Practice Guidelines

Diagnosis and Management of Celiac Disease: Guidelines From the American College of Gastroenterology

Key Points for Practice

- In symptomatic patients consuming a gluten-containing diet, serologic testing includes measuring tissue transglutaminase IgA levels and total IgA levels to rule out an IgA deficiency.
- Because serologic testing can have low sensitivity, endoscopy is recommended if suspicion for celiac disease is high but serology is negative.
- If patients with possible celiac disease are already consuming a gluten-free diet, testing for HLA DQ2 or DQ8 should be considered because a negative result rules out celiac disease.

From the *AFP* Editors

Nearly 1% of Americans are affected by celiac disease, a permanent immune-mediated response to gluten in wheat, barley, and rye. Celiac disease has multisystemic effects characterized by specific antibodies and small bowel injury. There is no effective medical treatment; therefore, celiac disease requires a lifelong, strict adherence to a gluten-free diet.

Diagnosis

In patients with unexplained diarrhea, weight loss, abdominal pain, or bloating, testing for celiac disease with serology should be considered. Although screening asymptomatic patients for celiac disease is not recommended, testing is an option in patients with unexplained iron deficiency, weight loss, or recurrent pancreatitis; osteopenia; elevated transaminase levels; dermatitis herpetiformis; peripheral neuropathy; oral aphthous ulcers; growth failure; or thyroid disease. Testing of asymptomatic patients who have a first-degree relative with celiac disease can be considered.

Initial testing for celiac disease includes measuring tissue transglutaminase immunoglobulin A (IgA) levels, which has a sensitivity of 63% to 93% and specificity of 96% to 100% for patients who consume a diet containing gluten. Total IgA levels should also be obtained to rule out an IgA deficiency. If an IgA deficiency is found, tissue transglutaminase IgG or deamidated gliadin peptide levels should be measured.

If suspicion for celiac disease is high but serology is negative, upper endoscopy is recommended. Because abnormalities associated with

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This series is coordinated by Michael J. Arnold, MD, assistant medical editor.

A collection of Practice Guidelines published in *AFP* is available at https://www.aafp.org/afp/practguide.

CME This clinical content conforms to AAFP criteria for CME. See CME Quiz on page 13.

Author disclosure: No relevant financial relationships.

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Score	Criteria
Yes	Focus on patient-oriented outcomes
Yes	Clear and actionable recommendations
Yes	Relevant patient populations and conditions
Yes	Based on systematic review
Yes	Evidence graded by quality
Yes	Separate evidence review or analyst in guideline team
Yes	Chair and majority free of conflicts of interest
No	Development group includes most relevant specialties, patients, and payers (no payers or patients)
	Overall – useful

Note: See related editorial, Where Clinical Practice Guidelines Go Wrong, at https://www.aafp.org/afp/gtrust.html.

G-TRUST = guideline trustworthiness, relevance, and utility scoring tool.

celiac disease can be patchy, four or more biopsy sites are recommended. The combination of serology and endoscopy results can clarify the diagnosis.

For patients who already follow a gluten-free diet, serology and endoscopy are not accurate for diagnosing celiac disease. Testing for human leukocyte antigens (HLA) DQ2 and DQ8 can eliminate patients who would not benefit from a gluten challenge. HLA testing can also be useful when serology and histology conflict because a negative test result for HLA DQ2 and DQ8 rules out celiac disease.

Implementing a Gluten-Free Diet

After diagnosis, a dietitian can help patients implement a gluten-free diet. Because gluten contamination of oats is common, gluten-free oats are recommended. Gluten detection devices are limited by false-positive and false-negative results and are not recommended. Limited study suggests that probiotics do not improve symptoms.

Expected Response to a Gluten-Free Diet

Symptoms should improve rapidly with strict adherence to a gluten-free diet. More than 80% of patients reported improvement in diarrhea within 60 days. Serology correlates poorly with mucosal healing, therefore biopsies are required. If serology becomes negative, mucosal healing is more likely. Lack of mucosal healing increases the risk of lymphoproliferative malignancy and hip fracture, whereas patients with normal histology have the same lymphoma risk as people without celiac disease. A follow-up biopsy should be considered at two years because the median time to achieve mucosal healing is three years.

Pneumococcal Immunization

Because adults with celiac disease have double the risk of pneumococcal infection, pneumococcal immunization is recommended.

The views expressed are those of the author and do not necessarily reflect the official policy or position of the Naval Undersea Medical Institute, U.S. Navy, U.S. Department of Defense, or U.S. government.

Guideline source: American College of Gastroenterology

Published source: Rubio-Tapia A, Hill ID, Semrad C, et al. American College of Gastroenterology guidelines update: diagnosis and management of celiac disease. *Am J Gastroenterol*. 2023; 118(1):59-76.

Available at: https://journals.lww.com/ajg/fulltext/2023/01000/american_college_of_gastroenterology_guidelines.17.aspx

Michael J. Arnold, MD, FAAFP
Naval Undersea Medical Institute
Groton, CT
michael.arnold@usuhs.edu ■