

Volume #7

Issue # 4

December, 2009

Beginning with this issue of our Technical Bulletin, each practitioner will be receiving a separate copy. This issue reiterates important information from our 2008/2009 Technical Bulletins.

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CELIAC PANELS

As of October 12, 2009, Physicians Laboratory has brought "in house" two Celiac Panels. Celiac disease is suspected when individuals have signs or symptoms of malabsorption or malnutrition. Other diseases, however, can produce malabsorption and malnutrition, such as pancreatic insufficiency, Crohn's disease of the small intestine, and small intestinal overgrowth of bacteria. It is important, therefore, to confirm suspected Celiac disease with appropriate testing. The new "in house" test numbers are as follows:

Test #7542 Celiac Panel 1
Testing will include Tissue Transglutaminase Antibodies (IgG and IgA) and Gliadin Antibodies (IgG and IgA)

Specimen: 2.0 mL serum
Storage: Frozen 1 week
Performed: Tues and Thurs in Omaha
Reported same day of testing
CPT code: 83516 x 4
Cost: \$80.00

Test #7543 Celiac Panel 2
Testing will include a serum Total IgA and Tissue Transglutaminase IgA and IgG

Note: This test is recommended for the pediatric population.

Specimen: Two - 2.0 mL serum specimens
Storage: Frozen 1 week
Performed: IgA – MWF in Lincoln
Tissue Transglutaminase IgA and IgG—Tues. and Thurs. in Omaha
CPT code: 82784, 83516 x 2
Cost: \$60.00

Each component can also be ordered individually.

Test #418	IgA, Total
Test #7654	Tissue Transglutaminase IgG
Test #7655	Tissue Transglutaminase IgA
Test #7656	Gliadin IgG Antibody
Test #7657	Gliadin IgA Antibody

Individuals with abnormally elevated Tissue Transglutaminase antibodies have a greater than 95 % chance of having Celiac disease. Gliadin antibodies are less reliable, have a high false positive rate and should be interpreted with caution when they are the only elevated antibodies present. Gliadin antibody levels are useful in monitoring the response to treatment because the levels usually begin to decrease within several months of successful treatment of Celiac disease with a gluten free diet. IgA deficiency is the most common immunoglobulin deficiency and is associated with increase risk of intestinal tract diseases such as celiac, ulcerative colitis and enteritis. If IgA is suspected, a total IgA should be requested with the Celiac Panel 1 to rule out this possibility.

Questions: Cassy Richards
Hematology Supervisor

ALLERGEN TESTING

Physicians Laboratory Services offers ImmunoCAP® Specific IgE testing performed onsite at the Omaha laboratory. In addition, PLS is now able to offer a new color, graphical format for the patient's test results. ImmunoCAP® allergen results may show evidence of IgE-mediated allergen sensitivity, which may be associated with atopic dermatitis, gastrointestinal disorders, recurrent otitis media, allergic rhinitis and allergic asthma. The following profiles are examples that were selected in consultation with allergy experts:

<u>Test</u>	<u>Test Name</u>	<u>CPT</u>
#1456	Childhood Allergy Profile	86003 x 12, 82785
#1469	Respiratory Region IX Panel	86003 x 18, 82785
#1482	Food Allergy Profile	86003 x 11, 82785

Questions: Cassy Richards
Omaha Hematology Supervisor

FASTING GLUCOSE NORMAL RANGE

The American Diabetes Association has endorsed a cut off of < 100 mg/dL for a fasting normal glucose level. The old normal range for fasting glucose was < 110 mg/dL. An expert committee recommended three categories for assessing glycemic control; normal fasting glucose, impaired fasting glucose and provisional diagnosis of diabetes, based on fasting values.

Categories of Fasting Glucose values are as follows:

Normal fasting glucose: <100 mg/dl
IFG (impaired fasting glucose) 100–125 mg/dl
Provisional diagnosis of diabetes. ≥126 mg/dl

Questions: Gregory Post, Ph.D.
Director of Clinical Services.

WHAT VITAMIN D TEST TO ORDER?

- #9277 Vitamin D, 25 Hydroxy**
Order when screening for Vitamin D deficiency or taking over-the-counter Vitamin D3.
- #9501 Vitamin D, 25 Hydroxy (Prescription only)**
Order when patient has taken prescription ordered Vitamin D2.
- #386 Vitamin D, 1- 25 Dihydroxy**
Order only when evaluating patient for hypercalcemia and renal failure.
Do not order this test in addition to Vitamin D, 25 Hydroxy (test #9277)

Submitted by: Gregory Post, Ph.D.
Director of Clinical Services

TEST #636 O&P vs TEST #699 GIARDIA/CRYPTO ANTIGEN

In order to perform Test #636 Ova and Parasite (O&P) exam, we require notation of travel history, parasite exposure or "per physician request" on the requisition. Unless travel or specific exposure is indicated, this test is often unnecessary and can waste time and resources. We encourage the use of antigen testing for Giardia/Cryptosporidium (test #699) instead of the traditional O&P exam since these are the two most prevalent parasites in our region. Antigen testing has greater sensitivity, provides faster turnaround time, and requires only one sample instead of three.

PROPER ORDERING OF THROAT CULTURE SPECIMENS

Throat culture (test #601) should only be ordered when a unique clinical situation warrants special consideration (such as bacterial pathogen carrier state or the presence of yeast). When the physician requests this test, the specific pathogen in question needs to be listed on the requisition. Test #601 Culture, Aerobic, Throat is reported within 48 hrs.

Do not order this test to look for Beta Hemolytic Streptococcus. To check for Beta Hemolytic Strep., order test #688 Beta Strep Culture, Throat.

Questions: Shari Talbert
Microbiology Supervisor

BORDETELLA PERTUSSIS AND LABORATORY TESTING

Bordetella pertussis is the etiologic agent of "whooping cough". Infections can occur in unvaccinated children or children and adults who have been previously vaccinated, but immunity has waned. There are 3 stages:

1. Infectious Stage Mild cough, 1-2 weeks
2. "Whoop" Stage Cough, 2-6 weeks
3. Convalescent Stage Cough, decreased

Nasopharyngeal aspirates and nasopharyngeal swabs are the optimal specimens for detecting *B. pertussis*.

<u>B. pertussis:</u>	<u>Sensitivity</u>	<u>Specificity</u>
#333 DFA	60-65	90-99
#9273 Culture	40-50	>90
#7651 Real Time PCR	70-80	93-95

Test #7651 *B. pertussis* by *Real Time PCR* is the method of choice for direct detection of *B. pertussis* and *B. parapertussis* in clinical specimens. The limit of detection is one organism for *B. pertussis* and five organisms for *B. parapertussis*. As is true for the other diagnostic tests mentioned above, sampling patients as early in the course of the clinical illness as possible is recommended.

Test #7651

Specimen: MDL® Naso Swab Kit
Storage: Ambient 5 days
Performed: Mon-Sat and reported 3-5 days
CPT code: 87798
Cost: \$55.00
Questions: Crystal Waymire
Processing Supervisor

WHICH "ESTRADIOL" TO ORDER?

Physicians Laboratory Services offers two tests for Estradiol in serum. Test #925 Estradiol Female Fertility is performed "in house" and is recommended for pre-menopausal females. It is used in the assessment of fertility. The measurable range at the lowest value is 20 pg/mL and the high end is limited only by dilution of the sample. Most females of childbearing age have Estradiol levels greater than 20 pg/mL. This test is also used to follow Estradiol levels following stimulation for assisted reproduction. Prepubertal children, males, and post-menopausal females normally have very low Estradiol levels (<20 pg/mL) and test #7439 should be ordered. This assay uses a methodology that can detect values down to 1 pg/mL. This assay is sent to a reference lab. so the turnaround time is longer, and the test is more expensive to perform.

Submitted by: Gregory Post, Ph. D.
Director of Clinical Services

THANK YOU

Physicians Laboratory Services, Inc. thanks you for choosing PLS as your reference laboratory. We value you as a client and will continue to strive to provide the most accurate and precise testing in a timely and cost efficient manner. All of the pathologists and employees at Physicians Laboratory Services, Inc. wish you and your family a very Happy Holiday Season!!