POLICY FOR CATHETER MANAGEMENT

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Contents

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1. INTRODUCTION

Urinary catheterisation is the insertion of a specially designed tube into the bladder, using non-touch aseptic technique (NTAT), for the purposes of draining urine, the removal of clots/debris and the instillation of medication (The Royal Marsden Hospital 2014).

There is consistent evidence available to show that infection is a significant risk associated with urinary catheterisation. The risk of infection is associated with the method and duration of catheterisation, and the quality of the catheter care carried out (Pelowe 2007).

Good practice and clinical guidelines agree that urinary catheters must therefore be inserted using sterile equipment and NTAT, to reduce this risk (Department of Health 2011). Every NHS body under The Health and Social Care Act 2008 must protect *patient's workers and others who may be at risk of acquiring an HCAI.*

Nurses are primarily responsible for the insertion and management of urinary catheters, and therefore it is essential that they have the appropriate knowledge and skills to undertake the role safely. Male catheter insertion can be carried out by a suitably trained practitioner, if safe to do so. A catheter for end of life care or continence management can be inserted after an assessment by a nurse or paramedic.

When inserting a catheter for urinary retention in men, medical assessment should be sought; this could be from the GP or the local urology team. Urinary retention is complex and may be present in various ways for different pathological processes. Urinary retention may be chronic, acute or acute on chronic. In about 10% of cases diuresis is excessive, patient could become acutely unwell and requires careful fluid replacement. The nurse or paramedic should carefully record urine drained for 15 minutes after catheterization to establish the true residual. Fluid output should then be monitored to assess diuresis. If it is excessive (over 2.5L in one hour), consideration for hospital admission should be made. Ongoing medical assessment, treatment and referral is required for this group of patients.

While it is the nurses' responsibility to maintain and improve their professional knowledge and competence, these guidelines have been written to aid nurses and Assistant Practitioners (AP) within East Coast Community Healthcare CIC (ECCH) and standardise practice when inserting urethral catheters. Make the care of people your first concern, treating them as individuals and respect their dignity (Nursing and Midwifery Council 2011).

The policy standards here are related to catheter management for patients in their own homes, Community Hospitals and ECCH premises, which will ensure best practice.

2. PURPOSE

The purpose of this policy and procedure is to ensure that relevant staff have been trained and are competent to carry out the procedure.

3. SCOPE

This policy and procedure relates to ECCH Community Hospital and Community based staff.

4. DEFINITIONS *(if relevant)*

The following definitions are intended to provide a brief explanation of the various terms used within this policy.

Term	Definition
Policy	A policy is a formal written statement detailing an enforceable set of principles or rules. Policies set the boundaries within which we operate. They also reflect the philosophy of our organisation.

5. RESPONSIBILITIES

- **ECCH Employees** – Are responsible for the implementation of this policy and following the requirements of the policy, ensuring best practice.
- **Chief Executive of ECCH** – Overall responsibility for the enforcement of this policy lies with the Chief Executive of ECCH

6. POLICY STATEMENT

This policy will be implemented to ensure safe practice and every effort is undertaken to keep the patient as free from micro-organisms as possible.

7. REASONS FOR CATHETERISATION

- To empty the contents of the bladder, eg before or after abdominal, pelvic or rectal surgery.
- To determine residual urine
- To allow irrigation of the bladder
- To bypass an obstruction
- Acute retention of urine
- Chronic retention of urine
- Other reasons, to relieve incontinence when no other means is practicable.

Urinary catheterisation 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 and discomfort (RCN 2011). Patient needs should be assessed and only considered for catheterisation as a last resort, or if it is considered the best option available (NICE 2012). Routine catheterisation must not be routinely supported by nurses, particularly in specific patient groups such as fracture neck of femur.

The Nursing and Midwifery Council (NMC 2008), states that nurses performing urinary catheterisation should have:

A good knowledge of the urinary tract anatomy and physiology

- A sound knowledge of the principles of aseptic technique
- A knowledge of equipment and devices available
- Awareness of infection control practice and legislation
- Practice within the limits of competence and be able to recognise when they need to seek help from more experienced staff
- Understanding of the issues of informed consent and a knowledge of the Mental Capacity Act

- The ability to deliver care based on the best available evidence or best practice.

It is the responsibility of the assessing nurse to ensure that the patient/carer is aware of all the potential problems before the decision to catheterise is being made. The nurse must be sure, in consultation with the doctor, patient and/or carer, that the decision to catheterise is made for the right reasons and not for the convenience of the carers.

The reason for continued use of a urinary catheter **must** be reviewed at every change. The nurse should consider alternative methods of treatment or management. This may include:

Voiding techniques.

- Penile sheath.
- Male/Female urinals.
- Disposable or re-usable incontinence products.

8. CATHETER SELECTION

A wide range of urinary catheters are 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 selection is as effective as possible, that complications are minimised, and that patient comfort and quality of life are promoted. Catheters should be used in line with the manufacturer's recommendations, in order to avoid product liability (Royal Marsden 2014).

8.1 Material and length of use

The key criterion in selecting the appropriate material is the length of time the catheter is expected to remain in place.

Intermittent

- Polyvinyl chloride (PVC) non-coated: are quite rigid and require lubrication prior to insertion.
- Hydrophilic coated catheters: impregnated with a coating, which lubricates the catheter throughout the entire catheterisation process. Hydrophilic catheters may require activation with water. Good quality drinking water or from a pre-filled sachet provided can be used.

Short to mid term (up to 28 days)

- Latex: Latex is a purified form of rubber and is the softest of the catheter materials. It's surface is smooth and has a tendency to form a crust. Latex absorbs water and swells, reducing the size of the lumen. It can also cause urethral irritation and should only be used short term up to 7 days. Patients should always be asked whether they have had an adverse reaction to rubber products before catheters containing latex are utilised (Royal Marsden 2014).
- Polytetrafluoroethylene (PTFE): The coating is applied to a latex catheter to render the latex inert and reduce irritation. These catheters are normally for short to mid term, check the manufacturer's recommendations.

Long term (up to 12 weeks)

- Hydrogel coated latex: a latex core catheter, coated with a hydrophilic polymer coating provides very smooth internal and external surfaces, which are resistant to encrustation. They are also inert and well tolerated by the urethral mucosa.

- All silicone: these are made by an extrusion process, which makes a thin-walled catheter, which has a large D shaped lumen. Due to the inert nature of silicone they can reduce irritation and are suitable for those with a latex allergy. However, they are relatively stiff and some patients find them uncomfortable. Because silicone permits gas diffusion, balloons may deflate and allow the catheter to fall out prematurely.

Other materials

Research into new types of catheter materials is ongoing, particularly examining materials that resist biofilms and urinary tract infection. There is no large-scale evidence that they are beneficial and silver toxicity can occur. Catheters coated with antibiotics such as Gentamicin, Tifampicin, Nitrofurantoin are being trialled.

8.2 Catheter length

The three lengths available are:-

- **Paediatric -** length 30cms
- **Female -** length 26cms; the shorter female length is often more discreet and less likely to cause trauma or infections because movement in and out of the urethra is reduced. Infections may also be caused from a longer catheter looping or kinking. In obese women, or those bed-bound or wheelchair bound, the inflation valve of the shorter catheter may cause soreness by rubbing on the inner thigh and pulling on the bladder neck, therefore a standard length should be used.
- **Standard -** (male) length 43cms

8.3 Balloon size

- **3 to 5ml -** Paediatric balloon.

- **5 to 10ml -** balloon for adults.

- **20-30ml -** balloon should only be used in specific circumstances such as post prostatic surgery, but their use should always be questioned. The heavier weight and larger balloon may cause bladder spasm, damage the bladder neck and irritation of the trigone.

Catheter balloons should be filled as specified by the manufacturer. They should never be over or under filled, as this can lead to a misshaping of the balloon that could interfere with urine drainage.

The balloon should always be filled with sterile water.

Some manufacturers have produced pre-filled catheters. A reservoir of water is included in the catheter packaging and simply needs to be released once the catheter has been inserted.

The catheter balloon should only be inflated once; deflation/re-inflation or topping up are not recommended by the manufacturers, as distortion of the balloon may occur (Royal Marsden 2014)

8.4 Catheter size

The external diameter of the catheter is measured in charriere (Ch). One Ch equals 1/3 of an mm, therefore 12 Ch=4mm.

The smallest size should be chosen to provide adequate drainage. Larger sizes can cause irritation and bypassing of urine around the catheter. The larger sizes are usually reserved for clot drainage and stricture dilation. In any other situation their use should be questioned.

Catheter material, length, balloon volume and size must be specified on the prescription.

9. INFECTION CONTROL

Catheter associated infection.

Catheterisation carries an infection risk. Catheter associated infections are the most common hospital acquired infection, possibly accounting for up to 35-40% of all hospital infection (Roadhouse and Wellstead 2004).

Bladder irrigation, instillation and washouts must not be used to prevent catheter associated infection (Pratt et al., 2007).

Select the most appropriate type of catheter and drainage system to be used.

A NTAT must be used. A urinary tract infection may be introduced during catheterisation because of faulty NTAT, inadequate urethral cleaning, or contamination of the catheter tip. Infection can also be introduced via the drainage system because of faulty handling of equipment, breaking the closed system or raising the drainage bag above bladder level causing urine reflux. (The Royal Marsden 2014).

If a Urinary tract Infection (UTI) is suspected (See eastern pathology Alliance EPA guidelines appendix1) a specimen of urine must be sent for analysis.

The maintenance of a closed drainage system is central in reducing the risk of catheter associated infection. It is thought that micro-organisms reach the bladder by two possible routes: from the urine in the drainage bag, or via the space between the catheter and the urethral mucosa (Getliffe 1995, Gould 1994). To reduce the risk of infection, it is important to keep manipulation of the closed system to a minimum, this includes, changing the drainage bag, unnecessary emptying, or taking samples.

Before handling catheter drainage systems, hands must be decontaminated and a pair of clean non-sterile gloves and disposable apron should be worn. (ECCH Standard Precaution Policy 2018. Urine samples should only be obtained via specially designed sampling ports, using an aseptic technique.

9.1 Prevention of Healthcare associated infection in Primary and Community care.

Education

Patients and carers should be educated about and trained in techniques of hand decontamination, insertion of intermittent catheters where applicable, and catheter management before discharge from hospital.

Community and primary healthcare employees must be trained in catheter insertion, including suprapubic catheter replacement and catheter maintenance.

Follow- up training and on- going support of patients and carers should be available for the duration of long-term catheterisation.

9.2 Catheter insertion

All catheterisations carried out by healthcare employees should be NTAT. After training, healthcare employees should be assessed for their competence to carry out these types of procedures by supervision and Essential steps to safe clean care.

Intermittent self-catheterisation is a clean procedure. A lubricant for single-patient use is required for non-lubricated catheters.

An appropriate lubricant from a single use container should be used during catheter insertion to minimise urethral trauma and infection.

Routinely document the date of insertion and date of removal of the catheter in the clinical records (RCN 2013).

9.3 Routine catheter changes

As part of good practice, as recommended by the ECCH Consultant Microbiologist, patients who are MRSA positive and require a routine catheter change should have Octenisan body washes for 2 days prior to re-catheterisation and for 2 days after, including a daily bed linen change. If a catheter requires an unplanned change, the health professional should wash patient with Octenisan at the time of insertion of catheter, the patient should then use Octenisan body wash for two days post insertion.

9.4 Catheter passport

All patients who have an indwelling catheter should be issued with a ‘Catheter passport’. This should be with the patient to all healthcare appointments and admissions. This must be completed by the Healthcare professional on every catheter change. See appendix 2

10. EDUCATIONAL REQUIREMENTS FOR CLINICAL PRACTICE

The NMC (2016), states that as a professional, you are personally accountable for actions and omissions in your practice and must always be able to justify your decisions. The people in your care must be able to trust you with their health and wellbeing. You must have the knowledge and skills for safe and effective practice and work within the limits of your competence. Your knowledge and skills must be kept up to date throughout your working life and you must take part in appropriate learning and practice activities that maintain and develop your competence and performance.

The registered nurse is accountable for ensuring that the delegation of any task is appropriate and in the best interest of the patient (RCN 2011)

Assistant practitioners may undertake scheduled catheter changes only, following a patient assessment by a registered nurse if:

The AP has been deemed competent in the safe removal and insertion of catheters by completing theory and practice training provided by ECCH

The registered nurse agrees that it is appropriate to delegate the catheter task to the particular AP. This change should be routine and not complex.

The patient consents to the AP carrying out the procedure

The AP must be assessed catheterising patients before being deemed competent to undertake the procedure

AP's have an individual responsibility to ensure they are confident and competent in knowledge and practice skills

A relative or carer may in some circumstances, carry out re-catheterisation (urethral/intermittent/ supra-pubic). In these circumstances, the Nurse/Health professional has the responsibility of ensuring that the carer has the necessary knowledge and competence to both carry out the procedure and manage the catheter/drainage system to a high standard.

Below is a table that guides ECCH staff on the minimum requirements of supervised and observed practice. It is recognised that some individuals may require more supervised and observational practice and it is the responsibility of the individual Nurse to decide when competence has been achieved. Updating of skills and knowledge is essential for good practice and individual Nurses will be responsible for availing themselves of the published literature and research evidence on aspects of catheterisation. The Continence Team holds a variety of information.

All ECCH staff that care for or insert catheters should complete the yearly Essential Steps framework that can be located on ECCHO.

10.1 Observation/supervised practice guideline (minimum requirements)

Type of Catheterisation	Observation in Clinical Area	Supervision in Clinical Area	Catheterisation carried out by
Female Urethral	Two	Two	Registered Nurse Paramedic who has attended additional ECCH training workshop Assistant Practitioner Nurse associate Trainee Nurse associate with supervision Carers in some circumstances with appropriate training. Student Nurse with supervision.
Male Urethral	Two	Three	Registered Nurse who has attended additional ECCH training workshop. Paramedic who has attended additional ECCH training workshop Assistant Practitioner who has attended additional ECCH training workshop Nurse associate who has attended additional ECCH training workshop.

			Carer in some circumstances with appropriate training.
Female Intermittent	One	One	Patient themselves or Carer in some circumstances with training. Registered Nurse. Paramedic who has attended additional ECCH training workshop
			Nurse associate Student Nurse with supervision.
Male Intermittent	One	One	Registered Nurse who has attended additional ECCH training workshop. Paramedic who has attended additional ECCH training workshop Assistant Practitioner who has attended additional ECCH training workshop Nurse associate who has attended additional ECCH training workshop Carer in some circumstances with appropriate training.
Supra-pubic	Two	Two	1st change by GP or Hospital Consultant 1st change after 5 weeks in situ and subsequent changes by: Registered Nurse who has attended an additional ECCH workshop. Assistant Practitioner who has attended additional ECCH training workshop Nurse associate who has attended additional ECCH training workshop Paramedic who has attended additional ECCH workshop Carers in some circumstances with appropriate training.

11. CATHETER REMOVAL

Catheters should be changed only when clinically necessary or according to the manufacturer's current recommendations (NICE 2012).

Removal of male and female urethral catheters for the purpose of a trial without catheter (TWOC) can be undertaken by a competent Registered Nurse or AP

All indwelling catheters (Whether urethral or supra-pubic) must have the balloon deflated prior to removal.

The water is removed from the balloon using a syringe fitted into the inflation/deflation valve. (Care needs to be taken to avoid violent suction, which will collapse the inflation channel making deflation of the balloon difficult).

If deflation is not achieved through this means:

DO	**DO NOT**
▪ Try a different syringe. ▪ Leave the syringe attached for 20 minutes. ▪ Check if the patient is constipated. "Milk" the catheter along its length between thumb and finger to unblock or remove obstructions caused by debris or encrustation. ▪ Insert a few mls of air and then draw back on the syringe- this creates a vacuum which may precede deflation. ▪ Insert a few mls of sterile water which may help clear a blockage. ▪ If all else fails, attach an orange needle to the syringe and pierce the catheter below the valve, inserting the needle into the inflation chamber, then draw back. This method will bypass a faulty valve. ▪ If the balloon still does not inflate, then seek medical assistance.	▪ **NEVER** attempt to burst the balloon by over inflating it. ▪ **NEVER** cut the catheter or the inflation arm. Any complications created by either of these methods will be the responsibility of the person performing them. ▪ **NEVER** leave the catheter in situ for longer than the recommended time. The nurse is professionally accountable for using products according to manufacturer's instructions. **ACA (2007).**

Ask the patient to breathe in and out: as the patient exhales (gently but firmly with continuous traction) remove the catheter. Clean the meatus (Royal Marsden 2014).

Document type of catheter, date of insertion/removal, batch number and expiry date as well as any problems encountered on removal. Faulty catheters and valves must be reported immediately for action to be taken.

12. DRAINAGE SYSTEMS

A wide variety of drainage bags and systems are available. Selecting a system involves consideration of the reasons for catheterisation, intended duration, the wishes of the patient and infection control issues.

Healthcare professionals should ensure that the connection between the catheter and the urinary drainage system is not broken except for good clinical reasons (NICE 2012).

Leg bags, catheter valves or freestanding drainage bags will normally remain connected to the catheter for 5-7days. More frequent disconnections will break the closed system and increase the risk of infection.

12.1 Leg bags and night bags

Some patients will prefer to use a leg bag. These are available in 350, 500 and 750ml volumes, with short, medium or long tubing. There are also some specialist bags like belly bags and pocket bags that may be suitable for some individuals.

Most catheter bags are fitted with an anti-reflux valve to prevent backflow of urine into the bladder. It is important to ensure the bag is below the level of the bladder to maintain drainage. However, the catheter bag should not hang too low (more than 30cm) below the level of the bladder, as this will cause negative pressure resulting in bladder mucosa being sucked into the eyes of the catheter leading to bypassing or blockage. The bag should not be in contact with the floor (NICE 2012).

Patients who require a leg bag by day and a higher capacity bed bag by night should use the “link system”. The leg bag is not disconnected from the catheter, but rather the night bag is connected to the drainage tap of the leg bag.

The urinary drainage bag should be emptied frequently enough to maintain urine flow and prevent reflux (NICE 2012).

A single use non drainable night bag should be used for all patients. Never reuse, wash urine bags or reconnect them in any care setting (RCN 2021). Where a patient is on bed care and does not use a leg bag a drainable night bag can be used and changed every 5-7 days

Patients should be encouraged to empty their own catheter bags whenever possible to promote independence and dignity. Hands should be washed before and after the procedure, if the bag is being emptied by a nurse or professional carer, gloves should be worn.

Leg bags should be secured with leg straps or a leg sleeve. The importance of catheter tethering is stressed by the Royal Marsden (2014) to promote patient comfort and to limit potential complications of catheter migration and subsequent need for re-catheterisation. Night bags should be supported on a stand.

12.2 Catheter valves

Catheter valves were first introduced to the UK in 1986 and have since been shown to be suitable for both male and female patients with indwelling or supra-pubic catheters. Catheter valves are small devices attached directly to the catheter, allowing control of bladder emptying. The introduction of the catheter valve has widened the choice of therapeutic interventions that are available to the catheterised patient, with the potential for significant clinical benefits.

The Benefits of Valves include providing independence from cumbersome drainage bags and encourages normal bladder function, maintaining detrusor muscle tone and bladder capacity.

Some patients may not be suitable to use a catheter valve. All patients require individual assessment prior to the use of a valve. Patients and carers should understand the rationale behind the use of a valve and have the mental capacity to remember to release the valve at regular intervals if their bladder sensation is compromised. Valves may be inappropriate if bladder capacity is very limited. This might be the cause if the patient has been on free drainage for many years. However, capacity can be increased if a regime for the frequency of opening/closing the valve is planned carefully, decreased gradually and support is given to both patient and carer. The use of catheter is individualised. Some patients may leave there valve closed overnight if a full bladder wakes them, others may attach to free drainage with a night bag. Catheter valves may be inappropriate for patients with uncontrolled overactive bladder, ureteric reflux or renal impairment (Royal Marsden 2014).

13. APPROPRIATE USE OF BLADDER WASHOUTS/INSILLATION

It has been identified that there are a group of patients with indwelling catheters whose catheters block on a regular basis regardless of what has been done to try to prevent the blockage. It has been suggested that for this group, regular catheter changes is best management and by identifying these “blockers” it allows for planned catheter management. It is suggested that keeping a catheter calendar, encourages proactive catheter care, identifying the potential problem before it becomes a real problem ensuring the catheter remains patent (ACA 2007). Changes should be planned regularly according to the pattern of an individual catheter life (Holtom 2004).

Recurrent catheter encrustation leading to blockage occurs in up to half of patients who are catheterised long-term. Bacteria in the urine, most commonly Proteus, produce an enzyme called urease, which splits urinary urea into ammonia and carbon dioxide. This results in an increase in alkalinity, conditions for the development of crystals e.g. Struvite and Calcium Phosphate. The crystals develop around the eyelets, balloon and internal lumen of the catheter (ACA (2007)). Catheter washouts are designed to dissolve the encrustation or reduce growth of the alkaline bacteria.

However, the use of washouts continues to be a contentious issue. There is evidence that supports the use of maintenance solutions in certain circumstances (Getliffe et al 2000). In the past there has been an overuse of these products, which in some cases has lead to resistance to the solution used.

Bladder washouts should never be routinely administered to catheterised patients without a therapeutic intervention and should not be used as a substitute for re-catheterisation if this is what is required (Addison 2000). Do not use to unblock a catheter (RCN 2012)

It is recommended that the nurse be aware of the urinary pH of catheterised patients. The higher the alkalinity, the greater possibility of encrustation developing. Critical pH is 6.8. Testing of the urine on a regular basis can assist in anticipating catheter problems associated with encrustation build up.

Bladder instillations or washouts must not be used to prevent catheter-associated infection (NICE 2012). Smaller volumes of washout (50ml) are as effective as the

standard 100ml and two sequential washouts with 50ml are more effective than a single washout (Holtom 2004).

Catheter maintenance solutions are prescription only medication (POM) and should be treated in the same way as any POM medication. The solution should be prescribed for each individual patient as per ECCH prescribing formulary. At present all of the catheter maintenance solutions are available in the Nurse Prescribing formulary. They can therefore be prescribed by nurses who hold a Nurse Prescribing qualification (ACA 2007).

A Healthcare assistant (HCA) may carry out giving of a washout once they have attended ECCH theoretical training session, successfully completed the practical assessment requirements and feel competent and confident to carry out the procedure. The HCA may carry out a washout on patients who have been assessed by a trained nurse as requiring a prescribed regime of washouts to maintain their indwelling catheter. The use of the washout should be identified in the patient's plan of care. The HCA should not be the sole provider for this aspect of care; it is recommended that the HCA should not carry out more than 2 consecutive washouts before the trained nurse assesses the patient. The HCA should only carry out the washout as part of a plan of care. They should not perform the procedure in cases of acute catheter blockage, as this situation would require assessment by a trained nurse. See Appendix 3 Catheter process chart which will advise what to do in the event of frequent blocking of catheters

14. PATIENT INFORMATION

These leaflets are available from the ECCH Continence Team or from ECCO.

15. CATHETER ASSOCIATED URINARY TRACT INFECTION

If the patient is assessed as having a suspected or proven catheter associated urinary tract infection (CAUTI) the Eastern Pathology Alliance algorithm should be followed (Appendix 1 & 2) Symptoms indicative of a CAUTI include loin pain or temperature of less than 36 0C or more than 38.3 0C or clinical sepsis and no other source of infection evident. The algorithm states that patients should be treated with empirical antibiotics following local guidelines and if clinically septic consider need for hospital review. The catheter should be removed or changed after the first dose of antibiotic.

16. MONITORING AND REVIEW

It is the responsibility of all department heads/professional leads to ensure that the staff they manage adhere to best practice. Yearly audits using Essential Steps to Clean Safe Care will be completed by staff carrying out catheterisation. This document will be reviewed by the Continence Team every two years, or sooner if changes in legislation occur or new best practice evidence becomes available.

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18. ASSOCIATED POLICIES & PROCEDURES *(To include but not limited to)*

- East Coast Community Healthcare (2018) Standard Precautions Policy.
- East Coast Community Healthcare (2018), Dressing and Appliance Formulary.

19. AUTHOR

Continence Team – October 2022

20. APPENDICES

1. **Female Catheterisation SOP**
2. **Male Catheterisation SOP**
3. **Suprapubic Catheterisation SOP**
4. **Appendix – Algorithm for diagnosis of catheter associated urinary tract infection & appropriate sampling**
5. **Appendix – Causes of catheter blockage**
6. **Catheter passport**
   https://www.knowledgeanglia.nhs.uk/LinkClick.aspx?fileticket=nEK1EXBuX2M%3d&portalid=

Standard operating procedure (SOP)
Female Urethral Catheterisation

1. Purpose

To ensure that female urethral catheterisation complies with national guidance and standards for practice and risks associated with insertion of urinary catheters are managed effectively.

2. Scope

2.1 This SOP sets standards for all staff undertaking female urethral catheterisation.

2.2 Unregistered staff, providing planned care to female patients requiring urethral catheterisation will be signed off with competent to conduct this intervention.

2.3 Unregistered staff must undertake 3 yearly on-line catheter e-learning and are assessed yearly by a competent Registered Nurse as competent in both catheterisation and Aseptic Non-Touch Technique (ANTT).

2.4 The patient should be seen by a Registered Nurse for a full holistic assessment and treatment plan, before this intervention is delegated to unregistered staff and for review at least annually.

2.3 This SOP does NOT apply to suprapubic catheters.

2.4 Staff are expected to ensure that the risks to patients with neurological conditions are understood and managed appropriately.

3. Known risks

- infection
- trauma
- encrustation
- medication i.e. Warfarin
- sensitivities
- bleeding
- autonomic dysreflexia

Equipment required to conduct the procedure

- Urinary Catheter Insertion Pack (or wound care pack if not available)
- Additional pair of sterile gloves
- One pair of non-sterile gloves
- Sterile prefilled Catheter
- Sterile lubricating gel
- Alcohol hand rub
- Sterile saline – for labial cleansing
- Stabilisation device
- Syringe x 2 (if not included with catheter)
- Catheter valve or leg drainage bag
- Drainage system

4. Urethral Catheter Selection

The formulary is available at
http://eccho/Home/MedicinesManagement/Formularies.aspx

5.1 Catheter Length

The three lengths available are:

5.1.1 Paediatric 30cm (only direct from manufacturer)

5.1.2 Female 26cm for ambulatory female patients

5.1.3 Standard 43cm used for male patients and female non-ambulatory or high BMI patients or where this is patient preference.

5.2 Balloon Size

5.2.1 10 ml balloon for routine drainage (**ALL** community patients). 5 ml can be used on appropriate patients after clinical assessment, with suitable catheter as per manufacturers guidelines.

5.2.2 30ml balloon **only** for hospital, urological post-operative use and as a haemostat. N.B. 30 ml balloons are NOT suitable for Community use as the weight of water in 30 ml balloons may lead to dragging/pulling of the catheter on the bladder neck. They may also cause bladder spasm and discomfort due to pressure against the trigone of the bladder.

5.2.3 Balloons must **only** be filled with sterile water.

5.2.4 The volume of water specified by the manufacturer will be inserted.

5.2.5 Over inflation will **not** prevent a catheter from being expelled.

5.2.6 Under inflation will result in catheter tip deflection which may increase bladder spasm and /or necrosis.

5.3 Charriere size

5.3.1 Choose a catheter with the smallest possible diameter that will allow adequate drainage. This should be decided on individual patient assessment. Larger diameter catheters are associated with increased bladder irritability resulting in painful spasms and leakage. Guidelines suggest Female 12/14ch.

5.3.2 Larger catheters can cause urethral irritation and bypassing around the catheter. Larger charriere sizes (i.e. 18 or above) will only be used if clots or debris are present, post operatively or for supra-pubic catheterisation, (if size 16 is not appropriate).

5. Flowchart summary of procedure

6. Pre-procedure

6.1 Explain procedure and gain informed consent. Consent is a patient's agreement for a health professional to provide care. Before health care professionals examine, treat or care for any person they must obtain their valid consent in line with ECCH's Consent to Examination and Treatment Policy and the Mental Capacity Act Policy. There is a basic assumption that every adult has the capacity to decide whether to consent to, or refuse, proposed medical intervention, unless it is shown that they cannot understand information presented in a clear way.

6.2 If the health professional feels that the patient has the capacity to give consent, their decision will be accepted and the wishes of the patient will continue to be respected, even if they lose capacity at a later stage.

6.3 If the health professional feels the patient does not currently have the capacity to consent, and the patient has not made an advance decision or formally appointed anyone to make decisions for them then the professional needs to consider what is in the best interests of the patient before making a decision. This must be documented in the patient's healthcare record.

6.4 If the patient has Learning Disabilities and / or Dementia, more pre procedure work may be required such as desensitisation / social story / reasonable adjustments to ensure that the person feels safe. Consult with LD services or Dementia Services for advice where needed.

6.5 Clarify if the patient requires a chaperone; following ECCH Chaperone Policy.

6.6 Check patient identity with the patient (following Patient Identification Policy).

6.7 Patients must have a spare catheter at home, so that replacement can occur as quickly as possible should any difficulty with drainage occur.

Review Catheter Passport and Care Plan.

6.8 Perform physiological observations where the patient has a neurological condition and therefore may be at risk of Autonomic Dysreflexia, where indicated in the patient's care plan.

6.9 Ensure patient privacy and dignity

6.10 Remove patient's underwear, maintaining their privacy and dignity. Assess the need to wash the patient with soap and water prior to the procedure. Do not leave the patient exposed at this stage of the procedure.

6.11 Assist the patient to get into an appropriate and comfortable position.

6.12 Ensure that a good light source is available.

6.13 Decontaminate hands.

6.14 Put on a disposable apron and non-sterile gloves.

7. Procedure

8.1 Throughout the procedure observe for signs of Autonomic Dysreflexia in spinal cord injured patients. If at any time the heart rate drops, rhythm changes or signs of Autonomic Dysreflexia. STOP the procedure immediately and escalate.

8.2 The removal of an existing catheter is performed as a clean technique, in advance of setting up for aseptic reinsertion.

8.3 Once removed the urinary catheter should be inspected for encrustation; crystals in catheter lumen, this will inform the rationale for frequency of future catheter changes (record in patient healthcare record and within the patient's catheter passport).

8.4 Remove PPE and decontaminate hands

8.5 Prepare work area and gather all equipment that is required for procedure.

8.6 Check the expiry date of all equipment including the catheter.

8.7 Prepare the equipment using an aseptic technique.

8.8 Apply apron and decontaminate hands and put on sterile gloves.

8.9 At this point clinicians may wish to connect the sterile catheter drainage system to catheter prior to insertion to maintain closed drainage system ensuring that aseptic technique is maintained, or this may be done after insertion of catheter and insertion of balloon.

8.10 Place sterile towels across the patient's thighs.

8.11 Using gauze swabs, separate the labia minora so that the urethral meatus is seen. One hand should be used to maintain labial separation until catheterisation is completed.

8.12 The urethral meatus is cleaned with sterile saline from front to back.

8.13 Insert the nozzle of the lubricating gel into the urethra. Squeeze the gel into the urethra, remove the nozzle from the urethra and discard the tube. Where anaesthetic gel is used, allow a minimum of 5 minutes for the gel's anaesthetic effects to occur.

8.14 Remove and dispose of gloves. Decontaminate hands and put on sterile gloves.

8.15 Introduce the tip of the catheter into the urethral orifice in an upward and backward direction.

8.16 Advance the catheter until urine flows and then continue for a further 5 – 6 cm.

8.17 Inflate the balloon according to the manufacturer's directions, having ensured that the catheter is draining adequately.

8.18 Withdraw the catheter slightly, until resistance is felt.

8.19 Support the catheter by using a specially designed supportive system (G-strap or similar). Ensure that the catheter does not become taut when patient is mobilizing. If the patient is not mobile ensure the support system is on the upper thigh surface and facing downwards to allow drainage. Ensure that the catheter lumen is not occluded by the fixation device.

8.20 Ensure the closed catheter drainage system is below the level of the bladder, and well supported, using the drainage system appropriate to the individual's needs.

8.21 Remove and dispose of gloves. Decontaminate hands.

9. Post procedure

9.1 Make the patient comfortable and dry.

9.2 Replace clothing.

9.3 Measure the amount of urine.

9.4 Collect a urine sample if needed.

9.5 Dispose of clinical waste as per ECCH Waste Management Policy and Community Waste Policy.

9.6 Record information in relevant documents (including the catheter care plan and Patient's Catheter Care Passport). This should include:

- reasons for catheterisation;
- date and time of catheterisation;
- catheter type, manufacturer, lot number, expiry date, length and size;
- drainage system;
- amount of sterile water instilled into the balloon;
- a description of the urine (e.g. if there is haematuria, cloudy or containing debris), residual urine volume (if appropriate)
- batch number and expiry date of lubricating gel;
- any problems negotiated during the procedure;
- observations of the catheter such as encrustation or crystals in catheter lumen;
- physiological observations if indicated (for patients with neurological conditions);
- date of catheter drainage device change due and who will conduct the change of drainage device (i.e. patient / carer / relative). Catheter bags should be changed in line with the manufacturer's recommendation.
- a date to be reviewed by a Registered Nurse to assess the need for continued catheterisation or date of change of catheter.

9.7 If the patient is unwell complete a full set of observations.

9.8 Unregistered staff to seek advice from a Registered Nurse if:

- Has signs of urinary tract infection
- If fresh blood is seen before or after the procedure

9.9 Discuss with patient / carers advice for caring for themselves and their catheter – see Catheter Care Passport.

10. Training and Competency

10.1 Nurse Associates and Registered Nurses are expected to have achieved training in the methodology for providing care to patients with urethral catheters as part of their pre-registration training.

10.2 All Registered Nurses and Nurse Associates will complete the training available at http://coloplast.e3learning.co.uk then 3 yearly theory updates by completing the Catheterisation E-learning module '000 Continence and Catheter Care' available on ESR. It covers basic continence assessment, and basic catheter principles.

10.3 All staff will complete yearly observed practice by a registered nurse. Registered Nurses code of professional conduct requires that they practice within their competency and that competency is maintained. Competency will be reviewed,

recorded and monitored as part of the annual Personal Development Planning (PDP) process.

10.4 Unregistered staff providing care to patients with urethral catheters will be signed off competent to conduct this intervention by their supervisor / registered practitioner against the standards set out in this SOP. This will be recorded using the Testimonial of Competency.

10.5 Training on IPAC Standard Precautions is provided at induction and annually via mandatory training.

10.6 Registered and unregistered nursing staff conducting urinary catheter care must have an awareness of ANTT principles for catheter care.

12. Reference and further information

- ECCH Urinary Catheterisation Policy
- ECCH IPAC policies
- European Association of Urology Nurses (2012) Evidence Based Guidelines for Best Practice in Urological Healthcare: Catheterisation indwelling catheters in adults urethral and suprapubic.
- NICE (2012) Evidence-based Guidelines for Best Practice in Urological Health Care
- Catheterisation Indwelling catheters in adults Urethral and Suprapubic.
- Royal College of Nursing (2021): Catheter Care Guidance for Healthcare Professionals https://www.rcn.org.uk/professional-development/publications/catheter-care-guidance-for-health-care-professionals-uk-pub-009-915
- NHS England (2020) My Urinary Catheter Passport https://www.england.nhs.uk/wp-content/uploads/2020/08/Catheter_passport_clinical_v3.pdf

ECCH version

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SOP reference	**NCHC-05**	**Author** (name and job title)	Rosy Watson – Clinical Lead & Student District Nurse; Elizabeth Wilkin – Link Nurse & Student District Nurse; Karen Clark – Clinical Improvement and Effectiveness Manager Ruth Broom – Continence Service Lead.

Appendix 2

Standard operating procedure (SOP)
Planned Male Urethral Catheterisation

1. Purpose

To ensure that male urethral catheterisation complies with national guidance and standards for practice and risks associated with insertion of urinary catheters are managed effectively.

8. Scope

8.1 This SOP sets standards for all staff undertaking planned male urethral catheterisation

8.2 Registered Nurses, Nursing Associates and Unregistered Nurses providing planned care to male patients with urethral catheters will be signed off as competent.

8.3 Unregistered Nurses must undertake 3 yearly on-line catheter training and are assessed yearly by a competent Registered Nurse as competent in both catheterisation and Aseptic Non-Touch Technique (ANTT).

8.4 The patient should be seen by a Registered Nurse for a full holistic assessment and treatment plan, before this intervention is delegated to unregistered staff and for review at least annually.

8.5 This SOP does NOT apply to suprapubic catheters.

3 Known risks

- infection
- trauma
- creation of false passage
- prostatic enlargement
- encrustation
- medication i.e. Warfarin
- sensitivities
- bleeding
- Paraphimosis in uncircumcised men
- Autonomic dysreflexia.
- Hypospadias/epispadias may be seen – a congenital abnormality where the urethra opens on the under or upper side of the penis, if present liaise with medical staff.

4 Equipment required to conduct the procedure

- Urinary Catheter Insertion Pack (or wound care pack if not available)
- Additional pair of sterile gloves
- One pair of non-sterile gloves
- Sterile prefilled Catheter
- Sterile lubricating gel
- Alcohol hand rub
- Sterile saline – for meatal cleansing
- Specially designed supportive system to anchor catheter
- Syringe x 2 (if not included with catheter)

- Catheter valve or leg drainage bag
- Drainage system

5. Urethral Catheter Selection

The formulary is available at
http://eccho/Home/MedicinesManagement/Formularies.aspx

5.1 Catheter Length

The three lengths available are:

5.1.1 Paediatric 30cm (only direct from manufacturer)

5.1.2 Female 26cm for ambulatory female patients

5.1.3 Standard 43cm used for male patients and non-ambulatory female patients.

5.2 Balloon Size

5.2.1 10 ml balloon for routine drainage (**ALL** community patients). 5 ml can be used on appropriate patients after clinical assessment, with suitable catheter as per manufacturers guidelines.

5.2.2 30ml balloon **only** for hospital, urological post-operative use and as a haemostat. N.B. 30 ml balloons are NOT suitable for Community use as the weight of water in 30 ml balloons may lead to dragging/pulling of the catheter on the bladder neck. They may also cause bladder spasm and discomfort due to pressure against the trigone of the bladder.

5.2.3 Balloons must **only** be filled with sterile water.

5.2.4 The volume of water specified by the manufacturer will be inserted.

5.2.5 Over inflation will **not** prevent a catheter from being expelled.

5.2.6 Under inflation will result in catheter tip deflection which may increase bladder spasm and /or necrosis.

5.3 Charriere size

5.3.1 Choose a catheter with the smallest possible diameter that will allow adequate drainage. This should be decided on individual patient assessment. Larger diameter catheters are associated with increased bladder irritability resulting in painful spasms and leakage. Guidelines suggest Male 14/16ch (12 may be appropriate).

5.3.2 Larger catheters can cause urethral irritation and bypassing around the catheter. Larger charriere sizes (i.e. 18 or above) will only be used if clots or debris are present, post operatively or for supra-pubic catheterisation, (if size 16 is not appropriate).

6. Flowchart summary of procedure

7. Pre-procedure

7.1 Explain procedure and gain informed consent. Consent is a patient's agreement for a health professional to provide care. Before health care professionals examine, treat or care for any person they must obtain their valid consent in line with ECCH's Consent to Examination and Treatment Policy and Mental Capacity Act Policy. There is a basic assumption that every adult has the capacity to decide whether to consent to, or refuse, proposed medical intervention, unless it is shown that they cannot understand information presented in a clear way.

7.2 If the health professional feels that the patient has the capacity to give consent, their decision will be accepted and the wishes of the patient will continue to be respected, even if they lose capacity at a later stage.

7.3 If the health professional feels the patient does not currently have the capacity to consent, and the patient has not made an advance decision or formally appointed anyone to make decisions for them then the professional needs to consider what is in the best interests of the patient before making a decision. This must be documented in the patient's healthcare record.

7.4 If the patient has Learning Disabilities and / or Dementia, more pre procedure work may be required such as desensitisation / social story / reasonable adjustments to ensure that the person feels safe. Consult with LD services or Dementia Service for advice where needed.

7.5 Clarify if the patient requires a chaperone; following ECCH Chaperone Policy.

7.6 Check patient identity with the patient the Patient Identification Policy.

7.7 Patients must have a spare catheter at home, so that replacement can occur as quickly as possible should any difficulty with drainage occur.

7.8 Review Catheter Passport and Care Plan.

7.9 Perform physiological observations where the patient has a neurological condition and therefore may be at risk of Autonomic Dysreflexia, where indicated in the patient's care plan.

7.10 Ensure patient privacy and dignity

7.11 Remove patient's underwear, maintaining their privacy and dignity. Assess the need to wash the patient with soap and water prior to the procedure. Do not leave the patient exposed at this stage of the procedure.

7.12 Assist the patient to get into an appropriate and comfortable position.

7.13 Ensure that a good light source is available.

7.14 Decontaminate hands.

7.15 Put on a disposable apron and non-sterile gloves.

8. Procedure

8.1 **Throughout the procedure observe for signs of Autonomic Dysreflexia in spinal cord injured patients. If at any time the heart rate drops, rhythm changes or signs of Autonomic Dysreflexia. STOP the procedure immediately and escalate in line with NCH&C SOP for responding appropriately to patients in deterioration.**

8.2 The removal of an existing catheter is performed as a clean technique, in advance of setting up for aseptic reinsertion.

8.3 Once removed the urinary catheter should be inspected for encrustation; crystals in catheter lumen, blood clots, etc. this will inform the rationale for frequency of future catheter changes (record in patient healthcare record and within the patient's catheter passport).

8.4 Remove PPE and decontaminate hands.

8.5 Prepare work area and gather all equipment that is required for procedure.

8.6 Check the expiry date of all equipment including the catheter.

8.7 Prepare the equipment using an aseptic non-touch technique.

8.8 Apply apron and decontaminate hands and put on sterile gloves.

8.9 At this point clinicians may wish to connect the sterile catheter drainage system to catheter prior to insertion to maintain closed drainage system ensuring that aseptic technique is maintained, or this may be done after insertion of catheter and insertion of balloon.

8.10 Place sterile towels across the patient's thighs and around the pubic area ensuring the whole area is covered except for the penis.

8.11 Wrap a sterile low linting swab around the penis. Retract the foreskin, if necessary, and clean the glans penis with sterile saline and dry.

8.12 Instill approximately 1mL of local anaesthetic gel around meatus and insert nozzle into the urethral meatus. After instilling gel, remove the nozzle from the urethra. Hold the glans penis firmly to prevent the gel from being released.

8.13 Whilst continuing to hold (for 3-5 minutes for the anaesthetic to take effect), wipe the underside of the penile shaft in a downward direction several times with a dry swab to move the gel towards the prostatic urethra.

8.14 Remove gloves and decontaminate hands. Apply a new pair of sterile gloves.

8.15 Holding the penis in an upright and extended position. This straightens the first curve of the urethra and facilitates catheterization. Gently pass the catheter into the urethral meatus. Continue to pass the catheter slowly and smoothly through the urethra and into the bladder.

8.16 If at any stage there is difficulty passing the catheter, if bleeding occurs or if the patient complains of undue pain, stop and seek advice.

8.17 If resistance is felt at the prostatic urethra/sphincter region, ask the patient to relax the muscles as if he were passing urine, or to cough, at the same time as gently passing the catheter into the bladder. If there is still resistance or the patient has bleeding or discomfort other than that associated with minor trauma, stop and seek advice. No more then 2 attempts should be made before seeking advice from GP, detailing the reason for catheterisation and the difficulty encountered, requesting escalation to acute for re-catheterisation.

8.18 Insert the catheter until urine begins to flow into the drainage bag, then advance it almost to its bifurcation. Inflate the balloon according to the manufacturer's instructions, having ensured that the catheter is draining properly beforehand.

Reposition the foreskin to prevent paraphimosis. Withdraw the catheter slightly, until resistance is felt.

8.19 Support the catheter by using a specially designed supportive system (G-strap or similar). Ensure that the catheter does not become taut when patient is mobilizing or when the penis becomes erect. If the patient is not mobile ensure the support system is on the upper thigh surface and facing downwards to allow drainage. Ensure that the catheter lumen is not occluded by the fixation device.

8.20 Ensure the closed catheter drainage system is below the level of the bladder, and well supported, using the drainage system appropriate to the individual's needs.

8.21 Remove and dispose of gloves. Decontaminate hands.

9. Post procedure

9.1 Make the patient comfortable and dry.

9.2 Ensure that the glans penis is clean and then reduce or reposition the foreskin in non-circumcised patients.

9.3 Replace clothing.

9.4 Measure the amount of urine.

9.5 Collect a sample of urine if needed.

9.6 Dispose of clinical waste as per ECCH Waste Management Policy.

9.7 Record information in relevant documents (including the catheter care plan and Patient's Catheter Care Passport). This should include:

- reasons for catheterisation
- date and time of catheterisation;
- catheter type, manufacturer, lot number, expiry date, length and size
- drainage system
- amount of sterile water instilled into the balloon
- a description of the urine (e.g., if there is haematuria, cloudy or containing debris), residual urine volume (if appropriate)
- batch number and expiry date of anaesthetic lubricating gel
- any problems negotiated during the procedure
- observations of the removed catheter such as encrustation or crystals in catheter lumen
- physiological observations if indicated (for patients with neurological conditions)
- date of catheter drainage device change due and who will conduct the change of drainage device (i.e., patient / carer / relative). Catheter bags should be changed in line with the manufacturer's recommendation
- a date to be reviewed by a Registered Nurse to assess the need for continued catheterisation or date of change of catheter.

9.8 If the patient is unwell complete a full set of observations.

9.9 Unregistered staff to seek advice from a Registered Nurse if:

- Has signs of urinary tract infection
- If fresh blood is seen before or after the procedure

9.10 Discuss with patient / carers advice for caring for themselves and their catheter – see page 4 Catheter Care Passport.

10. Training and Competency

10.1 Nurse Associates and Registered Nurses are expected to have achieved training in the methodology for providing care to patients with urethral catheters as part of their pre-registration training.

10.2 All Registered Nurses and Nurse Associates will complete the training available at http://coloplast.e3learning.co.uk then 3 yearly theory updates by completing the Catheterisation E-learning module '000 Continence and Catheter Care' available on ESR. It covers basic continence assessment, and basic catheter principles.

10.3 All staff will complete yearly observed practice by a registered nurse. Registered Nurses code of professional conduct requires that they practice within their competency and that competency is maintained. Competency will be reviewed, recorded and monitored as part of the annual Personal Development Planning (PDP) process.

10.4 Unregistered staff providing care to patients with urethral catheters will be signed off competent to conduct this intervention by their supervisor / registered practitioner against the standards set out in this SOP. This will be recorded using the Testimonial of Competency.

10.5 Training on IPAC Standard Precautions is provided at induction and annually via mandatory training.

10.6 Registered and unregistered nursing staff conducting urinary catheter care must have an awareness of ANTT principles for catheter care.

11. Reference and further information

- ECCH Urinary Catheterisation Policy
- ECCH IPAC policies
- European Association of Urology Nurses (2012) Evidence Based Guidelines for Best Practice in Urological Healthcare: Catheterisation indwelling catheters in adults urethral and suprapubic.
- NICE (2012) Evidence-based Guidelines for Best Practice in Urological Health Care
- Catheterisation Indwelling catheters in adults Urethral and Suprapubic.
- Royal College of Nursing (2021): Catheter Care Guidance for Healthcare Professionals https://www.rcn.org.uk/professional-development/publications/catheter-care-guidance-for-health-care-professionals-uk-pub-009-915
- NHS England (2020) My Urinary Catheter Passport https://www.england.nhs.uk/wp-content/uploads/2020/08/Catheter_passport_clinical_v3.pdf

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Appendix 3

Standard operating procedure (SOP)
Planned Suprapubic Catheter: First, Routine and Unplanned Changes

1. Purpose

1.1 To ensure that the changes of suprapubic catheters (SPC) in the community (including first and unplanned changes) complies with national guidance and standards for practice and to manage the risks associated with first and subsequent changes.

1.2 The National Patient Safety Agency publication NPSA RRR005 states that "Patients should be referred to the urology team who should carry out the first change of catheter". However, the NPSA issued further guidance during 2009 stating "the advice contained in this Rapid Response Report (RRR) relates to the initial insertion of a suprapubic catheter. All but one of the serious incidents referred to in the RRR were related to the initial insertion."

1.3 The Association of Continence Advisors state that "The first change can be done in the community, in the patient's own home or community clinics. There is no rationale for it being done in a hospital setting, but it is dependent on local policy."

1.4 ECCH have a local agreement with the CCGs and the James Paget hospital that community nurses may conduct the first change for patients who meet the following criteria:

- The patient's catheter is 4 weeks old and that the first change is considered suitable within the community. Documentation is completed on SystmOne that confirms that the first change is considered suitable within the community.
- The nurse is competent.

2. Scope

2.1 ECCH provide catheter changes to patients with SPC who are not able to self-manage.

2.2 All registered staff providing adult male and female patients with care of a SPC will be competent against this SOP.

2.3 **For routine and unplanned changes of SPC** registered staff must be competent in SPC changes.

2.4 It is recommended by British Association of Urological Surgeons (2020) that all failed changes, or expelled suprapubic catheters are admitted to the acute for assessment and re-catheterisation.

2.5 **This SOP does not cover the <u>initial insertion</u> of suprapubic catheter as this is performed as a surgical procedure within an acute setting by a Urology clinician.**

2.6 **Staff are expected to read the ECCH Urinary Catheterisation Policy prior to undertaking catheter care to ensure that the risks to patients from autonomic dysreflexia are understood and managed appropriately.**

3 Responsibility

3.1 It is the responsibility of the Locality Team Leader to ensure that this SOP is shared with all the pertinent staff and to ensure that staff complete training and annual competency review.

3.2 Individual staff are responsible for their own practice, ensuring competency to practice and completing the required training.

3.3 Allocation – it is the responsibility of the allocator to ensure that the Registered Nurse is identified on the Electronic Staff Record as signed-off as competent.

3.4 It is the responsibility of the Registered Nurse to only accept allocated work within their scope of signed-off competency.

4 Known risks

- urine infection
- trauma
- infection of surface wound and tract
- encrustation around the balloon
- over granulation of skin tissue around the site
- medication status i.e. Warfarin
- allergy status
- bleeding
- inflation of balloon in abdominal cavity or urethra
- autonomic dysreflexia

5. Equipment

- Urinary Catheter Insertion Pack (this comes with small, medium or large sterile gloves) or wound care pack if not available
- Additional pair of sterile gloves
- One pair of non-sterile gloves and apron
- Sterile Catheter
- Sterile anaesthetic lubricating gel or sterile lubricating gel
- Alcohol hand rub
- Specially designed supportive system to anchor catheter
- Sterile water – for inflating the balloon
- Sterile saline – for cleaning the cystostomy site
- Syringe x2 (if not included with catheter)
- Catheter valve (if appropriately assessed for this), belly drainage bag (preferably) or leg drainage bag
- Stabilisation device
- Drainage system
- Dressing pack in case of any trauma to the cystostomy site.

6. Pre-procedure

6.1 Once the abdominal channel has been established (about 4 weeks) a SPC can be changed routinely by a competent practitioner. It is recommended that the patient is assessed at 10 weeks for their first change, which will take place at no later than 12 weeks. However, if the patient is having problems the catheter may be changed

between 4 and 10 weeks in the community by a competent practitioner (see above section 2).

6.2 A risk assessment is conducted by the nurse who is to perform the first change and it must confirm that the first change is considered suitable within the community.

6.3 Subsequent changes of suprapubic catheters should be individually assessed depending on the catheter history documented in the catheter passport and SystmOne care plan and should be conducted no later than 12 weekly unless manufacturers' instructions recommend otherwise. If problems arise the catheter can be changed at any time. See Urinary Catheter Policy – section Trouble shooting.

6.4 Clinical indications for insertion, maintenance and removal of an SPC must be documented in patient health care records and catheter passport.

6.5 Community Nurses will aim for planned catheter care rather than crisis management by monitoring 'catheter life'. Effective assessment can often establish a pattern of recurrent catheter encrustation and blockage in susceptible patients. Each patient should have an individual care plan designed to minimise the problem of blockage and encrustation by scheduling catheter changes according to assessed need. Use of a catheter passport will help ascertain a pattern of catheter blockages so changes can be planned accordingly.

6.6 The patient will be provided with drainage systems for the first week following discharge by the referrer. The EDL provided to the patient's GP will dictate the catheter size and type for the first change and is detailed in the patient's catheter passport. Catheters for suprapubic insertion may be larger than those used for urethral catheterisation (usually a size 16 charriere).

6.7 The practitioner will conduct an assessment of the patient and will replace the catheter like for like unless their assessment indicates that a different type would better meet the patient's needs. For example if there is:

- poor drainage
- difficulty removing or inserting the catheter
- if it will improve ease of subsequent catheter management.

6.8 A standard-length catheter is used.

6.9 Patients must have a spare catheter at home, so that replacement can occur as quickly as possible should any difficulty with drainage occur. The nurse must ensure that the patient is able to organise this via prescription.

6.10 The choice of drainage equipment is particularly important for the promotion of patient independence and self-management. It is the responsibility of the nurse to match choice with the individual patient's preference and life-style. Where possible the patient should have the opportunity to try out different drainage bags in order to allow them to decide which is most suitable. See http://eccho/Home/MedicinesManagement/Formularies.aspx

6.11 Assessment to determine whether the suprapubic catheter should be connected to a sterile closed drainage system or to a catheter valve will be done initially by the urology department/ referrer. The assessment for use of a catheter valve will include the patient /carers' ability to manage regular emptying and manipulation of the value. Catheter valves should be used with caution for clients with:

- spinal injuries

- renal impairment
- high pressure bladder
- limited bladder capacity
- unstable bladder (Detrusor instability).

6.12 A link system is used to facilitate overnight drainage, to keep the original system intact.

6.13 Explain procedure and gain informed consent. Consent is a patient's agreement for a health professional to provide care. Before health care professionals examine, treat or care for any person they must obtain their valid consent in line with ECCH's Consent to Examination and Treatment Policy and Mental Capacity Act Policy. There is a basic assumption that every adult has the capacity to decide whether to consent to, or refuse, proposed medical intervention, unless it is shown that they cannot understand information presented in a clear way.

6.14 If the health professional feels that the patient has the capacity to give consent, their decision will be accepted and the wishes of the patient will continue to be respected, even if they lose capacity at a later stage.

6.15 If the health professional feels the patient does not currently have the capacity to consent, and the patient has not made an advance decision or formally appointed anyone to make decisions for them then the professional needs to consider what is in the best interests of the patient before making a decision. This must be documented in the patient's healthcare record.

6.16 If the patient has Learning Disabilities and / or Dementia, more pre procedure work may be required such as desensitisation / social story / reasonable adjustments to ensure that the person feels safe. Consult with LD services or Dementia Lead for advice where needed.

6.17 Clarify if the patient requires a chaperone; following ECCH Chaperone Policy.

6.18 Check patient identity with the patient (following ECCH Patient Identification Policy).

6.19 Perform physiological observations where the patient has a neurological condition and therefore may be at risk of Autonomic Dysreflexia, where indicated in the patient's care plan.

6.20 Apply standard precautions for infection control (Personal Protective Equipment) and take other appropriate health and safety measures.

6.21 At each step in the procedure explain to the patient what you are doing and why and allow time for questions.

6.22 Decontaminate hands, put on apron and non-sterile gloves.

6.23 Prepare patient ensuring comfort and maintaining privacy and dignity. Position the patient lying down and expose the catheter site, loosening the bag from the leg or holster. Assess the cystotomy site and clean with water where needed.

6.24 Take off gloves, decontaminate hands.

6.25 Prepare work area and equipment for aseptic non-touch procedure, check the expiry date on all equipment including the catheter.

6.26 Open outer cover of the catheter pack, using a clean technique open supplementary packs

7. Procedure

7.1 **Throughout the procedure observe for signs of Autonomic Dysreflexia in spinal cord injured patients. If at any time the heart rate drops, rhythm changes or signs of Autonomic Dysreflexia. STOP the procedure immediately and escalate.**

7.2 Decontaminate hands and put on non-sterile gloves.

7.3 Attach 10ml syringe to existing catheter using the outlet port. Allow the syringe to deflate balloon by gently drawing back on syringe ensuring deflation is complete.

7.4 Grip the existing catheter near to the skin surface and place a finger either side of the catheter.

7.5 Withdraw the catheter from the tract, you may need to twist it a little and there may be a gush of urine as you withdraw it, have some gauze ready. Note the angle that it comes out at.

7.6 Once removed judge the depth the catheter was inserted. Put the catheter to one side (outside of the sterile field) so that it can be examined later.

7.7 Note: When conducting a first change of SPC there should be as little delay as possible between removal and reinsertion (20 minutes maximum). If a delay were to occur the cytostomy (insertion) site is at risk of closure. This is particularly relevant for those that experience bladder or abdominal spasm.

7.8 Remove gloves and decontaminate hands.

7.9 Open inner catheter pack and put on sterile gloves.

7.10 Place sterile drapes over the patients' abdomen above and below the catheter. Clean the cystostomy site using sterile normal saline.

7.11 Aseptic technique is maintained when connecting the indwelling urinary catheter to a sterile closed drainage system. Closed system catheter packs are available, but if this is not used, connect the sterile catheter drainage system to the catheter prior to insertion to maintain a closed drainage system.

7.12 Lubricate the new catheter being careful not to block the drainage eyelets. Insert it into the cystostomy tract advancing to the depth of the previously removed catheter and an additional 3 cms ensuring that the catheter has not been inserted too far and is in the urethra, urine should drain (this indicates correct positioning). If the catheter is not far enough into the bladder, resistance will be felt when attempting to fill the balloon, and the patient will feel pain. If this happens, deflate the balloon and advance or withdraw as appropriate.

7.13 Inflate the balloon with 10 ml of sterile water (according to manufacturer's instructions) and pull back the newly inserted catheter gently until you feel resistance.

7.14 Observe for urine drainage, which may not be immediate and might be a little blood stained. There may not be any urine drained straight away, but you should ensure that free drainage is achieved before leaving the patient.

7.15 A failed catheter change will be escalated to the acute setting as per recommendation by British Association of Urological Surgeons (2020) for assessment and re-catheterisation.

7.16 Examine the old catheter for signs of encrustation to inform the subsequent catheter care plan, this should be recorded within the patient's healthcare record and catheter passport.

7.17 Measure and record amount, colour and clarity of urine collected immediately after insertion.

7.18 Dress site with a dry dressing if necessary.

8. Post procedure

8.1 Ensure patient is comfortable and the catheter is secured at 90 degrees and that drainage bag is well supported and the bag is below the level of the bladder.

8.2 Clear away equipment and PPE and dispose of as per ECCH Waste Management Policy.

8.3 Decontaminate hands.

8.4 Document procedure using patient's healthcare record / catheter passport and include:

- Patients consent and understanding
- Allergy status
- Reason for catheterisation
- Date and time of catheterisation
- catheter type, manufacturer, lot number, expiry date, length and size
- drainage system
- amount of sterile water instilled into the balloon
- a description of the urine (e.g. if there is haematuria, cloudy or containing debris), residual urine volume (if appropriate);
- batch number and expiry date of lubricant used
- Difficulties experienced during procedure
- date of catheter drainage device change due and who will conduct the change of drainage device (i.e. patient / carer / relative). Catheter bags should be changed in line with the manufacturer's recommendation.
- Management plan, inc. predicted date of change / removal
- Risk assessment for first change.

8.5 Educate the patient and / or carer on the care of the catheter and attachments to meet infection prevention and control standards, and check understanding at each stage.

8.6 Discuss with patient / carers advise for caring for themselves and their catheter – see page 4 Catheter Care Passport.

8.7 Ensure the patient is dressed and comfortable before leaving.

9. Training and Competency

9.1 Nurse Associates and Registered Nurses are expected to have achieved training in the methodology for providing care to patients with urethral catheters as part of their pre-registration training.

9.2 **For routine and unplanned changes of SPC** registered staff must be competent in SPC changes. **For first and unplanned changes of SPC** registered staff must be competent in SPC changes and thus will be able to adapt their knowledge and skills

to accommodate special or novel situations. Staff are signed-off as competent using the Testimonial of Competency.

9.3 All Registered Nurses and Nurse Associates will complete the training available at http://coloplast.e3learning.co.uk then 3 yearly theory updates by completing the Catheterisation E-learning module '000 Continence and Catheter Care' available on ESR. It covers basic continence assessment, and basic catheter principles.

9.4 All staff will complete yearly observed practice by a registered nurse signed off as competent. Registered Nurses code of professional conduct requires that they practice within their competency and that competency is maintained. Competency will be reviewed, recorded and monitored as part of the annual Personal Development Planning (PDP) process.

9.5 E-learning is also available at Suprapubic Catheterisation https://www.youtube.com/watch?v=ZKq5Afm5w6c

9.6 Training on IPAC Standard Precautions is provided at induction and annually via mandatory training.

9.7 Registered and unregistered nursing staff conducting urinary catheter care must have an awareness of ANTT principles for catheter care.

10. Reference and further information

- ECCH Urinary Catheterisation Policy
- ECCH IPAC policies
- European Association of Urology Nurses (2012) Evidence Based Guidelines for Best Practice in Urological Healthcare: Catheterisation indwelling catheters in adults urethral and suprapubic.
- NICE (2012) Evidence-based Guidelines for Best Practice in Urological Health Care
- Catheterisation Indwelling catheters in adults Urethral and Suprapubic.
- British Association of Urological Surgeons suprapubic catheter practice guidelines – revised Susan Jane Hall, Simon Harrison, Chris Harding, Sheilagh Reid, Richard Parkinson BJU International Volume 126, Issue 4 First published: 28 May 2020

ECCH version

Version 1	**August 2022**	**Author** Helen Notley	Review due August 2023

Acknowledgement NCHC SOP initial author's – joint work in N&W

SOP reference	**NCHC-05**	**Author** (name and job title)	Rosy Watson – Clinical Lead & Student District Nurse; Elizabeth Wilkin – Link Nurse & Student District Nurse; Karen Clark – Clinical Improvement and Effectiveness Manager Ruth Broom – Continence Service Lead.

Appendix 4

Eastern Pathology Alliance NHS

GUIDANCE AND ALGOROTHM FOR DIAGNOSIS OF CATHETER ASSOCIATED URINARY TRACT INFECTION AND APPROPRIATE SAMPLING

Do not perform urinalysis urine samples from patients with long term catheters to diagnose UTI

Catheters in place for more than a week will normally become colonised with bacteria, and will give positive dipstick for nitrites and/or leucocytes even when there is **no** urine infection present.

Do not send catheter urine for 'routine' culture

Catheters in place for more than a week will normally become colonised with bacteria and give positive microscopy results and significant growth of bacteria even when there is **no** urine infection present. Urine can be offensive due to colonisation **without** infection. Catheter change may help with this.

Do not prescribe antibiotics to 'treat' bacterial growth from a catheter urine in asymptomatic patients

Bacterial colonisation of long term catheters is normal. Inappropriate antibiotic treatment of colonised catheter specimens selects for antimicrobial resistance and puts the patient at unnecessary risk of complications of antibiotic use **including C. difficile infection**

Use the enclosed algorithm to guide when to sample and when to treat

Urinary tract infection should only be suspected and investigated in catheterised patients with suggestive signs of infection (i.e. loin pain and/or pyrexia and/or systemically unwell) where no other source can be found.
If the patient is clinically septic or has features of pyelonephritis consider referral for hospital review and further investigation.

When sending urine from a catheterised patient for culture, please indicate clinical signs and symptoms of infection on the form, and identify that the sample is from a catheter.

The Microbiology laboratory reserves the right **not** to process inappropriately labelled specimens of catheter urine which do not suggest possible infection. If the request relates to a catheter is newly inserted or intermittent catheterisation please indicate this on the request form.

Algorithm for diagnosis of Catheter-Associated Urinary Tract Infection (CAUTI) in adults

Does the patient have loin pain?

OR

Does the patient have a temperature of <36°C or >38.3°C or clinical sepsis AND no other source of infection evident?

Yes

CAUTI possible

x - DO NOT perform urinalysis

√ Send CSU to microbiology for culture and sensitivity testing and indicate signs of infection on request form

√ Treat with empirical antibiotics (see local guidelines)

If clinically septic consider need for hospital review

CONSIDER – catheter removal/change (after first dose of antibiotic)

√ Review antibiotic with culture and sensitivity results and modify if required.

No

CAUTI unlikely

x - DO NOT perform urinalysis

x - DO NOT send CSU routinely.

x - DO NOT initiate empirical antibiotics. Acute infection unlikely.

REMEMBER – Full clinical details must be documented on the form (i.e. loin pain and/or pyrexia and/or systemically unwell) or the sample may not be processed

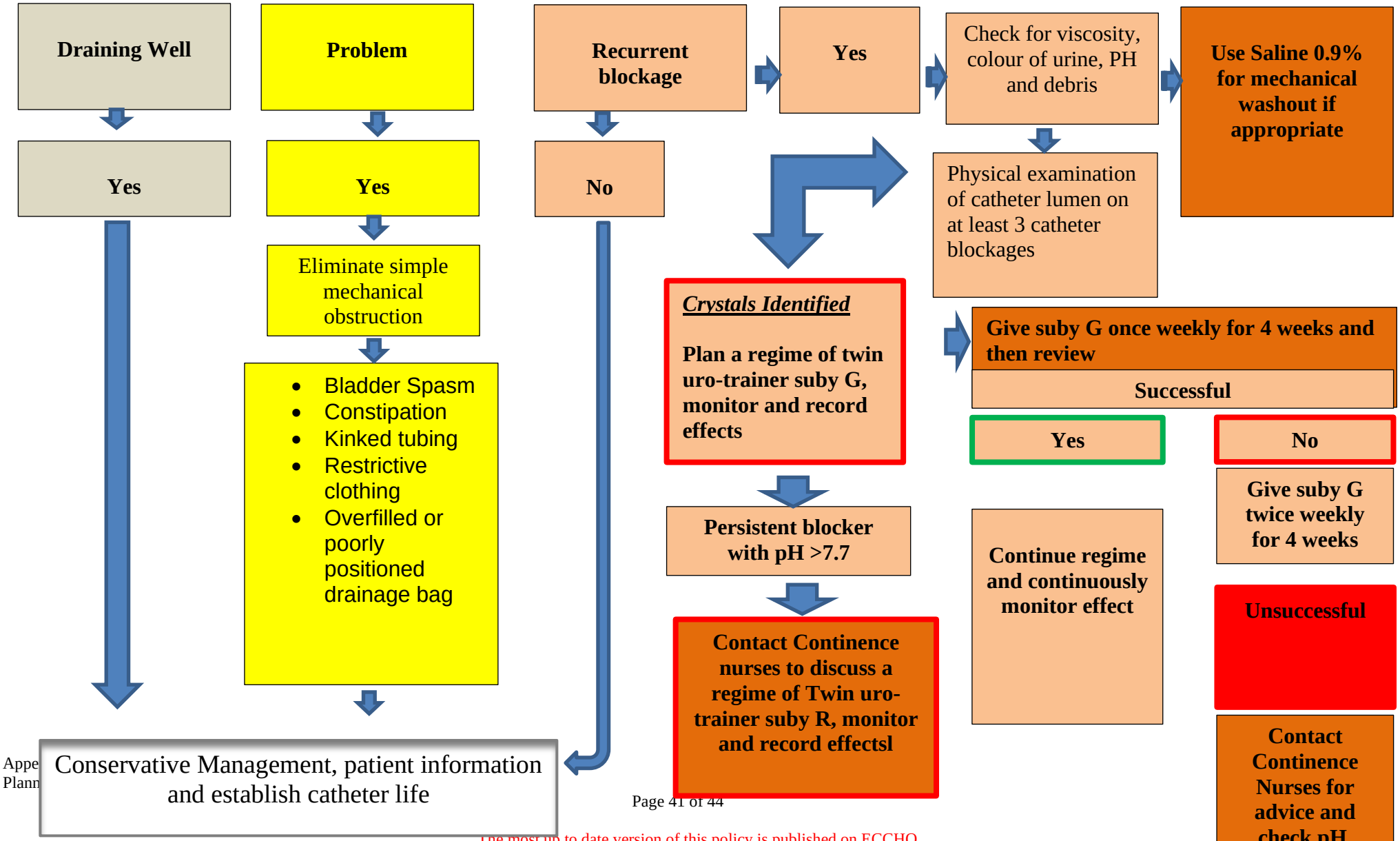
For further advice please contact NNUHFT Microbiology on 01603 288587

Sources of Information

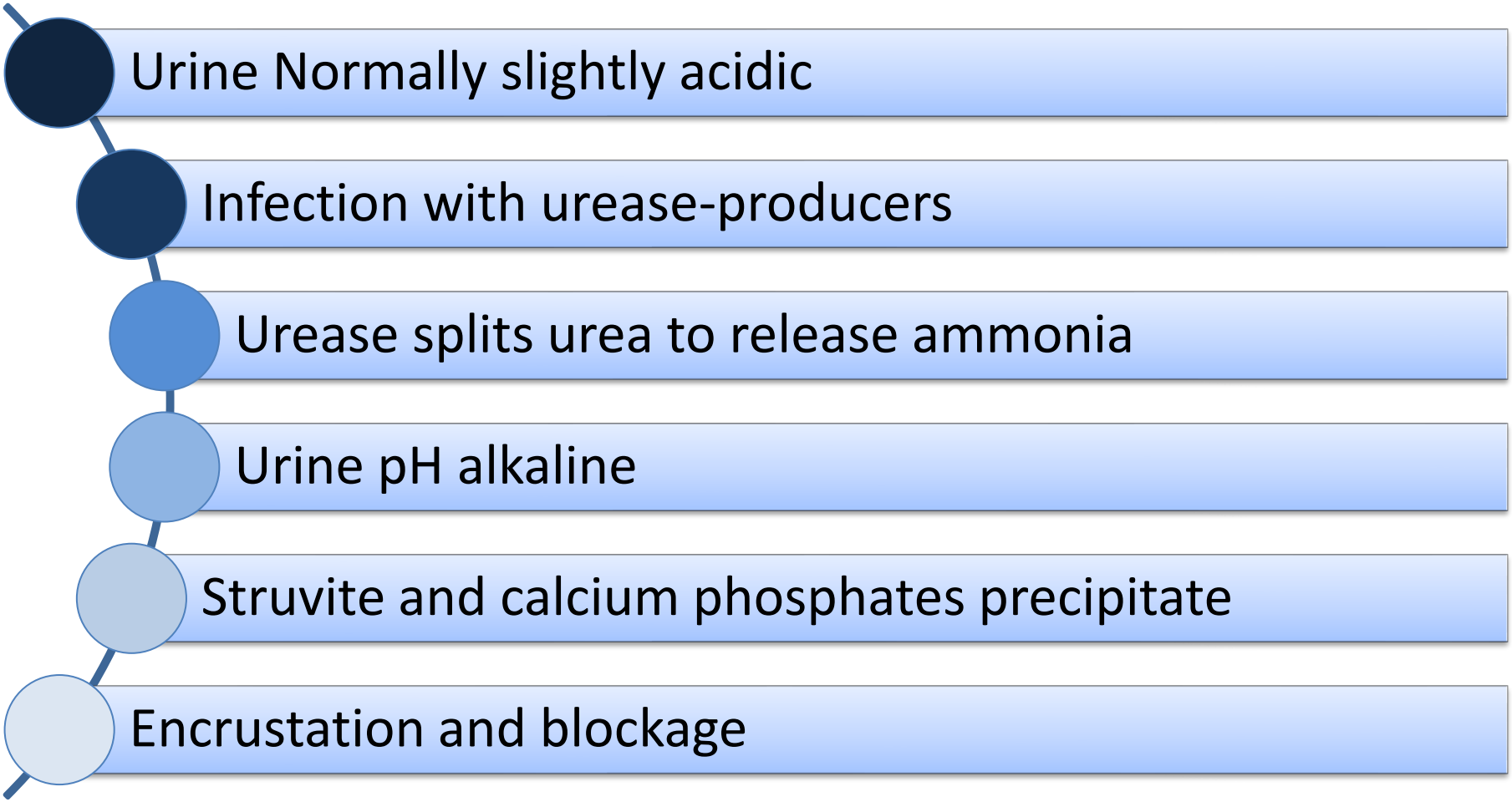
- Gloucestershire Hospitals NHS Foundation Trust
- HPA Diagnosis of UTI – Quick reference guide for Primary Care
- SIGN guidelines – Management of suspected bacterial urinary tract infection in adults 2012

Appendix 5

Catheter Blockage



Causes of Catheter blockage



21. EQUALITY & DIVERSITY IMPACT ASSESSMENT

In reviewing this policy, the HR Policy Group considered, as a minimum, the following questions:
- Are the aims of this policy clear?
- Are responsibilities clearly identified?
- Has the policy been reviewed to ascertain any potential discrimination?
- Are there any specific groups impacted upon?
- Is this impact positive or negative?
- Could any impact constitute unlawful discrimination?
- Are communication proposals adequate?
- Does training need to be given? If so is this planned?

Adverse impact has been considered for age, disability, gender reassignment, marriage and civil partnership, pregnancy and maternity, race, religion and belief, sex, sexual orientation.

Blank version of the full Equality & Diversity Impact assessment can be found here:

http://eccho/Home/FormsGuidance.aspx?udt_575_param_index=E&udt_575_param_page=2

22. DOCUMENT CONTROL

Version Date	Version No.	Author/ Reviewer	Comments
March 2012	5	IP&CT	Updated Infection Control information
December 2012	6	IP&CT	Updated Infection Control information
December 2014	7	IP&CT	Updated Infection Control information
December 2016	8	IP&CT	Updated Infection Control information
September 2018	9	IPC&T	Updated Infection Control information
January 2019	10	IPC&T	Updated wording by Continence Lead
December 2020	11	IPC&T	Updated wording by Continence Lead
October 2022	12	Continence	Added SOP's

DOCUMENT CONTROL SHEET

Name of Document:	Policy for Catheter Management
Version:	12
File Location / Document Name:	ECCHO
Date Of This Version:	October 2022
Produced By (Designation):	Continence Team

Reviewed By:	IPACC
Synopsis And Outcomes of Consultation Undertaken:	Changes relating to relevant committees/groups involved in ratification processes.
Synopsis And Outcomes of Equality and Diversity Impact Assessment:	National EIA gives more details on measures to reduce HCAI's.
Ratified By (Committee): -	IPACC
Date Ratified:	
Distribute To:	ECCHO
Date Due for Review:	October 2024
Enquiries To:	
Approved by Appropriate Group/Committee **Approved by Policy Group** **Presented to IGC for information**	☐ Date: ☐ Date: ☐ Date: