Celiac Disease Testing for Symptomatic Individuals

**INDICATIONS FOR TESTING**
Nonspecific symptoms (iron-deficiency anemia, failure to thrive, fever, skin rash, and weight loss)

**ORDER**
Immunoglobulin A

Selective IgA deficiency (<7.0 mg/dL)

**ORDER**
TG IgG and DGP IgG

- All components normal
  - Celiac disease unlikely
- Selective IgA deficiency (<7.0 mg/dL)

IgA level ≥ 7.0 mg/dL but below age-matched range

**ORDER**
Celiac Dual Antigen Screen with Reflex

- Any component positive or equivocal
  - CONSIDER HLA testing (or biopsy) to confirm or rule out celiac disease
- IgA level ≥ 7.0 mg/dL but below age-matched range

Adequate IgA level (age-matched range)

**ORDER**
TG IgA

- High positive (≥ 41 U/mL)
  - Celiac disease likely
- Weak-moderate positive (4-40 U/mL)
  - EMA and/or DGP positive, HLA negative
  - EMA and/or DGP negative, HLA positive
  - Celiac disease confirmed
  - ConSIDER HLA testing (or biopsy) to confirm or rule out celiac disease
- 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 (or biopsy) to confirm or rule out celiac disease

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

Celiac disease unlikely

- EMA and/or DGP positive, HLA negative
  - Celiac disease confirmed
  - Likely false-positive anti-TG test
- EMA and/or DGP negative, HLA positive
  - Celiac disease ruled out; likely false-positive anti-TG test

ConSIDER HLA testing (or biopsy) to confirm or rule out celiac disease

- HLA negative
  - Celiac disease ruled out; likely false-positive anti-TG test
- HLA positive
  - Celiac disease confirmed

**Test Key**
- TG IgA: Tissue Transglutaminase Antibody (tTG), IgA
- TG IgG: Tissue Transglutaminase Antibody, 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

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