



Technical Update • April 2014

Cleveland Clinic Laboratories is dedicated to keeping you updated and informed about recent testing changes. That's why we are happy to provide this technical update on a monthly basis.

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

If you wish to compare the new information with previous test demographics, refer to the Test Directory, which can be accessed at clevelandcliniclabs.com.

Deleted tests and new tests are listed separately. 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	Billing Code	Name Change	New Test	Test Discontinued	Special Information	Specimen Requirement	Component Change	Days Performed/Reported	Reference Range	Methodology	CPT	Fee
12	5-Methyltetrahydrofolate													
4	Aldosterone													
4	Aldosterone / Renin Activity Ratio													
4	Aldosterone Suppression													
4, 12	Aldosterone, Urine													
4	Aldosterone, Urine 24 Hour													
5, 12	Allergen, Yeast (Bakers/Brewers) IgG													
5	Alpha Thalassemia Gene Deletion													
5	Anti Mullerian Hormone													
5, 12	Baclofen													
5	Bartonella henselae Antibodies													
5	B-Cell Clonality Using BIOMED-2 PCR Primers													
5	BCL 2 mbr (PCR)													
5	BCR/ABL Kinase Domain Mutation Analysis													
5	BCR/ABL p190 RT-PCR, Quantitative													
5	BCR/ABL p210 RTPCR Quantitative													
5	BRAF V600E Sequencing													
5	Catecholamines, Urine 24 Hour													
5	CEBPA Mutation Analysis													
5	Chromosomal Microarray SNP, Constitutional													
5	Clonazepam													
5	Clostridium difficile Toxin by PCR													

Test Update Page #	Summary of Changes by Test Name	Order Code	Billing Code	Name Change	New Test	Test Discontinued	Special Information	Specimen Requirement	Component Change	Methodology	Reference Range	Days Performed/Reported	CPT	Fee
5, 12	Colchicine Level													
6	Coxsackie B Antibodies													
6	Cryptosporidia Examination													
6	Cystic Fibrosis (ACOG Panel)													
6	Cyto P450 2C19 Genotype for Clopidogrel Therapy													
6, 12	Dilute Russell Viper Venom Test													
12	Diphenhydramine, Urine													
6	DNA Fingerprinting													
6	EGFR Mutation Analysis, Cell Pellet													
6	EGFR Mutation Analysis, Tissue													
6	Factor V Leiden													
6	Familial Mediterranean Fever, Complete													
12	Fluoride													
12	Fragile X Syndrome DNA Analysis													
11	Fragile X Syndrome DNA Analysis by PCR, Blood													
6, 12	Giardia Antigen, Stool EIA													
6	Gliadin (Deamidated) IgA Antibody													
6	Gliadin (Deamidated) IgG Antibody													
6	Heavy Metal Demographics													
6	Hepatitis D Virus RNA, PCR													
6	Herpes Simplex by PCR													
3	Her2													
6	HFE (Hemochromatosis)													
6, 12	HLA-A													
7	HLA-B													
7	Human Anti-Mouse IgG Antibodies													
7	Human Erythrocyte Antigen													
7	Immune Function Assay ATP													
7	Immunoglobulin Heavy Chain Using Biomed-2 PCR Primers													
7	Immunoglobulin Kappa Chain using Biomed-2 PCR Primers													
7	JAK2 V617F Mutation Detection													
7	Ketamine & Metabolite, Serum/Plasma													
12	Ketorolac													
7	Ketones, Serum													
7	KRAS Mutation Analysis													
7	Lacosamide													
12	Lindane													
12	LSD, Urine													
12	Methazolamide													
12	Methylparathion													
7	MGMT Methylation													
7	Microsporidia Examination													
7	MSI (PCR) x2													
7	MSI (PCR) x3													

Test Update Page #	Summary of Changes by Test Name	Order Code	Billing Code	Name Change	New Test	Specimen Information	Component Requirement	Reference Change	Days Performed/Reported	CPT	Fee
8, 12	MYD88 L265P Mutation Analysis										
11	Myelin Antibody IgG, IFA										
12	Myelin Basic Protein Autoantibodies, Serum										
12	Neopterin, CSF										
11	Neutrophil Activity NBT										
12	Neutrophil Activity Panel										
11	Neutrophil Activity SOD										
8	NMR LipoProfile										
8	Nucleophosmin Gene (NPM1) Mutation										
8	Ova & Parasite Examination										
8	Oxalate, Urine 24 Hour										
12	Phenylpropanolamine										
9	PLA 1/2 by PCR										
9	PML/RARA RTPCR										
9, 12	Prolactin										
9	Prothrombin Gene Mutation										
9	Reticulin Antibody IgG with Reflex to Titer										
9	RHCE Variant Antigen										
9	RHD Variant Antigen										
12	Rufinamide										
9	Silver, Urine										
9, 12	Succinyladenosine, CSF										
9	T-Cell Clonality using Biomed-2 PCR Primers										
9	T-Cell Receptor Beta Biomed-2 PCR										
9	TCR-G (PCR)										
12	Tetrahydrobiopterin & Neopterin, CSF										
9	Toxicology Screen, Urine										
12	Tranylcypromine										
9-10, 12	VAP										
11	Warfarin Sensitivity Genotyping										
11	Zinc, Whole Blood										

Her2 Guidelines Updated for Breast Cancer Testing

Effective Mon., Apr. 7, 2014, Cleveland Clinic's Robert J. Tomsich Pathology & Laboratory Medicine will begin reporting Her2 status in breast carcinoma according to new guidelines from The American Society of Clinical Oncology/College of American Pathologists (ASCO/CAP)(1). The ASCO/CAP states that Her2 status must be determined in all patients with invasive breast cancer. Additionally, the guidelines for both interpretation of the immunohistochemical and fluorescence in situ hybridization testing have modified the cutoff values for negative, positive and equivocal results. Other changes include modification of the pre-analytic variables guidelines such as recommended length of fixation.

Wolf, AC, et al: Recommendations for human epidermal group factor receptor 2 testing in breast cancer: American Society of Clinical Oncology/College of American Pathologists Clinical Practice Guideline Update. (J Clin Oncol. 2013. 31 (31): 3997-4013.

Test Changes

Test Name	Order Code	Billing Code	Change	Effective Date
Aldosterone	ALDO	75996	Test Name: Previously Aldosterone, Plasma Special Information: If specimen is collected in upright position, patient should be seated or standing for at least 2 hours prior to collection. Upright specimen should be obtained before noon. If specimen collected in supine position, patient should be in supine position for at least 2 hours prior to collection. Supine specimen should be obtained between 8 a.m. to 10 a.m. Specimen Requirement: 1 mL serum from a serum separator tube; Frozen Methodology: Chemiluminescence Immunoassay (CLIA) Reference Range: (ng/dL) 0 - 30 days: Not established 1 - 12 months: 5.8 - 110.0 1 - 5 years: < 36.0 6 - 9 years: < 24.0 10 - 11 years: < 15.0 12 - 14 years: < 22.0 15 - 17 years: 3.0 - 32.0 18 - 99 years: 3.1 - 35.4 Supine: ≤ 23.0 ng/dL (applies to all age ranges) Days Performed: Tuesday, Friday Reported: 2 - 6 days	5/12/2014
Aldosterone / Renin Activity Ratio	ALDREN	89389	Special Information: If specimen is collected in upright position, patient should be seated or standing for at least 2 hours prior to collection. Upright specimen should be obtained before noon. If specimen collected in supine position, patient should be in supine position for at least 2 hours prior to collection. Supine specimen should be obtained between 8 a.m. to 10 a.m. Methodology: Chemiluminescence Immunoassay (CLIA), Radioimmunoassay (RIA) Reference Range: Aldosterone: 0 - 30 days: Not established 1 - 12 months: 5.8 - 110.0 1 - 5 years: < 36.0 6 - 9 years: < 24.0 10 - 11 years: < 15.0 12 - 14 years: < 22.0 15 - 17 years: 3.0 - 32.0 18 - 99 years: 3.1 - 35.4 Supine: ≤ 23.0 ng/dL (applies to all age ranges) Aldosterone / Renin Ratio: < 20 Days Performed: Tuesday, Friday Reported: 2 - 7 days	5/12/2014
Aldosterone Suppression	ALDOSU	82448	Special Information: If specimen is collected in upright position, patient should be seated or standing for at least 2 hours prior to collection. Upright specimen should be obtained before noon. If specimen collected in supine position, patient should be in supine position for at least 2 hours prior to collection. Supine specimen should be obtained between 8 a.m. to 10 a.m. Days Performed: Tuesday, Friday Reported: 2 - 5 days	5/12/2014
Aldosterone, Urine	UALD01	81369	Special Information: Dissolve one gram of boric acid in each 100 mL of urine. Methodology: Chemiluminescence Immunoassay (CLIA) Days Performed: Monday, Thursday Reported: 1 - 5 days	5/12/2014
Aldosterone, Urine 24 Hour	UALDOS	193	Special Information: Dissolve one gram of boric acid in each 100 mL of urine. Methodology: Chemiluminescence Immunoassay (CLIA), Enzymatic	5/12/2014

Test Changes (cont.)

Test Name	Order Code	Billing Code	Change	Effective Date
Allergen, Yeast (Bakers/Brewers) IgG	YEAIGG	89478	For Interfaced clients only, test build may need to be modified for this test	4/14/2014
Alpha Thalassemia Gene Deletion	ATHALS	84123	CPT: 81257, G0452	4/1/2014
Anti Mullerian Hormone	MULLER	84474	Days Performed: Sunday - Saturday Reported: 2 - 4 days	5/15/2014
Baclofen	BACLOF	80369	Specimen Requirement: 1 mL serum from a red top tube; Do not use serum separator tubes; Refrigerated Methodology: Liquid Chromatography - Tandem Mass Spectrometry (LC-MS/MS) Reference Range: Refer to report Days Performed: Varies Reported: 4 - 10 days	4/17/2014
Bartonella henselae Antibodies	CATSC	76528	Specimen Requirement: 1 mL serum from a serum separator tube; Separate serum from cells ASAP or within 2 hours of collection; Refrigerated Days Performed: Monday, Thursday Reported: 2 - 9 days	5/8/2014
B-Cell Clonality Using BIOMED-2 PCR Primers	BCBMD	87904	CPT: 81261, 81264, G0452x2	4/1/2014
BCL 2 mbr (PCR)	BCL2	88420	CPT: 81402, G0452	4/1/2014
BCR/ABL Kinase Domain Mutation Analysis	KINASE	84529	CPT: 81403, G0452	4/1/2014
BCR/ABL p190 RT-PCR, Quantitative	190PCR	88885	CPT: 81207, G0452	4/1/2014
BCR/ABL p210 RTPCR Quantitative	BCRPCR	82737	CPT: 81206, G0452	4/1/2014
BRAF V600E Sequencing	BRAF	87800	CPT: 81210, G0452	4/1/2014
Catecholamines, Urine 24 Hour	UCAT24	83904	Special Information: Patients should avoid alcohol, coffee, tea, tobacco and strenuous exercise prior to collection. It is preferable for the patient to be off medications for three days prior to collection. However, common antihypertensives (diuretics, ACE inhibitors, calcium channel blockers, alpha and beta blockers) cause minimal or no interference. Days Performed: Monday - Friday Reported: 4 - 7 days	5/15/2014
CEBPA Mutation Analysis	CEBPA	89259	CPT: 81403, G0452	4/1/2014
Chromosomal Microarray SNP, Constitutional	CRMSNP	89612	CPT: 81229, G0452	4/1/2014
Clonazepam	CLONO	75018	Specimen Requirement: 2.5 mL serum from a red top tube; Do not use serum separator tubes; Refrigerated	3/21/2014
Clostridium difficile Toxin by PCR	CDPCR	87885	Special Information: Test will be performed only on liquid, non-formed stool. Formed stool samples and diapers will be rejected. Samples from patients < 1 year old will be rejected. Stool received on swabs or wooden applicator sticks will be rejected. Stool received in fixatives or preservatives will be rejected. During transport, specimens must be kept between 2 - 25°C. Protect specimens against freezing or exposure to excessive heat. Specimens may be tested after one freeze-thaw cycle.	5/20/2014
Colchicine Level	COLCH	80315	Specimen Requirement: 2 mL serum from a red top tube; Do not use serum separator tubes; Remove serum from cells ASAP; Refrigerated Methodology: Liquid Chromatography - Tandem Mass Spectrometry (LC-MS/MS) Days Performed: Wednesday Reported: 3 - 11 days CPT: 83789	4/10/2014

Test Changes (cont.)

Test Name	Order Code	Billing Code	Change	Effective Date
Coxsackie B Antibodies	COXBAB	75509	Specimen Requirement: 1 mL serum from a serum separator tube; Separate serum from cells ASAP or within 2 hours of collection ; Refrigerated Days Performed: Monday - Saturday Reported: 7 - 10 days	5/8/2014
Cryptosporidia Examination	CRYSP0	75725	CPT: 87015, 87207	5/1/2014
Cystic Fibrosis (ACOG Panel)	CFSCRN	82502	CPT: 81220, G0452	4/1/2014
Cyto P450 2C19 Genotype for Clopidogrel Therapy	2C19CL	88362	CPT: 81225, G0452	4/1/2014
Dilute Russell Viper Venom Test	DRVVT	26115	Reference Range: DRVVT Screen: 32.7 - 46.7 sec DRVVT 1:1 Mix: 32.7 - 46.7 sec DRVVT Confirm Ratio: 0.90 - 1.20	3/25/2014
DNA Fingerprinting	n/a	88422	CPT: 81265, G0452	4/1/2014
EGFR Mutation Analysis, Cell Pellet	EGFRCP	89199	CPT: 81235, G0452	4/1/2014
EGFR Mutation Analysis, Tissue	EGFRTI	89200	CPT: 88381, 81235, G0452	4/1/2014
Factor V Leiden	FVLEI	79827	CPT: 81241, G0452	4/1/2014
Familial Mediterranean Fever, Complete	FAMMED	82936	Specimen Requirement: 5 mL whole blood in an EDTA lavender top tube; Please include reason for testing ; Ambient	5/8/2014
Giardia Antigen, Stool EIA	GIAEIA	89735	Specimen Requirement: Collect stool in a sterile container; Within 1 hour of collection, transfer 5 grams stool into a sterile container containing 10% formalin ; Mix contents thoroughly until homogenous; Ambient Days Performed: Sunday - Saturday Reported: 2 - 3 days	4/17/2014
Gliadin (Deamidated) IgA Antibody	GLIIGA	88659	For Interfaced Clients Only: Test build will need to be modified	4/17/2014
Gliadin (Deamidated) IgG Antibody	GLIIGG	88660	For Interfaced Clients Only: Test build will need to be modified	4/17/2014
Heavy Metal Demographics	HMDemo	78187	For Interfaced Clients Only: Test build will need to be modified Includes: Add Child's Social Security No. All other components are unchanged	6/3/2014
Hepatitis D Virus RNA, PCR	HDPCR	88551	Special Information: This test is approved for patients residing in New York state. Days Performed: Sunday - Saturday Reported: 2 - 3 days	4/24/2014
Herpes Simplex by PCR	HSPCR	79044	Special Information: This test is not approved for patients residing in New York state. Cerebrospinal fluid (CSF) is not an acceptable specimen type for this assay. Orders for this test on CSF will be changed to Herpes Simplex Virus by PCR, CSF (HSPCRC). Please order Herpes Simplex Virus by PCR, CSF (HSPCRC) for CSF samples. Days Performed: Tuesday - Saturday Reported: 2 - 4 days	5/8/2014
HFE (Hemochromatosis)	HEMDNA	79903	CPT: 81256, G0452	4/1/2014
HLA-A	HLAA	82627	Special Information: For Research Use only; High resolution HLA typing for disease associations or initial screening prior to enrollment in a transplant program. Specimen Requirement: 4 mL whole blood in an EDTA lavender top tube: Refrigerated Methodology: Polymerase Chain Reaction, Sequencing Days Performed: Monday - Friday Reported: 7 days	4/24/2014

Test Changes (cont.)

Test Name	Order Code	Billing Code	Change	Effective Date
HLA-B	HLAB	82659	Special Information: For Research Use only; High resolution HLA typing for disease associations or initial screening prior to enrollment in a transplant program. Specimen Requirement: 4 mL whole blood in an EDTA lavender top tube; Refrigerated Methodology: Polymerase Chain Reaction, Sequencing Days Performed: Monday - Friday Reported: 7 days	4/24/2014
Human Anti-Mouse IgG Antibodies	MOUABS	80362	Specimen Requirement: 1 mL serum from a red top tube; Do not use serum separator tubes; Frozen Days Performed: Varies Reported: 8 - 18 days	3/10/2014
Human Erythrocyte Antigen	HEA	87880	CPT: 81479, G0452	4/1/2014
Immune Function Assay ATP	IMMFUN	82662	Specimen Requirement: 3 mL whole blood in a sodium heparin green top tube; Specimen must be collected AFTER 6 am and received at Cleveland Clinic Laboratories on the day of collection by 12:00 noon Monday - Friday; DO NOT collect the day before or after a major holiday; Critical Ambient	4/24/2014
Immunoglobulin Heavy Chain Using Biomed-2 PCR Primers	IGHPCR	88430	CPT: 81261, G0452	4/1/2014
Immunoglobulin Kappa Chain using Biomed-2 PCR Primers	IGKPCR	88431	CPT: 81264, G0452	4/1/2014
JAK2 V617F Mutation Detection	JAK2	88427	CPT: 81270, G0452	4/1/2014
Ketamine & Metabolite, Serum/Plasma	KETMIN	89770	For Interfaced Clients Only: Test build will need to be modified Specimen Requirement: 3 mL serum from a red top tube; Do not use serum separator tubes; Refrigerated Reference Range: Ketamine: Reported levels during anesthesia: 500 - 6500 ng/mL Norketamine: The intravenous administration of 2 mg/kg of Ketamine followed by continuous infusion of 41 µg/kg/minute produced an average steady-state plasma concentration of 2200 ng Ketamine/mL and an average peak Norketamine level of 1050 ng/mL which occurred near the end of the 1 hour infusion. Days Performed: Tuesday, Thursday Reported: 4 - 10 days CPT: 82542	5/8/2014
Ketones, Serum	BHB	31134	For Interfaced Clients Only: Test build will need to be modified Includes: β-Hydroxybutyrate	6/2/2014
KRAS Mutation Analysis	n/a	88425	CPT: 81275, G0452	4/1/2014
Lacosamide	LACOS	88181	Reference Range: Lacosamide: 2.2 - 19.8 µg/mL Desmethyl Lacosamide: ≤ 2.5 µg/mL Days Performed: 3 days per week Reported: 1 - 4 days	6/3/2014
MGMT Methylation	n/a	89198	CPT: 81287, G0452	4/1/2014
Microsporidia Examination	MICSPO	77086	CPT: 87207	5/1/2014
MSI (PCR) x2	MSICCT	82447	CPT: 81301, 88381x2, G0452	4/1/2014
MSI (PCR) x3	MSI-3	84483	CPT: 81301, 88381x3, G0452	4/1/2014

Test Changes (cont.)

Test Name	Order Code	Billing Code	Change	Effective Date
MYD88 L265P Mutation Analysis	MYD88	89733	Specimen Requirement: 5 mL whole blood in an EDTA lavender top tube; Refrigerated Methodology: Quantitative Polymerase Chain Reaction (PCR) Days Performed: Sunday - Saturday Reported: 8 - 11 days	5/15/2014
NMR LipoProfile	NMRLIP	82739	Reference Range: LDL Particle Number: Desirable: < 1000 nmol/L Moderate: 1000 – 1299 nmol/L Borderline High: 1300 – 1599 nmol/L High: 1600 – 2000 nmol/L Very High: > 2000 nmol/L Total Cholesterol: Desirable: < 200 mg/dL Triglycerides: Desirable: < 150 mg/dL HDL Cholesterol: Desirable: ≥ 40 mg/dL LDL Cholesterol (calculated): Desirable: < 100 mg/dL Near or Above Optimal: 100 – 129 mg/dL Borderline - High: 130 – 159 mg/dL High: 160 - 189 mg/dL Very High: ≥ 190 mg/dL HDL-P: Desirable: ≥ 30.5 μmol/L Small LDL-P: Desirable: ≤ 527 nmol/L LDL Size: Desirable: > 20.5 nm LDL Particle Size: Large (Pattern A): 23.0 – 20.6 nM, Small (Pattern B): 20.5 – 19.0 nM Large VLDL-P: Desirable: ≤ 2.7 nmol/L Large HDL-P: Desirable: ≥ 4.8 μmol/L VLDL Size: Desirable: ≤ 46.6 nm HDL Size: Desirable: ≥ 9.2 nm LP-IR Score: Desirable: ≤ 45 Days Performed: Sunday - Saturday Reported: 8 - 11 days	4/29/2014
Nucleophosmin Gene (NPM1) Mutation	NPM1	88421	CPT: 81310, G0452	4/1/2014
Ova & Parasite Examination	OVAP	75319	Specimen Requirement: Urine specimens should be freshly voided and submitted in a sterile leak-proof container; Transport at ambient temperature. For diagnosis of Schistosomiasis or Filariasis: 24 hr. urine collections are recommended; Random urine collections are acceptable; Random urines > 24 hrs old or 24 hr. urine collections > 48 hrs old will be rejected; Preserved specimens will be rejected. For diagnosis of Schistosomiasis infection: There is a circadian rhythm in Schistosoma egg excretion with peak excretion occurring around noon. Collection of a midday urine specimen or a 24 hr. collection in a container without preservatives is recommended. Peak excretion occurs between noon and 3 p.m. In patients with hematuria, eggs may be found trapped in the blood and mucus in the terminal portion (last voided portion) of the urine specimen. For diagnosis of Trichomonas infection, molecular methods are preferred. Recommended order codes are UTRICM (males) and VAGAMD (females). Collection requirements for other specimen types are unchanged. CPT: 87177, 87209	5/1/2014
Oxalate, Urine 24 Hour	UOXALD	83945	Reference Range: Male: < 7 years: Not determined 7 - 17 years: 13 - 38 mg/24 hours ≥ 18 years: 7 - 44 mg/24 hours Female: < 7 years: Not determined 7 - 17 years: 13 - 38 mg/24 hours ≥ 18 years: 4 - 31 mg/24 hours	5/1/2014

Test Changes (cont.)

Test Name	Order Code	Billing Code	Change	Effective Date
PLA 1/2 by PCR	PLAPCR	81691	CPT: 81400, G0452	4/1/2014
PML/RARA RTPCR	APLPCR	82570	CPT: 81315, G0452	4/1/2014
Prolactin	PROL	84146	Specimen Requirement: 1 mL plasma from a lithium heparin green top tube; Refrigerated Methodology: Electrochemiluminescence Immunoassay (ECLIA)	5/19/2014
Prothrombin Gene Mutation	PTGEN	80095	CPT: 81240, G0452	4/1/2014
Reticulin Antibody IgG with Reflex to Titer	RETIGG	89775	Specimen Requirement: 0.5 mL serum from a serum separator tube; Refrigerated Methodology: Semi-Quantitative Immunoassay (IA) Days Performed: Varies Reported: 4 - 11 days	3/6/2014
RHCE Variant Antigen	RHCE	88772	CPT: 81479, G0452	4/1/2014
RHD Variant Antigen	RHD	88771	CPT: 81479, G0452	4/1/2014
Silver, Urine	UAG	75070	CPT: 83789	4/1/2014
Succinyladenosine, CSF	CSUCCN	83812	CPT: 82491	4/1/2014
T-Cell Clonality using Biomed-2 PCR Primers	TCBMD	87903	CPT: 81340, 81342, G0452x2	4/1/2014
T-Cell Receptor Beta Biomed-2 PCR	TCRB	88433	CPT: 81340, G0452	4/1/2014
TCR-G (PCR)	TGAMMA	88432	CPT: 81342, G0452	4/1/2014
Toxicology Screen, Urine	UTOX2	77945	For Interfaced Clients only: Test build may need to be modified Includes: Phencyclidine, Benzodiazepines, Cocaine, Amphetamines, Cannabinoids, Opiates, Barbiturates, Ethanol, Oxycodone	6/2/2014
VAP	VAP	83811	For Interfaced Clients Only: Test build will need to be modified Includes: Total LDL Cholesterol, LDL-R (Real LDL), Lp(a) Cholesterol, IDL Cholesterol, Total HDL Cholesterol, HDL2, HDL3, Total VLDL Cholesterol, VLDL 1+2 , VLDL 3, Total Cholesterol, Triglycerides, Non-HDL-Cholesterol, Remnant Lipoproteins, LDL Density (Pattern), LDL Subclass 1, LDL Subclass 2, LDL Subclass 3, LDL Subclass 4, Apolipoprotein A1, Apolipoprotein B100, Apo B 100/A1 Ratio Specimen Requirement: 2 mL serum from a serum separator tube; Refrigerated Reference Range: VAP Total LDL, 0-150 years: Goal: < 130 mg/dL Moderate Risk: 130 - 159 mg/dL High Risk: > 159 mg/dL LDL-R, 0 -150 years: Goal: < 100 mg/dL Moderate Risk: 100 - 129 mg/dL High Risk: > 129 mg/dL Lp(a) Cholesterol, 0 - 150 years: Goal: < 10.0 mg/dL Moderate Risk: 10.0 - 14.9 mg/dL High Risk: > 14.9 mg/dL IDL, 0 - 150 years: Goal: < 20 mg/dL Moderate Risk: 20 - 29 mg/dL High Risk: > 29 mg/dL Total HDL, 0 - 150 years: Goal: > 39 mg/dL Moderate Risk: Not applicable High Risk: < 40 mg/dL	6/5/2014

Reference Range: (continued On next page)

Test Changes (cont.)

Test Name	Order Code	Billing Code	Change	Effective Date
VAP (continued)			<p>Reference Range: (continued)</p> <p>VAP HDL-2, 0 - 150 years: Female: Goal: > 15 mg/dL Moderate Risk: Not applicable High Risk: < 16 mg/dL Male: Goal: > 10 mg/dL Moderate Risk: Not applicable High Risk: < 11 mg/dL</p> <p>VAP HDL-3, 0 - 150 years: Female: Goal: > 25 mg/dL Moderate Risk: Not applicable High Risk: < 26 mg/dL Male: Goal: > 30 mg/dL Moderate Risk: Not applicable High Risk: < 31 mg/dL</p> <p>VAP Total VLDL, 0 - 150 years: Goal: < 30 mg/dL Moderate Risk: Not applicable High Risk: > 29 mg/dL</p> <p>VAP VLDL 1 + 2, 0 - 150 years: Goal: < 20.0 mg/dL Moderate Risk: Not applicable High Risk: > 19.9 mg/dL</p> <p>VLDL 3, 0 - 150 years: Goal: < 10 mg/dL Moderate Risk: Not applicable High Risk: > 9 mg/dL</p> <p>VAP Total Cholesterol, 0 - 150 years: Goal: < 200 mg/dL Moderate Risk: 200 - 239 mg/dL High Risk: > 239 mg/dL</p> <p>VAP Triglycerides, 0 - 150 years: Goal: < 150 mg/dL Moderate Risk: 150 - 199 mg/dL High Risk: > 199 mg/dL</p> <p>Non-HDL Cholesterol, 0 - 150 years: Goal: < 160 mg/dL Moderate Risk: 160 - 189 mg/dL High Risk: > 189 mg/dL</p> <p>Remnant Lipoproteins, 0 - 150 years: Goal: < 30 mg/dL Moderate Risk: Not applicable High risk: > 29 mg/dL</p> <p>LDL Density (Pattern), 0 - 150 years: Goal: A Moderate Risk: A/B High Risk: B</p> <p>VAP Apolipoprotein A1, 0 - 150 years: Female: Goal: > 145 mg/dL Moderate Risk: Not applicable High Risk: < 146 mg/dL Male: Goal: > 118 mg/dL Moderate risk: Not applicable High Risk: < 119 mg/dL</p> <p>Apolipoprotein B100, 0 - 150 years: Goal: < 109 mg/dL Moderate Risk: 109 -126 mg/dL High Risk: > 126 mg/dL</p> <p>Apo B100/A Ratio, 0 - 150 years: Female: Goal: < 0.75 mg/dL Moderate Risk: 0.75 - 0.86 mg/dL High Risk: > 0.86 mg/dL Male: Goal: < 0.92 mg/dL Moderate Risk: 0.92 - 1.07 mg/dL High Risk: > 1.07 mg/dL</p> <p>Days Performed: Varies Reported: 3 - 5 days</p>	

Test Changes (cont.)

Test Name	Order Code	Billing Code	Change	Effective Date
Warfarin Sensitivity Genotyping	WARSEN	88301	CPT: 81355, G0452 , 81227	4/1/2014
Zinc, Whole Blood	ZINCWB	89781	<p>Special Information: Diet, medication, and nutritional supplements, may introduce interfering substances. Patients should be encouraged to discontinue nutritional supplements, vitamins, minerals, and non-essential over the counter medications (upon the advice of their physician)</p> <p>Specimen Requirement: 2 mL whole blood in an EDTA navy blue top tube; Transport blood in original tube; Ambient</p> <p>Methodology: Inductively Coupled Plasma / Mass Spectrometry (ICP-MS)</p> <p>Reference Range: 440 - 860 µg/dL</p> <p>Days Performed: Monday, Wednesday, Friday</p> <p>Reported: 2 - 6 days</p>	4/1/2014

New Tests

Test Name	Order Code	Billing Code	Test Information	Effective Date
Fragile X Syndrome DNA Analysis by PCR, Blood	FRAX	89706	<p>Special Information: An Informed Consent form for Genetic Testing is required. Please call Client Services at 800.628.6816 or visit http://clevelandcliniclabs.com to obtain forms. If an intermediate to expanded allele (CGG repeats) is detected by PCR and Capillary Electrophoresis, methylation analysis will be added to determine the size of the expanded CGG repeat. Additional charges apply</p> <p>Specimen Requirement: 5 mL whole blood in an EDTA lavender top tube; An Informed consent form for Genetic Testing is required; Also required is family history, test indication, age, and gender; Ambient</p> <p>Methodology: Polymerase Chain Reaction (PCR), Capillary Electrophoresis (CE)</p> <p>Reference Range: Refer to report</p> <p>Days Performed: 1 day / week</p> <p>Reported: 7 - 14 days</p> <p>CPT: 81243, G0452</p> <p>Price: \$363.00 (non-discountable)</p>	5/6/2014
Myelin Antibody IgG, IFA	MYABG	89835	<p>Special Information: For Research Use Only. This test is not approved for patients residing in New York state.</p> <p>Specimen Requirement: 0.5 mL serum from a red top tube; Do not use serum separator tubes; Centrifuge and aliquot serum ASAP; Refrigerated</p> <p>Methodology: Indirect Fluorescent Antibody (IFA)</p> <p>Reference Range: Negative</p> <p>Days Performed: Wednesday</p> <p>Reported: 3 - 10 days</p> <p>CPT: 86255</p> <p>Price: \$128.00 (non-discountable)</p>	4/17/2014
Neutrophil Activity NBT	NBT	89825	Do to circumstances beyond our control, this test will not be available as previously announced. We apologize for any extra work or inconvenience this may have caused.	3/11/2014
Neutrophil Activity SOD	SOD	89823	Do to circumstances beyond our control, this test will not be available as previously announced. We apologize for any extra work or inconvenience this may have caused.	3/11/2014

Fee Increases

Test Name	Order Code	Billing Code	List Fee	CPT Code
5-Methyltetrahydrofolate	5MTH	83879	\$228.00 (non-discountable)	82491
Allergen, Yeast (Bakers/Brewers) IgG	YEAIGG	89478	\$90.00 (non-discountable)	86001
Baclofen	BACLOF	80369	\$215.00 (non-discountable)	80299
Colchicine Level	COLCH	80315	\$490.00 (non-discountable)	83789
Dilute Russell Viper Venom Test	DRVVT	26115	\$110.00	85612x2
Diphenhydramine, Urine	UDIPHN	87818	\$146.00 (non-discountable)	83789
Fluoride	BFLUOR	82735	\$125.00 (non-discountable)	82735
Giardia Antigen, Stool EIA	GIAEIA	89735	\$55.00 (non-discountable)	87329
HLA-A	HLAA	82627	\$415.00 (non-discountable)	81380
Ketorolac	KETOR	80422	\$335.00 (non-discountable)	82491
Lindane	LIND	81731	\$225.00 (non-discountable)	82441
LSD, Urine	ULSD	88129	\$110.00 (non-discountable)	80101
Methazolamide	METHAZ	80424	\$175.00 (non-discountable)	82491
Methylparathion	METHYL	80426	\$348.00 (non-discountable)	82491
Neopterin, CSF	NEOCSF	83920	\$148.00 (non-discountable)	82491
Phenylpropanolamine	PHENYL	80434	\$170.00 (non-discountable)	83789
Rufinamide	RUFIN	88110	\$190.00 (non-discountable)	83789
Succinyladenosine, CSF	CSUCCN	83812	\$225.00 (non-discountable)	82491
Tetrahydrobiopterin & Neopterin, CSF	TBIOPT	83782	\$229.00 (non-discountable)	82492
Tranylcypromine	PARNTE	87840	\$200.00 (non-discountable)	82491

Fee Reductions

Test Name	Order Code	Billing Code	List Fee	CPT Code
Aldosterone, Urine	UALD01	81369	\$152.00	82008
MYD88 L265P Mutation Analysis	MYD88	89733	\$600.00 (non-discountable)	81479
Prolactin	PROL	84146	\$61.00	84146
VAP	VAP	83811	\$129.00 (discountable)	83701, 84478

Discontinued Tests

Test Name	Order Code	Billing Code	Test Information	Effective Date
Fragile X Syndrome DNA Analysis	FRAGIL	82365	This test will no longer be available. Suggest ordering Fragile X Syndrome DNA Analysis by PCR, Blood (FRAX).	5/6/2014
Myelin Basic Protein Autoantibodies, Serum	SMBP	83600	This test will no longer be available. Suggest ordering Myelin IgG Antibody, IFA (MYABG)	4/17/2014
Neutrophil Activity Panel	NAP	75723	Do to circumstances beyond our control, this test was inactivated before the previously announced date of 3/20/2014. Suggest ordering Neutrophil Oxidative Burst, Blood (OXBST) as a replacement.	3/11/2014