

Standards of Care for Adult Patients with Long-Term Urinary Indwelling Catheters

ASSESSING NEED FOR CATHETERISATION

- Always challenge and regularly review the need for catheterisation & catheter usage. Indwelling urinary catheters should be used as a last resort.
- Catheter insertion details (including reason for catheterisation, if traumatic /difficulties experienced) & any changes in care **including prescription changes** should be clearly documented in both the patient's GP medical records & nurse documentation. A copy of the UCAM form must be sent home with the patient if discharged from BHT.

CATHETER MANAGEMENT

- All catheters **must** be connected to a sterile closed drainage system or catheter valve.
- Catheters should be changed when clinically indicated and according to manufacturer's licenced recommendations for use.
- Leg bags are to be changed every 7 days
- For overnight drainage, **single use disposable 2L night drainage bags** must be used.
- If a patient is bed bound and using continuous drainage, a **sterile 2L night drainage bag** must be used when being connected **directly to a catheter**.
- Ensure 2L drainage bags ALWAYS supported on a drainage bag stand (available on request free of charge from appliance contractors)
- Patients & carers must be educated & trained in good personal hygiene & catheter care. Patients must be given written information on catheter care & who to contact if they need further advice.
- Prescription requests for catheter related products should be sent via the patient's GP to order stating patients preferred supplier.

MEDICATION & CATHETERISATION

- Catheter bypassing can be due to increased straining at defecation. All opiates will cause constipation.
- There is some evidence to suggest in males alpha blockers started 3-7 days prior to catheter removal increase the success rates of trial without catheter.

CATHETER INSERTIONS

- All catheterisations are only to be performed by healthcare personnel trained and assessed as competent to carry out such procedures following surgical aseptic non-touch technique.
- Sterile non lidocaine based lubricant gel (Cathejell Mono or Optilube) must be used for all suprapubic catheterisations & non complicated urethral catheterisations in females to minimise urethral trauma & infection. (6ml or 8.5g pack size required for females).
- For ALL males & complicated or previously painful catheter insertions, a sterile lidocaine based lubricant gel must be used prior to insertion. (11ml or 12.5g pack size required for males).
- A minimum of 2-3 minutes is required for an anaesthetic effect to be observed. At least 5 minutes is required for optimal anaesthesia to be achieved with lidocaine based lubricant gels.

PREVENTION OF CATHETER-ACQUIRED URINARY TRACT INFECTION (CAUTI)

- Do **NOT** use antibiotic prophylaxis to prevent CAUTI. Consider antibiotic prophylaxis when inserting or changing catheters **only** in patients who have a history of symptomatic UTI after a catheter change **OR** experienced trauma during catheterisation previously. *Contact a local Microbiologist for further advice.*
Antibiotic prophylaxis is NOT required when removing catheters.
- Encourage a good fluid intake to 'flush' catheter – fluid intake should be sufficient to keep urine pale straw coloured. Recommended fluid intake is at least 1.5L/day in a non-fluid restricted individual.
- The urethral meatus and/or suprapubic site should be washed daily with soap and water. Use aseptic non touch technique whenever making any changes to catheter or closed drainage system.
- All indwelling catheters **must** be secured with a catheter fixation device or strap to the thigh or abdomen to minimise the risk of catheter tugging & urethral trauma which increases the risk of CAUTI.
- Ensure night drainage bags are positioned and supported below the level of the bladder and are not in contact with the floor. Leg drainage bags should be emptied regularly when no more than two thirds full to avoid tugging on the catheter & urethral trauma.
- The routine use of catheter maintenance solutions should be avoided wherever possible because of the risk of trauma to the bladder and introducing infection from disrupting a closed system.

CATHETER MAINTENANCE SOLUTIONS (CMS)

The **routine use** of catheter maintenance solutions (CMS) to prevent a catheter blocking is **NOT** clinically justified. This is because they increase the risk of trauma & infection to bladder mucosa. (The bladder mucosa plays an important role in defence against UTIs).

The use of CMS must be based on clinical need after an appropriate assessment. Causes of a blocked catheter are varied. It is essential that correct identification of the cause & management of catheter blockage is undertaken to prevent the problem from occurring. Every catheter blockage should be recorded to establish the cause & pattern of blockage as well as the average life span of the catheter used. The risk of encrustation increases the more alkaline urine becomes. Research has shown a pH higher than 6.8 is associated with crystal formation around and within the catheter lumen.

The **only indication for use of CMS is to extend the life span of catheter by reducing the need for more frequent re-catheterisations in patients for whom frequent catheter changes are unacceptable.** (NICE 2012 recommendation if catheter blockage occurs within a shorter time frame than its licenced use, the catheter should be changed more frequently before catheter blocks). **It is more cost effective to replace the catheter more frequently than using CMS.**

CMS are NOT to be used prophylactically or recommended to be used in an attempt to unblock a non-draining catheter.

Non-invasive measures to reduce catheter blockage include:

- encouraging good fluid intake to dilute urine -sufficient to keep urine pale straw coloured
- avoiding constipation or straining at defaecation
- reduce caffeine intake & avoid fizzy drinks (both irritate the bladder)
- avoid calcium supplements- reduce Ca phosphate crystallisation
- using an open ended &/or silicone catheter (has wider channel).

There is no consensus of how often a CMS should be used or how much is required to be effective in keeping a catheter patent. A catheter lumen only holds 4-5ml fluid. Two sequential instillations of a small volume are considered to be more effective than a single administration & recommended to be used once weekly during leg bag change. CMS should be used only as part of a treatment plan & not as routine practice. Suby G (Citric Acid 3.23%) is first line. Soln R (Citric Acid 6%) should be reserved for use as a last resort. **Sodium Chloride S 0.9% is to be used only for irrigation of catheters blocked with pus, blood clots or debris.**

Catheter Problem Solving Tips for Common Problems Associated With Catheterisation in Adults

Catheter Problem	Possible Reasons	Possible Solutions
Urine Bypassing catheter	<ol style="list-style-type: none"> Constipation/straining at defaecation causing pressure on bladder and catheter Drainage being occluded e.g. due to kinked tubing or obstructed by catheter strapping or tight clothing Over full &/or inadequately secured leg drainage bag Unstable Bladder / detrusor instability causing bladder spasm. Bladder spasm due to irritation, inappropriate size, length or balloon size of catheter Catheter blocking due to encrustation or debris or infection 	<ol style="list-style-type: none"> Assess if constipated or evidence of faecal impaction. Catheter bypassing can be due to increased straining at defecation. Advice on importance diet & adequate fluid intake to reduce risk of constipation. Review medicines use. All opiate based analgesics esp. codeine cause constipation. Consider regular laxative cover –stimulant laxatives will be needed if patient is taking codeine or other opiate drugs. Straighten tubing. Check drainage bag below level of bladder. Ensure catheter is appropriately & securely attached to thigh or abdomen with a catheter retaining strap or device Ensure 2L night drainage bag is supported on night drainage stand. Check correct size leg bag sleeve chosen to support weight of leg bag. Empty leg bag when no more than 2/3 full. Catheters that are not secured in place and leg bags that are not adequately supported or emptied regularly before full can pull on the catheter causing movement inside the bladder and lead to unstable detrusor contractions & bladder spasms. This in turn can cause bypassing, pain & dislodging of the catheter. Bladder irritation - Use smaller gauge catheter. Check balloon is fully inflated. Reduce caffeine intake (e.g. use decaffeinated tea, coffee) & avoid fizzy drinks as these can irritate bladder. A trial of anti-cholinergic drugs e.g. tolterodine should ONLY be used for bladder spasm if all other possible causes for bladder spasm have been excluded. Use the lowest effective dose and review the continued need for drug regularly as long term use associated with increased falls & dementia risks. (Note anti-cholinergic drugs can cause constipation and urinary retention) Check for systemic signs of infection –take urine specimen for culture via needle free port ONLY if clinical signs of infection are present. Increase fluid intake by at least 400-500ml (2 mugs)/day to reduce risk of CAUTI. Use open ended catheter.
Poor or No drainage	<ol style="list-style-type: none"> Constipation Tubing kinked Catheter blockage either due to blood/debris or encrustation of catheter lumen /tip. Infection N.B. Anuria in absence of an obvious cause requires urgent medical attention 	<ol style="list-style-type: none"> Assess & treat if evidence of constipation a possible cause — see comments above. Multiple medications can be a cause of constipation. Straighten tubing. Secure leg bag with sleeve. Ensure drainage bag below level of bladder and night drainage bag supported on a stand. Check pH of urine. Encourage good fluid intake to ‘flush’ catheter – fluid intake should be sufficient intake to keep urine pale straw coloured. Recommended fluid intake is at least 1.5L /day in a non-fluid restricted person. If encrustation is present, check urine pH & record ‘life’ of at least 3-5 catheters changes without intervention to establish a clear pattern & length of time catheter patent for. Stop Calcium supplements esp. in patients with poor fluid intake. For blockage due to blood, pus &/or debris use Sodium Chloride 0.9%. Only use Suby G for encrustation if more frequent catheter change is not acceptable to patient – see overleaf. Use 100% silicone catheter (has wider channels) &/ or open ended catheter. If Infection due to poor hygiene – teach correct catheter care & ensure daily meatal cleansing with soap & water.
Difficult/painful removal of catheter	<ol style="list-style-type: none"> Catheter memory causing sticking to inner body of bladder Urethral trauma due to bladder spasm or encrustation of catheter 	<ol style="list-style-type: none"> Rotate catheter daily 360° if suprapubic. Rotate catheter during removal. Some evidence balloon material of silicone catheters has greater tendency to “cuff” on deflation therefore changing type of catheter or use catheter with integral balloon may help. Use short acting anticholinergic drug e.g. tolterodine immediate release 2-3 days prior to removal if bladder spasm is associated with removal of catheter. Increase fluid intake. Stop Calcium supplements especially in patients with poor fluid intake
Pain / Discomfort	<ol style="list-style-type: none"> Too large a catheter Undue traction on drainage system, Bladder spasm, urethritis or urethral pressure ulcers Infection or urethritis 	<ol style="list-style-type: none"> When selecting a catheter the smallest possible diameter should be used that allows adequate drainage as a large diameter is associated with increased bladder irritability resulting in painful spasms and leakage. Trial alternative catheter type. Use leg bag sleeves & ensure catheter is fixed securely to reduce any traction or tugging on the catheter. (See notes above). Refer for further assessment if acute discomfort. Consider analgesic / anticholinergic drug therapy cover as necessary if bladder spasm or irritation of urethra suspected to be the cause of pain. (see notes above) Check personal hygiene. Minimise disruption to closed system & ensure correct non touch technique is being used whenever changes to catheter or drainage system are made.(see overleaf for prevention CAUTI). If pain due to infection consider replacing catheter if an indwelling catheter has been in place for >2 weeks at the onset of CAUTI to hasten resolution of symptoms and to reduce the risk of subsequent CAUTI.

USEFUL TEL Nos:- Continence Specialist Nurses - 01296 318648 Marlow ACHT – 01628 482292 Wycombe ACHT- 01494 426860 Southern ACHT 01494 426030 Amersham ACHT 01494 734724 Aylesbury ACHT 01296 566090 Thame ACHT 01844 210868 Buckingham ACHT 01296 711307

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