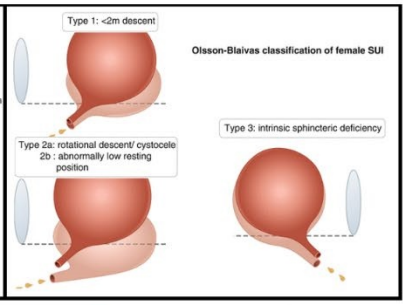
Urology CHEAT SHEETS — URODYNAMICS PRACTICAL GUIDE

Mohammed Almusimie, @malmusimie
Al-Ahli Hospital
Doha, Qatar

Catheter placement

	Male	Female
Vesical	8cm+penile length	8-10cm
Abdominal	10-15 cm	10-15 cm

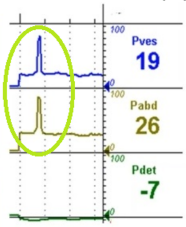
Resting pressures:



Tracing Problem
- Baseline Pabd is not equal to Pves

Possible cause
- Catheter may not be in the correct position.

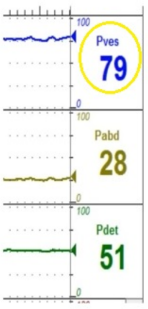
Check/corrective action(s)
- Check catheter placement (abdominal catheter first) and adjust as necessary by pulling the catheter back and forth about 1-2 cm to create a tunnel through the pocket of stool
- If this does not work, ask the patient to cough. If there is equal transmission of cough to bladder and rectal reading shown in this tracing, then equalize Pabd to Pves.



Tracing Problem
- Resting Pves too high

Possible cause
- Catheter may be in the urethra or resting against the bladder wall.
- Catheter may be overcharged

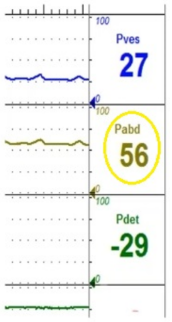
Check/corrective action(s)
- Gently advance and/or twist the catheter and move it away from the urethra/bladder wall.
- Slide transducers to OPEN ask patient to cough several times, rezero Pves (only) slide transducer to CHARGE
- Ask patient to cough/ Valsalva to ensure proper transmission of pressure.



Tracing Problem
- Resting Pabd is too high

Possible cause
- Catheter may be against rectal wall/feces or in rectal sphincter.
- Patient may be experiencing a rectal vault contraction.
- Catheter may be overcharged

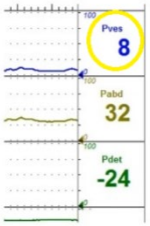
Check/corrective action(s)
- Gently advance and/or twist the catheter and move it away from the rectal wall or through the stool.
- Open the transducer from the charged position have the patient cough (bear down to deflate the balloon) and follow the procedure to zero the catheter and charge to see if this corrected the problem.
- Pause investigation (stop pump) and wait for contractions to subside, adjust catheter in and out or bring back to 10 cm to decrease peristalsis.
- If there is an equal transmission of cough to bladder and rectal reading, equalize Pabd to Pves



Tracing Problem
- Resting Pves is too low

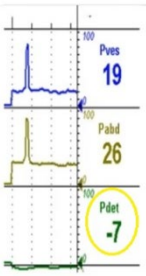
Possible cause
- There may be a leak in the connection

Check/corrective action(s)
- Tighten the connections between the Transducers cables and catheter and open and recharge.
- If there is an equal transmission of cough to bladder and rectal reading, adjust catheter to get the reading +/- 5 of each other then equalize Pabd to Pves.



Tracing Problem
- Negative Pdet

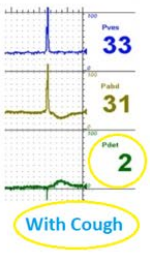
Check/corrective action(s)
- Check catheter placement first by asking patient to cough/ Valsalva. Check for equal pressure transmission.
- Change position of patient (from lying to sitting) if appropriate.
- Manipulate the catheter by 1-2cm increments to create a tunnel in the stool to illicit better pressure transmission.
- Equalize Pdet=Pves if appropriate only after a position change/ at the beginning of the study. The equalize function MUST be used very judiciously.



Tracing Problem
- Pdet decrease after the cough.

Possible cause
- Pabd sensor may be too close to the rectal sphincter or in a gas pocket

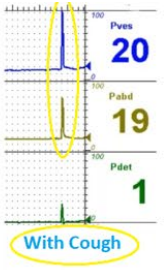
Check/corrective action(s)
- Gently advance the abdominal catheter inside the rectum
- Ensure the catheter is taped securely in place as close to the insertion spot as possible



Tracing Problem
- Pves/Pabd cough spikes at different heights

Possible cause
- Either catheter may not be in correct position. Vesicle catheter may be in the urethra or up against bladder wall or Pabd may be in stool.
- Pabd may need to be tightened and recharged.

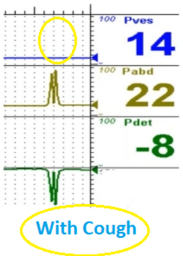
Check/corrective action(s)
- Check catheter placement and adjust as necessary.
- Adjust Pabd in and out.
- Pabd lure lock may need to be tightened and recharged
- If Pves is lower than Pabd, start filling the bladder and re-check cough at 30 ml



Tracing Problem
- No Pves cough spike

Possible cause
- The Pves transducer may be in the open position
- Catheter not tightened enough and air has escaped from luer lock
- Catheter may not be in correct place

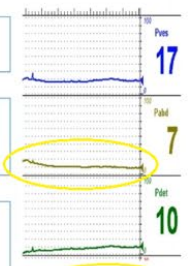
Check/corrective action(s)
- Ensure the Pves transducer cable is in charge position.
- Tighten catheter and recharge if necessary
- Check catheter placement and adjust as necessary
- Replace catheter and try again



Tracing Problem
- Pabd line slowly decreases Pves stable

Possible cause
- The abdominal catheter may have slid downwards.
- Patient may have been tense and now relaxing

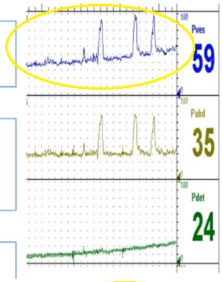
Check/corrective action(s)
- Check catheter placement and adjust as necessary
- Check the connection between catheter and transducer cable. Tighten it necessary.
- If Pves has not changed since the beginning of the study and there is equal transmission of a cough, equalize Pabd = Pves.



Tracing Problem
- Pves increases during filling

Possible cause
- Pves may have moved
- Patient may have low bladder compliance.

Check/corrective action(s)
- Check catheter placement and adjust as necessary.
- Stop fill and see if Pves decreases.



Tracing Problem
- Pabd constantly changing, stable Pves

Possible cause
- Abdominal catheter may be in the wrong location
- Patient may be experiencing a rectal contraction/peristalsis.

Check/corrective action(s)
- Check catheter placement and adjust as necessary: If rectal catheter is set to 15cm pull back to 10 cm for less peristalsis.
- Pause pump and wait for contractions to subside.