

Urinary Catheter Policy (Adults)

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Purpose of Agreement	This document provides overarching guidance on the choice, insertion, removal and care of urinary catheters for adult patients
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SUMMARY OF POLICY

- This document provides overarching guidance on the choice, insertion, removal and care of urinary catheters for adult patients.
- It should be used with the associated standard operating procedures on male, female and supra pubic catheterisation, male external continence devices and catheter maintenance solutions.
- Staff should only provide catheter management if they have been trained and deemed competent to do so. Insertion must be via an aseptic non touch technique.
- A patient should only have a catheter inserted following a risk assessment and according to their individual clinical need.
- All catheters inserted must have the appropriate assessments completed and documents in appendices A and C completed.
- Antimicrobials should only be commenced following a catheter specimen of urine, change of catheter and only if the patient is symptomatic of a urinary tract infection.

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Urinary Catheter Policy

1. INTRODUCTION & PURPOSE

- 1.1 This document provides overarching guidance on the choice, insertion, removal and care of urinary catheters. Throughout the document, all these elements are included under the umbrella term of catheter management. It should be used in conjunction with the underlying standard operating procedures.
- 1.2 A urinary catheter is an invasive procedure and should not be undertaken without full consideration of the benefits and risks. The presence of a catheter can be a traumatic experience for patients and have huge implications for body image, mobility, pain and comfort. Indwelling catheters are a key source of urinary tract infections. It is essential that they are only used if clinically necessary.

2. SCOPE & DEFINITIONS

- 2.1 This document applies to all directly and indirectly employed staff within Solent NHS Trust and other persons working within the organisation in line with Solent NHS Trust's Equality, Diversity and Human Rights Policy document. This document is also recommended to Independent Contractors as good practice.
- 2.2 Solent NHS Trust is committed to the principles of Equality and Diversity and will strive to eliminate unlawful discrimination in all its forms. We will strive towards demonstrating fairness and Equal Opportunities for users of services, carers, the wider community and our staff.

2.3 DEFINITIONS

- **Bacteriuria:** the presence of bacteria in the urine. In the absence of symptoms, this is referred to as asymptomatic bacteriuria, or catheter colonisation if the patient has a catheter in situ.
- Catheter associated urinary tract infection (CAUTI): occurs when pathogens gain access to the bladder via the outer surface of the catheter causing symptoms such as fever and supra pubic tenderness. A known risk of having a urinary catheter in situ.
- **Catheter instillation/washout:** a solution which is inserted into the bladder via the catheter. There is mixed evidence of their efficacy.
- **Closed system:** aseptic system from catheter tip to drainage bag. However, this is not strictly accurate as there are numerous portals of entry such as emptying the system when required.
- Female catheterisation: insertion of a urinary catheter into a female
- Intermittent catheterisation: insertion of a urinary catheter to drain urine or instill solution into the bladder which is immediately removed and not left in situ
- Long term catheter: a catheter which is in situ for longer than 14 days
- Male catheterisation: insertion of a urinary catheter into a male
- Short term catheter: a catheter which is left in situ for no longer than 14 days
- **Supra pubic catheter:** a urinary catheter inserted via the anterior abdominal wall directly into the bladder
- Urethral catheterisation: passage of a catheter into the bladder via the urethra

- Urinary catheter: a specially designed tube passed into the bladder using aseptic technique, for the purposes of draining urine, the removal of clots/debris or the instillation of medication. Throughout this document the term catheter means a urinary catheter
- Urinary catheterisation: is the insertion of a urinary catheter
- Urinary tract infection: successful invasion, establishment and growth of microbes causing infection. Any factor interfering with the normal flow of urine can increase susceptibility to infection

3. PROCESS/REQUIREMENTS

3.1 Patient assessment

- 3.1.1 Before a patient is considered for insertion of a urinary catheter, the risk/benefit must be assessed on an individual basis, including who will provide catheter care on an ongoing basis, and recorded in the patient record.
- 3.1.2 All possible measures must be taken to eliminate the need for catheterisation, including consideration of viable alternatives, before a decision is made to introduce a new catheter into a patient.
- 3.1.3 Before an existing catheter is renewed, the continued need for a catheter must be assessed and a plan for removal, if appropriate formaulated. This must be recorded in the patient record.
- 3.1.4 All information regarding reason for insertion, plan for removal and checks should be recorded on the Adult Indwelling Urinary Catheter Insertion/Care Record (Appendix A). This is also in use at University Hospitals Southampton. A similar document is being developed at Portsmouth Hospitals Trust.
- 3.1.5 Patients and those who will be supporting them with care of their catheter must be given information and training on how to care correctly and safely, including hand hygiene.

3.2.1 Indications for urinary catheterisation:

- empty the contents of the bladder, for example peri-operatively, before certain investigations
- determine residual urine if this is not possible using a bladder ultrasound scanner
- allow irrigation of the bladder
- bypass an obstruction
- assist in the healing of wounds in an incontinent patient if those wounds are being contaminated with urine
- enable bladder function tests to be performed
- relieve retention of urine
- measure urinary output accurately when required
- relieve incontinence when conservative methods have been unsuccessful/intractable incontinence
- comfort at End of Life
- prolonged enforced immobility e.g. following spinal trauma

3.2.2 Indications for supra pubic catheter insertion:

- retention of urine inadequately drained with urethral catheter
- patient preference e.g. wheelchair user, sexual preference
- acute prostatitis
- obstruction/abnormal anatomy of the lower abdonmen
- pelvic trauma
- faecal incontinence soiling the urethral catheter
- ascites
- coagulopathy until corrected
- prostetic devices in the lower abdomen
- surgical reasons
- cancer of the bladder

3.3 Catheter selection

- 3.3.1 A wide range of urinary catheters is available, made from a variety of materials and with different design features. Careful assessment of the most appropriate material, size and balloon capacity will ensure that the catheter selected is as effective as possible, that complications are minimized and that patient comfort and quality of life are promoted. Seek specialist advice if unsure about catheter selection and refer to local catheter formulary.
- 3.3.2 Catheters should be used in line with the manufacturer's recommendations, in order to ensure patient safety.
- 3.3.3 See appendix B for types of catheter.
- 3.3.4 Balloon sizes vary from 2.5 mL to 30 mL. The recommendation for adults is a 5-10 ml balloon.
- 3.3.5 Care should be taken to use the correct amount of water to fill the balloon because too much or too little may cause distortion of the catheter tip. This may result in irritation and trauma to the bladder wall causing pain, spasm, bypassing and haematuria. If underinflated, one or more of the drainage eyes may become occluded or the catheter may become dislodged. Overinflation risks rupturing the balloon and leaving fragments of it inside the bladder.
- 3.3.6 Catheter balloons should only be inflated once; deflation/reinflation or topping up is not recommended by the manufacturers as distortion of the balloon may occur.
- 3.3.7 Catheter balloons must be filled only with sterile water. Tap water and 0.9% sodium chloride should not be used as salt crystals and debris may block the inflation channel, causing difficulties with deflation. Any micro-organisms which may be present in tap water can pass through the balloon into the bladder.
- 3.3.8 Urethral catheters are measured in charrières (ch). The charrière is the outer circumference of the catheter in millimetres and is equivalent to three times the diameter. Thus a 12 ch catheter has a diameter of 4 mm. The bigger the catheter, the more the urethra is dilated.
 12 ch is normally suitable for men and women. The urethra is approximately 6 mm in diameter, this is equivalent to a size 16 ch catheter.

Potential side-effects of large-gauge catheters include:

- pain and discomfort
- pressure ulcers, which may lead to stricture formation
- blockage of paraurethral ducts
- abscess formation
- bypassing urethral leakage.
- 3.3.9 The most important guiding principle is to choose the smallest size of catheter necessary to maintain adequate drainage. If the urine to be drained is likely to be clear, a 12 ch catheter should be considered. Larger gauge catheters may be necessary if debris or clots are present in the urine.
- 3.3.10 There are three lengths of catheter currently available:
 - female length: 23–26 cm
 - paediatric: 30 cm (can be concidered for use in Adults if clinically appropriate)
 - standard length: 40–44 cm.
- 3.3.11 The shorter female length catheter is often more discreet and less likely to cause trauma or infections because movement in and out of the urethra is reduced. Infection may also be caused by the longer catheter looping or kinking. In obese women or those in wheelchairs, however, the inflation value of the shorter catheter may cause soreness by rubbing against the inside of the thigh, and the catheter is more likely to pull on the bladder neck; therefore, the standard length catheter should be used.
- 3.3.12 Female catheters **must not** be used for male catheterization. This will cause trauma to the urethra as the balloon will be inflated inside it. It can cause haematuria, penile swelling, retention and impaired renal function.
- 3.3.13 Several different types of catheter tip are available. Each tip is designed to overcome a particular problem. See appendix B for informatin on types of tips.
- 3.3.14 A wide variety of materials is used to make catheters. The key criterion in selecting the appropriate material is the length of time the catheter is expected to remain in place.
 - Short term (1–7 days), e.g. Poly Vinyl Chloride (PVC) and intermittent catheters.
 - Medium to long term (2–12 weeks), e.g. hydrogel and silicone coated

Refer to Appendix B for information on the choice of materials.

3.4 Intermittent catheterisation

- 3.4.1 Some patients will have long term problems with emptying their bladder. This can be managed by teaching them intermittent self-catheterization. This involves a person passing a catheter into their bladder to drain urine and then removing it immediately when the bladder is empty.
- 3.4.2 Patients who may need to do this include those who are unable to empty their bladder (with a residual of 150 mL or more). This could be due to a number of factors including urethral or

meatal strictures, prostatic issues such as benign prostatic hypertrophy, prostate cancer or some neurological conditions.

- 3.4.3 Intermittent self-catheterization can also be used short term, for the management of postoperative voiding, for example, following surgery for stress incontinence.
- 3.4.4 Patients suitable for intermittent self-catheterization include those:
 - with a bladder capable of storing urine without leakage between catheterizations
 - who can comprehend the technique
 - with a reasonable degree of dexterity and mobility to position themselves for the procedure and manipulate the catheter
 - who are committed to carrying out the procedure several times a day, as per assessment
 - patients with a Mitrofanoff reconstruction will need to perform this procedure for life
- 3.4.5 In hospital, this should be a sterile procedure because of the risks of hospital-acquired infection. However, in the patient's home a clean technique may be used. Catheterization should be carried out as often as necessary to stop the bladder becoming overdistended and to prevent incontinence. Frequency of passing the catheter will be decided on an individual basis.
- 3.4.6 Patient education must be given to enable patients to self care.

3.5 Drainage systems

- 3.5.1 A wide variety of drainage systems are available. When selecting a system, consideration should be given to the reasons for catheterization, intended duration, the patient's wishes, and infection control issues.
- 3.5.2 Urine drainage bags should only be changed according to clinical need; that is, when that catheter is changed or if the bag is leaking, or at times dictated by the manufacturer's instructions.
- 3.5.3 Urine drainage bags positioned above the level of the bladder and full bags can cause urine to reflux, which is associated with infection. Therefore bags should always be positioned below the level of the bladder to maintain an unobstructed flow and be emptied appropriately.
- 3.5.4 Urine drainage bags should be hung on suitable stands to avoid contact with the floor.
- 3.5.5 When emptying drainage bags, clean separate containers must be used for each patient and care should be taken to avoid contact between the drainage tap and the container.
- 3.5.6 Urine drainage bags are available in a wide selection of sizes ranging from the large 2 litre bag, which is used more commonly in non-ambulatory patients and overnight, to 350–750 mL leg bags. There are also large drainage bags that incorporate urine-measuring devices, which are used when very close monitoring of urine output is required.
- 3.5.7 A variety of supports is available for use with these bags, including sporran waist belts, leg holsters, knickers/pants and leg straps. All of these methods must be applied correctly and following manufacturers instructions to prevent kinks and occlusions in the catheter, which can cause bypassing or blockages.

3.5.8 The use of thigh straps and other fixation devices helps to immobilize the catheter and thus reduce the trauma potential to the bladder neck and urethra. It is particularly appropriate for men, due to the longer length and weight of the tube being used; however, some women may also find the extra support more comfortable. Care must be taken to apply correctly to reduce the risk of restriction of the circulation to the limb, which may give rise to deep vein thrombosis, or tension and traction to the urethra, which can cause trauma and necrosis, especially in men.

3.6 Catheter valves

- 3.6.1 Catheter valves, which eliminate the need for drainage bags, are also available. The valve allows the bladder to be emptied intermittently and is particularly appropriate for patients who require long-term catheterization, as they do not require a drainage bag and are used to maintain bladder tone.
- 3.6.2 Catheter valves are only suitable for patients who have good cognitive function, sufficient manual dexterity to manipulate the valve and an adequate bladder capacity. It is important that catheter valves are released at regular intervals to ensure that the bladder does not become overdistended.
- 3.6.3 These valves must not be used on patients following surgical procedures to the prostate or bladder, as pressure caused by the distending bladder may cause perforation or rupture. As catheter valves preclude free drainage, they are unlikely to be appropriate for patients with uncontrolled detrusor overactivity, ureteric reflux or renal impairment.
- 3.6.4 Valves are designed to fit with linked systems so it is possible for patients to connect to a drainage bag. This may be necessary when access to toilets may be limited, for example overnight or on long journeys.
- 3.6.5 Catheter valves are recommended to remain in situ for 5–7 days, as per manufacturers' recommendations.

3.7 Insertion of a urinary catheter

- 3.7.1 Refer to the relevant Standard Operating Procedure for details.
- 3.7.2 All indwelling urinary catheters and intermittent catheters inserted by health care staff, must be inserted using an aseptic non touch technique.
- 3.7.3 All staff inserting indwelling urinary catheters must have access to appropriate emergency equipment, such as an anaphylaxis kit , in case of reaction to the catheter or the gel used.
- 3.7.4 Any staff inserting or changing an indwelling urinary catheter, must have received training and been deemed competent to do so. In some areas there are specific requirements for management of catheters and these should be followed. For example, first male catheters being inserted by medical staff only, although there is no clinical evidence for this.
- 3.7.5 Staff must assess the need for support when inserting a catheter, including moving and handling needs such as a second or third person to help position the patient to allow for safe insertion of the catheter.
- 3.7.6 The use of single use, sterile anaesthetic lubricating gels is recommended for use when inserting a urethral catheter. In male patients the gel is instilled directly into the urethra. In

female patients, the anaesthetic lubricating gel or plain lubricating gel is applied to the tip of the catheter only.

- 3.7.7 The use of anaesthetic gel also dilates the urethral folds, making insertion easier for the professional, but must be used with caution in the elderly, those with cardiac dysrhythmias and those with sensitivity to the drug, as there is a danger of injury to the urothelial lining of the urethra during the procedure, allowing systemic absorption of the drug.
- 3.7.8 Prophylactic antimicrobials are not offered routinely for catheter insertion or changes.
- 3.7.9 Completion of the Adult Indwelling Urinary Catheter Insertion/Care Record is mandatory (Appendix A).

3.8 Replacing indwelling catheters/trial without catheters

- 3.8.1 Patients should be assessed individually as to the ideal time to change their catheters. The use of a catheter diary will help to ascertain a pattern of catheter blockages so changes can be planned accordingly. This assessment should include a check that the catheter is still needed.
- 3.8.2 If the reason for a urinary catheter to remain in situ is not known, or it is suspected that the patient may no longer need an indwelling urinary catheter, a trial without catheter may be carried out, following the guidance in Appendix C. Catheters should be removed as soon as clinically indicated. The document is designed for use with catheters which have been in situ for less than 35 days.

3.9 Catheter care

- 3.9.1 Catheter bags must be emptied before they are full and as per manufacturers' guidance, using a clean procedure and without breaching the closed system unless clinically indicated.
- 3.9.2 At least daily meatal care must be carried out.
- 3.9.3 All patients with an indwelling urinary catheter must have been given contact details of the clinician or team leading the care of their catheter provided, including contact details for out of hours use.
- 3.9.4 Care of indwelling catheters should be recorded in the patient record and on the Adult Indwelling Urinary catheter Insertion/Care Record.

3.10 Catheter washouts/instillations/maintenance solutions

- 3.10.1 There is little evidence on the efficacy of bladder instillations on reducing catheter blockages. However some patients do have these carried out to maintain patency or remove blockages.
- 3.10.2 Although previously called bladder washouts, the aim is to washout the catheter, so the preferred term is catheter maintenance instillation.
- 3.10.3 Refer to bladder washout procedure

3.11 Suspected urinary tract infections

- 3.11.1 Anti-microbials must only be used to treat systemic infection and not bacterial colonisation of the urinary tract or catheter.
- 3.11.2 For patients with a symptomatic catheter associated urinary tract infection, send a urine sample for microscopy and culture and commence the patient on antimicrobial therapy according to local antibiotic guidelines. Symptoms can include:
 - fever (temperature above 38 °C)
 - unusual supra pubic tenderness
 - unusual altered mental states
 - unusual hypotension
 - Systemic Inflammatory Response Syndrome
 - positive urine culture, with other symptoms
- 3.11.3 When obtaining a urine speciment from a catheter, it is important that an aseptic technique via the sampling port is used. Samples must not be taken from the drainage bag.
- 3.11.3 The recommendation is to change an indwelling urinary catheter prior to commencing antimicrobials.

4. ROLES & RESPONSIBILITIES

- 4.1 Chief Nurse is the Director responsible for Infection Prevention and Control.
- 4.2 Clinical service managers have responsibility to ensure that their staff are trained and have the competencies needed to undertake all elements of catheter management for which they are required to undertake.
- 4.3 Staff members have responsibility for ensuring they only carry out catheter management procedures for which they have received training and have been deemed competent unless it is being carried out as part of that training or competency assessment, in which case they must be accompanied by a competent colleague.
- 4.4 Students in practice may undertake catheter management provided they are accompanied by a competent member of staff at all times.
- 4.5 Staff delegating any aspect of urinary catheter management to un-registered staff must ensure they have been trained and deemed competent to do so.

5. TRAINING

- 5.1 All staff undertaking catheter management must have received training and been signed off as competent. For registered Nurses, catheter insertion is an integral part of their initial nurse training, but will not include male or supra pubic catheterisation, for which additional training must be attended and a separate competency must be obtained. (deletion)
- 5.2 Specialist training e.g. male catheterisation, supra pubic catheterisation, is delivered by the Bladder and Bowel service and can be booked direct with their team or contact Learning and Development for queries.

5.3 Staff joining the Trust or moving between areas within the Trust must have their competency checked before carrying out any catheter management alone and must repeat their training if they are either unable to demonstrate competency or it is agreed they should do so between the staff member and their line manager.

6. EQUALITY IMPACT ASSESSMENT AND MENTAL CAPACITY

- 6.1 An Equality Impact Assessment was conducted in relation to this document, and is included as Appendix D. The outcome of this assessment was no negative impact.
- 6.2 Consent should be sought before any catheter management and recorded in the patient record. If the patient is unable to consent, the Depravation of Liberty Safeguards and Mental Capacity Act Policy must be followed.

7. SUCCESS CRITERIA / MONITORING EFFECTIVENESS

- 7.1 This policy will be monitored by
 - any adverse incident reports
 - staff training and competency records
 - a recommended yearly audit on the records kept regarding catheter choice and decisions. An audit tool is included as Appendix E and may be used
- 7.2 Non compliance with this policy must be reported using the Trust adverse incident reporting system.

8. REVIEW

8.1 This document may be reviewed at any time at the request of either staff side or management, but will automatically be reviewed 3 years from initial approval and thereafter on a triennial basis unless organisational changes, legislation, guidance or non-compliance prompt an earlier review.

9. REFERENCES AND LINKS TO OTHER DOCUMENTS

9.1 Relevant Trust policies:

- Aseptic technique and aseptic non touch technique policy
- Hand hygiene policy
- Standard precautions policy
- Consent to examination and treatment policy
- Deprivation of Liberty and Mental Capacity Act policy
- Moving and handling of people and inanimate loads policy
- Reporting of adverse incidents policy
- Information Governance policy
- Chaperone policy

9.2 References:

- European Association of Urological Nurses (2012) Catheterisation: indwelling catheters in adults, urethral and suprapubic. Evidence based guidelines for best practice in urological healthcare
- Liz O'Brien (2012 District Nursing Manual of Clinical procedures, Chichester, Wiley-Blackwell
- Loveday, H P et al (2014), EPIC 3: National Evidence Based Guidelines for preventing Healthcare Acquired Infections in NHS Hospitals in England, Elsevier.com
- National Patient Safety Authority (2009) Female urinary catheters causing trauma to adult males NPSA/2009/RRR02
- NICE (March 2012) CG 139 Healthcare Associated Infections: prevention and control in Primary and Community care
- Nursing and Midwifery Council (2015) The Code
- Royal College of Nursing 2012, Catheter Care, London, RCN
- Royal Marsden manual of clinical procedures online, <u>www.rmmonline.co.uk</u> accessed 26th October 2016

University Hospital Southampton NHS Solent NHS NHS Foundation Trust

Adult Indwelling Urinary Catheter Insertion/Care Record

PATIENT'S NAME, NHS NUMBER AND HOSPITAL NUMBER	Ward:
	Date / time catheter inserted:
	Signature:
	Print name:
	Job title / Band:

REASON FOR USE (A urinary catheter should be a last resort when all other options have been considered)					
Short-term indications (1-2 days, up to 14 days) [Use code for noting overleaf]	Potential long-term indications (up to 12 weeks) [Use code for noting overleaf]				
 [ST1] Surgical procedures and post-op care [ST2] Hourly urine output monitoring [ST3] Acute urinary retention (confirmed by bladder scan) [ST4] Other (please state): 	 [LT1] Bladder outlet obstruction unsuitable for surgery [LT2] Chronic urinary retention - intermittent catheterisation not possible [LT3] Open wounds or sores frequently contaminated with urine [LT4] Severe or terminal illness or disability that prevents toileting [LT5] Other (please state): 				
 Bladder scan performed (if indicated): 					
Date: Time: mls:	Date next catheter change due: (For long-term indication only)				

INSERTED BEFORE ADMISSION TO WARD		•	•
(See previous record of insertion procedure)	INSERTION SITE:	Urethral	Suprapubic
INSERTED ON CURRENT WARD /UNIT	INSERTION SITE:		
Record details of insertion procedure below			

RECORD OF INSERTION PROCEDURE (for insertion on current ward/unit)					
CONSENT Informed Implied	ALLERGIES None known Latex Anaesthetic lubricant				
GAUGE = 10Ch = 12 Ch = 14 Ch = other:Ch	INSERTION TECHNIQUE ADHERED TO				
BALLOON SIZE □ 10mls □ other:mls	Hand hygiene before and after procedure				
Sterile water inserted into balloon:mls	 Correct PPE worn Aseptic technique used 				
DRAINAGE SYSTEM USED	 Sterile saline used for meatal cleaning prior to insertion 				
Leg Bag 2L Bag Flip-Flow Valve Urometer	 Sterile lubricant applied Catheter connected aseptically to drainage system Foreskin replaced (male patients) Catheter secured to ensure it is tension-free 				

URINALYSIS REQUIRED?	🗆 No	Yes	Date done:	Results on chart
CSU REQUIRED?	🗆 No	Yes	Date sent:	Result:

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Adult Indwelling Urinary Catheter Insertion/Care Record

PATIENT'S NAME:	HOSPITAL NUMBER:	WARD:			
IS THE CATHETER FOR A SHORT OR LONG-TERM INDICATION?					

	Short-	term (1-2 days, up to	o 14 days)		Lo	ng-ter	m (up to 12	weeks)	
		FOR CATHETER RI (Related to reason for u		(5			OF CATHETE when next ca		
•	SH .	ed removal post-op y:	Date:		Every 12 w	veeks			
		y output monitoring nger needed	Date:	 Less than 12 weeks (please state): 					
		e of acute urinary tion resolved	Date:	R	ECORD OF	WEEK	LY DRAINA	GE BAG	CHANGE
	ST4 Other	(please state):	Date:		Date:		Date:		Date:
					Date:		Date:		Date:
		IE CATHETER STILL			Date:		Date:		Date:
Day no.	Date	Reason	Signature		Date:		Date:		Date:
2					ANY CUR	RENT	/ PREVIOUS	6 PROB	LEMS?
3				Cat	theter blocka	ige?		🗆 No	Yes
4				Dis	comfort?			□ No	Yes
5				Uri	nary tract inf	fection	(UTI)?	□ No	Yes
6				Otł	her (please s	tate):		🗆 No	Yes
7				Det	tails:				
Date (if ca	e drainage b htheter in place	ag change due: for more than 7 days)	ł						
									
REC	CORD OF C	ATHETER REMOVAL	□ Planned remo	oval / re ete as app		_ U	nplanned rem		eplacement
Date / time catheter removed:		For trial without catheter, has patient passed urine within 6 hours of catheter removal?			□ No				
Sign	nature:				record actio	n taker	ו:		
Prin	t name:								
Job	title / Band:			Signat	ure:			Date	:

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Appendix **B**

Table 1 Types of catheter

Catheter type	Material (see below)	Uses
Balloon (Foley) two-way	Latex, PTFE-coated latex,	Most commonly used for
catheter: two channels, one for	silicone elastomer coated,	patients who require bladder
urine drainage and second,	100% silicone, hydrogel coated	drainage (short or long term)
smaller channel for balloon		
inflation		
Balloon (Foley) three-way	Latex, PTFE-coated latex,	To provide continuous
irrigation catheter: three	silicone, plastic	irrigation (e.g. after
channels, one for urine, one for		prostatectomy). Potential for
irrigation fluid, one for balloon		infection is reduced by
inflation		minimizing the need to break
		the closed drainage system
Non-balloon (Nelaton) or	PVC and other plastics	To empty bladder or continent
Scotts, or intermittent catheter		urinary reservoir intermittently;
(one channel only)		to instil solutions into bladder

Catheter tips

- The *Tiemann-tipped catheter* has a curved tip with 1–3 drainage eyes to allow greater drainage. This catheter has been designed to negotiate the membranous and prostatic urethra in patients with prostatic hypertrophy. It is recommended that these catheters are only inserted by a urology specialist.
- The *whistle-tipped catheter* has a lateral eye in the tip and eyes above the balloon to provide a large drainage area. This design is intended to facilitate drainage of debris, for example blood clots.
- The *Roberts catheter* has an eye above and below the balloon to facilitate the drainage of residual urine.

Catheter materials

- **Polyvinyl chloride (PVC)** Catheters made from PVC or plastic are quite rigid. They have a wide lumen, which allows a rapid flow rate, but their rigidity may cause some patients discomfort. They are mainly used for intermittent catheterization or post-operatively. They are recommended for short-term use only
- Latex is a purified form of rubber and is the softest of the catheter materials. It has a smooth surface, with a tendency to allow crust formation. Latex absorbs water and consequently the catheter may swell, reducing the diameter of the internal lumen and increasing its external diameter. Hypersensitivity to latex has been the cause of some cases of anaphylaxis so the Trust is latex free
- **Teflon (polytetrafluoroethylene [PTFE]) or silicone elastomer coatings** is applied to a latex catheter to render the latex inert and reduce urethral irritation. Teflon is recommended for short-term use and silicone elastomer-coated catheters are used for long-term catheterization.
- All silicone is an inert material which is less likely to cause urethral irritation. Silicone catheters are not coated and therefore have a wider lumen. The lumen of these catheters, in cross-section, is crescent or D-shaped, which may induce formation of encrustation and because silicone permits gas diffusion, balloons may deflate and allow the catheter to fall out

prematurely. These catheters may be more uncomfortable as they are more rigid than the latexcored types. Silicone catheters are recommended for long-term use.

- **Hydrogel coatings** Catheters made of an inner core of latex encapsulated in a hydrophilic polymer coating are commonly used for long-term catheterization. The polymer coating is well tolerated by the urethral mucosa, causing little irritation. Hydrogel-coated catheters become smoother when rehydrated, reducing friction with the urethra. They are also inert and are reported to be resistant to bacterial colonization and encrustation. Hydrogel-coated catheters are recommended for long-term use.
- **Conformable catheter** are designed to conform to the shape of the female urethra, and allow partial filling of the bladder. The natural movement of the urethra against the collapsible catheter is intended to prevent obstructions. They are made of latex and have a silicone elastomer coating. Conformable catheters are approximately 3 cm longer than conventional catheters for women.
- **Other materials** Research into new types of catheter materials is ongoing, particularly examining materials that resist the formation of biofilms (bacterial colonies that develop and adhere to the catheter surface and drainage bag) and consequently reduce the instances of urinary tract infections
 - o catheters coated with a silver alloy have been shown to prevent urinary tract infections
 - catheters coated with antibiotics been investigated in the search to find a product that will reduce instances of catheter-associated urinary tract infections .They may have a role to play in the management of trauma patients
 - nitrofurazone-impregnated catheters were shown to reduce urinary infections when compared with standard catheters

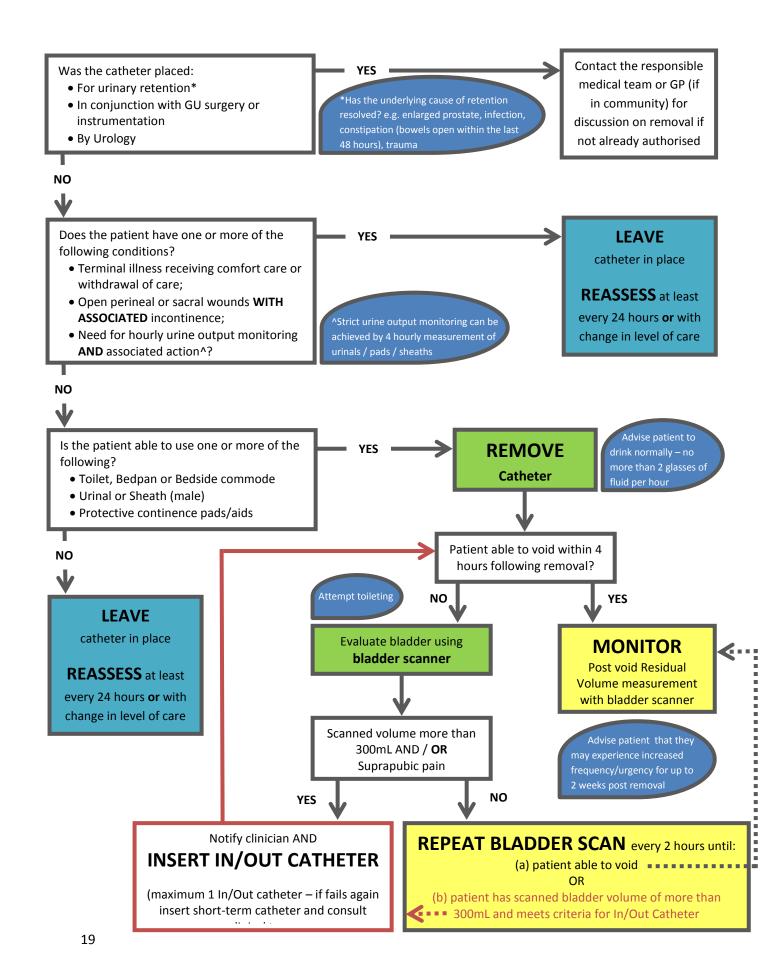
Drainage bags

There are a number of different styles of drainage bags:

- body-worn 'belly bags
- standard leg-worn bags. They allow patients greater mobility and can be worn under the patient's own clothes helping to preserve the patient's privacy and dignity.
- shapes vary from oblong to oval
- some have cloth backing for greater comfort when in contact with the skin
- some are ridged to encourage an even distribution of urine through the bag
- the length of the inlet tube a varies (direct, short, long and adjustable length) and the intended position on the leg, that is thigh, knee or lower leg, determines which length is used. The patient should be asked to identify the most comfortable position for the bag
- the majority of drainage bags are fitted with an antireflux valve to prevent the backflow of urine into the bladder
- several different tap designs exist and patients must have the manual dexterity to operate the mechanism
- most leg bags allow for larger 1–2 litre bags to be connected via the outlet tap, to increase capacity for night-time use.

NURSE LED SHORT-TERM INDWELLING URINARY CATHETER REMOVAL PROTOCOL (INPATIENTS)

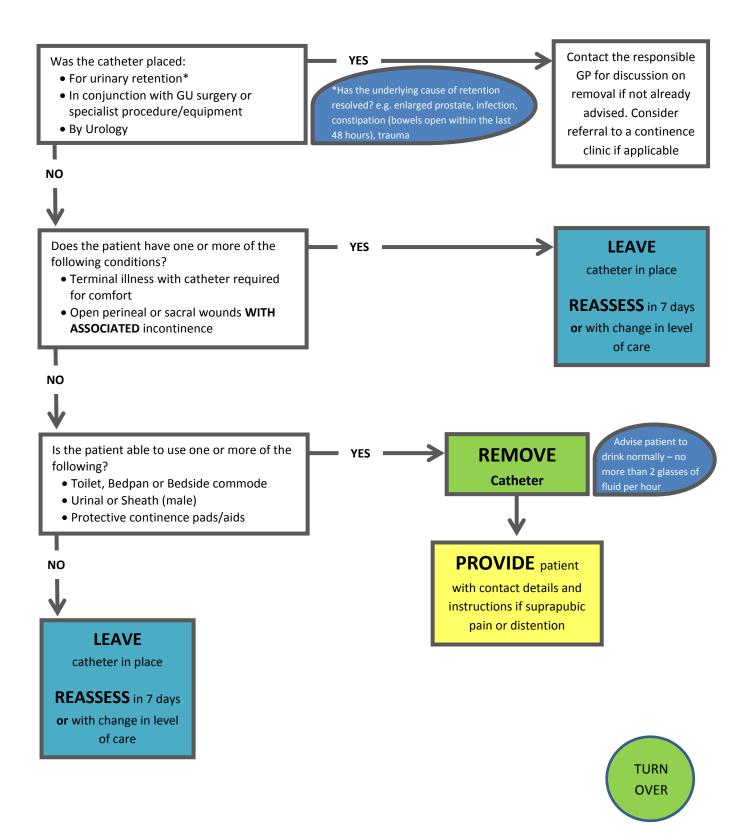
For use with all patients with short-term urinary catheter up to 35 days

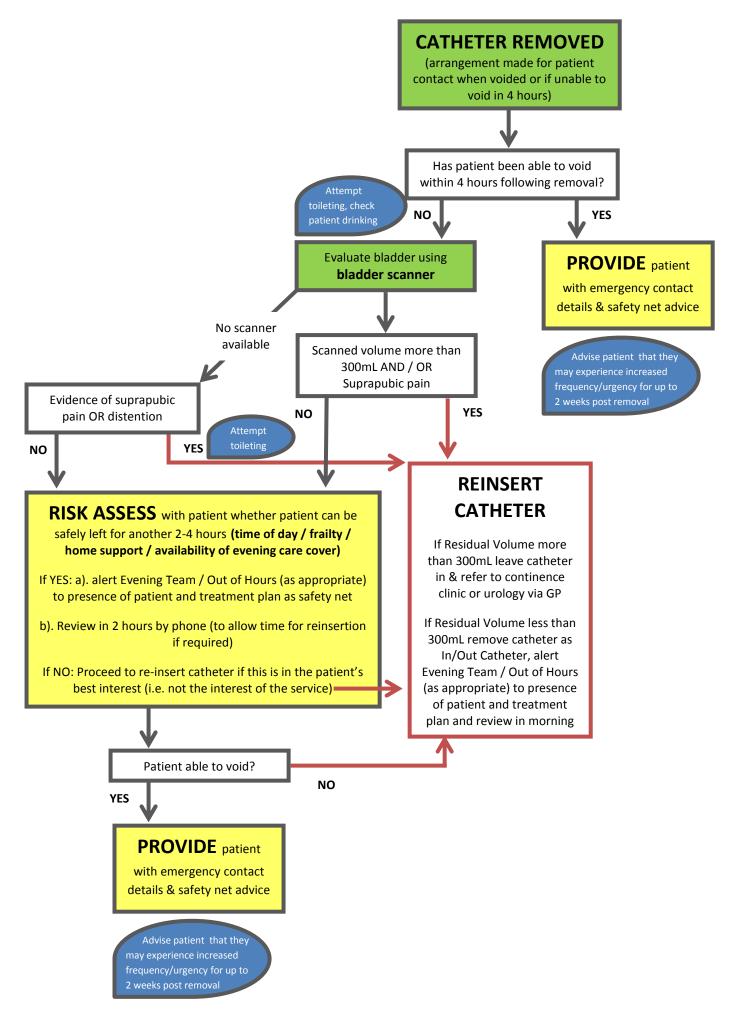


NURSE LED SHORT-TERM INDWELLING URINARY CATHETER REMOVAL PROTOCOL

(COMMUNITY CARE TEAMS)

For use with all patients with short-term urinary catheter up to 35 days





Equality Impact Assessment

Step 1 – Scoping; identify the policies aims	Answer			
1. What are the main aims and objectives of the document?	To provide guidance on choice, insertion, care and removal of urinary catheters			
2. Who will be affected by it?	Patients with indwelling urinary catheters			
	Staff who perform all aspects of catheter management			
3. What are the existing performance	Current procedures are out of date			
indicators/measures for this? What are the outcomes you want to achieve?	proced	This overarching policy will have a number of procedures under it which will detail aspects of catheter management		
4. What information do you already have on the equality impact of this document?	Catheterisation is a familiar procedure in many areas of the Trust			
5. Are there demographic changes or trends locally to be considered?	No			
6. What other information do you need?	None			
Step 2 - Assessing the Impact; consider the data and	Yes	No	Answer	
research			(Evidence)	
1. Could the document unlawfully against any group?		x	Need for a catheter to be inserted is assessed on an individual patient basis, based on clinical or patient requirements only	
2. Can any group benefit or be excluded?		x	Any patient who requires a catheter will be considered for one	
3. Can any group be denied fair & equal access to or treatment as a result of this document?		x	All patients will have equal acess to catheterisation dependent on clinical need and personal choice	
4. Can this actively promote good relations with and between different groups?	x		Decision making in catheter care is multi-prefessional and includes the patient and those close to them	
5. Have you carried out any consultation internally/externally with relevant individual groups?	x		Infection prevention and control, Modern Matrons, Bladder and Bowel service	

6. Have you used a variety of different methods of consultation/involvement	x	e-mail and face to face
Mental Capacity Act implications		
7. Will this document require a decision to be made by or about a service user? (Refer to the Mental Capacity Act document for further information)	x	It may do if the patient does not have capacity to make decisions about their catheter care. Any such decision will be made using a best interest approach as per the policy

No negative impact – end of assessment