

# REFLEX TESTING POLICY



It is the policy of Michigan Medicine Laboratories (MLabs) to perform reflexive testing when appropriate; this Reflexive Testing policy is approved by the UMHS Executive Committee on Clinical Affairs. Reflexive testing includes semiquantitative titers in the case of some positive screening tests, appropriate confirmatory procedures in the case of some screening identification assays, and appropriate pathologists' interpretation of some study results. If a test is reflexed for further testing, additional CPT codes and charges for the added tests will be billed to the client or third party payor. Potential additional charges are noted in the MLabs Test Catalog and on the test requisition.

## Physician Interpretation

The following tests include a pathologist or medical geneticist interpretation of results billed as a separate additional charge. These tests are not available without interpretation.

- 1p/19q Deletion by FISH
- ALK Rearrangement for NSCLC by FISH
- ATP7B Gene Sequencing
- Autism / Intellectual Disability Panels
- B Cell Clonality (IGH and IGK Gene Rearrangement)
- B Cell Clonality (IGH Gene Rearrangement)
- B Cell Clonality (IGK Gene Rearrangement)
- BCL6 (3q27) Rearrangement by FISH
- BCR/ABL1 Analysis, Quantitative
- BCR/ABL1 Kinase Domain Mutation
- Beckwith-Wiedemann Syndrome Analysis
- Bence Jones Protein Screen, Urine
- Bence Jones Protein, Quantitation, Urine
- Beta 2 Transferrin
- Biliary Tract Malignancy by FISH
- Blood Smear for Parasites
- BMT Engraftment Analysis, Post-BMT
- BMT Engraftment Analysis, Pre-BMT, Donor
- BMT Engraftment Analysis, Pre-BMT, Recipient
- Bone Marrow Aspirate/Biopsy
- BRAF (7q34) Rearrangement by FISH
- BRAF V600E/V600K Mutations
- BRCA Ashkenazi Jewish Founder Mutations
- BRCA Deletion / Duplication Analysis
- BRCA Gene Sequencing
- BRCA Mutation Panel
- BRCA Targeted Sequencing, Familial
- BRCA1 and BRCA2 Sequencing and Del/Dup (NGS)
- BRCA1 and BRCA2 Sequencing (NGS)
- Breast Discharge Cytology
- Bronchial / Tracheal Brushing Cytology
- Bronchial Washing / BAL / Tracheal Washing Cytology
- BTB Gene Sequencing
- CALR Mutation
- CDKL5 Gene Sequencing
- CEBPA Mutation
- Cerebrospinal Fluid Cytology
- CFTR Deletion / Duplication Analysis
- CFTR Gene Sequencing
- CFTR Panel: Gene Sequencing with reflex to Del/Dup
- CFTR Targeted Sequencing, Familial
- CHD7 Gene Sequencing
- Chromosomal Microarray Analysis
- CIC (19q13) Rearrangement by FISH
- Circulating Tumor Cells for Breast Cancer by CellSearch
- Circulating Tumor Cells for Colorectal Cancer by CellSearch
- Circulating Tumor Cells for Prostate Cancer by CellSearch
- CMA Aberration Confirmation by rqPCR
- Colonic Brushing Cytology
- Colorectal Cancer Germline NGS Panel
- Colorectal Cancer NGS Panel
- Cystic Fibrosis Carrier Screening
- Cystic Fibrosis Diagnostic Mutation Detection
- DiGeorge Panel: Reflex to all tiers
- EGFR Mutation by NGS
- Electron Microscopy, Biopsy
- ERG Rearrangements by FISH
- Esophageal Brushing Cytology
- Esophageal Washing Cytology
- EWSR1 (22q12) Rearrangement by FISH
- EWSR1/ATF1 Translocation (Clear Cell Sarcoma) by PCR
- EWSR1/FLI1 and EWSR1/ERG Translocations (Ewing Sarcoma) by PCR
- EWSR1/WT1 Translocation (Desmoplastic Small Round Cell Tumor) by PCR
- Factor V Leiden Mutation
- Fine Needle Aspiration Cytology
- FISH for Melanoma, Multiplex probe
- FISH for Melanoma, Single probe
- FLT3 Mutation

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- Fragile X Syndrome Mutation
- GAA Gene Sequencing
- GALC Deletion / Duplication Analysis
- GALC Gene Sequencing
- Gastric Brushing Cytology
- GDI1 Gene Sequencing
- Germline MLH1 Promoter Methylation
- GJB2 (Connexin 26) Mutation Analysis
- GJB2 Targeted Sequencing, Familial
- Glomerular Basement Membrane Antibody
- HER2 by FISH
- HER2/neu by Immunohistochemistry (IHC)
- Hereditary Breast and Ovarian Cancer Comprehensive Germline NGS Panel
- Hereditary Breast and Ovarian Cancer High-Moderate Risk Germline NGS Panel
- Hereditary Hemochromatosis Mutation
- IDH1 and IDH2 Mutations
- IDUA Gene Sequencing
- IGH/BCL2 t(14;18) Translocation by FISH
- IGH/BCL2 t(14;18) Translocation by PCR
- Immunoperoxidase Procedures
- Immunophenotypic Analysis, Cutaneous T-Cell Lymphoma
- Immunophenotypic Analysis, Leukemia / Lymphoma, Blood
- Immunophenotypic Analysis, Leukemia / Lymphoma, Non-Blood
- Immunophenotypic Analysis, Mast Cell
- Immunophenotypic Analysis, Plasma Cell
- JAK2 Exon 12 Mutation
- JAK2 V617F Mutation
- KIT D816V Mutation
- KIT Mutation – Exons 9, 11, 13, 17
- KIT Mutation for AML – Exons 8, 17
- KIT Mutation for Melanoma – Exons 11, 13, 17
- KRAS Gene Sequencing in Inherited Disorders
- KRAS Mutation in Malignancy
- Lesion Scraping Cytology
- LMNA Gene Sequencing
- Lung Cancer NGS Panel
- MALT1 (18q21) Rearrangement by FISH
- MBD5 Gene Sequencing
- MDM2 Amplification by FISH
- MECP2 (Rett Syndrome) Gene Sequencing
- MECP2 Deletion / Duplication Analysis
- MECP2 Targeted Sequencing, Familial
- MEF2C Gene Sequencing
- Melanoma NGS Panel
- Mesothelioma FISH
- MET Amplification by FISH
- Minimum Residual Disease for B-ALL, Bone Marrow
- Minimum Residual Disease for B-ALL, Peripheral Blood
- MGMT Promoter Methylation
- Microsatellite Instability Analysis
- MiPS (Mi-Prostate Score)
- MLH1 Promoter Methylation
- MLH1, MSH2, MSH6, PMS2 Sequencing and Del/Dup (NGS)
- Molecular Genetics Clinical Identification of a Familial Mutation
- Molecular Genetics Clinical Verification of Research Results
- Monoclonal Gammopathy Evaluation
- MPL Mutation
- MSH2 Gene Sequencing
- MSH2 Targeted Sequencing, Familial
- MYC (8q24) Rearrangement by FISH
- MYD88 (L265P) Mutation
- Neutrophil Cytoplasmic Antibody
- NF1 Gene Sequencing
- NLGN3 Gene Sequencing
- NLGN4X Gene Sequencing
- NOGGIN Gene Sequencing
- Noonan Syndrome Tiered Testing
- NPM1 Mutation
- NRAS Mutation in Malignancy
- Ornithine Transcarbamylase Deficiency (OTC) Gene Sequencing
- PAI1 (SERPINE1) Mutation Detection
- Pathologist Review of CBCD
- PAX/FOXO1 Translocation (Alveolar Rhabdomyosarcoma) by PCR
- PCA3 (Prostate Cancer Antigen 3)
- PDGFRA Mutation for GIST
- PML/RARA t(15;17) Translocation, Qualitative
- Prader-Willi / Angelman Syndrome by PCR
- Protein Electrophoresis, Serum
- Protein Electrophoresis, Urine
- Prothrombin 20210 Mutation
- PTEN Deletion / Duplication Analysis
- PTEN Hamartoma Tumor Syndrome (PHTS) Gene Sequencing
- PTEN Targeted Sequencing, Familial
- PTPN11 Gene Sequencing in Inherited Disorders
- RET (10q11) Rearrangement by FISH
- RET Mutation in Malignancy
- ROS1 (6q22) Rearrangement by FISH
- Russell-Silver Syndrome Analysis
- Serous Fluids Cytology
- SERPINE1 Gene Sequencing
- SETBP1 Mutation Detection

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- SHANK2 Gene Sequencing
- SHANK3 Gene Sequencing
- Skin Biopsy for Immunofluorescence
- SLC17A8 632C>T (A21V) Mutation Detection
- SLC7A7 Gene Sequencing
- SLC9A6 Gene Sequencing
- Small Intestine / Pancreatobiliary Brushing Cytology
- SMN1&2 Deletion / Copy Number Analysis
- Solid Tumor NGS Panel
- SOS1 Gene Sequencing in Inherited Disorders
- Sputum Cytology
- SYT/SSX Translocation (Synovial Sarcoma) by PCR
- T Cell Clonality (TRB Gene Rearrangement)
- T Cell Clonality (TRB and TRG Gene Rearrangement)
- T Cell Clonality (TRG Gene Rearrangement)
- TCF4 Gene Sequencing
- TdT (Terminal Deoxynucleotidyl Transferase)
- TERT Promoter Mutation (Tissue)
- TFE3 Rearrangements by FISH
- TFEB Rearrangements by FISH
- TP53 Deletion / Duplication Analysis
- TP53 Gene Sequencing
- UBE3A Gene Sequencing
- UGT1A1 Promoter Genotyping
- Uniparental Disomy for Chromosome 6, 7, or 14
- Urine / Bladder / Ureteral / Urethral / Renal Pelvic Cytology
- UroVysion (Bladder Cancer) by FISH
- von Willebrand Disease Panel
- Wolfram Syndrome (WFS1) Gene Sequencing

The following tests may include pathologist interpretation of results at an additional charge. By ordering these tests, the clinician acknowledges that a pathologist interpretation will be performed and billed as a separate additional charge if indicated.

- Amino Acids, Quantitative, CSF
- Amino Acids, Quantitative, Plasma
- Amino Acids, Quantitative, Urine
- Biotinidase, Plasma
- Body Fluid Analysis
- Body Fluid Analysis, Crystal Exam
- Body Fluid Analysis, CSF
- Complete Blood Count (CBC)
- Complete Blood Count (CBC) with Differential Count
- Cryoglobulin Evaluation
- Cryoglobulin Follow-up Monoclonal Gammopathy Evaluation
- Cryoglobulin Follow-up Protein Electrophoresis, Serum
- Hemoglobin Fractionation
- Lupus Anticoagulant Screen
- Organic Acids, Qualitative, Urine
- Orotic Acid, Qualitative, Urine
- Pap Test Cytology, Anal
- Pap Test Cytology, Cervical / Vaginal
- PNH Marker Panel
- Red Blood Cell Morphology with CBCD
- Succinylacetone, Qualitative, Urine
- Thrombotic Risk Profile

## Reflex Testing

The following tests include reflexive testing when appropriate. By ordering these tests the clinician acknowledges that additional reflex testing will be performed and billed at a separate additional charge if indicated.

- Adalimumab with reflex to Antibody
- ADAMTS-13 Activity
- AFB Culture, Blood
- AFB Culture, Blood, Heater-Cooler
- AFB Culture, Body Fluid
- AFB Culture, Bone Marrow
- AFB Culture, Cerebrospinal Fluid
- AFB Culture, Gastric Fluid
- AFB Culture, Skin
- AFB Culture, Sputum
- AFB Culture, Stool
- AFB Culture, Tissue
- AFB Culture, Urine
- AFB Culture, Wound
- Alpha Fetoprotein, Amniotic Fluid
- Alpha-1 Antitrypsin Proteotype
- Antibiotic Susceptibility, Bacteria
- Antibody Identification

# REFLEX TESTING POLICY



- Antibody Screen, Prenatal
- Antinuclear Antibody by IFA, HEp-2 Substrate
- Antinuclear Antibody Screen by Multiplexed Immunoassay
- Antinuclear Antibody, Tissue Substrate
- Arsenic, Urine, 24 Hour
- Autism / Intellectual Disability Panels
- Bilirubin, Total, POC (Piccolo)
- Blood Culture, Bacteria and Yeast
- Blood Type, ABO and Rh, BMT
- Borrelia (Lyme Disease) Antibody, CSF
- Borrelia (Lyme Disease) Antibody, Serum
- Breast Discharge Cytology
- Bronchial / Tracheal Brushing Cytology
- Bronchial Washing / BAL / Tracheal Washing Cytology
- Brucella Antibody, IgG & IgM
- C2 Complement, Functional
- Celiac Disease Diagnosis Algorithm
- Cerebrospinal Fluid Cytology
- CFTR Panel: Gene Sequencing with reflex to Del/Dup
- Chromosomal Microarray Analysis
- Clostridium difficile by EIA
- Cocaine, Blood
- Colonic Brushing Cytology
- Complete Blood Count (CBC)
- Complete Blood Count (CBC) with Differential Count
- Cryofibrinogen Evaluation
- Cryoglobulin Evaluation
- Cryoglobulin Follow-up Protein Electrophoresis, Serum
- Cryptococcus Antigen, CSF
- Cryptococcus Antigen, Serum
- Cytogenetics, Cancer Cytogenomic Array, Blood or Bone Marrow
- Cytogenetics, Cancer Cytogenomic Array, Tumor
- Cytogenetics, Chromosome Analysis, Amniotic Fluid
- Cytogenetics, Chromosome Analysis, Blood for Genetic Disorder
- Cytogenetics, Chromosome Analysis, Blood for Malignancy
- Cytogenetics, Chromosome Analysis, Bone Marrow
- Cytogenetics, Chromosome Analysis, Chorionic Villi
- Cytogenetics, Chromosome Analysis, Fluid for Malignancy
- Cytogenetics, Chromosome Analysis, Lymph Node
- Cytogenetics, Chromosome Analysis, Products of Conception (POC)
- Cytogenetics, Chromosome Analysis, Tissue for Genetic Disorder
- Cytogenetics, Chromosome Analysis, Tumor
- Cytogenetics, FISH for CMA-detected Abnormality
- Cytogenetics, FISH for Genetic Disorder
- Cytogenetics, FISH Panel for ALL
- Cytogenetics, FISH Panel for Multiple Myeloma
- Dermatophyte Culture
- DiGeorge Panel: Reflex to all tiers
- Direct Antiglobulin Test, Complete Study
- DNA Antibody, Double-Stranded, Crithidia Substrate
- Drug Screen, Meconium
- Endomysial Antibody, IgA
- Epilepsy Autoimmune Evaluation, Serum
- Esophageal Brushing Cytology
- Esophageal Washing Cytology
- Ethyl Glucuronide Screen with reflex to EtG/EtS Confirmation, Urine
- Extractable Nuclear Antibody Panels
- Fetal Maternal Hemorrhage Screen
- Fine Needle Aspiration Cytology
- Fungitell
- Fungus Culture, Cerebrospinal Fluid
- Gamma Hydroxy Butyrate, Urine
- Gastric Brushing Cytology
- GJB2 (Connexin 26) Mutation Analysis
- Glomerular Basement Membrane Antibody
- Hantavirus Antibodies, IgG & IgM
- Hazelnut IgE with reflex to Component Panel
- Heavy Metal Screen, Urine, 24 Hour
- Helicobacter pylori Culture
- Hematopoietic Cell Transplant, Allogenic PRA
- Hematopoietic Cell Transplant, Autologous PRA
- Hematopoietic Cell Transplant, New Donor
- Hematopoietic Cell Transplant, New Patient
- Hemoglobin Fractionation
- Hepatitis B Core Antibody, IgG & IgM
- Hepatitis C Antibody
- Hepatitis E Antibody, IgM
- Hepatitis Panel
- Hexosaminidase A and Total, Serum or Leukocytes
- HIV-1/HIV-2 Antibody Confirmation
- HIV-1/HIV-2 Antigen Antibody Combo
- HLA Typing & PRA, New Patient for Platelet Support
- HLA Typing & PRA, New Patient for Transfusion Support
- Hu Antibody Screen
- Human T-Cell Lymphotropic Virus I/II (HTLV-I/II) Antibody



# REFLEX TESTING POLICY



- Immunodeficiencies Profile, Acquired
- Immunodeficiencies Profile, Primary
- Immunophenotypic Analysis, Cutaneous T-Cell Lymphoma
- Immunophenotypic Analysis, Leukemia / Lymphoma, Blood
- Immunophenotypic Analysis, Leukemia / Lymphoma, Non-Blood
- Immunophenotypic Analysis, Mast Cell
- Immunophenotypic Analysis, Plasma Cell
- Infliximab with reflex to Infliximab Antibodies (Mayo)
- Ketamine and Norketamine, Serum
- Lesion Scraping Cytology
- Limulus Amebocyte Lysate Assay
- Lipid Panel
- Minimum Residual Disease for B-ALL, Bone Marrow
- Minimum Residual Disease for B-ALL, Peripheral Blood
- Myasthenia Gravis Evaluation, Adult
- Myasthenia Gravis Evaluation, Lambert-Eaton Syndrome
- Mycoplasma pneumoniae Antibody
- Myelin Associated Glycoprotein (MAG) Antibody
- Neuromyelitis Optica (NMO) / Aquaporin-4-IgG, CSF
- Neuromyelitis Optica (NMO) / Aquaporin-4-IgG, Serum
- Neutrophil Cytoplasmic Antibody
- Organism Identification
- Pap Test Cytology, Anal
- Pap Test Cytology, Cervical / Vaginal
- Paraneoplastic Autoantibody Evaluation
- Paraneoplastic Autoantibody Evaluation, CSF
- PNH Marker Panel
- Polychlorinated Biphenyls (Congeners/Aroclors )
- Porphyrins, Total, Plasma
- PRA Antibody for Transfusion or Platelet Support
- Protein Electrophoresis, Serum
- Protein Electrophoresis, Urine
- Protein S Antigen, Free with reflex to Total
- PT (Prothrombin Time) and INR, POC, Whole Blood
- Quantitative Culture, Deep Tissue / Bone Biopsy
- Quantitative Culture, Wound
- Ri Antibody Screen
- Rituximab Therapy Profile
- Serous Fluids Cytology
- Small Intestine / Pancreatobiliary Brushing Cytology
- Solid Organ Transplant, Donor Crossmatch Cells (HLA)
- Solid Organ Transplant, Endothelial Precursor Cell (Donor)
- Solid Organ Transplant, MICA Antibody
- Solid Organ, Repeat Crossmatch (HLA) (Donor)
- Sputum Cytology
- Streptococcus Group A Screen by Immunoassay
- Syphilis Antibody, IgG
- Syphilis Screening Test, RPR, Serum
- Syphilis Screening Test, VDRL, CSF
- Testosterone with reflex to LH
- Thyroid Cancer Monitoring
- Thyroid Stimulating Hormone (TSH)
- Type and Screen
- Type and Screen, No Wrist-band
- Type and Screen, Preadmission
- Type and Screen, Prenatal
- Urinalysis
- Urinalysis with reflex to Aerobic Culture
- Urine / Bladder / Ureteral / Urethral / Renal Pelvic Cytology
- Voltage-Gated Potassium Channel (VGKC) Antibody with reflex to LGI1 and CASPR2 Screen and Titer
- Yo Antibody Screen

# REFLEX TESTING POLICY



## Susceptibility Testing

The following tests include susceptibility testing of potentially pathogenic organism(s) at an additional charge unless specifically declined.

- Aerobic Culture, Body Fluid
- Aerobic Culture, Catheter Tip
- Aerobic Culture, Cerebrospinal Fluid
- Aerobic Culture, Conjunctiva
- Aerobic Culture, Foreign Body
- Aerobic Culture, Peritoneal Dialysate
- Aerobic Culture, Sterile Body Fluid
- Aerobic Culture, Stool
- Aerobic Culture, Tissue
- Aerobic Culture, Urine, Catheterized
- Aerobic Culture, Urine, Clean Catch
- Aerobic Culture, Urine, Suprapubic
- Aerobic Culture, Wound
- AFB Culture, Blood
- AFB Culture, Blood, Heater-Cooler
- AFB Culture, Body Fluid
- AFB Culture, Bone Marrow
- AFB Culture, Cerebrospinal Fluid
- AFB Culture, Gastric Fluid
- AFB Culture, Bacteria and Yeast
- AFB Culture, Skin
- AFB Culture, Sputum
- AFB Culture, Stool
- AFB Culture, Tissue
- AFB Culture, Urine
- AFB Culture, Wound
- Blood Culture, Bacteria and Yeast
- Organism Identification
- Quantitative Culture, Deep Tissue / Bone Biopsy
- Quantitative Culture, Wound
- Respiratory Culture, Aerobic
- Respiratory Culture, Aerobic, Cystic Fibrosis
- Respiratory Culture, Quantitative
- Streptococcus Group B Culture, Vaginal / Rectal