Choosing Wisely®

An initiative of the ABIM Foundation

American Academy of Pediatrics

DEDICATED TO THE HEALTH OF ALL CHILDREN™

Section on Gastroenterology, Hepatology, and Nutrition

Five Things Physicians and Patients Should Question

1 Avoid ordering multi-antibody celiac panels and genetic testing for routine evaluation and screening for celiac disease. For all ages, the two most appropriate serum tests to obtain while still eating a gluten-containing diet are (1) tissue transglutaminase IgA and (2) total IgA level.

Tissue transglutaminase (tTG) IgA has high sensitivity and specificity for celiac disease in patients who do not have selective IgA deficiency. Panels that measure multiple antibodies do not significantly increase sensitivity for detecting disease, but do increase cost, as well as risk of false positive tests, and may lead to unnecessary referral and endoscopy. Panels often include Anti-gliadin IgA or IgG antibodies or deamidated gliadin IgA antibodies, which have low specificity. Deamidated gliadin IgG has comparable specificity to tTG IgA and can be obtained as a second line test in patients with selective IgA deficiency, where clinical suspicion is high.

2 Avoid referral to pediatric gastroenterology for children with functional constipation without attempting standard, guideline-based laxative strategies if alarming or "red flag" signs are absent.

Polyethylene glycol (PEG) is a safe, evidence-based therapy for children with functional constipation. Lactulose is also an acceptable first-line alternative laxative. Maintenance treatment with one of these osmotic laxatives should continue for at least 2 months. All symptoms of constipation should be resolved for at least 1 month before discontinuation of treatment. Treatment should be decreased gradually. Alarming or "red flag" signs that should alert the medical provider to a possible underlying condition responsible for the constipation include items such as: constipation starting in infants <1 month of age, delayed passage of meconium, severe abdominal distention, failure to thrive, and sacral abnormalities (see reference 1 for complete list).

3 Do not order stool WBC (fecal leukocytes) to evaluate acute diarrhea. Order appropriate testing for stool pathogens.

The presence of fecal leukocytes and/or gross blood greatly enhance the likelihood that a stool specimen will be positive for a bacterial pathogen. Because negative tests are not adequately predictive to be used as exclusion criteria and testing for stool pathogens is already indicated, fecal leukocyte testing does not add value to the evaluation of acute diarrhea.

4 Avoid testing for Clostridioides difficile in infants.

Asymptomatic colonization leading to positive stool tests for *Clostridioides difficile*, including toxigenic strains, is common in the first 2 years of life. As a result, expert guidance recommends that children who are less than 2 years of age should not be routinely tested. For infants with persistent diarrhea (lasting more than 10–14 days), providers should consult a subspecialist (infectious disease or gastroenterology) before ordering *C. difficile* testing.

5 Avoid sending IgG based food sensitivity tests for GI symptoms.

There is ample evidence that IgG testing to identify specific foods that may be associated with GI symptoms is unreliable and should not be performed. The presence of food-specific total IgG levels represents a normal physiologic response of the immune system to exposure, and the presence of IgG4 specific to foods may be a biomarker of tolerance. Food-specific IgG levels are found in healthy children and adults without digestive symptoms. Neither total IgG nor IgG4 levels have been found to correlate with food allergy symptoms in double-blind placebo-controlled food challenges. Food-specific IgG testing is widely disproved as a tool for diagnosing food allergy or for guiding dietary counseling in patients with GI symptoms.

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How This List Was Created

The American Academy of Pediatrics Section on Gastroenterology, Hepatology, and Nutrition (SOGHN) consists of pediatric gastroenterologists, pediatricians, trainees, and allied health care professionals who are actively involved in aspects of the study of gastroenterological diseases in infants, children, and adolescents. The Executive Committee of SOGHN developed a list of topics to contribute to the Choosing Wisely initiative. The SOGHN Executive Committee conducted an iterative process to develop a list of potential topics which was ranked by each Executive Committee member. The top 5 topics were further developed by the Executive Committee and subsequently shared with the SOGHN membership and peer reviewed by relevant AAP expert groups for further comment and feedback. The final list was critically reviewed and approved by the AAP Executive Committee. The guidance in this list does not indicate an exclusive course of treatment or serve as a standard of medical care. Variations, taking into account individual circumstances, may be appropriate.

Sources

1

Hill ID, Dirks MH, Liptak GS, et al. Guideline for the Diagnosis and Treatment of Celiac Disease in Children: Recommendations of the North American Society for Pediatric Gastroenterology, Hepatology and Nutrition. *Journal of Pediatric Gastroenterology and Nutrition*. 2005;40:1-19.

Husby S, Murray JA, Katzka DA. AGA Clinical Practice Update on Diagnosis and Monitoring of Celiac Disease-Changing Utility of Serology and Histologic Measures: Expert Review. Gastroenterology 2019;156:885-889.

Olen O, Gudjónsdóttir AH, Browaldh L, et al. Antibodies against deamidated gliadin peptides and tissue transglutaminase for diagnosis of pediatric celiac disease. *J Pediatr Gastroenterol Nutr*. 2012;55:695-700.

Ermarth A, Bryce M, Woodward S, et al. Identification of Pediatric Patients With Celiac Disease Based on Serology and a Classification and Regression Tree Analysis. *Clin Gastroenterol Hepatol*. 2017;15:396-402.e2.

Gould MJ, Brill H, Marcon MA, et al. In Screening for Celiac Disease, Deamidated Gliadin Rarely Predicts Disease When Tissue Transglutaminase Is Normal. *J Pediatr Gastroenterol Nutr*. 2019;68:20-25.

Abdulrahim A, Fagih M, Troncone R, et al. Deamidated Gliadin Antibodies: Do They Add to Tissue Transglutaminase-IgA Assay in Screening for Celiac Disease? *Journal of Pediatric Gastroenterology and Nutrition*. 2021;72:e112-e118.

2

Evaluation and Treatment of Functional Constipation in Infants and Children: Evidence-Based Recommendations from ESPGHAN and NASPGHAN. Tabbers MM; DiLorenzo C; Berger MY; Faure C; Langendam MW; Nurko S; Staiano A; Vandenplas Y; Benninga MA. *Journal of Pediatric Gastroenterology and Nutrition*: February 2014 - Volume 58 - Issue 2 - p 258-274.

LeLeiko NS, Mayer-Brown S, Cerezo C, Plante W. Constipation. *Pediatr Rev*. 2020 Aug;41(8):379-392.

Colombo JM, Wassom MC, Rosen JM. Constipation and Encopresis in Childhood. *Pediatr Rev*. 2015 Sep;36(9):392-401.

3

Klein EJ, Boster DR, Stapp JR, et al. Diarrhea etiology in a Children's Hospital Emergency Department: a prospective cohort study. Clinical infectious diseases: an official publication of the Infectious Diseases Society of America. 2006.

4

Semon et al. Clostridioides difficile and the Microbiota Early in Life. *J Pediatric Infect Dis Soc* 2021; 10(Supplement 3): S3-S7.

Jangi, S, and Lamont, JT. Asymptomatic colonization by Clostridium difficile in infants: implications for disease in later life. JPGN 2010, 51(1):2-7.

5

Peters RL, Krawiec M, Koplin JJ, Santos AF. Update on food allergy. Pediatr Allergy Immunol. 2021;32(4):647-657.

Schmiechen ZC, Weissler KA, Frischmeyer-Guerrerio PA. Recent developments in understanding the mechanisms of food allergy. *Curr Opin Pediatr*. 2019 Dec;31(6):807-814.

Lavine E. Blood testing for sensitivity, allergy or intolerance to food. *CMAJ*. 2012;184(6):666-668.

Hamilton RG. Clinical laboratory assessment of immediate-type hypersensitivity. *J Allergy Clin Immunol* 2010;125(Supp 2): S284–96.

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About the American Academy of Pediatrics Section on Gastroenterology, Hepatology and Nutrition

The American Academy of Pediatrics is an organization of 67,000 primary care pediatricians, pediatric medical subspecialists and pediatric surgical specialists dedicated to the health, safety and well-being of infants, children, adolescents and young adults. The Section on Gastroenterology, Hepatology and Nutrition (SOGHN) is dedicated to improving the care of infants, children, and adolescents with gastrointestinal and nutritional disorders by providing an educational forum for the discussion of problems and treatments relating to gastroenterology, hepatology, and nutrition.

For more information, visit www.aap.org.

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