

Electronic medical records show promise in reducing unnecessary testing

October 20 2018

Upon implementing electronic medical record-based interventions, Boston Medical Center reduced unnecessary diagnostic testing and increased the use of postoperative order sets, two markers of providing high-value medical care. The data from the hospital's efforts demonstrates the impact of deploying multiple interventions simultaneously within the electronic medical record as a way to deliver high-value care, which is defined as delivering the best possible care while simultaneously reducing unnecessary healthcare costs. This study was published in the *Joint Commission Journal on Quality and Patient Safety*.

The focus on providing high-value medical care was renewed in 2012 with the release of the Choosing Wisely campaign, an initiative of the American Board of Internal Medicine Foundation, to which many institutions have responded by developing electronic medical record-based interventions that target individual recommendations.

Boston Medical Center (BMC) focused on five areas in the Choosing Wisely recommendations: the overutilization of chest x-rays, routine daily labs, red blood cell transfusions, and urinary catheters, and underutilization of pain and pneumonia prevention orders for patients after surgery. To do this, the researchers worked with the information technology team to incorporate new recommendations into the electronic medical records that would alert the provider to best practice information. The researchers examined data between July 2014 and December 2016 to look at how the interventions played out clinically.

At six months following BMC's intervention, which was activated hospital-wide for specific patients using the Epic electronic health record (Epic Systems, Inc.), the proportion of patients receiving pre-admission chest x-rays showed a significant decrease of 3.1 percent, and the proportion of labs ordered at routine times also decreased 4 percent. Total lab utilization declined with a post-implementation decrease of 1,009 orders per month.

The researchers found no significant difference in the estimated [red blood cell](#) transfusion utilization rate or the number of non-ICU urinary catheter days, but the proportion of postoperative patients who received appropriate pain and pneumonia prevention orders showed an absolute increase of 20 percent.

"The results from our interventions suggest that they alone show promise in improving high-value care, but using only an [electronic medical record](#) intervention may not be adequate to achieve optimal outcomes emphasized by Choosing Wisely," said Nicholas Cordella, MD, the study's corresponding author, a fellow in quality improvement and patient safety at BMC, and an assistant professor at Boston University School of Medicine.

Cordella and the authors suggest that future efforts aimed at increasing high-value care should consider other elements, such as clinician education, audits and feedback, and peer comparison.

"In order to move the needle on reducing unnecessary healthcare costs, we need to consider multi-pronged approaches in order to engage providers in ways that can truly make a difference in how we deliver exceptional, high-value care to every patient," added Cordella.

Provided by Boston Medical Center

Citation: Electronic medical records show promise in reducing unnecessary testing (2018, October 20) retrieved 30 July 2024 from <https://medicalxpress.com/news/2018-10-electronic-medical-unnecessary.html>

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.