

Pediatric Surgery

Six Things Physicians and Patients Should Question

by

Canadian Association of Pediatric Surgeons

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1 **Don't order a routine ultrasound for umbilical and/or inguinal hernia.**

Umbilical and inguinal hernias are one of the most common reasons a primary care patient may need referral for surgical intervention. The history and physical examination are usually sufficient to make the diagnosis. The routine use of ultrasound for these two conditions is not necessary and will not help the pediatric surgeon to reach a diagnosis.

2 **Don't order C-reactive protein (CRP) levels in children with suspected appendicitis.**

Appendectomy is one of the most common surgical conditions in children. The diagnosis of appendicitis should be based on clinical findings coupled, where necessary, with imaging. Evidence shows that the routine measurement of CRP levels in patients with suspected appendicitis is not necessary and will not affect the physician's diagnosis.

3 **Don't do computed tomography (CT) for the evaluation of suspected appendicitis in children until after ultrasound has been considered as an option.**

Although CT is accurate in the evaluation of suspected appendicitis in the pediatric population, ultrasound is nearly as good in experienced hands. Appendicitis may be diagnosed based on physical examination. If imaging is needed, ultrasound (including serial ultrasounds) are the preferred initial modality in children. If the results of the ultrasound exams are equivocal, it may be followed by CT. This approach reduces potential radiation risks and has excellent accuracy, with reported sensitivity and specificity of 94 percent.

4 **Don't order a routine ultrasound for children with undescended testes.**

Undescended testes is the most common congenital genitourinary anomaly in boys. Diagnosis is made on physical examination and if necessary, imaging. The evidence shows that it is not necessary to order a routine ultrasound in children with suspected undescended testes before referring to a pediatric surgeon.

5 **Don't delay referral for undescended testes beyond 6 months of age.**

The ideal timing for surgical correction of undescended testes is 6 months – 1 year of age. Orchiopexy should not be performed before 6 months of age, as testes may descend spontaneously during the first few months of life. The highest quality evidence recommends orchiopexy between 6 and 12 months of age. Surgery during this time frame may optimize spermatogenic functions.

6 **Don't delay testing for total and conjugated (direct) bilirubin in any newborn with persistent jaundice beyond 2 weeks of age.**

Biliary atresia clinically manifests by 2 weeks of age with jaundice due to a conjugated hyperbilirubinemia and pale acholic stools. All babies with jaundice persisting beyond 2 weeks should have a blood test for total and conjugated (direct) bilirubin. If the conjugated (direct) bilirubin fraction is >20% of the total bilirubin, prompt referral to assess for biliary atresia is necessary. Timely diagnosis and early surgical intervention before 30 days of age offers the best outcomes for patient survival with their own liver without the need for liver transplantation. For more information please see www.cbar.ca.

How the list was created

The Canadian Association of Pediatric Surgeons (CAPS) established its Choosing Wisely Canada Top 6 recommendations by consensus among CAPS members during the winter CAPS meeting in Calgary (March 2015).

Sources

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About The Canadian Association of Paediatric Surgery

The Canadian Association of Paediatric Surgery (CAPS) is a proud partner of the Choosing Wisely Canada campaign. The CAPS is dedicated to improving the health of children and committed to making a difference in the lives of children, youth and families by improving quality of health care through education and research. The three main areas of diagnosis, treatment and research which are of special concern to Pediatric Surgeons include Infants Born With Congenital Anomalies, Malignancy In Childhood and Trauma.



About Choosing Wisely Canada

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

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