

The Impact of Care Bundles on Catheter Associated Urinary Tract Infection (CAUTI) Rates

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Background

- A catheter associated urinary tract infection (CAUTI) develops when bacteria enter the urinary tract through an indwelling urinary catheter and causes an infection (CDC, 2010)
- Urinary tract infections (UTIs) are the most common healthcare associated infections; among hospital acquired UTIs, 75% of these UTIs are catheter associated (CDC, 2015)
- In 2020, there were 19,738 reported CAUTI in the US (CDC, 2021)

Introduction & Purpose

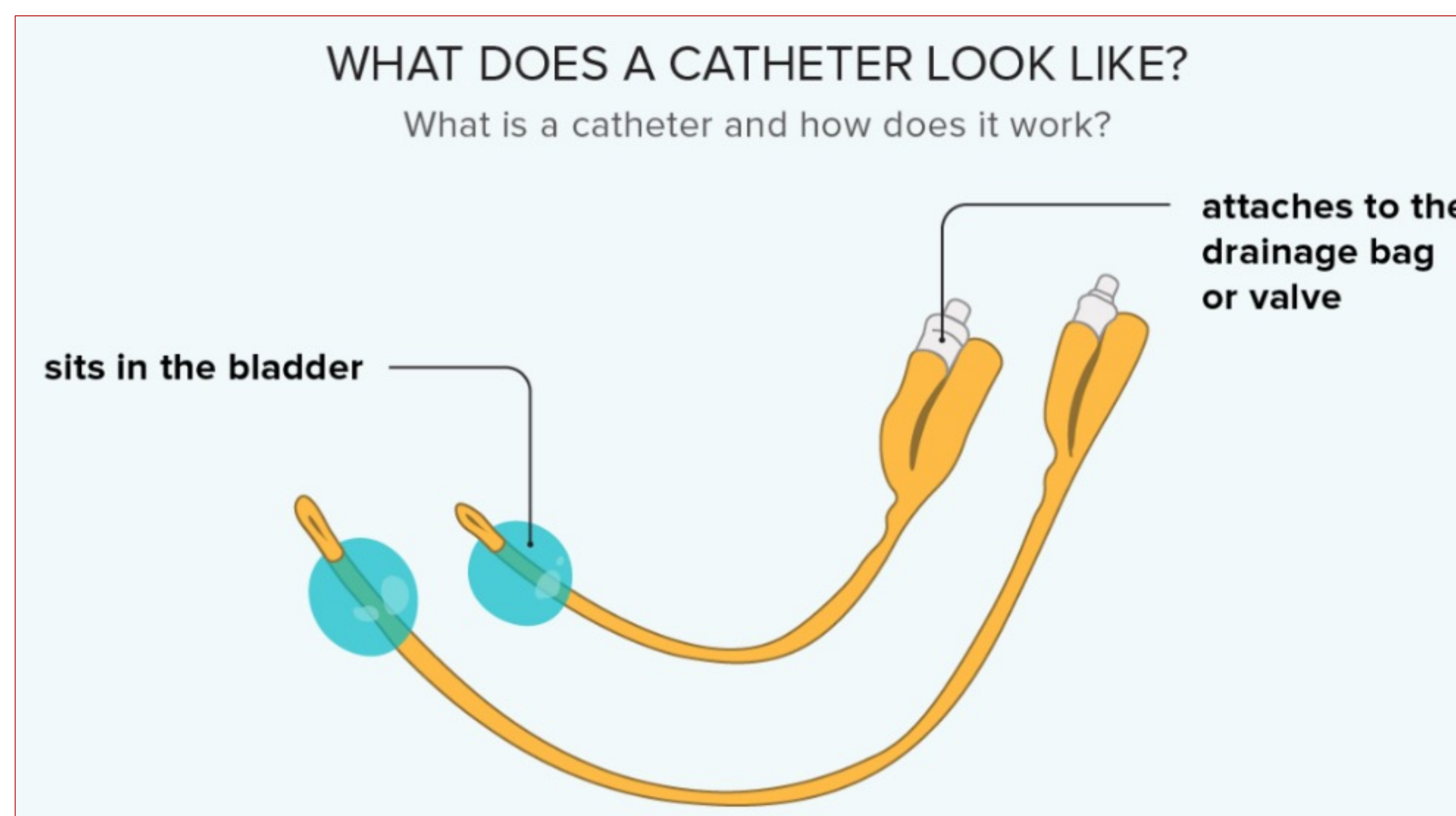
- The purpose of this research is to evaluate the effectiveness of catheter care bundles in reducing the incidence of CAUTIs in the intensive care unit (ICU)
- A care bundle groups together individual techniques and aspects of care for urinary catheter insertion and maintenance that have shown to improve patient outcomes and reduce the incidence of CAUTIs (Agency for Healthcare Research and Quality, 2019)
- The main question of this research was: In adult intensive care hospital patients with indwelling catheters, how do catheter care bundles, compared to catheter standard care, affect the incidence of CAUTIs?

Clinical Implications

- Each individual study had a p-value < 0.05 , showing that care bundles are effective at reducing the incidence of CAUTIs. The average rate of CAUTIs decreased significantly (Fauziah et al., 2018)
- Before implementing care bundles into care, there were 32 CAUTIs amongst the 631 patients; post-implementation there were only 10 CAUTIs amongst the 602 patients in the study (Soundaram et al., 2020)
- The incidence rate of CAUTI changed from 10.7 to 4.5 after implementing care bundles in the ICU (Soundaram et al., 2020)

Significance to Nursing

- The implementation of care bundles will greatly decrease the incidence of CAUTI.
- This is significant to the field of nursing to enhance patient outcomes, reduce infection, and promote evidence-based practice within the clinical setting



Conclusion

- Adhering to catheter care procedural and maintenance bundles will lead to a significant decrease in the incidence of CAUTIs.
- The best intervention to decreasing CAUTIs is using all parts of the bundle together as a whole
- Care bundles will not only decrease the incidence of CAUTIs but also decrease the average catheter days per patient and the device utilization rate

Future Implications

- Further research using experimental study designs need to be done to evaluate the significance of care bundles on the rate of CAUTIs
- Incorporate catheter care bundles into all units of hospitals and evaluate the effectiveness on CAUTI rates
- Provide updated, continuing education courses for nurses regarding catheter insertion techniques and CAUTI prevention
- Audit the adherence of the use of care bundles per unit

References

