Reflex Testing Policy

It is the policy of the University of Michigan Health System (UMHS) 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.

Pathologist Interpretation

The following tests include a pathologist 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
- Apolipoprotein E Genotyping
- 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
- 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
- Breast Discharge Cytology
- Bronchial / Tracheal Brushing Cytology
- Bronchial Washing / BAL / Tracheal Washing Cytology
- BTD 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
- Comprehensive CRC Mutation Panel
- Comprehensive Melanoma Mutation Panel
- Comprehensive NSCLC Mutation Panel
- Cystic Fibrosis Carrier Screening
- Cystic Fibrosis Diagnostic Mutation Detection
- DiGeorge Panel: Reflex to all tiers
- EGFR Mutation by Fragment Analysis
- 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
- FLT3 Mutation
- Fragile X Syndrome Mutation
- GAA 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/neu by Immunohistochemistry (IHC)
- HER2 by FISH
- Hereditary Hemochromatosis Mutation
- Human Erythrocyte Antigen Genotyping Panel
- IDH1 and IDH2 Mutations
- 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
- Kidney Biopsy for Immunofluorescence
- 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
- 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
- MGMT Promoter Methylation
- Microsatellite Instability Analysis
- MiPS (Mi-Prostate Score)
- MLH1 Promoter Methylation
- 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
- MTHFR C677T Mutation
- Multiprobe FISH for Melanoma
- 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
- ROS1 (6q22) Rearrangement by FISH
- Serous Fluids Cytology
- SERPINE1 Gene Sequencing
- SETBP1 Mutation Detection
- 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
- 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)
- TFE3 Rearrangements by FISH
- TFEB Rearrangements by FISH
- TP53 Deletion / Duplication Analysis
- TP53 Gene Sequencing
- UBE3A Gene Sequencing
- UGT1A1 Promoter Genotyping
- Urine / Bladder / Ureteral / Urethral / Renal Pelvic Cytology
- UroVysion (Bladder Cancer) by FISH
- 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.

- 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
- Hemoglobin Fractionation
- Pap Test Cytology, Anal
- Pap Test Cytology, Cervical / Vaginal
- Red Blood Cell Morphology with CBCD

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.

- ADAMTS-13 Activity
- Alpha Fetoprotein, Amniotic Fluid
- Alpha-1 Antitrypsin Proteotype
- Antibiotic Susceptibility, Bacteria
- Antibody Identification
- Antibody Screen, Prenatal
- Antinuclear Antibody by IFA, HEp-2 Substrate
- Antinuclear Antibody Screen by Multiplexed Immunoassay
- Antinuclear Antibody, Tissue Substrate
- Autism / Intellectual Disability Panels
- Blood Culture, AFB
- Blood Culture, Bacteria and Yeast
- Blood Type, ABO and Rh, BMT
- Body Fluid, AFB Culture
- Bone Marrow, AFB Culture
- 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
- Cerebrospinal Fluid, AFB Culture
- Cerebrospinal Fluid, Fungus Culture
- 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
- Cryptococcus Antigen, CSF
- Cryptococcus Antigen, Serum
- Cystic Fibrosis Carrier Screening
- 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
- 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
- Esophageal Brushing Cytology
- Esophageal Washing Cytology
- Febrile Antibodies Panel
- Fetal Maternal Hemorrhage Screen
- Fine Needle Aspiration Cytology
- Fungitell
- Gamma Hydroxy Butyrate, Urine
- Gastric Brushing Cytology
- Gastric, AFB Culture
- GJB2 (Connexin 26) Mutation Analysis
- Glomerular Basement Membrane Antibody
- Hantavirus Antibodies, IgG & IgM
- Helicobacter pylori Culture
- Hematopoeitic Cell Transplant, Allogenic PRA
- Hematopoeitic Cell Transplant, Autologous PRA
- Hematopoeitic Cell Transplant, New Donor
- Hematopoeitic 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
- Histoplasma Antibody
- 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
- Immunodeficiencies Profile, Acquired
- Immunodeficiencies Profile, Primary
- Immunophenotypic Analysis, Cutaneous T-Cell Lympoma
- 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
- Myasthenia Gravis Evaluation, Adult
- Myasthenia Gravis Evaluation, Lambert-Eaton Syndrome
- Mycoplasma pneumoniae Antibody
- Myelin Associated Glycoprotein (MAG) Antibody
- Neutrophil Cytoplasmic Antibody
- Organism Identification
- Ova and Parasites, Stool
- 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
- Ri Antibody Screen
- Rituximab Therapy Profile
- Serous Fluids Cytology
- Skin, AFB Culture
- Small Intestine / Pancreatobiliary Brushing Cytology
- Solid Organ Transplant, Endothelial Precursor Cell (Donor)
- Solid Organ Transplant, MICA Antibody
- Solid Organ Transplant, New Kidney Donor
- Solid Organ, Pre-Transplant Crossmatch (Donor)
- Solid Organ, Repeat Crossmatch (Donor)
- Sputum Cytology
- Sputum, AFB Culture
- Stool, AFB Culture
- Streptococcus Group A Screen by Immunoassay
- Syphilis Antibody, IgG
- Syphilis Screening Test, RPR, Serum
- Testosterone with reflex to LH
- Thyroid Cancer Monitoring
- Tissue, AFB Culture
- 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
- Urine, AFB Culture
- Wound Culture, AFB
- Yo Antibody Screen

Susceptibility Testing

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

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