# Five Things Clinicians and Patients Should Question

## 1 Don't routinely order nasopharyngeal (NP) testing for typical respiratory viruses unless results are likely to impact management.

Respiratory viral infections frequently occur in children and are a common reason to seek medical care. The diagnosis is made clinically and usually does not require confirmatory testing. NP testing is uncomfortable for children and the results frequently do not impact their medical management. Therefore, NP testing should only be considered in high risk patients where results will influence treatment decisions such as the need for antibiotics, performance of additional tests, or hospitalization. Reducing routine respiratory viral testing promotes high value care and allows for more effective allocation of health care resources.

## 2 Don't routinely perform a voiding cystourethrogram (VCUG) in infants after a first febrile urinary tract infection.

Previous guidelines recommended routine VCUG after first febrile urinary tract infections (UTI) in young children. However, a more recent body of research has not supported this practice. In addition VCUGs are uncomfortable, and expose children to ionizing radiation. Thus, most recent guidelines suggest that VCUG should be considered after febrile UTI only in select circumstances: for example, when the renal ultrasound is abnormal suggestive of higher grade reflux, or scarring; in atypical circumstances; or with recurrent UTI.

## 3 Don't use continuous pulse oximetry routinely in children hospitalized with acute respiratory illness unless they are on supplemental oxygen.

When children are in a stable phase of their acute respiratory hospitalization and do not require supplemental oxygen, observational research suggests that the use of continuous oxygen saturation monitoring leads to over-diagnosis and overtreatment of hypoxemia resulting in longer hospital stay.

## 4 Don't automatically give IVIG as first-line treatment for children with newly diagnosed, typical ITP.

Management choices for children with newly diagnosed, typical ITP include observation (when the bleeding is mild), prednisone, or IVIG. Each option has risks and benefits; ideally these can be discussed with families and their preferences accounted for. There is no evidence of a relationship between these initial therapies and subsequent development of severe bleeding. Prior to choosing IVIG, consideration should be given to its requirement for a day-hospital or overnight admission, its expense, and its side-effect profile that frequently includes aseptic meningitis.

## 5 Don't use routine radiography in children who present with acute ankle injuries and meet criteria for a low risk examination.

In North America, approximately 2 million children present to emergency departments annually with ankle injuries; about 12% demonstrate fractures on plain films. A paediatric clinical decision rule (Low Risk Ankle Rule) has been developed, validated and demonstrated a safe reduction in unnecessary radiographs by up to 60%. Implementing this rule reduces unnecessary radiation exposure and saves health care resources.

---

Choosing Wisely Canada™

SickKids®

## How the list was created

The Department of Paediatrics at The Hospital for Sick Children in Toronto, Canada developed its *Choosing Wisely Canada* Top 5 recommendations through the following process. Stakeholders at the hospital were asked to submit items felt to be specific and appropriate for the paediatricians at this tertiary care children's hospital. These items were combined with pre-existing recommendations selected as being appropriate for hospital care of children from various *Choosing Wisely* specialty lists from Canada and the USA. This list was reduced from 22 to 12 items by the departmental Clinical Excellence Committee based on strength of evidence and appropriateness for our setting. These 12 items were included in an anonymous survey sent to all full time faculty and paediatric resident trainees. The highest ranked recommendations were then used in combination with a scoring system that factored in ease of implementation, expected value, ease of measurement, and alignment with hospital initiatives to reach a consensus on the top 5 recommendations. A physician champion for each recommendation was chosen.

## Sources


1. Friedman J, Rieder MJ, Walton JM, Canadian Paediatric Society. *Paediatr Child Health.* 2014; 19(9):485-91

   Harper, SA, Bradley, JS, Englund JA, File TM, Gravenstein S, et al. IDSA Guidelines for Seasonal Influenza in Adults and Children. *Clinical Infectious Diseases.* 2009; 48:1003-32

   Ralston SL, Lieberthal AS, Meissner HC, Alverson BK, et al. Clinical Practice Guidelines: The Diagnosis, Management, and Prevention of Bronchiolitis. *Pediatrics.* 2014; 134 (5):e1474-e1502

2. Urinary Tract Infection: Clinical practice guideline for the diagnosis and management of the initial UTI in febrile infants and children 2 to 24 months. Subcommittee on urinary tract infection, Steering committee on quality improvement and management. *Pediatrics.* 2011; 128(3): 595-610.

   The RIVUR Trial Investigators. Antimicrobial Prophylaxis for Children with Vesicoureteral Reflux. *N Engl J Med.* 2014; 370:2367-76.

3. Quinonez R, Garber MD, Schroeder AR et al. Choosing wisely in pediatric hospital medicine: Five Opportunities for improved healthcare value. *Journal of Hospital Medicine.* 2013; 8(9): 479-485.

   Ralston S, Lieberthal AS, Meissner HC, Alverson BK, Baley JE, Gadomski AM et al. Clinical Practice Guideline: The diagnosis, management and prevention of bronchiolitis. *Pediatrics.* Published online October 27, 2014. DOI:10.1542/peds.2014-2742.

4. Neunert C, Lim W, Crowther M, Cohen A, Solberg L, Jr., Crowther MA. The American Society of Hematology 2011 evidence-based practice guideline for immune thrombocytopenia. *Blood.* 2011;117:4190-4207.

   O'Brien SH, Ritchey AK, Smith KJ. A cost-utility analysis of treatment for acute childhood idiopathic thrombocytopenic purpura (ITP). *Pediatr Blood Cancer.* 2007;48:173-180.

5. Boutis K, Komar L, Jaramillo D, Alman B, Snyder B, Mandl KD, Schuh S. Sensitivity of a clinical examination to predict the need for radiography in children with ankle injuries: a prospective study. *The Lancet.* 2001;358(December 22/29):2118-21.

   Boutis K, Grootendorst P, Willan A, Plint AC, Babyn PBR, Sayal A, Parker MJ, Mamen N, Grimshaw J, Johnson D, Narayanan U. Effect of the Low Risk Ankle Rule on the frequency of radiography in children with ankle injuries. *CMAJ.* 2013 Oct 15;185(15): 731-8.

   Boutis K, von Keyserling C, Willan A, Narayanan UG, Brison R, Grootendorst P, Plint AC, Parker M, Goeree R. Cost consequence analysis of implementing the Low Risk Ankle Rule in Emergency Departments. *Ann Emerg Med.* 2015 Nov;66(5):455-463.