



# TECHNICAL BULLETIN

Volume 4 Issue 2 June 2006

## NEW TEST

### TEST #2209

#### Reticulocyte/Reticulocyte Hemoglobin Content (Chr)

Physicians Laboratory is now offering the Reticulocyte/Reticulocyte Hemoglobin Content (Chr) test. This test includes a Reticulocyte Count (test #1209) and the Chr, which simultaneously measures the volume and content of hemoglobin in red cells and reticulocytes. Chr has been demonstrated to be an early indicator of iron deficiency, especially in infants/children and dialysis patients.

Specimen: 5 mL lavender EDTA whole blood, refrigerated  
Testing: Performed in Omaha and Lincoln Hematology and reported day of testing.  
Normal Range: Can add on within 48 hrs. >28 pg  
A value less than 28 is strongly suggestive of iron deficiency anemia.  
CPT code: 85045 85046  
Cost: Client \$9  
Questions: Contact Stephanie Gillespie, Hematology Supervisor or Dr. Gregory Post, Director of Clinical Services

## METHODOLOGY IN BLOOD BANK

Effective May 30, 2006 Physicians Laboratory Services implemented gel technology in performing ABO Blood Group, Rh D Typing, RBC Antibody Screen, RBC Antibody Identification, RBC Antibody Titer, and Direct Coombs testing.

A memo was sent to clients on May 17, 2006 describing the new specimen requirements for the above tests and Obstetrical (OB) Profiles. If you did not receive the memo. please contact Pam Otto at 402 731-4145 or 1-800-642-1117.

## SERVICE GUIDE UPDATE

Our Service Guide has been updated, and the new version, (2<sup>nd</sup> Version, 2006) will be available July 15. To order a copy, contact our Supply Dept.

## TEST NAME CHANGES

For easier identification when requesting these tests, the names of the panels have been changed from "Substance Abuse Panel" to "Drugs of Abuse"

### NEW TEST NAME:

#1570 Drugs of Abuse 3 Drugs  
#1626 Drugs of Abuse 5 Drugs  
#1627 Drugs of Abuse 5 Drugs+ Alcohol  
# 682 Drugs of Abuse 6 Drugs  
#1768 Drugs of Abuse 6 Drugs+ Alcohol  
#1623 Drugs of Abuse 7 Drugs  
#1624 Drugs of Abuse 7 Drugs+ Alcohol  
#1980 Drugs of Abuse 8 Drugs  
# 351 Drugs of Abuse 9 Drugs  
# 349 Drugs of Abuse 9 Drugs+ Alcohol

### TEST #2544 PSA Screen is now named "PSA Medicare Screening"

The name of this test was changed to indicate this test is just ordered on Medicare patients for screening purposes only. The ICD 9 code to be used is V76.44

## TEST #636 O&P REQUIREMENTS

To obtain a complete Ova and Parasite workup (test #636), the following must be included:

1. "Per Physician request" must be written on the requisition
2. Travel History of the patient or the physician's reason to perform the complete examination.

If the above is not included, test #699 Giardia Cryptogen Antigen will be performed.

Questions: Contact Shari Talbert  
Microbiology Supervisor

## HOLIDAYS

We want to remind everyone on holidays (New Year's, Memorial Day, Fourth of July, Labor Day, Thanksgiving and Christmas) our services are as follows:

**OMAHA:** A limited technical staff is working. Physicians Laboratory couriers and phlebotomy services are not available.

**LINCOLN:** The facility is closed.

## ADD ON TESTING

Providing there is an adequate quantity of refrigerated specimen and the time of the "add on" request compared to the time of draw is acceptable, the following tests can be added by contacting our Client Services Department.

<u>TEST #</u>	<u>Name</u>	<u>ADD ON</u>
1820	CA 125	24 hrs
1316	Prolactin	48 hrs
925	Estradiol	48 hrs
318	Testosterone	48 hrs
275	CEA	48 hrs
7890	BNP	24 hrs
1545	CRP, hs	7 days
937	Insulin, random	24 hrs
237	Transferrin	72 hrs
706	Depakene	5 days
833	CA 15-3	5 days
426	Lyme Disease	48 hrs

If transporting the specimen is delayed over a weekend or holiday, aliquot and freeze the specimen.

## GFR (Glomerular filtration rate)

**Effective 06/21/2006:** As an added service to our clients, Physicians Laboratory Services (PLS) now includes a GFR in conjunction with a creatinine (Cr) on Metabolic, Comprehensive and Renal panels at no additional charge. Note: The GFR (test #955) does not have to be ordered separately now.

Estimates of the Glomerular Filtration Rate (GFR) are the best overall indices of the level of kidney function. A GFR provides an excellent measure of the filtering capacity of the kidneys. A low or decreasing GFR is a good index of chronic kidney disease. A decrease in GFR precedes kidney failure in all forms of progressive kidney disease. Monitoring changes in GFR can delineate progression of kidney disease. The level of GFR is a strong predictor of the time to onset of kidney failure as well as the risk of complications of chronic kidney disease. Additionally, estimation of GFR in clinical practice allows proper dosing of drugs excreted by glomerular filtration to avoid potential drug toxicity.

To perform a GFR calculation, a serum creatinine, patient's age and gender are required. Our laboratory uses the MDRD (*Modification of Diet in Renal Disease*) formula to calculate the GFR and this is valid for anyone between the ages of 19 – 100. Normal ranges are provided for African Americans and Non African Americans on all reports. For patients 18 and under, a pediatric calculator is available at the following web site:  
[http://nephron.com/cgi-bin/peds\\_nic.cgi](http://nephron.com/cgi-bin/peds_nic.cgi)

Gregory Post, Ph.D.  
Director of Clinical Services

## SHOULD I ORDER AN ACTH STIMULATION TEST OR A DEXAMETHASONE SUPPRESSION TEST?

The indications for a **Rapid ACTH (Acthrel) Stimulation Test** are as follows:

- Suspected adrenal insufficiency
- Suspected adrenal biosynthetic defect
- ACTH unresponsiveness

The indications for a **Dexamethasone Suppression Test** are as follows:

- Screening Test for Cushing's Syndrome
- Screening test for Endogenous Depression

For the Rapid ACTH Stimulation Test the patient should be fasting before running the test, but is not required. A baseline plasma cortisol level should be obtained, and then 250 mg of synthetic ACTH (Acthrel) I.V. bolus (diluted in 2 – 5 mL physiologic saline) or I.M. (**Note: Acthrel is obtained from a pharmacy**) should be administered immediately after obtaining the baseline plasma cortisol level. Plasma cortisol is drawn at 60 minutes after the administration has been completed. On occasion, the physician may also request a 30-minute cortisol. Following the 60-minute draw, the test is complete and the patient is allowed to eat.

Interpretation: A normal response is a rise in plasma cortisol of over 7 micrograms/dL (ug/dL) and a peak response of over 18 ug/dL. Failure to respond is observed in primary adrenal insufficiency, while a blunted response can be observed with secondary adrenal insufficiency or prolonged glucocorticoid suppression.

The procedure for the Dexamethasone Suppression Test is to administer a single 1 mg dose of Dexamethasone (Decadron) at 2300 hrs. (exact dose should be determined by the physician). Blood samples for plasma cortisol should be drawn the next day at 0800, 1600 and 2300. Some physicians may direct less samples be drawn.

Interpretation: Normal individuals will show suppression of cortisol (< 5 ug/dL) for at least 24 hr after the dexamethasone dose. Patients suffering from Cushing's Syndrome or adrenocortical tumors will show no suppression in the cortisol levels. Patients suffering from endogenous depression will show normal cortisol suppression in the early morning (0800) sample, but escape from suppression later in the day (1600 or 2300). The recommended screening test for Cushing's Syndrome prior to a suppression test is a 24 hr urinary free cortisol level, which is a good discriminator of Cushing's patients versus the normal population.

Gregory Post, Ph.D.  
Director of Clinical Services