



# Gifford Medical Center

## **Patient Safety Project Medications**

### **Project aim**

With the implementation of new technology, the aim of this patient safety project is to reduce the number of medication errors related to medication administration, thereby improving patient safety and the quality of care.

### **Time frame**

October 2008 to June 2009

### **Description**

Medication error prevention is a major quality initiative throughout the United States. Bedside medication verification, computerized physician order entry (CPOE) and smart infusion pump technology are three major innovations to reduce medication errors. At Gifford, bedside verification, or bar coded medication administration, is well under way in the hospital's Howell Pavilion and Transitional Care inpatient units.

### **Description of the problem**

Nationally, medication errors make headlines and are a concern for all hospitals. A July 2006 report from the Institute of Medicine found that there are 400,000 preventable medication errors in hospitals each year. Medication errors add to the morbidity, mortality and cost in health care.

Confusing medication delivery systems, reduced length of stay for patients, complex care needs, staff turnaround and much more contribute to medication errors. At Gifford, there is a strong desire to improve standards of operation as well as a culture committed to reporting errors. These elements are essential for improving health-care systems. Bar coded medication administration will not be a panacea for medication errors, but it can provide safeguards not possible with fully manual processes and will significantly reduce errors occurring at the point of administration.

## **Project goals with appropriate measures**

- 1) Greater than 90 percent of medications will be administered using bar coded medication administration.
- 2) Administration-related medication errors will be reduced and no longer be the major source of medication errors.

## **Description of the intervention(s)**

Medication errors are classified as occurring in one of the five major steps in the medication process: ordering the medication, transcribing the order, dispensing the medicine from the pharmacy, administering the medication to the patient or documenting the medication administration and the medicine's effectiveness. Medication verification or Med-Verify is the process of using computer and bar code technology to assist with matching the "right" medication and dosage to the "right" patient at the "right" time. The system gives warnings to nurses if any of these "rights" do not match what is in the system for administration, or, in other words, if the medication cannot be verified.

In order to implement the Med-Verify administration system, numerous changes had to be made and systems updated. The pharmacy medication management system/software had to be upgraded. Hardware such as scanners, laptops and computer tablets needed to be purchased. The hospital wireless system had to be expanded to be more robust in the clinical areas. And as with any new system, the staff users/the nurses had to be trained in its operation – especially the new computer screens, tablets and scanners.

## **Evaluation process and results**

The Med-Verify system was implemented in December 2008.

On average, nurses on these two units have been giving over 80 percent of their medications using Med-verify. The team's goal is to give over 90 percent of medications via Med-verify, reassess the system and its operation and then work toward a goal of 95 percent.

Preliminary analysis of medication errors already shows a greater than 50 percent reduction in errors of administration.

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