Cleveland Clinic

Cleveland Clinic Laboratories

Technical Update • November 2023

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 Client Services 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
3	11-Deoxycorticosterone Qt, Serum/Plasma										■		
3	11-Deoxycortisol					■					■		
3	17-Hydroxyprogesterone										■	■	
3	17-Hydroxyprogesterone Quantitative by HPLC-MS/MS, Timed Study										■		
3–8	Acylcarnitines, Plasma w/ Consultation						■	■		■	■	■	
25	Adalimumab Activity and Neutralizing Antibody				■								
21	Adalimumab, Serum			■									
8	Aeromonas		■			■							
8–9	AFB Culture & Stain					■							
9	Allergen, Expanded Respiratory Disease Profile Region 5						■						
21	Allergen, Respiratory Disease Profile Region 5, with Reflex												■
21–22	Ammonium, 24 hour, Urine			■									
22	Ammonium, Random, Urine			■									
9	APC Resistance							■					
23	Asparaginase Enzyme Activity			■									
9	Barbiturates										■		
9	Bioavailable Testosterone/SHBG, Female & Child								■		■		
9	Bile Acids, Total		■										

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
9	BK Virus DNA Quantification											■	
10	Borrelia burgdorferi VlsE1/pepC10 Antibodies, CSF, Total by ELISA With Reflex to IgM and IgG by Immunoblot (Standard Two-Tier Testing, CSF)		■			■	■	■		■		■	
10	Buprenorphine and Metabolites, Quant, serum/plasma					■					■		
10	Calprotectin, Fecal											■	
25	Campylobacter Culture				■								
10–11	Carnitine Free & Total, Plasma					■	■	■		■	■	■	
11–12	Catecholamines Fractionated by LC-MS/MS, Urine Free					■	■				■		
12	Catecholamines, Fractionated, Plasma					■	■		■	■	■		
13	Clonazepam					■	■				■		
13	Clorazepate					■	■				■		
13	CMV, qualitative by PCR, non-blood (CSF, bone marrow, amniotic fluid, ocular fluid)								■		■		
13	Cortisol, Saliva								■	■	■		
14	CYP2C19 (Cytochrome P450 2C19)					■		■					
14	CYP2D6 (Cytochrome P450 2D6)							■					
14	DHEA										■		
14	Diazepam & Metabolite						■				■		
14	Dihydrotestosterone										■		
14	Dilute Russell Viper Venom Time							■					
23–24	Drug Detection Panel, Umbilical Cord Tissue, with Marijuana Metabolite			■									
14	Enterovirus by PCR						■						
14	Fentanyl and Metabolite						■				■		
14	Herpes Simplex IgM, Abs, with IgG Reflex										■		
14	Hexagonal Phase Phospholipid Neutralization							■					
15	Hypercoagulation Diagnostic Interpretive Panel							■					
15	IBD Serology Disease Panel											■	
24	Infliximab, Serum									■			■
25	Influenza A Antibody				■								
25	Influenza B Antibody				■								
15–17	Insulin-Like Growth Factor Binding Protein-3		■				■	■	■	■	■	■	
17	LC-MS/MS Thyroglobulin measurement for Thyroglobulin Antibody Interference						■				■		
17	Lupus Anticoagulant Diagnostic Interpretive Panel							■					
25	Lyme Reflex Panel, CSF				■								
17	Opiates Confirmation, Quantitation Serum/Plasma										■		
18	Phosphatidylethanol (PEth)					■		■					
18	Platelet Neutralization							■					
18	Prenatal Quad Screen												■

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
	Protein S Clottable							■					
18	PTT Incubated Mixing Study							■					
18	Stool Gastrointestinal Panel (In-house) by PCR					■					■		
18	T4, Free					■							
18	Testosterone, Total and Free, Serum						■						
18	THC Metabolite, Serum/Plasma, Qt										■		
18	Thyroxine, Fr by Eq Dialysis/HPLC-TndmMS					■					■		
25	Vibrio Culture				■								
25	Vitamin B12 Binding Capacity				■								
19	Vitamin B2					■	■						
19	Vitamin B6					■	■						
20	Warfarin Sensitivity (CYP2C9, CYP2C cluster, CYP4F2, VKORC1) Genotyping					■		■					
25	Yersinia Culture				■								
20	Zika Virus IgM Antibody Capture (MAC), by ELISA					■		■			■		

Test Changes

Test Name	Order Code	Change	Effective Date
11-Deoxycortico-sterone Qt, Serum/ Plasma	11DCOR	**Reported: 2–9** days	11/13/23
11-Deoxycortisol	DEOXY	**Special Information:** Indicate the patient's age on the requisition. Grossly hemolyzed specimens are unacceptable. This test is New York DOH approved. **Reported: 2–9** days	11/13/23
17-Hydroxy-progesterone	HPROG	**Stability:** Ambient: After separation from cells: **3 days** Refrigerated: After separation from cells: 1 week Frozen: After separation from cells: 6 months **Reported:** 2–**6** days	11/13/23
17-Hydroxy-progesterone Quanti-tative by HPLC-MS/ MS, Timed Study	HPROGT	**Reported:** 2–**6** days	11/13/23
Acylcarnitines, Plasma w/ Consultation	ACYLBI	**For interface clients only–Test build may need to be modified** **Specimen Requirement:** 1 mL plasma from EDTA (Lavender) tube; Frozen; Remove plasma from cells within 2 hours of collection and then freeze. *OR* 1 mL plasma from lithium heparin **nogel** (Green) tube; Frozen; Remove plasma from cells within 2 hours of collection and then freeze. *OR* 1 mL plasma from lithium heparin plasma separator (Light Green) tube; Frozen; Remove plasma from cells within 2 hours of collection and then freeze. *OR* 1 mL serum from no additive (Red) tube; Frozen; Remove serum from cells within 2 hours of collection and then freeze. *OR* 1 mL plasma from sodium heparin **nogel** (Green) tube; Frozen; Remove plasma from cells within 2 hours of collection and then freeze. *(continued on page 4)*	12/14/23

Test Changes (Cont.)

Test Name	Order Code	Change	Effective Date
Acylcarnitines, Plasma w/ Consultation *(continued from page 3)*	ACYLBI	**Stability:** Ambient: **Unacceptable** Refrigerated: **After separation from cells: 3 days** Frozen: After separation from cells: **30** days **Reference Range:** Interpretation, Plasma Acylcarnitines (Non-Reportable): Normal **Free L-carnitine:** **0 Months to 1 Months: 10.5–56.9 umol/L** **1 Months to 7 Years: 18.7–60.6 umol/L** **7 Years to 18 Years: 22.3–57.3 umol/L** **18 Years to 99 Years: 15.8–64.8 umol/L** **Total L-carnitine:** **0 Months to 1 Months: 14.8–71.2 umol/L** **1 Months to 7 Years: 23.8–73.6 umol/L** **7 Years to 18 Years: 27.3–67.2 umol/L** **18 Years to 99 Years: 22.1–76.2 umol/L** **Free/Total L-carnitine ratio:** **0 Months to 1 Months: 0.58–0.89** **1 Months to 7 Years: 0.62–1.01** **7 Years to 18 Years: 0.75–0.94** **18 Years to 99 Years: 0.68–0.95** **Acetylcarnitine:** **0 Months to 1 Months: 0.81–8.20 umol/L** **1 Months to 7 Years: 1.08–10.62 umol/L** **7 Years to 18 Years: 1.61–7.36 umol/L** **18 Years to 99 Years: 2.02–8.96 umol/L** **Propionylcarnitine:** **0 Months to 1 Months: <= 0.90 umol/L** **1 Months to 7 Years: <= 0.92 umol/L** **7 Years to 18 Years: 0.10–0.73 umol/L** **18 Years to 99 Years: <= 0.74 umol/L** **Isobutyrylcarnitine:** **0 Months to 1 Months: 0.03–0.37 umol/L** **1 Months to 7 Years: 0.04–0.41 umol/L** **7 Years to 18 Years: 0.03–0.53 umol/L** **18 Years to 99 Years: 0.03–0.42 umol/L** **2-Methylbutyrylcarnitine:** **0 Months to 1 Months: <= 0.47 umol/L** **1 Months to 7 Years: 0.03–0.18 umol/L** **7 Years to 18 Years: 0.03–0.16 umol/L** **18 Years to 99 Years: 0.03–0.14 umol/L** **Tiglylcarnitine:** **0 Months to 1 Months: <= 0.01 umol/L** **1 Months to 7 Years: <= 0.02 umol/L** **7 Years to 18 Years: <= 0.02 umol/L** **18 Years to 99 Years: <= 0.02 umol/L** **Hexanoylcarnitine:** **0 Months to 1 Months: 0.01–0.17 umol/L** **1 Months to 7 Years: <= 0.29 umol/L** **7 Years to 18 Years: 0.01–0.14 umol/L** **18 Years to 99 Years: 0.01–0.21 umol/L** **Octanoylcarnitine:** **0 Months to 1 Months: 0.01–0.10 umol/L** **1 Months to 7 Years: 0.01–0.15 umol/L** **7 Years to 18 Years: 0.01–0.16 umol/L** **18 Years to 99 Years: 0.02–0.18 umol/L** **Decanoylcarnitine:** **0 Months to 1 Months: 0.04–0.62 umol/L** **1 Months to 7 Years: 0.06–0.84 umol/L** **7 Years to 18 Years: 0.06–1.02 umol/L** **18 Years to 99 Years: 0.12–1.06 umol/L** *(continued on page 5)*	12/14/23

Test Changes (Cont.)

Test Name	Order Code	Change	Effective Date
Acylcarnitines, Plasma w/ Consultation *(continued from page 4)*	ACYLBI	**Reference Range (continued):** **Decenoylcarnitine:** **0 Months to 1 Months: 0.01–0.15 umol/L** **1 Months to 7 Years: 0.02–0.24 umol/L** **7 Years to 18 Years: 0.02–0.22 umol/L** **18 Years to 99 Years: 0.03–0.23 umol/L** **Dodecanoylcarnitine:** **0 Months to 1 Months: 0.01–0.24 umol/L** **1 Months to 7 Years: 0.01–0.13 umol/L** **7 Years to 18 Years: 0.01–0.12 umol/L** **18 Years to 99 Years: 0.02–0.13 umol/L** **Dodecenoylcarnitine:** **0 Months to 1 Months: <= 0.18 umol/L** **1 Months to 7 Years: <= 0.11 umol/L** **7 Years to 18 Years: 0.01–0.12 umol/L** **18 Years to 99 Years: 0.01–0.16 umol/L** **Hydroxydodecenoylcarnitine:** **0 Months to 1 Months: <= 0.03 umol/L** **1 Months to 7 Years: <= 0.05 umol/L** **7 Years to 18 Years: <= 0.02 umol/L** **18 Years to 99 Years: <= 0.03 umol/L** **Hydroxydodecanoylcarnitine:** **0 Months to 1 Months: <= 0.02 umol/L** **1 Months to 7 Years: <= 0.02 umol/L** **7 Years to 18 Years: <= 0.01 umol/L** **18 Years to 99 Years: <= 0.02 umol/L** **Tetradecanoylcarnitine:** **0 Months to 1 Months: 0.01–0.17 umol/L** **1 Months to 7 Years: 0.01–0.06 umol/L** **7 Years to 18 Years: 0.01–0.06 umol/L** **18 Years to 99 Years: 0.01–0.06 umol/L** **Tetradecenoylcarnitine:** **0 Months to 1 Months: 0.01–0.14 umol/L** **1 Months to 7 Years: <= 0.11 umol/L** **7 Years to 18 Years: <= 0.11 umol/L** **18 Years to 99 Years: 0.01–0.12 umol/L** **Hydroxytetradecenoylcarnitine:** **0 Months to 1 Months: <= 0.03 umol/L** **1 Months to 7 Years: <= 0.03 umol/L** **7 Years to 18 Years: <= 0.02 umol/L** **18 Years to 99 Years: <= 0.02 umol/L** **Tetradecadienoylcarnitine:** **0 Months to 1 Months: <= 0.05 umol/L** **1 Months to 7 Years: <= 0.06 umol/L** **7 Years to 18 Years: <= 0.06 umol/L** **18 Years to 99 Years: <= 0.06 umol/L** **Hydroxytetradecanoylcarnitine:** **0 Months to 1 Months: <= 0.03 umol/L** **1 Months to 7 Years: <= 0.03 umol/L** **7 Years to 18 Years: <= 0.02 umol/L** **18 Years to 99 Years: <= 0.02 umol/L** **Hexadecanoylcarnitine:** **0 Months to 1 Months: 0.03–0.34 umol/L** **1 Months to 7 Years: 0.02–0.11 umol/L** **7 Years to 18 Years: 0.03–0.11 umol/L** **18 Years to 99 Years: 0.04–0.12 umol/L** **Hexadecenoylcarnitine:** **0 Months to 1 Months: 0.01–0.10 umol/L** **1 Months to 7 Years: <= 0.04 umol/L** **7 Years to 18 Years: <= 0.04 umol/L** **18 Years to 99 Years: 0.01–0.05 umol/L** **Hydroxyhexadecenoylcarnitine:** **0 Months to 1 Months: <= 0.02 umol/L** **1 Months to 7 Years: <= 0.02 umol/L** **7 Years to 18 Years: <= 0.02 umol/L** **18 Years to 99 Years: <= 0.02 umol/L** *(continued on page 6)*	12/14/23

Test Changes (Cont.)

Test Name	Order Code	Change	Effective Date
Acylcarnitines, Plasma w/ Consultation *(continued from page 5)*	ACYLBI	**Reference Range (continued):** **Hydroxyhexadecanoylcarnitine:** **0 Months to 1 Months: <= 0.02 umol/L** **1 Months to 7 Years: <= 0.02 umol/L** **7 Years to 18 Years: <= 0.02 umol/L** **18 Years to 99 Years: <= 0.02 umol/L** **Octadecanoylcarnitine:** **0 Months to 1 Months: 0.01–0.08 umol/L** **1 Months to 7 Years: 0.01–0.06 umol/L** **7 Years to 18 Years: 0.01–0.06 umol/L** **18 Years to 99 Years: 0.01–0.07 umol/L** **Octadecenoylcarnitine:** **0 Months to 1 Months: 0.03–0.16 umol/L** **1 Months to 7 Years: <= 0.17 umol/L** **7 Years to 18 Years: <= 0.15 umol/L** **18 Years to 99 Years: 0.03–0.15 umol/L** **Hydroxyoctadecenoylcarnitine:** **0 Months to 1 Months: <= 0.01 umol/L** **1 Months to 7 Years: <= 0.01 umol/L** **7 Years to 18 Years: <= 0.01 umol/L** **18 Years to 99 Years: <= 0.01 umol/L** **Octadecadienoylcarnitine:** **0 Months to 1 Months: 0.01–0.09 umol/L** **1 Months to 7 Years: 0.01–0.11 umol/L** **7 Years to 18 Years: 0.01–0.10 umol/L** **18 Years to 99 Years: 0.01–0.10 umol/L** **Succinylcarnitine:** **0 Months to 1 Months: <= 0.10 umol/L** **1 Months to 7 Years: 0.01–0.08 umol/L** **7 Years to 18 Years: 0.01–0.08 umol/L** **18 Years to 99 Years: 0.01–0.07 umol/L** **Hydroxybutyryl/hydroxyisobutyrylcarnitine:** **0 Months to 1 Months: <= 0.15 umol/L** **1 Months to 7 Years: <= 0.18 umol/L** **7 Years to 18 Years: <= 0.08 umol/L** **18 Years to 99 Years: <= 0.09 umol/L** **Glutarylcarnitine:** **0 Months to 1 Months: 0.02–0.13 umol/L** **1 Months to 7 Years: 0.03–0.16 umol/L** **7 Years to 18 Years: 0.03–0.21 umol/L** **18 Years to 99 Years: 0.04–0.28 umol/L** **Hydroxyisovalerylcarnitine:** **0 Months to 1 Months: <= 0.16 umol/L** **1 Months to 7 Years: 0.01–0.06 umol/L** **7 Years to 18 Years: 0.01–0.08 umol/L** **18 Years to 99 Years: 0.01–0.07 umol/L** **Malonylcarnitine:** **0 Months to 1 Months: 0.12–0.50 umol/L** **1 Months to 7 Years: 0.06–0.34 umol/L** **7 Years to 18 Years: 0.06–0.30 umol/L** **18 Years to 99 Years: 0.08–0.46 umol/L** **Ratio C3/C2:** **0 Months to 1 Months: 0.02–0.22** **1 Months to 7 Years: 0.01–0.27** **7 Years to 18 Years: 0.02–0.22** **18 Years to 99 Years: 0.02–0.17** **Gamma-butyrobetaine:** **0 Months to 1 Months: 0.39–1.63 umol/L** **1 Months to 7 Years: 0.30–1.57 umol/L** **7 Years to 18 Years: 0.37–1.93 umol/L** **18 Years to 99 Years: 0.40–2.51 umol/L** **Hydroxydecenoylcarnitine:** **0 Months to 1 Months: 0.02–0.14 umol/L** **1 Months to 7 Years: 0.01–0.12 umol/L** **7 Years to 18 Years: <= 0.06 umol/L** **18 Years to 99 Years: <= 0.06 umol/L** *(continued on page 7)*	12/14/23

Test Changes (Cont.)

Test Name	Order Code	Change	Effective Date
Acylcarnitines, Plasma w/ Consultation *(continued from page 6)*	ACYLBI	**Reference Range (continued):** **Decadienoylcarnitine:** **0 Months to 1 Months: 0.01–0.04 umol/L** **1 Months to 7 Years: <= 0.06 umol/L** **7 Years to 18 Years: 0.01–0.04 umol/L** **18 Years to 99 Years: <= 0.05 umol/L** **Butyrylcarnitine:** **0 Months to 1 Months: <= 0.05 umol/L** **1 Months to 7 Years: <= 0.04 umol/L** **7 Years to 18 Years: <= 0.04 umol/L** **18 Years to 99 Years: <= 0.05 umol/L** **Sebacoylcarnitine:** **0 Months to 1 Months: <= 0.04 umol/L** **1 Months to 7 Years: <= 0.02 umol/L** **7 Years to 18 Years: <= 0.02 umol/L** **18 Years to 99 Years: <= 0.01 umol/L** **Hydroxydecanoylcarnitine:** **0 Months to 1 Months: <= 0.02 umol/L** **1 Months to 7 Years: <= 0.03 umol/L** **7 Years to 18 Years: <= 0.04 umol/L** **18 Years to 99 Years: <= 0.03 umol/L** **Isovalerylcarnitine:** **0 Months to 1 Months: <= 0.03 umol/L** **1 Months to 7 Years: <= 0.04 umol/L** **7 Years to 18 Years: <= 0.04 umol/L** **18 Years to 99 Years: <= 0.03 umol/L** **Valerylcarnitine:** **0 Months to 1 Months: <= 0.01 umol/L** **1 Months to 7 Years: <= 0.01 umol/L** **7 Years to 18 Years: <= 0.01 umol/L** **18 Years to 99 Years: <= 0.01 umol/L** **3-Methylcrotonylcarnitine:** **0 Months to 1 Months: <= 0.01 umol/L** **1 Months to 7 Years: <= 0.01 umol/L** **7 Years to 18 Years: <= 0.01 umol/L** **18 Years to 99 Years: <= 0.01 umol/L** **15-carboxypentadecanoylcarnitine:** **0 Months to 1 Months: <= 0.10 umol/L** **1 Months to 7 Years: <= 0.01 umol/L** **7 Years to 18 Years: <= 0.01 umol/L** **18 Years to 99 Years: <= 0.01 umol/L** **17-carboxyheptadecanoylcarnitine:** **0 Months to 1 Months: <= 0.05 umol/L** **1 Months to 7 Years: <= 0.02 umol/L** **7 Years to 18 Years: <= 0.02 umol/L** **18 Years to 99 Years: <= 0.02 umol/L** **Hydroxyoctadecanoylcarnitine:** **0 Months to 1 Months: <= 0.02 umol/L** **1 Months to 7 Years: <= 0.01 umol/L** **7 Years to 18 Years: <= 0.01 umol/L** **18 Years to 99 Years: <= 0.01 umol/L** **Methylmalonylcarnitine:** **0 Months to 1 Months: <= 0.02 umol/L** **1 Months to 7 Years: <= 0.02 umol/L** **7 Years to 18 Years: <= 0.02 umol/L** **18 Years to 99 Years: <= 0.03 umol/L** **4-Hydroxybutyrl/hydroxyisobutyrylcarnitine:** **0 Months to 1 Months: <= 0.34 umol/L** **1 Months to 7 Years: <= 0.53 umol/L** **7 Years to 18 Years: <= 0.17 umol/L** **18 Years to 99 Years: <= 0.24 umol/L** **3-Methylglutarylcarnitine:** **0 Months to 1 Months: <= 0.04 umol/L** **1 Months to 7 Years: <= 0.02 umol/L** **7 Years to 18 Years: <= 0.04 umol/L** **18 Years to 99 Years: <= 0.05 umol/L** *(continued on page 8)*	12/14/23

Test Changes (Cont.)

Test Name	Order Code	Change	Effective Date
Acylcarnitines, Plasma w/ Consultation *(continued from page 7)*	ACYLBI	**Reference Range (continued):** **Adipoylcarnitine:** **0 Months to 1 Months: <= 0.09 umol/L** **1 Months to 7 Years: <= 0.07 umol/L** **7 Years to 18 Years: <= 0.06 umol/L** **18 Years to 99 Years: <= 0.03 umol/L** **Hydroxyhexanoylcarnitine:** **0 Months to 1 Months: <= 0.02 umol/L** **1 Months to 7 Years: <= 0.02 umol/L** **7 Years to 18 Years: <= 0.02 umol/L** **18 Years to 99 Years: <= 0.02 umol/L** **Heptanoylcarnitine:** **0 Months to 1 Months: <= 0.05 umol/L** **1 Months to 7 Years: <= 0.07 umol/L** **7 Years to 18 Years: <= 0.07 umol/L** **18 Years to 99 Years: <= 0.07 umol/L** **Octenoylcarnitine:** **0 Months to 1 Months: 0.03–0.35 umol/L** **1 Months to 7 Years: <= 0.50 umol/L** **7 Years to 18 Years: 0.03–0.33 umol/L** **18 Years to 99 Years: 0.02–0.33 umol/L** **Suberylcarnitine:** **0 Months to 1 Months: <= 0.10 umol/L** **1 Months to 7 Years: <= 0.08 umol/L** **7 Years to 18 Years: <= 0.11 umol/L** **18 Years to 99 Years: <= 0.03 umol/L** **Hydroxyoctanoylcarnitine:** **0 Months to 1 Months: <= 0.06 umol/L** **1 Months to 7 Years: 0.01–0.11 umol/L** **7 Years to 18 Years: 0.01–0.10 umol/L** **18 Years to 99 Years: 0.01–0.10 umol/L** **Formiminoglutamate:** **0 Months to 1 Months: 0.09–0.73 umol/L** **1 Months to 7 Years: 0.06–0.27 umol/L** **7 Years to 18 Years: 0.05–0.19 umol/L** **18 Years to 99 Years: 0.05–0.22 umol/L** **Days Performed: 2** days per week 7:00 am	12/14/23
Aeromonas	AERPLE	**Name:** Previously Aeromonas/Plesiomonas Culture **Special Information:** Transfer stool into Cary-Blair transport media (Oracle # 1124361) immediately after collection and prior to transport. Alternatively, stool may be transported in a sterile container if received within 2 h of collection. If culture is positive, **additional charges could be applied, such as** 87077, 87153, 87181, 87184, 87186. **Clinical Information: Enteric Bacterial Panel by PCR (STLPCR) is a preferred first-line test for detecting STEC, Salmonella, Shigella, and Campylobacter; which are common causes of gastroenteritis. A broader panel to detect many pathogens is also available if needed (STGIPI). These molecular tests do not detect Aeromonas, so if Aeromonas gastroenteritis is suspected, then culture can be performed.**	12/19/23
AFB Culture & Stain	AFC	**Special Information: Mycobacterial culture (AFC) includes an acid-fast stain and culture for AFB on solid agar and in liquid medium. Nocardia spp. will grow from AFB cultures. Stain results are reported within 24 hours of specimen receipt. Cultures are incubated for 6 weeks; negative cultures are updated weekly. Extended incubation or special requests require consultation with a medical director. Do not put special instructions in order comments. Providers are notified of initial positive smear or culture results and any identification of M. tuberculosis.** Specimen collection methods should minimize contamination with respiratory, skin or urogenital flora. If specimen transport is delayed by more than 2 hours, specimens should be refrigerated. **When collecting in the outpatient setting, patients should be sent home with a pre-labeled container. Instruct patients to record collection date/time on the labeled container and refrigerate the specimen until submission. Due to the small volume collected and hydrophobicity of mycobacteria, swabs are suboptimal for recovery, and will be rejected. Exceptions require medical director approval. If a swab must be used, E swab is preferred.** *(continued on page 9)*	11/9/23

Test Changes (Cont.)

Test Name	Order Code	Change	Effective Date
AFB Culture & Stain *(continued from page 8)*	AFC	**Both source and body site should be provided with orders. Specimens from all skin sites and those from the extremities are cultured at both 37°C and 30°C to optimize recovery of M. marinum, M. haemophilum and some rapidly growing mycobacteria. In Epic, the "Rule-out" drop down feature may be used when ordering to notify the laboratory if species with special growth requirements are in the differential.** **Mycobacteria and Nocardia spp. from positive cultures are identified using a combination of MALDI TOF and/or sequencing methods. Susceptibility testing is performed on all M. tuberculosis, Nocardia species and M. kansasii. Other susceptibility testing is performed on request, if clinically significant. The clarithromycin microbroth dilution test is incubated 14 days to detect phenotypic inducible resistance in rapidly growing mycobacteria. Molecular testing for erm(41) which mediates inducible resistance to clarithromycin is performed for M. abscessus species. Deletions in erm(41) prevent inducible clarithromycin resistance and are present in M. abscessus subsp. massiliense.** **Multiple identification procedures may be required. The following CPT codes are billed as applicable: Cepheid PCR 87556 87798, Additional stain testing 87206, MALDI-TOF 87118, Sequencing 87153, and Susceptibility Testing 87186.** **Clinical Information:** Culture is performed to identify infection due to **mycobacteria. Negative cultures do not rule-out infection. Multiple cultures (three) are generally performed to optimize sensitivity and to help determine the clinical significance of pulmonary infection with non-tuberculous mycobacteria. Clinical presentation, radiographic findings and histopathology should be evaluated in conjunction with culture data. (PMID: 32797222).** **For patients in whom a diagnosis of pulmonary M. tuberculosis is in the differential, PCR (MTBRIF) is recommended on at least one respiratory specimen, and may be ordered on up to two specimens collected at least eight hours apart, including one first-morning sputum. For optimal sensitivity three cultures are recommended. (MMWR 62:41; 2013) Sensitivity of PCR for smear positive, culture positive TB is 97%; sensitivity for smear-negative, culture positive TB is 67%. (PMID 31173647) Orders for MTBRIF include culture and stain. Order MTBRIF x2 and AFB culture (AFC) x1 for diagnosis of M. tuberculosis. PCR may be added to AFB cultures previously submitted to the laboratory by calling Lab Client Services and requesting (PCR component) LAB1042. Rifampin resistance detection requires confirmatory sequencing and correlation with in vitro susceptibility test results.**	11/9/23
Allergen, Expanded Respiratory Disease Profile Region 5	RESPR5	**Specimen Requirement: 4** mL serum from serum separator (Gold) tube; Minimum **2.5** mL;Refrigerated *OR* **4** mL plasma from lithium heparin plasma separator (Light Green) tube; Minimum **2.5** mL; Refrigerated *OR* **4** mL plasma from EDTA (Lavender) tube; Minimum **2.5** mL; Refrigerated; Submitting the minimum volume will not allow for repeat testing or addons. Required volume of **4** mL is preferred when possible.	12/19/23
APC Resistance	APC	For interfaced clients only – Test build may need to be modified. An IT Analyst will contact affected clients with build change details.	12/19/23
Barbiturates	BARBS	**Reported:** 2–**8** days	11/13/23
Bile Acids, Total	BILETO	**Name:** Previously Biliary Acids, Total	effective immediately
Bioavailable Testosterone/SHBG, Female & Child	BTSTFC	**Stability:** Ambient: After separation from cells: **24 hours** Refrigerated: After separation from cells: 1 week Frozen: After separation from cells: 6 months **Methodology:** **Calculation** Electro Chemiluminescence Immunoassay (ECLIA) High Performance Liquid Chromatography/Tandem Mass Spectrometry (LC/MS/MS) **Reported:** 2–**6** days	11/13/23
BK Virus DNA Quantification	BKQUAN	**Stability:** Ambient: **24 hours** Refrigerated: 6 days Frozen: 6 months	11/9/23

Test Changes (Cont.)

Test Name	Order Code	Change	Effective Date
Borrelia burgdorferi VlsE1/pepC10 Antibodies, CSF, Total by ELISA With Reflex to IgM and IgG by Immunoblot (Standard Two-Tier Testing, CSF)	BBURGM	**For interface clients only–Test build may need to be modified** **Name:** Previously Borrelia burgdorferi Antibodies, Total by ELISA, CSF **Includes:** **Lyme Standard 2-Tier, CSF, 1st Tier** **B. burgdorferi VlsE1/pepC10 Abs, CSF** **Special Information:** Specimens from New York clients will be sent out to a New York DOH approved laboratory, if possible. Heat-inactivated, contaminated, hemolyzed, **or xanthochromic** specimens are unacceptable. **Clinical Information:** REFLEX CRITERIA: If VlsE1/pepC10 antibodies by ELISA is 0.91 IV or greater, then B. burgdorferi IgG antibody by immunoblot and IgM antibody by immunoblot will be added. Additional charges apply. **Specimen Requirement: 6** mL cerebrospinal fluid (CSF) in clean container; Minimum **2.5** mL; Refrigerated; Transfer **6** mL CSF to standard aliquot tube **Stability:** Ambient: 8 hours Refrigerated: 2 weeks Frozen: **1 month** (Avoid repeated freeze/thaw cycles) **Reference Range:** **B. burgdorferi VlsE1/pepC10 Abs, CSF: 0.90 IV or less**	11/13/23
Buprenorphine and Metabolites, Quant, serum/plasma	SBUP	**Clinical Information:** Positive Cutoff: 1 ng/mL. The presence of metabolites(s) without parent drug may indicate use of parent drug during the prior week. The absence of expected drug(s) and/or metabolite(s) may indicate noncompliance, inappropriate timing of specimen collection relative to drug administration, poor drug absorption, or limitations of testing. The concentration value must be greater than or equal to the cutoff to be reported as positive. **Reported:** 2–**8** days	11/13/23
Calprotectin, Fecal	CALPRO	**Stability:** Ambient: 6 hours Refrigerated: **14** days Frozen: 16 weeks	effective immediately
Carnitine Free & Total, Plasma	CARNPL	**For interface clients only–Test build may need to be modified** **Special Information:** Decant plasma/serum from cells within 2 hours from collection. Indicate patient fasting hours when the sample was collected. Fasting is not required, but the information is helpful for test interpretation. Carnitine, fish oil, omega-3 supplements **and TPN with lipid supplementation** affect test results; indicate supplement use on the requisition. **Specimen Requirement:** 1 mL plasma from EDTA (Lavender) tube; Frozen; Remove plasma from cells within 2 hours of collection and then freeze. *OR* 1 mL serum from no additive (Red) tube; Frozen; Remove serum from cells within 2 hours of collection and then freeze. *OR* 1 mL plasma from lithium heparin **nogel** (Green) tube; Frozen; Remove plasma from cells within 2 hours of collection and then freeze. *OR* 1 mL plasma from lithium heparin plasma separator (Light Green) tube; Frozen; Remove plasma from cells within 2 hours of collection and then freeze. *OR* 1 mL plasma from sodium heparin **nogel** (Green) tube; Frozen; Remove plasma from cells within 2 hours of collection and then freeze. **Stability:** Ambient: **After separation from cells: 72 hours** Refrigerated: **After separation from cells: 30 days** Frozen: After separation from cells: **30** days **Reference Range:** **Free L-carnitine (FRCARN):** **0 Months to 1 Months: 10.5–56.9 umol/L** **1 Months to 7 Years: 18.7–60.6 umol/L** **7 Years to 18 Years: 22.3–57.3 umol/L** **18 Years to 99 Years: 15.8–64.8 umol/L** **Total L-carnitine (TCARN):** **0 Months to 1 Months: 14.8–71.2 umol/L** **1 Months to 7 Years: 23.8–73.6 umol/L** **7 Years to 18 Years: 27.3–67.2 umol/L** **18 Years to 99 Years: 22.1–76.2 umol/L** *(continued on page 11)*	12/14/23

Test Changes (Cont.)

Test Name	Order Code	Change	Effective Date
Carnitine Free & Total, Plasma *(continued from page 10)*		**Free/Total L-carnitine ratio (FRTCRAT):** **0 Months to 1 Months: 0.58–0.89** **1 Months to 7 Years: 0.62–1.01** **7 Years to 18 Years: 0.75–0.94** **18 Years to 99 Years: 0.68–0.95** **Days Performed: 2** days per week 7:00 am **Reference Range:** **Free L-carnitine (FRCARN):** **0 Months to 1 Months: 10.5–56.9 umol/L** **1 Months to 7 Years: 18.7–60.6 umol/L** **7 Years to 18 Years: 22.3–57.3 umol/L** **18 Years to 99 Years: 15.8–64.8 umol/L** **Total L-carnitine (TCARN):** **0 Months to 1 Months: 14.8–71.2 umol/L** **1 Months to 7 Years: 23.8–73.6 umol/L** **7 Years to 18 Years: 27.3–67.2 umol/L** **18 Years to 99 Years: 22.1–76.2 umol/L** **Free/Total L-carnitine ratio (FRTCRAT):** **0 Months to 1 Months: 0.58–0.89** **1 Months to 7 Years: 0.62–1.01** **7 Years to 18 Years: 0.75–0.94** **18 Years to 99 Years: 0.68–0.95** **Days Performed: 2** days per week 7:00 am	
Catecholamines Fractionated by LC-MS/MS, Urine Free	URCAT2	**Includes:** Creatinine, Urine–per volume Creatinine, Urine–per 24h Epinephrine, Urine–per 24h Epinephrine, Urine–ratio to CRT Epinephrine, Urine–per volume Norepinephrine, Urine–per 24h Norepinephrine, Urine–ratio to CRT Norepinephrine, Urine–per volume Dopamine, Urine–per 24h Dopamine, Urine–ratio to CRT Dopamine, Urine–per volume Catecholamines, Urine Interpretation **Special Information:** Drugs and medications may affect results and should be discontinued for at least 72 hours prior to specimen collection, if possible. Catecholamines are not stable above pH 7. The pH of such specimens must be adjusted by the addition of 6M HCl acid or sulfamic acid prior to transport. A pH less than 2 can cause assay interference. Record total volume and collection time interval on transport tube and test request form. **Specimen preservation** Option 1: Transfer a 4 mL aliquot (Min: 2.5 mL) to an ARUP Standard Transport Tube. Adjust pH to 2.0-4.0 with 6M HCl. **Specimen Preservation** Option 2: Transfer a 4 mL aliquot (Min: 2.5 mL) to an ARUP Standard Transport Tube containing 20 mg sulfamic acid (ARUP Supply #48098), available by contacting Client Services at 800.628.6816 or 216.444.5755 (Min: 2.5 mL). Room temperature specimens, specimens preserved with boric acid or acetic acid, or specimens with pH > 7 will be rejected. This test is New York DOH approved. **Clinical Information: This test is useful to evaluate clinical symptoms of excess catecholamine secretion.** Not recommended for evaluation of paraganglioma or pheochromocytoma. The optimal specimen for this testing is a 24-hour urine collection. **Specimen Requirement:** 4 mL 24-hour (well-mixed) urine in clean container; **Refrigerate during collection.** Transport Refrigerated; Drugs and medications may affect results and should be discontinued for at least 72 hours prior to specimen collection. pH urine to > 2 and < 7 with 6M HCl acid **or sulfamic acid** before transport. Record total volume and collection time interval on sample and test request form. *OR* 4 mL random urine in clean container; Refrigerated; Drugs and medications may affect results and should be discontinued for at least 72 hours prior to specimen collection. pH urine to > 2 and < 7 with 6M HCl acid **or sulfamic acid** before transport. Record total volume and collection time interval on sample and test request form. *(continued on page 12)*	11/13/23

Test Changes (Cont.)

Test Name	Order Code	Change	Effective Date
Catecholamines Fractionated by LC-MS/MS, Urine Free *(continued from page 11)*	URCAT2	**Stability:** Ambient: Unacceptable Refrigerated: 1 week (unpreserved); 1 month (preserved) Frozen: Unacceptable (unpreserved); 6 months (preserved) **Reported:** 2–**6** days	11/13/23
Catecholamines, Fractionated, Plasma	PLCAT	**Special Information: Patient should be calm and seated for 15 minutes prior to collection. Alternately,** patient **may** be calm and supine for 30 minutes prior to collection. **Drugs and medications may affect** **results and should be discontinued for 72 hours prior to specimen collection, if possible. CRITICAL FROZEN.** Separate specimens must be submitted when multiple tests are ordered. This test is New York DOH approved. Unacceptable conditions: Serum, or urine. **Clinical Information:** Not recommended for evaluation of pheochromocytoma or paraganglioma. Use to evaluate clinical symptoms of excess catecholamine secretion. Small increases in catecholamines (less than 2 times the upper reference limit) are usually the result of physiological stimuli, drugs, or improper specimen collection. Significant elevation of one or more catecholamines (2 or more times the upper reference limit) **can result from a neuroendocrine tumor.** Measurement of plasma or urine fractionated metanephrines **should be used for assessment of suspected pheochromocytoma or paraganglioma. Lower catecholamine concentrations are observed in specimens collected from supine adults. Medications may interfere with catecholamines and metabolites.** The effect of drugs on catecholamine results may not be predictable. Children, particularly those under 2 years of age, often show an elevated catecholamine response to stress. **Specimen Requirement: 3** mL plasma from sodium heparin (Green) tube; Minimum **1.1** mL; **Place specimen on ice after draw.** Critical Frozen; **Patient should be calm and seated for 15 minutes or supine for 30 minutes prior to collection.** Collect 2 tubes. Centrifuge, aliquot and freeze within one hour of collection. Refrigerated centrifuge is preferred but not required. *OR* **3** mL plasma from lithium heparin (Green) tube; Minimum **1.1** mL; **Place specimen on ice after draw.** Critical Frozen; **Patient should be calm and seated for 15 minutes or supine for 30 minutes prior to collection.** Collect 2 tubes. Centrifuge, aliquot and freeze within one hour of collection. Refrigerated centrifuge is preferred but not required. *OR* **3 mL plasma from EDTA (Lavender) tube; Minimum 1.1 mL; Place specimen on ice after draw. Critical Frozen; Patient should be calm and seated for 15 minutes or supine for 30 minutes prior to collection. Collect 2 tubes. Centrifuge, aliquot and freeze within one hour of collection. Refrigerated centrifuge is preferred but not required.** **Methodology: High Performance Liquid Chromatography/Tandem Mass Spectrometry (LC/MS/MS)** **Reference Range:** Epinephrine (EPINEP): 18 Years to 99 Years: **Seated (15 min): Less than or equal to 330 pmol/L** 18 Years to 99 Years: **Supine (30 min): Less than or equal to 265 pmol/L** Norepinephrine (NOREPI): 18 Years to 99 Years: **Seated (15 min): 1050-4800 pmol/L** 18 Years to 99 Years**: Supine (30 min): 680-3100 pmol/L** Dopamine (DOPA): **18 Years to 99 Years: Seated (15 min): Less than or equal to 240 pmol/L** **18 Years to 99 Years: Supine (30 min): Less than or equal to 240 pmol/L** Catecholamine Interpretation (INTCAT): Refer to report **Days Performed:** Sun–**Sat**	effective immediately

Test Changes (Cont.)

Test Name	Order Code	Change	Effective Date
Clonazepam	CLONAS	**Special Information:** Patient Prep: Timing of specimen collection: Pre-dose (trough) draw at steady state concentration. Gel separator tubes are unacceptable. Plasma or whole blood collected in light blue (sodium citrate) tubes will be rejected. Hemolyzed specimens will be rejected. This test is New York DOH approved. **Clinical Information:** Used to optimize drug therapy and monitor patient adherence. Adverse effects may include drowsiness, headache, fatigue and ataxia. **Specimen Requirement:** 2 mL plasma from potassium oxalate/sodium fluoride (Gray) tube; Refrigerated; Do not draw gel separator tube. Timing of specimen collection: Pre-dose (trough) draw at steady state concentration. Separate plasma from cells ASAP or within 2 hours of collection and transfer into standard aliquot tube. *OR* 2 mL serum from no additive (Red) tube; Refrigerated; Do not draw gel separator tube. Timing of specimen collection: Pre-dose (trough) draw at steady state concentration. Separate serum from cells ASAP or within 2 hours of collection and transfer into standard aliquot tube. *OR* 2 mL plasma from sodium heparin (Green) tube; Refrigerated; Do not draw gel separator tube. Timing of specimen collection: Pre-dose (trough) draw at steady state concentration. Separate serum from cells ASAP or within 2 hours of collection and transfer into standard aliquot tube. *OR* 2 mL plasma from EDTA (Lavender) tube; Refrigerated; Do not draw gel separator tube. Timing of specimen collection: Pre-dose (trough) draw at steady state concentration. Separate serum from cells ASAP or within 2 hours of collection and transfer into standard aliquot tube. **Reported:** 2–**8** days	11/13/23
Clorazepate	TRANX	**Special Information: Hemolyzed specimens and gel separator tubes will be rejected.** **Clinical Information: Clorazepate is assayed as nordiazepam. Toxic concentrations may cause central nervous system depression.** **Specimen Requirement:** 2 mL serum from no additive (Red) tube; Refrigerated; Do not draw gel separator tube. **Timing of specimen collection: Pre-dose (trough) draw at steady state concentration. Centrifuge, aliquot and refrigerate** within 2 hours of collection. *OR* 2 mL plasma from EDTA (Lavender) tube; Refrigerated; Do not **draw gel** separator tube. **Timing of specimen collection: Pre-dose (trough) draw at steady state concentration. Centrifuge, aliquot and refrigerate** within 2 hours of collection. *OR* 2 mL plasma from sodium heparin (Green) tube; Refrigerated; Do not **draw gel** separator tube. **Timing of specimen collection: Pre-dose (trough) draw at steady state concentration. Centrifuge, aliquot and refrigerate** within 2 hours of collection. *OR* **2 mL plasma from potassium oxalate/sodium fluoride (Gray) tube; Refrigerated; Do not draw gel separator tube. Timing of specimen collection: Pre-dose (trough) draw at steady state concentration. Centrifuge, aliquot and refrigerate within 2 hours of collection.** **Reported:** 2–**8** days	11/13/23
CMV, qualitative by PCR, non-blood (CSF, bone marrow, amniotic fluid, ocular fluid)	CMVCSF	**Methodology: Qualitative Polymerase Chain Reaction** **Reported: 2–4** days	11/13/23
Cortisol, Saliva	SCORT	**Special Information: Transfer saturated swab to plain (non-citric acid) cotton Salivette® collection device (ARUP Supply #52056). Swab must be completely saturated to ensure sufficient volume for testing. Record collection time on container and requisition.** Patient Preparation: Do not collect specimen within 60 minutes after eating a meal, within 12 hours after consuming alcohol, immediately after brushing teeth or after any activity that may cause gums to bleed. Rinse mouth thoroughly with water 10 minutes before collecting specimen. Recommended collection time is between 11:00 p.m.–1:00 a.m. **Clinical Information: This test is useful to** rule out Cushing syndrome **and to** screen for thymic and bronchial carcinoid tumors. **Methodology: Liquid Chromatography-Tandem Mass Spectrometry (LC-MS/MS)** **Reference Range:** **7 a.m. to 9 a.m.: 0.1-0.75** **3 p.m. to 5 p.m.: <0.401** **11 p.m. to midnight: <0.1** **Days Performed:** Mon–**Sat**	11/13/23

Test Changes (Cont.)

Test Name	Order Code	Change	Effective Date
CYP2C19 (Cytochrome P450 2C19)	2C19CY	**For interface clients only–Test build may need to be modified** **Includes:** CYP2C19 Genotype CYP2C19 Phenotype Interpretation **EER CYP2C19** **Special Information:** Plasma, serum and frozen specimens in glass collection tubes will be rejected. Specimens collected in sodium heparin or lithium heparin are unacceptable. Whole blood is the preferred specimen. Saliva samples that yield inadequate DNA quality and/or quantity will be reported as inconclusive if test performance does not meet laboratory-determined criteria for reporting. **This test is New York DOH approved.** **Note:** *Clinical Limitation and Clinical Information has been removed.*	11/13/23
CYP2D6 (Cytochrome P450 2D6)	2D6GTP	**For interface clients only–Test build may need to be modified** **Includes:** 2D6GENO Specimen CYP2D6 Genotype CYP2D6 Phenotype Interpretation **EER CYP2D6**	11/13/23
DHEA	DHEA	**Reported:** 2–**6** days	11/13/23
Diazepam & Metabolite	DIAZEP	**Specimen Requirement:** 2 mL serum from no additive (Red) tube; Refrigerated; Do not use serum separator tube. **Timing of specimen collection: Pre-dose (trough) draw at steady state concentration.** Separate serum from cells within 2 hours of collection. *OR* 2 mL plasma from EDTA (Lavender) tube; Refrigerated; Do not use serum separator tube. **Timing of specimen collection: Pre-dose (trough) draw at steady state concentration.** Separate serum from cells within 2 hours of collection. *OR* 2 mL plasma from sodium heparin (Green) tube; Refrigerated; Do not use serum separator tube. **Timing of specimen collection: Pre-dose (trough) draw at steady state concentration.** Separate serum from cells within 2 hours of collection. *OR* **2 mL plasma from potassium oxalate/sodium fluoride (Gray) tube; Refrigerated; Do not use serum separator tube. Timing of specimen collection: Pre-dose (trough) draw at steady state concentration. Separate serum from cells within 2 hours of collection.** **Reported:** 2–**8** days	11/13/23
Dihydrotestosterone	DHT	**Days Performed: Sun, Wed–Sat** **Reported:** 2–**6** days	11/13/23
Dilute Russell Viper Venom Time	DRVVT	For interface clients only–Test build may need to be modified	12/19/23
Enterovirus by PCR	ENTNAS	**Specimen Requirement:** 1 mL plasma from EDTA (Lavender) tube; Frozen; Separate plasma from cells and transfer into sterile aliquot tube. Must indicate specimen source. *OR* 1 mL serum from serum separator (Gold) tube; Separate serum from cells and transfer into sterile aliquot tube. Must indicate specimen source. *OR* one nasopharyngeal swab in Viral Transport Media; Frozen; Must indicate specimen source.	effective immediately
Fentanyl and Metabolite	FENTYL	**Specimen Requirement:** 4 mL serum from no additive (Red) tube; Refrigerated; **Do not use separator tubes.** Separate from cells ASAP or within 2 hours of collection. **Transfer serum to standard aliquot tube.** *OR* 4 mL plasma from sodium heparin (Green) tube; Refrigerated; **Do not use separator tubes.** Separate from cells ASAP or within 2 hours of collection. **Transfer plasma to standard aliquot tube.** *OR* 4 mL plasma from EDTA (Lavender) tube; Refrigerated; **Do not use separator tubes**. Separate from cells ASAP or within 2 hours of collection. **Transfer plasma to standard aliquot tube**. *OR* 4 mL plasma from potassium oxalate/sodium fluoride (Gray) tube; Refrigerated; **Do not use separator tubes.** Separate from cells ASAP or within 2 hours of collection. **Transfer plasma to standard aliquot tube.** **Reported:** 2–**9** days	11/13/23
Herpes Simplex IgM, Abs, with IgG Reflex	HSVGM	Days Performed: Tue, Fri	11/9/23
Hexagonal Phase Phospholipid Neutralization	STACLT	For interfaced clients only – Test build may need to be modified. An IT Analyst will contact affected clients with build change details.	12/19/23

Test Changes (Cont.)

Test Name	Order Code	Change	Effective Date
Hypercoagulation Diagnostic Interpretive Panel	HYPER	For interfaced clients only – Test build may need to be modified. An IT Analyst will contact affected clients with build change details.	12/19/23
IBD Serology Disease Panel	IBDSER	**Stability:** Ambient: After separation from cells: 48 hours Refrigerated:After separation from cells: 2 weeks Frozen:After separation from cells: **30 days** (Avoid repeated freeze/thaw cycles)	11/13/23
Insulin-Like Growth Factor Binding Protein-3	IGFBP3	**For interface clients only–Test build may need to be modified** **Name:** Previously Insulin Like Growth Factor Bind, Prot 3 **Specimen Requirement:** 0.5 mL serum from serum separator (Gold) tube; Refrigerated; **Remove serum from cells within 2 hours of collection.** *OR* **0.5 mL serum from red plain tube; Refrigerated; Remove serum from cells within 2 hours of collection.** **Stability:** Ambient: 24 hours Refrigerated: **5** days Frozen: **8 months** **Methodology: Electro Chemiluminescence Immunoassay (ECLIA)** **Reference Range:** **Male 0 Years to 1 Years: 919–2782 ng/mL** **Male 1 Year: 1030–2957 ng/mL** **Male 2 Years: 1183–3306 ng/mL** **Male 3 Years: 1343–3658 ng/mL** **Male 4 Years: 1511–4013 ng/mL** **Male 5 Years: 1687–4371 ng/mL** **Male 6 Years: 1868–4272 ng/mL** **Male 7 Years: 2053–5077 ng/mL** **Male 8 Years: 2239–5419 ng/mL** **Male 9 Years: 2423–5741 ng/mL** **Male 10 Years: 2603–6044 ng/mL** **Male 11 Years: 2775 – 6321 ng/mL** **Male 12 Years: 2935 – 6565 ng/mL** **Male 13 Years: 3080 – 6771 ng/mL** **Male 14 Years: 3205 – 6933 ng/mL** **Male 15 Years: 3306 – 7044 ng/mL** **Male 16 Years: 3379 – 7099 ng/mL** **Male 17 Years: 3423 – 7098 ng/mL** **Male 18 Years: 3441–7053 ng/mL** **Male 19 Years: 3439 – 6973 ng/mL** **Male 20 Years: 3420 – 6870 ng/mL** **Male 21 Years: 3390 – 6753 ng/mL** **Male 22 Years: 3352 – 6630 ng/mL** **Male 23 Years: 3310 – 6508 ng/mL** **Male 24 Years: 3267 – 6392 ng/mL** **Male 25 Years: 3225 – 6290 ng/mL** **Male 26 Years: 3188 – 6201 ng/mL** **Male 27 Years: 3154 – 6127 ng/mL** **Male 28 Years: 3125 – 6069 ng/mL** **Male 29 Years: 3102 – 6027 ng/mL** **Male 30 Years: 3082 – 5996 ng/mL** **Male 31 Years: 3064 – 5974 ng/mL** **Male 32 Years: 3046 – 5955 ng/mL** **Male 33 Years: 3026 – 5937 ng/mL** **Male 34 Years: 3004 – 5919 ng/mL** **Male 35 Years: 2981 – 5902 ng/mL** **Male 36 Years: 2956 – 5886 ng/mL** **Male 37 Years: 2930 – 5871 ng/mL** **Male 38 Years: 2903 – 5858 ng/mL** **Male 39 Years: 2875 – 5848 ng/mL** **Male 40 Years: 2846 – 5839 ng/mL** **Male 41 Years: 2817 – 5832 ng/mL** **Male 42 Years: 2787 – 5828 ng/mL** **Male 43 Years: 2757 – 5826 ng/mL** **Male 44 Years: 2726 – 5827 ng/mL**	12/19/23

(continued on page 16)

Test Changes (Cont.)

Test Name	Order Code	Change	Effective Date
Insulin-Like Growth Factor Binding Protein-3 *(continued from page 15)*	IGFBP3	**Male 45 Years: 2696 – 5829 ng/mL** **Male 46 Years: 2666 – 5835 ng/mL** **Male 47 Years: 2637 – 5845 ng/mL** **Male 48 Years: 2609 – 5860 ng/mL** **Male 49 Years: 2584 – 5881 ng/mL** **Male 50 Years: 2560 – 5904 ng/mL** **Male 51 Years: 2534 – 5923 ng/mL** **Male 52 Years: 2504 – 5933 ng/mL** **Male 53 Years: 2468 – 5927 ng/mL** **Male 54 Years: 2427 – 5906 ng/mL** **Male 55 Years: 2382 – 5874 ng/mL** **Male 56 Years: 2336 – 5836 ng/mL** **Male 57 Years: 2291 – 5795 ng/mL** **Male 58 Years: 2248 – 5756 ng/mL** **Male 59 Years: 2208 – 5722 ng/mL** **Male 60 Years: 2172 – 5694 ng/mL** **Male 61 Years: 2142 – 5677 ng/mL** **Male 62 Years: 2116 – 5668 ng/mL** **Male 63 Years: 2093 – 5663 ng/mL** **Male 64 Years: 2069 – 5657 ng/mL** **Male 65 Years: 2044 – 5645 ng/mL** **Male 66 Years: 2016 – 5625 ng/mL** **Male 67 Years: 1985 – 5597 ng/mL** **Male 68 Years: 1952 – 5562 ng/mL** **Male 69 Years: 1917 – 5521 ng/mL** **Male 70 Years: 1879 – 5472 ng/mL** **Male 71 Years: 1839 – 5416 ng/mL** **Male 72 Years: 1796 – 5349 ng/mL** **Male 73 Years: 1750 – 5272 ng/mL** **Male 74 Years: 1701 – 5182 ng/mL** **Male 75 Years: 1649 – 5084 ng/mL** **Male 76 Years: 1595 – 4979 ng/mL** **Male 77 Years: 1542 – 4871 ng/mL** **Male 78 Years: 1489 – 4761 ng/mL** **Male 79 Years to 999 Years: 1436 – 4651 ng/mL** **Female 0 Years to 1 Years: 1086 – 3146 ng/mL** **Female 1 Year: 1228 – 3352 ng/mL** **Female 2 Years: 1420 – 3752 ng/mL** **Female 3 Years: 1614 – 4136 ng/mL** **Female 4 Years: 1810 – 4505 ng/mL** **Female 5 Years: 2007 – 4860 ng/mL** **Female 6 Years: 2203 – 5202 ng/mL** **Female 7 Years: 2397 – 5535 ng/mL** **Female 8 Years: 2588 – 5858 ng/mL** **Female 9 Years: 2774 – 6172 ng/mL** **Female 10 Years: 2951 – 6474 ng/mL** **Female 11 Years: 3116 – 6761 ng/mL** **Female 12 Years: 3264 – 7031 ng/mL** **Female 13 Years: 3392 – 7282 ng/mL** **Female 14 Years: 3501 – 7512 ng/mL** **Female 15 Years: 3589 – 7720 ng/mL** **Female 16 Years: 3658 – 7905 ng/mL** **Female 17 Years: 3705 – 8065 ng/mL** **Female 18 Years: 3734 – 8198 ng/mL** **Female 19 Years: 3745 – 8302 ng/mL** **Female 20 Years: 3739 – 8374 ng/mL** **Female 21 Years: 3718 – 8413 ng/mL** **Female 22 Years: 3684 – 8418 ng/mL** **Female 23 Years: 3638 – 8394 ng/mL** **Female 24 Years: 3583 – 8342 ng/mL** **Female 25 Years: 3521 – 8265 ng/mL** **Female 26 Years: 3454 – 8167 ng/mL** **Female 27 Years: 3386 – 8055 ng/mL** **Female 28 Years: 3319 – 7934 ng/mL** **Female 29 Years: 3255 – 7808 ng/mL** **Female 30 Years: 3195 – 7681 ng/mL** *(continued on page 17)*	12/19/23

Test Changes (Cont.)

Test Name	Order Code	Change	Effective Date
Insulin-Like Growth Factor Binding Protein-3 *(continued from page 16)*	IGFBP3	**Reference Range (continued):** **Female 31 Years: 3140 – 7552 ng/mL** **Female 32 Years: 3088 – 7422 ng/mL** **Female 33 Years: 3041 – 7292 ng/mL** **Female 34 Years: 2998 – 7165 ng/mL** **Female 35 Years: 2960 – 7043 ng/mL** **Female 36 Years: 2925 – 6929 ng/mL** **Female 37 Years: 2895 – 6826 ng/mL** **Female 38 Years: 2869 – 6734 ng/mL** **Female 39 Years: 2846 – 6652 ng/mL** **Female 40 Years: 2825 – 6580 ng/mL** **Female 41 Years: 2804 – 6517 ng/mL** **Female 42 Years: 2785 – 6460 ng/mL** **Female 43 Years: 2765 – 6408 ng/mL** **Female 44 Years: 2744 – 6358 ng/mL** **Female 45 Years: 2723 – 6306 ng/mL** **Female 46 Years: 2700 – 6252 ng/mL** **Female 47 Years: 2677 – 6198 ng/mL** **Female 48 Years: 2654 – 6145 ng/mL** **Female 49 Years: 2633 – 6096 ng/mL** **Female 50 Years: 2614 – 6052 ng/mL** **Female 51 Years: 2598 – 6017 ng/mL** **Female 52 Years: 2588 – 5994 ng/mL** **Female 53 Years: 2583 – 5989 ng/mL** **Female 54 Years: 2585 – 6000 ng/mL** **Female 55 Years: 2590 – 6021 ng/mL** **Female 56 Years: 2594 – 6044 ng/mL** **Female 57 Years: 2594 – 6059 ng/mL** **Female 58 Years: 2587 – 6061 ng/mL** **Female 59 Years: 2574 – 6049 ng/mL** **Female 60 Years: 2556 – 6026 ng/mL** **Female 61 Years: 2535 – 5997 ng/mL** **Female 62 Years: 2512 – 5963 ng/mL** **Female 63 Years: 2488 – 5927 ng/mL** **Female 64 Years: 2465 – 5891 ng/mL** **Female 65 Years: 2444 – 5855 ng/mL** **Female 66 Years: 2425 – 5822 ng/mL** **Female 67 Years: 2408 – 5791 ng/mL** **Female 68 Years: 2391 – 5761 ng/mL** **Female 69 Years: 2374 – 5728 ng/mL** **Female 70 Years: 2355 – 5692 ng/mL** **Female 71 Years: 2333 – 5652 ng/mL** **Female 72 Years: 2308 – 5608 ng/mL** **Female 73 Years: 2281 – 5562 ng/mL** **Female 74 Years: 2252 – 5514 ng/mL** **Female 75 Years: 2220 – 5464 ng/mL** **Female 76 Years: 2187 – 5412 ng/mL** **Female 77 Years: 2151 – 5357 ng/mL** **Female 78 Years: 2114 – 5300 ng/mL** **Female 79 Years: 2076 – 5239 ng/mL** **Female 80 Years to 999 Years: 2038 – 5177 ng/mL** **Days Performed: Mon–Fri**	12/19/23
LC-MS/MS Thyroglobulin measurement for Thyroglobulin Antibody Interference	TGMSMS	**Specimen Requirement:** 1.5 mL serum from serum separator (Gold) tube; Refrigerated; Separate from cells and transfer into standard aliquot tube. *OR* 1.5 mL plasma from sodium or lithium heparin (Green) tube; Refrigerated; Separate from cells and transfer into standard aliquot tube. *OR* **1.5 mL plasma from EDTA (Lavender) tube; Refrigerated; Separate from cells and transfer into standard aliquot tube.** **Reported: 3**–7 days	11/13/23
Lupus Anticoagulant Diagnostic Interpretive Panel	LUPUSP	For interfaced clients only – Test build may need to be modified. An IT Analyst will contact affected clients with build change details.	12/19/23
Opiates Confirmation, Quantitation Serum/ Plasma	OPISEC	**Reported:** 2–**7** days	11/13/23

Test Changes (Cont.)

Test Name	Order Code	Change	Effective Date
Phosphatidylethanol (PEth)	PETH	**For interface clients only–Test build may need to be modified** **Includes:** PEth 16:0/18.1 (POPEth) PEth 16:0/18.2 (PLPEth) EER Peth **PEth Interpretation** **Clinical Information: This test** may be helpful in monitoring alcohol abstinence.	11/13/23
Platelet Neutralization	PLTNEU	For interfaced clients only – Test build may need to be modified. An IT Analyst will contact affected clients with build change details.	12/19/23
Prenatal Quad Screen	QUAD4	**CPT:** 81511	11/9/23
Protein S Clottable	PRSCLT	For interfaced clients only – Test build may need to be modified. An IT Analyst will contact affected clients with build change details.	12/19/23
PTT Incubated Mixing Study	PTTIM	For interfaced clients only – Test build may need to be modified. An IT Analyst will contact affected clients with build change details.	12/19/23
Stool Gastrointestinal Panel (In-house) by PCR	STGIPI	**Clinical Information: This test is the FDA-cleared The BioFire FilmArray Gastrointestinal (GI) Panel, which uses PCR to detect the presence or absence of more than 20 potential pathogens that can cause gastroenteritis. Please note that C. difficile is not included in this panel, and testing can be requested separately (CDPCR) if clinically appropriate.** **Included targets:** **Campylobacter (C. jejuni / C. coli / C. upsaliensis)** **Plesiomonas shigelloides** **Salmonella** **Yersinia enterocolitica** **Vibrio (V. parahaemolyticus / V. vulnificus / V. cholerae)** **Vibrio cholerae** **Enteroaggregative E. coli (EAEC)** **Enteropathogenic E. coli (EPEC)** **Enterotoxigenic E. coli (ETEC)** **Shiga-like toxin-producing E. coli (STEC)** **Shigella/Enteroinvasive E. coli (EIEC)** **Cryptosporidium** **Cyclospora cayetanensis** **Entamoeba histolytica** **Giardia lamblia** **Adenovirus F40/41** **Astrovirus** **Norovirus** **Rotavirus** **Sapovirus** **Days Performed:** 7 days a week **24 hours** **Reported: 8 hours**	12/19/23
T4, Free	FT4	**Special Information:** *Biotin comments have been removed*	12/12/23
Testosterone, Total and Free, Serum	TFTEST	**Specimen Requirement:** 2.5 mL serum from no additive (Red) tube; Refrigerated; Do NOT draw serum gel tubes. **Separate serum from cells and transfer to standard aliquot tube.**	effective immediately
THC Metabolite, Serum/Plasma, Qt	THCMET	**Methodology: Liquid Chromatography-Tandem Mass Spectrometry (LC-MS/MS)** **Days Performed:** Sun**, Tue, Thu, Fri** **Reported:** 2–**6** days	11/13/23
Thyroxine, Fr by Eq Dialysis/HPLC-TndmMS	T4HPLC	**Special Information: Plasma specimens will be rejected. This test is New York DOH approved.** **Clinical Information: This test is not recommended for routine evaluation of thyroid disorders. Some medications may induce transient changes in FT4 concentrations. This test is not recommended for patients currently on heparin treatment as FT4 concentrations may be falsely elevated.** **Reported:** 3–**7** days	11/13/23

Test Changes (Cont.)

Test Name	Order Code	Change	Effective Date
Vitamin B2	VITB2	**Special Information:** Serum, whole blood, body fluids, EDTA preserved tubes, and hemolyzed or lipemic specimens are not acceptable. Protect specimen from light during collection, storage and shipment. **Separate specimens must be submitted when multiple tests are ordered.** This test is New York DOH approved. **Specimen Requirement:** 1 mL plasma from sodium or lithium heparin (Green) tube; Frozen; Protect specimen from light during collection, storage and shipment. Separate plasma from cells within 1 hour of collection and transfer to amber transport tube. **Separate specimens must be submitted when multiple tests are ordered.** *OR* 1 mL plasma from lithium heparin plasma separator (Light Green) tube; Frozen; Protect specimen from light during collection, storage and shipment. Separate plasma from cells within 1 hour of collection and transfer to amber transport tube. **Separate specimens must be submitted when multiple tests are ordered.** *OR* 1 mL plasma from sodium heparin plasma separator (Light Green) tube; Frozen; Protect specimen from light during collection, storage and shipment. Separate plasma from cells within 1 hour of collection and transfer to amber transport tube. **Separate specimens must be submitted when multiple tests are ordered.**	effective immediately
Vitamin B6	VITB6	**Special Information:** Collect specimen after an overnight fast. Whole blood will be rejected. Specimens not protected from light, or icteric specimens are unacceptable. **Separate specimens must be submitted when multiple tests are ordered.** This test is New York DOH approved. **Specimen Requirement:** 1 mL plasma from sodium or lithium heparin (Green) tube; Place specimen on ice after draw. Transport Frozen; Collect after an overnight fast. Separate plasma from cells within 1 hour of collection and freeze. Protect specimen from light. Use amber transport tubes. **Separate specimens must be submitted when multiple tests are ordered.** *OR* 1 mL plasma from lithium heparin plasma separator (Light Green) tube; Place specimen on ice after draw. Transport Frozen; Collect after an overnight fast. Separate plasma from cells within 1 hour of collection and freeze. Protect specimen from light. Use amber transport tubes. **Separate specimens must be submitted when multiple tests are ordered.** *OR* 1 mL serum from no additive (Red); Place specimen on ice after draw. Transport Frozen; Collect after an overnight fast. Separate serum from cells within 1 hour of collection and freeze. Protect specimen from light. Use amber transport tubes. **Separate specimens must be submitted when multiple tests are ordered.** *OR* 1 mL plasma from sodium heparin plasma separator (Light Green) tube; Place specimen on ice after draw. Transport Frozen; Collect after an overnight fast. Separate plasma from cells within 1 hour of collection and freeze. Protect specimen from light. Use amber transport tubes. **Separate specimens must be submitted when multiple tests are ordered.** *OR* 1 mL plasma from EDTA (Lavender) tube; Place specimen on ice after draw. Transport Frozen; Collect after an overnight fast. Separate plasma from cells within 1 hour of collection and freeze. Protect specimen from light. Use amber transport tubes. **Separate specimens must be submitted when multiple tests are ordered.** *OR* 1 mL serum from serum separator (Gold) tube; Place specimen on ice after draw. Transport Frozen; Collect after an overnight fast. Separate serum from cells within 1 hour of collection and freeze. Protect specimen from light. Use amber transport tubes. **Separate specimens must be submitted when multiple tests are ordered.**	effective immediately

Test Changes (Cont.)

Test Name	Order Code	Change	Effective Date
Warfarin Sensitivity (CYP2C9, CYP2C cluster, CYP4F2, VKORC1) Genotyping	WRFSEN	**For interface clients only–Test build may need to be modified** **Includes:** CYP2C9 Genotype **CYP2C9 Phenotype** CYP2C Cluster Genotype CYP2C Cluster Phenotype CYP4F2 Genotype CYP4F2 Phenotype VKORC1 Genotype VKORC1 Phenotype Interpretation **EER Warfarin Sensitivity Genotyping** **Special Information:** Plasma, serum and frozen specimens in glass collection tubes will be rejected. Whole blood is the preferred specimen. Saliva samples that yield inadequate DNA quality and/or quantity will be reported as inconclusive if test performance does not meet laboratory-determined criteria for reporting. **This test is New York DOH approved.** **Clinical Information:** Only the targeted CYP2C9, CYP2C cluster, CYP4F2, and VKORC1 variants will be detected by this panel, and assumptions about phase and content are made to assign alleles. Publicly available sources such as the www.pharmvar.org or www.pharmgkb.org provide guidance on phenotype predictions and allele frequencies. Diagnostic errors can occur due to rare sequence variations. Risk of therapeutic failure or adverse reactions with CYP2C9 substrates may be affected by genetic and nongenetic factors that are not detected by this test. This result does not replace the need for therapeutic drug or clinical monitoring.	11/13/23
Zika Virus IgM Antibody Capture (MAC), by ELISA	ZKAIGM	**For interface clients only–Test build may need to be modified** **Special Information:** Parallel testing is preferred and convalescent specimens must be received within 30 days from receipt of the acute specimens. Label specimens plainly as 'acute' or 'convalescent,' and submit Patient History for Zika Virus testing form with the specimen. Contaminated, heat-inactivated, hemolyzed, lipemic, or turbid specimens are unacceptable. This test is New York DOH approved. **Clinical Information: Use for patients whose symptoms began, or whose documented exposure occurred, ≥14 days prior to testing. Use as follow-up for patients with negative serum and urine results from molecular testing performed <14 days after symptom onset.** **Days Performed:** Mon, Fri	11/13/23

New Tests

Test Name	Order Code	Change	Effective Date
Adalimumab, Serum	ADALIM	**Special Information:** Patients taking a biotin dose greater than 5 mg/day should refrain from taking biotin for at least 24 hours. Clinicians should consider biotin interference as a source of error, when clinically suspicious of the laboratory result. **Clinical Limitation:** Adalimumab drug levels greater than 10 ug/mL may result in falsely-decreased adalimumab anti-drug antibody levels. **Clinical Information:** Trough free adalimumab level and total (free and bound) anti-drug antibody levels for patients undergoing therapy with adalimumab and -atto. Draw just prior to scheduled dose. In adults with active IBD treated with anti-TNF agents, the AGA suggests reactive therapeutic drug monitoring to guide treatment changes. Reference ranges and high/low indicator flags are provided as general guidelines only. The treating physician must determine appropriate target levels/dosing based on the specific clinical situation. **Specimen Requirement:** 1 mL serum from serum separator (Gold) tube; Minimum 0.5 mL; Refrigerated *OR* 1 mL serum from no additive (Red) tube; Minimum 0.5 mL; Refrigerated **Stability:** Ambient: 7 Days Refrigerated: 14 Days Frozen: 60 Days **Methodology:** Enzyme-Linked Immunosorbent Assay (ELISA) **Reference Range:** Adalimumab Free Drug Level (ADATDM): >=7.5 ug/mL Adalimumab Total Anti-Drug Antibody Level (ADAADA): <10 AU/mL **Days Performed:** Mon, Thu 7:30 am–4:00 pm **Reported:** 1–4 days **CPT:** 83529; 80145	1/9/24
Allergen, Respiratory Disease Profile Region 5, with Reflex	RESP5X	**Note: New test was announced in the September update, but financial information was not available at that time** **CPT:** 86003x**28**	effective immediately
Ammonium, 24 hour, Urine	UNH424	**Special Information:** If temperature controls cannot be followed during and after collection, add preservative at the start of collection. Acceptable preservatives: Diazolidinyl Urea (Germall), 50% Acetic Acid, Boric Acid, 6M Hydrochloric Acid, or Thymol. Specimens with pH >8 may indicate bacterial contamination and testing will be cancelled. Do not attempt to adjust pH as it will adversely affect results. Record volume on sample and test request form. This test is New York DOH approved. **Clinical Limitation:** The presence of sulfasalazine, sulfapyridine, or temozolomide may lead to false results. Ammonium concentrations may be falsely low in samples with a pH above 8.0. Consider contamination and/or a urinary tract infection with a urease positive organism (including Ureaplasma urealyticum). **Clinical Information:** This test is useful for the diagnosis of the cause of acidosis and treatment of kidney stones. The kidney regulates acid excretion and systemic acid base balance. Changing the amount of ammonium in the urine is one important way the kidneys accomplish this task. Thus, measuring the urine ammonium level can provide understanding of the cause of an acid base disturbance in individual patients. The urine ammonium level can also provide a lot of information about the daily acid production in a given patient. Since most of an individual's acid load comes from ingested protein, the urine ammonium is a good indicator of dietary protein intake. High urine ammonium and low urinary pH suggest ongoing gastrointestinal losses. Such patients are at risk of uric acid and calcium oxalate stones. Low urine ammonium and high urine pH suggest renal tubular acidosis. Such patients are at risk of calcium phosphate stones. Patients with calcium oxalate and calcium phosphate stones are often treated with citrate to raise the urine citrate (a natural inhibitor of calcium oxalate and calcium phosphate crystal growth). However, citrate is metabolized to bicarbonate (a base), which can increase the urine pH. If the urine pH gets too high, the risk of calcium phosphate stones may have unintentionally been increased. Monitoring the urine ammonium concentration is one way to titrate the citrate dose and avoid this problem. A good starting citrate dose is about one-half of the urine ammonium excretion (in mEq of each). *(continued on page 22)*	11/30/23

New Tests (Cont.)

Test Name	Order Code	Change	Effective Date
Ammonium, 24 hour, Urine *(continued from page 21)*		**Clinical Information (continued):** One can monitor the effect of this dose on urine ammonium, citrate, and pH values, and adjust the citrate dose based upon the response. A fall in urine ammonium should indicate whether the current citrate is enough to partially (but not completely) counteract the daily acid load of that given patient. **Specimen Requirement:** 5 mL 24-hour (well-mixed) urine in clean container; Refrigerate during collection. Transport Refrigerated; Record total volume and collection time interval on sample and test request form. **Stability:** Ambient: 72 hours Refrigerated: 14 days (preferred) Frozen: 14 days **Methodology:** Enzymatic **Reference Range:** 15-56 mmol/24 hour Reference values have not been established for patients <18 years and >77 years of age. Reference values apply to 24 hour collections. **Days Performed:** Sun–Sat **Reported:** 1–3 days	
Ammonium, Random, Urine	UNH4RDM	**Special Information:** All specimens will be evaluated for test suitability. This test is New York DOH approved. **Clinical Limitation:** The presence of sulfasalazine, sulfapyridine, or temozolomide may lead to false results. Ammonium concentrations may be falsely low in samples with a pH above 8.0. Consider contamination and/or a urinary tract infection with a urease positive organism (including Ureaplasma urealyticum). **Clinical Information:** This test is useful for the diagnosis of the cause of acidosis and treatment of kidney stones. The kidney regulates acid excretion and systemic acid base balance. Changing the amount of ammonium in the urine is one important way the kidneys accomplish this task. Thus, measuring the urine ammonium level can provide understanding of the cause of an acid base disturbance in individual patients. The urine ammonium level can also provide a lot of information about the daily acid production in a given patient. Since most of an individual's acid load comes from ingested protein, the urine ammonium is a good indicator of dietary protein intake. High urine ammonium and low urinary pH suggest ongoing gastrointestinal losses. Such patients are at risk of uric acid and calcium oxalate stones. Low urine ammonium and high urine pH suggest renal tubular acidosis. Such patients are at risk of calcium phosphate stones. Patients with calcium oxalate and calcium phosphate stones are often treated with citrate to raise the urine citrate (a natural inhibitor of calcium oxalate and calcium phosphate crystal growth). However, citrate is metabolized to bicarbonate (a base), which can increase the urine pH. If the urine pH gets too high, the risk of calcium phosphate stones may have unintentionally been increased. Monitoring the urine ammonium concentration is one way to titrate the citrate dose and avoid this problem. A good starting citrate dose is about one-half of the urine ammonium excretion (in mEq of each). One can monitor the effect of this dose on urine ammonium, citrate, and pH values, and adjust the citrate dose based upon the response. A fall in urine ammonium should indicate whether the current citrate is enough to partially (but not completely) counteract the daily acid load of that given patient. **Specimen Requirement:** 4 mL random urine in clean container; Minimum 1 mL; Refrigerated **Stability:** Ambient: 72 hours Refrigerated: 14 days (preferred) Frozen: 14 days **Methodology:** Enzymatic **Reference Range:** Random: 3-65 mmol/L No reference values established for <18 years and >77 years of age. **Days Performed:** Sun–Sat **Reported:** 1–3 days	11/30/23

New Tests (Cont.)

Test Name	Order Code	Change	Effective Date
Asparaginase Enzyme Activity	ASNASE	**Note:** *Orders will be restricted to pediatric hematology/oncology providers for inpatients and outpatients.* **Includes:** Asparaginase Activity **Special Information:** Shipping kits with sample submission forms are stored in Main Campus Send Outs laboratory. Record the sample date and time of collection on the sample submission form as well as the time and date of the most recent asparaginase administration. **Clinical Information:** Lower limit of quantitation is 0.013 IU/mL. This test is useful in determining asparaginase activity present during treatment and identifying patients with hypersensitivity to asparaginase. **Specimen Requirement:** 1 mL serum from serum separator (Gold) tube; Minimum 0.3 mL; Refrigerated; Record time and date of most recent asparaginase administration. Immediately after collection, invert tube gently five times then allow specimen to clot for 30 to 60 minutes. Centrifuge, then use a disposable pipette to transfer 1 mL serum to standard aliquot tube. *OR* 1 mL serum from no additive (Red) tube; Minimum 0.3 mL; Refrigerated; Record time and date of most recent asparaginase administration. Allow specimen to clot for 30 to 60 minutes. Centrifuge, then use a disposable pipette to transfer 1 mL serum to standard aliquot tube. **Stability:** Ambient: 7 days Refrigerated: 14 days Frozen: 3 years **Methodology:** Coupled enzymatic assay **Days Performed:** Mon–Fri **Reported:** 1–3 days	11/30/23
Drug Detection Panel, Umbilical Cord Tissue, with Marijuana Metabolite	DTOFMP	**Includes:** Buprenorphine Codeine Dihydrocodeine Fentanyl Hydrocodone Hydromorphone Meperidine Methadone Methadone metabolite 6-Acetylmorphine Morphine Naloxone Oxycodone Oxymorphone Propoxyphene Tapentadol Tramadol N-desmethyltramadol O-desmethyltramadol Amphetamine Benzoylecgonine m-OH-Benzoylecgonine Cocaethylene Cocaine MDMA (Ecstasy) Methamphetamine Phentermine Alprazolam Alpha-OH-Alprazolam Butalbital Clonazepam 7-Aminoclonazepam Diazepam Lorazepam Midazolam Alpha-OH-Midazolam *(continued on page 24)*	11/9/23

New Tests (Cont.)

Test Name	Order Code	Change	Effective Date
Drug Detection Panel, Umbilical Cord Tissue, with Marijuana Metabolite *(continued from page 23)*	DTOFMP	**Includes (continued):** Nordiazepam Oxazepam Phenobarbital Temazepam Zolpidem Phencyclidine (PCP) Norbuprenorphine Norhydrocodone Noroxycodone Noroxymorphone THC-COOH Gabapentin **Special Information:** Cords soaking in blood or other fluids will be rejected. Formalin-fixed specimens or tissue that is obviously decomposed will not be accepted. This test is New York DOH approved. **Clinical Information:** Detection of drugs in umbilical cord tissue is intended to reflect maternal drug use during approximately the last trimester of a full term pregnancy. The pattern and frequency of drug(s) used by the mother cannot be determined by this test. A negative result does not exclude the possibility that a mother used drugs during pregnancy. Detection of drugs in umbilical cord tissue depends on extent of maternal drug use, as well as drug stability, unique characteristics of drug deposition in umbilical cord tissue, and the performance of the analytical method. Drugs administered during labor and delivery may be detected. Detection of drugs in umbilical cord tissue does not insinuate impairment and may not affect outcomes for the infant. **Specimen Requirement:** At least 8 inches of umbilical cord (approximately the width of a sheet of paper). Drain and discard any blood. Rinse the exterior of the cord segment with normal saline or water. Pat the cord dry and transport at least 8 inches of umbilical cord in a routine urine collection cup or use the Security Kit for Meconium/Umbilical Drug Detection (ARUP supply #51548). NOTE: Only a single sample is required. **Minimum:** 8 inches (Absolute minimum) **Stability:** Ambient: 1 week Refrigerated: 3 weeks Frozen: 1 year **Methodology:** Liquid Chromatography-Tandem Mass Spectrometry (LC-MS/MS) **Reference Range:** **Days Performed:** Sun–Sat **Reported:** 2–5 days	11/9/23
Infliximab, Serum	INFLIX	**Note: New test was announced in the October update, but financial information was not available at that time. Component names and reference range have been modified.** **Reference Range:** Infliximab **Total** Drug Level (IFXTDM): **>=5** ug/mL Infliximab **Total Anti-Drug** Antibody Level (IFXADA): <10 AU/mL **CPT:** 80230; 80307	11/9/23

Discontinued Tests

Test Name	Order Code	Test Information	Effective Date
Adalimumab Activity and Neutralizing Antibody	ADANEU	Test will no longer be orderable. Recommended replacement test is Adalimumab, Serum (ADALIM).	1/9/24
Campylobacter Culture	CAMPY	Test will no longer be orderable. Recommended replacement test is Enteric Bacterial Panel by PCR (STLPCR).	12/19/23
Influenza A Antibody	INFLUA	Test will no longer be orderable. Recommended replacement test is COVID & Influenza A/B NAAT, Routine (COVFLU).	11/13/23
Influenza B Antibody	INFLUB	Test will no longer be orderable. Recommended replacement test is COVID & Influenza A/B NAAT, Routine (COVFLU).	11/13/23
Lyme Reflex Panel, CSF	LYMCSF	Test will no longer be orderable. Recommended replacement test is Borrelia burgdorferi VlsE1/pepC10 Antibodies, CSF, Total by ELISA With Reflex to IgM and IgG by Immunoblot (Standard Two-Tier Testing, CSF) [BBURGM].	11/13/23
Vibrio Culture	VIBCUL	Test will no longer be orderable. Recommended replacement test is Stool Gastrointestinal Panel (In-house) by PCR (STGIPI).	12/19/23
Vitamin B12 Binding Capacity	B12BIN	Test will no longer be orderable. There is no recommended replacement.	effective immediately
Yersinia Culture	YERCUL	Test will no longer be orderable. Recommended replacement test is Stool Gastrointestinal Panel (In-house) by PCR (STGIPI).	12/19/23