

Document facilitator: CNS – Urology

Senior document owner: Clinical Leader Urology / HHS Committee

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Type: **Guideline**

Name: **Indwelling urethral catheterisation (Adults)**

Purpose

To facilitate appropriate catheterisation, to reduce complications related to catheterisation and to promote patient independence, comfort and dignity.

Scope

Includes: Medical staff, registered and enrolled nurses (under the direction and delegation of an RN) and midwives experienced and competent in the procedure should perform indwelling urinary catheterisation in the hospital and community setting.

Staff and students learning to catheterise female and male patients can complete this procedure under supervision.

Definitions

Catheter-associated Urinary Tract Infections (CAUTI)

The most important risk factor for developing a catheter-associated UTI (CAUTI) is prolonged use of the urinary catheter. Catheter use and duration should be minimised in all individuals, particularly those at higher risk for CAUTI such as women, the elderly, and individuals with impaired immunity.

Policy content and guidelines

Indwelling catheterisation should be viewed as a last resort for continence management and should only be used when other management strategies are inappropriate or have failed.

Catheterisation is a sterile procedure and requires good technique supported by learning resources on [Connect Me](#) and references in this guideline.

Indications

- To relieve acute urinary retention or bladder outlet obstruction
- Close monitoring of urine output in acute renal failure and in the critically ill patient
- Peri operative use for selected surgical procedures patients undergoing urologic surgery or to other adjoining structures of the genitourinary tract
- Anticipated prolonged duration of surgery or patients anticipated to receive large volume infusions or diuretics during surgery
- To enable pre and post-operative bladder drainage e.g. Trans urethral resection of prostate (TURP)

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- To facilitate irrigation of the bladder and management of haematuria/clot retention
- Epidural use and as with [obstetric bladder care and management \(antenatal, intrapartum and postpartum\)](#)
- The need for intra operative monitoring during surgery
- Chronic urinary retention in the symptomatic patient (e.g. renal impairment or urinary tract infection) when intermittent self-catheterisation (ISC) is not an option and retention cannot be corrected medically or surgically
- To facilitate urodynamic studies or specialist radiological procedures
- Instillation of drugs directly into the bladder
- To measure residual urine after patient has voided in the absence of a bladder scanner with intermittent in and out catheter
- In patients with neurological disorders causing paralysis or loss of sensation leading to voiding issues
- Patients requiring prolonged immobilization e.g. multiple traumatic injuries such as pelvic fractures
- Where a patient with long term urological issues insists on this form of management after informed discussion with the Senior Medical Officer
- To manage intractable incontinence as a last resort or when incontinence poses a risk of infection of nearby surgical sites or skin breakdown
- Management of impaired skin integrity and to assist healing of open sacral or perineal wounds
- To improve comfort for end of life care when non-invasive measures have failed.

Contra-indications

Urethral catheterisation should be avoided in circumstances where urethral trauma may have occurred, e.g. pelvic fractures and 'straddle' injuries.

Risks and precautions

Urinary catheterisation is an invasive procedure, which potentially places the patient at risk of infection and trauma. The patient must be fully assessed, have an indication as listed above and consent to the procedure.

The incidence of bacteria in the urine (bacteriuria) has been estimated to be about 3% to 10% higher each day after catheter insertion (Niël-Weise 2012). This results in approximately 50% of hospitalised patients catheterised for longer than 7 days contracting an infection.

Significant force during catheterisation should be avoided as this may cause trauma and the formation of false urethral passages. However, during male catheterisation it is common to encounter some resistance, particularly in the bulbar urethra, prostatic urethra and bladder neck. This can often be due to urethral/bladder neck spasm and/or prostatic enlargement. Halting insertion and maintaining gentle insertion

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pressure may overcome this. If insertion is still not possible then medical/urology assistance may be required.

A check of patient allergies is required prior to catheterisation:

A very small number of patients may experience allergic reactions to latex, lignocaine and chlorhexidine.

Equipment

- Catheterisation pack
- Males – 10ml to 20ml of 2% lignocaine gel in pre-filled syringe
- Females – sterile lubricating Jelly or 5ml to 10ml of 2% lignocaine gel in pre-filled syringe
- Catheter selection:
 - **BARDIA latex catheters** for patients likely to require catheterisation short term (less than one week) shall be used
 - **BIOCATH Hydrogel coated Latex catheters** for patients requiring longer term catheterisation (urology, aged care, and community care) the use of is recommended
 - **All-silicone clear catheters** for the rare patient with a known latex allergy. These are available from the advanced wound care cupboard on Level 6 and the Urology Department, Level 7 WRH and at Kenepuru Community Hospital
 - **Additional catheters types** for those patients under the care of the CNS Urology and/or the CNS Continence alternative products may be provided for specific clinical indications.
- Appropriate catheter size, length and type:
 - Males – length: 30-40cm (size 14ch or 16ch)
 - Females –standard length (size 12ch or 14ch)
 - Males and females with haematuria, needing continuous bladder irrigation or bladder washouts should preferably have a size 20ch, 22ch or 24ch three way irrigation catheter inserted
 - Larger catheter sizes and three way irrigating catheters will be reserved for specific circumstances e.g. patients needing continuous bladder irrigation or bladder washouts and will not be generally available except in urology wards or via the CNS
- Sterile water and syringe to inflate the catheter balloon to recommended size
- Sterile gloves
- Normal Saline for cleansing is appropriate (ANZUNS, 2013)
- Appropriate drainage bag
- Rubbish bag
- Incontinence sheet.
- Securement device, e.g. Catheter Strap, FlexTrac, Statlock

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Procedure

- Wash or gel hands, assemble equipment and explain the procedure and purpose to the patient in compliance with the 5 moments of hand hygiene
Note: Catheterisation is a sterile procedure and requires good technique to maintain this and for this reason two people may be helpful
- Provide good lighting, as this is necessary to see the meatus clearly in female patients
- Provide privacy and avoid interruptions during catheterisation
- Protect bed/stretchers with incontinence sheet under the patient's buttocks
- Assist the patient to lie in a dorsal recumbent position, with knees up and out and feet together for females, or legs flat and slightly parted for males
- Encourage patients to relax as much as possible, keep their eyes open during the procedure and avoid tensing their legs and buttocks
- Open catheterisation pack
- Open out the catheter onto the sterile field, the inner protective bag may be partially left on or fully removed depending on operator preference
- Pour the normal saline into sterile container provided
- Empty sterile water into tray ready for balloon inflation
- Wash/gel hands and apply sterile gloves
- The lignocaine gel syringe currently used by CCDHB (Montavit) is a break off tip accordion syringe which requires emptying completely and maintaining pressure until after removal from urethra.
- Draw up sterile water according to the amount recommended on catheter balloon
- Drape the patient with the sterile drape to provide a sterile field to work on
- Place the sterile receptacle on the sterile drape between the patient's legs

Female catheterisation

- Thoroughly cleanse the external and internal labial area and perineum with normal saline, swabbing from anterior to posterior, discarding each swab after use
- Lubricate the end of the catheter with lubricating Jelly
- Non-dominant hand should hold labial folds apart to facilitate identification of the urethral meatus. With obese/immobile ladies an assistant may be required to help support the legs and hold labial folds apart
- Leaving the distal end of the catheter in the receptacle on the sterile field, insert the catheter into the urethra until urine begins to flow. Advance the catheter again 1–2 cm
- Inflate the balloon with the correct amount of sterile water, balloon inflation should not cause discomfort

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- Once the balloon is safely inflated with the correct quantity of sterile water, gently pull the catheter forwards until resistance is felt and then attach the selected drainage system
- Ensure that the catheter is secured to the patient.

Male catheterisation

Successful male catheterisation is assisted by adequately filling the whole length of the urethra with lubricating/anaesthetic gel. A medicine standing order supports this practice in the community.

- Pick up the penis with non-dominant hand. Retract foreskin if uncircumcised
- Thoroughly cleanse the meatus and glans (head) of the penis removing any smegma that may have accumulated under the foreskin. Cleanse from the meatus down the shaft of the penis
- Insert the nozzle of the lignocaine syringe into the urethral meatus and maintain sufficient pressure to attain a seal and prevent gel from oozing everywhere. Gradually instil the entire contents into the urethra, warning the patient that the gel may sting initially. Pinch the head of the penis and remove the nozzle. Use a finger to massage the gel down the underside shaft of the penis. Continue to pinch the head of the penis to prevent loss of gel
- Use sterile gauze swabs to hold the penis with non-dominant hand
- Lubricate the first 3cm of the catheter either with lignocaine gel or sterile lubricating jelly. Pick up catheter 6–7 cm from tip. Hold securely and gently insert into penis
- The penis should be held upward at a 60–90 degree angle to patient's legs, so that it is as nearly perpendicular to patient's body as possible. This reduces the usual S- shaped curve of the male urethra, facilitating passage of the catheter
- If resistance is encountered halt insertion and wait 30-60secs, encouraging the patient to relax as much as possible
- **Male urethral catheters must be inserted fully, before attempting to inflate the balloon.** This means that the bifurcation of the catheter should be at the urethral meatus **before** the balloon is inflated. This method may help to ensure that the balloon is completely in the bladder. Failure to advance the catheter this far, even if urine starts to drain, may result in balloon inflation potentially damaging or rupturing the urethra. **If the balloon is fully into the bladder, balloon inflation should be easy and painless.**
- Once the balloon is safely inflated with the correct quantity of sterile water, gently pull the catheter forwards until resistance is felt and then attach the selected drainage system.
- Ensure that the foreskin is re-extended over the head of the penis.
- Ensure that the collection bag tubing is secured to the patient

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Following the procedure

- Remove all the equipment and rubbish
- Assist the patient to a comfortable position
- The catheter should be attached to the patient's thigh to secure and prevent traction
- Ensure the drainage bag is positioned below thigh level for drainage
- Wash/gel your hands

Documentation

On completion of the procedure, record information in the relevant documents. This should include:

- Date and time of catheterisation, name and signature of the nurse
- The indication for catheterisation/change of catheter and clinical need for the continued use of an indwelling catheter should be reassessed regularly
- Catheter type, length and size
- Amount of water instilled into the balloon
- Any problems during the procedure
- In uncircumcised males that the foreskin has been returned over the glans penis
- Colour and amount of urine drained within the first 30 minutes
- A review date to assess the need for continued catheterisation or date of next anticipated change of catheter

If discharging home with a catheter:

- Provide initial supplies including a spare leg bag, bed bag.
- Provide the patient with verbal and written advice regarding catheter care via Cap Docs. [Looking after your catheter at home – Urethral or Suprapubic](#)
- Refer the patient to Community Health Services for District Nursing input, ongoing supplies and support. The referral should include:
 - Attention for appropriate Continence Service i.e Wellington (includes Porirua), Kapiti Coast or the Hutt Valley
 - date of catheter insertion
 - proposed future catheter changes or removal and a follow-up plan.

Note: Advice on catheterisation can be sought through:

- the Urology Department (8060690) and the CNS Urology (0277068096)
- Continence Service and CNS Continence CCDHB (Ext 6358)

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Removal of Urethral Catheter

Generally this procedure can be uncomfortable and oral analgesia may be useful reducing pain. Explain procedure to patient

- Consider providing **oral analgesia 30 minutes prior to catheter removal** and when required after removal
- For particularly anxious patients consider the use of inhalational analgesics for example Entonox or Pentrox during procedure
- Patients to be warned of expected discomfort as the catheter and deflated balloon passes through the length of the urethra
- Check volume of water in balloon – refer to patient documentation
- Attach syringe to catheter valve to deflate balloon
- Do not use suction on the syringe but allow the water to come back passively, ensure the balloon is fully deflated before catheter removal
- In a supported supine position ask the patient to breathe in and out and stay as relaxed as possible ; as patient exhales, gently remove the catheter
- Clean urethral meatus and clear away equipment
- Provide guidance on how much fluid the patient may be expected to drink once their catheter has been removed
- Provide a urinal or measuring jug if required.
- If urge/stress incontinence or urethral bleeding is likely once the catheter has been removed ask the patient if they would care to use an appropriate sized continence pad with suitable underwear.

References

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<https://www.ics.org/Documents/DocumentsDownload.aspx>

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