Professional Nursing Practice Beyond the Toolkit: How Enculturating Human Factors Influences Sustained CAUTI Reduction

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Introduction

- Catheter-associated urinary tract infections (CAUTIs)
- Account for > 40% of all hospital associated infections.7
- Increase length of stay by 2 days and direct cost of $1000.5
- Cost healthcare system $400M annually.1, 10
- Reduce hospital payment.8, 10
- The Joint Commission identified the prevention of CAUTI as a National Patient Safety Goal (NPSG) to promote and improve patient safety.9
- NPSG.07.06.01: Implement evidence-based practices to prevent CAUTI by January 1, 2013.
- Human factors recognize that the workplace needs to be designed and organized to minimize the likelihood of errors occurring and the impact of errors when they do occur.11
- Failure to apply human factor principles is a key aspect of adverse events.3

Purpose Statement: Reduce the incidence of CAUTI in patients with an indwelling urinary catheter through identification and enculturation of human factors following implementation of an evidence-based prevention program.

Abstract

CAUTI spikes required real-time change and catheter-removal protocol implementation. Crucial to sustained CAUTI reduction were human factors, identified as personal interaction and structured conversation. Nurse awareness was enculturated through implementation of daily CNS rounding, deliberate direct nurse conversations, and collegial provider dialogues. Physician partnerships were enhanced with interdisciplinary rounds, checklist-scripted collaborative conversations, and adjusted EMR documentation. The surgical/transplant unit achieved 382 days between events and CAUTI rate reduced from 7.85 to 0/1,000 catheter days. In this era of computerized documentation, protocols, and standardized care; intentional conversations, team collaboration, and human factors must not be underestimated. The value of these interventions lies in enculturation of professional nursing autonomy.

Results

- CAUTI rates exceed benchmark.
- Adherence to EBP bundles near target. (Fig. 9)
- Enculturating human factors helps to design processes that make it easier for physicians and nurses to do the job right.
- Avoid reliance on memory
- Make things visible
- Standardize processes (Fig. 10)
- Routinely use checklists (Fig. 11)

Discussion and Conclusions

- The influence of human factors, intentional conversations, and team collaboration cannot be underestimated in the age of standardization and computerization.
- Enculturation of professional nursing autonomy enables nurses to make nursing care decisions within the full scope of their practice in an interprofessional practice environment.

Materials and Methods

- Human Factors: personal interaction and structured conversation
- Daily CNS rounding, deliberate direct nurse conversations, collegial provider dialogues
- Interprofessional partnerships: interdisciplinary rounds, checklist-scripted collaborative conversations, adjusted EMR documentation (Fig. 3)
- Tools: catheter-removal protocol as foundation to direct interventions (Fig. 1)
- Intentional assessment of catheter need and daily management according to EBP guidelines2,4 (Fig. 2)
- Pursuit of catheter removal according to EBP guidelines2,4
- Measure and monitor prevention processes and outcomes2,4
- Monitor adherence to EBP guidelines (Fig. 4)
- Evaluate effectiveness of prevention efforts

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References