

# Improving patient safety with point of care verification

Beloit Memorial Hospital



## Beloit Memorial Hospital

Beloit Memorial Hospital in Beloit, WI, is a 175 bed community hospital with four offsite clinics, serving approximately 175,000 residents living in southwestern Wisconsin and northwestern Illinois. The hospital has affiliations with the University of Wisconsin Hospital System and Rockford Hospital in Rockford, IL. Beloit Memorial's board of trustees, composed of ten medical professionals and community leaders, has committed the hospital to a primary goal of providing high quality healthcare services to all patients.

In February 2003, the Board of Trustees unanimously approved funding for a barcode pilot project in the Family Care Center unit (FCC) which began in July 2003. In September 2003, Beloit Memorial installed the Pyxis® Med Administration application from CareFusion in its FCC unit, consisting of 35 OB/GYN, pediatric and labor/delivery beds. This pilot resulted in a 67 percent decrease in medication administration errors within the first four months of operation. By January 2004, the hospital approved the further deployment of the Pyxis® Med Administration application applications to four additional inpatient units.



## Helping Beloit Memorial meet their patient safety goals

The hospital board of trustees and senior management has focused on establishing a culture of cooperation and communication aimed at improving the quality of patient care. This culture has been key to embarking on a successful patient safety program.

The Special Care Center (SCC), an oncology unit, was the second unit to implement barcode verification. Once the staff training was completed, the Pyxis® Med Administration application went live in March 2004. Directors of Pharmacy and IT, the nurse unit manager and nursing staff met daily for the two weeks following implementation to troubleshoot any problems and to ensure that the system was working properly.

With a successful implementation in both the FCC and the SCC units, Beloit Memorial Hospital made the decision to bring on three additional units

simultaneously. The Multi Care Center (MCC), Critical Care Center (CCC) and Intermediate Care Center (ICC) went live in August 2003. A total of approximately 100 nurses were trained for these units.

A study conducted pre and post implementation at Beloit Memorial revealed that the implementation of Pyxis® Med Administration resulted in an 83 percent reduction in medication errors in all five units. The overall rate of medication errors dropped to 93 percent within 15 months of implementation.

Significant error reduction was reported by all participating units with the greatest numeric decline in monthly average medication errors occurring in the MCC, which fell from an average of 5.8 to 1.25 medication errors per month.



## Strengthening the quality of care

The implementation of Pyxis® Med Administration has resulted in improved nursing staff satisfaction. The nursing staff felt that the hospital was truly committed to improving quality of care by investing in state-of-the-art technology to improve patient safety. Support to implement the new technology was also echoed by the local press, improving public relation efforts.

During the initial implementation, all patients were briefed about the new Pyxis® Med Administration Verification application and reasons for its installation. Nurses reported a genuine sense of appreciation from patients and their families that the hospital was committed to patient safety.

Following their successful implementation of Pyxis® Med Administration, Beloit Memorial also implemented Pyxis® Transfusion Verification, Pyxis® Specimen Collection Verification and Pyxis® Nursing Data Collection. Nurses and clinicians can now help protect patients from potential harm at the point of care across multiple care units.

“Through the implementation of the Pyxis® Med Administration application, initial medication administration errors were reduced by 83 percent. Medication errors continued to drop post-implementation, resulting in a 93 percent reduction after 15 months. We’ve enjoyed similar results of increased patient safety with the Pyxis® Specimen Collection Verification and Pyxis® Transfusion Verification applications.”

Doris Mulder  
Vice President  
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