

Decreasing Post-Operative Bladder Retention In Rehabilitation Using Nurse-Driven Algorithms

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Background

Rehabilitative musculoskeletal patients average age is ≥ 75 years.

Current available urinary track infection data is related to urinary catheter associated infections (CAUTI). Little tracking is available for non catheter related urinary infections.



Problem:

This population is at high risk for developing bladder retention related to anesthesia and subsequent inactivity, predisposing them to **non-catheter** related urinary tract infections (UTI).

Purpose

Early identification and management of bladder retention in all post-operative musculoskeletal patients in order to decrease the incidence of non-catheter associated urinary tract infection.

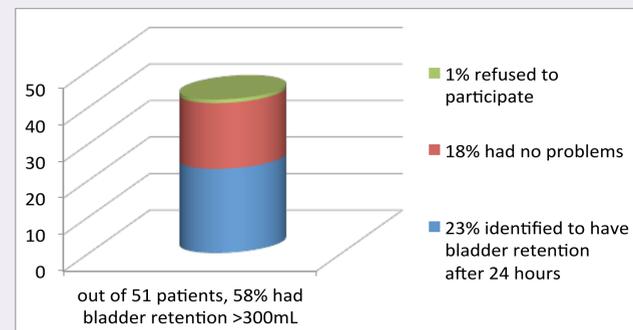
Investigation

Investigation:

- All newly admitted postoperative patients ($n=51$) were monitored for bladder retention for the first 24-48 hours of admission (Jan.19-Feb.18, 2011)
- A bladder scan was performed following the initial void on admission and with each subsequent void for 24-48 hours from time of admission to determine trends.



Findings from initial investigation:



Plan:

Establish a set of interventions to address urinary retention in all post-operative patients within 24 hours of admission to our unit.

Educate nurses and ensure that nursing practices are consistent with early identification of urinary retention using:

- Nursing assessment
- Patient history
- Bladder scan technology

Project Description

Assess:

- Remove urethral catheter upon admission
- After 8 hours:
 - Using bladder scan, check post void residuals during the first 24-48 hours of admission

Intervention:

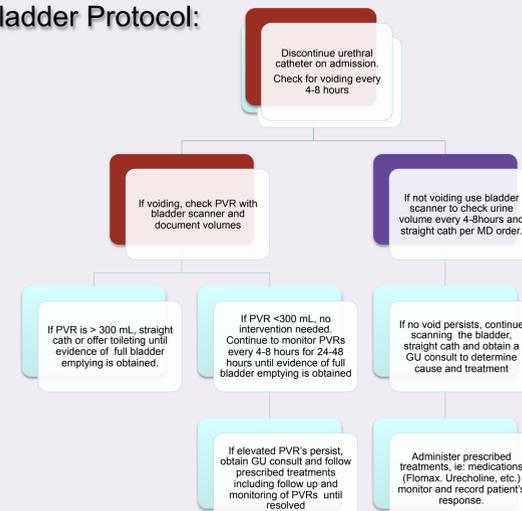
- If residual is greater than 300 mL:
 - Urinary Catheters are routinely discontinued on admission
 - Establish a toileting schedule and provide assistance/prompts and teaching to encourage urination.
 - If PVR ≥ 300 mL, then intermittent urinary catheterization is performed by nursing
 - If retention present and continues past 48 hours, obtain a GU consult.

- Administer meds as prescribed by GU physician

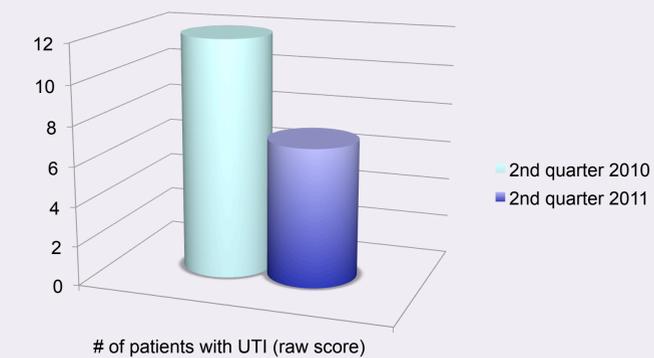
- Straight cath patient for post void residuals > 300 cc or as determined by GU physician

- Continue scanning PVRs until evidence of full bladder emptying is obtained

- Bladder Protocol:



Results



Although strategies for decreasing bladder retention are now fully implemented and are part of routine nursing practice on 4 West, we continue to:

- Collect Data on UTIs
- Monitor/ sustain nursing practice behaviors

Confounders/Implications

- Some patients admitted to our unit are admitted from outside hospitals

- A certain percentage of these patients were admitted with antibiotic treatment for a urinary tract infection:

- There is no information available at the time of admission as to the actual source of the infection although reports indicate them as urinary in nature.

- Discrepancies in the definition of urinary tract infection exist regarding definition of UTI:

- Fever, +UA with elevated white blood cell count, $>100,000$

OR

- UA+ with elevated white blood cell count, with or without fever

- Many geriatric patients do not present with fever, but they may present with confusion, which is **NOT** captured in our current data

Future Plans

Our rehabilitation unit will initiate and develop a nursing protocol for management of post-operative patients with bladder retention hospital-wide