

Critical Differences in Critical Care

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Abstract

Patient safety is a strategic business goal of Edward Hospital, and is articulated in our vision and values as a commitment to our patients. Conversion to Bedside Medication Verification (BMV) has been an important component of our strategic plan.

Edward Hospital has recently implemented BMV using a mobile computer format in our Intensive Care Unit (ICU) and plans to implement BMV using bedside computers in our Cardiac Intensive Care Unit (CICU) in October 2007. The units are relatively comparable critical care departments. Medication use in these areas is often critical to the patient's recovery. Due to the myriad of diseases and conditions being treated, the types of pharmaceuticals being prescribed and administered is extensive. Additionally, many of the medications being utilized are considered high risk and prone to potential error.

The most challenging decision in implementing a BMV program is which technology to use: bedside or mobile computers. Because we have baseline documentation from pre-BMV implementation, we are uniquely situated to conduct a study that will allow comparison between bedside computers, mobile computers and non-BMV in relation to: safety, time, ease of use, process, and satisfaction.

This project will bring together an integrated team with the diversity of backgrounds and skills including the Director of Pharmacy, Administrative Directors of Cardiology Services, Critical Care Services, Education and Research, Director of Performance Improvement for Clinical Excellence, a Project Manager from Information Systems, and a Management Engineer. This team will examine and evaluate the two BMV implementation approaches based on a wide range of criteria. This team has been working together for several years toward implementation of BMV. From early decisions about converting to scannable patient identification bracelets, through repackaging of meds in the pharmacy and converting to 100% bar-coding, to selecting the technology for bedside scanning, to providing training for the nursing staff first in regard to improving patient and medication identification prior to BMV, then on converting from paper to eMAR, this has been a cohesive team working collaboratively toward a specific goal.

The goals of the research study will be to: describe the process of Bedside Medication Verification (BMV) implementation from a pharmacy, nursing, and information systems perspective; compare and contrast the ease of use and staff satisfaction with two different BMV methodologies (bedside vs. portable computers); analyze the safety aspects of BMV technology, including near misses, errors, and errors causing injury; and conduct and compare time studies for medication administration, including non-BMV, BMV using portable computer and BMV using bedside computer.