

Problem

Barriers That Lead to Action	Purpose of Quality Improvement
RN's on the Orthopedic/Spine Unit (9KPV) were continually and frequently finding; <ul style="list-style-type: none"> Patients with inability to void after Foley removal. Patients with high post void residuals. Discharging patients seemingly of all ages with indwelling Foley catheters on bladder rest. 	An application to an Evidence Based Practice fellowship was submitted to; <ul style="list-style-type: none"> Investigate the prevalence of Post Operative Urinary Retention (POUR) on 9KPV. Determine risk factors of POUR and develop algorithm to identify patients at high risk. Propose hospital wide Post Operative Foley removal Protocol.

Outcome: The learner will understand the risk factors and prevalence of POUR and steps taken to account for POUR in a Foley Discontinuation Protocol.

Background

- Post Operative Urinary Retention (POUR) is the inability to void in the presence of a full bladder, but can also include insufficient emptying of the bladder where large residual volumes remain in the bladder after surgery. It can be caused by insufficient bladder contraction, insufficient sphincter relaxation, outlet obstruction, or deficient bladder/sphincter coordination.
- 9KPV is the Orthopedic/Spine/Surgical observation unit at OHSU in Portland, Oregon. It is a 26 bed unit that provides care for intermediate, acute, and observation care.
- POUR is a common complication seen in everyday practice 9KPV.
- POUR causes patient anxiety and discomfort related to catheterization interventions.
- POUR presents risk for avoidable patient injury related to bladder distention.
- POUR is a common cause for patient discharge delays, and increase cost of care on the Orthopedic/Spine unit at OHSU.

Methodology and Sample

- Magnet Listserv:** A query was sent to other Magnet hospitals requesting their Foley Removal Protocols to compare with our own and to see if POUR and any other evidence based information was being considered at other institutions.
- Literature Review:** Scholarly articles concerning POUR were sought out. In particular articles regarding its risks, prevalence and interventions to prevent, treat and minimize its sequelae.
- Historical Chart Review:** A *sample* of 150 Patients from January through March of 2016 on 9KPV who had a Foley catheter line was reviewed to identify the incidence of POUR and assist in validating what patient populations were most at risk of developing POUR.
- Interdepartmental Coordination:** Infection Control, Orthopedics Best Practice Council, Urology department, and all Attending Physicians from 9KPV were consulted for acceptable changes to Foley discontinuation protocol.

Results

Magnet Listserv

11 Hospitals sent protocols
All straight catheterized at higher volumes
Evidence only for CAUTI - no evidence for high risk POUR patients

Literature Review

Disagreement on Risk Factors
Orthopedics always high risk
Bladder injuries happen >500mls
Pull Foley at 24hrs
Joelsson-Alm long term study

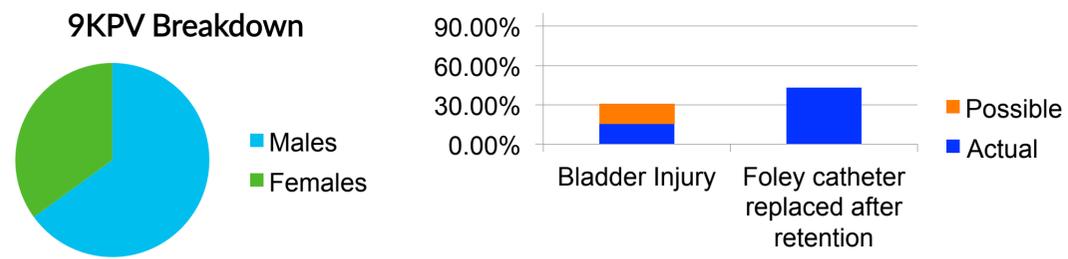
Historical Chart Review

THE PROBLEM SPACE

A B C

Two different protocols in system
Incorrect Charting
Missing Charting
Not following Protocols
However still able to identify high risk group

Results



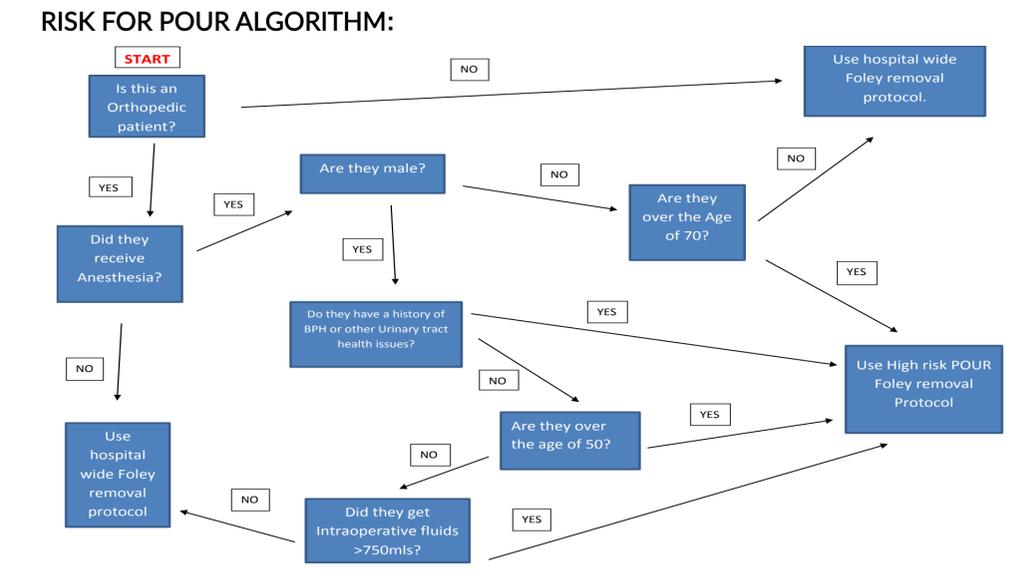
POUR patients needing Foley replacement

- Average straight catheterization was 786mls.
- Average DC time of initial Foley was 18 hours.

Limitations

- Limited funding made larger scale chart review unobtainable.
- Disagreements on POUR risk factors.
- Risk of POUR has abundant research but no standard intervention.
- General lack of awareness of bladder distension injuries and risks.

Conclusions



ADULT STRAIGHT CATHETERIZATION:

- If patient is uncomfortable or is unable to void within 6 hours post indwelling urinary catheter removal, bladder scan to measure urine volume.
 - If urine volume > 600mls, straight catheterize the patient and record amount.
 - If urine volume is > 300mls but <600mls, wait up to 2 hours; if patient is still unable to void or experiences symptomatic retention, straight catheterize patient and record amount.
 - Restart the 6 hour protocol for second and third voiding attempts.
- If unable to void after 3 straight catheterizations, collaborate with the primary team to identify risk factors for urinary retention and appropriate interventions.
 - Identify patient preference for continued straight catheterizations or replacement of Foley catheter and contact the primary team with recommendations.

Implications

- Need to increase knowledge of bladder distension risk and consequences.
- Need for further research on patients who have sustained bladder distension injury after discharge.
- Need to increase awareness on the importance of developing Foley removal protocols that are evidence based on more than preventing CAUTI.