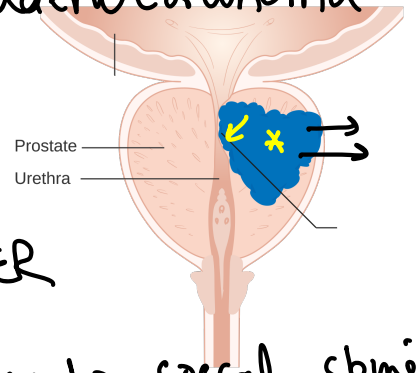
# Prostate cancer

Leading cancer in men in world > 50 years of age is Testosterone dependent tumor

MC site: Posterior lobe

Histology: adenocarcinoma




Estrogen dependent tumors: B.O.E

* BREAST CANCER
* Ovarian CANCER
* Endometrial CANCER

Originates from

Modes of spread

1. Direct invasion ✓
2. Metastasis to lumbosacral spine ✓ via Batson plexus To lumbo-sacral spine

Q: Can it occur in men undergone T.U.R.P for BPH?: yes

median lobe removal

Risk factors; Age, smoking and exposure to heavy metals

Assessment findings

1. Hematuria
2. * DRE: pea size nodularity with stony hard consistency
3. Weight monitoring | CACHEXIA
4. Back pain: severity rating WONG BAKER Pain Rating 
5. Prostrate specific antigen >4ng/mL : screening
6. TRUS: IOC Transrectal US guided Bx
7. MRI pelvis staging
8. PET/CT distant mets

PSA velocity 

"GLEASON SCORE": grading prostate cancer based

on histological pattern

## Non surgical interventions in prostrate cancer

Hormonal manipulation or androgen suppression

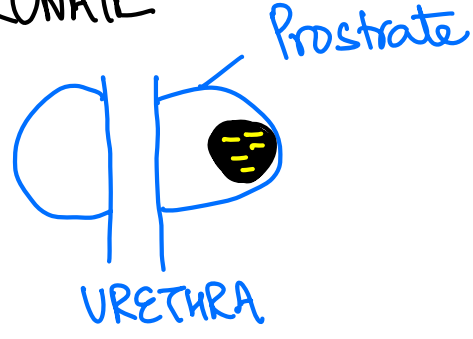
* Androgen deprivation therapy

LEUPROLIDE ]
GOSERELIN ]
LH ↓ Testosterone ↓

* Pain medication
  TRAMADOL, FENTANYL, BUPRENORPHINE

✓ Bisphosphonates : IBANDRONATE
OSTEOPOROSIS

✓ Brachytherapy I-125




✓ Chemotherapy

2 way latex foley cath: 10 ml balloon inflation c DW > Saline

# Surgical interventions in prostrate cancer

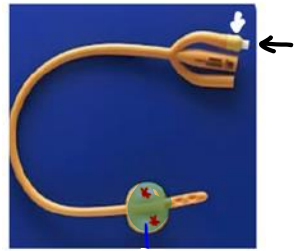
1. Radical prostatectomy
2. TURP

= Prostate resection + seminal vesicles resection

* Continuous bladder irrigation — PREVEN

Rationale of use; clot retention and cysto spasm occurs

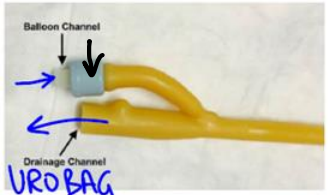
1. 3 way foley/ IUC
2. Retention balloon volume 30-45ml
3. Fluid used: NS > 1.5% glycine



DW not recommended due to

→ WATER INTOXICATION ( absorbtion via prostatic veins & can lead to seizures)

Fo




2 way


3 way

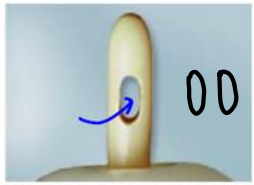
14 G → * ORY

foley Cath

| | | | |
|---|---|---|---|
| | White | 12 → | 4.0 |
| | Green | 14 | 4.7 |
| | Orange | 16 | 5.3 |
| | Red | 18 → | 6.0 |
| | Yellow | 20 | 6.7 |
| * | Purple | 22 | 7.3 |
| * | Blue | 24 | 8.0 |

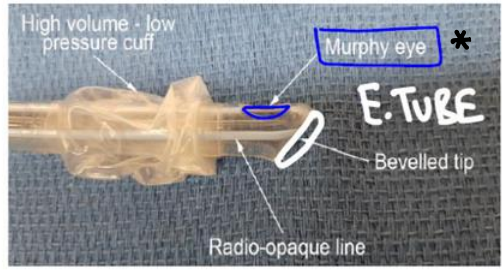
1 Fr = 0.33 mm

* external diameter of urethra

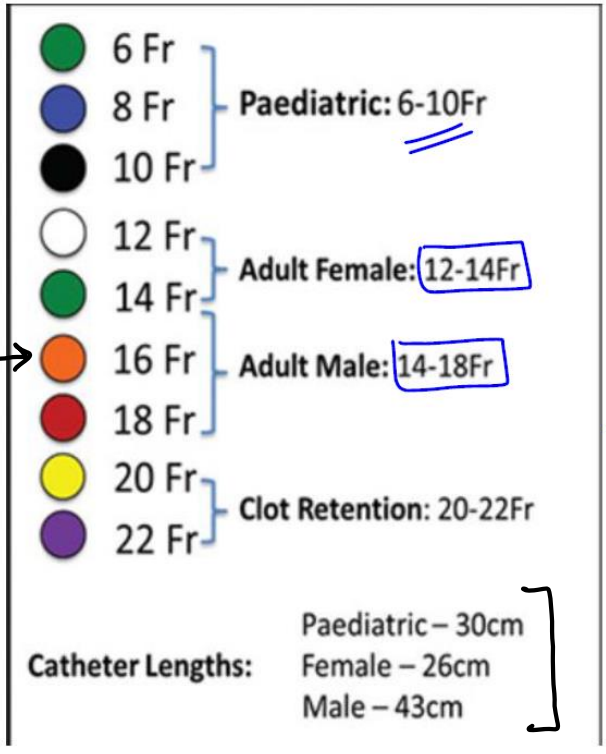



The catheter should have a smooth surface with two drainage eyes at the tip that allow for urine drainage.

Drainage eyes are placed either laterally or opposed. Opposing drainage eyes generally facilitate better drainage.




* Color coding of foley's and Ryle Tube = same



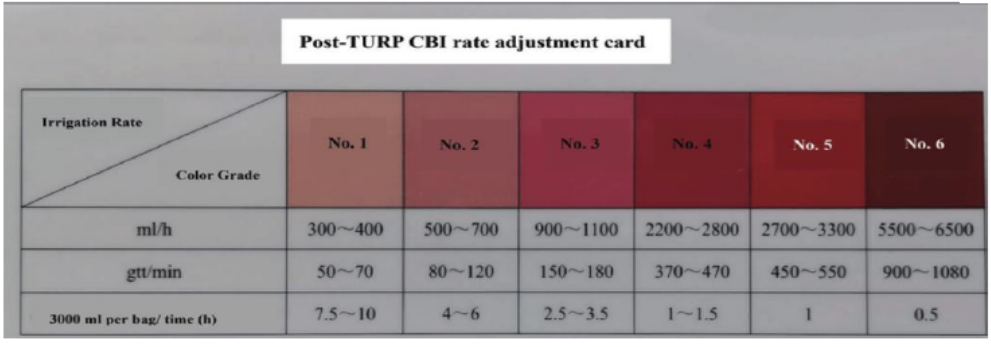

* Latex foley changed after every 2 wks

* Silicon foley changed after every 3-4 wks

## Size Considerations

- The routine use of large-size catheters diameters can cause more erosion of the bladder neck and urethral mucosa, can cause stricture formation, and do not allow adequate drainage of peri-urethral gland secretions, causing a buildup of secretions that may lead to irritation and infection.
- Larger Fr sizes (e.g., 20-24 Fr) are most commonly used for drainage of blood clots.
- The most commonly utilized indwelling transurethral and suprapubic catheters range from 14 to 16Fr in both adult females and males.
- A 14 or 16 Fr is also the standard catheter in most commercially available IUC insertion kits or trays.
- In adolescents, catheter size 14 Fr is often used but for younger children, pediatric catheter sizes of 6-12 Fr are preferred.

# "Continuous bladder irrigation"



**Post-TURP CBI rate adjustment card**

| Irrigation Rate / Color Grade | No. 1 | No. 2 | No. 3 | No. 4 | No. 5 | No. 6 |
|---|---|---|---|---|---|---|
| ml/h | 300~400 | 500~700 | 900~1100 | 2200~2800 | 2700~3300 | 5500~6500 |
| gtt/min | 50~70 | 80~120 | 150~180 | 370~470 | 450~550 | 900~1080 |
| 3000 ml per bag/ time (h) | 7.5~10 | 4~6 | 2.5~3.5 | 1~1.5 | 1 | 0.5 |

1. Tape catheter to abdomen and leg
2. Run solution till urine is Pink
3. * If catheter obstruction is suspected, inform PHCP Clot colic
4. Catheter is usually removed in 24-48 hours
5. Later Satisfactory urine output 3L/ day
6. Ask to drink 3L water every day but before 8 pm
7. Sexual activity can be resumed after 6 weeks