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A Lower Bar for Computerized Physician Order Entry Adoption -- Is It Worth It?

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Ten years after the Institute of Medicine's landmark report "To Err Is Human," which placed a spotlight on hospital deaths attributable to medication errors, the problem persists, causing significant harm to patients and high costs to hospitals.

Computerized physician order entry systems have long been touted as the IT solution for preventing medication errors by targeting the first step in the medication process -- physician ordering -- but adoption to date remains low. The HIMSS 2008 Stages of EMR Adoption survey shows that less than 6% of U.S. hospitals and health systems have adopted CPOE.

Despite numerous benefits -- improved medication safety, greater compliance with evidence-based medicine, reduced overutilization, and faster order processing -- lack of physician acceptance for standardized clinical care has hampered CPOE adoption. In fact, most hospitals have taken an "optional" approach -- allowing physicians to continue ordering on paper if they prefer -- as opposed to mandating adoption. As a result, even those hospitals that have implemented CPOE have failed to drive universal adoption.

CPOE Included in HITECH Act

Recognizing both the potential for and the barriers to adopting CPOE, it is not surprising that lawmakers included CPOE in the HITECH Act as a part of the meaningful use requirements for providers seeking Medicare and Medicaid incentives for electronic health record adoption.

More recently, however, this aspiration of driving universal CPOE adoption to prevent medication errors and subsequently reduce the cost of care in the U.S. was derailed by the watered-down meaningful use definition proposed by the Workgroup on Meaningful Use -- one of the three work groups of the Health IT Policy Committee. As part of their revised meaningful use definition, the work group recommended requiring hospitals to demonstrate that 10% of all orders be electronically entered by the authorizing provider (e.g. MD, DO, RN, NP, PA) using CPOE.

This is in stark contrast to the work group's initial definition that required much greater levels of CPOE adoption for hospitals seeking to demonstrate meaningful use of EHRs in the care process. Granted, universal adoption by 2011 would be an aggressive goal for most hospitals, but without setting a very high bar on adoption, medication errors will prevail, and worse yet, care quality will continue to be compromised in the absence of evidence-based guidelines to inform physician ordering patterns.

Proposed Adoption Threshold Has New Challenges

In what might appear to be a welcome relief for many hospitals reluctant to mandate physician utilization of CPOE, this lowered CPOE adoption rate comes with its own share of operational and clinical challenges.

From an operational perspective, the pre-planning effort required for a successful CPOE implementation is still a significant undertaking for most hospitals and will require considerable resources and time commitment. If hospitals plan the CPOE rollout for a single area like the emergency department to meet the 10% adoption threshold, they run the risk of making design and implementation decisions in a vacuum

without considering the interdependencies and implications of this single rollout on the future enterprise-wide rollout.

Worse yet, if hospitals aspire to achieve 100% adoption for 2013, this phased-in approach to driving CPOE utilization over two years is more likely to kill the momentum created and leave hospitals struggling to raise the adoption rate among the medical staff. Furthermore, hospitals might find it difficult to require some physicians to adopt CPOE for meeting the 2011 requirements while exempting others from this significant workflow change.

From a clinical perspective, working in a hybrid environment that supports both paper and electronic ordering and documentation confuses nurses and physicians. Worse yet, operating in a dual world of paper and electronic information could be a recipe for more errors as clinicians toggle between disparate sources of information -- some old and others like CPOE still new and unfamiliar -- during care delivery.

Aiming Low Could Backfire

Aiming for the 10% adoption bar might not save hospitals all that much sweat and, instead, might cause greater physician frustration and might even be the cause of additional medication errors.

So, hospitals may be better off taking the longer but more established road wherein they secure physician support throughout the planning, design, order set and clinical alert development, and training process to ensure successful implementation and universal adoption.

For some hospitals, this will mean missing the 2011 deadline for demonstrating minimal CPOE adoption, but hopefully if planned and executed effectively, will guarantee the 10% adoption rate by 2012 and more importantly, universal adoption before 2013.

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