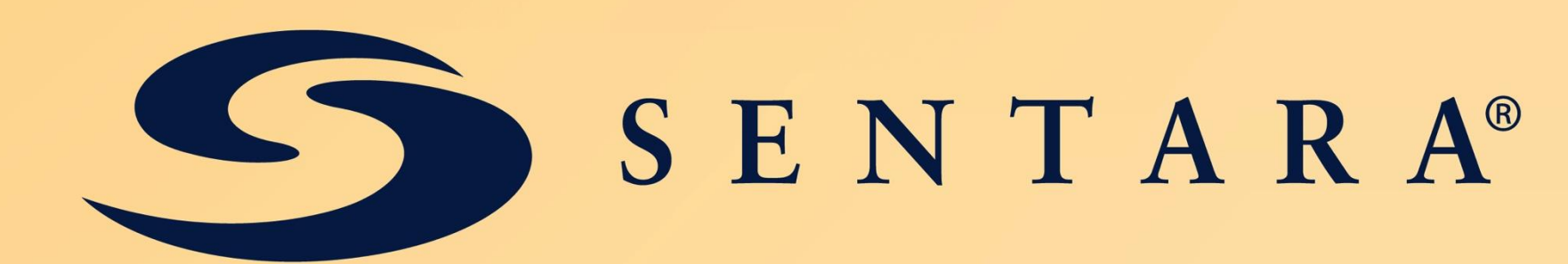


Post-Operative Urinary Retention (POUR) Initiative: Using QI to Impact Change on 3 West Wing at Sentara Virginia Beach General Hospital

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Introduction

- ❖ “POUR can be defined as the inability to voluntarily empty the bladder after anesthesia and surgery. It is normally treated by catheterization of the bladder.” (Scholten, Kremers, Groes, Somford, & Koëter, 2018)
- ❖ “Postoperative urinary retention is a troublesome postoperative complication because of its association with urinary tract infection and the subsequent increased risk of deep joint sepsis.” (Fernandez, Karthikeyan, Wyse, & Foguet, 2014)



Project/Purpose

- ❖ The purpose of this quality improvement project is to evaluate the incidence of POUR-related events in the total joint replacement (TJR) population without a perioperative indwelling urinary catheter compared to those with a perioperative indwelling urinary catheter.
- ❖ The aim of this study is to create practice changes in our TJR population that minimize the incidence of POUR

Background

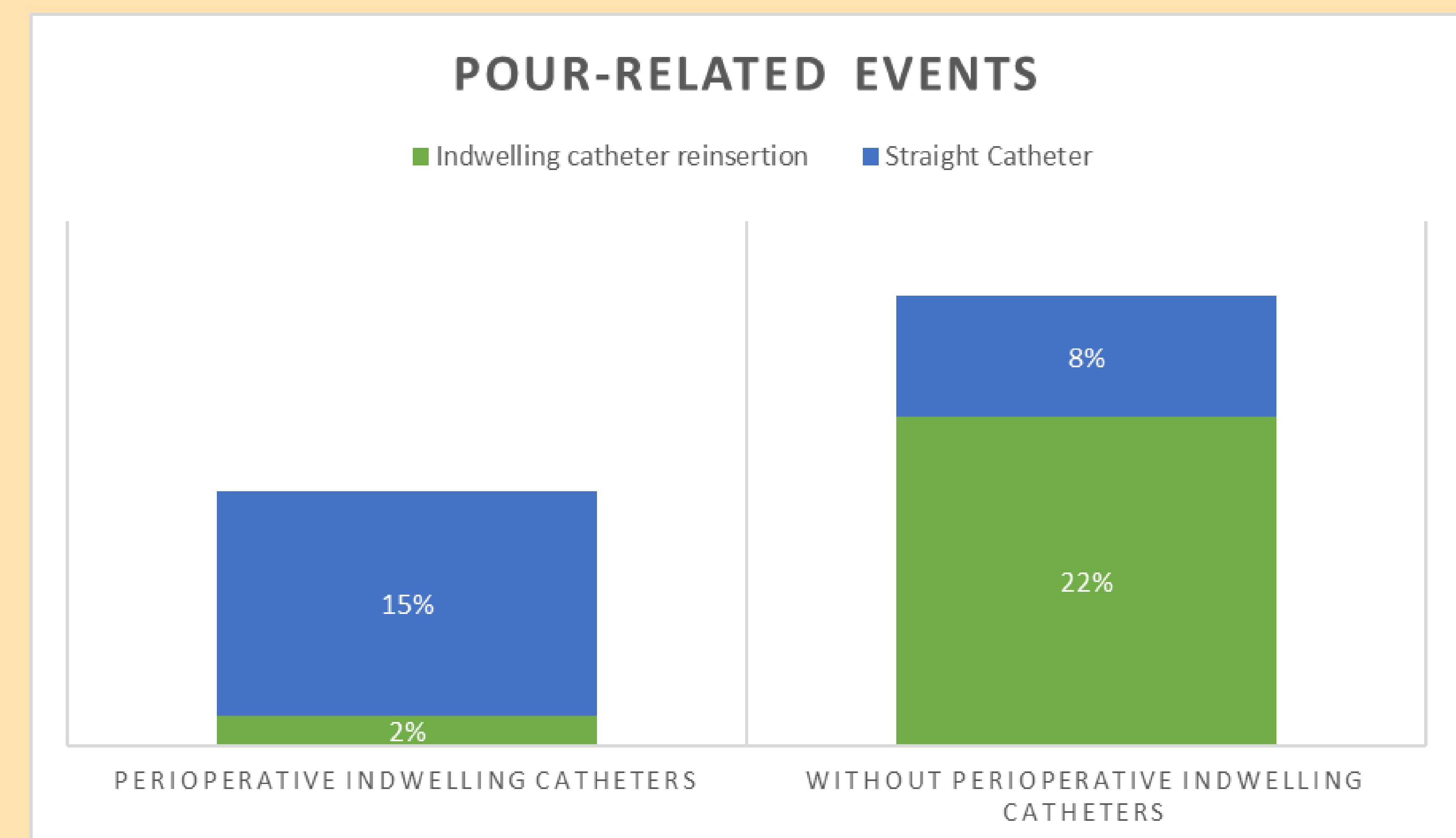
- ❖ Sentara Virginia Beach General Hospital (SVBGH) 3 West Wing (3WW) is an orthopedics/trauma unit with 36 beds, 12 of which are reserved for elective joint and spine surgeries. In 2017, 3WW nursing staff observed an increase in TJR patients requiring multiple straight catheterizations and/or indwelling catheter reinsertions post-operative due to bladder distention.

Methodology

- ❖ A team of five registered nurses performed patient chart reviews of 192 TRJ patients on 3WW who were admitted between November 1st, 2017 and April 30th, 2018. They systematically reviewed the following data points: Surgeon, Procedure, Anesthesia type, Perioperative Indwelling Catheter presence, Number of post-operative straight and indwelling catheter insertions and reinsertions. When analyzing the data, excel spreadsheet was formatted to highlight patients with perioperative indwelling catheter presence and the need for post-operative catheterization.

Results

- ❖ The POUR team established the following: Patients with postoperative removal of perioperative indwelling catheters; 2% required indwelling catheter reinsertion, 15% required straight catheterization. Patients without perioperative indwelling catheters; 22% required indwelling catheter reinsertion, 8% required straight catheterization. Based on these findings, the research team proposed to the Orthopedic Performance Improvement Committee that the orthopedic surgeons at SVBGH use intraoperative indwelling catheters.



Conclusion

In May 2018, the following practice change was implemented on 3WW.

- ❖ Orthopedic surgeons, Dr. Edward Lambert and Dr. Peter Jacobson adopted the use of perioperative indwelling catheters.
- ❖ Implementation of 100% bladder scan on all TJR patients (without indwelling urinary catheters) prior to leaving Post-Anesthesia Care Unit.
- ❖ 3WW nursing team bladder scanned every two hours post-operatively and addressed any POUR with straight catheterization versus the need for an indwelling urinary catheter.
- ❖ If bladder scan is greater than 500 milliliters of urine, patient required straight catheterization.

As a next step, the POUR team plans to develop a retrospective pre-post study to examine the effects of the change in post-operative nursing processes with TJR patients.

References

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- ❖ Scholten, R., Kremers, K., Groes, S. A., Somford, D. M., & Koëter, S. (2018). Incidence and Risk Factors of Postoperative Urinary Retention and Bladder Catheterization in Patients Undergoing Fast-Track Total Joint Arthroplasty: A Prospective Observational Study on 371 Patients. *The Journal of Arthroplasty*, 33(5), 1546-1551. doi:10.1016/j.arth.2017.12.001