

# Approach to Patients with Urinary Retention

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- ▶ Evaluation should begin with a detailed history to elucidate the precise etiology
- ▶ Pay attention about....
  - ▶ Course of development including onset and progression.
  - ▶ Have you any fever?
  - ▶ Any previous episodes? Any history of BPH?
  - ▶ LUTS?
  - ▶ Past medical history, neurological disease, other medical conditions
  - ▶ Pregnancy and childbirth history

# History taking

- ▶ Take the drug history.
  - ▶ Over-the-counter and prescription medicines
- ▶ Ask about alcohol, constipation, long travel, low fluid intake, high fluid intakes
  - ▶ Eating and drinking habits
  - ▶ Bowel habits

# Examination

- ▶ Is the patient warm?-fever
- ▶ Abdominal
  - ▶ A tender enlarged bladder with dullness to percussion well above the symphysis pubis to the level of the umbilicus
- ▶ Genital
  - ▶ Look for phimosis, meatal stenosis
  - ▶ Look for signs of infections in genitalia

# Examination-Cont'ed

- ▶ Do a DRE in males
- ▶ In females
  - ▶ Do a Vaginal examination and look for POP and pelvic masses
  - ▶ Look for vulvar infections and inflammations, gravid uterus
- ▶ Do a neurological examination to detect neurogenic bladder
- ▶ Postvoid residual urine measurement
  - ▶ Use a catheter or ultrasound to measure the postvoid residual urine

# Findings that suggest Etiologies of urinary retention

Potential etiology	History	Physical examination
<b>Men</b>		
Acute bacterial prostatitis	Fever, dysuria, rectal or perineal pain	Tender, boggy, warm prostate and possible penile discharge
Benign prostatic hyperplasia	Previous history of urinary retention	Enlarged, firm, nontender, non-nodular or normal prostate examination
Phimosis, paraphimosis, or edema from vacuum erection device	Pain, erythema, swelling of foreskin and/or penis	Edema of penis without retractable foreskin
Prostate cancer	Asymptomatic; weight loss; constitutional signs and symptoms	Normal or enlarged prostate with or without palpable nodules

# Findings that suggest Etiologies of urinary retention

<b>Women</b>		
Cystocele; rectocele; uterine prolapse	Pelvic pressure; palpation of pelvic organ from vagina	Prolapse of bladder, rectum, or uterus
Uterine fibroid, pelvic mass or malignancy	Pelvic or lower abdominal pain, dysmenorrhea, bloating	Palpable uterus, ovaries, or adnexa
Vulvovaginitis	Vaginal discharge, vaginal itching, dysuria	Inflamed or erythematous vulva or vagina, vaginal discharge

# Findings that suggest Etiologies of urinary retention

<b>Both</b>		
Advanced gastro-intestinal tumor or malignancy	Constitutional symptoms; abdominal or pelvic pain or distention; rectal bleeding	Palpable abdominal or pelvic mass; positive fecal occult blood test; palpable rectal mass
Bladder tumor	Painless hematuria	Gross hematuria with or without clots
Cystitis, urethritis; urinary tract infection; sexually transmitted infection; herpes infection	Dysuria; hematuria; fever, back pain, constitutional symptoms; urethral discharge; genital rash or lesions; recent sexual activity	Suprapubic tenderness; costovertebral angle tenderness; urethral discharge; genital vesicles
Fecal impaction	Constipation	Abdominal or pelvic distention; dilated rectum; retained stool in vault
Neurogenic bladder	Existing or newly diagnosed neurologic disease; diabetic neuropathy; multiple sclerosis; Parkinson disease; stroke; overflow incontinence	Generalized or focal neurologic deficits relative to S1-S5 distribution

# Blood tests

- ▶ CBC
- ▶ BUN, Creatinine, eGFR; Electrolytes
- ▶ Serum blood glucose
- ▶ PSA
  - ▶ Elevated in the setting of AUR so is of limited use at this stage

# Imaging studies

- ▶ MRI of the spine

- ▶ Evaluate for lumbosacral disk herniation, cauda equina syndrome, spinal tumors, spinal cord compression, MS

- ▶ Brain MRI or CT

- ▶ Evaluate for intracranial lesions including tumor, stroke, MS

# Imaging studies

- ▶ Pelvic US; Abd & Pelvic CT
  - ▶ Evaluate for suspected pelvic, abdominal or retroperitoneal mass or malignancy causing extrinsic bladder neck compression
- ▶ Renal and bladder US
  - ▶ Measure post-void residual urine; evaluate for bladder and urethral stones, hydronephrosis, and upper urinary tract disease

# Other Diagnostic Testing

- ▶ Cystoscopy; Retrograde cystourethrography
  - ▶ Evaluate for bladder tumor, bladder and urethral stone, stricture or inflammation
- ▶ Uroflowmetry
  - ▶ Measures the amount of urine released from body and how quickly the urine comes out
- ▶ Urodynamic study
  - ▶ Group of tests that look at how well the bladder, sphincters, and urethra are storing and releasing urine
  - ▶ Differentiates obstruction from inefficient bladder contraction



Thank  
you