Danbury Hospital
Department of Pathology & Laboratory Medicine
Technically Speaking

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CELIAC DISEASE TESTING

New consensus guidelines from the National Institutes of Health, recommend serologic screening and, if positive, confirmation with small bowel biopsy for optimal diagnosis of celiac disease. Based on these recommendations, the Danbury Hospital Laboratory will alter the celiac disease panel to provide sensitive, specific, cost-effective serologic testing in patients clinically suspected of having celiac disease.

Celiac disease (CD) was thought to be a rare childhood disorder affecting 1 in 3,345 people worldwide. Application of serologic screening has shown the worldwide prevalence to be 1 in 266. The condition is a genetically determined, immune-mediated chronic inflammatory process affecting the small intestine. HLA-DQ2 is expressed in over 90% of persons with CD. HLA-DQ2 or HLA-DQ8 expression is necessary for the disease to manifest, but not all individuals expressing these molecules will develop CD. First- and second-degree relatives of individuals with CD are at increased risk and should be tested. *Screening of the general population is not recommended at this time*. The inflammatory process is triggered when a susceptible individual is exposed to dietary gluten—a storage protein found in wheat, rye and barley. Although the small intestine is the target organ, CD is a multi-system disorder that can occur at any age. Wide ranging clinical manifestations include diarrhea, nutritional anemia, reduced bone mineral density, dermatitis herpetiformis, autoimmune disease, dental enamel hypoplasia, type 1 diabetes, neuropathy and short stature.

Serologic testing:
Antigliadin antibodies are no longer recommended as a routine screening test because of variable sensitivity and specificity and will not be part of the routine screening panel performed by the laboratory. Although highly sensitive and specific, the results of anti-tissue transglutaminase (tTG) and endomysial antibodies (EMA) are not always concordant; often they are ordered together or sequentially. The tTG antibody test, however, is more sensitive, easier to perform, and more reproducible. The published sensitivity is 95% to 98% and the specificity is 94% to 95%.

Two percent of patients with celiac disease will be IgA deficient and unable to make IgA antibodies. These patients need to be screened using an IgG test.

The laboratory will perform a screening test panel that includes determination of serum IgA and tTG IgA antibodies. When patients successfully maintain a gluten-free diet, tTG IgA antibodies disappear from serum. Endomysial IgA titers may then be ordered for monitoring.

Screening for celiac disease at DHS will include tTg IgA, and serum IgA. The endomysial IgA antibody test may be ordered separately.

For further information, please contact the Immunology section at extension 7390.

LABORATORY SERVICE EXCELLENCE
Mary J. McCarthy, MT (ASCP)
Sandra C. Smith, PBT (ASCP), Client Services/Marketing Coordinator

Department of Pathology and Laboratory Medicine Mission Statement:

The mission of the Department of Pathology and Laboratory Medicine is to provide quality laboratory services, cost effectively to Danbury area residents and residents of the surrounding communities.

In keeping with the mission statement, the Laboratory provides, accurate and high quality testing, through state of the art technology, knowledgeable staff, and expert pathologists.
To meet the challenges of an ever-changing workplace, the Laboratory has instituted the following:

- The Laboratory maintains a **comprehensive Quality Improvement Program** to ensure employee competency and accuracy in the performance and reporting of test results and to ensure the continual improvement of the quality of care and services to our customers.
- To provide continuous confidentiality and privacy to patients, the laboratory has instituted policies and protocols to ensure **proper patient identification.** The laboratory requires two patient identifiers which may include patient's first and last name, date of birth, social security number. The laboratory also requires physician's offices calling for results to read back the results to verify accuracy.
- **For Inpatients**: proper patient ID is further assured by the **implementation of the new PDA (Personal Digital Assistant) system**. Using barcode technology, the PDA matches patient ID bracelets to all computer generated test labels specific for that patient's ordered tests.
- **For Outpatients*:*** the Laboratory is pleased to announce that **appointments for specimen collection may be scheduled at the Hospital Testing Center on Locust Avenue**. Please call (203) 797-7731 to schedule appointments. As always, walk-ins are welcome.
- **For Clinicians:** to enable clients to **perform electronic order entry and to access results on-line wherever internet access is available**, the Laboratory has partnered with Labtest.com Systems. Labtest.com Systems improves office efficiency of the reporting process by providing instant access to all patient test results on-line, enabling clinicians to review critical reports while away from the office and streamlining patient care through the quick retrieval of the latest reports wherever internet access is available.

For more information about Labtest.com Systems, contact Sandra Smith, Client Service/Marketing Coordinator at 203-797-7800.

CORTOSYN STIMULATION TEST NOW ORDERABLE

The **CORTROSYN STIMULATION TEST** is now an orderable test. It can be found in the **CHEMISTRY** section in the Invision system. This test group includes three serum cortisol tests drawn at baseline (i.e., immediately prior to administration of Cortrosyn dose) and at 30 and 60 minutes post-stimulation. Individual computer labels will print for all three tubes - **CORT BASE**, **CORT 30MIN** and **CORT 60MIN** - with times spaced by 30 minutes. The correct label should be placed on each tube with the **actual** time of draw written on each label.