Re-moving quickly for CAUTI: Early removal & Epic optimization

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Background

Facing a critical challenge, our CAUTI rates surpassed national benchmarks, more than doubling and continuing to trend upward (Centers for Disease Control and Prevention, 2023). This trend led to a decrease in patient outcomes, an increase in financial costs, and a decline in the quality of patient care being provided (Shuman & Chenoweth, 2018). Multiple barriers were suggested as the cause of our high rates including:

- Improper insertion
- Contamination during specimen collection
- Urinalysis ordered without cause
- Catheters in place without appropriate indications

Recognizing the urgency of the situation, our teams identified interventions aimed at breaking down these barriers and improving our patient care.

Methods

The project took place at a large academic health sciences center, including five hospitals and eleven community health centers. An abstract review of sources discussing CAUTI reduction was completed on 406 articles which were classified into themes.

The top five themes from the literature showed early removal, CAUTI prevention bundles, algorithms, education, and daily rounding were the most effective ways to reduce CAUTI rates. In addition to these components, teams looked at EHR optimization to address barriers related to specimen collection.

All staff were re-educated on catheter insertion, catheter care techniques, and specimen collection. Daily chart audits were completed on all patients with a catheter in place for greater than two days (Meddings, Rogers, Macy, & Saint, 2010). Bedside nurses and Charge nurses were contacted for any discrepancies regarding the ordered indication, documentation on the catheter, and clinical appropriateness of the catheter.

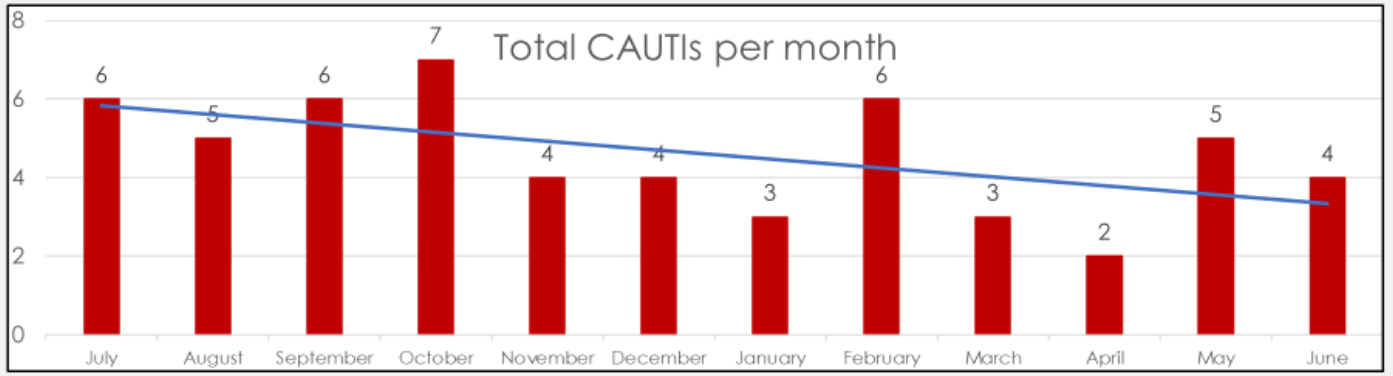
Multiple Best Practice Alerts were created to ensure providers recommend catheter exchange prior to culturing in catheters in place over 5 days, to ensure orders for catheters were current (S Saint & Hofer, 2000), and to remove catheters once the indication was no longer present. Guidance to clinical staff was added to specimen collection orders to ensure accurate collection of urine samples. RN and LIP specific decision trees created to assist staff in determining if UA/urine culture is warranted.

Lastly, when CAUTI events did occur, a robust process for real time analysis of events was implemented to identify gaps in care and prevent future occurrences. Feedback was given to Providers and RNs involved in patient care.

References and Acknowledgements

Results

- Over seven weeks. 3500 staff members received hands-on competency training.
- Over a twelve-week period, 3000 patient charts were audited.
- During this time, a dramatic reduction in CAUTI rates was seen.
- There were zero CAUTIs for four weeks (a significantly lower rate than the one to two CAUTIs seen per week in the previous year).
- This work continues to help develop a sustained decline in CAUTI rates.
- The collaboration of various teams has contributed to a culture of CAUTI awareness and its link to quality patient care across the organization.



Conclusions

The conclusion drawn from the data suggests that the comprehensive training provided to staff members, coupled with the meticulous auditing of patient charts and direct communication with assigned staff on any deficiencies, resulted in a significant reduction in Catheter-Associated Urinary Tract Infection (CAUTI) rates. The absence of CAUTIs for four consecutive weeks, compared to the previous year's frequency of one to two CAUTIs per week, underscores the effectiveness of these initiatives. Furthermore, the ongoing efforts signify a sustained decline in CAUTI rates, indicating a positive trend in enhancing patient care quality and reducing healthcare-associated infections. This success highlights the importance of collaboration among various teams in fostering a culture of awareness and continuous improvement in healthcare practices.

Building on the success achieved thus far, there are several avenues to explore for further improvement:

- Continuous Training and Education
- Enhanced Monitoring and Auditing
- Targeted Interventions
- Patient Engagement
- Reseach and Innovation
- Cross-Departmental Collaboration

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