Medical Device Connectivity: Is Waiting Worth the Risk?

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Only 7.2% of the workday is left for patient assessment and surveillance

Introduction

Over and over studies prove that medical errors are preventable, that healthcare providers need access to data more quickly, and that burdensome activities such as documentation are taking away from time meant for patient care. And yet medical device connectivity (MDC) is a proven technology that can save nursing time, positively impact the accuracy and timeliness of documentation, and improve overall patient care and safety. In fact it is likely that there is no other technology available that is as easy and cost effective to implement and that can deliver benefits recognized throughout the facility right away. The question therefore remains – "why wait to implement a technology that could address many of the top clinical and IT priorities of hospitals today?" "Is waiting really worth the risk?"

MDC Addresses Top Clinical and IT Initiatives for Improvement

Studies continue to be published about the state of medical care and the growing issues related to improving patient care, safety, and job satisfaction. Let's examine some of these findings. The Institute of Medicine (IOM) estimates that up to 98,000 deaths occur each year due to preventable medical mistakes and that medical errors are an "epidemic," resulting in dramatically increased costs of care, patient mistrust of the healthcare system, and decreased clinician job satisfaction.[1] Workflow inefficiencies, such as manual transcription, are proven to divert nursing time away from patient care.[2] And, the Time and Motion Study found that the time spent on documentation, communication, medication administration, and care coordination left only 7.2% of the workday for patient assessment and surveillance.[3]

Such studies make it more evident than ever before that it is imperative to improve patient care, safety and clinical workflow.   Hospitals know that more direct patient care time is associated with better patient outcomes[3]. They know restored nursing time at the bedside comes from improved nursing practice models and technology. And, many hospitals have declared that documentation, communication, and medication administration are priority areas for improvement.[2] Yet, all hospitals continue to struggle with trying to meet these objectives; with trying to find leading edge technologies that bring the highest value to nurses and patients.

In an effort to solve this dilemma, industry leaders held the Nurse Work Environment Innovation Summit.[2] At the summit, frontline clinicians and key stakeholders created evidenced-based recommendations to improve the nursing practice and "A Proclamation for Change[2]" was drafted. The Proclamation calls for the following changes in the patient care environment:

- Patient-centered hospital and technology design
- System-wide, workspace and technology integration
- Seamless medical-surgical workplaces
- Technology vendor partnerships

The changes recommended in the Proclamation are designed to make documentation a by-product of care. The Proclamation proposes that the elimination of time-consuming, non-value activities will lead to improved efficiency and will help nurses meet the increasing regulatory demand for documentation. Ultimately, these changes will increase nursing time spent with patients and families and will tailor workflow and technology toward efficient clinical practice.[2]

> *Device connectivity can make documentation a by-product of care*

So what can a hospital do to meet the objectives outlined in the Proclamation? One simple way to meet these objectives is to implement medical device connectivity. This proven technology automatically sends device data from all devices connected to a patient directly the information system. This means that the nurse can focus on patient care without having to worry about manually transcribing data, thereby eliminating a time-consuming process, and truly making documentation a "by-product of care".

And there are other nursing objectives that can be met with medical device integration. In the recent Future of Nursing Forum it was emphasized that technologies should bring value to nurses by removing the human potential for errors, providing for a single set of clinical data, and ultimately saving time money and lives; medical device integration meets all of these objectives as well. And there's more. Medical device integration is also a technology that helps hospitals achieve top IT goals, such as those identified in the 2008 HIMSS Study. This study confirmed that top IT priorities include "implementing technologies to reduce medical errors and promote patient safety, implementing an EMR and components of an EMR, and integrating systems in a multi-vendor environment."

So, there is really no reason for a hospital to not implement device connectivity. After all it is a technology that is easy to implement and that addresses many of the top clinical and IT initiatives of hospitals today.

What about the ROI?

The question of ROI always exists. And now, in an economic climate where every dollar spent is scrutinized and where healthcare executives are strained more than ever before to prove the benefits of the solutions they choose, ROI is at the forefront of every decision made. So what is the ROI on device integration? First, it is important to point out that relative to most IT solutions,

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MDC is one of the most cost effective solutions available. More importantly, it is a technology that increases the adoption of the EMR and can help hospitals qualify for stimulus dollars.

Capital costs, maintenance costs, and uncertain return on investment are among top barriers to the adoption of EMR systems in hospitals.[6] A vendor neutral medical device connectivity solution partially alleviates these capital concerns[10] because it eliminates the need to replace existing medical devices with models that are compatible with a specific device manufacturer or newly installed EMR. Here's how. A vendor neutral connectivity solution[15] allows hospitals to connect virtually any medical device to any information system. The design isn't tied to any one manufacturer or vendor, it is completely neutral. And, a vendor neutral design even allows hospitals to add and change medical devices and information systems. So, a vendor neutral solution allows hospitals to leverage existing device and IT investments and meets the Proclamation objective of "technology vendor partnerships", both key benefits to meeting the financial objectives of a hospital.

Vendor neutral MDC partially alleviates capital cost concerns

In terms of the American Recovery and Reinvestment Act (ARRA), device integration is a technology that will help hospitals qualify for "meaningful use". The ARRA states that hospitals need to become "meaningful users" of the EMR to qualify for the stimulus dollars. Hospitals who meet the "meaningful use" criteria will receive maximized reimbursement payments. The phase-in of this program includes the 2013 objective of "recording clinical documentation in the EMR" and the 2015 objective of "medical device interoperability."[11] So, vendor neutral device integration is a solution that can help hospitals who use an EMR meet both 2013 and 2015 "meaningful use" criteria now[15]. And honestly while interoperability of EMR and medical device manufacturers is in theory a worthwhile goal, the chance of this becoming a reality is very slim; especially with legacy medical devices. MDC is simply the easiest, most cost effective way for hospitals to meet both the clinical documentation and the interoperability objective right away.

MDC implementation can help hospitals meet meaningful use criteria and receive maximum reimbursement payments sooner

Summary

Medical device connectivity is a technology that hospitals can implement today that will help them meet many of their top clinical and IT initiatives. It is also a technology that addresses each of the four changes recommended in the Proclamation for Change Study and is a technology that can help reduce capital costs and help hospitals qualify for ARRA reimbursement sooner. For all of these reasons and more, it is obvious that hospitals cannot afford to wait any longer for its implementation. The benefits far outweigh any risks. In fact, the only real risk is ignoring the need and not implementing medical device connectivity right away.

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For more information

For more information regarding the Proclamation for Change initiatives, contact our CNO, Sue Neimeier, RN at suen@capsuletech.com. For more information regarding Capsule's connectivity solution, or to schedule a demonstration of the innovative Capsule Neuron™ platform and Enterprise Device Connectivity solution contact sales@capsuletech.com.