

# Making the Bladder Gladder; Decreasing POUR in the Ambulatory Care Setting

Lori Dager, RN; Denise O'Brien, DNP, RN, ACNS BC; Tracy Buetow, MSN, RN

East Ann Arbor Surgery Center, University of Michigan, Ann Arbor, MI



#### Purpose

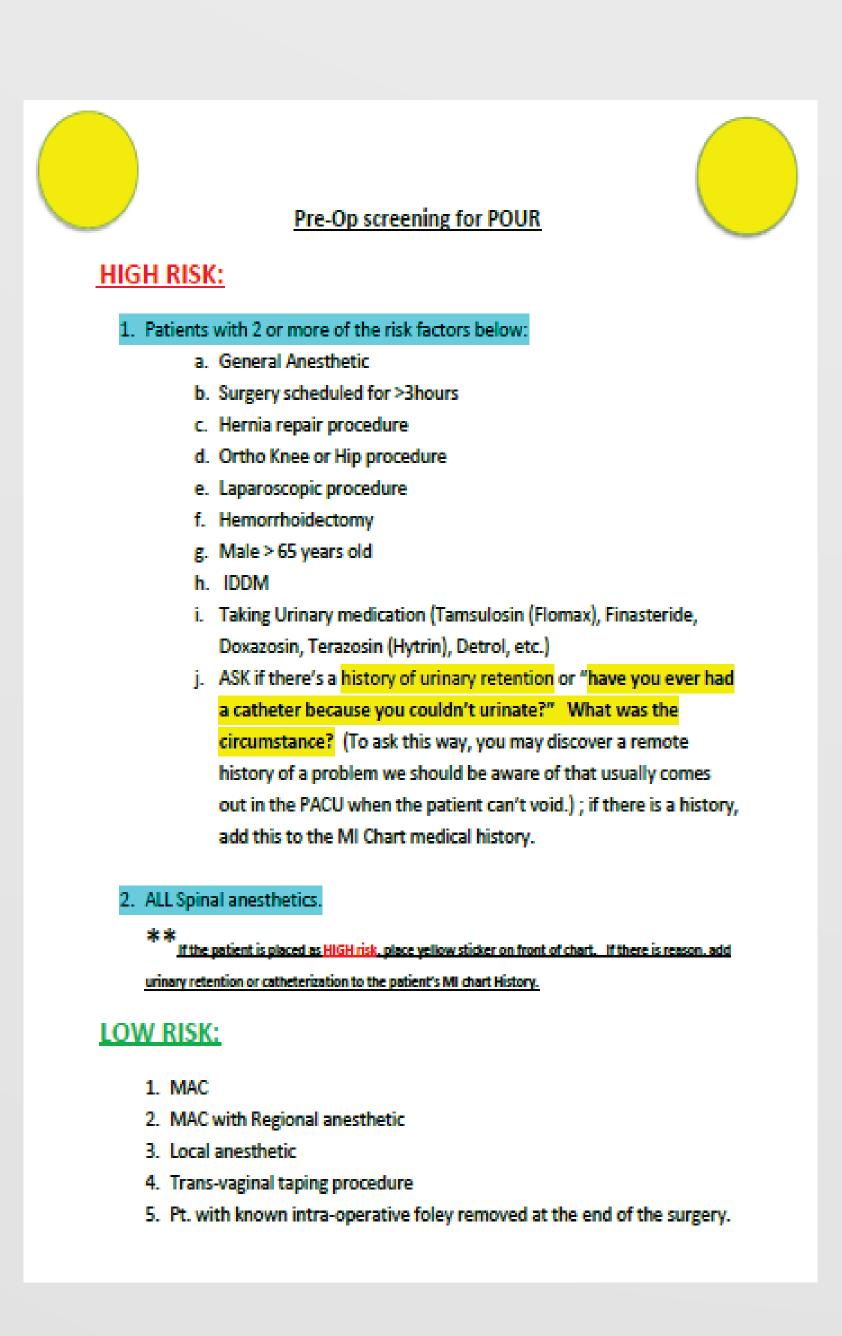
- Because there are no guidelines for patients at risk for postoperative urinary retention (POUR), a gap remains between evidence based practice and the current clinical practice at our 6 operating room suite outpatient surgery center.
- Our goal is to standardize the care of the bladder in the ambulatory surgery patient population and expedite the return of baseline bladder function after surgery through risk identification and guidelines for POUR interventions in the PACU.

## **Synthesis of Literature**

- Systematically identifying high risk patients is pertinent to preventing POUR.
- Staff awareness and identification of POUR has great significance with the increase in outpatient and fast-track surgical procedures.
- The incidence of POUR is unknown; estimates vary between 5-70% due to the lack of uniform defining criteria and patient reporting.
- Several studies have shown good correlation between scanned urine volumes and catheterized volumes.
- The systematic use of the ultrasound bladder scanner in the perioperative period could increase the appropriateness of catheterization, reduce patient discomfort and costs.
- 61% of day-case surgical patients have asymptomatic bladder distention > 600 mL.
- When bladder volumes start to exceed 500 mL, damage to the smooth muscle fibers of the detrusor muscle can occur.
- A single episode of over-distention can produce permanent bladder damage.

## **Practice Change**

A new POUR protocol was developed and piloted from 2/10/16 though 7/31/16. A preoperative screening tool to risk stratify all patients is outlined in figure 1. High risk patients are identified for POUR. If a patient has two or more risk factors they are placed on the POUR protocol preoperatively. On the day of surgery, the patient is labelled and follows the POUR Reduction Algorithm, outlined in figure 2.



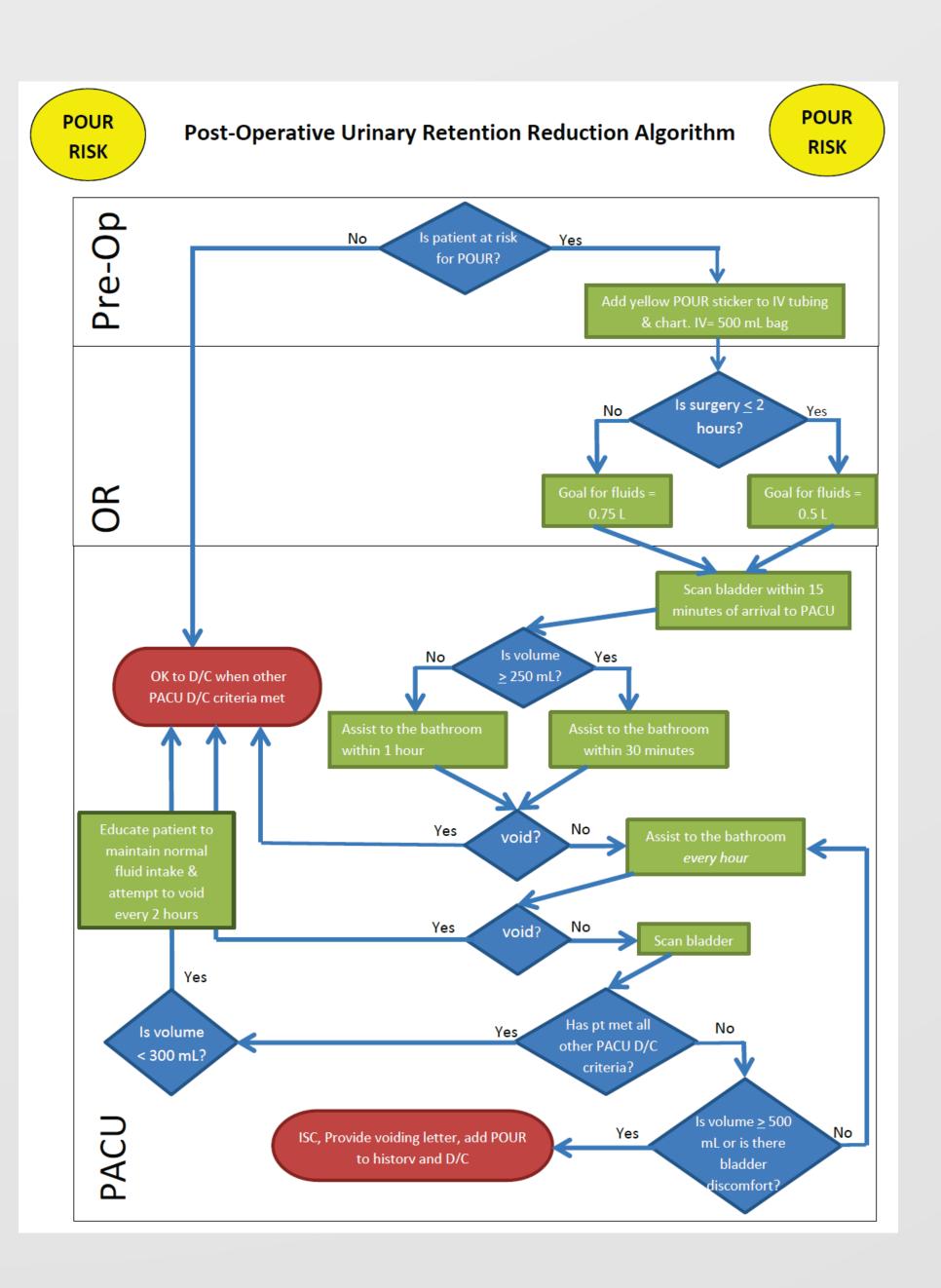


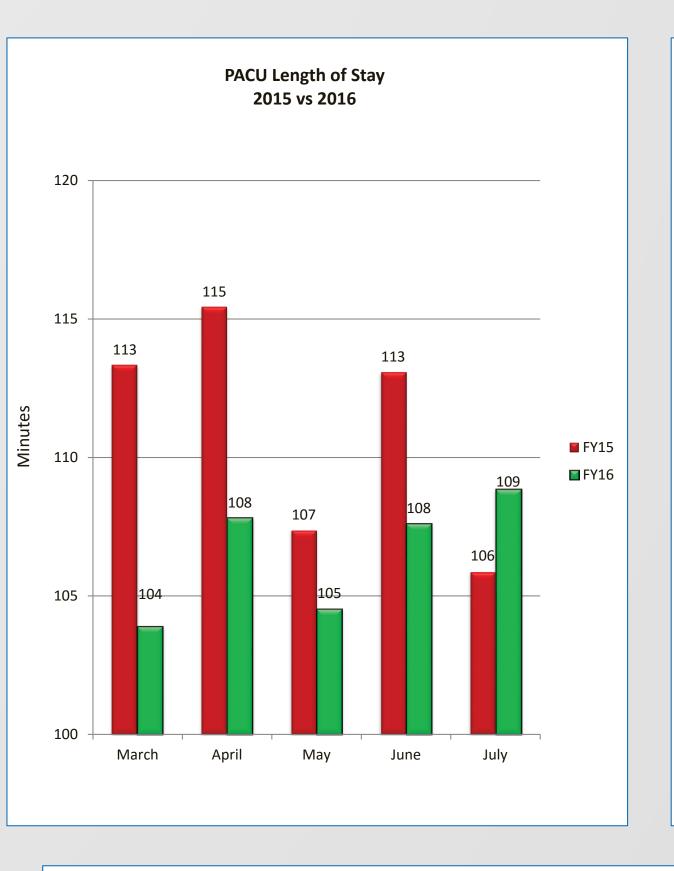
Figure 1 Figure

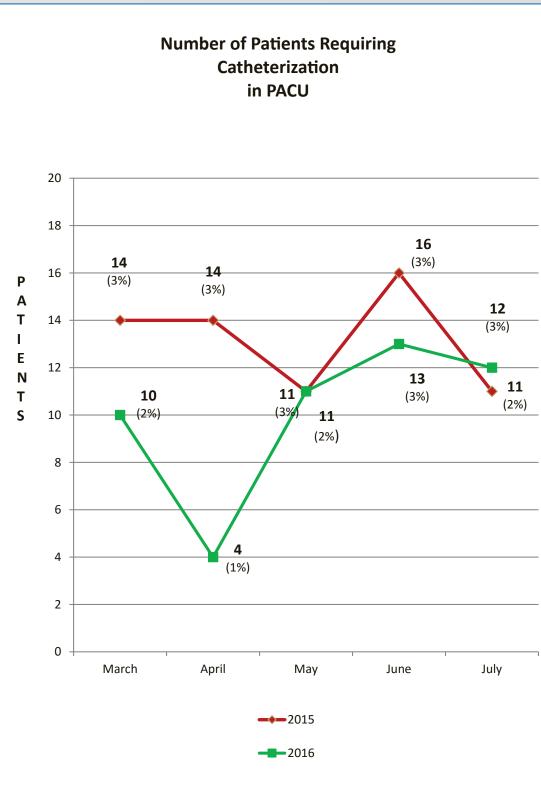
#### Implementation Strategies

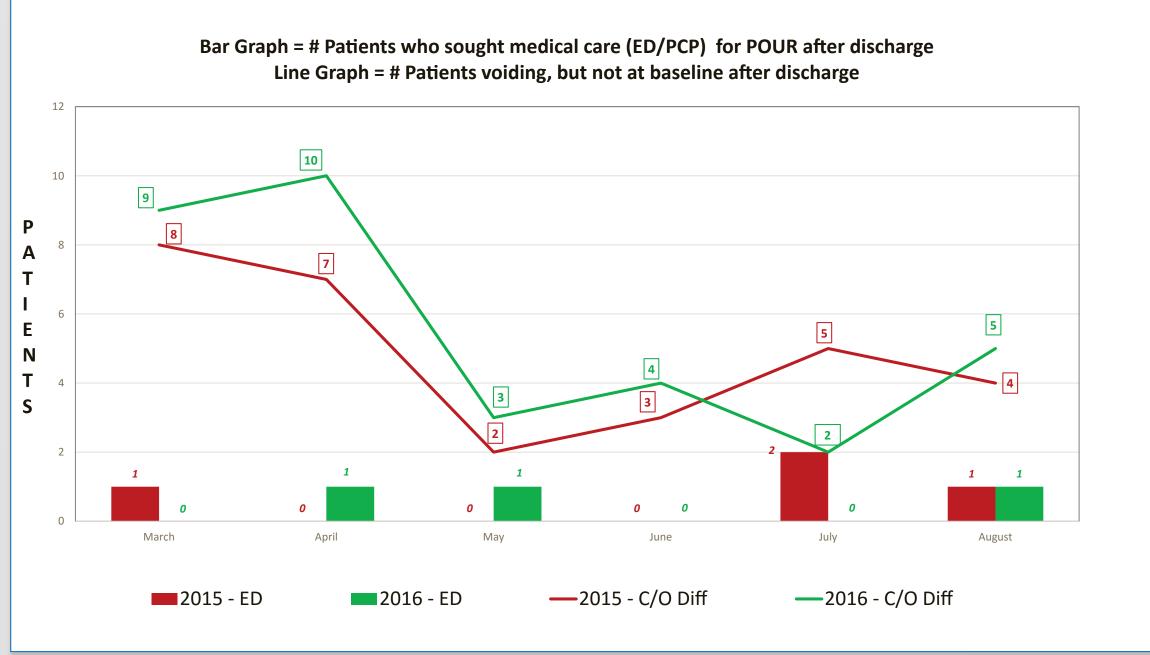
- ✓ PACU culture change to exclude inquiring "do you need to urinate?" or "are you ready to get up to the bathroom?"
- Support & ideas communicated regarding getting patients out of bed to bathroom sooner.
- ✓ Pre-implementation survey sent to nursing staff regarding knowledge & beliefs about POUR.
- ✓ Education provided in staff meetings & in small groups on the units for nursing/anesthesia/surgery residents.
- Weekly chart audits & feedback given on protocol adherence.

#### Results

Data collected in 2015 compared to 2016 revealed a decrease in PACU length of stay, a decreased number of patients requiring catheterization in PACU, and a decrease in patients who sought medical care (ED/PCP) for POUR after discharge.







#### Significance

Identifying high risk POUR patients preoperatively (Figure 1) as a unique population in the PACU allowed recognition of the importance of maintaining a standardized process (Figure 2).

#### Areas of need:

- POUR guideline for patients less than 14 years old.
- Value of a preoperative post void bladder scan.

<sup>References
1. Baldini G, Bagry H, Aprikian A, Carli F. (2009). Postoperative urinary retention: anesthetic and perioperative considerations.
Anesthesiology. 110:1139.
2. Bjerregaard, L, et al. (2015). Incidence of and risk factors for postoperative urinary retention in fast track hip and knee arthropla</sup> 

Medicine. 122 (1), 46-54.

4. Palese A, Buchini S, Deroma L, Barbone F. (2010). The effectiveness of the ultrasound bladder scanner in reducing urinary tract

infections: a meta-analysis. *J Clin Nurse*. 19 (21-22), 2970-9.

5.Steggall M, et al. (2013). Post-operative urinary retention. *Art & science surgical nursing*. 28 (5), 43-48.