

EXPLORATION OF THE INCIDENCE OF AND RISK FACTORS FOR POSTOPERATIVE URINARY RETENTION (POUR) IN THE ORTHOPEDIC TOTAL JOINT PATIENT: A PILOT STUDY

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Introduction: Postoperative urinary retention (POUR) is a common postoperative complication, with an incidence of approximately 52%. An early predictor of POUR may include bladder distension on arrival to the PACU. Common risk factors include age > 50, intraoperative fluid volume > 750 ml, surgery duration > 120 min, and regional anesthesia.

Identification of the Problem: Quality improvement data revealed an increase in the incidence of POUR in total joint patients, possibly related to a hospital effort to reduce the use of indwelling catheters.

Purpose of the Study: The purpose of this study was to explore the incidence of, and associated risk factors for POUR in the orthopedic surgery population. Research questions included:

- What is the mean bladder volume on first bladder scan in the PACU?
- What is the incidence of postoperative catheterization in the PACU?
- What is the incidence of postoperative urinary retention (POUR) this population?
- What are risk factors for POUR in this population?

Methodology: A prospective descriptive correlational design with a purposive convenience sample of 126 adult patients was used. Data analysis included descriptive statistics, correlation, and regression.

Results: Mean age of the sample was 63.9 years (SD: 10.18). 45.2% were male; 54.8% female. 63.2% underwent general anesthesia; 36.8% underwent regional or a combined technique. Mean incidence of bladder distension (bladder volume > 350 cc) with PACU scan was 46.5%. Intraoperative intake, regional anesthesia, and male gender were significantly ($p < 0.05$) correlated with bladder distension in the PACU. However, only procedure duration and intraoperative fluid volume were correlated with POUR.

Discussion/Conclusions: Given the high incidence of POUR in this population, further exploration is warranted to examine the relationship of decreased intraoperative catheterization to PACU bladder distension, POUR, postoperative UTI and other quality indicators.

Implications for Perianesthesia Nurses/Future Research: Given the mean bladder volumes in PACU, results support the need for routine PACU bladder scanning for non-catheterized orthopedic patients. Communication regarding bladder volume status should also be included in hand-off communications upon patient transfer to the floor. Further refinement of a predictive model for the development of POUR is also indicated.