

ASSESSING NEED FOR CATHETERISATION

- Always challenge the need for catheterisation & catheter usage. Indwelling urinary catheters should be used **ONLY AFTER** alternative methods of management have been considered.
- Catheter insertion, including reason for catheterisation & any changes in care should be clearly documented in both the patients GP medical records & RIO nursing care plans.

CATHETER MAINTENANCE

- Indwelling 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 should be changed every 5-7 days
- Single use only night drainage bags **MUST** be used for patients in residential/ nursing homes
- Night bags stands are available on request direct from appliance manufacturers free of charge.

MEDICATION & CATHETERISATION

- All opiate based analgesics cause constipation. Catheter bypassing can be due to increased straining at defecation.
- Alpha blockers (e.g. doxazosin) can also be used for post acute urinary retention prior to trial without a catheter.
- Anti-muscarinics can be used for bladder spasm-use lowest effective dose. For bladder spasm associated with catheter insertions use antimuscarinic eg oxybutynin 2 days pre and post procedure

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.
- Non lidocaine based lubricant gel (Cathejell Mono) can be used for all suprapubic catheterisations & non complicated urethral catheterisations in females to minimise urethral trauma & infection. (6ml pack size required for females)
- For ALL males & complicated or previously painful catheter insertions, a lidocaine based lubricant gel (Cathejell or Hydrocaine gel) should be used prior to insertion. (11ml pack size for males).
- A minimum of 2-3 minutes is required for an anaesthetic effect to be observed but optimal anaesthesia usually seen after 5-10 minutes with lidocaine based lubricant gels.

PREVENTION OF CATHETER-ACQUIRED URINARY TRACT INFECTION (UTI) when CHANGING INDWELLING CATHETERS¹

- Do **NOT** offer antibiotic prophylaxis routinely. Consider antibiotic prophylaxis when changing catheters only in those patients who:
 - have a history of symptomatic UTI after catheter change
 - are at risk of endocarditis.
 - experienced trauma during catheterisation previously.
 - are immuno-compromised
- Contact the local microbiology department for advice on current antibiotic prophylaxis if clinically appropriate
- The urethral meatus and/or suprapubic site should be washed daily with soap and water and any remaining visible catheter tubing kept clean.
 - Bladder washouts should **not** be used to prevent catheter-associated infections.
 - Ensure urinary drainage bags are positioned below the level of the bladder and not in contact with the floor
 - Urine samples must only be obtained from a sampling port using a surgical aseptic non-touch technique

CATHETER MAINTENANCE SOLUTIONS (CMS)

Regular use of catheter maintenance solutions (CMS) are **NOT** recommended as routine use is **rarely** clinically justified. They increase the risk of infection and trauma to bladder mucosa. (The bladder mucosa plays an important role in the defence against UTIs)

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 and increased risk of infection. Every catheter blockage should be recorded to establish the cause & pattern of blockage as well as average life span of the catheter used.

NICE (2003) recommend that if catheter blockage occurs within shorter interval than its licenced use, the catheter should be changed more frequently before catheter blocking. **It is more cost effective to replace the catheter more frequently than routinely use CMS.**

Indications for use of CMS are:

- To extend life span of catheter by reducing the need for more frequent re-catheterisations in patients for whom frequent catheter changes are unacceptable
- Minimise urothelial damage by removing encrustation prior to catheter removal.

The higher the alkalinity, the greater the possibility of encrustation developing. Research has shown a pH higher than 6.8 is associated with crystal formation around and within catheter lumen.

Sodium Chloride S 0.9% is only licenced for irrigation of catheters blocked with pus, blood clots or debris.

Non invasive measures to reduce catheter blockage include encouraging good fluid intake to dilute urine (sufficient to keep urine pale straw coloured), avoid constipation, reduce caffeine intake (may irritate bladder) or use 100% silicone catheter (has wider channels) or Coloplast Folsyl (open ended catheter) –

There is no clear consensus of how often a CMS should be used or how much for it to be effective in keeping catheter patent. A catheter lumen only holds 4-5ml fluid. Where the use of CMS is clinically justified, the use of 2 sequential irrigations once weekly (as Suby G) should first be tried rather than 1 irrigation twice weekly.

Solution R (Citric Acid 6%) should only be used as a last resort.

References

1. Nice CG139 March 2012 – Infection control
2. Catheter care RCN guidance for Nurses RCN 2012
3. Hagan S et al. Washout policies in long term indwelling urinary catheterisation in adults. Cochrane database Systematic reviews 2010 issue 3.
4. Royal Marsden Clinical Nursing Procedures 5th Ed 2003

Catheter Problem	Possible Reasons	Possible Solutions
<p>Urine Bypassing catheter</p>	<ul style="list-style-type: none"> • Drainage being occluded e.g. due to kinked tubing or obstructed by G strap or tight clothing • Over full drainage bag • Constipation/straining at defaecation causing pressure on catheter • Unstable Bladder / detrusor instability causing bladder spasm • Bladder spasm due to trigone irritation Wrong catheter size, length or balloon size • Catheter blocking due to encrustation or debris • Infection 	<ul style="list-style-type: none"> • Straighten tubing. Ensure drainage bag below level of bladder. • Try alternative leg bag- • Advice on importance diet/fluid to reduce risk constipation. Check medicines esp codeine in elderly. Consider laxative cover – stimulant laxatives required if drug induced constipation is likely cause. • Check for systemic signs of infection –take catheter specimen of urine if signs present. • Trigone irritation - Use smaller gauge catheter. Check balloon fully inflated. • Trial Anticholinergic therapy pH<6.8 & no evidence blockage due to encrustation or debris if detrusor instability suspected • Changing catheter before blockage occurs where encrustation identified cause. • Consider antibiotic prophylaxis if due to recurrent infection
<p>Poor or No drainage</p>	<ul style="list-style-type: none"> • Tubing kinked • Constipation • Catheter blockage either due to blood/debris or due to encrustation of catheter lumen /tip. • Infection • Enlarged Prostate • Anuria –Urgent medical intervention required 	<ul style="list-style-type: none"> • Straighten tubing. Ensure drainage bag below level of bladder. Try alternative leg bag- • Rectal examination & appropriate treatment • Check pH of urine. Encourage good fluid intake to ‘flush ‘catheter – fluid intake should be sufficient intake to keep urine pale straw coloured. • Avoid constipation, reduce caffeine intake – tea coffee fizzy drinks (caffeine may irritate bladder). Reduce intake of dairy products • If for encrustation check urine pH & record ‘life’ of at least 3-5 catheters changes without intervention to establish a clear pattern & length time catheter patent for. Use of Suby G for encrustation if more frequent catheter change not acceptable – see overleaf. For blockage due to blood,pus &/or debris use Sodium Chloride S 0.9% (Suby R should be used as a last resort. • use 100% silicone catheter (has wider channels) or Coloplast Folsil (open ended catheter) • If Infection due to contamination – teach correct catheter care & address personal hygiene issues.
<p>Difficulty/painful removal catheter</p>	<ul style="list-style-type: none"> • Catheter memory causing sticking to inner body of bladder • Urethral trauma due to encrustation of catheter 	<ul style="list-style-type: none"> • Turn catheter daily. Turn before removal. Change type of catheter • Use short acting anticholinergic drug e.g oxybutynin or tolterodine 2-3 days pre and post catheter insertion if bladder spasm associated with insertion/removal catheter • Use soln G prior to removal of catheter if pain associated with urethral trauma due to encrustation
<p>Pain /Discomfort</p>	<ul style="list-style-type: none"> • Too large a catheter • Undue traction on drainage system, • Bladder spasm, urethritis or urethral pressure ulcers • Infection or urethritis 	<ul style="list-style-type: none"> • Reposition catheter. • Use sleeves or G straps to support drainage bag to reduce traction on catheter • Use smaller gauge catheter or a coated catheter • Consider Analgesic / anticholinergic drug therapy • Refer for further assessment if acute discomfort.
<p>Infection</p>	<ul style="list-style-type: none"> • Contamination • Poor personal hygiene 	<ul style="list-style-type: none"> • Address catheter care & personal hygiene issues. Minimise disruption to closed system • For recurrent infections trial silver alloy Bard I.C Aquafil catheter / Use prophylatic antibiotics