

# **Decision support tool reduces unneeded referrals of low-risk patients with chest pain**

October 25 2019

---



Ashraf Harahsheh, MD, FACC, FAAP, pediatric and preventive cardiologist and director of Resident Education in Cardiology at Children's National Hospital.

Credit: Children's National Hospital

Few events strike more fear in parents than hearing their child's heart "hurts."

When primary care pediatricians—who are on the frontline of triaging such distressing doctor visits—access a digital helping hand tucked into the patient's electronic health record to help them make assessments, they are more likely to refer only the patients whose [chest pain](#) is rooted in a cardiac problem to a specialist.

That simple evidence-based change to standard practice could avert needless referrals of low-risk patients to cardiac specialists according to a quality-improvement project presented during the American Academy of Pediatrics (AAP) National Conference and Exhibition. This has the potential to save nearly \$4 million in annual health care spending while also easing worried parents' minds.

"Our decision support [tool](#) incorporates the know-how of providers and helps them to accurately capture the type of red flags that point to a cardiac origin for chest pain," says Ashraf Harahsheh, M.D., FACC, FAAP, pediatric and preventive cardiologist and director of Resident Education in Cardiology at Children's National Hospital. Those red flags include:

- Abnormal personal medical history
  - Chest pain with exertion

- Exertional syncope
- Chest pain that radiates to the back, jaw, left arm or left shoulder
- Chest pain that increases with supine position
- Chest pain temporarily associated with a fever ( $>38.4^{\circ}\text{C}$ )
- A worrisome family history, including sudden unexplained death and cardiomyopathy.

"We know that evidence-based tools can be very effective in guiding physician behavior and reducing unnecessary testing and referrals which saves both the health care system in dollars and families in time and anxiety," Dr. Harahsheh adds.

The abstract builds on a multi-institutional study published in *Clinical Pediatrics* in 2017 for which Dr. Harahsheh was lead author. More than 620,000 office-based visits (1.3%) to pediatricians in 2012 were for chest pain, he and co-authors wrote at the time. While children often complain of having chest pain, most of the time it is not due to an actual heart problem.

Over recent years, momentum has built for creating an evidence-based approach for determining which children with chest pain to refer to cardiac specialists. In response, the team's quality-improvement tool, first introduced at two local primary pediatric offices, was expanded to the entire Children's Pediatricians & Associates network of providers who offer pediatric primary care in Washington, D.C., and Maryland.

One daunting challenge: How to ensure that busy clinicians actually use the tool. To improve adoption, the project team embedded the decision support tool within the patient's electronic medical record. Now, they seek to make sure the tool gets used by more pediatricians around the country.

"If the [chest pain decision support tool](#)/medical red-flags criteria were adopted nationwide, we expect to save a minimum of \$3.8 million in health care charges each year," Dr. Harahsheh says. "That figure is very likely an underestimate of the true potential savings, because we did not calculate the value of lost productivity and other direct costs to families who shuttle from one appointment to the next."

To ensure the changes stick, the team plans to train fledgling physicians poised to embrace the quality-improvement approach as they first launch their careers, and also look for evangelists within outpatient cardiology and pediatric clinics who can catalyze change.

"These types of quality-improvement projects require a change to the status quo. In order to be successful, we need members of the care team—including frontline clinicians and nurse practitioners—to champion change at the clinic level. With their help, we can continue to refine this tool and move toward nationwide implementation," he explains.

Provided by Children's National Hospital

Citation: Decision support tool reduces unneeded referrals of low-risk patients with chest pain (2019, October 25) retrieved 11 May 2024 from <https://medicalxpress.com/news/2019-10-decision-tool-unneeded-referrals-low-risk.html>

<p>This document is subject to copyright. Apart from any fair dealing for the purpose of private study or research, no part may be reproduced without the written permission. The content is provided for information purposes only.</p>
--