

Lab Updates

These updates can also be found on our web site:
<http://ournet.ummhc.org/C2/Hospital%20Labs/default.aspx>

DECEMBER 2005

Urinalysis Methodology Change

Effective December 8, 2005, complete urinalysis testing, which includes both dipstick chemistry and sediment examination, is being performed using the automated *iQ*[®]200 Urinalysis system. This system is comprised of the *iQ*[®]200 Automated Urine Microscopy Analyzer (*iQ*[®]200) and the AUTION MAX[™] AX-4280 Automated Urine Chemistry Analyzer (AX-4280), providing a fully integrated chemical and microscopic analysis. The *iQ*[®]200 uses Auto-Particle Recognition (APR[™]), a well-trained and highly sensitive neural network, to classify and quantitate twelve formed elements in urine sediment.

This new system demonstrates a higher level of sensitivity for several chemistry parameters compared to the previous methodology:

Analyte	New Detection Limit	Previous Limit
Protein	10 mg/dL	15 mg/dL
Glucose	30 mg/dL	50 mg/dL
Occult Blood (free hemoglobin)	0.03 mg/dL (~5-10 erythrocytes)	0.015-0.062 mg/dL

There are no changes in specimen collection requirements or reference ranges.

Lead Testing Methodology Change

Effective January 12, 2005, both capillary and venous whole blood Lead analyses will be performed using "Inductively Coupled Plasma Mass Spectrometry" (ICPMS). Prior to this change, Lead analyses were performed using "Graphite Furnace Atomic Absorption Spectrometry" (GFAAS).

ICPMS holds several advantages over GFAAS in terms of speed, performance, sensitivity and ability to determine multiple elements per sample. ICPMS has generally fewer interferences and lower detection limits compared to GFAAS. The lower limit of detection is 1 mg/dL. There are no changes in sample collection requirements (tan top tube) or reference ranges.

17- α - Hydroxyprogesterone (17- α -OHP)

17- α -OHP is a 21-carbon steroid produced in the adrenals, ovaries, testes and placenta, which serves as a biosynthetic precursor of Cortisol. Its measurement is of value in the diagnosis and management of congenital adrenal hyperplasia, hirsutism and infertility. 17- α -OHP exhibits a diurnal pattern similar to that of Cortisol, with values higher early in the morning and lower in the late afternoon. Hence, the time of collection should be standardized.

Effective January 16, 2006, 17- α -OHP testing will be performed in-house three times a week using a radioimmunoassay methodology. There will be no changes in specimen volume or collection requirements; however, there will be a change in the reference range. Every patient result will be displayed with the following interpretive information:

<u>Group</u>	<u>Median</u>	<u>Range (ng/dL)</u>
Males: (20-59 yrs)	143	60-342
Females:		
Follicular Phase (22-45 yrs)	67	19-182
Luteal Phase (22-45 Yrs)	210	22-469
Oral contraceptives	79	18-251
Post-Menopausal	46	20-172

Fecal Occult Blood (Guaiac) Testing

Effective January 1, 2006, following changes will be made to Fecal Occult Blood testing.

Mnemonic: SOC will be used for Single Stool Specimen screening obtained by a Digital Rectal Examination. A new CPT code will be associated with this test:

82272: Blood, occult, by peroxidase activity (e.g. guaiac), qualitative; feces, single specimen (e.g. from digital rectal exam).

Mnemonic: SOC3 will be used for testing samples from 3 consecutive stools. A new CPT code will be associated with this test:

82270: Blood, occult, by peroxidase activity (e.g. guaiac), qualitative; feces, consecutive collected specimens with single determination, for colorectal neoplasm screening.

There are no changes in sample collection requirements.

Schistocyte Reporting on Peripheral Smears

In order to improve the accuracy of reporting schistocytes, and to eliminate intertechnician bias, a cutoff for an increase in the number of schistocytes detected on peripheral blood smears has been established at >1% of red cells. This is in accordance with data found in the literature.

If there are less than 1% schistocytes, no comment will be made. If there are more than 1%, the schistocytes will be reported as "Present". Whenever schistocytes are reported as "Present", the clinical staff should consider it a pathologic finding.

CPT Code Changes for 2006

Microbiology:

CPT code 88313, "...complex special stain (e.g. trichrome, iron hematoxylin) for ova and parasites" has been changed to code 87209.

Toxicology:

The immunosuppressant Sirolimus has been assigned a specific CPT code for 2006, code 80195 (old code was 80299).

Immunology:

The description for CPT code 83036 has been changed from, "Hemoglobin, glyated", to "Hemoglobin, glycosylated (A1C)".

Histocompatibility:

New CPT code 83900: "Molecular diagnostics; amplification of patient nucleic acid, multiplex, first two nucleic acid sequences".

Revised CPT code 83901: "Molecular diagnostics; amplification of patient nucleic acid, multiplex, each additional nucleic acid sequence (List separately in addition to code for primary procedure)."

If you have questions, comments or suggestions, please contact:

Guy M. Vallaro, PhD, Vice Chairman at 508-334-4926 or email VallaroG@ummhc.org

Dr. L.V. Rao, Director at 508-334-7593 or email RaoL@ummhc.org

Ms. Rachel Ambacher, Manager at 508-334-7316 or email Ambacher@ummhc.org.

Ms. Judy Rennell, Manager at 508-334-3803 or email Rennellj@ummhc.org