



Technical Update • December 2013

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	Special Information	Specimen Requirement	Component Change	Methodology	Reference Range	Days Performed/Reported	CPT
8	ADAMTS13 Profile											
2	Angiotensin II											
5	Arbovirus Antibodies, IgG and IgM, CSF											
5	Bacterial Vaginosis Scored Gram Stain											
2	BAL FCM Markers											
2	BAL FCM Markers Package											
6	Bartonella quintana Antibodies IgG and IgM											
2	BK Virus PCR Qualitative, Urine											
6	Buprenorphine & Metabolites, Confirmation/Quant, Serum/Plasma											
2	Collagen Type II Antibody											
3	FirstScreen First Trimester Screening											
3	HLA B5701											
8	Human Metapneumovirus Detection											
7	Immunoglobulin A Subclasses (1 & 2)											
3	Influenza Detection											
3	Influenza/RSV Detection											
3	Lactate, Precipitated											
3	Lactate / Pyruvate											
3	Metformin											
8	Parainfluenza Culture 1, 2, 3											
8	Parainfluenza Culture 1, 2, 3 DFA											
7	Pneumococcal IgG Antibodies, 23 Serotypes											

Test Update Page #	Summary of Changes by Test Name	Order Code	Billing Code	Name Change	New Test	Test Discontinued	Specimen Information	Component Requirement	Reference Change	Methodology	Days Performed/Reported	CPT
3	Proinsulin, Intact											
4	Pyruvic Acid											
4	Pyruvic Acid, CSF											
8	Respiratory Syncytial Virus DFA											
4	RSV Viral Detection											
4	Silver, Urine											
8	Uric Acid, Body Fluid											
8	Vaginal Smear for Candida											
4	Vaginal Pathogens DNA Direct Probe											
8	Vaginitis Exam											
8	Viral Culture, Immunocompromised Respiratory											
8	Viral Culture, Miscellaneous											
8	Viral Culture, Respiratory											
4	von Willebrand Type 2N Sequence Analysis											

Test Changes

Test Name	Order Code	Billing Code	Change	Effective Date
Angiotensin II	ANGII	79535	Specimen Requirement: 1 mL plasma from an EDTA lavender top tube; Place specimen on ice after collection; Remove plasma from cells ASAP or within 2 hours of collection. Keep cold during centrifugation; Frozen	12/19/2013
BAL FCM Markers	FCBAL	83168	Includes: CD3 T Cell%, CD4 T Cell %, CD8 T Cell %. CD19 B Cell % CD16&56 NK Cell % , CD4/CD8 Ratio Test build may need to be modified Specimen Requirement: 10 mL Bronchioalveolar Lavage (BAL) in a sterile container; Specimen MUST be kept at Ambient temperature and be received in the performing lab within 48 hours of collection; Ambient CPT: 86356x5	1/29/2014
BAL FCM Markers Package	BALFCM	40	Includes: CD3 T Cell%, CD4 T Cell %, CD8 T Cell %. CD19 B Cell % CD16&56 NK Cell % , CD4/CD8 Ratio, Cell Count & Differential Test build may need to be modified Specimen Requirement: 10 mL Bronchioalveolar Lavage (BAL) in a sterile container; Specimen MUST be kept Ambient and be received in the performing lab within 48 hours of collection; Ambient CPT: 86356x5, 89051	1/29/2014
BK Virus PCR Qualitative, Urine	UBKQAL	87650	Components: BK Virus PCR, Ur Test build will need to be modified Reference Range: Negative Days Performed: Monday, Wednesday, Friday Reported: 4 - 6 days	12/18/2013
Collagen Type II Antibody	CIAB	88122	Methodology: Enzyme-Linked Immunosorbent Assay (ELISA)	1/2/2014

Test Changes (cont.)

Test Name	Order Code	Billing Code	Change	Effective Date
FirstScreen First Trimester Screening	FIRSCN	83620	Components: PAPP-A hCG Interpretation Down Syndrome Screening Risk Trisomy 18 Screening Risk Down Syndrome Age Related Risk Trisomy 18 Age Related Risk Test build will need to be modified	1/16/2014
HLA B5701	B5701	84337	Special Information: Informed Consent Form for Genetic Testing is no longer required for this test.	1/9/2014
Influenza Detection	FLU	83313	Special Information: Dry swabs (swabs not received in VTM) will be rejected.	12/2/2013
Influenza/RSV Detection	FLURSV	83314	Special Information: Dry swabs (swabs not received in VTM) will be rejected.	12/2/2013
Lactate, Precipitated	LACPRE	81323	Special Information: Place whole blood on ice immediately after collection. Deproteinize whole blood within 30 minutes of collection to stop additional evolution of lactate. Specimen processing /deproteinizing instructions: 1. Collect one 5 mL gray (sodium fluoride / potassium oxalate) tube 2. Within 30 minutes of collection, add 1 mL well mixed oxalated whole blood to 2 mL cold 12% TCA. A 1:2 ratio of whole blood to 12% TCA must be maintained for accurate quantitation. 3. Repeat step two to create two separate deproteinized samples 4. Vortex both precipitation tubes vigorously and refrigerate or place on wet ice for 10 minutes. 5. After 10 minutes of cold incubation, centrifuge both tubes for 10 minutes at 1000G. 6. Decant supernatant into two clean, well sealed transport tubes. 7. Label tube with patient information along with "TCA Precipitate". Precipitated samples may be transported at refrigerated temperature; frozen transport is also acceptable. Stability Information is for precipitated samples. Specimen Requirement: 4 mL whole blood in a potassium oxalate/sodium fluoride gray top tube; Place specimen on ice after collection; Refrigerated	11/15/2013
Lactate / Pyruvate	LACPYP	80209	Special Information: Place whole blood on ice immediately after collection. Deproteinize whole blood within 30 minutes of collection to stop additional evolution of lactate / pyruvate. Specimen processing /deproteinizing instructions: 1. Collect one 5 mL gray (sodium fluoride / potassium oxalate) tube 2. Within 30 minutes of collection, add 1 mL well mixed oxalated whole blood to 2 mL cold 12% TCA. A 1:2 ratio of whole blood to 12% TCA must be maintained for accurate quantitation. 3. Repeat step two to create two separate deproteinized samples 4. Vortex both precipitation tubes vigorously and refrigerate or place on wet ice for 10 minutes. 5. After 10 minutes of cold incubation, centrifuge both tubes for 10 minutes at 1000G. 6. Decant supernatant into two clean, well sealed transport tubes. 7. Label tube with patient information along with "TCA Precipitate". Precipitated samples may be transported at refrigerated temperature; frozen transport is also acceptable. Stability Information is for precipitated samples. Specimen Requirement: 4 mL whole blood in a potassium oxalate/sodium fluoride gray top tube; Place specimen on ice after collection; Refrigerated	11/15/2013
Metformin	MTFORM	88120	Days Performed: Wednesday Reported: 4 - 11 days	2/3/2014
Proinsulin, Intact	IPROIN	79206	Specimen Requirement: 1 mL serum from a serum separator tube; Patient MUST fast 12 - 15 hours prior to collection; Separate serum from cells ASAP or within 2 hours of collection, aliquot and immediately freeze; Transport Frozen	11/18/2013

Test Changes (cont.)

Test Name	Order Code	Billing Code	Change	Effective Date
Pyruvic Acid	PYRUV	84210	<p>Special Information: Place whole blood on ice immediately after collection. Deproteinize whole blood within 30 minutes of collection to stop additional evolution of pyruvate. Specimen processing /deproteinizing instructions:</p> <ol style="list-style-type: none"> 1. Collect one 5 mL gray (sodium fluoride / potassium oxalate) tube 2. Within 30 minutes of collection, add 1 mL well mixed oxalated whole blood to 2 mL cold 12% TCA. A 1:2 ratio of whole blood to 12% TCA must be maintained for accurate quantitation. 3. Repeat step two to create two separate deproteinized samples 4. Vortex both precipitation tubes vigorously and refrigerate or place on wet ice for 10 minutes. 5. After 10 minutes of cold incubation, centrifuge both tubes for 10 minutes at 1000G. 6. Decant supernatant into two clean, well sealed transport tubes. 7. Label tube with patient information along with "TCA Precipitate". <p>Precipitated samples may be transported at refrigerated temperature; frozen transport is also acceptable. Stability Information is for precipitated sample.</p> <p>Specimen Requirement: 4 mL whole blood in a potassium oxalate/sodium fluoride gray top tube; Place specimen on ice after collection; Refrigerated</p>	11/15/2013
Pyruvic Acid, CSF	FPYRUV	77614	<p>Special Information: Keep CSF on ice until deproteinization / precipitation. Deproteinize cerebral spinal fluid (CSF) after collection using the following processing instructions:</p> <ol style="list-style-type: none"> 1. Add 1 mL well mixed CSF to 2 mL cold 12% TCA. A 1:2 ratio of CSF to 12% TCA must be maintained for accurate quantitation. 2. Vortex precipitation tube vigorously and refrigerate or place on wet ice for 10 minutes. 3. After 10 minutes of cold incubation, centrifuge for 10 minutes at 1000G. 4. Decant supernatant into a clean, well sealed transport tube. 5. Label tube with patient information along with "TCA Precipitate". <p>Precipitated samples may be transported at refrigerated temperature; frozen transport is also acceptable. Stability Information is for precipitated sample.</p> <p>Specimen Requirement: 1 mL cerebrospinal fluid (CSF) in a sterile container; Place specimen on ice after collection; Refrigerated</p>	11/14/2013
RSV Viral Detection	RSVPCR	83630	<p>Special Information: Dry swabs (swabs not received in VTM) will be rejected.</p>	12/2/2013
Silver, Urine	UAG	75070	<p>Reference Range: Normally < 2 µg/L</p>	12/16/2013
Vaginal Pathogens DNA Direct Probe	VAGDNA	88354	<p>Special Information: Specimens must be collected and transported using the BD Affirm VPIII Ambient Transport System. Any other transport system is unacceptable. Specimens must be received within 72 hours of collection. Vaginal specimens are the only acceptable specimen type. This test is used for women with symptoms of vaginitis. Other tests for the evaluation of vaginitis are available on vaginal fluid or vaginal swab specimens. If only bacterial vaginosis is suspected, then the Bacterial Vaginosis Scored Gram Stain (BVSTN) should be ordered. If only candidiasis is suspected, then the Vaginal Smear for Candida (CANSTN) should be ordered. The diagnosis of trichomoniasis is challenging in the traditional wet mount relies on the mobility of the parasite, which is lost during transport. Wet mount preparations are not acceptable if the transport time exceeds 6 hours; optimal transport time is less than 1 hour. If trichomoniasis is suspected then the OSOM Trichomonas Rapid test (TRICHO) should be ordered. It should be noted that molecular diagnostic methods have significantly higher cost to patient charges than other methods. If a vaginal specimen is submitted in a BD Affirm VPIII collection tube, the Vaginal Pathogens DNA Direct Probe test (VAGDNA) will be performed.</p>	1/16/2014
von Willebrand Type 2N Sequence Analysis	TYPE2N	82906	<p>Days Performed: Monday - Friday</p> <p>Reported: 3 - 4 weeks</p> <p>CPT: 81405</p>	1/9/2014

New Tests

Test Name	Order Code	Billing Code	Test Information	Effective Date
Arbovirus Antibodies, IgG and IgM, CSF	ARCSF	89763	<p>Includes:</p> <ul style="list-style-type: none"> St. Louis Encephalitis Antibody, IgG California Encephalitis Antibody, IgG Eastern Equine Encephalitis Antibody, IgG Western Equine Encephalitis Antibody, IgG West Nile Virus Antibody, IgG St. Louis Encephalitis Antibody, IgM California Encephalitis Antibody, IgM Eastern Equine Encephalitis Antibody, IgM Western Equine Encephalitis Antibody, IgM West Nile Virus Antibody, IgM <p>Specimen Requirement: 4 mL cerebrospinal fluid (CSF) in a sterile container; Frozen</p> <p>Methodology:</p> <ul style="list-style-type: none"> Enzyme-Linked Immunosorbent Assay (ELISA) Semi-quantitative Indirect Fluorescent Antibody (IFA) <p>Reference Range:</p> <ul style="list-style-type: none"> St. Louis Encephalitis Antibody, IgG: < 1:1 California Encephalitis Antibody, IgG: < 1:1 Eastern Equine Encephalitis Antibody, IgG: < 1:1 Western Equine Encephalitis Antibody, IgG: < 1:1 West Nile Virus Antibody, IgG: <ul style="list-style-type: none"> ≤ 1.29 IV: Negative 1.30 - 1.49 IV: Equivocal ≥ 1.50 IV: Positive St. Louis Encephalitis Antibody, IgM: < 1:1 California Encephalitis Antibody, IgM: < 1:1 Eastern Equine Encephalitis Antibody, IgM: < 1:1 Western Equine Encephalitis Antibody, IgM: < 1:1 West Nile Virus Antibody, IgM: <ul style="list-style-type: none"> ≤ 0.89 IV: Negative 0.90 - 1.10 IV: Equivocal ≥ 1.11 IV: Positive <p>Days Performed: Tuesday, Friday</p> <p>Reported: 2 - 6 days</p> <p>CPT: 86651x2, 86652x2, 86653x2, 86654x2, 86789, 86788</p> <p>Price: \$488.00 (non-discountable)</p>	12/19/2013
Bacterial Vaginosis Scored Gram Stain	BVSTN	89767	<p>Special Information: Determination of a score for the relative amounts of microbial morphologies observed in a Gram Stain of vaginal fluid is the definitive method for diagnosing bacterial vaginosis. A predominance of medium to large gram positive bacilli suggestive of lactobacilli (score 0 - 3) is consistent with normal vaginal flora. A predominance of gram-negative or variable rods suggestive of Gardnerella vaginalis, Mobiluncus, and Bacteroides species (score 7 - 10) is consistent with bacterial vaginosis. An intermediate score (4 - 6) suggest a transition from normal vaginal flora.</p> <p>Specimen Requirement: One vaginal swab; Ambient</p> <p>Methodology: Scored microscopic examination for normal versus abnormal vaginal bacteria using Gram Stain</p> <p>Reference Range: Negative for Bacterial Vaginosis</p> <p>Days Performed: Sunday - Saturday</p> <p>Reported: 1 day</p> <p>CPT: 87205</p> <p>Price: \$62.00</p>	1/16/2014

New Tests (cont.)

Test Name	Order Code	Billing Code	Test Information	Effective Date
Bartonella quintana Antibodies IgG and IgM	BARQAB	89771	<p>Specimen Requirement: 1 mL serum from a serum separator tube; Separate serum from cells within 2 hours of collection; Refrigerated</p> <p>Methodology: Indirect Fluorescent Antibody (IFA)</p> <p>Reference Range: Bartonella quintana Antibody IgG: < 1:64: Negative 1:65 - 1:128: Equivocal ≥ 1:256: Positive Bartonella quintana Antibody, IgM: < 1:16: Negative ≥ 1:16: Positive</p> <p>Days Performed: Monday, Thursday</p> <p>Reported: 2 - 9 days</p> <p>CPT: 86611x2</p> <p>Price: \$66.00 (non-discountable)</p>	12/19/2013
Buprenorphine & Metabolites, Confirmation/Quant, Serum/Plasma	SBUP	89772	<p>Special Information: Confirmation will be performed at no additional cost. For medical purposes only; not valid for forensic use.</p> <p>Positive Cutoff: Buprenorphine: 2 ng/mL Norbuprenorphine: 2 ng/mL Buprenorphine glucuronide: 5 ng/mL Norbuprenorphine glucuronide: 5 ng/mL</p> <p>Includes: Buprenorphine Norbuprenorphine Buprenorphine glucuronide Norbuprenorphine glucuronide</p> <p>Specimen Requirement: 2 mL serum from a red top tube; Do not use serum separator tubes; Remove serum from cells ASAP or within 2 hours of collection; Refrigerated</p> <p>Methodology: Liquid Chromatography-Tandem Mass Spectrometry (LC-MS/MS)</p> <p>Reference Range: Not available</p> <p>Days Performed: Sunday - Saturday</p> <p>Reported: 2 - 5 days</p> <p>CPT: 83925</p> <p>Price: \$120.00 (non-discountable)</p>	1/9/2014

New Tests (cont.)

Test Name	Order Code	Billing Code	Test Information	Effective Date
Immunoglobulin A Subclasses (1 & 2)	IGA12	89741	<p>Includes:</p> <ul style="list-style-type: none"> Immunoglobulin A Immunoglobulin A Subclass 1 Immunoglobulin A Subclass 2 <p>Specimen Requirement: 2 mL serum from a serum separator tube; Centrifuge, aliquot and freeze; Transport Frozen</p> <p>Methodology: Nephelometry</p> <p>Reference Range:</p> <p>Immunoglobulin A:</p> <ul style="list-style-type: none"> 0 - 30 days: 1 - 7 mg/dL 1 month: 1 - 53 mg/dL 2 months: 3 - 47 mg/dL 3 months: 5 - 46 mg/dL 4 months: 4 - 72 mg/dL 5 months: 8 - 83 mg/dL 6 months: 8 - 67 mg/dL 7 - 8 months: 11 - 89 mg/dL 9 - 11 months: 16 - 83 mg/dL 1 year: 14 - 105 mg/dL 2 years: 14 - 122 mg/dL 3 years: 22 - 157 mg/dL 4 years: 25 - 152 mg/dL 5 - 7 years: 33 - 200 mg/dL 8 - 9 years: 45 - 234 mg/dL ≥10 years: 68 - 378 mg/dL <p>Immunoglobulin A Subclass 1:</p> <ul style="list-style-type: none"> 0 - 11 months: 1 - 115 mg/dL 1 year: 3 - 120 mg/dL 2 years: 7 - 132 mg/dL 3 years: 11 - 143 mg/dL 4 - 7 years: 23 - 175 mg/dL 8 - 11 years: 33 - 204 mg/dL 12 - 18 years: 47 - 249 mg/dL Adult: 60 - 294 mg/dL <p>Immunoglobulin A Subclass 2:</p> <ul style="list-style-type: none"> 0 - 11 months: 0 - 19 mg/dL 1 year: 0 - 23 mg/dL 2 years: 1 - 23 mg/dL 3 years: 1 - 25 mg/dL 4 - 7 years: 2 - 33 mg/dL 8 - 11 years: 2 - 37 mg/dL 12 - 18 years: 4 - 50 mg/dL Adult: 6 - 61 mg/dL <p>Days Performed: Wednesday, Saturday</p> <p>Reported: 2 - 6 days</p> <p>CPT: 82784, 82787x2</p> <p>Price: \$135.00 (non-discountable)</p>	12/10/2013
Pneumococcal IgG Antibodies, 23 Serotypes	PNE23	89757	<p>Special Information: Post-immunization specimens should be drawn 30 days after immunization. If both a pre-immunization and post-immunization specimen is collected, they must be received within 60 days of each other. Mark specimens clearly "PRE" or "POST" so that specimens will be saved and tested simultaneously.</p> <p>Includes: Serotypes 1, 2, 3, 4, 5, 6B, 7F, 8, 9N, 9V, 10A, 11A, 12F, 14, 15B, 17F, 18C, 19A, 19F, 20, 22F, 23F, and 33F. (Conjugated Serotypes: 1, 3, 4, 5, 6B, 7F, 9V, 14, 18C, 19A, 19F, and 23F)</p> <p>Specimen Requirement: 1.5 mL serum from a serum separator tube; Separate from cells ASAP or within 2 hours of collection; Refrigerated</p> <p>Methodology: Quantitative Multiplex Bead Assay</p> <p>Reference Range: Refer to report</p> <p>Days Performed: Tuesday</p> <p>Reported: 2 - 5 days</p> <p>CPT: 86317x23</p> <p>Price: \$483.00 (non-discountable)</p>	1/9/2014

New Tests (cont.)

Test Name	Order Code	Billing Code	Test Information	Effective Date
Uric Acid, Body Fluid	FLURIC	89773	Special Information: Breast milk, salivary fluid, and fluids too viscous to be aspirated by instrument are unacceptable. Specimen Requirement: 1 mL body fluid in a clean container; Indicate source; Centrifuge to remove cellular material; Refrigerated Methodology: Indirect Fluorescent Antibody (IFA) Reference Range: Not established Days Performed: Sunday - Saturday Reported: 2 - 3 days CPT: 84560 Price: \$39.00 (non-discountable)	1/16/2014
Vaginal Smear for Candida	CANSTN	89765	Specimen Requirement: One vaginal swab; Ambient Methodology: Microscopic examination for fungal elements using Gram Stain Reference Range: No fungus seen Days Performed: Sunday - Saturday Reported: 1 day CPT: 87205 Price: \$62.00	1/16/2014

Discontinued Tests

Test Name	Order Code	Billing Code	Test Information	Effective Date
ADAMTS13 Profile	ADAM13	82945	This test will no longer be available. Suggest ordering ADAMTS13 Activity Assay (ADM13A), ADAMTS13 Inhibitor (ADM13I), and/or ADAMTS13 Antibody (ADMAB)	12/31/2013
Human Metapneumovirus Detection	HUMPV	84400	This test will no longer be available. Suggest ordering Respiratory Viral Panel by PCR (RVPPCR)	1/23/2014
Parainfluenza Culture 1, 2, 3	VPARA	75735	This test will no longer be available. Suggest ordering Respiratory Viral Panel by PCR (RVPPCR)	1/23/14
Parainfluenza Culture 1, 2, 3 DFA	DPARA	77084	This test will no longer be available. Suggest ordering Respiratory Viral Panel by PCR (RVPPCR)	1/23/2014
Respiratory Syncytial Virus DFA	DRSV	77092	This test will no longer be available. Suggest ordering Respiratory Viral Panel by PCR (RVPPCR)	1/23/2014
Vaginitis Exam	VAGEXM	82025	This test will no longer be available. Suggest ordering Vaginal Pathogens DNA Probes (VAGDNA), Bacterial Vaginosis Scored Gram Stain (BVSTN), Trichomonas Prep (TRICHO), and/or Vaginal Smear for Candida (CANSTN)	1/16/2014
Viral Culture, Immunocompromised Respiratory	VPIMMR	77148	This test will no longer be available. Suggest ordering Respiratory Viral Panel by PCR (RVPPCR)	1/23/2014
Viral Culture, Miscellaneous	VPMISC	77149	This test will no longer be available.	1/23/2014
Viral Culture, Respiratory	VPRESP	77147	This test will no longer be available.	1/23/2014