

# Cleveland Clinic Laboratories

## Technical Update • April 2015

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 information, refer to the Test Directory, which can be accessed at [clevelandcliniclabs.com](http://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](mailto:clientservices@ccf.org).

Test Update Page #	Summary of Changes by Test Name	Order Code	Billing Code	Name Change	Test Discontinued	Special Information	Specimen Requirement	Component Change	Methodology	Reference Range	Days Performed/Reported	Stability	CPT	Fee
3, 15	Admark Phospho-Tau CSF													
3	Aldosterone													
3	Aldosterone/Renin Activity Ratio													
11	Allergen, False Ragweed IgE													
3, 14	Allergen, Respiratory Region 8													
12	Allergen, Seafood Panel													
3	Allergen, Whey IgG													
14	Alpha-1-Antitrypsin Quantitation and Phenotyping													
11	Aspergillus Antibody (CF reflex to ID)													
4	Aspergillus galactomannan BAL													
4	Aspergillus galactomannan Serum													
4, 14	Beta-2 Transferrin													
12	Blastomyces Antibody (CF reflex to ID)													
4, 14	Bronchopulmonary Aspergillosis													
4	Calculi (Stone) Analysis													
12	Coccidioides Antibody (CF reflex to ID)													
4, 5, 14	Estrogen, Serum Fractionated													
6	Fatty Acid Oxidation Probe Assay, Fibroblast Culture													
6	Fecal Lactoferrin (STLWBC)													
6	FISH Neuroblastoma 2p24 MYCN Amplification													
12	Galactose-alpha-1,3-galactose IgE													
6, 14	Glomerular Basement Membrane IgG													

Test Update Page #	Summary of Changes by Test Name	Order Code	Billing Code	Name Change	New Test	Specimen Information	Component Requirement	Methodology	Days Performed/Reported	Stability	CPT	Fee
6, 14	Herpes Simplex by PCR											
12	Histoplasma Antibody (CF reflex to ID)											
7	HIV 1/2 Combo (Antigen/Antibody)											
13	HIV-1 Western Blot											
7	Hypercoagulation Diagnostic Interpretive Panel											
13	Lactoferrin, Fecal (LFERRN)											
7, 13	Leflunomide as Metabolite											
12	Levamisole											
7	Lupus Anticoagulant Diagnostic Interpretive Panel											
8	Meconium Drug Screen 5											
8	NMO/Aquaporin-4 IgG Cell Binding Assay, CSF											
15	Organic Acids, Neonate Urine											
8	Organic Acids Urine, Quant											
8, 9	Paraneoplastic Autoantibody Evaluation, CSF											
9, 14	Pipecolic Acid, Serum											
9	Platelet Aggregation											
9	Prostate Cancer Biomarker											
9, 14	Quantitative Pain Panel, Urine											
10, 14	Serotonin, Whole Blood											
13	Staff Review of CBC and Differential											
10	Stratify JCV Antibody and Index with Reflex to Inhibition Assay											
10	Thiocyanate											
10, 14	Torch Antibodies, IgG & IgM											
10	TSH Binding Inhibition											
10	von Willebrand Diagnostic Interpretive Panel (Limited)											

## Test Changes

Test Name	Order Code	Billing Code	Change	Effective Date
Admark Phospho-Tau CSF	PHOTAU	90106	<b>Stability:</b> Ambient: <b>3 days</b> Refrigerated: <b>21 days</b> Frozen: <b>4 months</b> <b>Days Performed: Monday–Friday</b> <b>Reported: 15–22 days</b>	6/2/2015
Aldosterone	ALDO	75996	<b>Special Information: If specimen is collected in upright position, patient should be seated or standing for at least 30 minutes prior to collection. If specimen is collected in supine position, patient should be in supine position for at least 30 minutes prior to collection.</b>	3/5/2015
Aldosterone/Renin Activity Ratio	ALDREN	89389	<b>Special Information: If specimen is collected in upright position, patient should be seated or standing for at least 30 minutes prior to collection. If specimen is collected in supine position, patient should be in supine position for at least 30 minutes prior to collection.</b>	3/5/2015
Allergen, Respiratory Region 8	RESPR8	90027	<b>Includes:</b> Box Elder Tree (Maple Tree) Elm Tree Short Ragweed (Common ragweed) Cat Epithelium and dander Aspergillus Fumigatus Mountain cedar (mountain juniper) Dermatophagoides Farinae Pigweed Timothy Grass White ash tree Sycamore tree Pecan tree Mucor Racemosus Oak tree Alternaria alternata Cockroach Marsh Elder Dog Dander Hormodendrum Cottonwood Tree Russian Thistle Bermuda Grass Penicillium Notatum Walnut Tree Mouse Epithelium White Mulberry Tree Dermatophagoides Pteronyssinus <b>Birch Tree</b> <b>Test build will need to be modified</b> <b>Reference Range:</b> <b>Birch Tree: &lt; 0.35 kU/L</b> <b>Birch Tree Class: 0</b> <b>All other ranges are unchanged</b> <b>CPT: 86003x28</b>	6/2/2015
Allergen, Whey IgG	WHEYG	83079	<b>Specimen Requirement:</b> 0.5 mL serum–serum separator tube; Remove serum from cells ASAP or within 2 hours of collection; Minimum: 0.2 mL; <b>Frozen</b> <b>*OR*</b> 0.5 mL serum–red top tube; Remove serum from cells ASAP or within 2 hours of collection; Minimum: 0.2 mL; <b>Frozen</b> <b>Stability:</b> Ambient: <b>After separation from cells, 48 hours</b> Refrigerated: <b>After separation from cells, 2 weeks</b> Frozen: <b>After separation from cells, 1 year</b>	6/2/2015

## Test Changes (Cont.)

Test Name	Order Code	Billing Code	Change	Effective Date
Aspergillus galactomannan BAL	ASGALB	88703	<b>Special Information:</b> Please delete all information currently in this field. <b>Days Performed:</b> Tuesday, Friday <b>Reported:</b> 1–5 days <b>Stability:</b> Ambient: <b>48 hours</b> Refrigerated: <b>5 days</b> Frozen: <b>5 months</b>	6/2/2015
Aspergillus galactomannan Serum	ASGALS	88701	<b>Special Information:</b> Please delete all information currently in this field. <b>Days Performed:</b> Tuesday, Friday <b>Reported:</b> 1–5 days <b>Stability:</b> Ambient: <b>48 hours</b> Refrigerated: <b>5 days</b> Frozen: <b>7 months</b>	6/2/2015
Beta-2 Transferrin	B2TRAN	82885	<b>Special Information:</b> Direct collections may be done with a pipette, syringe, test tube, or microcollection device. If submitting a syringe, remove needle. Add cap to end of syringe. Beta-2 transferrin is also found in aqueous humor and in serum of patients with rare metabolic glycoprotein disorders or genetic variants of transferrin. <b>A cotton swab may be used if direct collection is not feasible. Place swab in a small, sealed container. Do not add any additional fluid to the swab.</b>	4/1/2015
Bronchopulmonary Aspergillosis	ABPA	82603	<b>CPT:</b> 82785, 86003, 86331, <b>86001</b>	4/16/2015
Calculi (Stone) Analysis	CSA	76982	<b>Days Performed:</b> Monday–Friday <b>Reported:</b> 1–5 days	5/5/2015
Estrogen, Serum Fractionated	ESTGEN	75491	<b>Test build will need to be modified for this assay.</b> <b>Specimen Requirement:</b> 0.5 mL serum–serum separator tube; Minimum: 0.3 mL; Separate serum from cells within <b>24 hours</b> of collection and transfer into <b>two</b> aliquot tubes; Refrigerated <b>*OR*</b> 0.5 mL plasma–lavender top EDTA tube; Minimum: 0.3 mL; Separate plasma from cells within <b>24 hours</b> of collection and transfer into <b>two</b> aliquot tubes; Refrigerated <b>*OR*</b> 0.5 mL plasma–sodium or lithium heparin green top tube; Minimum: 0.3 mL; Separate plasma from cells within <b>24 hours</b> of collection and transfer into <b>two</b> aliquot tubes; Refrigerated <b>*OR*</b> 0.5 mL serum–red top tube; Minimum: 0.3 mL; Separate serum from cells within <b>24 hours</b> of collection and transfer into <b>two</b> aliquot tubes; Refrigerated <b>Reference Range:</b> <b>ESTRADIOL:</b> Female: Tanner Stage I: < 56 pg/mL Tanner Stage II: 2-133 pg/mL Tanner Stage III: 12-277 pg/mL Tanner <b>Stage IV and V:</b> 2-259 pg/mL 7-9 years: < 36 pg/mL 10-12 years: 1-87 pg/mL 13-15 years: 9-249 pg/mL 16-17 years: 2-266 pg/mL 18-99 years: Premenopausal: Early Follicular 30-100 pg/mL 18-99 years: Premenopausal: Late Follicular 100-400 pg/mL 18-99 years: Premenopausal: Luteal 50-150 pg/mL 18-99 years: Postmenopausal: 2-21 pg/mL (continued on page 5)	6/16/2015

## Test Changes (Cont.)

Test Name	Order Code	Billing Code	Change	Effective Date
Estrogen, Serum Fractionated (continued from page 4)	ESTGEN	75491	<p>Male:</p> <p>Tanner Stage I: &lt; 8 pg/mL</p> <p>Tanner Stage II: &lt; 10 pg/mL</p> <p>Tanner Stage III: 1-35 pg/mL</p> <p>Tanner <b>Stage IV and V</b>: 3-35 pg/mL</p> <p>7-9 years: &lt; 7 pg/mL</p> <p>10-12 years: &lt; 11 pg/mL</p> <p>13-15 years: 1-36 pg/mL</p> <p>16-17 years: 3-34 pg/mL</p> <p>18-99 years: 10-42 pg/mL</p> <p>ESTRONE:</p> <p>Female:</p> <p>Tanner Stage I: &lt; 27 pg/mL</p> <p>Tanner Stage II: 1-39 pg/mL</p> <p>Tanner Stage III: 8-117 pg/mL</p> <p>Tanner <b>Stage IV and V</b>: 4-109 pg/mL</p> <p>7-9 years: &lt; 20 pg/mL</p> <p>10-12 years: 1-40 pg/mL</p> <p>13-15 years: 8-105 pg/mL</p> <p>16-17 years: 4-133 pg/mL</p> <p>18-99 years: Premenopausal: Early Follicular &lt; 150 pg/mL</p> <p>18-99 years: Premenopausal: Late Follicular 100-250 pg/mL</p> <p>18-99 years: Premenopausal: Luteal 0-200 pg/mL</p> <p>18-99 years: Postmenopausal: 3-32 pg/mL</p> <p>Male:</p> <p>Tanner Stage I: &lt; 7 pg/mL</p> <p>Tanner Stage II: &lt; 11 pg/mL</p> <p>Tanner Stage III: 1-31 pg/mL</p> <p>Tanner <b>Stage IV and V</b>: 2-30 pg/mL</p> <p>7-9 years: &lt; 7 pg/mL</p> <p>10-12 years: &lt; 11 pg/mL</p> <p>13-15 years: 1-30 pg/mL</p> <p>16-17 years: 1-32 pg/mL</p> <p>18-99 years: 9-36 pg/mL</p> <p>ESTROGENS, TOTAL:</p> <p>Female:</p> <p>Tanner Stage I: 1-86 pg/mL</p> <p>Tanner Stage II: 3-169 pg/mL</p> <p>Tanner Stage III: 23-351 pg/mL</p> <p>Tanner <b>Stage IV and V</b>: 8-341 pg/mL</p> <p>7-9 years: 1-48 pg/mL</p> <p>10-12 years: 2-116 pg/mL</p> <p>13-15 years: 15-333 pg/mL</p> <p>16-17 years: 6-354 pg/mL</p> <p>18-99 years: Premenopausal: Early Follicular 30-250 pg/mL</p> <p>18-99 years: Premenopausal: Late Follicular 200-650 pg/mL</p> <p>18-99 years: Premenopausal: Luteal 50-350 pg/mL</p> <p>Male:</p> <p>Tanner Stage I: 1-11 pg/mL</p> <p>Tanner Stage II: 1-19 pg/mL</p> <p>Tanner Stage III: 3-61 pg/mL</p> <p>Tanner <b>Stage IV and V</b>: 4-62 pg/mL</p> <p>7-9 years: &lt; 10 pg/mL</p> <p>10-12 years: 1-19 pg/mL</p> <p>13-15 years: 3-62 pg/mL</p> <p>16-17 years: 4-64 pg/mL</p> <p>18-99 years: 19-69 pg/mL</p> <p><b>Days Performed: Tuesday, Thursday, Saturday</b></p> <p><b>Reported: 4-6 days</b></p> <p><b>Stability:</b></p> <p>Ambient: After separation from cells: <b>4 days</b></p> <p>Refrigerated: After separation from cells: <b>1 week</b></p> <p>Frozen: After separation from cells: 1 month</p>	6/16/2015

## Test Changes (Cont.)

Test Name	Order Code	Billing Code	Change	Effective Date
Fatty Acid Oxidation Probe Assay, Fibroblast Culture	FAO	82923	<b>Days Performed:</b> Varies <b>Reported:</b> 16–72 days <b>Special Information:</b> Specimen received in formalin or fixative preservative is not acceptable. <b>Patients residing in New York state require informed consent.</b>	4/23/2015
<b>Fecal Lactoferrin</b>	STLWBC	80553	<b>Test Name:</b> Previously Fecal Leukocyte Detection by EIA Test build may need to be modified	6/2/2015
FISH Neuroblastoma 2p24 MYCN Amplification	MYCNFB	90081	<b>Specimen Requirement:</b> 2 mL bone marrow–sodium heparin green top tube; Ambient *OR* 10 mL whole blood–sodium heparin green top tube; <b>Before sending blood, hematopathology review should confirm that tumor cells are present in the blood sample;</b> Ambient <b>Days Performed:</b> Sunday–Saturday <b>Reported:</b> 8–11 days <b>Special Information:</b> Please provide a reason for referral and pathology report documenting the presence of the metastatic tumor present in the sample submitted. Include a copy of the FISH analysis performed on the primary tumor, if available. <b>CAUTION: This test is not approved by the FDA and it is best used as an adjunct to existing clinical and pathologic information.</b>	4/23/2015
Glomerular Basement Membrane IgG	GBMBG	77137	<b>Specimen Requirement:</b> 1 mL serum–serum separator tube; Minimum: 0.5 mL; <b>Centrifuge and aliquot serum to aliquot tube;</b> Refrigerated <b>Stability:</b> Ambient: 8 hours Refrigerated: 1 week Frozen: 1 month <b>Methodology:</b> Enzyme Immunoassay (EIA) <b>Reference Range:</b> 0– 99 years: Negative: 0–20 U/mL Weak Positive: 21–30 U/mL Moderate Strong Positive: > 30 U/mL <b>Days Performed:</b> Monday, Wednesday, Friday <b>Reported:</b> 4–6 days <b>Special Information:</b> This test is designed for the in-vitro measurement of specific IgG auto-antibodies against the glomerular basement membrane (GBM). It is intended to be an aid in the diagnosis of Goodpasture's Syndrome. Some patients with other renal diseases may exhibit positive results. Glomerular Basement Membrane antibodies are not found in normal healthy individuals. CPT: 83516	6/16/2015
Herpes Simplex by PCR	HSPCR	79044	Test build will need to be modified for this assay. <b>Specimen Requirement:</b> 1 mL serum– serum separator tube; Minimum: 0.5 mL; <b>Allow to clot at room temperature; Centrifuge for 20 minutes at room temperature within 6 hours of collection and transfer to sterile polypropylene tube;</b> Refrigerated *OR* <b>Swab in Viral Transport Media; Refrigerated</b> *OR* <b>1 g tissue in Viral Transport Media; Refrigerated</b> *OR* <b>1 mL plasma–EDTA lavender top tube; Minimum: 0.5 mL; Mix well. Centrifuge for 20 minutes at room temperature within 6 hours of collection and transfer plasma to sterile polypropylene tube.; Refrigerated</b> <b>Stability:</b> Ambient: 2 days Refrigerated: 1 week Frozen: 1 week <b>Methodology:</b> Strand Displacement Amplification (SDA) <b>Days Performed:</b> Monday–Saturday <b>Reported:</b> 3–5 days <b>Special Information:</b> Please order Herpes Simplex Virus by PCR, CSF (HSPCRC) for CSF samples. Testing on serum or plasma is recommended for immunocompromised or newborn patients only. <b>Reported:</b> 3–5 days	6/16/2015

## Test Changes (Cont.)

Test Name	Order Code	Billing Code	Change	Effective Date
HIV 1/2 Combo (Antigen/Antibody)	HIV12C	90008	<b>Special Information:</b> If results are inconsistent with an individual's clinical presentation or risk profile for HIV infection, a repeat specimen is suggested. A repeat specimen is also recommended for any individual identified reactive for the first time. When the HIV-1/2 Antigen/ Antibody Combo Screen is repeatedly reactive, <b>the Multispot differentiation assay is automatically performed at an additional charge. Patients who are screen positive and Multispot negative must be tested with HIV RNA test to rule out an acute infection.</b>	3/31/2015
Hypercoagulation Diagnostic Interpretive Panel	HYPER	173	<b>Special Information:</b> Patient Preparation: Discontinue Coumadin therapy for 7 days, heparin therapy for 2 days and thrombolytic therapy for 7 days prior to test, if possible. Submit a Coagulation Consultation Patient History Sheet. 3.2% sodium citrate is the preferred anticoagulant recommended by NCCLS. If tests are abnormal in the panel, the following tests may be ordered and billed: PTT Incubated Mixing Add On (85730, 85732 x2); Dilute Russell Viper Venom (85613); Platelet Neutralization (85597); Factor V Leiden (81241); MTHFR by PCR (81291); Thrombin Time (85670); Reptilase (85635); Fibrinogen Antigen (85385); Prot C Immunologic (85302); Prot S Immunologic (85306); Heparin fXa Inhibition (85520). <b>Sample MUST be accompanied by a completed Clinical History Form for Hemostasis and Thrombosis Evaluation. This form is available on the Cleveland Clinic Laboratories Test Directory website or through Client Services at 800-628-6816 or 216-444-5755.</b>	6/2/2015
Leflunomide as Metabolite	LEFLUN	83212	<b>Specimen Requirement:</b> 1 mL serum—red top tube; Minimum: 0.3 mL; Do not use serum separator tubes; <b>Draw blood no sooner than 12 hours (trough) after last dose;</b> Separate serum from cells within 2 hours of collection; Ambient <b>Days Performed: Monday, Wednesday, Friday</b> <b>Reported: 3–6 days</b> <b>Special Information:</b> Leflunomide is a prodrug; rapid and complete metabolism converts Leflunomide to its active metabolite, teriflunomide (also called A77 1726), which acts by inhibiting pyrimidine synthesis. Teriflunomide has a very long half-life, on average >2 weeks. Enhanced elimination of the drug may be required in patients who are or who wish to become pregnant, or who are experiencing toxicity; teriflunomide can persist up to 2 years after ceasing therapy unless elimination is accelerated. This can be accomplished through use of activated charcoal or a bile acid sequestrant such as cholestyramine, reducing the half-life of teriflunomide to approximately 1 day, Serum concentrations <0.020 mcg/mL (<20 ng/mL) on 2 independent tests at least 2 weeks apart, are preferred for patients anticipating pregnancy to minimize the potential risk of teratogenesis associated with the drug. <b>CAUTION: Leflunomide toxicity does not appear to correlate with teriflunomide concentrations, thus this assay is unlikely to aid in evaluation of potential adverse drug reactions.</b>	4/9/2015
Lupus Anticoagulant Diagnostic Interpretive Panel	LUPUSP	24	<b>Special Information:</b> 3.2% sodium citrate is the preferred anticoagulant recommended by NCCLS. Patient preparation: Discontinue heparin therapy for 2 days prior to collection. If tests are abnormal, the following tests may be ordered and billed: Factor II (85210), Factor V (85220), Factor X (85260), Factor VIII (85247), Von Willebrand Factor Antigen (85246), Ristocetin Co-factor (85245), Factor IX Assay (85250), Factor XI Assay (85270), Factor XII Assay (85280), Heparin fXa inhibition (85520), Fibrinogen, and Bethesda Assay. <b>Sample MUST be accompanied by a completed Clinical History Form for Hemostasis and Thrombosis Evaluation. This form is available on the Cleveland Clinic Laboratories Test Directory website or through Client Services at 800-628-6816 or 216-444-5755.</b>	6/2/2015

## Test Changes (Cont.)

Test Name	Order Code	Billing Code	Change	Effective Date
Meconium Drug Screen 5	MECD5	82109	<b>Methodology: Chromatography with Mass Spectrometry</b> <b>Clinical Information:</b> The specimen is screened by immunoassay at the following threshold concentrations: Amphetamines: <b>100</b> ng/gm Barbiturates: <b>100</b> ng/gm Cocaine and Metabolites: <b>50</b> ng/gm Opiates: <b>50</b> ng/gm Cannabinoids: <b>25</b> ng/gm Positive results are confirmed by <b>Chromatography with Mass Spectrometry</b> to limit of detection at no additional charge.	6/4/2015
NMO/Aquaporin-4 IgG Cell Binding Assay, CSF	FNMOA4	89630	<b>Methodology: Cell Binding assay by IFA</b> <b>Special Information:</b> This is a reflex test from Paraneoplastic Autoantibody Evaluation in CSF and will be performed at an additional cost, if indicated. It is also orderable alone. CAUTION: A negative result does not exclude a diagnosis of neuromyelitis optica spectrum disorder (NMOSD). Serum is generally more sensitive than cerebrospinal fluid for detection of neuromyelitis optica (NMO)/aquaporin-4(AQ4)-IgG {NMO-IgG/AQ4-IgG}.	6/2/2015
Organic Acids Urine, Quant	UORA	89797	<b>Special Information:</b> This testing is now available for all age groups, including neonates. <b>CPT: 83918</b>	4/2/2015
Paraneoplastic Autoantibody Evaluation, CSF	PARCSF	87937	<b>Includes:</b> Anti-Neuronal Nuclear Abs Types 1, 2, 3 Purkinje Cell Cytoplasmic Ab Types 1, 2, Tr Anti-Glial Nuclear Ab Type 1 Amphiphysin Ab CRMP-5-IgG <b>NMO/Aquaporin4-IgG CBA, if indicated</b> CRMP-5-IgG Western Blot, if indicated GAD65 Ab, RIA, if indicated VGKC-complex Ab <b>IPA, if indicated</b> Amphiphysin Western Blot, if indicated <b>NMDA-R Ab, CBA, if indicated</b> <b>NMDA-R Ab Titer, if indicated</b> <b>AMP-A Ab CBA, if indicated</b> <b>AMPA-R Ab Titer, if indicated</b> <b>GABA-B-R Ab CBA, if indicated</b> <b>GABA-B-R titer, if indicated</b> <b>Specimen Requirement:</b> 4 mL cerebrospinal fluid–sterile container; <b>Minimum: 2 mL; Refrigerated</b> <b>Stability:</b> Ambient: 72 hours Refrigerated: <b>28 days</b> Frozen: <b>28 days</b> <b>Methodology:</b> Cell Binding assay (CBA), if indicated Indirect Immunofluorescence Assay (IFA) <b>Radioimmunoassay (RIA)</b> Western Blot (WB), if indicated <b>Immunoprecipitation Assay (IPA), if indicated</b> <b>Special Information:</b> Reflex algorithm: If indirect immunofluorescence assay (IFA) (ANN1C, ANN2C, ANN3C, PCA1C, PCA2C, PCTRC, AMPHC, CRMC, AGN1C) is indeterminate, then Paraneoplastic autoantibody Western blot is performed at an additional charge. <b>If IFA pattern suggest NMO/AQP4-IgG, then NMO/AQP4-IgG CBA is performed at an additional charge.</b> <i>(continued on page 9)</i>	6/2/2015



## Test Changes (Cont.)

Test Name	Order Code	Billing Code	Change	Effective Date
Paraneoplastic Autoantibody Evaluation, CSF (continued from page 8)	PARCSF	87937	<p>If client requests, or if IFA patterns suggest CRMP-5-IgG, then CRMP-5-IgG Western blot is performed at an additional charge.</p> <p>If IFA patterns suggest GAD65 antibody, then GAD65 antibody radioimmunoassay is performed at an additional charge.</p> <p>If IFA patterns suggest neuronal voltage-gated potassium channel-complex autoantibody, then VGKC-complex antibody IPA is performed at an additional charge.</p> <p>If IFA patterns suggest Amphiphysin antibody, then Amphiphysin Western blot is performed at an additional charge.</p> <p><b>If IFA pattern suggest NMDA-R, then NMDA-R antibody CBA and/or NMDA-R titer is performed at an additional charge.</b></p> <p><b>If IFA pattern suggest AMPA-R, then AMPA-R antibody CBA and/or AMPA-R titer is performed at an additional charge.</b></p> <p><b>If IFA pattern suggest GABA-B-R, then GABA-B-R antibody CBA and/or GABA-B-R titer is performed at an additional charge.</b></p> <p><b>Clinical Information:</b> Antibodies directed at onconeural proteins shared by neurons, glia, muscle, and certain cancers are valuable serological markers of a patient's immune response to cancer. They are not found in healthy subjects, and are usually accompanied by subacute neurological symptoms and signs. Several autoantibodies have a syndromic association, but no autoantibody predicts a specific neurological syndrome. Conversely, a positive autoantibody profile has 80%–90% predictive value for a specific cancer. It is not uncommon for more than one Paraneoplastic autoantibody to be detected, each predictive of the same cancer. <b>CAUTION:</b> Patients with a history of tobacco use or other lung cancer risk, or if thymoma is suspected, a Paraneoplastic autoantibody in serum is also recommended.</p> <p><b>Days Performed:</b> Monday–Friday</p> <p><b>Reported:</b> 4–9 days</p>	6/2/2015
Pipecolic Acid, Serum	PIPE	84130	<p><b>Special Information:</b> Patients living in New York state must submit a signed informed consent form. Useful for the differential diagnosis between disorders of peroxisomal biogenesis and disorders with loss of a single peroxisomal function. Elevated levels are seen in disorders of peroxisomal biogenesis; normal levels are seen in disorders with loss of a single peroxisomal function. Abnormal results may reflect either prematurity or nongenetic liver and/or renal disease. <b>CAUTION: Newborns with disorders of peroxisomal biogenesis often have normal levels of Pipecolic acid which increase with age.</b></p>	4/1/2015
Platelet Aggregation	AGGPLP	83307	<p><b>Special Information:</b> 3.2% sodium citrate is the preferred anticoagulant recommended by CLSI. Test will not be performed if platelet count is less than 100,000/<math>\mu</math>L. Patient preparation: discontinue aspirin, phenylbutazone, phenothiazines, thienopyridines and glycoprotein IIb/IIIa inhibitors (if ordered to study intrinsic platelet dysfunction) and antihistamines for seven days prior to test. <b>Sample MUST be accompanied by a completed Clinical History Form for Hemostasis and Thrombosis Evaluation. This form is available on the Cleveland Clinic Laboratories Test Directory website or through Client Services at 800-628-6816 or 216-444-5755.</b></p>	6/2/2015
Prostate Cancer Biomarker	PCA3	87736	<p><b>Days Performed:</b> 2 days per week</p> <p><b>Reported:</b> 4–7 days</p>	3/4/2015
Quantitative Pain Panel, Urine	UQNTPP	82347	<p><b>CPT:</b> 80324, 80348, 80349, 80353, 80354, 80358, 80361, 80363, 80365, 80373, <b>80356</b></p>	4/1/2015

## Test Changes (Cont.)

Test Name	Order Code	Billing Code	Change	Effective Date
Serotonin, Whole Blood	SEROWB	81302	<b>Specimen Requirement:</b> 2.5 mL whole blood–EDTA lavender top tube; Minimum: 2.5 mL; Place in ice after collection; <b>Place 1.5 mL–3 mL whole blood into a serotonin tube and mix well. Immediately freeze; Tubes are available through Client Services at 800-628-6816 or 216-444-5755; Frozen</b> <b>Special Information:</b> In general, serotonin containing foods (avocados, bananas, plums, walnuts, pineapple, eggplant, plantain, tomatoes, hickory nuts, kiwi, dates, grapefruit, cantaloupe, and honeydew melon) do not interfere significantly. Note: Medications which may affect serotonin concentrations include reserpine, methyl dopa, MAO inhibitors, lithium and morphine. <b>Metastasizing midgut carcinoid tumors usually produce blood or serum 5-hydroxytryptamine (5-HT) concentrations &gt;1,000 ng/mL. However, elevations &gt;400 ng/mL are suggestive of carcinoid tumors as the cause of carcinoid syndrome-like symptoms.</b>	4/9/2015
Stratify JCV Antibody and Index with Reflex to Inhibition Assay	JCVIDX	89784	<b>Days Performed:</b> Monday–Friday <b>Reported:</b> 2–6 days	4/30/2015
Thiocyanate	THIOCY	84430	<b>Specimen Requirement:</b> 2 mL serum–serum separator tube; Minimum: 0.8 mL; Collect immediately prior to next dose; <b>Refrigerated</b> *OR* 2 mL plasma–EDTA lavender top tube; Minimum: 0.8 mL; Collect immediately prior to next dose; <b>Refrigerated</b>	6/2/2015
Torch Antibodies, IgG & IgM	TORCH	79189	<b>Test build will need to be modified for this assay</b> <b>Specimen Requirement:</b> 2 mL serum–serum separator tube; Minimum: 2 mL; <b>Allow to clot. Separate serum from cells within 2 hours of collection and transfer into two aliquot tubes; Refrigerated</b> <b>Stability:</b> Ambient: <b>Undetermined</b> Refrigerated: 1 week Frozen: 1 month <b>Methodology:</b> <b>Immunochemiluminometric Assay (ICMA)</b> <b>Chemiluminescence Immunoassay (CLIA)</b> <b>Reference Range:</b> Toxoplasma IgG: <b>Negative</b> Toxoplasma IgM: <b>Negative</b> Rubella IgG: <b>Presumed Immune: ≥ 10 IU/mL</b> <b>Equivocal: 5–9 IU/mL</b> <b>Presumed Non-Immune: &lt; 5 IU/mL</b> Rubella IgM: <b>Negative</b> CMV IgG: <b>Negative</b> CMV IgM: <b>Negative</b> HSV 1 IgG Type Specific: <b>Negative</b> HSV 2 IgG Type Specific: <b>Negative</b> HSV non-type Specific IgM: <b>Negative</b> <b>Days Performed:</b> Monday–Saturday <b>Reported:</b> 3–4 days	6/16/2015
TSH Binding Inhibition	TBI	41201	<b>Days Performed:</b> Monday, Thursday <b>Reported:</b> 1–6 days	3/26/2015
von Willebrand Diagnostic Interpretive Panel (Limited)	VWFPR	82014	<b>Test Name:</b> Previously von Willebrand Diagnostic Interpretive Panel <b>Specimen Requirement:</b> 6 mL plasma–sodium citrate light blue top tube; Minimum: 3 mL; <b>Sample MUST be accompanied by a completed Clinical History Form for Hemostasis and Thrombosis Evaluation. If test results in panel are abnormal, additional testing may be ordered and billed. This form is available on the Cleveland Clinic Laboratories Test Directory website or through Client Services at 800-628-6816 or 216-444-5755; Frozen</b>	6/2/2015

## New Tests

Test Name	Order Code	Billing Code	Test Information	Effective Date
Allergen, False Ragweed IgE	FSRAG	90531	<b>Specimen Requirement:</b> 0.1 mL serum - serum separator tube; Minimum: 0.1 mL; Refrigerated *OR* 0.1 mL plasma - lithium heparin PST; Minimum: 0.1 mL; Refrigerated *OR* 0.1 serum - red top tube; Minimum 0.1 mL; Refrigerated <b>Stability:</b> Ambient: 48 hours Refrigerated: 7 days Frozen: 1 year <b>Methodology:</b> Fluorescence Immunoassay by ImmunoCAP <b>Reference Range:</b> < 0.35 kU/L, Class: 0 <b>Days Performed:</b> Sunday - Saturday <b>Reported:</b> 1–3 days <b>CPT:</b> 86003 <b>Price:</b> \$33.00	6/2/2015
Allergen, Seafood Panel	SEAFOD	90534	<b>Includes:</b> Codfish Crab Lobster Shrimp Tuna Oyster Scallop Blue Mussel <b>Specimen Requirements:</b> 0.8 mL serum–serum separator tube; Minimum: 0.8 mL; Refrigerated *OR* 0.8 mL plasma–lithium heparin green top tube; Minimum: 0.8 mL; Refrigerated *OR* 0.8 mL serum–red top tube; Minimum: 0.8 mL; Refrigerated <b>Stability:</b> Ambient: 48 hours Refrigerated: 7 days Frozen: 1 year <b>Methodology:</b> Fluorescent Enzyme Immunoassay (FEIA) by ImmunoCAP <b>Reference Range:</b> < 0.35 kU/L <b>Clinical Information:</b> Specific evaluation of allergic reactions. IgE (kU/L) Interpretation: <0.35, Class 0–Below Detection 0.35-0.69, Class 1–Low 0.70-3.49, Class 2–Moderate 3.50-17.49, Class 3–High 17.50-49.99, Class 4–Very High 50-99.99, Class 5–Very High ≥100, Class 6–Very High <b>Days Performed:</b> Sunday–Saturday <b>Reported:</b> 1–2 days <b>CPT:</b> 86003x8 <b>Price:</b> \$264.00 (discountable)	6/2/2015
Aspergillus Antibody (CF reflex to ID)	ASPCF	89492	<b>Specimen Requirement:</b> 1.5 mL serum–serum separator tube; Minimum: 1 mL; Refrigerated <b>Stability:</b> Ambient: 12 hours Refrigerated: 48 hours Frozen: -80° C: Indefinitely, no freeze thaw cycles <b>Methodology:</b> Complement Fixation (CF) <b>Reference Range:</b> < 1:8 <b>Special Information:</b> Any CF result not < 1:8 will automatically reflex to Aspergillus Antibody ID at an additional cost. <b>Days Performed:</b> Monday, Wednesday <b>Reported:</b> 2–7 days <b>CPT:</b> 86606 <b>Price:</b> \$64.00	6/16/2015

## New Tests

Test Name	Order Code	Billing Code	Test Information	Effective Date
Blastomyces Antibody (CF reflex to ID)	BLSCF	89427	<b>Specimen Requirement:</b> 1.5 mL serum–serum separator tube; Minimum: 1 mL; Refrigerated <b>Stability:</b> Ambient: 12 hours Refrigerated: 72 hours Frozen: Indefinitely at -80° C with no freeze thaw cycles <b>Methodology:</b> Complement Fixation (CF) <b>Reference Range:</b> Negative < 1:8 <b>Special Information:</b> Any CF result not < 1:8, will reflex to Blastomyces Antibody ID at an additional cost. <b>Days Performed:</b> Monday, Wednesday <b>Reported:</b> 2–7 days <b>CPT:</b> 86612 <b>Price:</b> \$54.00	6/16/2015
Coccidioides Antibody (CF reflex to ID)	COCCF	80520	<b>Specimen Requirement:</b> 1.5 mL serum–serum separator tube; Minimum: 1 mL; Refrigerated <b>Stability:</b> Ambient: 12 hours Refrigerated: 72 hours Frozen: Indefinitely at -80° C with no freeze/thaw cycles <b>Methodology:</b> Complement Fixation (CF) <b>Reference Range:</b> Negative < 1:2 <b>Special Information:</b> Any CF result which is not < 1:2 will automatically reflex to Coccidioides Antibody ID at an additional cost. <b>Days Performed:</b> Monday, Wednesday <b>Reported:</b> 2–7 days <b>CPT:</b> 86635 <b>Price:</b> \$48.00	6/16/2015
Galactose-alpha-1,3-galactose IgE	13GAL	90529	<b>Specimen Requirement:</b> 1 mL serum–serum separator tube; Minimum: 0.5 mL; Refrigerated <b>Stability:</b> Ambient: 4 weeks Refrigerated: 4 weeks Frozen: 1 year <b>Methodology:</b> Immunoassay (IA) <b>Reference Range:</b> < 0.35 kU/L <b>Days Performed:</b> Monday–Friday <b>Reported:</b> 2–3 days <b>CPT:</b> 86003 <b>Price:</b> \$69.00 (non-discountable)	6/9/2015
Histoplasma Antibody (CF reflex to ID)	HISCF	80521	<b>Includes:</b> Histoplasma Mycelial Antibody CF Histoplasma Yeast Antibody CF <b>Specimen Requirement:</b> 1.5 mL serum–serum separator tube; Minimum: 1 mL; Refrigerated <b>Stability:</b> Ambient: 12 hours Refrigerated: 72 hours Frozen: Indefinitely at -80° C with no freeze/thaw cycles <b>Methodology:</b> Complement Fixation (CF) <b>Reference Range:</b> Histoplasma Mycelial Ab: Negative < 1:8 Histoplasma Yeast Ab: Negative < 1:8 <b>Special Information:</b> Any result which is not < 1:8 will automatically reflex to Histoplasma Antibody ID at an additional cost. <b>Days Performed:</b> Monday, Wednesday <b>Reported:</b> 2–7 days <b>CPT:</b> 86698x2 <b>Price:</b> \$106.00	6/16/2015

## New Tests

Test Name	Order Code	Billing Code	Test Information	Effective Date
Levamisole	LEVAM	90519	<b>Specimen Requirement:</b> 1 mL serum–red top tube; Minimum: 0.4 mL; Refrigerated *OR* 1 mL plasma–EDTA lavender top tube; Minimum: 0.4 mL: Refrigerated <b>Stability:</b> Ambient: 2 days Refrigerated: 30 days Frozen: 12 months <b>Methodology:</b> High Performance Liquid Chromatography–Tandem Mass Spectrometry (LC-MS/MS) <b>Days Performed:</b> Thursday <b>Reported:</b> 4–11 days <b>CPT:</b> 80375 <b>Price:</b> \$245.00 (non-discountable)	6/2/2015
Staff Review of CBC and Differential	STREV	90532	<b>Includes:</b> White Blood Cells Red Blood Cells Hemoglobin Hematocrit MCV, MCH, MCHC Red Cell Distribution Width (RDW) Platelet count Mean Platelet Volume (MPV) Neutrophil % Absolute Neutrophil Lymphocyte % Absolute Lymphocyte Monocyte % Absolute Monocyte Eosinophil % Absolute Eosinophil Basophil % Absolute Basophil Staff Review <b>Specimen Requirement:</b> 2.5 mL whole blood–EDTA lavender top tube; Minimum: 0.5 mL; Ambient <b>Stability:</b> Ambient: 24 hours Refrigerated: 48 hours Frozen: Unacceptable <b>Methodology:</b> Automated Cell Counter Pathologist Evaluation <b>Reference Range:</b> See Complete Blood Cell Count and Differential (CBCDIF) <b>Days Performed:</b> Monday–Saturday <b>Reported:</b> 2 days <b>CPT:</b> 85060, 85025 <b>Price:</b> \$70.00	6/9/2015

## Fee Increases

Test Name	Order Code	Billing Code	List Fee	CPT Code	Effective Date
Beta-2 Transferrin	B2TRAN	82885	\$452.00 (non-discountable)	86335	4/1/2015
HIV-1 Western Blot	HIV1CO	75778	\$112.00 (non-discountable)	86689	5/5/2015
Quantitative Pain Panel, Urine	UQNTPP	82347	\$507.00 (discountable)	80324, 80348, 80349, 80353, 80354, 80358, 80361, 80363, 80365, 80373, 80356	4/1/2015

## Fee Reductions

Test Name	Order Code	Billing Code	List Fee	CPT Code	Effective Date
Admark Phospho-Tau CSF	PHOTAU	90106	\$812.00	83520x3	6/2/2015
Allergen, Respiratory Region 8	RESPR8	90027	\$924.00	86003x28	6/2/2015
Bronchopulmonary Aspergillosis	ABPA	82603	\$139.00 (discountable)	82785, 86003, 86331, <b>86001</b>	4/16/2015
Estrogen, Serum Fractionated	ESTGEN	75491	\$130.00	82671	6/16/2015
Glomerular Basement Membrane IgG	GBMBG	77137	\$130.00	83516	6/16/2015
Herpes Simplex by PCR	HSPCR	79044	\$185.00	87529x2	6/16/2015
Leflunomide as Metabolite	LEFLUN	83212	\$56.00 (non-discountable)	80299	4/1/2015
Pipecolic Acid, Serum	PIPE	84130	\$138.00 (non-discountable)	82543	4/1/2015
Serotonin, Whole Blood	SEROWB	81302	\$66.00 (non-discountable)	84260	4/9/2015
Torch Antibodies, IgG & IgM	TORCH	79189	\$350.00 (discountable)	86695, 86644, 86645, 86696, 86777, 86778, 86762x2, 86694	6/16/2015

## Discontinued Tests

Test Name	Order Code	Billing Code	Test Information	Effective Date
Alpha-1-Antitrypsin Quantitation and Phenotyping	PHA1A	84187	This test will no longer be available. Suggest ordering Alpha 1 Antitrypsin Serum Level and SERPINA1 Targeted Genotyping (A1APG)	6/23/2015
Lactoferrin, Fecal	LFERRN	82959	This test will no longer be available. Suggest ordering Fecal Lactoferrin (STLWBC)	6/2/2015
Organic Acids, Neonate Urine	UOANEO	76978	This test will no longer be available. Suggest ordering Organic Acids Urine, Quantitative (UORA)	6/9/2015