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# Do Quality Improvement Projects Improve Health Outcomes?

Stephanie Kolodzieski, Student Nurse

## INTRODUCTION

Quality Improvement (QI) is “using data to monitor the outcomes of care processes and using improvement methods to design and test changes to continuously improve the quality and safety of health care systems” (QSEN Institute, 2014).

Nursing quality indicators measure nursing’s contribution to quality care and positive patient outcomes. Specific quality indicators include: falls, falls with injury, pressure ulcers, nursing hours per patient per day, pain management, restraint prevalence, nosocomial infections (CAUTI, CLABSI, VAP), RN education, skill mix, voluntary nurse turnover, and nurse vacancy rate (Lockhart, 2018).

The quality indicator being focused on is catheter-associated urinary tract infections (CAUTI). CAUTI is when a pathogen enters the urinary tract through the catheter, causing an infection (CDC, 2015).

## SIGNIFICANCE

CAUTI are the leading cause of healthcare-associated infections (HAI) in hospitals in the United States. CAUTI accounts for more than 30% of HAI. (CDC, 2015).

An estimated 13,000 deaths are caused by CAUTI per year (Ferguson, 2018).

CAUTI are the leading cause of secondary bloodstream infections with a mortality rate of approximately 10% (Ferguson, 2018).

## POSITION STATEMENT

Quality improvement projects can improve health outcomes, which is supported by a QI project completed to decrease rates of CAUTI within an acute care hospital.

## SUPPORT FOR POSITION

A QI project was completed on 2 units of an acute care hospital that had the highest CAUTI rates among all hospital units (telemetry and neurotrauma). The project aimed to enhance nurses’ knowledge about indwelling urinary catheter care in order to reduce the rates of CAUTI on the units (Ferguson, 2018).

The nurses on these units participated in a 1-hour multifaceted CAUTI prevention education program that included face-to-face instruction, knowledge assessment, skill acquisition, and demonstration of skills. A pre/post-test was used to evaluate nurses’ knowledge of indwelling catheter care and CAUTI. (Ferguson, 2018).

The score for the pre/post-test increased to 12.30 from 9.71 after education was provided to nurses about catheter care and CAUTI. CAUTI rates declined after the educational program. The telemetry unit rates for CAUTI went from 7.49 to 0 per 1,000 catheter days. In the neurotrauma unit, the CAUTI rates went from 4.12 to 1.56 per 1,000 catheter days (Ferguson, 2018). These results show that something as simple as an educational program and proper catheter care instructions to nurses can decrease the rates of CAUTI within a hospital, thus improving quality of care.

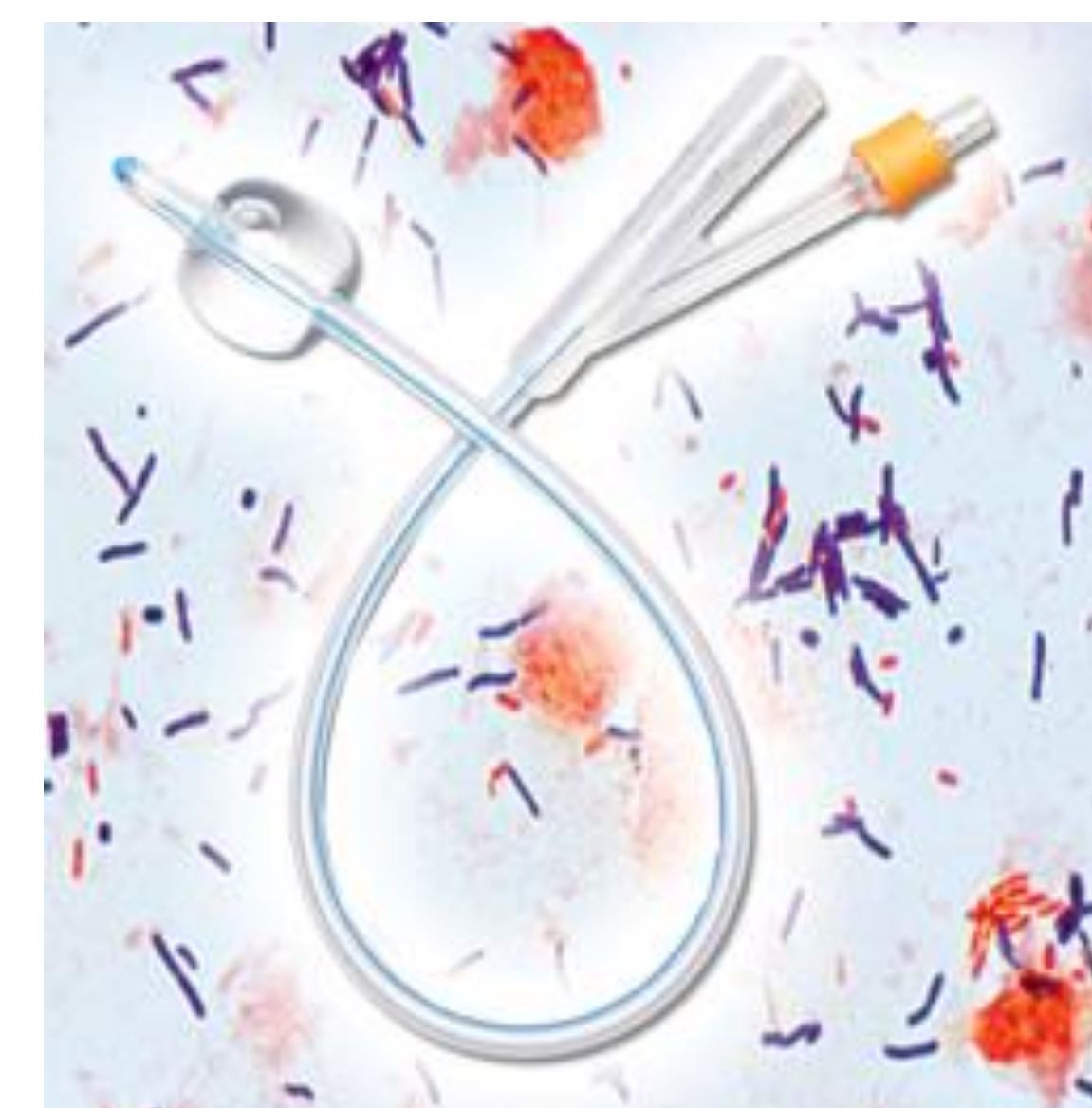
## IMPLICATIONS FOR PRACTICE

QI projects are vital in healthcare because they better the care patients receive and promote increased patient safety, which is always a priority (QSEN, 2014).

An estimated 17-69% of CAUTIs may be preventable with infection control measures. This means that an estimated 380,000 infections and 9,000 deaths related to CAUTI could be prevented each year (CDC, 2015).

“Nurses can play a key role in preventing CAUTI among hospitalized patients, and subsequently, impact the outcomes and burden of CAUTIs by adhering to evidence-based practice guidelines” (Ferguson, 2018).

Nurses play a key role in preventing CAUTI by having knowledge about hospital policies, knowing indications for foley catheter use, how to properly insert an indwelling catheter using sterile technique, methods to prevent CAUTI, and assessing the patient for the need to continue catheter use (Ferguson, 2018).



Cantrell, S. [Photograph] *Healthcare Purchasing News*. <https://cdn.hponline.com/inside/2016-01/1601-IP-CAUTIs.html>

## CONCLUSION

QI projects are an important factor in healthcare because they are proven to improve the quality and safety of care that patients receive by addressing factors that need to be changed. Specifically, this QI project focused on enhancing nurses’ knowledge about catheter care and CAUTI in order to decrease CAUTI rates and improve health outcomes. Nurses have a crucial role in preventing CAUTI since they are professionals that work closely with these patients in providing high quality catheter care. It is the nurses’ responsibility to know hospital policies, indications for catheter insertion, proper catheter care, and how to prevent CAUTI. This QI project improved health outcomes through education about these factors as evidenced by declining rates of CAUTI.

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