

Adult Urinary Catheter Insertion and Management policy for Community Health Staff

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Name of originator/author:	Lola Kehinde – Continence Lead Nurse
Executive Director lead :	Chief Nurse
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Version Control Summary

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1.0	August 2011	Yvonne Fenn – General Service Manager		Adult Female re- catheterisation Policy For Health Care Support Workers
1.0	July 2004	Not documented		Catheterisation Policy
2.0	July 2019	ELFT Continence Specialist Team		Combines and replaces previous catheter policies for Tower Hamlets, Newham, Luton & Bedfordshire

RELATED DOCUMENTS

- Trust Consent to Treatment Policy and Mental Capacity Act Policy
- Hand Hygiene policy
- Antibiotics policy
- Infection Control & Prevention Policy
- Chaperone policy
- Continence products formulary
- Royal Marsden (2015) Manual of Clinical Nursing Procedures Ninth Edition
- NICE Guideline (2018, NG113) Urinary tract infection (catheter-associated): antimicrobial prescribing.
- Registered Nursing Associate Standards for Proficiency (2018)
- NICE (2018) guideline Preventing healthcare-associated Gram-negative bloodstream infections: an improvement resource
- NICE (2017) Farco- fill protect for indwelling urinary catheterisation.

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1.0 INTRODUCTION

The purpose of this policy is to provide principles of practice from assessment to insertion and removal of urinary catheters (urethral and suprapubic) preventing complications and reducing catheter-related bacteraemia. The majority of hospital-acquired infections are associated with an invasive device; the most serious of these are sepsis infections of which urinary catheters are a risk factor.

Sensitivity must be considered for all patients who require urinary catheterisation regardless of age, sexual orientation, disability, gender reassignment or race, and staff should ensure appropriate support and advice is available when needed.

Urinary catheterisation will usually be via the urethral route except in certain situations when the suprapubic route may be selected. Drainage of urine will also often be continuous with a short or long term indwelling catheter. However, in certain situations, intermittent urethral catheterisation is appropriate. (See definitions below).

The purpose of this policy is to ensure that patients with bladder dysfunction are provided with an appropriate, comprehensive assessment and are reviewed regularly to enable effective management of the indwelling/intermittent urinary catheterisation. Support is offered to the patient who requires it for self-management, and their activities of daily living are not restricted by having a catheter.

The purpose of this document, the term health care professional (HCP) refers to all registered nursing staff trained to insert and care for urinary catheters. Nursing associates can perform catheterisation and intermittent catheterisation on female patients.

Detailed guidelines and procedure for insertion, removal, intermittent self-catheterisation, and catheter care can be found in the Royal Marsden Manual of Clinical Nursing Procedures, 9th Edition. (This is just a guide as latest updates will be given in training such as to reduce CAUTI rate and catheter flushes).

In all cases, patients requiring bladder management by indwelling urinary catheterisation should have less invasive methods of bladder drainage explored. Indwelling urinary catheterisation should remain a last resort.

1.1 PURPOSE

The purpose of this policy is to ensure the Trust meets strategic and clinical best-practice standards in delivering direct patient care to patients with or who require urinary catheters / catheterisation.

1.1.1 Key Objectives:

The main objectives of this policy are to:

- Reduce hospital admissions and A & E attendances by effectively managing patients with indwelling urinary catheters.
- Provide the best evidence-based and standardised care to those patients with urinary catheters where other methods of bladder management have failed.
- Educate staff on how to teach patients and carers on safe and independent management of their catheters.
- Reduce the number of avoidable catheters associated urinary tract infections (CAUTI) in patients with indwelling catheters.
- Ensure that policies are in place to support staff in the care of indwelling catheters.

1.2 SCOPE

This policy applies to all Trust staff directly or indirectly involved with urinary catheterisation / catheters. The policy is for adult patients that require either indwelling or intermittent use of a catheter. This policy does not apply to children under the age of 18 years. This group of patients should have their catheter care arrangements supervised by a person specifically trained in paediatric care.

1.3 DEFINITIONS

- A **urethral catheter** is a hollow tube inserted into the urinary bladder via the urethra, to drain urine or instil fluids as part of medical treatment.
- A **supra-pubic catheter** is a hollow tube inserted into an artificial tract in the abdominal wall, just above the pubic bone and into the dome of the urinary bladder to drain urine or instil fluids as part of medical treatment.
- **Bacteriuria** is the presence of bacteria in the urine with or without associated symptoms of infection. In the absence of symptoms, is referred to as asymptomatic bacteriuria (or in the case of a patient with an indwelling catheter as catheter colonisation).
- **Catheter-associated Urinary Tract Infection (CAUTI)** occurs when microbes gain access to the bladder via the outer surface of the catheter and through the lumen, causing symptoms including fever and suprapubic tenderness. Once a catheter has been in situ for a few days (72hours) bacteriuria is almost inevitable and recurrent symptomatic urinary tract infections, and sepsis is genuine risks.
- **Dysuria** Pain during urination or difficulty urinating. Dysuria is usually caused by inflammation of the urethra, frequently as a result of infection.
- **Urinary Tract Infection (UTI)** involves the successful invasion, establishment, and growth of microbes within the urinary system (kidney, ureter, bladder, or urethra) of the host. Any factor interfering with the normal flow of urine can increase susceptibility to infection.

1.3.1 Who Can Catheterise?

- A registered nurse (RN), doctor or HCP adequately trained and deemed competent can perform a urethral catheterisation.
- Registered Nursing Associates (RNA) can carry out intermittent catheterisation and re-catheterisation of female patients only.
- In East London Foundation NHS Trust, Registered RNA are eligible to re-catheterise female patients after training and being signed proficient at carrying out the procedure.
- RNA and Senior Healthcare Support workers (Band 4) can provide bladder washouts to patients after a period of training and having competencies signed off. This requires there to be a prescription from a nurse prescriber or General practitioner.
- All practitioners are expected to work within their scope of practice; therefore, HCPs who are not competent and or proficient in this procedure should decline carrying out the procedure until they are signed off and deemed fit to practice.
- All Staff should ensure that they are familiar with this policy and adhere to full asepsis technique at all times.

1.4 TRAINING REQUIREMENTS

ROLES	WHO CAN THEY CATHETERISE?	TRAINING REQUIREMENT/ BY WHO?	COMPETENCIES REQUIRED FOR PROFICIENCY
ADVANCED CLINICAL PRACTITIONERS (NURSING)	Both Male and Female patients They also carry out TWOCs	Taught sessions (face to face) by Continence team	2 Males and 2 female catheterisations after training then Annual review for fitness to practice the skills.
REGISTERED NURSES (RN / RMN)	Both Male and Female patients	Taught sessions (face to face) by Continence team	2 Males and 2 female catheterisations after training then Annual review for fitness to practice the skills.
REGISTERED NURSING ASSOCIATES (RNAs)	Recatheterisation of female patients and bladder washouts	Taught sessions (face to face) by Continence team	6 female recatheterisations and 4 bladder washouts after training then six-monthly (6) review for ongoing review for fitness to practice the skills.
SENIOR HEALTHCARE SUPPORT WORKER (BAND 4)	Bladder washouts via patient specific instructions	Taught Practical sessions (face to face) by the Team leader	4 bladder washouts after training then six-monthly (6) review for ongoing review for fitness to practice the skills.
HEALTHCARE SUPPORT WORKERS	Catheter care (emptying and changing of bags) and urinalysis	Taught practical session by Qualified / Registered Nurses	5 catheter care carried out before proficiency sign off

2.0 ASSESSING THE NEED FOR CATHETERISATION:

HCPs may assess the need for catheterisation in palliative care patients and undertake the procedure to promote comfort. In all other clinical situations, the decision to catheterise should be made by a doctor / GP. It could be done via a telephone consultation with the GP and documented immediately by the HCP.

Catheterisation in patients approaching the end of life can be considered after exploring all other methods of bladder management.

The clinical need for the catheter needs to be reviewed regularly, and the catheter removed if no longer indicated. The patient must be referred for a Trial without catheter (TWOC) as per the local procedure.

2.1 INDICATIONS FOR URETHRAL CATHETERISATION:

a) Short term (1-2 days, less than 28 days)

- Intra or Peri-operative use (e.g., intra-operative urine output monitoring, spinal/epidural anaesthetic, genitourinary tract surgery)
- Hourly urinary output monitoring in critically ill patients
- Acute urinary retention (confirmed by bladder scan and residual volume measurement)
- Investigations – e.g. urodynamic measurement of residual volumes (less invasively achieved by a portable bladder scanner)

b) Long Term (up to 12 weeks)

- Chronic urinary retention in the symptomatic patient or bladder outlet obstruction not amenable to surgery.
- Management of impaired skin integrity or to assist healing of open wounds (including surgical) or sores frequently contaminated with urine
- End of life care/dignity
- Neurological disorders causing paralysis or loss of sensation, hypotonic bladder when CISC, not a viable option
- Patients requiring prolonged immobilisation (e.g., pelvic or spinal trauma)

c) Other

- Where a patient insists on a catheter after discussion and understands the risk

The use of indwelling catheterisation should not be considered routine in any of these situations. Other options, such as intermittent self-catheterisation should be explored first.

Catheterisation is an aseptic procedure using sterile equipment and should only be undertaken by healthcare workers trained and competent in this procedure (see appendix)

Catheter type	Duration	Material	Size and length
Short term	Up to 7 days	<ul style="list-style-type: none"> • Plastic (PVC) • Latex 	<ul style="list-style-type: none"> • Female 12 – 14 Ch • Male 12 – 14 Ch
Medium term	Up to 28 days	<ul style="list-style-type: none"> • Poly-tetra-fluoride-ethylene (PTFE) • Silver-alloy hydrogel coated 	<ul style="list-style-type: none"> • Female – 26cms* • Male(standard) – 43cms*
Long term	Up to 72 days	<ul style="list-style-type: none"> • 100% silicone • Hydrogel bonded 	

3.0 DUTIES / ROLES AND RESPONSIBILITIES:

All HCPs involved in catheterisation of patients are accountable for their actions and omission. Therefore this paragraph will state responsibly of each HCP:

It is the responsibility of the team leader to acknowledge any limitations in personal / team knowledge and competency in accordance with the Nursing & Midwifery Council.

a) Infection Prevention Team:

- Promote good practice in infection prevention and control, and challenge poor practice
- Work in collaboration with the continence specialist nurses to ensure that infection control audit and processes are maintained as part of the catheterisation procedure

b) Continence Nurse Specialists'

- Conduct audit and inspection of catheter usage, dwell time and CAUTI
- Promote right catheter insertion, management and removal practice in all induction and update training for clinical staff
- Provide competency-based training on catheter insertion, ongoing care, and removal
- Provide expert intervention which may include joint visits in patients with complex continence and catheter requirements
- Promote good practice and challenge poor practice and contribute to monitoring and maintaining standards.
- After the completion of training, competencies form is signed and a 'certificate of competency' is issued by Continence Lead Nurse.
- Advanced Clinical Practitioners (ACPs – Nursing)
- Carry out complex care for patients on their caseloads.
- Provide expert intervention which may include joint visits in patients with complex continence and catheter requirements
- Promote good practice and challenge poor practice and contribute to monitoring and maintaining standards.

c) Team leaders / Ward Managers:

- Must ensure that all Healthcare professionals (HCPs) undertaking catheter insertion, ongoing care, and removal have received suitable competency-based training.
- Promote absolute compliance with good catheter practice, including asepsis and hygiene
- Ensure all urinary catheter is recorded on EMIS / SYSTMONE or Catheter Care Bundles, and that records of care and removal are kept up to date
- Promote good practice and challenge poor practice

d) All Healthcare Professionals (HCPs):

- Must adhere to the full terms and conditions of this policy

It is the responsibility of all registered health care practitioners undertaking urinary catheterisation to be confident and competent in doing so. The registered health care practitioner must take into consideration:

- Their professional body's code of conduct, e.g., Nursing & Midwifery Council (NMC)
- Relevant Trust Policies, e.g., Infection Control policy
- Identifying their learning and development needs and scope of practice.
- Trust consent policy

If the registered healthcare professional delegates the task of insertion or ongoing care of an

indwelling urinary catheter to a non-registered staff member, they are reminded that they are at all times accountable for the delegated task.

In delegating the task to others, it is essential to ensure:

- Healthcare professionals in their teams are trained and competent in carrying out delegated procedures, including bank and agency staff.
- The non-registered staff member has received training and assessment of competence in the insertion and care of indwelling urinary catheters
- Nursing associates are expected to undertake catheter care after training (such as emptying and changing a catheter bag and obtaining a catheter specimen of urine).
- The Nursing Associates' NMC Standards of proficiency does not indicate insertion of medication such as catheter flushes into the urethra; however this can be done after staff is deemed proficient.
- All HCP is to maintain privacy and dignity at all times.

e) Patients, Carers & Informal Carers

- Patients are encouraged to be involved in their care hence those who wish to be trained to perform self-care such as self-catheterisation, bladder washout with catheter maintenance solution, change of urine drainage bags or flip flow valve should be trained and assessed as competent by appropriately registered clinicians.
- If a patient has an informal carer, the carer needs to be identified and trained by a registered nurse and or continence specialist in consultation with family and community care providers.
- This arrangement will promote the autonomy of the patient and provide optimum freedom and flexibility.

3.1 PROCESS

Good Practice Statements

- Only use indwelling urinary catheters in patients for whom it is clinically indicated (see the alternative to indwelling urinary catheterisation below for more details), following assessment of alternative methods and discussion with the patient, e.g., intermittent (self)catheterisation, urinary sheaths, incontinence products
- The registered health care practitioner (HCP) should understand the high level of risk associated with short and long-term catheterisation
- Document the clinical indication(s) for catheterisation, date of insertion, expected duration, type of catheter and drainage system, and planned the date of removal
- Assess and record the reasons for catheterisation at every review. Remove the catheter as soon as no longer clinically indicated.
- Indwelling urinary catheterisation is not a substitute for nursing care of the patient with urinary incontinence.

3.2 Decision to Catheterise

The competent HCP can make a clinical decision to undertake an initial urethral catheterisation. Initial suprapubic catheterisation is by medical staff. Ideally, indwelling catheterisation is carried out following discussion with the patient and the patient's clinical team so that decisions regarding subsequent treatment/care can be made.

Wherever possible, intermittent (self) catheterisation should be the preferred alternative. However, if it is concluded that this is unacceptable or unsafe, then indwelling catheterisation might be considered as the next best option.

3.3 Alternatives to Indwelling Urinary Catheterisation : The most common alternatives to indwelling urinary catheters are:

- External catheters for men (sheath/condom catheters)
Intermittent (“in-and-out” or “straight”) catheterisation
- Programmed toileting

3.4 External sheath/condom catheters lower the risk of infectious and other complications of urinary catheterisation and are more acceptable to patients. When using condom catheters, it is vital to choose an appropriate size to improve fit and adherence despite patients’ movement.

3.5 Intermittent self-catheterisation, often used in patients with neurogenic bladder or spinal cord injury, lessens the risk of urinary tract infection. Intermittent self-catheterisation is preferable to indwelling urethral or suprapubic catheters in patients with bladder emptying dysfunction. Intermittent self-catheterisation enhances patient privacy and dignity and facilitates return to activities of daily living.

3.6 Toileting programs typically consist of a patient-specific assessment of incontinence followed by a program of prompted voiding, habit retraining, and timed voiding as part of an individualised care plan. Evidence from one investigation demonstrates toileting programs can significantly lessen the risk of falls and skin breakdown.

4. CONSENT

The patient/carer must give valid consent on initial assessment; and ongoing consent to the procedure. It may be verbal or implied (Refer to the Trust’s Consent to Treatment Policy and the Mental Capacity Act Policy).

Where an adult patient lacks mental capacity (temporarily or permanently) to give or withhold consent, no one else can give consent on their behalf unless there is an identified Lasting Power of Attorney concerning health and financial matters. Lasting Power of Attorney must be registered with the Court of protection and must have valid documentation to show this.

However, treatment may be given in the patients’ best interest except where there is valid evidence of advanced decision to refuse treatment. (See Catheter consent in Appendix).

Patients must be given sufficient information to enable them to decide whether or not they wish to proceed with treatment. It should include the benefits and possible risks of catheterisation, complications, and available alternatives. Patients must be given enough time to consider the information and have the opportunity to ask questions.

Patient consent is required for the use, or not, of a chaperone during any aspect of catheterisation or ongoing catheter care (See Chaperone Policy for more details). HCPs should avoid coercing or restraining patients for catheterisation, including the aspect of ongoing catheter care, as this is assault in law and demonstrates a lack of consent.

4.1 Complications

- There is a strong association between the duration of catheterisation and the risk of infection. The daily risk of acquisition of bacteriuria when an indwelling catheter in situ is 3–7%. The rate of acquisition is higher for women and older persons. Bacteriuria is universal once a catheter remains in place for 72hours. Approximately

24% of sepsis patients will develop CAUTI, and of these, up to 3-4% develop a severe secondary infection such as sepsis infection

- Additional infectious complications, usually identified in patients with a chronic indwelling catheter, include bladder urolithiasis, purulent urethritis, gland abscesses and, for males, prostatitis
- Non-infectious complications urinary catheter obstruction, nonbacterial urethral inflammation, urethral strictures, mechanical trauma, including traumatic hypospadias in men, and mobility impairment.

5.0 Documentation

- HCPs must record clearly, accurately any relevant information concerning patient care regarding catheter management in patients' records on EMIS/ RIO/SYSTEMONE.
- All HCP who perform urinary catheterisation should document the need for catheterisation and residual urine in the patient's healthcare record and on EMIS/RIO /SystemOne.
- The urinary catheter batch number expiry date, make, and the manufacturer should be entered in the patient's healthcare record.
- Ongoing catheter management plans must be documented in the patient's healthcare record, including frequency of catheter change, especially in patients with recurrent catheter blockages.
- Please note that documentation is a legal record of care provision and what happened and it supports the investigation of complaints and litigation
Therefore HCP records could include:
 - The reason for the catheterisation, catheter change, or ongoing need for a catheter, including possible risks.
 - Use of catheter passport - a tool for communication between different health care providers and if used what information needs to be included, (see appendix)
 - The result of any risk assessment before catheterisation.
 - The health status of the patient before catheterisation well /unwell.
 - Is the patient febrile, do they have a temperature (over 37C)
 - Is the individual patient in any form of localised discomfort or pain
 - Meatal or genital abnormalities observed, including discharge.
 - Is the insertion easy or difficult, did urine drain, the anaesthetic (optilube active) gel used, and expiry date.

6.0 EDUCATION/ TRAINING:

6.1 Education of patients and /or relatives

- Patients and carers need to be involved in their care, which includes being aware of the complications of catheterisation and educated about and trained in techniques of hand decontamination, insertion of intermittent catheters where applicable, and catheter management.
- This will facilitate self-care and reduce the risk of infection and promote independence and dignity. This information should include how to identify a potential problem and who to contact for help, e.g. patient information leaflet and details of other services in the community, i.e. District Nursing / Continence Service. Catheter passport and other related documents such as leaflet can be found in the appendix
- It is essential to assess the ability of the patient before catheterisation
- The patient's ability to self-care following education should be assessed.

6.2 Competencies:

- Bank and agency staffs are individually accountable for their actions and are expected to comply with these guidelines.
- HCP responsible for the delivery of care for patients with urinary catheters must be familiar with this guideline and associated documents / guidance.
- All HCPs performing catheterisation should have evidence of the Trust's competency and have undergone a minimum of 4 supervised practices by a qualified, competent practitioner. (See Appendix for competency tool)
- If a nurse has been trained in another NHS Trust and can provide evidence of competency for both male and female catheterisation, a competent Trust's staff should assess the new staff member against this clinical guideline using the Trust's competency assessment tool.
- To maintain competency, HCPs should keep up to date with new knowledge and changes to procedure.
- Professional clinical supervision could be used to facilitate reflection on competence.
- HCPs should use an appropriate lubricant (such as Optilube active6mls in women and 11mls in men) prior to urinary catheterisation to minimise urethral trauma and infection.

6.3 CAUTION:

After two attempts or excessive bleeding, do not try to catheterise again.
Discuss with your team leader and or refer the patient to the hospital.

6.4 Selection of Catheter

Catheter selection is based on several factors;

- a) The patient's needs, including:
 - latex allergy (recommend all silicone catheters for all patient)
 - length of catheter
 - type of sterile drainage bag and sampling port (2-L bag, leg bag) or catheter valve
 - Comfort and dignity.
- b) The need to minimise:
 - urethral trauma
 - irritation
 - patient discomfort
- c) The anticipated duration of catheterisation.

The length of time a catheter can remain in place is guided by the manufacturer's product liability, which should always be observed. The rationale for urethral and suprapubic catheterisation is given below.

- Catheter choice will depend on the patient's assessment and the anticipated duration of catheterisation. There are several types of catheter available which come in various length and diameters (Charriere).
- Choosing the right size for the patient is essential.
- Smaller diameter catheters minimise urethral trauma, mucosal irritation, and patient discomfort compared to larger diameter catheters.

Catheter type	Duration	Material and Comments
Short term	Up to 7 days	<ul style="list-style-type: none">• Plastic (PVC) – post-op or intermittent catheterization• Latex – uncoated latex rarely used as high surface friction can cause discomfort and tissue trauma
Medium-term	Up to 28 days	<ul style="list-style-type: none">• Poly-tetra-fluoride-ethylene (PTFE) bonded latex -

		smoother outer surface
Long term	Up to 72 days	<ul style="list-style-type: none"> • 100% silicone open-ended – thin-walled, better drainage capacity • Hydrogel bonded – highest compatibility with human tissue, less risk of trauma and less biofilm/encrustation formation

Suprapubic	Urethral
Specific Considerations	
Long-term (including incontinence) Sexually active Post-specific surgery Urethral trauma Some wheelchair-bound people Difficulties with a urethral catheter Annual bladder ultrasound scan	Short-term Intermittent Post-specific surgery Difficulties with suprapubic
Specific Care	
Strict asepsis on insertion Strict asepsis on redressing the fistula site	Strict asepsis on insertion
Specific Advantages	
Reduced risk of infection Enables sexual activity	Nurse able to carry out the procedure at first insertion (where risk assessed)
Specific Disadvantages	
Altered body image Potential urine leakage from around the site Limited nursing research on the subject Requires a registered medical practitioner to perform initial insertion Urethral leakage	Altered body image Impedes sexual intercourse in some cases

6.5 Catheter Material:

- Choice of catheter material may depend on clinical experience, patient assessment, and anticipated length of time the catheter is expected to be in place.
- All patients should be asked if they have any allergies, i.e. to latex. The catheter material determines the length of time a catheter may remain in situ.
- Each individual manufacturer has different warranties for catheter use, and caution should be taken as to where the catheter is to be used, e.g., urethral/suprapubic and how long it is to remain in situ.
- At present, there is no robust clinical evidence on using antibiotic-impregnated catheters, and therefore, is not recommended.
- There is no evidence that silver oxide catheters reduce urinary tract infection rates
- The catheter packaging should be checked that the CE mark is present and that the catheter is licensed for either urethral or supra-pubic use.

6.6 Size of catheter

	Urethral catheterisation	Suprapubic catheterisation
	12ch or 14ch for long-term female use	<ul style="list-style-type: none"> • 16ch or 18ch

		(both sexes)
	12ch, 14ch or 16 for male long term use	

In the circumstances, where the patient is discharged with a bigger size of catheter, this needs to be used for the patient.

6.7 Securing the catheter to prevent trauma

The use of a catheter securement device will prevent urethral trauma caused by the swinging or pulling of the catheter tubing. This will also prevent a 'piston' effect, which increases the risk of infection. Statlock could be used to secure the catheter

6.8 Balloon size

- Use a 10ml retention balloon in adults. All catheter balloons should be inflated to the volume indicated on the catheter labels using sterile water. They should not be over or under-inflated.
- Some catheters have pre-filled balloons with a reservoir and clip at the balloon channel for release after insertion.
- Balloons should always be filled with sterile water, never air (will float above the urine, preventing drainage), or tap water (contains soluble salts that can cause osmosis), or saline (crystals of salt may prevent deflation of balloon)
- Balloons should never be under or overfilled, as misshaping of the balloon will interfere with drainage. Always follow the manufacturer's instructions

6.9 Availability of catheters and other support products

- HCP should ensure they order enough stock for the patient to store at home.
- Clinical areas may routinely stock a small supply of standard Foley catheters

7.0 Sex, sexuality and body image

- A catheter is often in view, which can affect self-esteem and dignity. Independence in catheter care and the use of leg bags should be encouraged. Sexuality with catheter must be discussed with patients by the HCP.
- A flip flow valve may be used by both male and female instead of the drainage bag; renal functions need to be clarified. Alternatives include electively having a supra-pubic catheter or performing intermittent self-catheterisation.
- For sexual activity, men can secure the catheter along the shaft of the penis using a condom prior, and women can tape their catheters to the abdomen.
- Healthcare professionals should prompt this discussion with the patients and discuss the leaflet and give the patient time to ask questions concerning catheter and sex.

7.2 Catheter Insertion

- Catheterisation is an aseptic procedure using sterile equipment and should only be undertaken by healthcare workers trained and competent in this procedure (Please see the Royal Marsden's Manual for Clinical Procedures for the step by step guide on how to catheterise a patient - male and female, latest evidence based update will always be given when training). However, please note that:

- Single-use lubricant (Optilube active) is recommended to minimise urethral trauma and infection.
- There is no substantial evidence supporting the use of antiseptic solutions for the cleaning of the urethral meatus. Normal saline may be used.
- All catheter insertions must be recorded on EMIS/ SYSTMONE AND or the patient's paper home record.

7.3 Intermittent Catheter Insertion

- For intermittent catheter insertion, follow the guidelines in the Royal Marsden Manuals for Clinical Procedures (latest evidence based updates will be provided during training) but do not inflate the balloon and gently remove the catheter once the flow of urine stops.

7.4 Intermittent Self-Catheterisation

Intermittent self-catheterisation may be appropriate for some patients to avoid the risks associated with a long-term indwelling catheter. Intermittent self-catheterisation is taught by the community nurses /continence nurse specialists via the continence clinic/ home visit. A choice of single-use hydrophilic or gel reservoir catheters is available from the continence nurse specialists or on prescription for intermittent self-catheterisation.

7.5 Changing the Catheter

- The principles of asepsis should apply to the procedure of urinary catheterisation, both urethral and suprapubic.
- For re-catheterisation procedures, the existing catheter should be removed, examined for encrustations and integrity, and discarded at the start of the procedure. Extreme care should be taken with supra-pubic catheters changes for those patients who are receiving anticoagulant therapy or who have blood clotting disorders
- All catheter changes must be recorded on EMIS/ SYSTMONE AND or the patient's paper home record as a new episode of an indwelling device
- Unless there is a need for re-catheterisation in a controlled environment, there is no rationale for the first catheter change for both routes of entry into the bladder being performed in the hospital
- Conversion to suprapubic catheterisation from urethral catheterisation is not always successful for female patients, as there is a considerable risk of coincidental urethral leakage, and patients should be warned of this risk.

7.6 Ongoing Care

- Catheters should be inspected a minimum of once every week
- Catheter care should be provided a minimum of once weekly and more frequently when indicated. This includes self-care in patients who can do so.
- During catheter inspection, the following should be assessed:
- General patient condition (including fever, mental state, evidence of systemic infection)
- Loin pain
- Colour and consistence of urine (including debris, haematuria)
- Patient comfort

- Security of the catheter
- Catheter tubing should be secured to the leg so that it avoids kinks in the tubing, traction on the bladder neck, trauma to the urethra, occlusion of the catheter lumen, or causing excessive constriction to the limb
- Tape should not be used as catheter material could be damaged due to solvents.

7.7 Care of the Suprapubic Site

If dressings are clinically required, they must be sterile and applied using an aseptic non-touch technique. In most cases, a dressing will not be necessary and patients should be encouraged to clean the site daily.

7.8 Drainage Systems and Bag position

- Urometers should be used for patients requiring hourly or two hourly urine monitoring (indication acute care or community wards)
- 2-litre overnight drainage bags with drainable ports are most suitable for bed-bound patients
- Overnight drainage bags should be hung on a stand that prevents contact with the floor
- Leg Bags should be promoted in the mobile patient to aid recovery through early unrestricted mobilisation and maximise patient dignity and (where possible)
- Leg bags should be secured using either straps or sleeves, which needs to be based on individual need. To avoid skin irritation and damage, alternating the leg on which the drainage bag is secured will minimise this risk.
- Drainage systems/bags need to be positioned below the level of the bladder to avoid hydrostatic suction, which can cause damage to the bladder mucosa. Higher rates of bacteriuria have been linked to incorrect positioning.

7.9 Drainage System Emptying

- Drainage systems/ bags should be emptied when three-quarters full to avoid traction on the bladder. However, the closed system should not be broken more than is necessary.
- Whenever possible, patients should be encouraged to empty their drainage bag. If this is not possible, the Health Care Professional (HCP) or carer should:
- Perform hand hygiene and wear an apron and non-sterile gloves. Eye goggles may need to be considered when there is a risk of splashing
- Use a single-use pulp product or clean disposable jug to empty urine which is then immediately disposed of
- Contact between the tap and the container must be avoided – there is no evidence to support cleaning the tap with chlorhexidine/alcohol
- Empty urine carefully into a bodily fluid disposal unit, e.g. Toilet/macerator/slop hopper
- Ensure hands are cleaned following removal of gloves and apron.

8.0 Changing bags

- Drainage bags should only be changed when necessary (i.e. according to either to the manufacturer's recommendations [generally 5-7 days] or the patient's clinical need).

- Used drainage systems should never be reconnected once they have been disconnected from the catheter. A new bag/system must always be used
- The date of bag change should always be written onto the drainage bag.

8.1 Valves

These can be used as an alternative to a conventional drainage bag. As well as being discreet, they allow the bladder to resume/continue its storage function. The use of a valve during the day and continuous drainage at night has been found to be an ideal solution for many catheterised patients. Valves are appropriate for longer-term catheterised patients to prevent bladder atrophy or prior to a trial without catheter (TWOC). Valves may exacerbate bladder spasm.

8.3 Cleanliness

The patient may either take a bath or shower. The build-up of secretions at the urethral meatus should be minimised by daily routine personal hygiene. Perineal care should also be included to facilitate a reduction in extraluminal contamination.

Daily care using soap and water should be undertaken in the bed-bound patient or the patient unable to care for their catheter.

8.4 Fluids

Unless restricted for medical reasons, adequate fluid intake should be encouraged per 24 hours (2 – 3 litres of fluid per day) as this maintains a flow of urine through the bladder and helps prevent constipation. There is no evidence of long-term benefit or appropriate dosage of cranberry juice with the use of catheters. Furthermore, caution should be exercised for those patients taking warfarin. However, citrate-based drinks are recommended as these have been found to positively affect the pH of the urine.

8.5 Catheter problem solving:

Problem	Possible reasons and action to take
Urine does not drain	<p>Check for mechanical obstruction – kinked tubing; occlusion by leg straps; bag higher than the level of the bladder</p> <p>Check for constipation</p> <p>Occlusion of catheter eyes by anaesthetic gel or bladder mucosa – gently instill sterile water/saline to clear eyes; check that leg bag is not too low down on the leg</p> <p>Consider changing the catheter and inspect for encrustation – if it is patent – consider bladder spasm as a cause</p> <p>Consider that the patient may be dehydrated or in renal failure</p> <p>If the new catheter doesn't drain – check that it's in the urethra; that the catheter is the correct length and that eyelets are in the bladder</p>
Encrustation	<p>The main cause is struvite formation (calcium phosphate and magnesium ammonium phosphate salts); struvite forms as a result of precipitation of these salts from the urine when it becomes alkaline because of urease forming bacteria</p> <p>Encourage fluid intake, which includes citrate-based drinks.</p> <p>Assess 'catheter life' by observing at least three catheters; implement planned catheter changes to avoid blockage. A prescribed regime of acidic catheter maintenance solutions maybe clinically justified.</p>
Haematuria	<p>May be caused by trauma, infection, renal/bladder pathology; if severe, seek medical help urgently. Treat for shock and monitor for clots and blockages.</p>

	If occult, refer for further investigation, e.g., cystoscopy.
Urine bypassing	Check for tube kinking and/or constipation If due to bladder spasm or irritation: consider anticholinergic medication; consider a smaller catheter size; check balloon size; consider catheter material (latex allergy) If due to encrustation: change and inspect the catheter
Cramping pain	This should subside after 24 hours of initial insertion; if it persists, it may be bladder spasm, and anticholinergic therapy should be considered
Urethral discomfort	May be due to distension of urethra by too large a catheter or by occlusion of the paraurethral glands – change to a smaller catheter.
Urethral discharge	During normal micturition, a mucus substance is produced by the paraurethral glands (which line the urethra) to protect against ascending infection and is usually flushed away. However, in the catheterised patient, the mucus drains away through peristaltic action and gravity rather than being flushed away and can result in the presence of mucus outside the urethra and on the catheter surface.
Blocking due to debris in the urine	Sludgy mucus type debris can block the catheter. Expert opinion suggests using a valve in this situation to encourage natural flushing of the catheter lumen.
Non-deflating balloon	Check that syringe is not faulty; leave syringe for a few minutes to allow water to drain spontaneously - not forcibly as a vacuum may result in the inflation channel. If unsuccessful, discuss with the doctor regarding a urological opinion. NEVER cut the valve off.
Catheter rejection	If a patient pulls their catheter out with the balloon inflated due to a confused state, consider alternative methods to manage the bladder problem. On occasions, catheters may be expelled due to a combination of weak pelvic floor muscles, urethral dilatation, and detrusor overactivity. Other means of continence care should be sought.
Difficulty in removing the catheter	Expert opinion suggests that inflating and deflating balloon about four times and then leaving for five minutes before catheter removal can assist in easier extraction of the catheter. If the catheter cannot be removed, stop and refer to the urological team, in collaboration with the doctor.
In recurrent blockages:	Consider moving catheter date change forward in the first instance. If all else fails, please consider the steps below: The innovative treatment is that Farco-fill protect contains a broad-spectrum antimicrobial agent (trilosan) that aims to reduce the number of bacteria in the urine and potentially reduce encrustation of the catheter. Farco fill will be required when the clinician is changing the catheter as this replaces the sterile water that is currently used to inflate the catheter balloon. Where there are clinical signs of infection, service users with catheter-associated UTI to the hospital if they have any symptoms or signs suggesting a more severe illness or condition; for example temperature of over 37 degrees, cloudy, smelly urine, change in patients' behaviour, confusion, etc.

Please note that:

- A catheter- associated urinary tract infection (UTI) is a symptomatic infection of the bladder or kidneys in person with a urinary catheter.
- The longer a catheter is in place, the more likely bacteria will be found in the urine; after 1 month, nearly all patients have bacteriuria.
- Antibiotic treatment is not routinely needed for asymptomatic bacteria in people with a catheter.

Advice when an antibiotic prescription is given:

When an antibiotic is prescribed, monitor possible side effects such as diarrhoea and nausea and advise the patient to seek medical help if symptoms persist.

8.6 Catheter maintenance Solution

There is minimal evidence to identify if the use of solutions provides any benefit. However, for catheters that block due to encrustation resulting in a frequency of catheter change that is unacceptable to the patient, then a prescribed regime of an acidic catheter maintenance solution may be clinically justified for short-term use. It is not recommended to use solutions for unblocking a catheter that is no longer draining. Each local area has a Continence formulary thus refer to your local Continence formulary for types of bladder irrigation fluids.

The principle aim of using a solution is to wash the catheter, not the bladder. The term 'bladder washout' has been superseded by the more appropriate term of 'catheter maintenance solution.' The effectiveness of acidic catheter maintenance solutions in dissolving encrustations has been demonstrated in laboratory-based studies. However, the instillation of solutions for either encrustation or debris via an indwelling urinary catheter is not recommended as a routine measure as their efficacy has not been proven in large clinical trials. If prescribed, however, they should only be used for a short period, using the smallest volume (50mls or less) and discontinued if not useful. Frequency of use will need to be determined on an individual patient basis.

The use of solutions may cause toxic effects and contribute to the development of resistant microorganisms.

There is no evidence to support the use of bladder irrigation, instillation, or washout with a variety of antiseptic or antimicrobial agents for the prevention of CAUTI. (Check the Marsden manual for further information)

8.7 Urine Sampling

Routine collection of urine specimens for culture is not useful and is unnecessary unless the patient is symptomatic. When a specimen collection is justified (before starting antimicrobials), a clinically clean technique should be used, with disinfection of the needle-free sample port with isopropyl alcohol 70% and chlorhexidine 2% and allowed to dry thoroughly. It is essential to include systemic symptoms in the clinical microbiology form.

- Samples should not be taken from the drainage bag but directly from the catheter
- Urinary catheters should not be clamped as this may damage the inflation channel and prevent the balloon deflating during removal

8.8 Antimicrobial Cover for Catheter Insertion / Changes

Prophylaxis

- Prophylactic antimicrobials should not be offered routinely for catheter insertion or changes
- Antimicrobial prophylaxis should be used only in those with a history of symptomatic urinary tract infection after catheter change or who experience trauma during catheterisation

- Antimicrobial prophylaxis is not currently recommended for patients at risk of infection endocarditis (prosthetic heart valves, structural congenital heart disease, hypertrophic cardiomyopathy, acquired valvular heart disease with stenosis or regurgitation, previous infective endocarditis)*

**Following the publication of new research showing an increase in the incidence of infective endocarditis in the UK, NICE has launched an immediate review of CG64 on Prophylaxis for Infective Endocarditis.*

- Long-term antimicrobial prophylaxis against CAUTI is not recommended.

8.9 Symptomatic Urinary Tract Infection

- Antimicrobials must only be used to treat systemic infection and not bacterial colonisation of the urinary tract (bacteriuria) or colonisation of the urinary catheter
- For those with symptomatic catheter associated urinary tract infection, send a urine sample for microscopy and culture and commence the patient on antimicrobial therapy. The catheter should be changed mid treatment following commencement of appropriate antimicrobial therapy as per the culture result.

For further information on when antimicrobials may be required, please consult with Medical Microbiology.

9.0 Trouble Shooting

In recurrent blockages:

- The innovative treatment is that Farco-fill protect contains a broad-spectrum antimicrobial agent (trilosan) that aims to reduce the amount of bacteria in the urine and potentially reduce encrustation of the catheter.
- Farco fill will be required when the clinician is changing the catheter as this replaces the sterile water that is currently used to inflate the catheter balloon.
- Where there are clinical signs of infection, service users with catheter-associated UTI should be sent to the hospital if they have any symptoms or signs suggesting a more severe illness or condition; for example temperature of about 37 degrees, cloudy, smelly urine, change in patients' behaviour, confusion, etc.

9.1 Trial without catheter

The decision to Remove Catheter / Trial without Catheter (TWOC)

The Trust requires a weekly review of catheters to minimise the length of time in a place to reduce healthcare-acquired infections and protect patients.

Some patients who are sent home with a catheter may need this to be removed to see if patient can void a few weeks after discharge.

If the patient has **any** of the following they will **not** be suitable.

- Patients who have any radical prostatectomy or complex surgical procedures
- Where there are complex clinical needs which deem the patient is unsuitable for community catheterisation.
- Recent history of complications with previous catheterisation.
- Patients who are unsupported and have cognitive impairment
- Patient does not verbally agree to community TWOC

Following removal, there should be a request and this should be documented on EMIS / SYSTMONE, and the patient's condition should be monitored. A bladder scan (portable) should be performed in the first few hours to measure for post-void residual urine where patients are unable to void or have abdominal discomfort because urine retention is possible following removal of catheter and action should be taken as necessary.

Clinical indications for continuing catheterisation and date for removal or review by an appropriate HCP overseeing their care.

Some patient who was catheterized due to acute urinary retention might need to commence on an alpha blocker to assist with voiding at time of TWOC this should be continued until reviewed.

This procedure can be carried out in the community; however:

- TWOC takes up to 4-6 hours for a close monitor of intake and output
- Catheter to be removed between 8;30 am and 9;30 to maximise the hours
- Ensure patient is not constipated before TWOC
- Ongoing bladder scan should be carried out to monitor residual on the day and afterward
- Knowledge of medical history to prevent fluid overload should be known, primarily inpatient with cardiac history.
- A relative should be available to support the patient during this procedure, if relatives have no medical knowledge regarding TWOC, they might have to attend A & E. (TWOC form in appendix)

9.2 Adverse Events

- Consideration should be given to service user sensitisation to latex products, especially in those patients with Spina Bifida as they are at high risk due to repeated exposure
- Autonomic dysreflexia is a severe life-threatening condition that affects people with spinal cord injury at or above the level of the 6th thoracic vertebrae. Bladder problems are one of the most common causes of this condition, and noxious stimuli must be quickly identified (overfull bladder, high-pressure voiding, urinary tract infection, blocked catheter, defective drainage system (e.g., kinked tubing, overfull drainage bag) and removed
- Lidocaine based lubricating gels should not be used during a catheterisation procedure in the following circumstances:
- If the patient states they have an allergy/hypersensitivity to any of the active ingredients within the product
- If the patient has noticeable abrasions and lesions on the penis or urethral orifice. Local anaesthetics should not be applied to a traumatised urethra as the drug may so fast absorb that a systemic, rather than a local, reaction is produced. These could include confusion, respiratory depression and convulsions; hypertension; and bradycardia (may lead to cardiac arrest)
- Nursing assessment before administration should consist of identification of patients at increased risk of systemic effects and checking for possible drug interactions.
- All medical devices and medicinal products containing chlorhexidine have been identified as being a risk for an anaphylactic reaction. HCP should ensure that any known allergies are recorded in the patient notes and report any adverse events to the MHRA.

9.3 Complications associated with Catheterisation

HCPs should consider and discuss any complications the patient is experiencing. Complications include: bypassing, discomfort or pain, bleeding, painful erections, blocked catheter, infection, insertion and removal problems, history of difficult catheterisation, meatal soreness, bladder and meatal erosion, stone formation, and catheter rejection.

a. Paraphimosis

Paraphimosis is a urological emergency in which the retracted foreskin of an uncircumcised male cannot be returned to its normal anatomic position.

It is crucial for clinicians to recognise this condition promptly, as it can result in gangrene and amputation of the glans penis.

Paraphimosis can often be effectively treated by manual manipulation of the swollen foreskin tissue. It involves compressing the glans and moving the foreskin back to its normal position, perhaps with the aid of a lubricant, cold compression, and local anaesthesia – as necessary. If this fails, the tight oedematous band of tissue can be relieved surgically with a dorsal slit or circumcision.

b. Urethral erosion

This is usually found in patients with long term catheters that have not been secured correctly; the degree of erosion can vary.

The erosion is usually secondary to catheter tension on the distal urethra at the meatus. The way the catheter is secured should be alternated to prevent prolonged tension or pressure at an individual site.

LEAFLETS WILL BE AVAILABLE ON THE TRUST WEBSITE

REFERENCES AND ASSOCIATED DOCUMENTATION

Department of Health (2006) Essential Steps to safe, clean care: urinary catheter care
DH London.

Hagen S, Sinclair L & Cross S (2010) Washout policies in long-term indwelling urinary
catheterisation in adults Cochrane Database of Systematic Reviews Issue 3.

Loveday H P et al. (2014) epic3: National Evidence-Based Guidelines for Preventing
Healthcare-Associated Infections in NHS Hospitals in England Journal of Hospital
Infection 86S1 S1–S70

Jepson RG, Williams G, Craig JC (2012) Cranberries for preventing urinary tract
infections. Cochrane Database of Systematic Reviews 2012, Issue 10.

NICE (2015) Lower urinary tract symptoms in men: assessment and management.
Clinical Guideline 97; May; National Institute for Clinical Excellence

NICE (2014) Infection Prevention and Control; NICE Quality Standard 61; National
Institute for Clinical Excellence

NICE (2012) Infection Control: Prevention of healthcare-associated infection in primary
and community care; Clinical Guideline 139; National Institute for Clinical Excellence

NICE (2008) Prophylaxis against infective endocarditis: Antimicrobial prophylaxis against
infective endocarditis in adults and children undergoing interventional procedures; Clinical
Guideline 64; March; National Institute for Clinical Excellence

NICE Guideline (2018, NG113) Urinary tract infection (catheter-associated): antimicrobial
prescribing.

Nursing Associate proficiency standard document (2018)

NICE (2018) guideline Preventing healthcare-associated Gram-negative bloodstream
infections: an improvement resource

NICE (2017) Farco- fill protect for indwelling urinary catheterisation.

Nicolle L E (2001) The chronic indwelling catheter and urinary infection in long-term care
facility residents Infection Control and Hospital Epidemiology Vol 22 no5 316-321

Royal Marsden (2015) Manual of Clinical Nursing Procedures Ninth Edition