Male Catheterisation Guidance
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Introduction

The aim of this module is to facilitate learning regarding the purpose and procedure of Male Urethral Catheterisation.

Learning Outcomes

At the end of the session the students should be able to:

- Define the reasons why urethral catheterisation may be necessary.
- State the common risk factors that may arise as a result of the procedure being carried out.
- Discuss the reasons why insertion of the urinary catheter may be contraindicated.
- Describe the information required for the completion of patient care plan documentation.
- Evaluate own learning and recognise how improvements can be made.

Indications

Urethral catheterisation is a procedure that is carried out in a variety of circumstances. A patient may develop urinary retention secondary to prostatism and need catheterisation to relieve the pressure of urine in the bladder, for allowing instillation of medications, e.g. chemotherapy is important, bypassing an obstruction or it may be required following prostatectomy to allow for infiltration of the bladder with fluid, to prevent clot retention. When the urine output is variable, such as in shock or incipient renal failure, measurement of hourly urine output may become routine. If a patient is unconscious or unable to void urine in the normal manner, urethral catheterisation may be required. Also facilitating continence and to maintain skin integrity.

When all conservative treatment methods have failed. Male catheterisation is slightly more difficult (especially in patients with prostate problems) and more commonly required than female catheterisation.
Risks associated with Male Catheterisation

Bacteriuria and urinary tract infection
Maintaining an aseptic technique will help minimise the risk. The male urethra is 18-20cm in length and is susceptible to a variety of pathologic conditions, ranging from traumatic to infectious to neoplastic. Pathophysiologic variants of the urethra may have devastating consequences, such as renal failure and infertility.

Bleeding
Using the correct procedure and never forcing the catheter will minimise the risk of trauma to the urethra.

Urethral Stricture
A stricture occurs when a part of the urethra becomes narrowed. Any section of the urethra may be affected. There is usually some scar tissue around the affected part of the urethra that causes the narrowing. The length of strictures vary from less than 1 cm to the full length of the urethra. It causes a blocked or reduced flow of urine which can lead to complications.

Loss of bladder tone
Fitting a flip-flo valve to the catheter in mobile patients will help maintain bladder tone.

Contra-Indications
- Lack of consent
- Urethral stricture
- Blood at the meatus-may indicate urethral trauma. Patient will need imaging of UG tract. A retrograde urethrogram should be performed to rule out a urethral tear prior to placing a catheter into the bladder. Seek senior support (a supra pubic catheter may be required to drain urine).

Consent
Explain the procedure to the patient, Check for allergies i.e. latex or lidocaine gel (anaesthetic gel) explaining why it is required and indicating potential problems, including possible discomfort both during and following the procedure. Give an indication of how long catheterisation may be required. Obtain consent before commencing the procedure.

Patient comfort
Catheterisation is not a comfortable procedure. Ensure you maintain patient privacy and dignity throughout. Cover all parts of the body not requiring exposure, and keep checking for any signs of distress throughout the procedure. Stop immediately if any extreme discomfort is expressed and seek the advice of a senior.
Equipment

Clean a stainless steel trolley with hard surface cleansing wipes.

Gather all your equipment and store it on the lower shelf of the trolley.
You will need:

- A catheter pack which contains:
  - Sterile drape (fenestrated, disposable)
  - Cotton gauze balls
  - Gallipot (for cleansing solution)
  - Gauze surgical swabs
  - Collecting receiver or kidney bowl

- Two 10ml ampoules of saline (for cleansing)
- Urine collection bag, or urometer for hourly estimations.
- Catheter (Male length, start with 12cH, or may require larger eg. 16cH if post surgical in some circumstances). For short term use (under 28 days) use an uncoated latex, PVC, polytetrafluoroethylene (PTFE) or silver alloy catheter. For longer term, use an all silicone, silicone elastomer or hydrogel coated catheter. Check the patient has no latex allergies.
- Lidocaine (10 ml, 2%) gel (for lubrication, dilatation and analgesia)
- 10ml ampoule of sterile water to inflate the balloon (10ml used for standard catheters, check label for correct volume).
- 10ml syringe and green needle to aspirate water for balloon inflation. 2 pairs of sterile gloves.
Procedure

Ensure a good light source to enable genital area to be seen clearly.
Wash and dry your hands, and put on an apron.
Open the catheter pack carefully onto the top shelf of the trolley using an aseptic technique.

Open all your supplementary packs onto the sterile field now stretched out on the trolley. Check choice of catheter is correct and in date.
Re-wash and dry your hands. Put on a pair of sterile gloves from the trolley, taking care not to contaminate the sterile field.
Ask the patient to retract the foreskin (or help to do this if he cannot). Cleanse the glans, starting from the meatus and spiralling in an upwards direction, using a gauze swab and saline. Use a second gauze swab to gently cleanse (with a single sweep) the underside of the penis, and scrotum where the penis will lie.
Explain to the patient that you are going to insert the lidocaine gel, and it may be cold and a little uncomfortable. Insert the tip of the lidocaine gel into the meatus, and squeeze in the entire 10ml contents and discard.

Allow 5 minutes for anaesthetic effect. Adequate lubrication helps to prevent urethral trauma and infection, as well as minimising patient discomfort.

Cover the patient with a sterile drape and explain to the patient you are going to wash your hands and leave the gel to work for 4-5 minutes.
Remove your gloves and wash and dry your hands.

Return to the patient, and put on a pair of sterile gloves from the trolley.
Using both hands, place the fenestrated sterile drape towel over the penis, avoiding contact with the penis.

Open the catheter sheath about 1cm along the perforations, keeping the tip of the catheter covered until insertion.

Place the kidney dish or receiver between the patients legs.
With the left hand, hold the penis in a fully extended position. With the right hand, hold the catheter in the blue outer sheath, resting the end in the kidney bowl. Introduce the tip of the catheter into the urethral orifice in an upward and backward direction. The direction of insertion and the length of catheter inserted should bear relation to the anatomical structure of the area.

Gently insert through the meatus and up the urethra. Use the blue outer sheath to work the catheter into the urethra.
If resistance is encountered, increase gentle traction on the penis, and get the patient to cough. Gently rotate the catheter and continue to apply pressure, but do not use excessive force.
When the catheter enters the bladder, urine will begin to flow down the catheter. Advance the catheter up to the bifurcation, or advance the catheter 6-8cm. This prevents the balloon from becoming trapped in the urethra. Inadvertent inflation of the balloon within the urethra is painful and causes urethral trauma.

Sometimes the flow will be delayed due to a small amount of gel obstructing the lumen of the catheter.
Remove the blue outer catheter sheath by tearing down the length and attach the end to the urine collection bag.
Remove the sterile cap from the urine collecting bag.
Urine may be flowing freely now, so clamp the catheter with your fingers at the point at which its bifurcates and quickly attach the urine collecting bag (the largest port). Take care not to pull back on the catheter, dislodging its position when attaching the urine bag.
Inflate the pilot balloon with the required amount of water. The catheter label indicates the amount needed.

Observe the patient for any signs of discomfort

If there was, you may be inflating the balloon in the urethra, so would need to remove the sterile water, advance the catheter further, then re-inflate.

Withdraw the catheter slightly, resistance can be felt when the balloon locates with the bladder neck opening.

Replace the foreskin over the glans, otherwise a paraphimosis may develop, because if left retracted for a long period, some of the foreskin tissue may become oedematous, which makes subsequent reduction of the foreskin difficult. A paraphimosis should be treated as a medical emergency, as it can result in gangrene.
Clean the area, and remove the towel. Make sure the patient is clean and dry. If the area is left wet or moist, secondary infection and skin irritation may occur.

Attach the urine collecting bag to a urine collecting bag stand.
If the patient is mobile, use the leg bag straps to secure to the patients leg. Ensure that the catheter does not become taut when patient is mobilizing. Ensure that the catheter lumen is not occluded.

If using a Urometer, attach to the bedside using the hook provided.

Dispose of gloves and materials in a ‘tiger’ clinical waste bag Wash hands.
Record the procedure in the patient's notes.

Include:

- Date
- Time
- Why the procedure was carried out
- That informed consent was obtained
- That an aseptic technique was used for the procedure
- The type and size of catheter used, expiry date, batch number (the sticky label on the outer packet has this information-stick in the notes)
- The residual volume of urine

Post procedural investigations or complications

Your management plan
Troubleshooting Problems During insertion of catheter

- If the opening of the female urethra is difficult to locate
- Place a small amount of lidocaine gel in the area as this should help to dilate the opening
- Resistance felt during insertion
- DO NOT try to forcefully pass the catheter as this could lead to damage to the urethra and false passages being made
- Insert more lidocaine gel (20 – 30 ml). This will help to dilate the urethra and any mild strictures that may be present.
- Try different sizes of catheter Males – ask them to cough
- If resistance persists refer to your senior colleague and/or urology

Checklist

- Explain procedure to patient and obtain informed consent. Follow guidelines for aseptic technique. Wash hands. Apply first pair of sterile gloves.

- Retract the foreskin, if necessary, and cleanse the glans penis and underneath the penis with saline solution. Instil all 10mls of 2% lidocaine gel into the urethra to achieve surface anaesthesia. Remove gloves. Wash hands.

- Apply second pair of sterile gloves. Place a fenestrated towel over the penis. Place a collecting vessel for urine between the patient's legs. Grasp the shaft of penis with the non-dominant hand.

- Using the blue sterile sheath to hold the catheter, tear a small hole in the perforations near the tip, and gently pass it into the urethral meatus.

- Continue to pass the catheter, slowly and smoothly, through the urethra and into the bladder. If resistance is encountered, use gentle traction on the penis, and ask the patient to cough. Once urine starts to flow, pass the catheter to the bifurcation, or at least a further 5cms to ensure that the balloon is well inside the bladder.

- Quickly attach the catheter to the urine collecting bag. Slowly inflate the balloon as per manufacturers guidelines usually with 10mls of sterile water. Ensure that the glans penis is clean, and then replace the foreskin. Make patient comfortable. Attach the urine collecting bag to either: the thigh of the patient with the straps supplied, or urine collecting bag stand. Dispose of waste materials in a ‘tiger’ clinical waste bag. Wash hands. Record procedure in patient's notes.
Summary
Student should now be able to:

- Define the reasons why urethral catheterisation may be necessary.
- State the common risk factors that may arise as a result of the procedure being carried out.
- Discuss the reasons why insertion of the urinary catheter may be contraindicated.
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