Celiac Disease Testing for Symptomatic Individuals

**INDICATIONS FOR TESTING**
- Nonspecific symptoms (anemia, failure to thrive, fever, skin rash and weight loss)
- Diarrhea >4 weeks duration

**ORDER**
Immunoglobulin A

**SELECTIVE IGA DEFICIENCY (<7.0 mg/dL)**

**ORDER**
Celiac Dual Antigen Screen with Reflex

- All components normal
  - Celiac disease confirmed
- Any component positive or equivocal
  - Celiac disease unlikely

**ADAPTED IGA LEVEL (AGE-MATCHED RANGE)**

**ORDER**
tTG IgG & DGP IgG

- High Positive: ≥41 U/mL
  - Celiac disease likely

**ORDER**
tTG IgA

- Weak-moderate positive: 4-40 U/mL
  - Likely false-positive anti-tTG test
- Negative: ≤3 U/mL
  - Celiac disease unlikely
    - Exclude history of gluten-free diet or immunosuppressants
    - Consider HLA testing (in light of age and associated diseases)

**CONSIDER**
HLA testing

- HLA positive
  - Celiac disease confirmed
- HLA negative
  - Likely false-positive anti-tTG test
  - Consider biopsy to confirm or rule out celiac disease

**EMA AND/OR DGP NEARLY POSITIVE (≥41 U/mL)**

- Perform biopsy
  - Marsh 0-1
    - Consider early phase disease – follow-up testing on normal diet
    - Consider false-positive results
  - Marsh ≥2
    - Celiac disease confirmed
- EMA and/or DGP positive
  - HLA negative
    - Likely false-negative HLA test
    - Consider biopsy to confirm or rule out celiac disease
- EMA and/or DGP positive
  - HLA positive
    - Celiac disease confirmed
- EMA and DGP negative and HLA negative
  - Likely false-positive anti-tTG test

**TEST KEY**
- tTG IgA Tissue Transglutaminase Antibody (tTG), IgA
- tTG IgG Tissue Transglutaminase Antibody (tTG), IgG
- DGP IgA Deamidated Gliadin Peptide (DGP) Antibody, IgA
- DGP IgG Deamidated Gliadin Peptide (DGP) Antibody, IgG
- EMA IgA Endomysial Antibody, IgA by IFA
- HLA Celiac Disease (HLA-DQ2 and HLA-DQ8) Genotyping