Implementing Evidence-Based Care Bundle to Prevent and Manage CAUTIs Among Hospitalized Patients With Indwelling Urinary Catheters

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Overview of the Project

- Hospital-acquired infections (HAIs) pose a major to threats to healthcare delivery.
- Among the HAIs, CAUTIs are the most common and constitute about 36%-40% of all nosocomial infections in the healthcare setting (Mong et al., 2022).
- They increase morbidity, and mortality rates.
- Lead to prolonged patient hospitalization and increased health costs.
- Hospitalized patients with indwelling catheters are highly prone to CAUTIs.
- The implementation evidence-based interventions will prevent and manage CAUTIs
- Evidence-based care bundles intervention has been proposed to curb CAUTIs among hospitalized adult patients with indwelling catheters

Objectives of the Evidence-based change project

- The project aims;
- i. To improve the care quality and patient safety through change.
- ii. To implement evidence-based care bundle to prevent and manage CAUTIs among hospitalized patients with indwelling catheters.
- iii. To promote adherence to infection control and sterile principles, standard processes, supplies, and procedures during catheter care.
- iv. To reduce unnecessary catheterizations/ reduce catheterization that pose risks of CAUTIs.
- v. To educate and train nurses and other healthcare professionals on catheter care and CAUTIs prevention/management.

Proposed Intervention

- The proposed intervention is evidence -based care bundles.
- The intervention advocates for; (Fauziah et al., 2020).
- i. Aseptic insertion and catheter maintenance
- ii. General hand hygiene
- iii. Following catheterization indications
- Use of professional guidelines, standard of practice, and institutional policies will promote hygiene and proper catheter maintenance.
- Integration of bladder scanner technology to determine urine retention in the bladder will inform catheterization decisions.
- Substituting indwelling catheters with external urine collection method such as use of nappies condom catheters, or intermittent catheterization will mitigate CAUTI risks.

Evidence-based Literature

- CAUTIs continue to reduce quality of care and patient safety even though they can be prevented.
- Research conducted in an 11-hospital system in New York City revealed 364 CAUTI cases in 347 patients within two years and five months.
- About 1.85 infections per 1,000 catheter days occurred from January to June 2021 (Samaroo-Campbell et al., 2022).
- The heavy use of indwelling catheters poses a major risk where 15%-25% of hospitalized adult patients are likely to undergo indwelling catheterization during their hospital stay.
- CAUTIs cause high morbidity and mortality rates affecting about 150 million individuals globally annually and about 1 million cases in the US annually (Mong et al., 2020).

Evidence-based Literature CONT

- CAUTIs and their complications negatively affect the quality of care and patient experiences.
- Their symptoms range from fever, chills, costovertebral angle tenderness, suprapubic tenderness, hypotension, flank pain, urinary urgency, and altered mental status (especially those aged 65 years and above) and may lead to sepsis and endocarditis (Podkovik et al., 2019).
- CAUTIs lead to prolonged hospitalization and increased health costs encountered by patients, health organization, and the government.
- The United States government spends about \$115 million to \$1.82 billion yearly on preventable CAUTIs, excluding the financial burdens encountered by health organizations and patients (Werneburg, 2022).
- As mentioned, the implementation of care bundle intervention will aseptic insertion and catheter maintenance, general hand hygiene, and following catheterization indications to curb CAUTIs among hospitalised patients with indwelling catheters.

Strategic Plan

- The strategic plan is foster change toward EBP prevent CAUTIs to improve care quality and patient safety.
- The strategic plan for the project is as follows;
- i. Creating awareness about the problem and the need evidence-based change project to relevant stakeholders:patients/families/caregivers, healthcare staff and hospital management.
- ii. Conducting research to obtain information about the topic, proposed intervention and potential implementation strategies.
- iii. Dissemination the research findings to relevant stakeholders.
- iv. Devise implementation strategies through a collaborative process with all stakeholders.
- v. Implementation of the proposed intervention.
- vi. Evaluation of the project's outcomes to determine if the goals have been met.

Resources Required

- Resources will be required to implement my evidence-based project.
- Adequate time will be instrumental sufficient planning, conducting research and implementing the project.
- Human resources-nurses and other healthcare professions required for implementation, unit and hospital's departmental leaders to mobilize their staff to implement the project.
- Equipment, materials, and supplies. For instance ultrasound bladder scanners used to assess patients' bladder urine retention, Alcohol-based hand rub supplies to maintain hygiene, condom and intermittent catheters.
- Financial resources to implement the project. For instances, money to acquire require equipment, internet, pamphlets and handouts to disseminate project's information.

Anticipated Measurable Outcomes

- The anticipated measurable outcomes for the project are;
- i. Decreased rate of CAUTIs among hospitalized patients with indwelling catheters.
- ii. Improved nurses, other healthcare professionals and patients' knowledge on CAUTIs prevention.
- iii. Decreased hospitalization days among patients associated with CAUTIs.
- iv. Decreased health costs caused by CAUTIs for patients and the healthcare facility.
- v. Improved quality of care, patient safety and experiences.

Evaluation of the Intervention

- Intervention evaluation plan will be necessary to determine whether the project has achieved the expected outcomes.
- It will create a common understanding of the purpose and use of the results, fosters transparency among stakeholders, and promotes project acceptance methods (Schuler et al., 2021).
- Qualitative and quantitative data will also be collected during the evaluation.
- Qualitative data will be collected to determine nurses' and other stakeholders' knowledge of care bundles toward CAUTI prevention.
- A survey with open-ended question will be used to determine the patients' perceived experience and quality of care the intervention offers.
- Quantitative data will be collected from patient's records to determine the number of CAUTIs among hospitalized with indwelling catheters before and after implementing the proposed evidence-based care bundles.
- Observations/checklists will be used to show whether healthcare providers follow recommended patient safety guidelines while managing hospitalized patients with indwelling catheters.

Conclusion

- In summary, Hospital-acquired infections (HAIs) like CAUTIs pose a major to threats to healthcare delivery.
- They cause increased morbidity, and mortality rates, lead to prolonged patient hospitalization and increased health costs.
- Although patients with indwelling catheters are high prone to CAUTIs evidence-based care bundles intervention has been proposed as a suitable prevent the problem among hospitalized patients.
- The project will also improve nurses and other stakeholder knowledge in CAUTIs prevention.
- Time, human, equipment/supplies, financial resources will be necessary to implement the proposed intervention.
- Decreased rate of CAUTIs, improved nurses, other healthcare professionals and patients' knowledge, decreased hospitalization days, health costs caused, improved quality of care and patient safety, patient safety and quality of life are the expected outcomes.
- An evaluation plan will be necessary to determine if the proposed intervention has achieved the anticipated outcomes.

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