Cleveland Clinic

Cleveland Clinic Laboratories

Technical Update • September 2025

Cleveland Clinic Laboratories is dedicated to keeping you updated and informed about recent testing changes. This Technical Update is provided on a monthly basis to notify you of any changes to the tests in our catalog.

Recently changed tests are bolded, and they could include revisions to methodology, reference range, days performed, or CPT code. Deleted tests and new tests are listed separately. For your convenience, tests are listed alphabetically and order codes are provided.

To compare the new information with previous test information, refer to the online Test Directory at clevelandcliniclabs.com. Test information is updated in the online Test Directory on the Effective Date stated in the Technical Update. Please update your database as necessary.

For additional detail, contact Laboratory Customer Service at 216.444.5755 or 800.628.6816, or via email at clientservices@ccf.org.

Test Update Page #	Summary of Changes by Test Name	Order Code	Name Change	New Test	Test Discontinued	Special Information	Specimen Requirement	Component Change(s)	Methodology	Reference Range	Days Performed/Reported	Stability	CPT
7	25-Hydroxyvitamin D2 and D3				■								
2	Acute Myeloid Leukemia (AML), MRD by FC						■						
2	Amikacin, Post Dose									■			
3	Amikacin, Pre Dose									■			
3	Amikacin, Random									■			
3	Aminolevulinic Acid (ALA), Random Urine		■			■	■	■		■		■	
7	Anti-Alpha Fodrin Ab, IgA				■								
7	Anti-Alpha Fodrin Ab, IgG				■								
7	Anti Alpha Fodrin Ab, IgG & IgA				■								
3	Bacterial Culture and Gram Stain, External Ear						■						
3	Basic Metabolic Panel											■	
3	Biotin (Vitamin B7)					■	■		■	■	■		
4	CMV, qualitative by PCR, non-blood (CSF, bone marrow, amniotic fluid, ocular fluid)						■						
7	Cryptococcus Antibody				■								
6	Elevated PT and PTT Mixing Panel			■									
4	Gentamicin, Post Dose									■			
4	Gentamicin, Pre Dose									■			
4	Gentamicin, Random									■			
4	Hepatic Function Panel											■	
4	Hypercoagulation Diagnostic Interpretive Panel							■					

Test Update Page #		Order Code	Name Change	New Test	Test Discontinued	Special Information	Specimen Requirement	Component Change(s)	Methodology	Reference Range	Days Performed/Reported	Stability	CPT
4	Kleihauer Betke Stain							■					
7	Kratom (Mitragynine) - Screen with Reflex to Confirmation, Urine				■								
4	Lactate/Pyruvate						■						
4	Lupus Anticoagulant Diagnostic Interpretive Panel							■					
4	Methotrexate					■	■					■	
5	Neutrophil Oxidative Burst, Blood					■	■						
5	Parvo B19 PCR					■						■	
7	Prothrombin Time Mixing Study				■								
7	PTT Incubated Mixing Study				■								
5	Pyruvic Acid						■						
5	Renal Function Panel											■	
5	Thyroglobulin Antibody					■							
5	Thyroglobulin, Serum with Reflex to IA or LC-MS/MS					■							
5	Tobramycin, Post Dose									■			
5	Tobramycin, Pre Dose									■			
5	Tobramycin, Random									■			
5	Toluene, Blood					■							
5	Universal PCR, Acid Fast Bacilli											■	
6	Universal PCR, Fungal											■	
7	Urogenital Ureaplasma and Mycoplasma Species by PCR, for Genital, Rectal, Urine Samples				■								
6	Vancomycin									■			

Test Changes

Test Name	Order Code	Change	Effective Date
Acute Myeloid Leukemia (AML), MRD by FC	AMLMRD	**Specimen Requirement:** 2 mL bone marrow in sodium heparin (Green) tube; Ambient; Specimen must be received by Cleveland Clinic Laboratories on the day of collection by noon EST. DO NOT collect the day before or after a major holiday. **Original flow cytometry report must be sent with specimen** *OR* 2 mL bone marrow in EDTA (Lavender) tube; Ambient; Specimen must be received in the Send Outs laboratory on the day of collection by noon. DO NOT collect the day before or after a major holiday. **Original flow cytometry report must be sent with specimen** *OR* 3 mL peripheral blood in EDTA (Lavender) tube; Ambient; Specimen must be received in the Send Outs laboratory on the day of collection by noon. DO NOT collect the day before or after a major holiday. **Original flow cytometry report must be sent with specimen** *OR* 3 mL peripheral blood in sodium heparin (Green) tube; Ambient; Specimen must be received in the Send Outs laboratory on the day of collection by noon. DO NOT collect the day before or after a major holiday. **Original flow cytometry report must be sent with specimen**	9/4/25
Amikacin, Post Dose	AMIKPO	**Reference Range:** Peak: 15.0–40.0 ug/mL **Note:** *Urgent range has been removed*	10/21/25

Test Changes (Cont.)

Test Name	Order Code	Change	Effective Date
Amikacin, Pre Dose	AMIKPR	**Reference Range:** Pre: 5.0–8.0 ug/mL **Note:** *Urgent range has been removed*	10/21/25
Amikacin, Random	AMIKRA	**Reference Range:** Random: 5.0–40.0 ug/mL **Note:** *Urgent range has been removed*	10/21/25
Aminolevulinic Acid (ALA), Random Urine	UAMINO	**For interface clients only–Test build may need to be modified** **Name:** Previously Aminolevulinic Acid (ALA) Urine **Includes:** **Creatinine, Urine–per volume** **Aminolevulinic Acid–per volume** **ALA, Random Urine ratio to CRT** **Special Information:** Patient Prep: Refrain from alcohol consumption 24 hours prior to collection. **Special Info:** Unacceptable conditions: Body fluids other than urine. This test is New York DOH approved. **Specimen Requirement:** 4 mL random urine in clean container (No preservatives); Refrigerated; Patient should refrain from alcohol consumption 24 hours prior to collection. Transfer 4mL aliquot to a standard transport tube. **Note:** *24-hour urine is no longer acceptable* **Stability:** Ambient: Unacceptable Refrigerated: **4 days** Frozen: 1 month **Reference Range:** Aminolevulinic Acid–**per volume**: 0–35 umol/L	effective immediately
Bacterial Culture and Gram Stain, External Ear	EARCSM	**Specimen Requirement:** Unspecified skin specimen on **swab**; Collect Ambient; Transport Ambient; E Swab **and Green Top LQ Stuart Soft Aluminum Wire Swab are accepted.**	effective immediately
Basic Metabolic Panel	BMP	**Stability:** Ambient: 8 hours Refrigerated: After separation from cells: 72 hours Frozen: **3** months	effective immediately
Biotin (Vitamin B7)	VITB7	**Special Information:** This test is New York state approved. **Clinical Information: Clinically advanced biotin deficiency is rare in the general population; however, significant biotin deficiency can occur in individuals who consume raw egg white over long periods. Avidin, an antimicrobial protein found in egg white, binds biotin and prevents its absorption. Cooking egg white denatures avidin and wipes out its biotin-binding capacity. Profound biotin deficiency can also occur in cases of drastically diminished biotin absorption (patients taking total parenteral nutrition without biotin and in some malabsorption conditions). Some forms of liver disease may increase the requirement for biotin and result in clinical deficiency. Patients receiving long-term anticonvulsant medication may also be at increased the risk for biotin deficiency. The results of several studies suggest that biotin deficiency may also be relatively common during pregnancy.** **Physical findings associated with overt biotin deficiency include a red scaly rash around the eyes, nose, mouth, and genital area. Some reports suggest that biotin deficiency may result in brittle finger nails and that high dose supplementation may, to some extent, ameliorate the condition. Adults with this deficiency experience thinning of hair, frequently with loss of hair color. Reported neurologic symptoms have included depression, lethargy, hallucination, and paresthesia of the extremities. Individuals with hereditary disorders of biotin metabolism also suffer from impaired immune system function and susceptibility to bacterial and fungal infections.** **Specimen Requirement:** 1 mL plasma from EDTA (Lavender) tube; Frozen; Separate plasma from cells and transfer to standard aliquot tube. *OR* 1 mL serum from no additive (Red) tube; Frozen; **DO NOT use gel-barrier tube.** Separate serum from cells and transfer to standard aliquot tube. **Methodology: Liquid Chromatography-Tandem Mass Spectrometry (LC-MS/MS)** **Reference Range: 0.05 – 0.83 ng/mL** **Reported: 3–8** days	10/21/25

Test Changes (Cont.)

Test Name	Order Code	Change	Effective Date
CMV, qualitative by PCR, non-blood (CSF, bone marrow, amniotic fluid, ocular fluid)	CMVCSF	**Specimen Requirement:** 1 mL cerebrospinal fluid (CSF) in sterile container; Frozen *OR* 1 mL ocular fluid in sterile container; Frozen; Testing from ocular fluid may be performed with a disclaimer for short volume on as little as 20 uL sample. The performing laboratory (ARUP) will determine whether there is sufficient volume for testing to be performed. *OR* tissue in sterile container; Frozen; Transfer tissue to sterile container and freeze immediately. Specimen source required. Do not send tissues in optimal cutting temperature compound. *OR* 1 mL bronch (BAL) in sterile container; Frozen *OR* 1 mL bone marrow in EDTA (Lavender) tube; Refrigerated *OR* 1 mL amniotic fluid in sterile container; **Refrigerated**	effective immediately
Gentamicin, Post Dose	GENTPO	**Reference Range:** 4.0–20.0 ug/mL **Note:** *Urgent range has been removed*	10/21/25
Gentamicin, Pre Dose	GENTPR	**Reference Range:** 1.0–2.0 ug/mL **Note:** *Urgent range has been removed*	10/21/25
Gentamicin, Random	GENTRA	**Reference Range:** 1.0–20.0 ug/mL **Note:** *Urgent range has been removed*	10/21/25
Hepatic Function Panel	HFP	**Stability:** Ambient: 24 hours if protected from light Refrigerated: 1 week if protected from light Frozen: **2** months if protected from light	effective immediately
Hypercoagulation Diagnostic Interpretive Panel	HYPER	**For interface clients only–Test build may need to be modified** New component: *PTSC HZ + DOAC may be reported with some orders*	10/21/25
Kleihauer Betke Stain	HBFSTN	**For interface clients only–Test build may need to be modified** **Note: RHOGAM DOSAGE:** ***calculated result will be reported to the chart for Rh negative patients only***	10/21/25
Lactate/Pyruvate	LACPYR	**Specimen Requirement:** 4 mL blood in potassium oxalate/sodium fluoride (Gray) tube; **Place specimen on ice after draw.** Transport Refrigerated; Please refer to special information for processing instructions.	10/28/25
Lupus Anticoagulant Diagnostic Interpretive Panel	LUPUSP	**For interface clients only–Test build may need to be modified** New component: *PTSC HZ + DOAC may be reported with some orders*	10/21/25
Methotrexate	MTX	**Special Information:** The following values are predictive for the development of toxicity: Methotrexate >5-10 μmol/L 24 hours after dose Methotrexate >1.0 μmol/L 48 hours after dose Methotrexate >0.1 μmol/L 72 hours after dose The treating physician must determine appropriate target levels/dosing based on the specific clinical situation. This result is not valid for patients who have received GLUCARPIDASE (carboxypeptidase G2) as a high dose rescue therapy. Alternative Methotrexate testing is available by send-out for patients on glucarpidase. References: Widemann, B.C., Adamson, P.C. (2006). Understanding and Managing Methotrexate Nephrotoxicity. The Oncologist, 11, 694-703. **Specimen Requirement:** 1 mL plasma from sodium or lithium heparin (Green) tube; Centrifuge, aliquot and refrigerate. Do not collect in a gel separator tube. Centrifuge and transfer plasma/serum to a CCL tube and refrigerate. *OR* 1 mL serum from no additive (Red) tube; Centrifuge, aliquot and refrigerate. Do not collect in a gel separator tube. Centrifuge and transfer plasma/serum to a CCL tube and refrigerate. *OR* **1 mL plasma from Lavender EDTA tube; Centrifuge, aliquot and refrigerate. Do not collect in a gel separator tube. Centrifuge and transfer plasma/serum to a CCL tube and refrigerate.** **Stability:** Ambient: **24 hours** capped Refrigerated: 14 days capped Frozen: **26 weeks** capped	10/21/25

Test Changes (Cont.)

Test Name	Order Code	Change	Effective Date
Neutrophil Oxidative Burst, Blood	OXBRST	**Special Information:** CRITICAL AMBIENT. **Collect specimens Monday–Friday only and do NOT collect on the day of or before a major holiday.** Do NOT refrigerate or freeze as live neutrophils are required. **Submission with control specimen is preferred; however, reference laboratory will accept submission of only the patient specimen. If sample shows abnormal results when stimulated, and no control was sent, test should be resubmitted with control sample to validate the conditions of collection, processing and transport.** Ambient stability is 24 hours for New York clients. This test is New York DOH approved. **Specimen Requirement:** 3 mL whole blood in sodium or lithium heparin (Green) tube; Ambient; CRITICAL AMBIENT. THIS TEST REQUIRES MULTIPLE SPECIMENS. Collect one specimen from the patient and label with the patient Beaker label. Collect an additional specimen from an unrelated healthy person; label with the patient Beaker label and write that it is the "Control." **Collect specimens Monday–Friday only and do NOT collect on the day of or before a major holiday.** Deliver both tubes to the Send-Outs laboratory on the day of collection by 3 p.m. Patient and control specimens must be collected within 48 hours of test performance. Do NOT refrigerate or freeze as live neutrophils are required. *AND* 3 mL whole blood in sodium or lithium heparin (Green) tube; Ambient; Required control specimen- see instructions above.	effective immediately
Parvo B19 PCR	PARPLS	**Specimen Requirement:** 1 mL plasma from EDTA (Lavender) tube; Frozen; Separate plasma from cells and transfer to standard aliquot tube. *OR* 1 mL serum from serum separator (Gold) tube; Frozen; Separate serum from cells and transfer to standard aliquot tube. *OR* 1 mL cerebrospinal fluid (CSF) in sterile container; Frozen *OR* 1 mL amniotic fluid in sterile container; **Refrigerated** *OR* 1 mL bone marrow in EDTA (Lavender) tube; Refrigerated **Stability:** Ambient: 24 hours; Bone marrow: 1 week; **Amniotic Fluid: Unacceptable** Refrigerated: 5 days; Bone marrow: 1 week Frozen: 6 months; Bone marrow: 1 week; **Amniotic Fluid: Unacceptable**	effective immediately
Pyruvic Acid	PYRUV	**Specimen Requirement:** 4 mL blood in potassium oxalate/sodium fluoride (Gray) tube; **Place specimen on ice after draw.** Transport Refrigerated; Refer to special information for processing instructions.	10/28/25
Renal Function Panel	RFP	**Stability:** Ambient: **8** hours Refrigerated: 3 days Frozen: **3** months	effective immediately
Thyroglobulin Antibody	TGAB	**Special Information:** The Thyroglobulin Antibody test was performed using the Beckman Coulter UniCel DxI 800 Chemiluminescence Immunoassay method. Results obtained with different assay methods or kits cannot be used interchangeably. **Note**: *Biotin comment will be removed*	10/14/25
Thyroglobulin, Serum with Reflex to IA or LC-MS/MS	THYRORF	**Special Information:** In this test, Thyroglobulin Antibody is analyzed by the Access Thyroglobulin Antibody assay (Beckman). If the result is negative (<4.0 IU/mL), the Thyroglobulin tests will be performed by immunoassay using the Access Thyroglobulin assay (Beckman). If the antibody result is positive (>=4.0 IU/mL), the Thyroglobulin tests will be performed by LC-MS/MS. Results obtained from different assay method or kits cannot be used interchangeably. **Note**: *Biotin comment will be removed*	10/14/25
Tobramycin, Post Dose	TOBRPO	**Reference Range:** 4.0–20.0 ug/mL **Note:** *Urgent range has been removed*	10/21/25
Tobramycin, Pre Dose	TOBRPR	**Reference Range:** 1.0–2.0 ug/mL **Note:** *Urgent range has been removed*	10/21/25
Tobramycin, Random	TOBRRA	**Reference Range:** 1.0–20.0 ug/mL **Note:** *Urgent range has been removed*	10/21/25
Toluene, Blood	TOLUEN	**Clinical Information: ACGIH biological exposure index: 0.02 mcg/mL in blood collected before the last shift of the workweek.**	effective immediately
Universal PCR, Acid Fast Bacilli	AFBPCR	**Stability:** Ambient: Paraffin block: Indefinitely; Tissue: 6 hours Refrigerated: Unacceptable (7 days with disclaimer) Frozen: 30 days	effective immediately

Test Changes (Cont.)

Test Name	Order Code	Change	Effective Date
Universal PCR, Fungal	FUNPCR	**Stability:** Ambient: Paraffin block: Indefinitely; Tissue: 6 hours Refrigerated: Unacceptable (7 days with disclaimer) Frozen: 30 days	effective immediately
Vancomycin	VANCRA	**Reference Range:** 10.0–20.0 ug/mL **Note:** *Urgent range has been removed*	10/21/25

New Tests

Test Name	Order Code	Change	Effective Date
Elevated PT and PTT Mixing Panel	PTPTTE	**Name:** Previously Prothrombin Time and PTT Elevation Diagnostic Panel **Includes:** PT Screen PT 1:1 Mix APTT Screen Immediate PTT 1:1 Mix Thrombin Time Heparin Assay **Special Information:** Indicate clearly if patient is on heparin, coumadin, direct thrombin inhibitor or thrombolytic therapy. **Clinical Information:** Note: It is recommended that the abnormal PT and APTT be confirmed before ordering this panel. This panel is recommended for the evaluation of coagulation disorders in patients with a prolonged PT and/or a prolonged APTT, whether or not there is a bleeding diathesis. Disorders that may be investigated include common pathway coagulation factor deficiencies (fibrinogen, factors II, V, X), coagulation factor inhibitors, non-specific inhibitors, vitamin K deficiency, hepatic coagulopathy, disseminated intravascular coagulation (DIC), lupus anticoagulants, hypofibrinogenemia, dysfibrinogenemia, or anticoagulant drug effects. **Specimen Requirement:** 6 mL plasma from sodium citrate (Light Blue) tube; Minimum: 2 mL; Centrifuge, aliquot and freeze ASAP. Collection tubes must be filled to total fill volume. Inadequately filled tubes will be rejected. Non-testing sites: Centrifuge samples; Aliquot plasma into a separate tube and label with Epic Beaker labels. Specimens should be frozen (-20C or colder). **Stability:** Ambient: Main Campus: ACCEPTABLE for Whole Blood. (Must be delivered ambient to testing lab less than 4 hours post collection.) Non-Testing Sites: UNACCEPTABLE Refrigerated: For Non-Testing Sites: Frozen Plasma is ACCEPTABLE (Centrifuge samples, then aliquot plasma into a separate tube and label with Epic Beaker labels. Specimens should be frozen (-20 degree C or colder) and they are stable for 2 weeks. (6 months at -70 degree C). Frozen: Unacceptable **Methodology:** Refer to individual components **Reference Range:** Refer to individual components **Days Performed:** Mon–Fri–8 hours **Reported:** 1–3 days **CPT:** 85390x1; 85520x1; 85610x1; 85611x1; 85670x1; 85730x1; 85732x2	10/21/25

Discontinued Tests

Test Name	Order Code	Test Information	Effective Date
25-Hydroxyvitamin D2 and D3	D2D3	Test will no longer be orderable. Recommend ordering Vitamin D 25 Hydroxy (VITD).	10/21/25
Anti-Alpha Fodrin Ab, IgA	FODIGA	Test will no longer be orderable. Recommended replacement tests are SSA Antibody (ANTSSA) and SS-B Antibody (SSB).	effective immediately
Anti-Alpha Fodrin Ab, IgG	FODIGG	Test will no longer be orderable. Recommended replacement tests are SSA Antibody (ANTSSA) and SS-B Antibody (SSB).	effective immediately
Anti Alpha Fodrin Ab, IgG & IgA	FODAG	Test will no longer be orderable. Recommended replacement tests are SSA Antibody (ANTSSA) and SS-B Antibody (SSB).	effective immediately
Cryptococcus Antibody	CRYPAB	Test will no longer be orderable. There is no recommended replacement test.	effective immediately
Kratom (Mitragynine) - Screen with Reflex to Confirmation, Urine	UKRTOM	Test will no longer be orderable. Recommended replacement test is Urine Qualitative Drug Detection Panel by LC-MS/MS (URDRG).	10/21/25
Prothrombin Time Mixing Study	PTMIX	Test will no longer be orderable. Recommended replacement test is Elevated PT and PTT Mixing Panel (PTPTTE).	10/21/25
PTT Incubated Mixing Study	PTTIM	Test will no longer be orderable. Recommended replacement test is Elevated PT and PTT Mixing Panel (PTPTTE).	10/21/25
Urogenital Ureaplasma and Mycoplasma Species by PCR, for Genital, Rectal, Urine Samples	URMPCR	Test will no longer be orderable. The Mycoplasma genitalium nucleic acid amplification test, NAAT (SQMYGAMP) available in-house should be considered instead, alongside workup for gonorrhea, chlamydia, trichomoniasis, and bacterial vaginosis, if not already completed.	10/21/25