

New Procedure

Several new procedures have been made available since the last issue of *LabHorizons* was published. For a complete file of LabCorp's published clinical assays, keep back issues of *LabHorizons* together with your copy of the *Directory of Services and Interpretive Guide*. Now you can access the electronic *Directory* at www.LabCorp.com; just click on the "Directory of Services" button.

First Trimester Serum Screen 017500

CPT 84702; 84163, 86336

Test Includes Human chorionic gonadotropin (hCG); pregnancy-associated plasma protein A (PAPP-A); and dimeric inhibin A (DIA) combined with client supplied maternal age and client determined fetal nuchal translucency (NT) measurement by a sonographer with NT credentialing/certification

Special Instructions The following information must be provided: patient's weight, patient's date of birth, fetal crown rump length (CRL) and nuchal translucency measurement (NT) and the date on which these measurements were taken. Also indicate relevant patient history (eg, previous Down syndrome pregnancy, ultrasound anomalies). Complete information is necessary to interpret the test. Patient information may be provided to the laboratory using the Maternal Prenatal Screening test request form (0900). Testing provided from 10.0 to 13.9 weeks of gestation.

Specimen Serum

Volume 3.0 mL

Minimum Volume 1.0 mL

Container Gel-barrier tube

Collection Avoid hemolysis; send complete specimen in the original tube. Do **not** pour off.

Storage Instructions Refrigerate

Causes for Rejection Gross hemolysis; gross lipemia; quantity not sufficient for analysis; improper specimen type; fetal nuchal translucency (NT) measurement by a sonographer without NT credentialing/certification

Use Screening test for Down syndrome (detects 86%), and trisomy 18 (detects 75%). First trimester screening cannot detect other chromosome abnormalities or birth defects nor does it screen for open neural tube defects (ONTD). Women who choose first trimester screening, therefore, should still receive maternal serum AFP screening for ONTD between 16 and 18 weeks of gestation.

Methodology PAPP-A and DIA by EIA, hCG by immunochemiluminometric assay (ICMA).

References

1. Wald NJ, Rodeck C, Hackshaw AK, Chitty L, Mackinson AM. First and second trimester antenatal screening for Down's syndrome: The results of the Serum, Urine and Ultrasound Screening Study (SURUSS). *J Med Screen*. 2003; 10:56-104.
2. American College of Obstetricians and Gynecologists. First trimester screening for fetal aneuploidy. Committee Opinion. 2004; July (296).
3. Tul N, Spencer K, Noble P, Chan C, Nicolaides K. Screening for trisomy 18 by fetal nuchal translucency and maternal serum free beta hCG and PAPP-A at 10-14 weeks of gestation. *Prenat Diagn*. 1999;19:1035-1042.
4. American College of Obstetricians and Gynecologists. Maternal Serum Screening. Committee Opinion #228, Sept. 1996.
5. Haddow JE, Palomaki GE, Knight GJ, Foster DL, Neveux LM. Second trimester screening for Down's syndrome using maternal serum dimeric inhibin A. *J Med Screen*. 1998; 5(3):115-119.

Announcements

Neurofibromatosis 1 (NF-1) Testing Discontinued

Beginning in August 2005, due to declining requests from our clients, LabCorp will no longer offer **Neurofibromatosis 1 (NF-1), Direct Analysis, Known Mutation** (511006) and **Neurofibromatosis 1 (NF-1), Direct Analysis, Unknown Mutation** (511014). Because specimens for these assays are time-sensitive, LabCorp will not accept these specimens and send them on to a testing laboratory. Clients who want to request this testing may contact the University

of Alabama at Birmingham (UAB) Medical Genomics Laboratory in Birmingham, Ala, directly before having the samples drawn and shipped. For information about testing, contact Ludwine M Messiaen, PhD, Director, Medical Genomics Laboratory, University of Alabama at Birmingham (UAB), Birmingham. E-mail: lmessiaen@genetics.uab.edu; telephone: 205-934-5562, 205-996-2915; fax: 205-996-2929.

Default Testing for Special Chemistry

The 2005-2006 edition of the *Directory of Services and Interpretive Guide* (DoS) incorporates an appendix that now includes default testing for special chemistry as well as for testing performed by the microbiology department (routine microbiology, parasitology, DNA probe testing, mycology, mycobacteriology, microbiology reference testing, virology).

Page 463 of the DoS displays a list of 14 special chemistry tests that are often ordered with the wrong test number. These inappropriate

orders are the result of (1) collection time (eg, random urine vs 24-hour urine), (2) preservative (eg, unpreserved urine vs HCL preservative), or (3) specimen type (eg, serum vs plasma) error. When orders with these types of inconsistencies are received, the tests identified on this list will be changed automatically—without prior notification to the ordering physician—in accordance with LabCorp's published default policy. The final result report issued will include notification that the test number was changed in accordance with the collection time, preservative, or specimen source received.

Susceptibility Testing Updated

Due to client requests for testing of new antibiotics, recommendations in "bug-drug" reporting from the Clinical and Laboratory Standards Institute (CLSI), and changes from the manufacturer of our antibiotic panels, some of the susceptibility test results that accompany our culture reports will change as our current supplies of antimicrobial panels are depleted.

Some of the particular changes are:

- cefepime, imipenem, piperacillin/tazobactam, and tetracycline for enteric Gram-negative rods (Enterobacteriaceae) will be added;
- cefazolin, norfloxacin, and ticarcillin/clavulanate for Enterobacteriaceae will be removed;
- extended-spectrum beta-lactamase testing results will be reported for all *E. coli*, *Klebsiella pneumoniae*, and *Klebsiella oxytoca* isolates;
- ampicillin/sulbactam, cefepime, cefotaxime, minocycline, and

piperacillin/tazobactam will be added for *Pseudomonas aeruginosa* and/or *Acinetobacter baumannii*, and meropenem will replace imipenem for these organisms;

- linezolid will be added to drugs reported for *S. aureus*;
- linezolid and rifampin will be added for vancomycin-resistant isolates of Enterococcus (VRE), and quinupristin-dalfopristin will be added when the VRE is an *E. faecium*.

These changes are the results of efforts by both LabCorp and our suppliers to provide you with susceptibility test results consistent with the most current antimicrobial therapy recommendations from various authorities, including CLSI, *The Medical Letter on Drugs and Therapeutics*, the *Sanford Guide to Antimicrobial Therapy*, and standard texts on infectious diseases.

If there are any questions concerning these changes, please contact your LabCorp representative, or call the nearest LabCorp branch.

New and Revised CPT Codes

The list below includes new and revised CPT code(s) for 2005. This list consists of routine tests only. It does not include any custom panels created for individual clients. Please contact your local LabCorp account manager if you have questions.

Note: The CPT codes listed here are in accordance with the current edition of *Current Procedural Terminology*, a publication of the American Medical Association. CPT codes are provided for the convenience of our clients; however, correct coding often varies from one carrier to another. Consequently, the codes presented here are intended as general guidelines and should not be used without confirming with the applicable payor that their use is appropriate in each case.

Number	Test Name	CPT Code(s)
165118	Celiac Disease Antibody Screen With Reflex Profile	83516(x2); 82784
165126	Celiac Disease Comprehensive Profile	83516(x4); 86255; 82784
165167	Celiac Disease Pediatric Antibody Profile	83516(x2); 82784
511311	Colon Cancer, Microsatellite Instability	83891(x2); 83894(x2); 83912; 83901(x2);
511160	Cytochrome P450 2D6 Genotyping	83891; 83901; 83894; 83896(x25); 83898(x25); 83892(x25); 83903(x2); 83912
164996	Endomysial Antibodies	86255
180935	Enterohemorrhagic <i>E. coli</i> (EHEC) Shiga Toxin, EIA	87427
193130	Gynecologic Pap Test, Liquid-based Preparation and Chlamydia by Nucleic Acid Amplification With Reflex to HPV on ASC-U Profile	88142; 87491
551840	Hepatitis B Virus (HBV) GenoSure™	83890(x2); 83894(x2); 83898; 83904(x2); 83912
164913	Herpes Simplex Virus (HSV) Types I/II, IgG Evaluation With Reflex to Herpes I and II, Type-specific, IgG Tests	86694; (also includes 86695 and 86696 if reflex is performed.)
164970	Leptospira IgM Antibodies	86720
884247	NMR LipoProfile	82465; 83716
008623	Ova and Parasites Examination, Routine	87177; 88313-TC
480491	pml/RAR Translocation	83891; 83902; 83898(x3); 83896(x3); 83912
164988	Tissue Transglutaminase (tTG), IgG	83516
176548	Twin Zygosity Study	83890(x2); 83894(x2); 83901(x2); 83912

New Multiple-specimen Testing Procedures

Endocrine testing is often ordered for the same analyte for specimens collected at various times throughout the day. Protocols have recently been implemented to simplify and standardize the collection, submission, and reporting of multiple-specimen profiles. The procedures described apply to multiple-draw tests only.

All specimens must be from the same patient and must be submitted to the laboratory simultaneously. Each specimen must be clearly labeled with the patient's name, date of collection, and the draw time. Multiple-draw specimen labels (sequence labels) can be obtained from LabCorp.

Only one test request form accompanies the specimens; do **not** fill out a separate one for each specimen. The test request form is completed with all patient information, including any medications administered and the number of specimens sent. The test request form and all specimens should be sent in one container (box or plastic specimen transport bag).

Each specimen result will be identified on the report by the sequence numbers, associated times, or draw site(s) supplied. See the *Directory of Services and Interpretive Guide* for more information concerning individual procedures. See **Labeling Multiple-draw Specimens** below for ordering and labeling instructions.

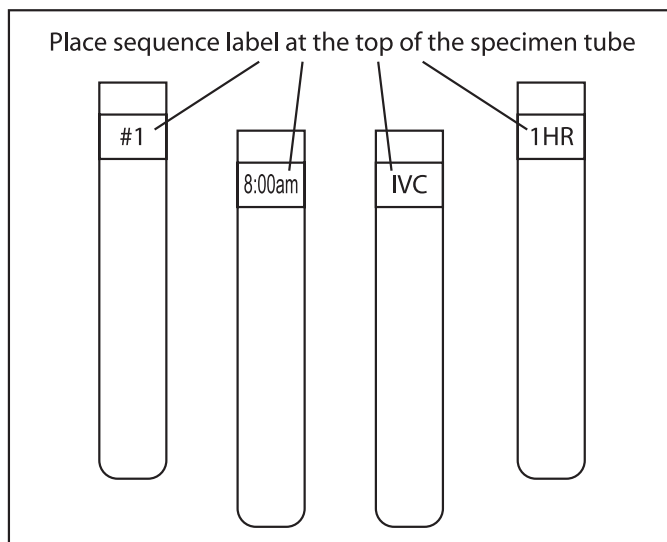
Test	CPT	Specimen	Volume	Storage	Number of Tubes and Associated Test Numbers							
					x2	x3	x4	x5	x6	x7	x8	
17OH Progesterone	83498	Serum	0.3 mL	Refrigerated	057232	047522	049742	015790	015791	015793	015789	
ACTH	82024	EDTA plasma	0.8 mL	Frozen	225250	038927	225268	038919	225276	038901	267708	
Aldosterone	82088	Serum	0.8 mL	Refrigerated	237537	053272	361626	271190	015795	015796	010848	
Calcitonin	82308	Serum	1.0 mL	Frozen	048249	026781	026799	026807	026815	015797	019845	
C-peptide	84681	Serum	1.0 mL	Frozen	143302	143333	143324	015798	319609	015801	015804	
DHEA	82626	Serum	0.3 mL	Refrigerated	273813	226803	226811	226829	226837	015809	015810	
DHEA-S	82627	Serum	1.0 mL	Refrigerated	144691	144706	146316	144707	144708	144710	144711	
Gastrin	82914	Serum	0.5 mL	Frozen	208827	038745	039438	038752	204644	034934	211268	
Growth Hormone	83003	Serum	0.8 mL	Refrigerated	026898	038844	045997	038836	004267	038869	208835	
Insulin	83525	Serum	0.8 mL	Refrigerated	146902	146993	147074	147165	147256	147397	014319	
Renin	84244	EDTA plasma	0.5 mL	Frozen	053686	038695	049510	038703	049528	091173	091181	

Labeling Multiple-draw Specimens

Sequence labels should be placed at the top of the specimen tube, just below the tube's stopper (see diagram below for correct orientation). Separating the sequence labels from other labels on the tube should prevent them from being covered up by bar codes, accessioning labels, etc. Space is available on the sequence label so that a sequence number (eg,

#1, #2, etc), collection time (eg, 8:00 AM, 9:00 AM), time description (eg, fasting, 30 min, etc), or the description of a draw site (eg, in renal vein sampling, an abbreviation such as IVC) can be written.

"Multispecimen panel" labels can be ordered from LabCorp using item number 3572885801. These orange labels are available in a pack containing five sheets for a total of 600 labels.



Updates to the *Directory of Services and Interpretive Guide*

Test Name	Number	Field/Change										
Lactic Acid	004770	<p>Specimen Plasma, frozen</p> <p>Collection Avoid hand-clenching and if possible, avoid use of a tourniquet. A tourniquet with patient clenching and unclenching hand, will lead to build-up of high potassium and lactic acid from the hand muscles, and pH will decrease. It is best to avoid a tourniquet for electrolytes and lactic acid, or to release it after blood begins to flow into tube. If the tourniquet is released before blood is drawn, wait about a minute before drawing. Keep gray-stopper tube on ice. Draw blood in gray-stopper tube. Mix well by gentle inversion at least six times. Return to ice bath to cool. Within 15 minutes from draw, separate the plasma from blood by centrifugation at 400 xg for 10 minutes. Avoid excessive forces that contribute to hemolysis.</p> <p>Storage Instructions Freeze</p> <p>Patient Preparation Patient should not be on any intravenous infusion that would affect the acid-base balance. Patient should be in a fasting and resting state (should not exercise).</p> <p>Causes for Rejection Specimen not separated from cells within 15 minutes of draw; marked hemolysis; slight or moderate turbidity; perchloric acid supernatant.</p>										
Factor II (Prothrombin), DNA Analysis	511162	<p>Volume 7 mL whole blood or buccal swab kit</p> <p>Minimum Volume 3 mL whole blood or two buccal swabs</p>										
Catecholamines, Fractionated, Urinary Free and Vanillylmandelic Acid (VMA), 24-Hour Urine	286161	<p>Collection Collect 24-hour urine. Mix well. Send 60 mL aliquot. Record total 24-hour urine volume on test request form. Final pH must be ≤ 3. Note: Do not use boric acid or acetic acid as a preservative.</p> <p>Causes for Rejection Specimen not kept chilled; final urine pH not ≤ 3; boric acid or acetic acid used as a preservative</p>										
Colon Cancer, Microsatellite Instability	511311	<p>Specimen One paraffin-embedded tumor and either whole blood or paraffin-embedded normal tissue.</p> <p>Container Lavender-stopper (EDTA) tube or yellow-stopper (ACD) tube</p> <p>Use Identify tumors with microsatellite instability. High frequency microsatellite instability (MSI-H) is associated with hereditary nonpolyposis colorectal cancer (HNPCC), but is also found in 15% to 20% of sporadic colorectal cancers. The presence of MSI-H is associated with a more favorable prognosis.</p> <p>Limitations MSI-H is a marker of an underlying DNA mismatch repair defect, but does not confirm a diagnosis of HNPCC. If direct testing for gene mutations responsible for HNPCC is desired, please call 800-345-GENE (4363) for more information. Analysis of polyps for MSI is generally not recommended.</p> <p>Methodology Multiplex PCR, capillary electrophoresis</p>										
Complement C1q, Quantitative	016824	<p>Collection Draw sample on ice. Separate from cells in refrigerated centrifuge. Transfer specimen to plastic transport tube and freeze serum immediately at -20°C. To avoid delays in turnaround time when requesting multiple tests on frozen samples, please submit separate frozen specimens for each test requested.</p> <p>Storage Instructions Freeze</p> <p>Reference Interval Male: 11.8-23.8 mg/dL; female: 11.8-24.4 mg/dL</p>										
Dilute Russell's Viper Venom Time	117887	<p>Limitations The dRVVT may be prolonged in patients with deficiencies or inhibitors of factors X, V, II, and fibrinogen. Patients on warfarin will have extended dRVVT results. Plasma heparin levels >1 IU/mL may interfere with this test. Platelets are a rich source of phospholipid that can neutralize LA. Improper preparation of the platelet poor plasma at collection reduces the sensitivity of this assay for LA. Due to the heterogeneity of LA antibodies, no single assay will identify all cases.</p>										
Growth Hormone, Serum	004275	<p>Reference Interval (Pediatric and Adult)</p> <table border="0"> <tr> <td>1 day:</td> <td>5-53 ng/mL</td> </tr> <tr> <td>1 week:</td> <td>5-27 ng/mL</td> </tr> <tr> <td>1-12 months:</td> <td>2-10 ng/mL</td> </tr> <tr> <td>1 year and older:</td> <td>female: 0-10 ng/mL</td> </tr> <tr> <td></td> <td>male: 0-1 ng/mL</td> </tr> </table>	1 day:	5-53 ng/mL	1 week:	5-27 ng/mL	1-12 months:	2-10 ng/mL	1 year and older:	female: 0-10 ng/mL		male: 0-1 ng/mL
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<i>Mycobacterium tuberculosis</i> Detection by Nucleic Acid Amplification With AFB Culture	188540	<p>Specimen Tissue (respiratory only), sputum, respiratory aspirate, lavage fluid, pleural fluid, or cerebrospinal fluid.</p> <p>Volume 5 mL; a small sample of respiratory tissue (2 mL from needle biopsy); or 1 mL cerebrospinal fluid (CSF)</p> <p>Patient Preparation When collecting sputum, have the patient brush teeth, remove dentures, and rinse mouth with water. Instruct the patient not to collect saliva. When collecting aspirates, use standard aseptic preparation. Respiratory tissue preparations may be fresh or frozen; no fixative.</p> <p>Causes for Rejection Inappropriate specimen transport device; mislabeled specimen; unlabeled specimen; specimen received after prolonged delay (usually more than 72 hours); blood and bone marrow are not suitable for amplification test. Tissue not of respiratory origin will not be tested.</p> <p>Use Detect and identify <i>Mycobacterium tuberculosis</i> in sputum and respiratory specimen.</p> <p>Methodology Nucleic acid amplification technology, such as polymerase chain reaction, transcription mediated amplification or strand displacement amplification.</p>										

Due to an error in the May issue of *LabHorizons* (Vol 5, N° 3), the changes for **Lactic Acid** and **Factor II (Prothrombin), DNA Analysis** were incorrectly stated. The correct changes are provided here. We regret the error.

Note: For the most up-to-date test information, please consult the electronic *Directory of Services and Interpretive Guide* (e-DoS) at www.LabCorp.com.



www.LabCorp.com