UROLOGY TIPS

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OBJECTIVES

- Become familiar with different types of catheters
- Initial management of urinary retention
- Initial management of hematuria
- Use of suprapubic catheters

72 year old male is admitted for acute decompensated heart failure EF 25%. He was started on double his home dose of furosemide IV. Night float is called for acute lower abdominal pain.

What additional information would you like to know?
What would you like to do?

On further questioning, you find that that he has had urinary frequency and urgency for a while as well as nocturia. He has difficulty emptying his bladder and his urinary stream is weaker than previously. He denies hematuria. He denies constipation. He's been having increasing abdominal pain since the IV furosemide was started.

His nurse reports that his urine output is 30cc/hour

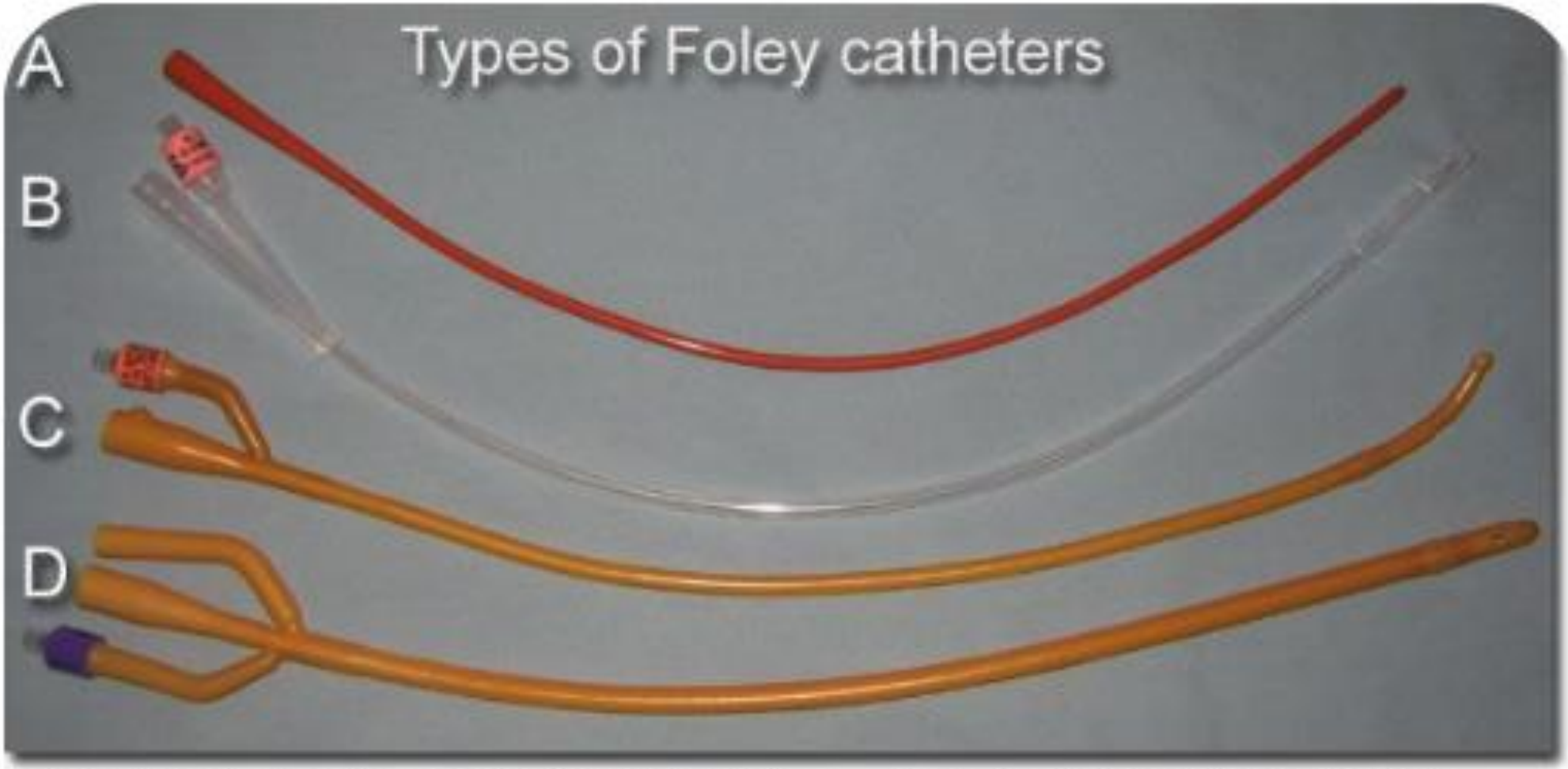
PVR is 600 cc

URINARY RETENTION

- Straight cath or foley placement for urinary retention >400 cc’s
- If you discover blood clots upon catheterization as the cause of retention, consider insertion of 3-way irrigation catheter/CBI
- Bladder scans typically performed q 4-6 hours
- Consider patients' clinical situation when considering the significance of PVR
- Example: previously anuric pt. on HD now s/p renal tx will have lower bladder capacity than average patient
- Initiation of alpha blocker therapy often facilitates successful voiding trials, especially in males (tamsulosin)

CATHETER BASICS

- Sizes 8Fr-36 Fr
- Higher French=bigger catheter=more rigid (note this is the opposite of IVs where lower French is larger)
- 16 Fr “standard size” in Foley catheter kits stocked on floors
- NEVER REMOVE A DIFFICULT FOLEY of foley placed by urology in the afternoon/evening without urology permission
- Never remove a red catheter (Council tip) without urology permission

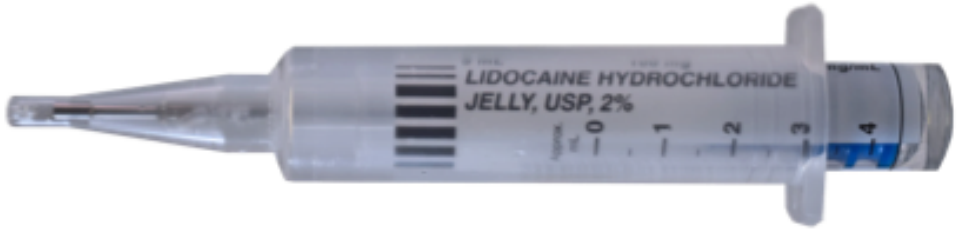


https://www.pinterest.com.au/pin/358739926568373469/

URO-JET®

Lidocaine HCl Jelly, USP, 2%

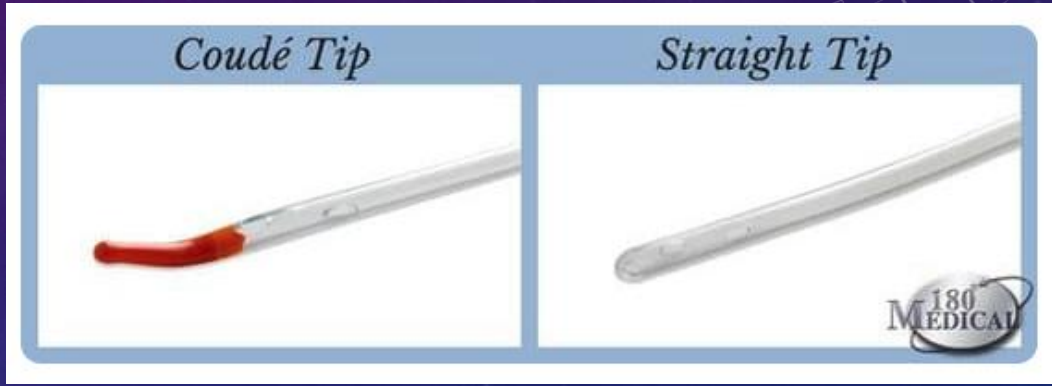
Prefilled Disposable Syringe



- Facilitates passage of difficult catheter placement
- Improves patient comfort
- stocked in Pyxis on all nursing units as “override” option
- Requires MD order to use

COUDE TIP CATHETER

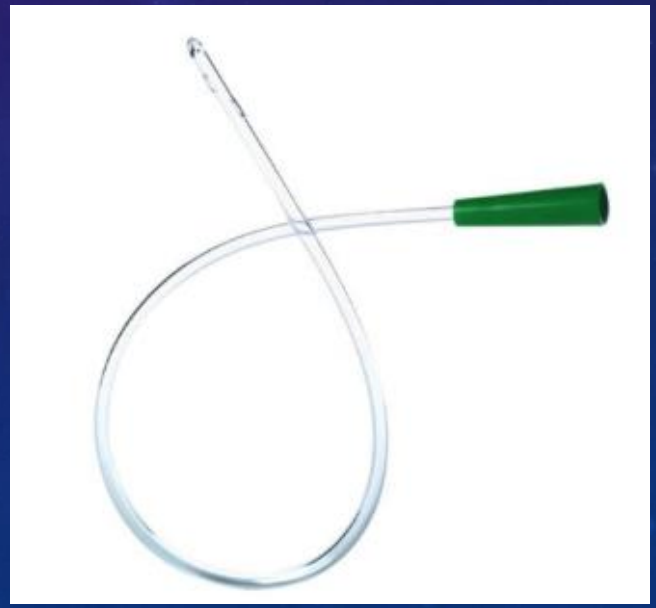
- Curved at 45-degree angle at tip
- FIRM
- Ideal for men age >50 or with history of BPH
- Consider starting this catheter in a high-risk male patient
- Keep curved tip pointed up towards ceiling during insertion (allows catheter to follow normal male anatomy)
- Nurses can insert



https://www.180medical.com/blog/why-do-i-need-to-use-coude-catheters/

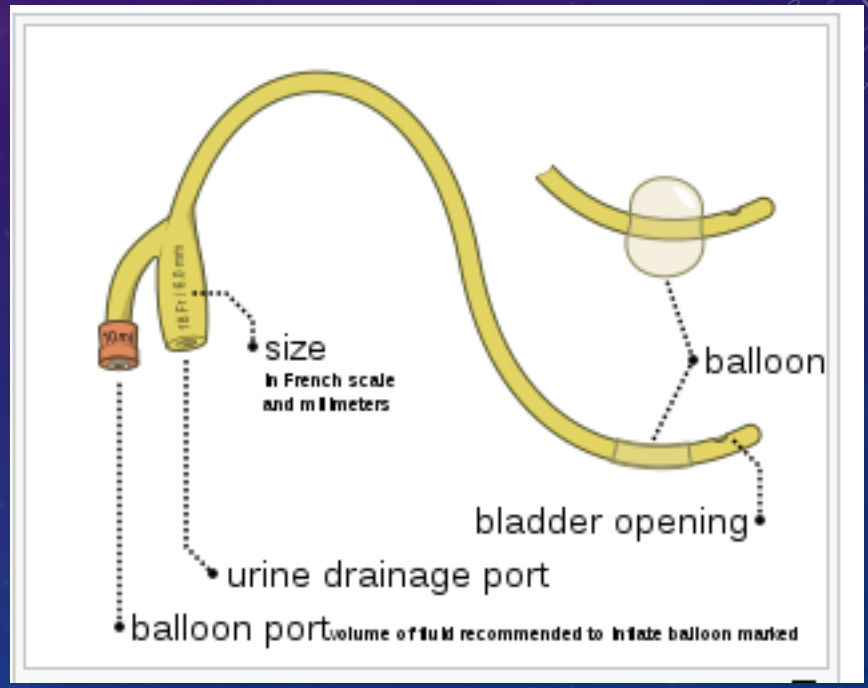
STRAIGHT CATHETER

- No balloon on end
- Used once
- Color of the funnel indicated french
- Can be used by patients at home to self cath
- Catheter itself may be clear or red (red is more flexible)
- Coude tip is available



REGULAR/STANDARD 2-WAY FOLEY

- Drainage port and balloon port
- Straight tip



https://en.wikipedia.org/wiki/Foley_catheter

COUNCIL TIP CATHETER

- PLACED BY UROLOGY
- INSERTED OVER A WIRE
- DO NOT REMOVE THIS CATHETER WITHOUT APPROVAL FROM UROLOGY

TROUBLESHOOTING CATHETER PLACEMENT

- Distal = able to advance catheter “a few centimeters” before resistance (probable stricture), try smaller catheter (lower French)
- Proximal = able to advance catheter at least 2/3 way, resistance before HUB (ddx: BPH, bladder neck), try coude
- Uncomfortable=try urojet

WHAT UROLOGY NEEDS TO KNOW WHEN YOU CALL FOR DIFFICULT FOLEY

- Number of attempts and what type of catheter used
- What is the level of the problem? Distal or proximal
  - Cannot visualize urethral meatus (phimosis {tight foreskin}, edema, retracted female urethra)
  - Meatus: cannot insert catheter past urethral opening (meatal stenosis, retromeatal stricture)
- Relevant patient history:
  - Prior prostate surgery or radiation (TURP or prostatectomy) = likely bladder neck contracture
  - History of urethral stricture, gonococcal urethritis, or urethral trauma = likely stricture

Foley catheter is successfully inserted and drains out 500 cc of clear urine immediately and subsequently 100 cc/hour. Towards the end of your night float shift the nurse calls you again saying that the patient is having lower abdominal pain and penile pain and he desperately wants the catheter removed.

What do you think is happening?
What should you do next?

CONSIDER BLADDER SPASMS

- Symptoms: penile pain (referred from bladder), bladder pain, urine leakage around catheter, catheter expelled
- Treatment: use smallest sized catheter and balloon
- Medications: oxybutynin, mirabegron, belladonna (rectal suppository)

SENDING PATIENTS HOME WITH FOLEY

- Urinary retention patient often sent home with foley in place
- Prolonged bladder rest/decompression after large volume urinary retention
- Voiding trial in GU clinic
- Outpatient cystoscopy and functional urodynamic to evaluate bladder voiding capacity
- Most patients DO NOT require home heath when discharging home with foley
- Bedside nurse can provide education of hygiene, catheter care, emptying drain bag and can offer patient leg bag vs night bag

72 year old male with prostate cancer treated with radiation presented with frequency, urgency and lower abdominal pain. He was admitted to the OOU with possible urinary tract infection. The nurse calls night float for hematuria. You are concerned you may need to call urology.

Before you call urology,
What information do you need to get?
How would you consider treating?

HEMATURIA-DESCRIBE BY BEVERAGE COLOR IT RESEMBLES IN THE TUBING





A Visual Scale for Improving Communication When Describing Gross Hematuria

Thomas E. Stout, Michael Borofsky, Ayman Soubra

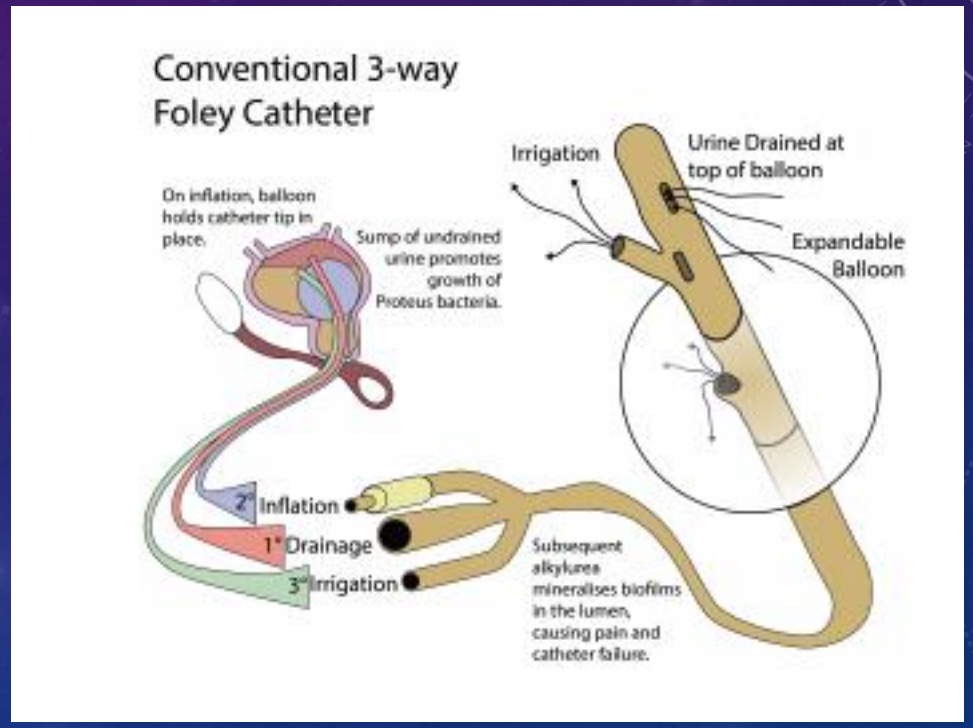
Hematuria Grade	I	II	III	IV	V
					
Different words used to describe urine color	Clear Clear pink Light Peach Pink lemonade Pigmentless	Clear Clear pink Light red Pale red Pink lemonade Peach Rosé Watermelon	Bloody Cherry Grapefruit Kool-Aid Pink lemonade Strawberry Pink Watermelon	Berry Bloody Cherry Fruit punch Kool-Aid Raspberry Red Strawberry Watermelon Wine	Bloody Cherry Red Frank blood Ketchup Magenta Mauve Sanguineous Strawberry Tomato Wine

WHAT TO DO WHEN YOUR PATIENT HAS HEMATURIA

- Determine severity
- Microscopic hematuria does not require an inpatient consultation and can be deferred to outpatient GU clinic
- Mild hematuria (“pink lemonade”) without significant blood loss or evidence of urinary retention may not necessarily require indwelling foley catheter placement
- If clots or retention → manual bladder irrigation and CBI
- Titrate CBI drip to keep output clear to light pink

3-WAY BLADDER IRRIGATION CATHETER

- Treatment of hematuria with continuous bladder irrigation (CBI)
- Also has metal coil within catheter to facilitate manual irrigation of large clots
- Once CBI stopped, the irrigation port is capped
- Patients can be discharged with this catheter in place



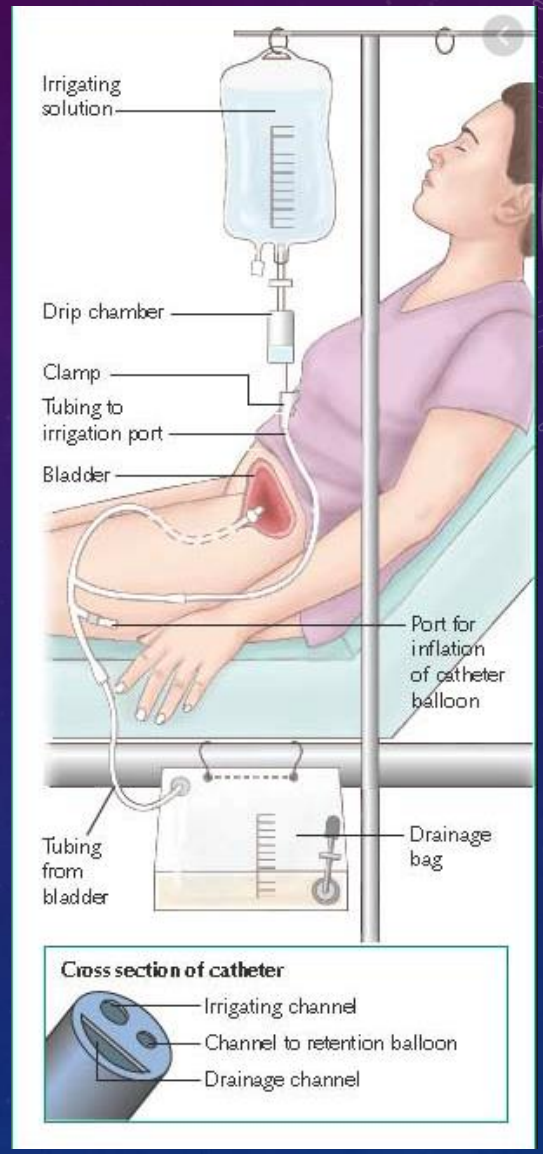
http://nexacath.com

MANUAL BLADDER IRRIGATION

- Should always be performed prior to initiation of continuous bladder irrigation
- Using 60cc toomey/piston syringe, through main drainage port of foley catheter (disconnect tubing/bag)
- Irrigate fluid in, then aspirate to evacuate clots; repeat until clots have resolved

CONTINUOUS BLADDER IRRIGATION

- Initiating continuous bladder irrigation (CBI) with retained clots in bladder will increase risk of catheter clotting off
- Hematuria catheter → metal coil within catheter to prevent collapse while aspirating large clots
- Titrate CBI drip to keep output clear to light pink



https://nursekey.com/continuous-bladder-irrigation/

EVALUATION OF HEMATURIA

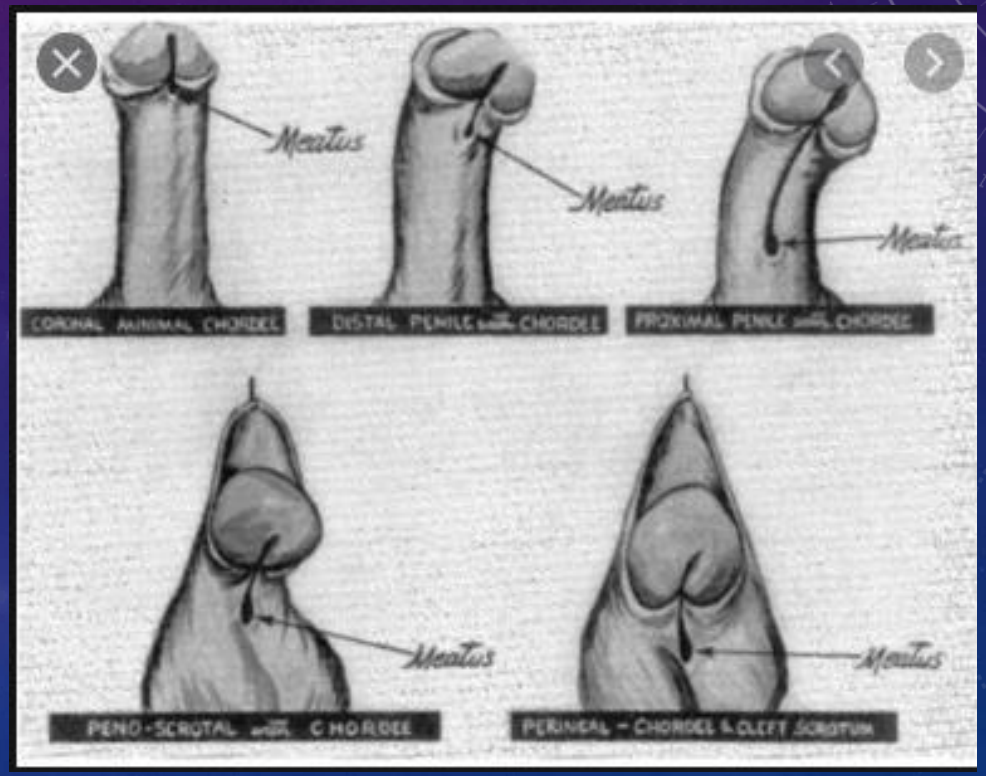
- CT Urogram (CT Abd/Pelvis w+w/o IV contrast, and delayed phase; specify CT Urogram in order comments)
- UA with reflex to culture if indicated
- Urine cytology
  - Cystoscopy
    - Often deferred to outpatient setting due to poor quality of bedside cystoscopes for diagnostic cystoscopy
    - Inpatient cystoscopy with clot evacuation and fulguration occasionally performed in OR for significant hematuria with acute blood loss anemia

30year old male paraplegic from GSW to spine has a chronic foley catheter and is admitted with an infected decubitus ulcer. Residents are concerned that there is something wrong with his penis, that he may have cancer because there are erosions.

What do you think has happened?

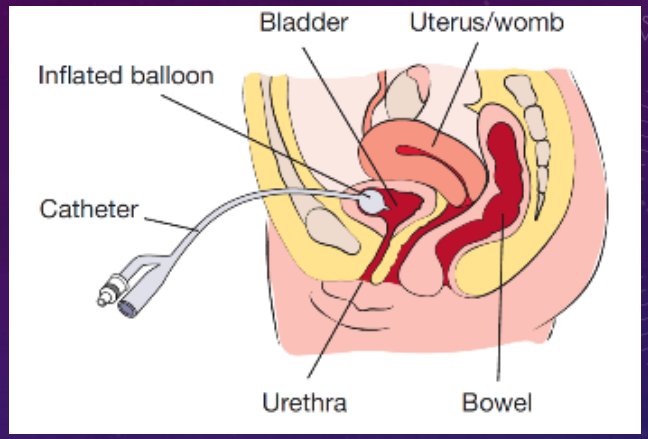
LONG TERM MECHANICAL COMPLICATIONS OF FOLEY CATHETERS

- Irreversible urethral erosion/traumatic hypospadias
- Erosions problematic in women too
- URINARY INCONTINANCE



https://www.auajournals.org/doi/10.1016/j.juro.2016.10.094

SUPRAPUBIC CATHETERS



- Recommended for any patient with confirmed neurogenic bladder or long-term need for urinary catheter, if unable to perform clean intermittent catheterization
- SP catheters can be placed under imaging guidance by IR department
- Initial exchange of newly placed SP catheter to be performed by Urologist 4-6 weeks post placement
- Subsequent SPC exchanges can be performed by patient, family, home health nurse, urology clinic, etc
- Exchange of chronic SPC is within RN scope of practice; Banner requires they be evaluated and signed off for competency

https://healthywa.wa.gov.au/Articles/U_Z/Your-suprapubic-catheter

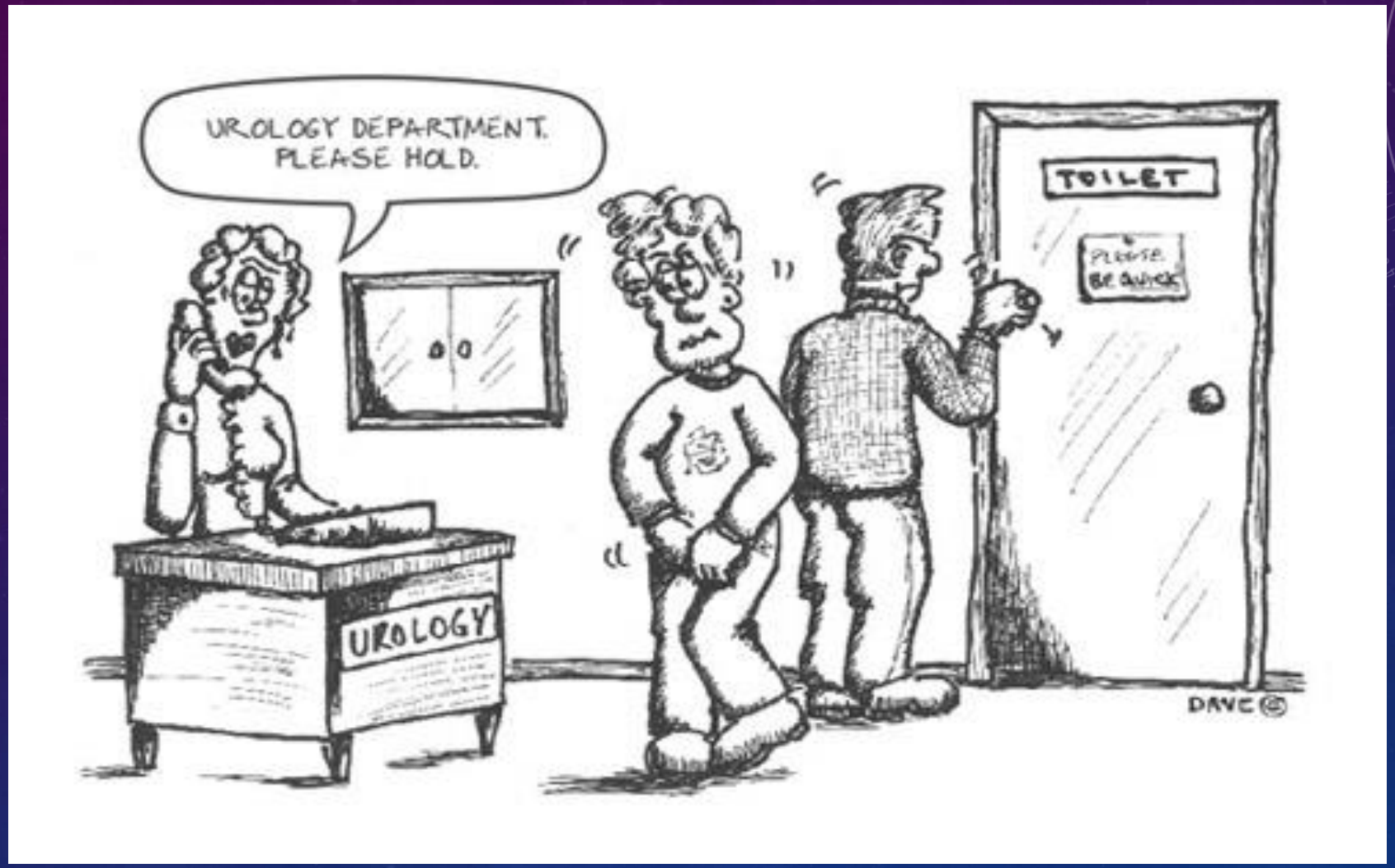
UROLOGIC EMERGENCIES

- Obstructive uropathy
  - Lower urinary tract obstruction
  - Gross hematuria with clot retention
  - Ureteral obstruction
- Priapism
- Fournier's gangrene
- Paraphimosis-occurs when foreskin is pulled back behind the glans and not replaced in anatomic position
- Testicular torsion
- Trauma
  - Bladder rupture
  - Urethral trauma
  - Renal trauma
  - Ureteral trauma
  - Testicular trauma

https://www.auanet.org/education/auauniversity/for-medical-students/medical-students-curriculum/medical-student-curriculum/urologic-emergencies

CALL UROLOGY FOR EMERGENCIES!

YES, URINARY RETENTION IS AN EMERGENCY, IT IS VERY PAINFUL WHEN ACUTE!


UROLOGY DEPARTMENT.
PLEASE HOLD.
TOILET
PLEASE
BE QUICK
UROLOGY
DAVE ©