

Pediatric Emergency Medicine

Five Things Physicians and Patients Should Question

by

American Academy of Pediatrics and the Section on Emergency Medicine
Canadian Association of Emergency Physicians

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1 Do not obtain radiographs in children with bronchiolitis, croup, asthma, or first-time wheezing.

Respiratory illnesses are among the most common reasons for pediatric emergency department (ED) visits, with wheezing being a frequently encountered clinical finding. For children presenting with first-time wheezing or with typical findings of asthma, bronchiolitis, or croup, radiographs rarely yield important positive findings and expose patients to radiation, increase cost of care, and prolonged ED length of stay. National and international guidelines emphasize the value of the history and physical examination in making an accurate diagnosis and excluding serious underlying pathology. Radiography performed in the absence of significant findings has been shown to be associated with overuse of antibiotics. Radiographs should not be routinely obtained in these situations unless findings such as significant hypoxia, focal abnormalities on lung exam, prolonged course of illness, or severe distress are present. If wheezing is occurring without a clear atopic etiology or without upper respiratory tract infection symptoms (eg, rhinorrhea, nasal congestion, and/or fever), appropriate diagnostic imaging should be considered on a case-by-case basis.

2 Do not obtain screening laboratory tests in the medical clearance process of pediatric patients who require inpatient psychiatric admission unless clinically indicated.

The incidence of mental health problems in children has increased in the last two decades, with suicide surpassing homicide as the second leading cause of death in teenagers. Most children with acute mental health issues do not have underlying medical etiologies for these symptoms. A large body of evidence, in both adults and children, has shown that routine laboratory testing without clinical indication is unnecessary and adds to health care costs. Any diagnostic testing should be based on a thorough history and physical examination. Universal requirements for routine testing should be abandoned.

3 Do not order laboratory testing or a CT scan of the head for a pediatric patient with an unprovoked, generalized seizure or a simple febrile seizure who has returned to baseline mental status.

Children presenting with unprovoked, generalized seizures or simple febrile seizures who return to their baseline mental status rarely have blood test or CT scan findings that change acute management.

Blood tests such as electrolyte panels should not be routinely ordered and are only indicated in specific circumstances based on history and clinical examination findings.

CT scans are associated with radiation-related risk of cancer, increased cost of care, and added risk if sedation is required to complete the scan. A head CT scan may be indicated in patients with a new focal seizure, new focal neurologic findings, or high-risk medical history (such as neoplasm, stroke, coagulopathy, sickle cell disease, age <6 months).

4 Do not obtain abdominal radiographs for suspected constipation.

Functional constipation and nonspecific, generalized abdominal pain are common presenting complaints for children in emergency departments. Constipation is a clinical diagnosis and does not require testing, yet many of these children receive an abdominal radiograph. However, subjectivity and lack of standardization result in poor sensitivity and specificity of abdominal radiographs to diagnose constipation. Use of abdominal radiographs to diagnose constipation has been associated with increased diagnostic error. Clinical guidelines recommend against obtaining routine abdominal radiographs in patients with clinical diagnosis of functional constipation. The diagnosis of constipation or fecal impaction should be made primarily by history and physical examination, augmented by a digital rectal examination when indicated.

5**Do not obtain comprehensive viral panel testing for patients who have suspected respiratory viral illnesses.**

Viral infections occur frequently in children and are a common reason to seek medical care. The diagnosis of a viral illness is made clinically and usually does not require confirmatory testing. Additionally, there is a lack of consistent evidence to demonstrate the impact of comprehensive viral panel (i.e., panels simultaneously testing for 8-20+ viruses) results on clinical outcomes or management, especially in emergency department settings. Hence, most national and international clinical practice guidelines do not recommend their routine use. Additionally, some viral tests are quite expensive, and obtaining nasopharyngeal swab specimens can be uncomfortable for children. Comprehensive viral panel testing can be considered in high-risk patients (eg, immunocompromised) or in situations in which the results will directly influence treatment decisions such as the need for antibiotics, performance of additional tests, or hospitalization. Testing for specific viruses might be indicated if the results of the testing may alter treatment plans (e.g., antivirals for influenza) or public health recommendations (e.g., isolation for SARS-CoV-2). For more specific recommendations related to diagnosis and management of SARS-CoV-2, please see <https://www.aap.org/en/pages/2019-novel-coronavirus-covid-19-infections/>.

How the list was created

The American Academy of Pediatrics Section on Emergency Medicine (AAP SOEM) Committee on Quality Transformation (COQT) assembled a task force to oversee the creation of a Pediatric Emergency Medicine Choosing Wisely list. The task force first collected suggested recommendations from a diverse group of ED providers (physicians, nurses, and advanced practice providers) from six academic pediatric EDs to gather an initial list of frequently overused and/or avoidable tests and interventions. Task force members independently scored these items on an anchored rating scale based on each item's frequency of overuse in a typical ED shift, the evidence for lack of efficacy, and the potential harm associated with overuse. The scores were discussed, and consensus was reached for the top 25 ranked items. Next, this list of 25 proposed items was sent to all COQT members in a survey format. The COQT member survey respondents selected which 10 items they believed should be included in the Choosing Wisely list. The task force then ranked the selected items based on the frequency of selection by COQT members. The five top-ranked items that were not duplicative of items on other subspecialty Choosing Wisely lists were submitted and approved by AAP SOEM leadership. The list of five final items with summary evidence was subsequently forwarded for peer review to relevant expert AAP Committee, Council, and Section leadership. The AAP Executive Committee granted final approval of this list.

Sources

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About the American Academy of Pediatrics and the Section on Emergency Medicine

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 AAP Section on Emergency Medicine (SOEM), a group of over 1,900 members, was founded in 1981. The SOEM mission is to sustain, develop, and promote the delivery of optimal emergency care for acutely ill and injured infants, children, and adolescents. The Section

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About the Canadian Association of Emergency Physicians

As the national voice of emergency medicine (EM), CAEP provides continuing medical education, advocates on behalf of emergency physicians and their patients, supports research and strengthens the EM community. In co-operation with other specialties and committees, CAEP also plays a vital role in the development of national standards and clinical guidelines. CAEP keeps Canadian emergency physicians informed of developments in the clinical practice of EM and addresses political and societal changes that affect the delivery of emergency health care.



About Choosing Wisely Canada

Choosing Wisely Canada is the national voice for reducing unnecessary tests and treatments in health care. One of its important functions is to help clinicians and patients engage in conversations that lead to smart and effective care choices.

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