NOTICE OF NEW SERVICE MEMO

DATE: July 28, 2010

TO: Housestaff and PCN Physicians, Faculty, and Nursing Personnel

From: Denis Dwyre, MD, Director, Hematopathology

RE: New Tests for Celiac Disease

Effective: August 17, 2010

New Test(s) | Test | Synonym | Order Mnemonic
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IgA Antibodies to Tissue Transglutaminase | tTG IgA | TTGA
IgG Antibodies to Tissue Transglutaminase | tTG IgG | TTGG
IgA antibodies to Gliadin | Gliadin IgA | GLIAA
IgG antibodies to Gliadin | Gliadin IgG | GLIAG

CELIAC PANEL: The Celiac panel includes a Total IgA
If the total IgA is < 7 mg/dL, IgG antibodies to Gliadin and Tissue transglutaminase will be done.
If the total IgA is ≥ 7 mg/dL, IgA antibodies to Gliadin and Tissue transglutaminase will be done. If results are negative for specific IgA antibodies then IgG antibodies to Gliadin and Tissue transglutaminase will also be done.

Use: Celiac disease antibody tests are used to help diagnose celiac disease, to monitor compliance with a gluten-free diet, and to evaluate effectiveness of treatment.

Method: ImmunoCAP 250 Instrument; Phadia EliA™ fluoroenzymeimmunoassay

Sample Requirement: 0.3 mL of serum for each test

Routine Testing: Performed Monday and Thursday

Reference Range

<table>
<thead>
<tr>
<th>Test</th>
<th>Negative</th>
<th>Equivocal</th>
<th>Positive</th>
</tr>
</thead>
<tbody>
<tr>
<td>Antibodies to</td>
<td>&lt;7</td>
<td>7-10</td>
<td>&gt;10</td>
</tr>
<tr>
<td>tTG IgG</td>
<td>&lt;7</td>
<td>7-10</td>
<td>&gt;10</td>
</tr>
<tr>
<td>tTG IgA</td>
<td>&lt;7</td>
<td>7-10</td>
<td>&gt;10</td>
</tr>
<tr>
<td>Gliadin IgA</td>
<td>&lt;7</td>
<td>7-10</td>
<td>&gt;10</td>
</tr>
<tr>
<td>Gliadin IgG</td>
<td>&lt;7</td>
<td>7-10</td>
<td>&gt;10</td>
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</table>
### Interpretation

<table>
<thead>
<tr>
<th>tTg</th>
<th>tTg</th>
<th>Gliadin</th>
<th>Gliadin</th>
<th>IgA</th>
<th>Diagnosis</th>
</tr>
</thead>
<tbody>
<tr>
<td>IgA</td>
<td>IgG</td>
<td>IgA</td>
<td>IgG</td>
<td>Deficient</td>
<td></td>
</tr>
<tr>
<td>Pos</td>
<td>Neg</td>
<td>Neg</td>
<td>Neg</td>
<td>No</td>
<td>Presumptive celiac disease</td>
</tr>
<tr>
<td>Neg</td>
<td>Pos</td>
<td>Neg</td>
<td>Pos</td>
<td>Yes</td>
<td>Possible celiac disease, false negative IgA results due to IgA deficiency.</td>
</tr>
</tbody>
</table>

If a patient diagnosed with celiac disease eliminates gluten from their diet, then the autoantibody levels will fall. Gliadin IgA is best for monitoring the success of a gluten-free diet since IgA antibodies disappear faster than IgG antibodies. Gliadin IgG antibodies respond faster to a new gluten challenge than IgG antibodies to tTg.

IgG antibodies are useful if a patient has IgA deficiency.

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For questions, contact Dr. Denis Dwyre at 734-2340, or Ranald (Skip) Aitkens Immunology Supervisor at 734-7599.

Approved:

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