May 5, 2022

IMMUNOLOGY

Tissue Transglutaminase IgA and IgG

Date effective: June 2, 2022

Clinical Practice Change:

The Shared Health Immunology Laboratory at St Boniface Hospital will be changing its testing platform for workup of suspected celiac disease and dermatitis herpetiformis.

Background Information:

Antibodies against tissue transglutaminase support the diagnosis of gluten-sensitive enteropathy (celiac disease). Tissue Transglutaminase Antibodies (TTG-IgA) will be positive in about 98% of patients with celiac disease who are on a gluten-containing diet.

Changes in Test Procedure:

1. Testing methodology for TTG IgA will be changing from BioPlex multiplex to ELISA.
2. Positive TTG IgA will continue to reflex endomysial IgA antibody testing by immunofluorescence.
3. TTG IgG will no longer be available. It will be replaced with anti-deamidated gliadin peptide (DGP) which has higher sensitivity and specificity. Requests will require prior approval and are restricted to IgA deficient patients (IgA ≤0.07g/L). Testing will be performed at In-Common Laboratories, using a Chemiluminescence immunoassay (CLIA).
   Complete the pre-approval form by clicking on the following link: Immunology Approval for Test Referral

References/Resources:

Test:	TTG IgA Laboratory Information Manual - TTG IgA
Delphic Code:	TTGA
Sample:	Serum 1.0 ml
Normal Range:	0 - 19 RU/ml
Availability:	Weekdays (5-7day TAT)
Requisition:	Immunology Autoimmune Laboratory Requisition The requisition will reflect these changes in the next version.
Test:	Deamidated Gliadin Peptide Antibodies Laboratory Information Manual - DGP

Patient Impact:

- As no international reference serum exists for antibodies against tissue transglutaminase, the calibration and reporting is in relative units (RU/ml). There is no linear correlation between the multiplex and ELISA methods. Any patients being followed for treatment response or to monitor disease activity should have baseline data reevaluated.

System Improvements:

1. To reduce the inappropriate testing of TTG IgG in IgA competent individuals (anticipated reduction of 550-600 tests monthly).
2. To replace TTG IgG with anti-DGP which has higher sensitivity and specificity per literature.

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