

Five Things Physicians and Patients Should Question

1 Don't routinely use acid blockers or motility agents for the treatment of gastroesophageal reflux in infants.

Medications that decrease acidity in the stomach do not improve infants' crying or spitting up. These symptoms are common and usually improve on their own, as the child grows up. Studies show that infants who take medications that block stomach acid secretion have more respiratory and gastrointestinal infections. Motility agents do not improve symptoms of reflux in infants but they can have side effects on the heart and nervous system, as well as dangerous interactions with other medications. For example, domperidone can increase the QTc interval on the EKG, particularly when used with other medications that affect liver metabolism, and metaclopramide can cause tardive dyskinesia. Infants with gastroesophageal reflux and poor growth, who have recurrent respiratory problems or who bleed from their gastrointestinal tract, need further evaluation and may need medication. However, most infants will not need them.

2 Don't perform screening panels (IgE tests) for food allergies without previous consideration of the pertinent medical history.

Allergy tests for food may be falsely positive when they are performed in children who don't have a history suggesting a serious (IgE mediated) allergy to that food. These results can lead to avoidance of foods to which a true allergy has not been validly documented. When symptoms suggest a food allergy, a careful history should be completed before ordering specific tests, and these should be selected based on the history. A history that suggests serious allergy to a food may include: (1) combinations of the skin, ocular, respiratory, gastrointestinal and cardiovascular symptoms of anaphylaxis that occur within minutes to hours of eating the specific food, or (2) moderate to severe atopic dermatitis. Testing should be selected based on the history and should not include large screening panels.

3 Don't administer psychostimulant medications to preschool children with Attention Deficit Disorder (ADD), but offer parent-administered behavioural therapy.

The treatment of preschool-aged children with ADD should involve evidence-based behavioural therapy first, as it is more effective than psychostimulants in this age group. Preschool-aged children are more sensitive to all psychostimulant side effects, including those associated with growth velocity. Behavioural therapy requires more time and resources, but the benefits are more sustained with minimal adverse events.

4 Don't routinely do a throat swab when children present with a sore throat if they have a cough, rhinitis, or hoarseness as they almost certainly have viral pharyngitis.

When children with a sore throat present symptoms strongly suggestive of viral illness, such as a runny nose (rhinorrhea), cough or a hoarse voice, a throat swab is unlikely to change management, as these children seldom have 'Strep Throat' as the cause of their sore throat.

5 Don't recommend the use of cough and cold remedies in children under six years of age.

Cough and cold remedies sold over the counter often contain combinations of several medications. Research shows that they are not effective when given to children. They can, however, cause serious harmful effects, including accidental overdose, particularly when combined with other medications. For these reasons, since 2008, Health Canada has advised against their use in children less than six years of age.

How the list was created

The Canadian Paediatric Society (CPS) established its Choosing Wisely Canada list through the leadership of a 7-member task force. CPS Committee Chairs and Section Presidents were consulted and sought input from committee and section executive members about items they felt should be included in the campaign. They were made aware of the American Academy of Pediatrics' list as well as the Society of Hospital Medicine's Pediatric Hospital Medicine list, published through the American Choosing Wisely® campaign. Current CPS statements were also considered during list development. Committees' and sections' submissions were reviewed by the task force. Using Delphi methodology, the task force established a list of 7 topics that were submitted to the CPS Board, including some recommendations that were previously made by other medical associations or societies. Principles used to inform decision-making were the following: a) is lack of effectiveness of the test, intervention or treatment well supported by evidence; b) is there evidence of harm resulting from unnecessary use of the test, intervention or treatment; c) is the test, intervention or treatment used commonly by physicians and health care workers treating children across Canada. The list was reviewed by the CPS Board and Executive and was narrowed down to five items.

Sources

- 1** Lightdale JR, Gremse DA; Section on Gastroenterology, Hepatology, and Nutrition. Gastroesophageal reflux: management guidance for the pediatrician. *Pediatrics*. 2013 May;131(5):e1684-95. PMID: [23629618](#).

Tighe M, Afzal NA, Bevan A, et al. Pharmacological treatment of children with gastro-oesophageal reflux. *Cochrane Database Syst Rev*. 2014 Nov 24;(11):CD008550. PMID: [25419906](#).

Vandenplas Y, Rudolph CD, Di Lorenzo C, et al. Pediatric gastroesophageal reflux clinical practice guidelines: joint recommendations of the North American Society for Pediatric Gastroenterology, Hepatology, and Nutrition (NASPGHAN) and the European Society for Pediatric Gastroenterology, Hepatology, and Nutrition (ESPGHAN). *J Pediatr Gastroenterol Nutr*. 2009 Oct;49(4):498-547. PMID: [19745761](#).

van der Pol RJ, Smits MJ, van Wijk MP, et al. Efficacy of proton-pump inhibitors in children with gastroesophageal reflux disease: a systematic review. *Pediatrics*. 2011 May;127(5):925-35. PMID: [21464183](#).
- 2** Bird JA, Crain M, Varshney P. Food allergen panel testing often results in misdiagnosis of food allergy. *J Pediatr*. 2015 Jan;166(1):97-100. PMID: [25217201](#).

NIAID-Sponsored Expert Panel, Boyce JA, Assa'ad A, et al. Guidelines for the diagnosis and management of food allergy in the United States: report of the NIAID-sponsored expert panel. *J Allergy Clin Immunol*. 2010 Dec;126(6 Suppl):S1-58. PMID: [21134576](#).

Sicherer SH, Wood RA; American Academy of Pediatrics Section On Allergy And Immunology. Allergy testing in childhood: using allergen-specific IgE tests. *Pediatrics*. 2012 Jan;129(1):193-7. PMID: [22201146](#).
- 3** Charach A, Carson P, Fox S, et al. Interventions for preschool children at high risk for ADHD: a comparative effectiveness review. *Pediatrics*. 2013 May;131(5):e1584-604. PMID: [23545375](#).

Subcommittee on Attention-Deficit/Hyperactivity Disorder; Steering Committee on Quality Improvement and Management, Wolraich M, Brown L, et al. ADHD: clinical practice guideline for the diagnosis, evaluation, and treatment of attention-deficit/hyperactivity disorder in children and adolescents. *Pediatrics*. 2011 Nov;128(5):1007-22. PMID: [22003063](#).

Visser SN, Danielson ML, Wolraich ML, et al. Vital Signs: National and State-Specific Patterns of Attention Deficit/Hyperactivity Disorder Treatment Among Insured Children Aged 2-5 Years - United States, 2008-2014. *MMWR Morb Mortal Wkly Rep*. 2016 May 6;65(17):443-50. PMID: [27149047](#).
- 4** Ebell MH, Smith MA, Barry HC, et al. The rational clinical examination. Does this patient have strep throat? *JAMA*. 2000 Dec 13;284(22):2912-8. PMID: [11147989](#).

Shulman ST, Bisno AL, Clegg HW, et al. Clinical practice guideline for the diagnosis and management of group A streptococcal pharyngitis: 2012 update by the Infectious Diseases Society of America. *Clin Infect Dis*. 2012 Nov 15;55(10):1279-82. PMID: [23091044](#).

Tanz RR, Gerber MA, Kabat W, et al. Performance of a rapid antigen-detection test and throat culture in community pediatric offices: implications for management of pharyngitis. *Pediatrics*. 2009 Feb;123(2):437-44. PMID: [19171607](#).
- 5** Goldman RD; Canadian Paediatric Society, Drug Therapy and Hazardous Substances Committee. Treating cough and cold: Guidance for caregivers of children and youth. *Paediatr Child Health*. 2011 Nov;16(9):564-9. PMID: [23115499](#).

Mazer-Amirshahi M, Rasooly I, Brooks G, et al. The impact of pediatric labeling changes on prescribing patterns of cough and cold medications. *J Pediatr*. 2014 Nov;165(5):1024-8.e1. PMID: [25195159](#).

Sharfstein JM, North M, Serwint JR. Over the counter but no longer under the radar--pediatric cough and cold medications. *N Engl J Med*. 2007 Dec 6;357(23):2321-4. PMID: [18057333](#).

Yang M, So TY. Revisiting the safety of over-the-counter cough and cold medications in the pediatric population. *Clin Pediatr (Phila)*. 2014 Apr;53(4):326-30. PMID: [24198312](#).

About Choosing Wisely Canada

Choosing Wisely Canada is a campaign to help clinicians and patients engage in conversations about unnecessary tests and treatments and help physicians and patients make smart and effective choices to ensure high-quality care.

For more information on Choosing Wisely Canada or to see other lists of Things Physicians and Patients Should Question, visit www.choosingwiselycanada.org. Join the conversation on Twitter @ChooseWiselyCA.

About The Canadian Paediatric Society

The Canadian Paediatric Society (CPS) is a proud partner of the Choosing Wisely Canada campaign. The CPS represents more than 3,000 paediatricians, paediatric subspecialists, paediatric residents and others to advance the health of children and youth by nurturing excellence in health care, advocacy, education, research and support of its membership.