

“Meaningful Use” Requires Clinical Decision Support

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"Meaningful use." Not long ago, it seemed like a simple enough phrase. Today, however, these words may well be revolutionizing the next five years—in fact, the whole future—of health information technology (HIT).

The HITECH provisions of the American Recovery and Reinvestment Act (ARRA) promise to reward physicians and hospitals who demonstrate meaningful use of HIT to improve the quality and efficiency of healthcare services. By transforming how healthcare is delivered, this unprecedented investment in HIT aims to advance the health and welfare of Americans.

While the definition of "meaningful use" is still under development, a "qualified" electronic health record has been defined, and this includes the capacity to provide clinical decision support (CDS). Providing physicians with evidence-based decision support in the context of their clinical workflow is critical to systematically improving clinical decision making and practice. Likewise, engaging physicians in optimally using embedded CDS is critical to improving clinical outcomes.

Clinical Decision Support is more than technology

CDS broadly refers to providing clinicians with clinical knowledge and patient-related information, intelligently filtered or presented at appropriate times, to enhance patient care. Most current decision support is of two types: clinical content (order sets and panels) which are served up at the request of the clinician and "if-then" logic statements, characterized as clinical rules or reminders which result in interactive alerts, often with an impact on clinical workflow.

The MEDITECH Physician Care Manager application provides computerized physician order entry (CPOE) with patient and drug-specific information presented at the time of ordering. In addition, decision support rules are embedded in the ordering process. So MEDITECH already provides the technology for "meaningful use." However, numerous studies show that more than well-designed and user-friendly applications are needed to deliver pertinent clinical knowledge or clinical decision support in ways that measurably improve outcomes.

Meaningful use of CDS tools requires as much attention to people and process as it does to technology. For starters, stakeholders have to agree on specific CDS goals and objectives. They must support the implementation of CDS interventions, incorporate them into their workflow, and respond appropriately when they are delivered. The planning, development, implementation, and evaluation of order sets/clinical decision support are crucial steps for reaching the full potential of advanced clinical systems.

As hospitals embark on the deployment of CDS, it is imperative that they examine their existing governance structure and processes to ensure effective CDS decision making. Given that almost all active in-patient CDS is orders based, a collaborative, structured approach to the customization of order sets should be aligned with evidence-based medicine, formularies, clinical preferences and quality improvement efforts. Given the plethora of rules, reminders, and alerts that could be presented to the busy physician, decisions about what can usefully be inserted into a busy physician workflow should

ideally be driven by colleagues and other medical staff. Important to note, the efficacy of CDS in altering clinical decision making is seen to be directly related to the degree to which physicians are involved as leaders in the process.

Process changes are always difficult. In a busy clinical environment, it's not easy to maintain momentum and sustain progress. The leadership team has to decide whether use of CDS will be voluntary, encouraged, or required. Either way, the physician value proposition must clearly answer the question, "What's in it for me?" The most resounding driver for CDS is the improvement of patient safety, quality, and efficiency of care delivery—of course, also bolstered by ARRA economic incentives.

Communicate!

Communication of expectations, plans, timelines, and progress to all stakeholders needs to be ongoing—and it needs to be consistent. Mechanisms should be created to solicit feedback from physicians, answer questions promptly, and address issues and frustrations. Leverage the enthusiasm of early adopters and key influencers, and acknowledge the contributions of those involved. An organization's ability and commitment to engage in two-way communication is critical.

Tracking and communicating CDS outcomes such as decreased medication errors, decreased duplicate orders, use of evidence-based order sets and other such metrics, drives adoption and performance gains. And after CDS is deployed, its effectiveness in achieving the intended benefits should be monitored on an ongoing basis. Positive and negative effects on workflow and other processes should be evaluated (and communicated) as well.

Major national efforts are underway to promote widespread and effective use of HIT to measurably improve clinical outcomes. Although computerizing clinical data and transactions can substantially improve information management in patient care, this automation reaches its full potential only when pertinent clinical knowledge is combined with the data to inform care decisions and actions. Improved clinical outcomes will be achieved by giving physicians tools they can (and will) use to help them manage, organize, and coordinate the vast amount of information needed for effective healthcare.

For more information about ways we can help you accomplish your American Recovery and Reinvestment (ARRA) strategy, please contact meditechsolutions@dell.com.

Dr. Charlotte Hovet serves as the Medical Director of Clinical Informatics for the MEDITECH Solutions Group within Dell Services. She has demonstrated strengths in leading clinical transformation initiatives, providing results-oriented leadership, informatics knowledge and skill, and physician alignment strategies that drive change in a complex medical environment. She is a board-certified family physician with more than 20 years of clinical experience.