Acute Urinary Retention (AUR)

Introduction

Acute Urinary Retention (AUR) affects men more than women by 13 to 1 [1]. AUR is a sudden and painful inability to urinate. It is a urological emergency. “Mortality in men admitted to the hospital with AUR is high and increases strongly with age and comorbidity” [2].

Risk factors

Male; increasing age; progressive enlargement of the prostate; the higher the International Prostate Symptom Score (IPSS) the higher the risk of developing AUR [3]; surgical procedure of any kind.

Symptoms that may be noticed prior to AUR: symptoms of Benign Prostatic Hyperplasia (BPH) such as difficulty starting urine, weak urinary stream, frequent urination (day and night-time), feeling that the bladder is always full, possible urinary tract infection, pain with urination.

Diagnosis

History and physical examination, bladder ultrasound, amount of urine returned with catheterization, post-void residual.

Cause

Benign prostatic hyperplasia (BPH); urethral stricture; neurological disturbances (Multiple Sclerosis, Parkinson’s disease, spinal cord compression, stroke, etc.); chronic constipation; infection; prostate and bladder tumors causing blockage; prostatic infarct; diabetes mellitus; bedrest; use of certain drugs (such as opioids, anticholinergic, adrenergic, cold preparations, antihistamines); bladder stones.

Treatment

Insert a urinary catheter into the bladder (no need to clamp catheter after a certain amount of urine return [4]). If Benign Prostatic Hyperplasia (BPH), consider starting an alpha-adrenergic blocker and/or 5 alpha reductase inhibitor (may take 3 to 6 months to take effect but only helpful with a prostate greater than 40 grams).

Post-treatment implications

Post AUR, going into Chronic Urinary Retention (defined as ability to void but leave a post-void residual of more than 500ml of urine [1]).

Prevention

Using the IPSS scale at each office encounter; use alpha adrenergic blockers and/or 5 alpha reductase inhibitors if BPH suspected, avoid constipation; when starting an anticholinergic, constipation is a side effect, therefore need to also start a bowel regimen.

Note: When seen by a urologist, urodynamic testing may be done. A Transrectal Ultrasound of the Prostate (TRUS) may also be done at some point.

Research has shown that bacterial colonization of a urinary catheter is significantly greater after 3 days of catheterization and can result in major morbid events such as fever and possible progression to bacteremia/septicemia (Fitzpatrick, John, Kirby, Roger, Management of Acute Urinary Retention, BJU International 2006, 97 Supplement 2, 16-20).

**Drugs include but not limited to: Opioids, Anticholinergics, Cold preparations, Antihistamines**

*** Neurological disturbances such as stroke, cauda equine, multiple sclerosis, etc.

**** BPH: Benign Prostatic Hyperplasia

^TWOC: time without catheter; watchful waiting with post void residual (PVR) check (either by bladder scan or catheter) to ensure emptying bladder well

^^IPSS: International Prostate Symptom Score

^^^IC: The Center for Disease Control (CDC) refers to catheterization as a temporary measure as “intermittent catheterization (IC)”

^^^^WW: Watchful waiting/active surveillance

#: If unable to place catheter, will need surgical intervention first, then trial of void.
Any procedure or practice described in this guideline should be applied by the health care practitioner under appropriate supervision in accordance with professional standards of care used with regard to the unique circumstances that apply in each practice situation. Care has been taken to confirm the accuracy of information presented and to describe generally accepted practices. However, the authors and SUNA cannot accept any responsibility for errors or omissions or for any consequences from application of the guideline and make no warranty, expressed or implied, with respect to the contents of the guideline.

The Society of Urologic Nurses and Associates (SUNA) is a professional organization committed to excellence in clinical practice and research through education of its members, patients, family, and community.

© 2008 Society of Urologic Nurses and Associates
Reviewed 2016

For more information, contact:
Society of Urologic Nurses and Associates
East Holly Avenue Box 56
Pitman, NJ 08071-0056
Phone 888-TAP-SUNA or 856-256-2335
suna@ajj.com
www.suna.org