Male Urinary Catheterisation & Catheter Care

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Good practice

• Consent – gain informed consent.

• Who can catheterise – any Registered Nurse who feels both confident and competent in this clinical procedure.

  – Competence is usually measured by attendance at an educational workshop followed by observation and supervision in practice. Refer to local guidelines.
Urinary Catheterisation

- A urethral catheter is a hollow tube inserted into the urinary bladder for the purpose of draining urine or instilling fluids as part of medical treatment.
Male Urinary System

- Right adrenal gland
- Right kidney
- Right renal vein
- Right renal artery
- Renal pelvis
- Vena Cava
- Right ureter
- Right ductus deferens
- Bladder
- Right testicle (testis)
- Penis
- Left adrenal gland
- Left kidney
- Left renal artery
- Left renal vein
- Abdominal aorta
- Left ureter
- Left ductus deferens
- Prostate
- Left testicle (testis)
- Urethra
Male Urinary System

- Kidney
- Renal pelvis
- Ureter
- Urinary bladder
- Urethra
## Indications for Urethral Catheterisation

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<thead>
<tr>
<th>Indications</th>
<th>Details</th>
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| **Drainage**                               | • Prostatic hyperplasia  
• Acute or chronic retention  
• Hypotonic bladder  
• Pre & post pelvic surgery  
• Measurement of urine output  
• To empty the bladder during labour |
| **Investigations**                         | • To obtain an uncontaminated urine specimen  
• In Urodynamic investigations  
• X ray investigations |
| **Instillation**                           | • To irrigate the bladder  
• Chemotherapy |
| **Management of intractable incontinence** | To be used **ONLY** when all other methods have been tried |
Catheter Selection

• It is important to choose the correct catheter for the individual patient.

• Considerations include;
  – Material, size, length and balloon infill volume.

• The make, type, length, Ch/Fg size and balloon size should be specified on the prescription.
Catheter Selection

• The Foley catheter is an indwelling catheter that is retained by inflating an integral balloon.
• Catheters without the inflating balloon are usually used for intermittent catheterisation.
• The material determines the length of time a catheter can remain in situ.
• However the nurse must always refer to the manufacturers guidelines.
Catheter Selection - Material

- **Short Term** (7 to 28 days).
  - Plastic/PVC should not be left in for more than 7 days.
  - Uncoated latex/silicone treated should not be left in situ for more than 7 days.
  - Polytetrafluroethylene (PTFE) bonded latex (Teflon) should not be left in situ for more than 28 days.
Catheter Selection - Material

- **Long Term** (up to 12 weeks).
  - Silicone elastomer coated latex (combines advantages of silicone and latex).
  - Hydrogel coated latex (combines advantages of hydrogel and silicone) these are the only catheters suitable for patients with a latex allergy.
Catheter Selection - Size

• The internal diameter of a catheter is measured in Charriere (Ch) – one Ch equals 1/3 mm, therefore 12 Ch equals 4 mm.
• Catheter sizes for men are between 12Ch & 16Ch.
• The smallest size should be chosen to provide adequate drainage.
• Larger sizes can cause irritation & bypassing of urine around the catheter.
• Larger sizes are used for clot drainage (post operatively) and stricture dilatation.
Catheter Selection - Length

- Male catheter (Standard) is approximately 43cms.
- Female catheter is approximately 26cms.
Catheter Selection – Balloon Size

• Routine 10mls.
• Post Prostatic surgery 30mls.
  – 30ml balloons should only be used in specific circumstances such as post prostatic surgery.
  – The heavier weight and larger balloon may cause bladder spasm and irritation of the Trigone.
  – Catheter balloons should be filled as specified by the manufacturer.
  – Over or under filling may interfere with drainage.
Catheter Selection – Balloon Size

- The balloon should always be filled with sterile water NEVER;
  - Air, as the balloon would float above the urine, preventing drainage.
  - Tap water, as it contains soluble salts that may precipitate out of the solution and block the inflation channel.
  - Saline, as crystals of salt may form in the inflation channel preventing deflation of the balloon at a later stage.
Principles of Catheterisation

• Meatal cleansing to remove exudates or smegma.

• Aseptic technique – to avoid introducing infection.

• Lubrication – to avoid trauma.

• Anaesthetic gel – to reduce pain and discomfort.
Principles of catheter management

• Trauma
  – Catheter tubing should be fixed to the leg or abdomen to avoid kinking of the tubing and pulling on the bladder neck.
  
  – Avoid tape as the glue solvents may damage the catheter material – use leg straps or other support mechanisms e.g. cloths and suspensory systems for comfort and to prevent damage to the bladder neck.
Principles of catheter management

• Bag position
  – Drainage bags must be positioned below the level of the bladder as the urine will not drain upwards and urine may drain back into the bladder causing infection.

  – Incorrect positioning is link to higher rates of bacteriuria.
Principles of catheter management

- Bag emptying.
  - The patient should be encouraged to empty their own bag whenever possible.
  - Whenever a nurse empties a catheter bag gloves must be worn to prevent cross infection.
  - It is important not to contaminate the tap by touch or the environment by spillage.
  - Bags should be emptied when they are approximately three-quarters full to avoid traction due to the weight.
  - It is important not to break the closed system more than is necessary.
Principles of catheter management

• Bathing.
  – A patient can take a bath or a shower.

  – It is important to remove meatal secretions that can lead to infection. This should be done twice a day with soap and water but particularly following bowel action.
Principles of catheter management

• Bag change.
  – This should be done in accordance with the manufacturers recommendations, DOH guidelines and local policy.
  – Generally 5-7 days or earlier if the bag is damaged.
  – To frequent and the closed system is open to the risk of infection.
Principles of catheter management

• Fluids
  – These should be encouraged – approx 1.5 litres in 24 hours unless restricted for medical reasons.
  
  – This maintains a flow of urine through the bladder and prevents constipation.
  
  – Little evidence of long term benefit of drinking cranberry juice.
Drainage systems

• Based on an individual assessment and identified needs.
  – Bags with a fabric backing are more comfortable as they absorb perspiration. However, they can get wet in the bath and may need more frequent changing. A leg sleeve should be considered.
  – Ambulant patients should be encouraged to have leg bags (available in 350, 500 & 750 ml bags).
  – Bag volume and tube length are specified on the prescription. Correct tube length prevents kinking or dragging of the catheter of tubing.
Drainage systems

- Bags should be secured with leg straps or a leg sleeve.

- Non-ambulatory patients normally have a bed bag attached directly to the catheter. This should then be well supported on a catheter stand.

- Care must be taken when moving and handling the patient so that the catheter does not get pulled.
Drainage systems – link system

• For patients with a leg bag in the day and a higher capacity bag at night.
• The leg bag is not disconnected from the catheter but the night bag is connected to the tap of the leg bag.
• To prevent infection (in hospital, residential and nursing home environments) the night bag must be disposed of after each use.
• For home use the patient can wash the night bag through with soap and water and left to dry. This bag can then be used for between 5 – 7 nights (remains controversial).
Catheter removal

- Planned procedure.
- Based on patient assessment, circumstances and needs.
- Documented in patient notes.
  - No clear evidence if to use catheter maintenance solutions to improve patency or remove problem catheter.
  - Solutions – may prolong catheter life but can cause trauma to the bladder mucosa.
  - Removal – increase trauma but more effective use of nursing time.
- Deflate balloon before removing the catheter.
Catheter maintenance

• Use of catheter solutions continues to be a contentious issue.
• Catheter maintenance solutions are prescription only medication (POM).
• NMC (2004) states that nurses are accountable for their own actions. It is important that nurses follow accepted local and/or national guidelines to ensure safe practice.
• Catheter maintenance solutions have been developed to assist nurses in managing persistently blocking catheters.
Resources

