

**MEDICAL CENTER OF CENTRAL GEORGIA**  
**MEDICAL LABORATORIES COMMUNIQUE'**  
**VOLUME 21, NUMBER 2**  
**August 2008**

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## **LABORATORY GENERAL**

### **New Laboratory Information System:**

On Saturday, July 19, 2008 a new laboratory information system, Pathnet, was brought on-line. Tests ordered in Pathnet will have a new report format which is similar to the old one. Pathnet is a highly complex system that will be subject to continuous review and optimization over the next several weeks. Users are encouraged to contact the laboratory promptly with any concerns or suggestions especially regarding report presentation.

### **Change in Primary Reference Laboratories:**

Effective with implementation of the new laboratory information system, Pathnet, the approved list of network Reference Labs has changed. These are now:

- Mayo Medical Laboratory, Rochester, MN.
- Associated Regional and University Pathologist (ARUP) Laboratories, Salt Lake City, Utah.
- U.S. Labs, Brentwood, TN

Referrals to an out of network laboratory will be made only with approval of the Laboratory Medical Director.

Central Georgia Diagnostics will continue to provide specimen collection services for non-network tests when requested. Financial arrangements and obligation for these tests are the responsibility of the requester.

## **CHEMISTRY**

**DHEA Sulfate:** The laboratory is now performing dehydroepiandrosterone sulfate (DHEA-S) serum analysis. The test is available 7 days a week on first and second shift with a 3 hour turnaround time. Split sample correlation studies with our primary reference laboratory have demonstrated excellent correlation. Regression analysis yielded a slope of 1.03, intercept of 0.17 and an "r" of 0.999.

**Immunoglobulin E (IgE):** The laboratory is now performing IgE serum analysis. Serum levels of IgE increase in many patients with allergic diseases and parasitic diseases. Serum IgE is useful as an initial screening test for allergic disease. The test is available 7 days a week on first and second shift with a 3 hour turnaround time. Correlation studies with our primary reference lab have demonstrated excellent correlation.

Regression analysis yielded a slope of 0.97, intercept of -2.9 and an "r" of 0.998.

**C-Peptide:** The laboratory is now performing C-peptide serum analysis. The test is available 7 days a week on first and second shift with a turnaround time of 3 hours.

C-peptide (connecting peptide), a 31 amino-acid polypeptide, represents the midportion of the proinsulin molecule. During insulin secretion C-peptide is enzymatically cleaved off and co-secreted in equimolar proportions with mature insulin molecules. Discordant serum insulin and serum C-peptide abnormalities are mainly observed in: exogenous insulin administration and in the presence of anti-insulin autoantibodies.

**Third Generation (Ultra Sensitive) PSA:** The laboratory is now offering a third generation ultra-sensitive prostate specific antigen (PSA) serum assay in addition to the standard PSA test. Analytical/functional sensitivity for the 3<sup>rd</sup> Gen assay is 0.003/0.01 ng/mL vs. 0.04/0.10 ng/mL for the standard PSA assay. (Analytical sensitivity is the lowest level distinguishable from zero while functional sensitivity is the level at which a 20% CV is obtained.) This increased sensitivity and accuracy at very low concentrations of PSA may be helpful in evaluating patients post radical prostatectomy to distinguish none from low levels of PSA and to assess small changes in concentration.

## **HEMATOLOGY**

**Protein S Activity:** The laboratory is now performing protein S activity analysis in plasma. The assay is being performed two days per week on Monday and Thursday with a 10 a.m. cut-off time. Split sample correlation studies with a reference laboratory demonstrated good correlation. Regression analysis yielded a slope of 1.19, intercept of -7.5 and an "r" of 0.973.

**Protein C:** The laboratory is now performing protein C activity analysis in plasma. The assay is being performed two days per week on Monday and Thursday with a 10 a.m. cut-off. Split sample correlation studies with a reference laboratory demonstrated good correlation. Regression analysis yielded a slope of 0.867 and an intercept of 8.7 with an "r" of 0.967.

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**Antithrombin III Activity:** The laboratory is now performing antithrombin III analysis on plasma. Testing is performed on Monday and Thursday with a 10 a.m. cut-off time. Split sample correlation studies with a reference laboratory demonstrated excellent correlation. Regression analysis yielded a slope of 0.097 and an intercept of -0.17 with an "r" of 0.998.

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**Test Information Guide – New Tests**

**DHEA Sulfate**

Specimen: Serum only  
Minimum Volume: 0.5 ml serum  
Test Code: DHEA Sulfate  
Stability: 4 hr Room Temp  
            48 hr at 2 – 8° C  
            2 months frozen  
Available: Monday – Sunday 1<sup>st</sup> & 2<sup>nd</sup> Shifts  
Turnaround Time: 3 hr  
CPT: 82627  
Normal Range: 35 – 430 ug/dL Female  
                  80 -560 ug/dL Males

**C -Peptide**

Specimen: Serum or heparin plasma  
Minimum Volume: 0.5 mL serum  
Test Code: C-peptide  
Stability: 3 hr at room temp.  
            6 hr at 2 – 8° C  
            1 week – frozen - 20° C  
Availability: Monday – Sunday 1<sup>st</sup> and 2<sup>nd</sup> Shifts  
Turnaround Time: 3 hr  
Normal Range: 1.1 – 5.0 ng/mL Adults  
CPT: 84681

**Third Generation PSA**

Specimen: Serum only  
Minimum Volume: 0.7 mL  
Test Code: PSA 3<sup>rd</sup> Generation  
Stability: 8 hr at room temp  
            48 hr at 2 – 8° C  
            6 months – frozen - 20° C  
Availability: Monday – Sunday 1<sup>st</sup> and 2<sup>nd</sup> Shifts  
Turnaround Time: 4 hr.  
Normal Range: 0 – 4 ng/mL  
CPT: 84153 tumor marker  
            G0103 Screen only.  
Notes: Sensitivity/reportable range: > 0.01 ng/mL  
            Order "3<sup>rd</sup> Gen PSA" to obtain not "PSA".

Age Specific Normals:

0 – 2.5 40 – 49 yr male  
0 - 3.5 50 – 59 yr male  
0 – 4.5 60 – 69 yr male  
0 – 6.5 > 69 yr male

**Immunoglobulin E**

Specimen: Serum Only  
Minimum Volume: 0.5 mL  
Test Code: IGE Quant  
Stability: 4 hr Room Temp  
            48 hr at 2 – 8° C  
            6 months – frozen at - 20° C  
Availability: Monday – Sunday 1<sup>st</sup> and 2<sup>nd</sup> shifts  
Turnaround Time: 4 hr.  
Normal Range: 0 - 87 IU/mL - Adult  
CPT: 82785

**Protein S Activity**

Specimen:  
Minimum Volume: 2.7 mL  
Test Code: TEG  
Stability: 1 ½ hr at room temp  
            Freeze if testing is not performed immediately.  
Availability: Monday & Thursday – cut off 10:00 a.m.  
Turnaround Time: 1 – 4 days  
Normal Range: see report  
CPT: 85306  
Note: hemolyzed specimens will be rejected.

**Protein C Activity**

Specimen:  
Minimum Volume: 2.7 mL  
Test Code: TEG  
Stability: 1 ½ hr at room temp  
            Freeze if testing is not performed immediately.  
Availability: Monday & Thursday – cut-off 10:00 a.m.  
Turnaround Time: 1 – 4 days  
Normal Range: see report  
CPT: 85303  
Note: hemolyzed specimens will be rejected.

**AntiThrombin III Activity**

Specimen: Citrated whole blood within 1 hr of collection  
Minimum Volume: 2.7 mL  
Test Code: TEG  
Stability: 1 ½ hr at room temp  
Availability: Monday & Thursday, cut off 10:00 a.m.

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Turnaround Time: 1 – 4 days

Normal Range: see report

CPT: 85301

Note: hemolyzed specimens will be rejected.