TECHNICAL BULLETIN

Volume 3 Issue 2 June, 2005

CRP (C-Reactive Protein) vs. ESR (Erythrocyte Sedimentation Rate)

When assessing an acute inflammatory response caused by trauma, ischemia, infection or other diseases, CRP (test #4561) is the best test to detect early increases in response to the insult.

CRP (test #4561) has distinct advantages over ESR (test #210) in that it measures a single protein, which rises rapidly within 4 – 6 hours after insult and falls as the inflammatory response subsides. ESR measures the combined effect of several acute phase proteins, responds over a 24 hr period and can remain elevated for weeks after the causative agent has been resolved.
CRP also has distinct advantages over ESR in monitoring infections in patients with various malignancies. Bone marrow suppression and pancytopenia can make ESR measurements unreliable in this population. ESR is affected by red cell size, shape, and plasma composition and CRP is not.
To summarize, CRP displays earlier and sharper increases in serum levels and better reflects recovery (via decreasing values) from the underlying cause of the inflammatory response than ESR.

Gregory Post, Ph.D.

NEW TESTS AVAILABLE

Test #9289 Chromagranin A

***** Effective May 1, 2005**

Serum Chromagranin A (CgA) is a supplemental marker in the diagnosis and management of patients with neuroendocrine tumors, such as neuroblastoma, pheochromocytoma, carcinoid-like tumors, small cell lung carcinoma, and prostate cancer. This test should never be used as a screening test for neuroendocrine tumors.

Specimen:	1 mL serum, refrigerated
Reference range:	Males: 0-76 ng/mL Females: 0-51 ng/mL
CPT code:	86316
Cost	Client $ 45 3rd party $ 50
Questions:	Contact Lisa Hart, Processing Coordinator.

Test #9279 Canine Thyroid Panel 6

Panel includes Free T4 by equilibrium dialysis and c(canine)TSH

***** Effective April 1, 2005**

Specimen:	2 mL serum, ambient or refrigerated
Reference range:	Free T4: 0.7-2.5 ng/dL cTSH: 0.05-0.42 ng/mL
Cost	Client : $55
Questions:	Contact Lisa Hart, Processing Coordinator.

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SPECIMEN LABELING

We have recently noticed an increase in unlabeled and incorrectly labeled specimens. Specimens must be properly identified with the patient name and a numbered sticker from the requisition on the specimen. The name on the specimen and the name on the requisition must match. Clients are notified of rejected specimens upon receipt.

Questions: Contact Lisa Hart, Processing Coordinator

SERVICE GUIDE UPDATES – MAY 2005

If you have not received a copy of the May 2005 Service Guide Updates, please contact the Supply Dept.

DISCARD MEMOS:

TOTAL T3 – 8/20/2004

and

BD GEL BARRIER TUBES – 10/18/2004

On August 20, 2004 a memo was issued regarding a positive bias that may exist for Total T3 when BD tubes are used. Another memo. was issued Oct. 18, which stated more tests might be affected than just the Total T3. However, on Oct. 22, the problem was resolved when a new lot number of BD tubes was released. The memos of Aug. 20 and Oct. 18 are no longer in effect.

NEW METHODOLOGY

Effective May 10, 2005 , the methodology for testing **Beta 2 Microglobulin** has been changed to offer better low end sensitivity and reproducibility. Reporting units are now mg/L rather than mg/dL.

Old Reference Range = <0.22 mg/dL

New Reference Range = <2.7 mg/L

MICROALBUMIN vs. URINE PROTEIN

Microalbumin evaluates urine for the presence of a specific protein called albumin. Albumin is found in the blood and filtered by the kidneys; however, if the kidneys are damaged and not working properly, albumin is found in the urine. This condition is called microalbuminuria and is one of the earliest signs of nephropathy associated with diabetes.

Normal range: <10 ug/min for 24 hr urine
<1.9 mg/dL for a random urine

Urine Protein is a screen for glomerular or tubular disease of the kidney. Renal disease can result in increased glomerular permeability and protein loss is evaluated as a message of renal damage. It is normal to see a small amount of protein in the urine (up to 150 mg/dL).

Note: It is possible to have a normal urine protein and an abnormal microalbumin so the appropriate use of the tests is vital to monitor clinical status.

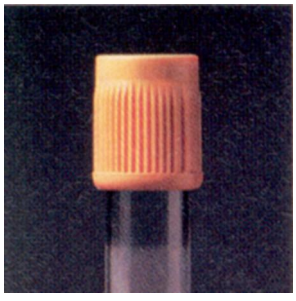
Normal range: <0.15 g/24 hr or <150 mg/24 hr

Gregory Post, Ph.D.

WHAT IS A "HEMOGUARD TUBE"?

Per Technical Bulletin March 2005, test #65 HLA B27 now requires a "hemoguard" tube that is either heparinized or EDTA. The configuration of the tube stopper differentiates it from the regular specimen collection tube as pictured in the 2005 Service Guide. To obtain "hemoguard" tubes for the HLA B27, please contact the Send Out Dept.

Questions: Contact Lisa Hart
Processing Coordinator



TEST #7919
WEST NILE VIRUS, IgG AND IGM

Physicians Laboratory would like to remind our clients that we offer in-house West Nile Virus testing IgG and IgM on serum.

West Nile is most commonly transmitted via mosquito bite and the season is just starting. Our laboratory offers both the IgG and IgM assays. If West Nile infection is suspected, by three weeks post-infection (and often earlier), virtually all infected persons should demonstrate serum IgG antibody to WNV by enzymatic immunoassay (EIA) for 500 days or longer. By the eighth day of infection, a large majority of infected persons will have detectable serum IgM antibody to WNV; in most cases it will be detectable for at least 1-2 months after illness onset; and in some cases it will be detectable for 500 days or longer.
Because of the long window of detection post-infection, clinical symptoms must be correlated with the serological results. Gregory Post, Ph.D.

SINGLE FORM REPORT PAPER

In addition to the 2-part NCR report form (PLS 111) for Physicians Laboratory reports on your printer, single form report paper (PLS 118) is now available. Please contact the Supply Dept. if you would like this new product.

TOPICS FOR DISCUSSION IN THE TECHNICAL BULLETIN

We welcome ideas for upcoming issues, so please contact Pam Otto at 402 731-4145, 1-800-642-1117 or email potto@physlab.com

WOULD YOU LIKE TO RECEIVE THE "TECHNICAL BULLETINS" BY E-MAIL?

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