Good Practice

• Consent – gain informed consent
• Who can catheterise?

• Men: any Registered Nurse who feels both confident and competent in this clinical procedure
• Women: any competent practitioner (supervised student)
  • 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 Catheterisation
Female Urinary System
Female Genitalia

- Urethra
- Vagina
- Anus
- Clitoris
- Labia majora
- Labia minora
Female Urinary Catheterisation
## Indications for Urethral Catheterisation

| Drainage                                      | • Prostatic hyperplasia (men)  
|                                             | • 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 manufacturer’s 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
  - Polytetrafluoroethylene (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 and length

• The internal diameter of a catheter is measured in Charriere (Ch) – one Ch equals 1/3 mm, therefore 12 Ch equals 4 mm

• Usual sizes for men are between 12Ch & 16Ch
• Usual sizes for women are between 8Ch & 12Ch

• The smallest size should be chosen to provide adequate drainage

• Male catheter length 43cms, female catheter 26cms
Catheter Selection – Balloon Size

• The balloon should always be filled with sterile water

• Catheter balloons should be filled as specified by the manufacturer - routinely 10mls

• The heavier weight and larger balloon may cause bladder spasm and irritation of the Trigone

• Over or under filling may interfere with drainage
Principles of Catheterisation

• Meatal /Labia cleansing to remove exudates or smegma in men

• Aseptic technique – to avoid introducing infection

• Anaesthetic gel (Instillagel)
  • Should be used for men and women
  • Reduces pain and discomfort
  • Provides lubrication
  • Has antibacterial properties (contains chlorhexidine)
  • Needs time to work (5 minutes)

• Documentation
Drainage Systems

• Based on an individual assessment and identified needs

• Bag volume and tube length are specified on the prescription. Correct tube length prevents kinking or dragging of the catheter

• Bag position
  • Drainage bags must be positioned below the level of the bladder so that the urine does not drain backwards and cause infection
Drainage Systems

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

• Ambulant patients should be encouraged to have leg bags (available in 350, 500 & 750 ml bags)

• Leg bags should be secured with straps or a sleeve

• Care must be taken when moving and handling the patient so that the catheter does not get pulled
Catheter 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
Catheter bag change

• This should be done in accordance with the manufacturer’s recommendations, DoH guidelines and local policy

• Generally 5-7 days or earlier if the bag is damaged

• Too frequent and the closed system is open to the risk of infection
Drainage Systems – Link System

• For patients with a leg bag during the day a higher capacity bag can be used 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)
Principles of Catheter Management

• **Bathing**
  
  • A patient can take a bath or a shower
  
  • It is important to remove meatal / Labia secretions that can lead to infection. This should be done twice a day with soap and water but particularly following bowel action

• **Sexual Relationship**
  
  • Can use a spigot and then put a condom on to hold the catheter along the erect penis
  
  • A women may be able to maintain her usual sexual relationship but needs to be aware that the catheter is not stretched (also could spigot off)
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 also prevents constipation
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


