**Background**

Catheter-Associated Urinary Tract Infections (CAUTIs) are associated with increased morbidity and length of hospital stay, accounting for ~6% of all Hospital-Acquired Infections (Lo, 2014). ~75% of UTIs are associated with indwelling urinary catheters (Magill, 2018).

The risk for CAUTI is multifactorial & increases proportionally with the length of catheterization (Letica-Kriegel, et al., 2019).

Neurosurgical ICUs have demonstrated the highest rate of both CAUTIs (5.3) and catheter utilization as compared to all other types of units, including ICUs (Dudeck et al., 2015).

Despite the existence of a robust and multi-faceted CAUTI prevention program, a neuroscience ICU at an academic medical center in Atlanta, Georgia continues to have prevention program. Engagement from all stakeholders may be an important component of an effective CAUTI prevention program.

**Methods**

Quinn et al. (2020) performed a qualitative study in a large progressive care unit in order to assess barriers to timely removal of indwelling catheters.

- A prominent feature of their findings was the lack of clarity, awareness, and agreement on appropriate reasons for maintaining an indwelling catheter, despite the availability of a list of appropriate indications (i.e., in a nurse-driven removal protocol).

The lack of awareness of appropriate reasons to maintain an indwelling urinary catheter has been regularly identified in this neuroscience ICU, despite the existence of a nurse-driven urinary catheter removal protocol that lists the acceptable and evidence-based reasons.

**Project Plan:**

After providing education about the appropriate reasons to maintain indwelling urinary catheters, a decision support tool with established content validity will be utilized by the Registered Nurses in a neuroscience ICU to determine its effect on their decisions regarding removing unnecessary indwelling urinary catheters.

- Using the indwelling Catheter Indications in iView
- Is your patient’s Foley ready to be removed today?

**Results**

Pre- and post-intervention catheter utilization rates, CAUTI rates, Standard Infection Ratios (SIRs), and nursing knowledge about the appropriate reasons to maintain an indwelling urinary catheter will be compared to using the urinary catheter removal protocol alone (regular practice).

Desired outcomes of this project will be: a reduction in catheter utilization; a reduction in Catheter-Associated Urinary Tract Infections; lower SIRs; and, an increase in nursing knowledge about and application of the appropriate reasons to maintain an indwelling catheter.

**Implications for Research and Practice**

The decision support tool and education that will be utilized during this project have been tailored to the suit the specific diseases and situations that may be found in a neuroscience ICU population; however, both may be customized and validated for use with other patient populations. Post-intervention analysis will inform any modifications to the project’s content or changes in its methodology that could lead to additional improvements.

**Conclusion**

This quality improvement project will address the removal of unnecessary indwelling urinary catheters in a neuroscience ICU with persistently high CAUTI rates. Optimal outcomes will include improving the ability of nurses to apply a catheter removal protocol’s concepts into practice, thereby facilitating earlier removal of indwelling urinary catheters that are no longer needed.

Judicious management of indwelling urinary catheters is an important component of an effective CAUTI prevention program. Engagement from all stakeholders will be critical to the success and sustainment of this change project.

**Purpose**

To determine if the implementation of an evidence-based initiative that includes an educational program and an accompanying decision support tool enhances the effectiveness of an institution’s existing urinary catheter removal protocol by improving the nurses’ ability to apply its concepts into practice, thereby facilitating earlier removal of unnecessary indwelling urinary catheters as compared to using the urinary catheter removal protocol alone.

**References**