

Hospital Acquired Urinary Tract Infections: Quality Improvement

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The technique of sterile catheter insertion is a fundamental skill taught to all nurses. Sterile technique is required for catheter insertion to prevent urinary tract infection. Nursing professors go to great lengths to emphasize the importance of and teach the skills necessary to do this procedure correctly. Using improper techniques could lead to urinary tract infections resulting in increased health care costs, more extended hospital stays, patient discomfort, and even death. Catheter-acquired urinary tract infections known as CAUTIs are often preventable. One article estimated that the average yearly cost to the American health care system is somewhere between 340 million and 1.7 billion (Study, 2018). The healthcare system has gone to great lengths to reduce the number of CAUTIs. To incentivize hospitals to reduce CAUTI rates, insurance companies no longer reimburse hospitals for costs associated with these infections.

Quality improvement is a system used by healthcare professionals to improve best nursing practice and patient outcomes continually. Nurses aim to understand the best available evidence to inform their decision-making as they care for patients (Houser, 2018). The QSEN competencies highlight three areas regarding quality improvement that are vital for nurses approaching quality improvement efforts. These areas are knowledge, skills, and attitudes (QSEN Institute, 2020). Nurses must understand the foundational knowledge regarding the reason improvement is necessary for a given area. Nurses must be well trained in the necessary skills required to implement the improvement project. Nurse attitude regarding the quality improvement effort is paramount because nurse buy-in is necessary to sustain change. Most hospitals have room to make improvements in the rate of CAUTIs in their facilities. Quality improvement projects in this area can explore what educational teaching, skills practice and employee attitude shifts are necessary to improve patient outcomes and associated costs of

CAUTIs. Working together, nurses can prevent illness and death in patients. Saving lives should matter greatly to all nurses.

Article Summary

Introduction

In a recent study, researchers sought to understand the relationship between complicated urinary tract infections (cUTI), ineffective empiric therapy, and the outcomes of the patients. The study retroactively looked at 23,331 patients who had cUTIs. Patients were included in the study if their urinary tract infection was resistant to more than three of the following medications: third-generation cephalosporins, fluoroquinolones, trimethoprim-sulfamethoxazole, fosfomycin, and nitrofurantoin (Zilberberg, 2021). The study tracked the empiric therapies offered to the patients and whether they were effective or ineffective. The study also examined the outcomes of these patients, including their acuity and rate of mortality. This article relates to the quality improvement project about CAUTIs because many complicated urinary tract infections begin due to a preventable infection caused by poor catheter insertion techniques.

Overview

The research article indicates that cUTIs are one of the leading causes of infection-related acute hospitalizations (Zilberberg, 2021). Urinary tract infections acquired in the hospital are unfortunately common. Finding sustainable protocol to ensure nurses understand the risks of CAUTIs (education), know the correct technique for catheter insertion (skills), and have the necessary incentives to perform them correctly every time (attitudes) could drastically reduce the prevalence of this type of infection. Hospital protocol often requires that two nurses are present during catheter insertion. Two-person insertion usually means one nurse is performing the procedure and the other is assisting and ensuring the nurse uses the correct technique. When nurses insert catheters improperly, both nurses usually understand the risk. Nursing schools emphasize this teaching so much that it is hard to believe a nurse could graduate

without understanding that improper catheter insertion introduces bacteria to the bladder and can easily cause a severe infection. Nursing students also have to practice and perform catheter insertion correctly in order to pass skill requirements. Therefore, it is safe to assume the majority of this problem lies in the attitudes, traditions, and nurse culture of a hospital or unit in a hospital. With a suitable protocol in place, nurse attitudes can change! Introducing a three-person check-off system could drastically change the prevalence of CAUTIs. Two nurses would be required to give the patient a check-off sheet that explains the proper technique for catheter insertion, explain it to them, and then all three individuals would be required to sign it before beginning the procedure. The check-off sheet would cover things like proper perineal cleaning before the procedure, wearing sterile gloves, and attempting to insert a foley only one time. The check-off sheet would specify the importance of using a new catheter kit if the attempt was unsuccessful. These simple measures could change patients' outcomes, reducing the length of their hospital stay, cutting health care costs, and making them more comfortable.

Quality Improvement

The research article studied patients in the hospital setting. Nurses can implement this quality improvement project in the hospital setting where patients need catheterization for various reasons. In the pre-implementation stage, a class explaining the new three-person checklist would be most beneficial. A class could ensure the nursing staff understands the education necessary to implement this change, the expected catheter insertion technique they are to use, and the culture shift, which includes educating the patient and making them part of the accountability process. During this stage, leaders should share data about the existing levels of CAUTIs with the nursing staff. In the intra-implementation stage, it would be helpful to present statistical information regarding the fall in CAUTIs to encourage the staff to keep working hard. A leader should also be appointed, so the nurses have a person to discuss the new protocol's potential problems or limitations. This person can also collect quantitative data about the nurses' experience regarding this new protocol. In the post-implementation stage, leaders should share the data with the nursing staff. Yearly reports showing CAUTI rates and nurse experience information should

be shared with the staff to help promote sustainability. Making these changes will save many patients from acquiring CAUTIs, which could become cUTIs. One in eight patients who were diagnosed with a cUTI developed triple resistance (Zilberberg, 2021). Reducing the number of CAUTIs will reduce the number of cUTIs, which will reduce the cost and duration of the patient's hospital stay. Insurance companies do not reimburse hospitals for the costs associated with CAUTIs. Therefore, if these measures reduce the number of CAUTIs, the hospital will keep more profit. Patients will benefit from these measures by not acquiring an infection that causes abdominal, flank, and pelvic pain, frequent urination, and painful urination. The patient satisfaction will be higher, and the patients will be safer from serious complications resulting from CAUTIs like sepsis and death. Nurse satisfaction will improve as well due to increased teamwork and confidence. All nurses want to help patients achieve optimal health. Working to prevent preventable illness is worthy of a nurse's effort.

Application to Nursing

Here add in a summary of the information learned to the application to practice. Follow the MEAL paragraph formatting and use Grammarly.com. Be sure to cover all aspects within the rubric. Be sure to use double space and to tab over for your first line of a new paragraph.

Practice

Paragraph goes here discussing the application to practice. Review the rubric for full requirements. Follow the MEAL paragraph formatting and use Grammarly.com.

Education

Paragraph goes here discussing the application to education. Review the rubric for full requirements. Follow the MEAL paragraph formatting and use Grammarly.com.

Research

Paragraph goes here discussing the application of research. Review the rubric for full requirements. Follow the MEAL paragraph formatting and use Grammarly.com.

Conclusion

Write a conclusion here in your overall paper. Review the rubric for full requirements. Follow the MEAL paragraph formatting and use Grammarly.com.

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