about the ABN and why you’re being asked to sign it.

What is an ABN?

An ABN is a form that lets you know that you may have to pay for a test your doctor has ordered if Medicare refuses to pay for it. Once you sign the ABN, MMH may bill you for the cost of the test.

Why do you want me to sign the ABN?


Although the Medicare program pays for most diagnostic tests, it won’t pay for some tests under certain circumstances. When that happens, MMH must ask the patient to pay. Consequently, we ask patients to sign an ABN whenever Medicare appears likely to deny payment for the specific tests the doctor has ordered. The reason you are being asked to sign an ABN now is that this is one of those occasions in which we or your doctor believe Medicare won’t pay.

Why don’t you think Medicare will pay for this test?

Medicare pays only for tests that it considers to be “medically necessary.” Some tests are never considered medically necessary. Some tests are always considered medically necessary. But most tests fall in the middle: They’re medically necessary only under certain circumstances, depending on what your diagnosis is. If the diagnosis the doctor lists isn’t one of the diagnoses Medicare will accept for that test (or if the doctor doesn’t tell MMH what the diagnosis is), the test won’t be considered medically necessary and Medicare won’t pay for it.

If Medicare says the test isn’t medically necessary, then why perform it?

Your doctor has made a medical judgment that you need the test. When your doctor says a test is medically necessary, he/she considers your personal medical history, any medications you may be taking, and generally accepted medical practices when Medicare says a test isn’t medically necessary, it’s not making a medical decision about your health. It’s acting like an insurance company deciding what it will and won’t pay for. And, just like private insurers, there are occasions when Medicare won’t pay for services your doctor thinks are important to your health.



Must I sign the ABN? No. You have three (3) options.

Option 1: You may sign the ABN and have the test performed. You will then be billed for the test if Medicare does not pay.

Option 2: You may refuse to sign the ABN and choose not to have the test performed. However, in not having the test performed, you'll be going against the medical advice of your doctor. So we advise you to consult with your doctor before choosing this option.

Option 3: MMH will perform the test and you will receive a bill – even though you refused to sign the ABN. A witness will sign the ABN to indicate that you've been advised of the ABN, refused to sign, but you still want the test performed. Under Medicare guidelines, we may then directly bill you for the tests.

Will I be billed automatically?

No. After we perform the test, we'll ask Medicare to pay for it. If Medicare does, you will not receive a bill. You'll get a bill only if Medicare denies the claim. Remember, if Medicare denies the claim, you may contest the denial if you think it was wrong. Contact your doctor or Medicare if you want to do that.

Is Medicare more or less likely to pay if I sign?

Neither. The fact that you've signed an ABN won't affect Medicare's decision either way.

Will supplemental insurance pay for the test if Medicare doesn't?

Maybe. If you have a supplemental insurance policy (sometimes called a "Medigap" policy), contact the insurance company and ask whether the policy covers lab test not covered by Medicare. If so, find out how to submit claims for payment under the policy.

Must I sign an ABN every time a new test is done?

No. You'll be asked to sign only when the doctor or lab has good reason to think Medicare will deny payment for the test. There may be visits to the doctor's office or lab when you'll be asked to sign an ABN and other visits when you don't. It depends on the test and the reason for ordering it on that visit.

I've never had to pay for a lab test before. Is this something new?

The ABN isn't new – it has been around for 25 about years. More labs are using it because of recent changes in how Medicare pays for lab tests. Theses changes make it more likely that Medicare won't pay for a lab test. And since labs aren't getting paid by Medicare, they must ask patient to pay.

You say the ABN isn't new, but I've never been asked to sign one before. Why must I sign one today?

There was no reason to believe Medicare would deny payment for the tests during previous visits. But your doctor or we think Medicare won't pay for the test being ordered today. You should ask your doctor what the difference is between today and other visits when you didn't have to sign an ABN.

A. Notifier:

B. Patient Name:

C. Identification Number:

Advance Beneficiary Notice of Non-coverage (ABN)

NOTE: If Medicare doesn't pay for D. _____ below, you may have to pay.

Medicare does not pay for everything, even some care that you or your health care provider have good reason to think you need. We expect Medicare may not pay for the D. _____ below.

| D. | E. Reason Medicare May Not Pay: | F. Estimated Cost |
|----|---------------------------------|-------------------|
| | | |

WHAT YOU NEED TO DO NOW:

- Read this notice, so you can make an informed decision about your care.
- Ask us any questions that you may have after you finish reading.
- Choose an option below about whether to receive the D. _____ listed above.

Note: If you choose Option 1 or 2, we may help you to use any other insurance that you might have, but Medicare cannot require us to do this.

G. OPTIONS: Check only one box. We cannot choose a box for you.

- OPTION 1.** I want the D. _____ listed above. You may ask to be paid now, but I also want Medicare billed for an official decision on payment, which is sent to me on a Medicare Summary Notice (MSN). I understand that if Medicare doesn't pay, I am responsible for payment, but I can appeal to Medicare by following the directions on the MSN. If Medicare does pay, you will refund any payments I made to you, less co-pays or deductibles.
- OPTION 2.** I want the D. _____ listed above, but do not bill Medicare. You may ask to be paid now as I am responsible for payment. I cannot appeal if Medicare is not billed.
- OPTION 3.** I don't want the D. _____ listed above. I understand with this choice I am **not** responsible for payment, and I cannot appeal to see if Medicare would pay.

H. Additional Information:

This notice gives our opinion, not an official Medicare decision. If you have other questions on this notice or Medicare billing, call **1-800-MEDICARE** (1-800-633-4227/TTY: 1-877-486-2048).

Signing below means that you have received and understand this notice. You also receive a copy.

| | |
|---------------|----------|
| I. Signature: | J. Date: |
|---------------|----------|

CMS does not discriminate in its programs and activities. To request this publication in an alternative format, please call: 1-800-MEDICARE or email: AltFormatRequest@cms.hhs.gov.

According to the Paperwork Reduction Act of 1995, no persons are required to respond to a collection of information unless it displays a valid OMB control number. The valid OMB control number for this information collection is 0938-0566. The time required to complete this information collection is estimated to average 7 minutes per response, including the time to review instructions, search existing data resources, gather the data needed, and complete and review the information collection. If you have comments concerning the accuracy of the time estimate or suggestions for improving this form, please write to: CMS, 7500 Security Boulevard, Attn: PRA Reports Clearance Officer, Baltimore, Maryland 21244-1850.

A. Notificante:

B. Nombre del paciente:

C. Número de Identificación:

Aviso anticipado de no cobertura al beneficiario (ABN, por sus siglas en inglés)

NOTA: Si Medicare no paga por D. _____ a continuación, usted podría tener que pagar. Medicare no paga por todo, incluidos algunos cuidados que usted o su proveedor de atención médica entienda que son necesarios. Se anticipa que Medicare no pague por D. _____ a continuación.

| D. | E. Motivo por el cual Medicare podría negar el pago: | F. Costo estimado |
|----|--|-------------------|
| | | |

LO QUE USTED DEBE HACER AHORA:

- Lea este aviso para poder tomar una decisión informada sobre sus cuidados.
- Háganos las preguntas que tenga después de terminar de leer.
- Elija una opción a continuación sobre si recibirá D. _____ que se indica arriba.
Nota: Si elige Opción 1 o 2, podríamos ayudarle a utilizar los otros seguros que tenga, pero Medicare no nos puede obligar a hacer esto.

G. OPCIONES: Marque solamente una casilla. No podemos elegir la casilla para usted.

- OPCIÓN 1.** Quiero D. _____ que se indica arriba. Pudiera pedir el pago ahora, pero yo también solicito que se facture a Medicare para obtener una decisión oficial respecto al pago, la cual me será enviada en un Resumen de Medicare (MSN, por sus siglas en inglés). Entiendo que, si Medicare no paga, yo seré responsable del pago, pero puedo apelar a Medicare según las indicaciones en el MSN. Si Medicare pagará, me serán reembolsados todos los pagos que yo haya hecho, salvo los copagos o deducibles.
- OPCIÓN 2.** Quiero D. que se indica arriba, pero no facture a Medicare. Se podrá pedir el pago ahora, ya que yo soy responsable del pago. No podré apelar si no se facturara a Medicare.
- OPCIÓN 3.** No quiero D. _____ que se indica arriba. Entiendo que, con esta elección, **no** seré responsable del pago, y no podré apelar para saber si Medicare hubiera pagado.

H. Información adicional:

Este aviso explica nuestra opinión y no constituye una decisión oficial de Medicare. Si usted tiene otras preguntas relativas a este aviso o la facturación de Medicare, llame al **1-800-MEDICARE** (1-800-633-4227/TTY: 1-877-486-2048). Firme abajo para reconocer haber recibido y entendido este aviso. Usted también recibirá una copia.

| | |
|-----------|-----------|
| I. Firma: | J. Fecha: |
|-----------|-----------|

CMS no discrimina en sus programas y actividades. Para solicitar esta publicación en formato alternativo, llame al: 1-800-MEDICARE o envíe un mensaje de correo electrónico: AltFormatRequest@cms.hhs.gov.

De acuerdo con la Ley para la Reducción de Trámites de 1995, ninguna persona será obligada a responder a una recopilación de información a menos que se exhiba un número de control válido de la OMB. El número de control válido de la OMB para esta recopilación de información es 0938-0566. El tiempo necesario para completar esta recopilación de información es de aproximadamente 7 minutos por respuesta, incluido el tiempo para revisar las instrucciones, buscar fuentes de datos existentes, reunir los datos necesarios, y completar y revisar la recopilación de información. Si tiene preguntas sobre la precisión del estimado de tiempo o sugerencias para mejorar este formulario, escriba a: CMS, 7500 Security Boulevard, Attn: PRA Reports Clearance Officer, Baltimore, Maryland 21244-1850.



DX Laboratory is a full-service West Texas pathology group and reference laboratory. We prioritize partnering with our physician colleagues in the Permian Basin and surrounding communities to deliver world class health care right here at home. We have built a legacy of excellence for decades in West Texas.

Our group, DX, Inc., in affiliation with Midland Pathologists, P. A., strives for excellence in both Anatomic and Clinical Pathology services in the West Texas area. In addition to standard business hours, DX, Inc. offers on-call coverage 24 hours a day, 365 days of the year. Using the latest processing technology, DX, Inc. offers same-day services for biopsies and smaller specimens received by noon. All of the DX pathologists have

grown up and/or trained in Texas. We take great pride in providing the very best in Pathology services to our community. Our group has several Pathologists with special fellowship interests and training in subspecialties.

Our Services

DX is a full-service reference laboratory with an onsite pathology team which is available 24/7. We are able to offer rapid turnaround and a wide range of services: specimen gross examination, histology, microscopic examination, immunohistochemical and special stains, fine-needle aspiration cytology, frozen sections, non-gynecologic specimen review. We have on-line requisitions for submitting specimens, and final reports are available via website. Our services also include: peer group participation, tumor boards, medical directorships, clinical laboratory supervision and consultations, continuing medical education presentations

Our pathologists stay up to date with the latest developments in their field by earning continuing medical education credits in excess of those required by state law. They serve our local hospitals on committees and boards designed to improve the quality of health care delivery in West Texas.

HOW TO REACH US

DX Laboratory
2008 W Ohio Avenue
Midland, Texas 79701

Phone: (432) 683-3206
Toll Free: (800) 777-4923
Fax: (432) 683-2616

MEET OUR PATHOLOGISTS



Dr. William Claude Klingensmith, IV M.D. has been the Laboratory Medical Director since 2013. He has served as the Chief of Pathology since 2012 and is founding member of our COVID-19 Steering Committee. Dr. Klingensmith has been a Partner Pathologist for DX Pathology Laboratory since 2012. Currently Dr. Klingensmith serves a chief of staff at Midland Memorial Hospital and continues to serve on numerous hospital committees. He is currently licensed in Texas and had previous licensures in Utah, Massachusetts, Virginia, and New York. Dr. Klingensmith graduated from Colgate University – B.A. 1997, and St. George’s University School of Medicine - M.D. 2003. He is certified by the Anatomic and Clinical Pathology Boards.

He left a surgical residency program at the Medical College of Virginia to pursue his career in pathology. He completed his Pathology residency at Texas Tech Health Sciences Center. Dr. Klingensmith was a fellow in Pediatric Pathology, Harvard Medical School at Children’s Hospital Boston. From there he completed a fellow in Surgical Pathology at the University of Utah, School of Medicine.

In addition, he has held positions as Pathology laboratory instructor, University of Utah School of Medicine, 2010; Pathology laboratory instructor, Harvard Medical School, 2009; Pathology laboratory instructor, Texas Tech Medical School, 2005-2008. Grossing technician Covenant Health Systems, Lubbock TX, evenings 2006-2008.

Dr. Klingensmith is or has been a member of several professional organizations such as the Society of Pediatric Pathologists, United States and Canadian Academy of Pathology, College of American Pathologists, American Society of Clinical Pathologists, New England Society of Pathologists, Massachusetts Medical Society, Texas Society of Pathologists, and the Midland Medical society for which he was president in 2016. Dr. Klingensmith as, and continues to, serve as a College of American Pathologists Laboratory Accreditation Program Inspector and team leader.

When Dr. Klingensmith is not working, he enjoys spending quality time with family and friends. His hobbies include, skiing, hiking, lacrosse, river rafting, mountain biking, climbing, scuba diving.

MEET OUR PATHOLOGISTS



Dr. Phillip A. Conlin, MD has been with Midland Pathologist's since 2002, and acting President since 2012. He served as the Midland Memorial Hospital Laboratory Director, 2004-2012. He has served as Medical Director and President of DX Inc. since 2012. Dr. Conlin has previously served as Martin County Medical director and has served at Permian Regional Medical Center in Andrews, TX.

Dr. Conlin attended Amarillo College, and then received Bachelor of Arts Degree from Texas Tech University, Summa Cum Laude. He graduated medical school from Texas Tech Health Sciences Center School of Medicine. He completed his residency at Texas Tech University Medical Center, where he was also Chief Resident 2000-2002.

He has supported and served Midland Memorial Hospital as pathology section chief, medical executive committee, continuing education committee, institutional review board, pharmacy and therapeutics committee, cancer committee (including service as the Cancer Liaison Physician).

Dr. Conlin received additional advanced training in Dermatopathology and is also a College of American Pathologists Laboratory Accreditation Program Inspector.

MEET OUR PATHOLOGISTS



Dr. Matthew H. Friez attended the University of South Dakota, and graduated with Bachelor of Arts, Physics from Baylor University. Dr. Friez graduated medical school from University of Texas Houston Health Science Center and MD Anderson Cancer Center in 2005.

His pathology residency was with University of South Dakota, and he completed his Hematopathology fellowship with Scott and White Medical Center in Temple, Texas in 2010. Dr. Friez is board certified in Anatomic and Clinical Pathology as well as hematopathology.

He enjoys spending time with his wife and children, and enjoys golf, music, church activities, basketball, attending sporting events, boating and fishing.



BILLING

MMH Laboratory Services offers competitive pricing for lab services to help you provide cost-effective, dependable care. MMH offers the following pricing programs:

Patient Billing - Patients are billed at a discounted rate Medicare reimbursement* x 4

- Discount automatically applies to all tests performed by MMH
- No agreement is needed
- Some exceptions may apply (i.e. sendouts)

Physician Billing - physicians are billed at a discounted rate of just 20% above Medicare reimbursement*

- Discount automatically applies to all tests performed by Sharp Laboratory Services
- Agreement must be signed
- Agreement is effective for two full years
- Send out test are exceptions and may be billed at a higher rate

On the following pages you will find:

Client and Patient Pricing - lists prices for most commonly ordered tests from MMH Laboratory

Client Pricing Agreement - must be signed by physician to activate discounted physician pricing

* Discount applies to tests performed by MMH Laboratory. All referral tests are billed at MMH's competitively discounted rate.

MOST COMMON LABORATORY TESTS

| Test | Outpatient Price |
|-------------------------------------|------------------|
| CBC w/diff | \$31.08 |
| CBC w/o diff | \$17.24 |
| CMP (Comprehensive Metabolic Panel) | \$42.24 |
| CRP (C-Reactive Protein) | \$20.72 |
| Ferritin | \$54.52 |
| Iron | \$25.88 |
| Hemoglobin A1C | \$38.84 |
| Lipase | \$27.56 |
| Lipid Profile | \$53.56 |
| Magnesium | \$26.80 |
| Phosphorus | \$18.96 |
| NT-ProBNP | \$157.04 |
| TSH | \$67.20 |
| Free T4 | \$36.08 |
| Sed Rate | \$10.80 |
| B-12 | \$60.32 |
| *Urine Culture | \$32.28 |
| APTT | \$24.04 |
| Prothrombin Time/INR | \$17.16 |
| *Urinalysis if indicated | \$9.00 |
| PSA | \$77.24 |
| Venipuncture | \$12.00 |
| Vit D, 25 Hydroxy | \$118.40 |
| Hepatic Function Panel | \$32.68 |
| Fecal Occult Blood | \$17.52 |

*Additional reflex charges if positive

LABORATORY SERVICES AGREEMENT

This Laboratory Services Agreement (“Agreement”) is entered into to be effective _____, 2021 (“Effective Date”), by and between Midland County Hospital District d/b/a Midland Memorial Hospital (hereinafter referred to as “Supplier”) and _____ (“Company”). This Agreement covers the services, specimen, results, samples and reports transferred between Company and Supplier.

1. Supplier will provide Company with laboratory services, including, but not limited to, the testing, examining, and reporting of results pertaining to specimen samples (hereinafter referred to as “laboratory services”) sent to Supplier from Company, and any other related laboratory services as may be clinically indicated for a particular specimen of which the request is being made. Supplier is responsible for reporting information to Company in a timely and reasonable manner.

Supplier will promptly notify Company if the laboratory services requested are not available, or if Supplier cannot provide the laboratory services in a timely manner. If Supplier cannot reasonably expect to perform the services requested, or perform the services requested within a reasonable time, it shall promptly notify Company.

Supplier is not liable or responsible to Company or to any of Company’s patients for the unavailability of laboratory services, either because Supplier cannot perform the services requested or cannot perform the service in the time specified by Company.

2. This Agreement shall commence as of the Effective Date and remain in full force and effect for a period of one (1) year, unless earlier terminated by mutual written consent or as otherwise set forth herein. Thereafter, it shall automatically renew for successive one (1) year periods, unless either party gives at least sixty (60) days’ prior written notice to the other of the intent not to renew. Notwithstanding the foregoing, either party may terminate this Agreement at any time, without cause, upon at least sixty (60) days’ prior written notice to the other. In addition, either party may terminate this Agreement for cause if such cause continues uncured for a period of ten (10) days after the defaulting party’s receipt of written notice specifying such default.

3. Supplier will bill Company on a monthly basis for laboratory services provided in accordance with the charges set forth in Exhibit A, attached hereto and made a part hereof by reference. Notwithstanding the costs set forth in the charge list, the actual billed cost will reflect any increase created by an ongoing price increase from Supplier’s services.

Company shall receive test credit for any test or specimen result Company receives from Supplier that Company establishes to be in error, inaccurate or contaminated, only if Company provides evidence that the specimen or test result is inaccurate and the inaccuracy is not due to an event within Company's control.

4. The laboratory services offered under this Agreement shall be available twenty-four (24) hours per day and in accordance with the Laboratory Turnaround Times, attached hereto as Exhibit B. Additionally, the laboratory services shall meet the requirements of 42 C.F.R. § 493, and comply with Medicare's Conditions of Participation.

5. Determination of what laboratory services are to be conducted by Supplier regarding a sample or specimen sent by Company for a particular patient shall be at the expense and responsibility of the Company, and Supplier shall be entitled to rely on the laboratory services requested to it by Company for a particular patient. Upon request from Supplier, Company will provide any medical information concerning the patient necessary to resolve any questions relating to providing the most accurate laboratory services.

6. Company is responsible for procuring and properly labeling patient specimen and/or samples for testing and/or examining by Supplier, when drawn outside the once daily run/draw. Supplier is entitled to rely on Company's labeling of the specimen and samples. Company is entitled to rely on Supplier's test results. Supplier is not liable for Company's improper requesting or improper labeling of patient's samples and/or specimens for testing and/or examining by Supplier.

7. Upon its acceptance of the laboratory testing results, Company shall be responsible for procedures to maintain the integrity and wholesomeness of the testing results, as received by it, and shall be responsible to insure the proper identity of the patient. Should Company determine for whatever reason (including, but not limited to, suspected labeling or testing errors) that it has a question concerning Supplier's testing results delivered to it, it will immediately contact Supplier.

8. Supplier will auto-fax results to Company in manner requested on AUTOFAX form.

9. Company will immediately, first by telephone, inform Supplier's Medical Director or the Medical Director's designee of any adverse reactions and all details pertinent thereto suffered by Company's patients which may be related to a result or analysis provided by Supplier hereunder, and any adverse reaction shall be promptly confirmed by letter. Company and Supplier will cooperate in investigating each such adverse reaction, while complying with all applicable confidentiality statutes or regulations.

10. Company will use laboratory results delivered to it hereunder only for patients with which the specimen or test was requested and only on the premises of Company. It will not sell or give away or transfer any of Supplier's tests or results to any other person or entity, business or individual, other than the patient for whom the request was made.

11. In connection with this Agreement, the parties agree to comply with all federal and state statutes and regulations pertaining to all laboratory services conducted, any documentation relating to those services, and the return of results specifically relating to the testing and reporting of AIDS or HIV.

12. Company shall maintain professional liability insurance, in an amount of no less than \$1,000,000 per occurrence and \$3,000,000 in the aggregate. Supplier is self-insured and does not carry or maintain third-party commercial general liability insurance or medical, professional or hospital liability insurance. Any and all claims against Supplier shall be expressly limited to the limits of liability of Supplier as a Texas governmental entity and/or hospital district as provided by applicable law. Supplier shall self-insure with liability limits of no more than \$100,000 per person, not more than \$300,000 for each single occurrence of bodily injury or death and no more than \$100,000 for each single occurrence for injury to or destruction of property. Supplier shall self-insure to cover its respective employees with maximum limits of liability of \$100,000 per person and \$300,000 per occurrence and otherwise be consistent with all requirements of state law.

To the extent permitted by applicable law, each party agrees to indemnify the other against, and hold it harmless from any claims, expenses or liabilities, including reasonable attorney's fees, based

upon or arising from anything done or omitted, or allegedly done or allegedly omitted, in rendering such services hereunder by either party, their agent, representatives, or employees. Midland Memorial Hospital is an assumed name under which Midland County Hospital District (MCHD) conducts its affairs. MCHD is a political subdivision of the State of Texas. A contractual agreement of MCHD to indemnify or defend another person or entity is subject to and may be limited by applicable laws. Notwithstanding anything herein to the contrary, any liability of MCHD pursuant to a contractual indemnity and defense herein shall never exceed in amount the limits of liability of MCHD as a Texas governmental entity and/or hospital district as provided by applicable law. The provisions of this section pertaining to MCHD's limitations on indemnification and defense shall survive termination of this Agreement regardless of the cause for termination.

The party seeking indemnification shall promptly notify the other party in writing of any claim, lawsuit or demand for payment asserted against it for which indemnification is sought, and shall promptly deliver to the party from whom indemnification is sought a true copy of any such correspondence, or summons or other process, pleading or notice issued in any lawsuit or other proceeding to assert or enforce such claim. The party seeking indemnification, its agents, representatives, and employees shall provide full cooperation to the indemnifying party at all times during the pendency of the claim or lawsuit, including without limitation, providing them with all available information concerning the claim. Failure by the party seeking indemnification to comply with the terms of this section shall nullify the other party's duties under this section.

Where acceptance of its obligation to indemnify is deemed proper by the indemnifying party, said party reserves the right to control the investigation, trial, and defense of such lawsuit or action, including all negotiations to effect settlement, and any appeal arising therefrom and to employ or engage attorneys of its own choice. The party seeking indemnification may, at its own cost, participate in such investigation, trial, and defense of such lawsuit or action, and any appeal arising therefrom.

13. No modifications of or amendment to this Agreement or its attachments shall be effective or binding on either party unless mutually agreed in writing signed by both parties.

14. The parties to this Agreement are independent contractors. Nothing contained herein shall be construed as authorizing or appointing either party or any of its agents, representatives, or employees to represent the other in any matter.

15. The parties expressly agree and acknowledge that the compensation payable hereunder is intended to be a fair market rate for services performed, and further agree to adjust such compensation should any governmental entity determine that such compensation does not meet prevailing medical community standards for fair market rates. The parties acknowledge that none of the compensation paid to Supplier is conditioned on any requirement that Supplier make referrals to, be in a position to make or influence referrals to, or otherwise generate business for Company.

16. Supplier represents and warrants to Company that all services to be provided hereunder will be provided in accordance with all principles of professional ethics, and all applicable laws, rules, requirements and regulations.

17. In connection with the Agreement, each party may provide the other party or its employees with information concerning its business or operations which may be confidential or proprietary, including, without limitation, confidential information concerning patients, trade secrets, new product developments, special or unique processes or methods, or marketing, sales, advertising or other concepts or plans (the “Confidential Information”). The party providing such Confidential Information shall retain all rights in and to the Confidential Information. During the term of the Agreement and after the date of termination, the party receiving the Confidential Information agrees to maintain the Confidential Information in confidence using the same standards of protection as it applies to its own confidential information and to refrain from disclosing the Confidential Information to any third party without the other party’s prior written consent, unless: (a) the receiving party is legally required to do so and prompt written notice is provided to the other party so that the other party may seek a protective order or other appropriate remedy; (b) the Confidential Information is legally obtained by the receiving party from other sources; or (c) such Confidential Information is or becomes part of the public domain through no breach or fault of the receiving party. This Section shall survive termination of the Agreement.

18. Each party represents and warrants to the other party that neither it, nor any principal or employee is an “Ineligible Person” defined as any individual or entity who: (a) is currently excluded, debarred or otherwise ineligible to participate in the Federal health care programs or in the Federal procurement or non-procurement programs; or (b) has been convicted of a criminal offense related to the provision of health care items or services. Each party will notify the other party in writing immediately if it or any such person become an “Ineligible Person.” Each party further represents and warrants that neither it, nor any principal or employee is under investigation or otherwise aware of any circumstances that may result in the party being excluded from participation in the Federal health care programs. These shall be ongoing representations and warranties during the term of the Agreement. A party shall immediately notify the other party of any change in the status of these representations and warranties set forth in this section. Any breach of this section shall give the non-breaching party the right to terminate the Agreement immediately for cause.

19. Each party hereby agrees to perform any further acts and to execute the delivery of any documents that may be reasonably necessary to carry out the provisions of the Agreement.

20. Each individual executing the Agreement on behalf of a business entity represents and warrants that he or she is duly authorized to execute and deliver the Agreement on behalf of said entity; that the Agreement is binding on said entity in accordance with its terms; and that the Agreement is not in violation of or inconsistent or contrary to provisions of any other agreement to which such entity is a party.

21. The Agreement shall be binding on and shall inure to the benefit of the parties hereto, and their permitted successors and assigns.

22. The Agreement may be executed in several counterparts, each of which, when so executed, shall be deemed to be an original, and such counterparts shall, together, constitute and be one and the same instrument.

23. The Agreement is a contract solely between Supplier and Company. There shall be no third-party beneficiaries nor shall any third-party have any rights or benefits hereunder.

24. Any notice required or permitted by the Agreement or any agreement or document executed and delivered in connection with the Agreement shall be deemed to have been served properly if hand delivered or sent by overnight express, charges prepaid and properly addressed, to the respective party to whom such notice relates at the following addresses:

If to Supplier:

Midland Memorial Hospital
400 Rosalind Redfern Grover Parkway
Midland, TX 79701

Attention: President and Chief Executive Officer

If to Company:

or such other address as shall be furnished in writing by any party to the other party. All such notices shall be considered received when hand delivered or one business day after delivered to the overnight courier.

25. In no event shall either party be liable for damages caused solely by the other party's failure to perform its responsibilities, nor shall either party be liable for special, indirect, or consequential damages for breach of any of the provisions of the Agreement.

26. With the exception of this section and any provision of the Agreement which by its terms survives or which requires performance after the term of the Agreement has expired or been terminated, no provision of the Agreement shall survive the expiration or termination of the Agreement.

27. Pursuant to Title 42 of the United States Code and applicable rules and regulations thereunder, until the expiration of four (4) years after termination of this Agreement, both parties shall make available, upon appropriate written request by the Secretary of the United States Department of

Health and Human Services or the Comptroller General of the United States General Accounting Office, or any of their duly authorized representatives, a copy of this Agreement and such books, documents and records as are necessary to certify the nature and extent of the costs of the services provided by the parties under this Agreement. Each party further agrees that in the event it carries out any of its duties under this Agreement through a subcontract with a value or cost of \$10,000 or more over a 12-month period with a related organization, such subcontract shall contain a clause to the effect that until the expiration of four (4) years after the furnishing of such services pursuant to such subcontract, the related organization shall make available, upon appropriate written request by the Secretary of the United States Department of Health and Human Services or the Comptroller General of the United States General Accounting Office, or any of their duly authorized representatives, a copy of such subcontract and such books, documents and records of such organization as are necessary to verify the nature and extent of such costs. Disclosure pursuant to this Section shall not be construed as a waiver of any other legal right to which a party may be entitled under law or regulation.

28. Except as permitted or required by this Agreement or by law, including, but not limited to, the Health Insurance Portability and Accountability Act of 1996 (“HIPPA”), each party agrees not to use or disclose patient information in a manner that would violate the requirements of 45 C.F.R. Sections 164.504 and 164.506(e)(1) (HIPPA Security and Privacy Standards), which are incorporated herein by reference. Accordingly, each party expressly agrees to comply with HIPPA in all respects, including the implementation of all necessary safeguards to prevent the disclosure of protected health information, except as permitted by HIPPA, and the assurance that any subcontractors or agents provided such information by either party have agreed to the same restrictions and conditions imposed on the parties hereto under HIPPA.

29. Any waiver expressed or implied, of any other default by either party of any provision or provisions hereunder, shall not be deemed waiver of any other default. The waiver of any default shall not affect the right of a party to require performance of the defaulted provision at any future time.

30. Neither party to this Agreement shall assign the contract as a whole or in part without the written consent of the other nor shall one party assign any monies, obligations, or entitlements due or to become due to it hereunder without the previous consent of the other party.

31. The risk of loss of any specimen, test result or analysis shall be on the party in possession of such specimen, test result or analysis at the moment of loss.

32. The parties will comply with all relevant federal and state statutes and regulations in the performance of this Agreement.

33. BOTH PARTIES HEREBY AGREE AND ACKNOWLEDGE THAT IT IS NOT THEIR INTENT AND THAT NOTHING IN THIS AGREEMENT IS INTENDED TO BE, NOR SHALL BE CONSTRUED AS, A WAIVER OF GOVERNMENTAL IMMUNITY OR ANY OTHER RIGHT(S) OF SUPPLIER AS A GOVERNMENTAL ENTITY.

In witness whereof, the parties through their authorized representatives have duly executed this Agreement on the date first above written.

**Midland County Hospital District d/b/a
Midland Memorial Hospital**

Russell Meyers, President & CEO
Midland Memorial Hospital

Russell Meyers, President & CEO

Date: _____

Date: _____



LAB SUPPLEMENTS

Occasional Lab Updates will be sent to your office providing information on new testing, changes in specimen requirements, or other pertinent topics

TEST DIRECTORY

Our customers can quickly access specimen collection requirements, supply order forms, and the latest technical bulletins all from one convenient location. Visit the MMH Laboratory Services Test Directory at <https://mmhlab.halfpenny.com>



Online Test Menu Laboratory Catalog



Midland Memorial Hospital

A B C D E F G H I J K L M N O P Q R S T U V W X Y Z #

Laboratory Direct Line: (432)221-1632

[General Information](#)

| CODE | TEST NAME | CPT4 CODE |
|-----------|---|----------------------------------|
| Acetam | Acetaminophen Level <i>Specimen Type: Blood</i> | G0480 |
| ACHrB-A | Acetylcholine Binding Ab - ARUP <i>Specimen Type: Blood</i> | 83519 |
| ACHRBI-A | Acetylcholine Blocking Ab-ARUP | 83516 |
| ACHRPan-A | Acetylcholine Receptor Ab Panel-ARUP | 83519 83516 |
| ModAb-A | Acetylcholine Receptor Modulating Ab-ARUP | 83516 |
| ACHRAbs-A | ACHR Abs, Titin Ab, STM Ab Rfx Panel-ARUP <i>Specimen Type: Blood</i> | 83519 83516 more |
| AFB BC-A | Acid Fast Bacillus (AFB) Blood Culture-ARUP <i>Specimen Type: Blood</i> | 87116 |
| AFB CS-A | Acid Fast Bacillus (AFB) Culture/Stain-ARUP | 87116 |
| APTT | Activated Partial Thromboplastin Time <i>Specimen Type: Blood</i> | 85730 |
| ADAMTS-A | ADAMTS13 Inhibitor-ARUP <i>Specimen Type: Blood</i> | 85335 |
| ADP-A | Adenosine Deaminase, Pleural Fld-ARUP <i>Specimen Type: Pleural FI</i> | 84311 |
| ADP PF-A | Adenosine Deaminase, Pericardial Fld-ARUP <i>Specimen Type: Pericardial FI</i> | 84311 |



SPECIMEN COLLECTION

Accurate testing and safe patient care require the correct specimen, correctly labeled, from the right patient. The following pages include:

Specimen Collection, Labeling and Transport - outlines phlebotomy protocols, labeling requirements and specimen transport instructions

Supply Order Form - complete this form and fax to **432.221.1562** or email to LabOutreach@midlandhealth.org before midnight to have supplies delivered next day

Laboratory STAT Test Turnaround Times for Reference Laboratories

Collection of Urine from Catheter for Culture

Clean Catch Urine Collection

Laboratory Specimen Collection/Storage-Outpatient

For specimen collection inquiries, please call MMH Lab at **432.221.1632**.

To access specimen collection information, go to: <https://mmhlab.halfpenny.com>

MICROBIOLOGY SPECIMEN COLLECTION GUIDE

Wound/Abscess Culture specimen Collection and Transport:

Specimens collected by either a physician or nurse may include, but are not limited to: boils, furuncles, infected cysts, skin abscesses, surgical wounds, deep wounds, hematomas, abrasions, cuts, lacerations, ulcers, folliculitis, cellulitis, burns and abdominal or chest tube drainage. Specimens are only recommended from wounds that are clinically infected or deteriorating. Skin and mucosal surfaces surrounding the wound or abscess should be thoroughly cleansed before collection takes place. Closed wounds or abscesses should be disinfected with CHG/alcohol solution and open wounds should be debrided and rinsed with sterile saline prior to collection.

Specimen Collection for aspirates by syringe:

1. Put on sterile gloves
2. Cleanse wound area with 70% alcohol pads or wound cleanser, safely removing as much debris from the surface as possible
3. Allow to air dry
4. Expel all air from needle and syringe
5. Aspirate 1-5 ml exudate from interior of wound (may use sterile normal saline to thin the exudate if it is too thick to aspirate)
6. Gently push all air out of syringe
7. Inject half of the contents of syringe into labeled sterile container or E-swab container. The same specimen is sufficient if an anaerobic culture is also requested.
8. If syringe is transported to the lab, the needle must be removed or the lab will cancel all testing.
9. Specimens should be transported to the laboratory as soon as possible to maintain specimen viability.

Specimen Collection for swabs (avoid swab collection if aspirate/biopsy samples can be obtained):

1. Put on sterile gloves
2. Cleanse wound area with 70% alcohol pads or wound cleanser, safely removing as much debris from the surface as possible
3. Allow to air dry
4. Insert E-swab deeply into interior of wound and gently rotate, remove swab from wound and immediately place into labeled E-swab container. The same specimen is sufficient if an anaerobic culture is also requested.
5. Specimens should be transported to the laboratory as soon as possible to maintain specimen viability.

URINE CULTURE SPECIMEN COLLECTION AND TRANSPORT

Specimen Collection for Clean Catch Urine:

1. Give patient a sterile specimen container.
2. Male outpatients should be given the following instruction to obtain a specimen.
 - a. Tip of penis should be cleaned with towelette.
 - b. Pass a small amount of urine into toilet, then hold container into urine stream to collect specimen.
 - c. Collect at least 1/2 cup of urine.
 - d. Give the urine cup to provider when done.
3. Female outpatients should be given the following instructions to obtain a specimen.
 - a. Remove underclothing completely, sit comfortably on seat, swinging one leg to the side as far as possible.
 - b. Spread genitalia with one hand and cleanse between folds of skin using towelettes.
 - c. Cleanse from front to back, using two towelettes (use each towelette separately).
 - d. After cleansing, pass a small amount of urine into toilet, then hold the container into urine stream to collect specimen.
 - e. Do not touch the inside of the cup or the rim with hands.
 - f. Collect at least 1/2 cup of urine.
 - g. Give urine specimen to the provider.
4. Urine should be placed in a gray top tube for urine and transported to the laboratory as soon as possible to maintain specimen viability

Specimen Collection for Urine Catheter:

1. Using sterile technique, insert catheter
2. Collect at least 1 ml in sterile collection cup
3. Urine should be placed in a gray top tube for urine and transported to the laboratory as soon as possible to maintain specimen viability

SPECIMEN COLLECTION, LABELING, AND TRANSPORT INSTRUCTIONS

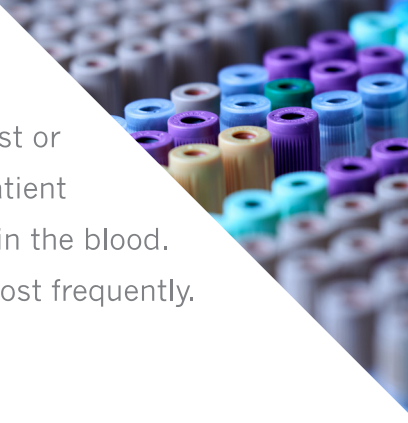
Proper specimen collection, identification, and transport are imperative to assure that laboratory testing is accurate, results are reported correctly, and patient safety is maintained. In addition, specimens must be handled in a manner that assures that healthcare workers are protected from injury and exposure to infectious diseases. Adhering to the procedures listed below is required to protect both patients and personnel.

Specimen Collection

Refer to <https://mmhlab.halfpenny.com> for any special handling instructions. Specimen requirements must be determined prior to specimen collection. Any requirements not met may compromise the specimen.

Venous Collection

1. Prepare needed equipment to perform the procedure. Check expiration dates on collection tubes, and use supplies that are not expired.
2. Wash hands with soap and water or hand sanitizer for 15 seconds.
3. Put gloves on prior to touching the patient.
4. Evaluate the patient's arms for the most appropriate collection site.
5. Avoid arms with IVs, if possible.
 - If you must use an arm with an IV, you should select a site at least 3 inches below the IV. The IV must be shut off for 5 minutes prior to collection of the specimen.
 - If you must draw above an IV, the IV must be shut off for 10 minutes prior to specimen collection. Draw a waste tube prior to drawing the specimen for testing. Discard this waste tube. Document collection above or below the IV site on the lab requisition.
6. Venipuncture must not be performed on the following sites:
 - Arm on the same side as a previous mastectomy
 - Arm that has muscle, joint, or bone injury where phlebotomy may cause further injury or undue pain
 - Edematous area
 - Hematoma
 - Scarred areas
 - Cannulas, fistulas, grafts (e.g., hemodialysis patients)
7. Place tourniquet around the arm 3-4 inches above the selected venipuncture site. Tourniquet shall not be in place longer than 1 minute prior to releasing as localized stasis may occur, causing erroneous results. If tourniquet is released prior to phlebotomy, wait 2 minutes before reapplying.

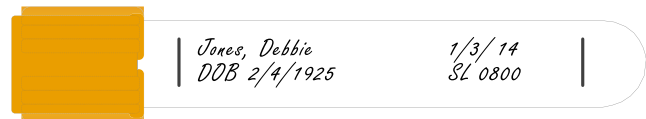
- 
8. Instruct the patient to close his hand on the arm being evaluated. Forming a fist or squeezing a soft object with the hand will aid in vein palpation. Do not have patient pump fist as this may cause changes in the concentration of certain analytes in the blood.
 9. Select the site for venipuncture. The larger and fuller median veins are used most frequently. Wrist and hand veins are also acceptable for venipuncture.
 10. Palpate and trace the path of the vein several times with finger.
 11. Prepare the site by wiping with 70% isopropyl alcohol.
 12. If collecting a blood culture, follow instruction in Blood Culture Collection Procedure for cleansing the site prior to collection.
 13. Stabilize the vein by anchoring with finger.
 14. Puncture the site with the needle, bevel side up. Enter the skin at approximately a 15° angle relative to the skin surface. The angle of penetration should not exceed 45°. The needle must enter the vein without penetrating the distal lumen of the vein. A butterfly needle may be used if the vein is difficult. Pinch the two wings of the butterfly together using the thumb and index finger. Insert the needle, bevel side up into the vein.
 15. Push the desired tube onto the holder after the needle is in the vein when using a vacutainer. Release the tourniquet as soon as blood flow is established. Instruct the patient to relax his hand once blood flow is evident. Collect tubes in proper order:
 16. Remove the tube from the holder when filled, placing a new tube on the holder if multiple tubes are needed. Invert each tube 5-10 times immediately after removal from the holder to assure proper mixing with additives in the tube and to activate clotting when no anticoagulant is present. Do not move the needle as you change tubes from the holder as this will cause discomfort to the patient or result in loss of blood flow from the vein.
 17. If using a syringe with an attached needle, fill the syringe by gently pulling on the plunger of the syringe. Release the tourniquet as soon as blood flow is established. Continue filling the syringe until the desired amount of blood has been collected.
 18. Discontinue phlebotomy if a hematoma forms while collecting the specimen. Remove the needle from the patient's arm. Cover the site with gauze and apply firm pressure to stop bleeding.
 19. Upon obtaining the needed specimen, remove the needle from the site. Place gauze over the puncture site. Remove the needle leaving gauze in place. Apply pressure on the puncture site until bleeding is stopped.
 20. Immediately after removing needle from the vein, activate the safety device on the needle to prevent accidental needle stick.

21. If syringe is used, remove the needle and attach a blood transfer device to the syringe. Transfer the blood from the syringe into the appropriate specimen container. Refer to the draw order chart in the following pages.
22. Invert each tube 5-10 times immediately after transfer to assure proper mixing of additives in the tube, or to activate the clotting process in the non-anticoagulated tubes.
23. Verify that bleeding from the phlebotomy site has stopped. Place gauze with band-aid, gauze with tape, or gauze with coban over the puncture site.
24. Label specimens at the time of collection in the presence of the patient. Label each specimen with the following information:
 - Patient Name (Last, First)
 - Date and time of collection
 - Patient Date of Birth
 - Collector's initials

Assure label attached lengthwise so tube can fit in instrument.



Label each tube collected in the presence of the patient. Have patient verify that name and DOB are correct.

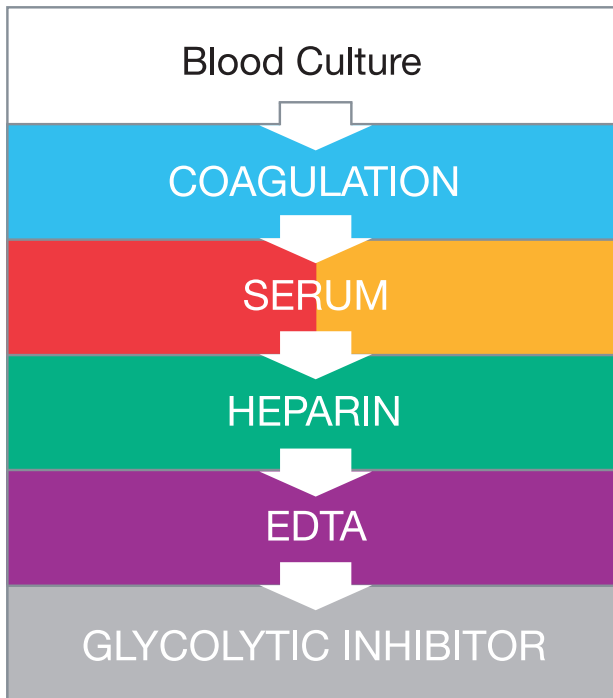


25. Place the specimens in a specimen transport bag that can be closed securely during transport to the laboratory. Place completed laboratory requisition in the separate compartment of the specimen bag.
26. Discard the needle device in an appropriate sharps container as close to the collection area as possible. Discard all other trash in appropriate receptacle. Prior to leaving the room, make sure there are no materials or equipment left behind.



Order of Draw

CLSI Recommended (GP41*)



If a winged blood collection set is used, the first tube in the series will be underfilled. Therefore, if a coagulation specimen is drawn first, a discard tube (a no additive or coagulation tube) is recommended to be drawn prior to this tube to ensure the proper anticoagulant-to-blood ratio.

NOTE: Follow your facility's protocol for Order of Draw

*Reproduced with permission from CLSI. H41-A6, Procedures for the Collection of Diagnostic Blood Specimens by Venipuncture; Approved Standard - Sixth Edition. Copies of the current edition may be obtained from Clinical and Laboratory Standards Institute, 940 West Valley Road, Suite 2500, Wayne, Pennsylvania 19087-1898, USA. Internet: www.clsi.org.

| Cap Color | Tube Type | Number of Inversions |
|-----------|----------------------|----------------------|
| White | No Additive | N/A |
| Blue | Coagulation | 4 |
| Red | Serum Clot Activator | 5 - 10 |
| Green | Heparin | 5 - 10 |
| Lavender | EDTA | 8 - 10 |
| Grey | Glycolytic Inhibitor | 5 - 10 |



LABORATORY SERVICES

Specimen Labeling

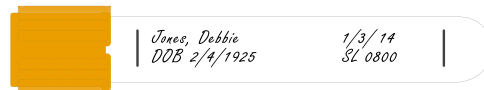
Proper specimen labeling is critical to ensure the highest quality of care, the most accurate results, and fastest turnaround time for your patients. When collecting specimens, follow these steps:

1. Label the specimens at the time of collection in the presence of the patient. Label each specimen with the following information:

- Patient Name (Last, First)
- Patient Date of Birth
- Date and Time of Collection
- Collector's initials
- Source for microbiology samples

2. Assure the label is attached lengthwise so the tube will fit in the instrument and it is easily read.

3. Label each tube collected in the presence of the patient. Have the patient verify that the name and DOB are correct.



4. Make sure to enter the specimen Collection Date and Time on the electronic test order or paper requisition. Knowing collection date and time is crucial for the lab to evaluate specimen integrity and critical values.

Midland Memorial Hospital, Midland, TX 79701
Laboratory Supply Request Form (Clients)

Fax form to 432-221-1562 or email to laboutreach@midlandhealth.org before midnight to have supplies delivered next day

Client Name (required): _____

Requested by: _____ Date: _____ Time: _____

Filled by: _____ Date: _____ Time: _____

_____ 3.0 mL Lavender top tubes-1 pack

_____ 3.0 mL Blue top tubes- 1 pack

_____ 5.0 mL Tiger top tubes- 1 pack

_____ 4.0 mL Green top tube- 1 pack

_____ 2.0 mL Gray top tubes-10 each

_____ 10 mL Red top tubes (plain) - 1 pack

_____ 6mL K3 Pink Tubes (blood bank) - 1 pack

_____ Aerobic blood culture bottles (blue top) - 6 bottles

_____ Anaerobic blood culture bottles (purple top) - 6 bottles

_____ Pediatric blood culture bottles (silver top)- 2 bottles

_____ GC/Chlamydia Collection Vaginal/Endocervical Collection Kit - 3 kits

_____ Urine Cups

_____ Urine Yellow Vacutainer Tubes (for Urinalysis)

_____ Urine Gray Vacutainer Tubes (for Culture)

_____ e-Swabs (aerobic/anaerobic cultures)

_____ Other: _____

LABORATORY STAT TEST TURNAROUND TIMES FOR REFERENCE LABORATORIES

Collection

Collection of specimens is performed by the reference laboratory staff and brought to Midland Memorial Hospital Laboratory for processing. Midland Memorial Laboratory staff will begin processing specimens (after all Midland Memorial patient specimens are processed) usually within 30 minutes of being dropped off.

Testing

Test results to be available within 3 hours from the time of receipt in laboratory.

Delays

Delays for STAT testing, due to Laboratory error or instrument malfunction, will be communicated to the appropriate facility if delays are expected to prolong results of greater than 2 hours as stated above.

Priorities

In general, the hospital patient care service units will be given higher processing priority by the Laboratory.



LABORATORY SPECIMEN COLLECTION/STORAGE-OUTPATIENT MICROBIOLOGY

| Test | Specimen Collection Requirements | Specimen Viability/Storage |
|---|--|---|
| C. difficile PCR | Unformed Stool (Sterile Container) | RT/24 hours, Refrigerated/5 days |
| Chlamydia/GC PCR | > 9 mL Urine (Sterile Container) OR Vaginal Swab (CT/NG Transport Media) | RT/24 hours (urine) RT or Refrigerated/60 days (vaginal swab) |
| Group B Strep PCR | Vaginal/Anal Swab (Red Top Swab) | RT/24 hours, Refrigerated/6 days |
| MRSA Screen PCR | Nasal Swab (Red Top Swab) | RT/24 hours, Refrigerated/7 days |
| Influenza A/B, RSV & COVID PCR | Nasopharyngeal Swab (UTM Transport Media) | RT/24 hours, Refrigerated/7 days |
| SARS-CoV-2 PCR | Nasopharyngeal Swab (UTM Transport Media) | RT/24 hours, Refrigerated/7 days |
| Group A Strep PCR | Throat Swab (Purple Top E-Swab) | RT/48 hours, Refrigerated/6 days |
| Respiratory Panel PCR | Nasopharyngeal Swab (UTM Transport Media) | RT/4 hours, Refrigerated/3 days |
| GI Panel PCR | Unformed Stool (Sterile Container) | RT or Refrigerated in Cary Blair Media/4 days |
| Strep pneumo Antigen | > 1 mL Urine (Sterile Container) | RT/24 hours, Refrigerated/14 days |
| Legionella Antigen | > 1 mL Urine (Sterile Container) | RT/24 hours, Refrigerated/14 days |
| Strep pneumo Antigen | > 1 mL Urine (Sterile Container) | RT/24 hours, Refrigerated/14 days |
| Occult Blood | Stool (Sterile Container) OR Inoculated Occult Blood Cards | RT/24 hours, Refrigerated/5 days (fecal) and 10 days (gastric) |
| Urine Culture | > 0.5 mL (Urine Gray Top) | 3 days |
| Body Fluid Cx w/ Stain | > 1 mL Body Fluid (Sterile Container), NO swabs | Refrigerated/7 day |
| Ear Cx w/ Stain | E-Swab(green) | Refrigerated/7 days |
| Respiratory Cx w/ Stain | > 0.5 mL Sputum/Bronch Wash (Sterile Container) | Refrigerated/7 days |
| Tissue Cx w/ Stain | Visible Tissue (Sterile Container) | Refrigerated/7 days |
| Wound Cx w/ Stain | E-Swab(white) | Refrigerated/7 days |
| Anaerobic Culture | > 1 mL Fluid/Aspirate (Sterile Container) OR Visible Tissue (Sterile Container) OR E-Swab(white) | Refrigerated/7 days |
| Fungus Culture | > 1 mL Fluid/Aspirate (Sterile Container) OR Visible Tissue (Sterile Container) OR E-Swab(white) | Refrigerated/7 days |

CHEMISTRY/HEMATOLOGY

| Specimen Type | Test | Specimen Viability/Storage |
|--|---|---|
| Purple top (EDTA) | Sedimentation Rate | 24 hours |
| | RBC Folate | 4 hours |
| | CBC and/or Retic | 24 hours |
| | Fetaldex and/or Sickle Cell Screen | 8 hours room temp 7 days if refrigerated |
| | A1C | 24 hours |
| | PTH | 48 hours if spun down and separated |
| Blue top-any (sodium citrate) | Any coagulation test | 24 hours 2 hours if tube is opened |
| | ROTEM | 1 hour |
| Blue top-pediatric draw (sodium citrate) | P2Y12, Asp plt function | 4 hours-must not be spun down or sent in tube system |
| Grey Top (fluoride oxalate) on ice | Lactate | <= 7 days (refrigerated-must be separated from cells within minutes) <= 1 month (frozen-must be separated from cells within minutes) |
| Green top- separator tube on ice Green top no separator on ice (must be spun and separated immediately) | Ammonia | <= 3 hours (refrigerated) <=24 hours (frozen) |
| Green top-separator tube (Lithium/sodium heparin) | Cardiac markers (Troponin I, CKMB, Myoglobin) | 6 months (frozen-if plasma was separated and frozen within 2 hours of collection) |
| | Cardiac markers (Troponin I, CKMB, Myoglobin), TSH, Free T4, Prealbumin, PSA, IgG, IgA, IgM, B12, Testo, Progest, Iron (FE), Acet, Alcohol, PHYT, Sali, Theo, VALP, Folate, Magnesium, Phosphorus, BuBc | <= 7 days (refrigerated-must be separated from cells) |
| Red Top-separator tube No anticoagulant | CMP, HFP, BMP, Lipid profile (including all tests individually), CK, AMY, LIP, GGT, Ferritin, B-HCG, RF, Cortisol, Carb, Procalcitonin | <= 5 Days (refrigerated-must be separated from cells) |
| | CRP | <= 3 days (refrigerated) |
| | LDH | <= 2 days (room temp) <=8 hours (refrigerated) |
| | NT-proBNP | <= 3 days |

CHEMISTRY/HEMATOLOGY CONT.

| Specimen Type | Test | Specimen Viability/Storage |
|--|--|---|
| Red Top-separator tube Red Top-no separator | Vanco, Gent, Amik, Tobra, Digoxin, Vanco, Rubella, Rubeola, Osmo | <= 3 days (must be separated from cells) |
| | Vitamin D, TIBC | <= 7 days (must be separated from cells) |
| | Hepatitis/HIV Tests, Lithium | <= 48 hours (refrigerated-must be separated from cells) |
| Unpreserved Urine | UA, Microscopic, Urine Culture | 2 hours-room temp 8 hours refrigerated |
| | Urine Pregnancy Test | <=48 hours-refrigerated |
| | Urine Protein, Osmo | <=3 days-refrigerated |
| | Urine Drug Screen, Urine Chemistry-except for protein (creat, microalb, mg, phos, calcium, etc.) | <= 5 days-refrigerated |
| Preserved Urine (grey tops) | Urine Culture, microscopic, urine pregnancy test | <= 72 hours |

TRANSFUSION SERVICES (BLOOD BANK)

| Specimen Type | Test | Specimen Viability/Storage |
|------------------------|------------------------------|--|
| Pink Top EDTA | Type and Rh, Antibody Screen | Viability- 3 days Storage Time- 21 days |
| Purple Top EDTA | DAT, Auto Control | Viability- 48 hours Storage Time- 21 days |