Improving Processes to Promote Better Utilization of Nursing Time
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Problem:
Inconsistent medication administration (MA) processes for patients with central lines leads to a waste of nursing man hours as well as the potential for central line infections.

Evidence:
Chlorhexidine gluconate (CHG) impregnated protective caps reduce central line associated blood stream infections (Wright, 2013).

Strategy:
Lean Six Sigma methodology was used to evaluate the current process and look for ways to improve it. Medication administration through a central line was requiring an average of 66 seconds per injection using the 15 second “scrub the hub” method. Observation of nursing technique at the bedside found high variability and inconsistent practices among staff.

Practice Change:
The process for medication administration for patients with central lines will be:

- Apply CHG protective caps to all intravenous line ports attached to central lines
- Open the Medication Administration Record
- Scan the patient
- Scan the medication
- Prepare the Medication
- Remove the protective cap
- Administer the medication
- Replace a protective cap

This new process change requires only an average of 23.7 seconds which represents a 64% reduction in nursing time.

Evaluation:
The new process was implemented on 28 nursing units with the support of nurse managers and supervisors. Nurses embraced the change because it saves them time.

Results:
The results demonstrated that the average nurse would save 144 hours per year allowing more time for patients and family teaching about medications and disease processes. Greater consistency in MA has the potential to reduce medication errors and reduce central line associated blood stream infections. The estimated time saving has the potential to save the hospital $98,842 annually.
**Recommendations:**
Research supports the use of CHG impregnated protective caps to prevent infection and our study demonstrated a time savings too. Any process change requires continued monitoring of compliance and results to ensure ongoing success.

**Lesson Learned:**
It is vital to involved all stakeholders in process change to promote success.

**Bibliography:**

Netzer, Giora, MD, Liu, Xinggarg, MD. Decreasing Mortality Resulting from a Multicomponent Intervention in a Tertiary Care Medical Intensive Care Unit. Critical Care Medicine 2011; 39(2): 284-293
