

Kyle Moore, RN, BSN, CIC | Kim Atrubin, MPH, CIC, CPHQ, FAPIC | Carmen Murphy, MSN, RN, CIC, FAPIC

Learning Objectives

- List examples of alternatives to indwelling urinary catheters
- Describe the implementation process of the alternative urinary devices used to increase utilization
- Describe barriers that occurred during and after implementation of the two male urinary alternative devices.

Background

- Increased use of indwelling urinary catheters can lead to catheter-associated urinary tract infections (CAUTI). The male external condom catheter provided would not adhere to the male anatomy consistently nor did it have the option of measuring urine output. Poor utilization with this device was a result. In addition, an option for nursing staff to use an external male device for retracted anatomy wasn't an option for nursing staff. Poor external devices and a need to reduce urinary catheter days as well as CAUTI infection rates, prompted a quality initiative to expand alternatives to urinary catheters.

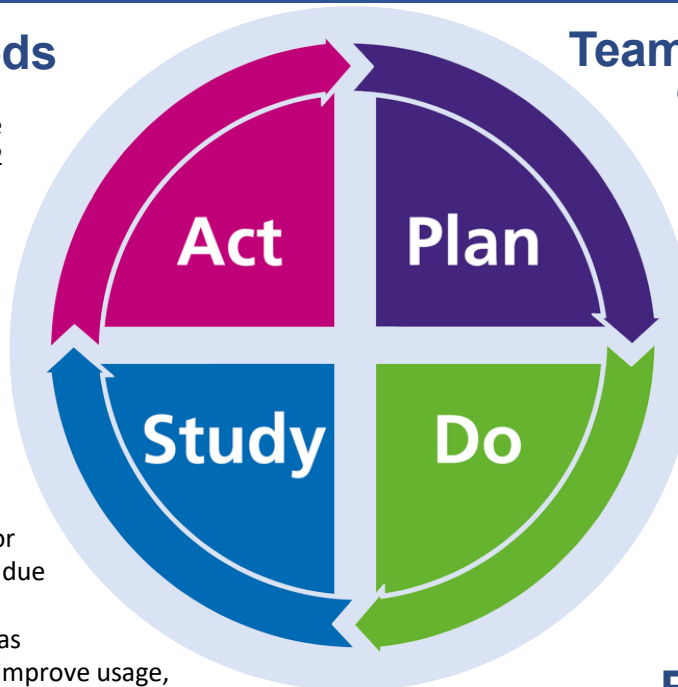


Tampa General Hospital is a 1,040-bed acute care academic medical center. It is the regions only Level 1 Trauma Center.

Methods

The quality improvement initiative took place during September 2022 through April 2023.

- The initiative involved collaboration between infection prevention, materials management, nursing, and urology.
- The use of plan-do-study-act quality improvement was used to improve use of external urinary catheter devices. The male condom catheter used prior to this initiative was not utilized due to its design.
- A new male condom catheter was initiated in September 2022, to improve usage, adherence, and output measurement.
- In April 2023, a second male external urinary catheter device was brought in for retracted anatomy.
- Standard utilization and CAUTI rates were compared prior to and following implementation of the alternative devices. In addition, utilization of alternative devices was tracked from January-September 2023.



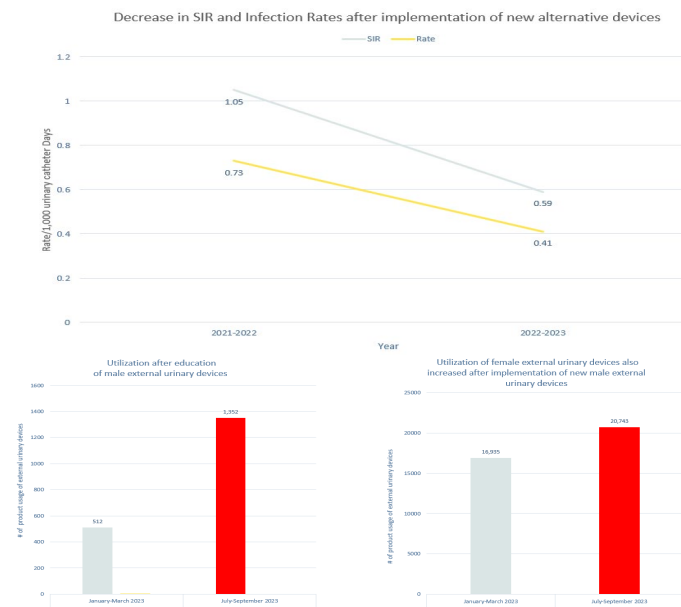
Team Member Education on alternative devices

- Start of Shift Safety Huddles included alternative device options
- Bathroom buddies - a flyer was hung in every staff bathroom
- Tip sheet provided to nursing staff
- Incorporated into New Nurse Orientation
- Computer base learning module on alternative devices
- Real time education one-on-one on nursing units
- Hands-on-training included in annual competency check offs for nursing staff

Results



- In 2021-2022 prior to this initiative, the CAUTI standard infection ratio was 0.59 and infection rate of 1.050/1,000 urinary catheter days.
- Following implementation to expand alternatives, 2022-2023 had a CAUTI standard infection ratio of 0.41 and an infection rate of 0.73/1,000 urinary catheter days.



After education & initiating the implementation of the two external urinary devices, utilization of male urinary alternative devices increased from a three-month time period of 512 products used in Jan.-March 2023 to 1,352 July-Sept. 2023.

Although we did not bring in a new female alternative product, we saw an increase in usage as a result of alternative education. Female external urinary devices increased from 16,935 products used in Jan.-March 2023 to 20,743 July-Sept. 2023.

Conclusions

Providing staff with better alternatives to urinary catheters can increase utilization of these devices, decrease urinary catheters, as well as reduce the risk of patient's developing a catheter associated urinary tract infection. A barrier identified in this project involved space that was available in units clean supply rooms for the new external urinary devices. The Infection Prevention team worked with the nursing staff and Materials Management to identify supplies not used frequently to be able to stock for these new alternative devices.

References

- Patel, Payal K., Advani, Sonali D., Kofman, Aaron D., et al. Strategies to Prevent Catheter-Associated Urinary Tract Infections in Acute-Care Hospitals: 2022 Update. Infection Control and Hospital Epidemiology, Volume 44, Issue 8, August 2023, pp. 1209-1231.
- Jain, Hanish, Hartigan, Elizabeth, Tschopp, Joseph, et al. Catheter-Associated Urinary Tract Infections (CAUTIs) Reduction: A Multidisciplinary Approach. Infection Control and Hospital Epidemiology Volume 41, Issue S1, October 2020, p. s154.
- Whitaker, Amy, Colgroves, Gail, Scheutzw, Maria, et al. Decreasing Catheter-Associated Urinary Tract Infection (CAUTI) at a Community Academic Medical Center Using a Multidisciplinary Team Employing a Multi-pronged Approach During the COVID-19 Pandemic. American Journal Of Infection Control, Volume 51, Issue 3 March 2023, pp. 139-323.

*We have no disclosures to report.

Male External Catheter for Retracted Anatomy Protocol



- Using electric razor, shave excessive hair around the male anatomy.
- Perform perineal care with the supplied wipe. Use the towelette to dry.
- Attach suction tubing to the external catheter device and set to 40-60 mm Hg.
- Peel off cover around adhesive.
- Slide over the male anatomy and seal all the way around for good suction. Ensure flow of urine is unobstructed.
- Replace male external catheter and suction tubing every 24 hours.



Male External Condom Catheter Protocol



- Trim pubic hair if needed. Perform perineal care using the included wipes. Dry the anatomy with the provided towelette.
- Use the sizing guide to determine the male external size.
- Select the male external catheter based on appropriate size.
- Connect the tubing to the condom catheter. If uncircumcised, be sure to leave foreskin in place over the head of penis. Unroll the male external catheter over penis.
- Gently squeeze the catheter to properly seal adhesive to skin.
- Secure catheter with securement device. Hang bag below patient's bladder.
- Use the green sheeting clip to secure the drainage tube to the sheet. Make sure tube is not kinked.
- Male external catheters should be replaced once every 24 hours.