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TEST ALERT

Number 251, May 29, 2003

The following tables reflect revisions only; other existing data remain unchanged.

Test Method GA Workpar / SQ Code CPT Code(s)	Specimen Requirements	Reference Ranges	Comments Effective Date
ALPHA FETOPROTEIN, AMNIO FLD, REFLEX Immunometric AFAFP / AFAFP	Acceptable gestational age includes weeks 14 through 22.		Acceptable gestational age extended to include weeks 14 through 22. All other information remains the same. Effective immediately.
BENZODIAZEPINES QUANT PANEL GC/MS BENZUQ / BENZUQ 80154 (NMS)	4 mL random urine. Transport in a leakproof plastic container. Store and transport at room temperature.	Desalkylflurazepam (ng/mL) Nordiazepam (ng/mL) Oxazepam (ng/mL) Lorazepam (ng/mL) Diazepam (ng/mL) Hydroxyethylflurazepam (ng/mL) Temazepam (ng/mL) Chlordiazepoxide (ng/mL) Midazolam (ng/mL) Flurazepam (ng/mL) Alpha-hydroxyalprazolam (ng/mL) Alprazolam (ng/mL) Hydroxytriazolam (ng/mL) Triazolam (ng/mL) Estazolam (ng/mL)	NEW PROCEDURE Stability: 7 days at room temperature, 14 days refrigerated, 1 year frozen. Effective 6-18-03.
CANNABINOIDS QUANTITATION GC/MS CANNQS / CANNQS 82542 (NMS)	3 mL serum (red top tube). Separate serum from cells and put in separate plastic tube. Store and transport at room temperature.	Delta-9 THC (ng/mL) Usual peak levels in serum for 1.75% or 3.55% THC marijuana cigarettes: 50-270 ng/mL at 6 to 9 minutes after beginning smoking, decreasing to LT 5 ng/mL by 2 hours. Passive inhalation: up to 2 ng/mL. Delta-9 Carboxy THC (ng/mL) Usual peak levels in serum for 1.75% or 3.55% THC marijuana cigarettes: 10-101 ng/mL about 32 to 240 minutes after beginning smoking, with a slow decline. Usually not detectable after passive inhalation. 11-Hydroxy THC (ng/mL) Usual peak levels: LT 10% of THC levels after smoking.	NEW PROCEDURE Do not use SST tubes. Stability: 14 days at room temperature, 14 days refrigerated, 1 year frozen. Effective 6-18-03.
CARBAMAZEPINE-10, 11 EPOXIDE QUANT HPLC CARBQS / CARBQS 80156 (NMS)	2 mL serum (red top tube). Separate serum from cells and put in separate plastic tube. Store and transport at room temperature.	Carbamazepine-10, 11 Epoxide (mcg/mL) The -10, 11 epoxide metabolite has activity similar to the parent drug. The expected range following chronic therapeutic doses (5.3-20 mg/kg) of carbamazepine: 0.2-2.0 mcg carbamazepine-10, 11 epoxide/mL.	NEW PROCEDURE Do not use SST tubes. Stability: 14 days at room temperature, 14 days refrigerated, 10 months frozen. Effective 6-18-03.
CITALOPAM GC CELEX / CELEX 82491 (NMS)	2 mL serum (red top tube). Separate serum from cells and put in separate plastic tube. Store and transport at room temperature.	Citalopram (ng/mL) Steady-state serum levels from patients on a daily regimen of 30-60 mg citalopram: 9-200.	NEW PROCEDURE Do not use SST tubes. Stability: 14 days at room temperature, 14 days refrigerated, 14 days frozen. Effective 6-18-03.

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ESTRADIOL ESTRADIOL / EDIOL		Estradiol M 0-56 pg/mL F Follicular 0-160 Mid-follicular 0-84 Late-follicular 34-400 Luteal 27-246 Post-menopausal 0-35 Post-menopausal, treated 0-93 This method may be used for patients taking hormone replacement therapy.	Effective 6-18-03.
ESTROGENS, FRACTIONATED ESTF / ESTF		Estrone M LT 80 pg/mL F Early follicular 0-150 Late follicular 100-250 Luteal 0-200 Post-menopausal 15-103 Estradiol M 0-56 pg/mL F Early follicular 0-160 Late follicular 34-400 Luteal 27-246 Post-menopausal 0-35 Estrogens, Total M LT 136 pg/mL F Early follicular 0-310 Late follicular 134-650 Luteal 27-446 Post-menopausal 15-138	Effective 6-18-03.
FENTANYL AND METABOLITE SCREEN LC/MS/MS FENT / FENT 80101 (NMS)	3 mL random urine. Transport in a leakproof plastic container. Store and transport at room temperature.	Fentanyl None detected (ng/mL) Approximately 6% of dose is excreted in the urine as unchanged drug in 3-4 days. Norfentanyl None detected (ng/mL)	NEW PROCEDURE Confirmation testing is automatically performed on all positive screens at no additional charge. Stability: 28 days at room temperature, 28 days refrigerated, 9 months frozen. Effective 6-18-03.
FLUNITRAZEPAM & METABOLITE (REFLEX) LS/MS/MS FLUNIT / FLUNIT 80100 (NMS)	10 mL random urine. Transport in a leakproof plastic container. Store and transport refrigerated. If the screen is positive, this test will reflex to additional confirmation test, and an additional charge will be added. THIS IS FOR CLINICAL SPECIMENS ONLY. DO NOT USE FOR FORENSIC SPECIMENS.	Flunitrazepam (ng/mL) Norflunitrazepam (ng/mL) 7-Aminoflunitrazepam (ng/mL) In urine, approximately 10% of an oral dose is excreted as 7-aminoflunitrazepam.	NEW PROCEDURE Min. amt: 1 mL. Stability: 2 days at room temperature, 14 days refrigerated, 3 months frozen. Effective 6-18-03.
FUROSEMIDE QUANTITATION HPLC FURUQ / FURUQ 82491 (NMS)	2 mL random urine. Transport in a leakproof plastic container. Store and transport at room temperature.	Up to 40 mcg/mL following a single oral dose of 40 mg.	NEW PROCEDURE Protect from light. Stability: 7 days at room temperature, 7 days refrigerated, 6 months frozen. Effective 6-18-03.
GAMMA-HYDROXYBUTYRIC ACID (GHB) GC/MS GHB / GHB 80100 (NMS)	4 mL random urine. Transport in a leakproof plastic container. Store and transport at room temperature. THIS IS FOR CLINICAL SPECIMENS ONLY. DO NOT USE FOR FORENSIC SPECIMENS.	GHB mcg/mL The value reported for GHB is actually a total of GHB and its active metabolite (GBL) in the specimen.	NEW PROCEDURE Min. amt: 1 mL. If this screen is positive, confirmation will be done at no additional charge. Stability: 14 days at room temperature, 14 days refrigerated, 3 months frozen. Effective 6-18-03.

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HEREDITARY HEMOCHROMATOSIS BY PCR HHPCR3 / HHPCR		<p>Hereditary Hemochromatosis Result Genotype</p> <p>Interpretation Patients receiving genetic testing should consider genetic counseling. Counseling of potentially affected family members may also be warranted.</p> <p>Comment Patient DNA is assayed for the C282Y, H63D, and S65C point mutations in the HFE gene by polymerase chain reaction (PCR).</p>	Effective immediately.
H. PYLORI IGG, IGA & IGM AB HPYAGM / HPYAGM		<p><i>H. pylori</i> IgG 12.5 or less U/mL <i>H. pylori</i> IgM 12.5 or less U/mL <i>H. pylori</i> IgA 30.0 or less U/mL</p> <p>Interpretive Criteria for IgG & IgA 12.5 or less Antibody not detected. 12.6-19.9 Equivocal; submission of a second specimen (collected 3-4 weeks after initial specimen) is suggested if clinically warranted. 20.0 or more Antibody detected.</p> <p>Interpretive Criteria for IgM 30.0 or less Antibody not detected. 30.1-39.9 Equivocal; submission of a second specimen (collected 3-4 weeks after initial specimen) is suggested if clinically warranted. 40.0 or more Antibody detected.</p> <p>Gastric colonization by <i>Helicobacter pylori</i> has been implicated as a cofactor in the development of some cases of gastritis and peptic or duodenal ulcer. Gastrointestinal disease caused by <i>H. pylori</i> can be successfully treated with antimicrobial therapy. Eradication of <i>H. pylori</i> infection has been associated with decreasing IgG and IgA antibody levels to <i>H. pylori</i>. In some patients without detectable IgG antibody to <i>H. pylori</i>, determination of IgA levels may be useful in establishing <i>H. pylori</i> infection. The clinical utility of <i>H. pylori</i> IgM antibody measurement has not been clearly established. Clinicians should be aware that the incidence of <i>H. pylori</i> infection increases with age, resulting in the presence of <i>H. pylori</i> antibody in a large percentage of adults. Therefore, this test is being used to rule out <i>H. pylori</i> infection when the antibody results are negative.</p>	Effective 6-9-03.
TISSUE TRANSGLUTAMINASE AB, IGG TTABG / TTABG		<p>Tissue Transglutaminase Ab, IgG None detected LT 20 EU Weakly positive 20-30 Positive GT 30</p> <p>A negative Tissue Transglutaminase IgG Ab result in an untreated patient does not rule out gluten-sensitive enteropathy. This patient may be IgA positive or have no antibody to tTG. Human tTG IgG antigen is utilized in this assay.</p> <p>This test uses a kit designated by the manufacturer as "for research use, not for clinical use." The performance characteristics of this test were validated by ARUP Lab. The FDA has not approved this test. The results are not intended to be used as the sole means for clinical diagnosis or patient management decisions. ARUP is authorized under CLIA and by all states to perform high-complexity testing.</p>	Effective immediately.

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METHOTREXATE FPIA MTX / MTX 80299	2 mL frozen serum (red top tube). Separate serum from cells, put in separate plastic tube, and freeze. Store and transport frozen. Protect from light.	Methotrexate $\mu\text{mol/L}$ Interpretation depends on dosing and draw times as well as target level for the disease being treated.	NEW PROCEDURE Min. amt: 1 mL. Other acceptable specimens: EDTA, heparin, oxalate or sodium fluoride frozen plasma. Unacceptable conditions: samples collected in SST or gel-type tubes. Stability: 4 hours at room temperature, 24 hours refrigerated, 6 months frozen. Effective 6-18-03.
METHOTREXATE METHO / METHO	This workpar is being discontinued. Use the workpar MTX to order this test.		Effective 6-18-03.
MICROALBUMIN CREATININE RATIO Colorimetric/Nephelometric MALBCR / MCUC 82043, 82570	40-mL aliquot of a first-morning, random or 24-hour urine collection. Refrigerate during collection. Store and transport refrigerated.	Microalbumin Random Urine LT 18 mg/L Creatinine, Urine, Random No normals established (mg/dL) Microalbumin/Creatinine Ratio, Urine LT 30 mg/g Normal; repeat yearly. 30-300 Increased risk for diabetic nephropathy. Two of three A/C ratios in this range indicate microalbuminuria and diabetic nephropathy. GT 300 Two of three A/C ratios in this range confirms overt clinical nephropathy.	NEW PROCEDURE Min. amt: 6 mL. Stability: 2 weeks refrigerated. Effective 6-18-03.
URINARY MICROALBUMIN CREATININE UA.A/C.RATIO	This workpar is being discontinued. Use the workpar MALBCR to order this test.		Effective 6-18-03.
MIRTAZAPINE QUANTITATION GC MIRTQ / MIRTQ 82491 (NMS)	2 mL serum (red top tube). Separate serum from cells and put in separate plastic tube. Store and transport at room temperature.	Steady-state levels following a daily regimen (ng/mL): Dose Peak Range Trough Range (mg) (0.7-4.8 hr) 15 27-51 4.3-12 30 56-104 11-25 45 84-142 17-39 60 117-199 24-52 75 137-225 28-64 Elimination half-life: 20-40 hours	NEW PROCEDURE Do not use SST tubes. Stability: 7 days at room temperature, 14 days refrigerated, 14 days frozen. Effective 6-18-03.
NEFAZODONE QUANTITATION HPLC NEFAZQ / NEFAZQ 82491 (NMS)	2 mL serum (red top tube). Separate serum from cells and put in separate plastic tube. Store and transport at room temperature.	Steady-state peak levels (at approximately 1.2 hours post-dose) following a daily regimen: 50 mg bid 0.09-0.39 mcg/mL 100 mg bid 0.46-1.2 200 mg bid 1.6-3.9	NEW PROCEDURE Do not use SST tubes. Stability: 7 days at room temperature, 14 days refrigerated, 10 months frozen. Effective 6-18-03.
NICOTINE AND METABOLITE QUANTITATION GC/MS NICMES / NICMES 83887 (NMS)	2 mL serum (red top tube). Separate serum from cells and put in separate plastic tube. Store and transport at room temperature.	Nicotine (ng/mL) Cotinine 20-700 ng/mL Observed concentration in habitual smokers.	NEW PROCEDURE Do not use SST tubes. Stability: 10 days at room temperature, 10 days refrigerated, 8 months frozen. Effective 6-18-03.

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NICOTINE AND METABOLITE QUANT, SERUM GC NICSER / NICSER 83887 (NMS)	2 mL serum (red top tube). Separate serum from cells and put in separate plastic tube. Store and transport at room temperature.	Nicotine 3-63 ng/mL Observed concentration in habitual smokers. Cotinine 20-700 ng/mL Observed concentration in habitual smokers.	NEW PROCEDURE Do not use SST tubes. Stability: 10 days at room temperature, 10 days refrigerated, 8 months frozen. Effective 6-18-03.
PERTUSSIS CULTURE ONLY (STATE) PERTST / PERTST 99001 (Public Health Lab)	THIS WORKPAR IS FOR SENDING BORDETELLA PERTUSSIS CULTURES DIRECTLY TO THE STATE ONLY (Public Health Lab). Swab left and right nasopharyngeal areas using Dacron swab on plastic shaft. Rotate the swab over the entire surface of a Jones-Kendrick charcoal agar slant. A completed Public Health request form must accompany the specimen. Send to Public Health Lab.	<i>Bordetella pertussis</i> , DFA <i>Bordetella pertussis</i> , Culture	NEW PROCEDURE Effective 6-18-03.
PERTUSSIS CULTURE ONLY (STATE) PERTUS.CULT.STATE / PERTWA	This workpar is being discontinued. Use the workpar PERTST to order this test.		Effective 6-18-03.
PHENOL EXPOSURE QUANT GC, Colorimetry PHEXPU / PHEXPU 82570, 84600 (NMS)	4 mL urine collected at end of shift, no preservative. Transport in a leakproof plastic container. Store and transport at room temperature.	Creatinine, Ur mg/L A.C.G.I.H. normal range in adults: 300-3400 mg/L (mean 1000) 0.3-3.4 G/L (mean 1) 1000-1600 mg/day (1.0-1.6 g/day) Phenol, Ur (mg/L) Phenol, Ur (mg/gCr) Biological exposure index for monitoring exposure to phenol: 250 mg total phenol/g creatinine measured in an end-of-shift specimen.	NEW PROCEDURE Unacceptable conditions: urine samples preserved with benzoic acid. Stability: 4 days at room temperature, 7 days refrigerated, 22 months frozen. Effective 6-18-03.
PORPHYRIN REFLEXIVE PANEL POR.UW / PORQUW 84126, 84110, 84120, 84202 x 2	5 mL heparinized whole blood (green top tube), 30-50 mL aliquot of a 24-hour urine collected in a dark bottle with 5 grams of NaHCO ₃ , adjust pH to 6-7, and 1-5 grams of a random stool specimen. Collection of the above samples on the same day is preferred, but if not, they must be collected within the same 5-day period and protected from light. Indicate suspected diagnosis, total volume, and collection interval for urine sample. Protect specimens from light and send stool specimen frozen and all others refrigerated.	Porphyrin Reflexive Panel "See separate report." This test was developed and its performance characteristics determined by the U of Washington Academic Medical Center, Department of Laboratory Medicine. It has not been approved by the Food & Drug Administration.	First morning void urine collected in a dark bottle with 1 gm of NaHCO ₃ is also an acceptable urine specimen. Effective immediately.
RETIC COUNT, MANUAL RETICM / RETICM		Reticulocytes 0-2 days 3.0-7.0 % 3-6 days 1.0-3.0 7 days - 1 mo 0.0-1.0 2 mo - 4 yrs 1.0-2.0 5+ yrs 0.9-3.5 Reticulocytes, Absolute 5+ yrs 20-150 K/ μ L Reticulocytes, Corrected No longer reported	Effective immediately.

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TRYPANOSOMA CRUZI AB PANEL CHAGAS / CHAGAS		<i>Trypanosoma cruzi</i> , IgG LT 1:16 <i>Trypanosoma cruzi</i> , IgM LT 1:20 Interpretation The serodiagnosis of Chagas' disease of American trypanosomias by IFA is highly sensitive and specific, although cross-reactions may occur with leishmaniasis. A <i>T. cruzi</i> IgM (GT or equal to 1:20) response is observed in acute disease prior to IgG seroconversion. In chronic Chagas' disease, IgG is usually detected at levels GT or equal to 1:64.	Effective immediately.
WEST NILE VIRUS AB CSF WNVCSF / WNVCSF		West Nile Virus, IgG, CSF LT 0.90 West Nile Virus, IgM, CSF LT 0.90 Interpretation Interpretive Criteria: LT 0.90 Antibody not detected. 0.90-1.09 Equivocal. 1.10 or more Antibody detected. In the very early stages of acute West Nile Virus (WNV) infection, IgM may be detectable in CSF before it becomes detectable in serum. Antibodies induced by WNV infection show extensive cross-reactivity with other flaviviruses (Dengue, St. Louis encephalitis); thus, antibody detection using this panel is not diagnostically conclusive for WNV infection. Final diagnosis should be based on confirmatory assays, such as the plaque reduction neutralization test. WNV antibody results for CSF should be interpreted with caution. Complicating factors include low antibody levels found in the CSF, passive transfer of antibody from blood, and contamination via bloody taps.	Effective immediately.
WEST NILE VIRUS AB PANEL WNVML / WNVML		West Nile Virus, IgG LT 0.90 West Nile Virus, IgM LT 0.90 Interpretation Interpretive Criteria: LT 0.90 Antibody not detected. 0.90-1.09 Equivocal. 1.10 or more Antibody detected. West Nile Virus (WNV) IgM is usually detectable by the time symptoms appear, but IgG may not be detectable until day 4 or day 5 of illness. Although WNV IgM persists for more than a year in some patients with WNV encephalitis, detection of WNV IgM remains a reliable indicator of recent infection for most patients. Antibodies induced by WNV infection show extensive cross-reactivity with other flaviviruses (Dengue, St. Louis encephalitis); thus, antibody detection using this panel is not diagnostically conclusive for WNV infection. Final diagnosis should be based on confirmatory assays, such as the plaque reduction neutralization test.	Effective immediately.
PLATELET AGGREGATION, WB (REFLEX) WBPAGG / WBPAGG		ADP Aggregation, patient 5.1-27.3 Ohms ADP Aggregation, control 5.1-27.3 Ohms Collagen Low Aggregation, patient 14.6-39.8 Ohms Collagen Low Aggregation, control 14.6-39.8 Ohms Collagen High Aggregation, patient 18.5-41.0 Ohms Collagen High Aggregation, control 18.5-41.0 Ohms	All other reference ranges remain unchanged. Effective date previously noted as "TBA" is now 6-18-03. (See Test Alert 250.)