

# **Adult Urinary Catheterisation Policy**

**V5.0**

**March 2019**

## Table of Contents

<b>1. Introduction</b>	<b>3</b>
<b>2. Purpose of this Policy/Procedure</b>	<b>3</b>
<b>3. Scope</b>	<b>3</b>
<b>4. Definitions / Glossary</b>	<b>3</b>
<b>5. Ownership and Responsibilities</b>	<b>3</b>
5.1. Role of Divisional Management Teams	3
5.2. Role of Ward and Department Sisters, Charge Nurses and Clinical Department leaders	3
5.3. Role of Individual Clinical Staff Members	4
5.5. Role of the Bladder and Bowel Specialist Service	4
<b>6. Standards and Practice</b>	<b>5</b>
<b>7. Dissemination and Implementation</b>	<b>14</b>
<b>8. Monitoring compliance and effectiveness</b>	<b>16</b>
<b>9. Updating and Review</b>	<b>16</b>
<b>10. Equality and Diversity</b>	<b>16</b>
<b>Appendix 1. Governance Information</b>	<b>17</b>
<b>Appendix 2. Initial Equality Impact Assessment Form</b>	<b>19</b>
<b>Appendix 3 References and further reading</b>	<b>22</b>
<b>Appendix 4 Catheter Selection Matrix</b>	<b>24</b>
<b>Appendix 5 Problem Solving Urinary Catheter Problems</b>	<b>25</b>
<b>Appendix 6 Treatment Algorithm for Long-term Catheterised Patients</b>	<b>26</b>
<b>Appendix 7 Bladders Scanning Algorithm Post Urinary Catheter Removal</b>	<b>27</b>
<b>Appendix 8 Autonomic Dysreflexia information</b>	<b>29</b>

## 1. Introduction

1.1. This policy set out standards and guidance relating to urinary catheterisation in adults and catheter care for the organisation and practitioners employed within the Trust.

1.2. This policy mirrors the policy for urinary catheterisation in adults of community partners ensuring the highest standards of care and practice are consistently delivered across all services used by our patients.

1.3. This version supersedes any previous versions of this document or its associated documents, including Trust strategy and clinical guidelines.

1.4. This version supersedes any previous versions of this document.

## 2. Purpose of this Policy/Procedure

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

## 3. Scope

This policy applies to all Trust staff directly or indirectly involved with urinary catheterisation / catheters.

## 4. Definitions / Glossary

4.1. **A urethral catheter** is a hollow tube inserted into the urinary bladder via the urethra, for the purpose of draining urine or instilling fluids as part of medical treatment.

4.2. **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 for the purpose of draining urine or instilling fluids as part of medical treatment.

4.3. References (See Appendix 3)

## 5. Ownership and Responsibilities

### ***5.1. Role of Divisional Management Teams***

Divisional Management Teams (Clinical Director(s), Associate Directors and Associate Directors of Nursing) are responsible for ensuring their clinical workforce is capable to deliver the requirements of this policy and do so. Overview of monitoring mechanisms in place to guarantee the highest standards of service relating to prevalence and practice should inform local strategic and operational plans to drive high quality patient care and experience.

### ***5.2. Role of Ward and Department Sisters, Charge Nurses and Clinical Department leaders***

Ward Sisters, Charge Nurses and Clinical Departmental Leaders are responsible for ensuring local adherence to this policy. All effort should be made to ensure that the workforce is capable of delivering the requirements of this policy.

### **5.3. Role of Individual Clinical Staff Members**

5.3.1. Each individual clinical staff members is responsible to ensure they comply with this Trust 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
- Professional record keeping standards
- Relevant Trust policies

5.3.2. Individuals are responsible for identifying their learning and development needs. These needs should be raised in annual appraisals.

5.3.3. If the registered health care practitioner delegates the task of insertion of an indwelling urinary catheter to a non-registered staff member (only an assistant practitioner under specific direction), are reminded that they are at all times accountable for the delegated task.

5.3.4. It is the responsibility of the registered healthcare professional to oversee the taking and documentation of valid consent.

5.3.5. If delegating tasks to others, it is important to ensure:

5.4. Dignity is maintain to make the patient feel most comfortable with the non-registered staff member carrying out the procedure

- The non-registered staff member has received training and assessment of competence in the insertion and care of indwelling urinary catheters
- The non-registered staff member undergoes regular annual supervision to ensure their competence to carry out these tasks
- The non-registered staff member will only insert an indwelling urinary catheter to a previously identified patient (those with routine, uncomplicated re-catheterisations) under direct delegation from a registered nurse who is prepared to be accountable for the delegated task.

### **5.5. Role of the Bladder and Bowel Specialist Service**

The Bladder and Bowel Specialist Service for Cornwall provides a specialist service, which offers professional advice, guidance and information on the promotion and management of continence; and facilitates best practice in continence care for faecal and urinary incontinence, including enuresis, and related bladder and bowel problems for children and adults.

For further information contact:

#### **Bladder and Bowel Specialist Service**

St Austell Community Hospital  
Porthpean Road  
St Austell  
PL26 6AD

## 6. Standards and Practice

### 6.1. Good Practice Statement

6.1.1. Only use indwelling urinary catheters after alternative methods of management have been considered e.g. intermittent catheterisation (Loveday et al 2014). The registered health care practitioner (HCP) should consider alternative measures to avoid urinary catheterisation where possible and understand the high level of risk associated with short and long-term catheterisation.

6.1.2. Supporting documentation for this guideline include the EPIC3 Guidelines (Loveday et al 2014) for the maintenance of short-term indwelling catheters in acute care and the Infection Control Guidelines (NICE 2012) for care of patients with long-term urinary catheters. Additionally, 'Essential steps to safe, clean care' provides a review tool (High Impact Interventions No 6: Urinary Catheter Care Bundle) to enable self-assessment of care delivery against risk elements associated with urinary catheter care (DH 2006).

6.1.3. Indwelling urinary catheterisation is not a substitute for nursing care of the patient with urinary incontinence.

### 6.2. Decision to Catheterise

6.2.1. The competent HCP can make a clinical decision to undertake an initial urethral catheterisation. Initial suprapubic catheterisation will be performed by medical staff. Ideally, indwelling catheterisation should be performed following discussion with the patient's general practitioner (GP) or hospital doctor. If this is not possible, the GP or hospital doctor should be informed that the patient has been catheterised in order that medical decisions regarding subsequent treatment/care can be made.

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

### 6.3. The indications for catheterisation include:

6.3.1. **Protection/Drainage** – e.g. prostatic hyperplasia; chronic retention; hypotonic bladder; pre & post-operative surgery; & epidural; end of life comfort; sacral/perineal wounds (stage IV and V)

6.3.2. **Acute care** – acute urinary retention; urine output monitoring in critical illness

6.3.3. **Investigations** – e.g. urodynamics; measurement of residual volumes (less invasively achieved by a portable bladder scanner)

6.3.4. **Long-term care** - intractable incontinence, that hasn't responded to alternative methods of care; chronic urinary retention

6.3.5. However, the use of indwelling catheterisation should not be considered routine in any of these situations

#### **6.4. Consent**

Valid consent to undertake an initial insertion or renewal of a catheter must be obtained verbally from the patient where possible and with approval from the person with continuing medical responsibility for the patient. This consent should be recorded in the patient's clinical health record. If the patient does not have capacity to consent to urinary catheterisation – the Mental Capacity Act Policy must be followed.

#### **6.5. Documentation**

The assessment and decision to use indwelling urinary catheterisation should be clearly documented, along with the rationale, in the patient notes, including the Urinary Catheter Insertion Record and Care Plan (CHA2725). On-going, documented review is a fundamental element to ensure that the catheter is considered for removal at every opportunity.

#### **6.6. Selection of Catheter**

Selection is based on a number of factors; Appendix 4 contains a matrix to guide choice based on catheter type and duration. Length of time a catheter can remain in place is guided by the manufacturer's product liability, this should always be heeded. Additionally, appendix 4 gives guidance on the rationale for urethral and supra-pubic catheterisation.

##### **6.6.1. Catheter Material**

- Hydrogel-coated, latex catheters appear to be more suitable than all-silicone catheters, because expert opinion suggests that they are more comfortable to the delicate urethral tissue. All-silicone catheters can be difficult to remove due to the cuff formation and the balloon having a poor 'memory'. Choice of catheter material may depend on clinical experience, patient assessment and anticipated length of time the catheter is expected to be in place (Loveday et al 2014).
  
- Studies on the silver alloy hydrogel coated latex catheter for short-term use show that the risk of urinary infection can be substantially reduced by the silver alloy coating in the first seven days (Loveday et al 2014). Evidence doesn't exist at present on their long-term use over 28 days. Silver alloy catheters must not be confused with silver oxide catheters that did not demonstrate any reduction in urinary tract infection rates. Therefore their use must be clinically justifiable. At the present time, there is no strong clinical evidence on using antibiotic impregnated catheters and therefore are not recommended.
  
- 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.

##### **6.6.2. Size of Catheter**

- For the urethral route, always choose the smallest Charriere (Ch) to provide adequate drainage. The external diameter of a catheter is measured in

Charriere – one Ch equals 0.3mm, therefore 12 Charriere will equal 4mm.

As a guide for the urethral route:

- Female 12 – 14 Ch
- Male 12 – 14 Ch
- Small charriere sizes allow the mucus produced by paraurethral glands in the urethra to drain away. By choosing a larger size these glands may become blocked and result in inflammation. Avoid inserting 16ch directly after a 12ch, which could cause trauma following the sudden dilatation of the urethra. Therefore larger sizes should be introduced gradually and may only be required where there is haematuria with large blood clots.
- For suprapubic use, 16ch is commonly used and is recommended to allow for maintenance of a good tract between the abdominal wall and bladder.
- In men, there is opinion that 14 or 16ch catheters, offer better „rigidity“ for negotiating the prostate. The catheter should be advanced enough without resistance or recoil; and urine draining prior to balloon inflation. If pain is experienced during balloon inflation then the catheter is not correctly positioned and balloon should be deflated immediately to prevent urethral trauma. Should male catheterisation be unsuccessful with 14ch then consider a 16ch as it is more likely to pass the prostate.

#### 6.6.3. **Length of Catheter**

○ For urethral route, women should always be offered a female length catheter, unless they are obese or immobile, in which case the standard length may be more suitable. Standard (male) length should only be used in male patients. It is dangerous and potentially harmful to insert a female length into a male urethra (NPSA 2009). Warning posters are available via the NPSA website. These should be displayed against any female length stock in storage areas (speciality ward and theatre and Guardian Box). If assurances cannot be guaranteed then a move towards standard length catheters only being available should be considered:

- Female – 26cms\*
- Male (standard) – 43cms\*

\*Lengths are approximate, as manufacturers vary

○ For suprapubic route, a standard length is the most usual, but patient preference may decide the most suitable length. Female length is acceptable providing that there is sufficient length to connect a valve or bag. Consideration needs to be given to obesity, mobility and clothing.

#### 6.6.4. **Balloon size**

- 10ml balloons should always be used for both urethral and suprapubic routes.
- 30ml balloons are reserved for use in specific situations, mainly for post-prostatic surgery. They can cause bladder spasm and trigone irritation.
- 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 over filled, as misshaping of the balloon will interfere with drainage. Always follow the manufacturer's instructions.

#### **6.6.5. Availability of alternative catheter and other support products**

- The Trust routinely makes available the 'Foley Pack' for urinary catheterisation. This contains a size 12 Ch male length PTFE (short / medium term) catheter.
- Speciality areas will hold a full stock of specialty catheters to respond to specific speciality patient needs on the ward and in theatre.
- Locations on each site hold 'Guardian Boxes' of alternative catheters stocks and other support products allowing the Trust to offer patients suitable products for their individually assessed needs. Posters in each clinical area will alert staff to the nearest 'guardian box'.

### **6.7. Infection Control**

6.7.1. 'Catheter associated urinary tract infection (CAUTI) is one of the most common nosocomial infection in hospitals' (Loveday et al 2014). Bacteriuria develops with every patient who has an indwelling catheter within 30 days, which is usually asymptomatic (Tenke et al 2012). However, symptoms can and do occur, which include:

- Loin or suprapubic tenderness
- New onset delirium
- Fever greater than 37.9°C or 1.5°C above baseline on two occasions over 12 hours
- Positive urine culture

6.7.2. The risks of this can be minimised by:

- Limiting the use of indwelling catheters
- Maintaining a closed system of drainage and using a link drainage system
- Good hand washing techniques using the 6 step-method before and after using a fresh pair of gloves for each new patient or between interventions.

6.7.3. The recording of baseline observations at initial catheterisation (pulse, temperature, respirations and blood pressure) is a local recommendation of good practice and will facilitate easier recognition of symptomatic urinary tract infection.

### **6.8. Catheter Insertion**

6.8.1. Urinary catheters must be inserted using sterile equipment and an aseptic non-touch technique (ANTT) (Loveday et al 2014). Minimising trauma, discomfort and CAUTI requires the Health Care Professional (HCP) to be competent in the procedure and care of catheterisation. Single-use lubricant is recommended to minimise urethral trauma and infection (Loveday et al 2014), which should be used by the HCP or carer who are deemed competent, for both male and female patients (refer to 6.27 Adverse Events). There is no evidence that antiseptic solutions for the cleaning of the urethral meatus is useful, therefore sterile normal saline is suitable.

6.8.2. Staff are directed to the Royal Marsden Hospital Manual of Clinical Nursing Procedures for procedural guidelines on urinary catheterisations.



## **6.9. Changing the Catheter**

6.9.1. The principles of asepsis should apply to the procedure of urinary catheterisation, both urethral and suprapubic

6.9.2. For catheterisation procedures, the existing catheter should be removed, examined for encrustations 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.

6.9.3. Staff are directed to the Royal Marsden Hospital Manual of Clinical Nursing Procedures for procedural guidelines of urinary catheter removal.

6.9.4. The first change for both routes of entry into the bladder can be done in the community, either in the patient's home, community clinic or hospital (if an inpatient) by a competent Health Care Professional (HCP) . Unless there is a need for recatheterisation in a controlled environment, there is no rationale for it to be only done in a hospital setting (unless an inpatient). Urethral and supra-pubic catheters can be left in place for up to 12 weeks, but recatheterisations may need to be carried out sooner depending on individual needs. Some patients and informal carers can be taught how to change their own urethral or supra-pubic catheter.

6.9.5. 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.

6.9.6. Women and people with neuropathic bladders requiring long term catheterisation should be offered suprapubic catheterisation early rather than urethral to prevent catheter erosion of the urethra. Particularly in women balloon erosion of the urethra results in catheter expulsion and complete incontinence which is very difficult to manage once it has occurred. In men with reduced sensation or cognitive impairment, erosion can result in "filleting" of the penis.

## **6.10. Patient Education**

6.10.1. Patients (and carers) need to be involved in their care, which includes being aware of the complications of catheterisation and correct information on general catheter care. It is important that patients (and carers) know how to identify a potential problem and whom to contact for help.

6.10.2. A programme of learning should include appropriate literature, i.e. leaflet or Catheter Passport. 'Discharge packs', held within guardian stores have literature for patient being discharged with a catheter in situ. It is recommended that Health Care Professionals (HCPs) document that this has been given out.

6.10.3. Advice on care options regarding sexual activity and catheters should be offered. These options may include teaching the patient how to remove and reinsert the catheter before and after intercourse.

## **6.11. Urine Sampling**

6.11.1. Routine collection of urine specimens for culture is not useful and is unnecessary unless the patient is symptomatic (Nicolle 2001). When a

specimen collection is justified, 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 (Dept of Clinical Microbiology March 2012 (BSOP41)). It is important to include systemic symptoms on the clinical microbiology form.

6.11.2. Staff are directed to the Royal Marsden Hospital Manual of Clinical Nursing Procedures for procedural guidelines on urinary sampling from catheters.

### **6.12. 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 required and patients should be encouraged to clean the site daily.

### **6.13. Trauma**

Catheter tubing and the drainage bag 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. There are different choices of fixation method, such as straps or sleeves, which needs to be based on individual need. It is important to allow enough slack to accommodate erection, thus minimising risk of urethral meatus injury. Tape should not be used as catheter material could be damaged due to solvents.

### **6.14. Drainage Bags and Bag position**

6.14.1. The Trust promotes the use of Leg Bags to maximise patient dignity and aid recovery through early unrestricted mobilisation (where possible).

6.14.2. Patient requiring hourly or two hourly urine monitoring (indication acute care) will have available hourly urine monitoring drainage bags.

6.14.3. For night time drainage, a single use product should be used, connected to the drainage bag to maintain the closed system preventing risk of introducing infection.

6.14.4. Drainage bags should be secured with a fixation device to the patients thigh. To avoid skin irritation and damage, alternating the leg on which the drainage bag is secured will minimise this risk.

6.14.5. Drainage 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.

6.14.6. Hourly monitoring drainage bags and night-time draining bags (and 2 litre drainage bags used in specialty areas) should be hung on a stand that prevents contact with the floor.

### **6.15. Bag emptying**

6.15.1. Whenever possible, patients should be encouraged to empty their own drainage bag. If this is not possible, the Health Care Professional (HCP) or carer should wear an apron and non-sterile gloves. Eye goggles may need to

be considered when there is a risk of splashing. For patients in hospital, a single-use pulp product should be used to empty urine into and then macerated.

6.15.2. Additionally, it is important to avoid contamination of the tap or the environment by spillage. When drainage bags are three-quarters full, they should be emptied to avoid traction on the bladder. However, the closed system should not be broken more than is necessary. It is reported that decontamination of outlet spouts with an alcohol wipe is ineffective. Clean tissue should be used to clean the outlet.

#### **6.16. 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. There are many different valves available and it is the responsibility of the prescriber to be aware of the strengths and limitations to enable appropriate product selection. There is no evidence to support clamping of catheter as a way of assessing bladder tone prior to the removal of a catheter.

#### **6.17. Bathing**

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 reduction in extra luminal contamination.

#### **6.18. Drainage bag changes**

6.18.1. The majority of 'Foley Pack' catheters used across the Trust have a 'Stat-Lock' system (indicated by a red plastic seal between the catheter opening at the attachment point to the drainage bag). Where this is in place the system can remain connected for 14 days (this reduces the risk of breaking the closed system and introducing infection for longer).

6.18.2. The date of bag change should always be written onto the drainage bag.

6.18.3. When the 'Stat-Lock' seal is not in place Health Care Professionals (HCPs) should follow the manufacturer's recommendations for leg drainage bags; for example, each 7 days or earlier if the bag is damaged, which could then become contaminated with bacteria that ascend the system.

6.18.4. For night-time drainage, a single use product should be used. Discarded each morning.

#### **6.19. Fluids**

Unless restricted for medical reasons, an adequate fluid intake should be encouraged per 24 hours, 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 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.

#### **6.20. Link drainage system**

6.20.1. The drainage bag should not be disconnected from the catheter, but the night bag is connected to the drainage tap. Patients in hospital must have a new single-use night drainage bag every night with disposal of the used bag. There is minimal research regarding the issues on infection control for patients in their own homes who reuse their night bags for 5 – 7 nights (they are encouraged to rinse through with freshly drawn tap water and left to drain).

6.20.2. Self-caring patients are more suited to drainable bags than those who require carers to manage the catheter system. However, should care needs change and the patient is no longer able to self-manage their catheter system, then switching to single-use night drainage bags will be necessary.

### **6.21. Storage of catheters**

Excess quantities of stored catheters can increase the risk of damage to the product or passing the expiry date. For example, latex catheters harden when they are old and if inserted after the expiry date, the risk of perforating the bladder is increased. It is important that equipment is available within the patient's home, which will ensure that the correct catheter is used for individual needs.

### **6.22. Catheter-life**

6.22.1. There are two distinct groups of patients to describe a catheter-life, that is, those who wear a catheter that blocks and those that don't (non-blocking). The main cause of a blocked catheter is encrustation. Non-blocking catheters are those which maintain the patency of the catheter for the duration of the catheter-life expectancy, such as 12 weeks for a long-term catheter.

6.22.2. Encrustations usually form on the tip of the catheter, the balloon area that is bathed in urine and the lumen of the catheter. They are not usually found on the side of the balloon that is against the bladder mucosa or the surface that is in contact with the urethra.

6.22.3. The duration of time that the catheter can be left in place before it becomes blocked, leaks or is pulled out by the patient is referred to as the catheter-life. Monitoring this will help effective planning to reduce the risk of blockage as opposed to crisis intervention.

6.22.4. Persistent blockage and other complications such as recurrent symptomatic CAUTI or haematuria, may require investigation and referral for x-ray or cystoscopy should be considered to rule out the presence of bladder stones. There is no evidence that sending catheter tips to Clinical Microbiology is beneficial.

### **6.23. Catheter problem solving**

For a number of problems that can arise with catheters see appendix 5. Further guidance is available in the Royal Marsden Hospital Manual of Clinical Nursing Procedures : Problem Solving section

### **6.24. Catheter Maintenance Solutions**

6.24.1. There is minimal evidence to identify if the use of solutions provides any benefit (Hagen et al 2010). 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.

6.24.2. 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 of time, using the smallest volume (50mls or less) and discontinued if not effective. Frequency of use will need to be determined on an individual patient basis.

6.24.3. The use of solutions can cause damage to the mucosa, causing irritation and spasm if they enter the bladder. For further guidance, please see the 'Treatment Algorithm for Long-term Catheters' in Appendix 6. Please consult the Bladder & Bowel Specialist Service (01726 291042) or hospital specialist nurse if further advice is needed.

## **6.25. Use of Antibiotics**

6.25.1. Antibiotic prophylaxis is not recommended for cardiac malfunction/stents/valves according to NICE Guidelines (NICE 2008). For any further information on when antibiotics may be required, please consult with Clinical Microbiology.

6.25.2. For those with symptomatic catheter associated urinary tract infection, the catheter should be changed at the start of antibiotic therapy.

## **6.26. Decision to Remove Catheter**

6.26.1. The Trust requires a daily review of catheters to minimise length of time in place with the aim to reduce healthcare acquired infections.

6.26.2. Removal of the catheter should be considered unless the patient's condition fits into one of the following categories, where continued catheterisation is for clinical benefit and/or quality of life:

- Acute illness, hourly or two hourly urinary output monitoring continues
- Urinary obstruction leading to urinary retention (where intermittent catheterisation is not viable)
- Neurogenic bladder and urinary retention (where intermittent catheterisation is not viable)
- Urological surgery
- Open sacral wounds (stage 3 or 4) for incontinent patients

6.26.3. Catheters should be removed wherever clinically possible, following individual assessment, which takes into account the patient's condition and in collaboration with the healthcare team.

6.26.4. Post-operatively, the catheter should be removed as soon as clinically possible.

6.26.5. Attempts should be made to avoid removal of an indwelling catheter on the day of discharge or transfer from hospital.

6.26.6. Following removal, this should be documented on the insertion record and care plan (CHA 2725) 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, because urine retention is possible following removal of catheter and action should be taken as necessary (Appendix 7).

## 6.27. Adverse Events

6.27.1. Consideration should be given to user sensitisation to **latex products, especially in those patients with Spina Bifida** as they are at high risk due to repeated exposure

6.27.2. **Autonomic dysreflexia** is a serious 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 (Appendix 8).

6.27.3. **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 be so rapidly absorbed that a systemic, rather than a local, reaction is produced (BNF 2018). These could include confusion, respiratory depression and convulsions; hypertension; and bradycardia (may lead to cardiac arrest).
- Nursing assessment prior to administration should include identification of patients at increased risk of systemic effects and checking for possible drug interactions.

6.27.4. All medical devices and medicinal products containing **chlorhexidine** have been identified as being a risk for anaphylactic reaction. HCP should ensure that any known allergies are recorded in the patient notes and report any adverse events to the MHRA (MDA/2012/075)

## 7. Dissemination and Implementation

7.1. This Policy will be cascaded via Divisional Management Teams to their clinical areas involved in urinary catheterisation in adults. Communicating and sharing information within the policy at a local clinical level lies with the areas Ward or Department Sister / Charge Nurses, making all resources available to all relevant staff for implementation. The RCHT Continence Action Group will monitor this implementation process.

### 7.2. Training and Support

7.2.1. Through self-regulation, healthcare personnel (Registered Healthcare professionals, Assistant Practitioners and Trainee Assistant Practitioners) are accountable for both competency development and

continuing Professional Development in urinary catheterisation if the clinical skills is applicable to their role.

7.2.2. Staff should inform their manager if they feel they are not competent and identify their training needs relating to this area of practice. Acquisition of clinical competency in Urinary Catheterisation is achieved through completion of the self-directed learning pack: "Insertion of indwelling Catheter" and the supervised practice work book . In addition, attendance on the "Best Practice in Urinary Catheterisation and Catheter Care" study day is recommended, both for initial skills development and Continuing Professional Development.

7.2.3. Some professional groups (i.e. Doctors, Nurses) may have undertaken and achieved this competency during their initial training or in another Healthcare Trust. These staff must have been using the skill recently, be prepared to provide evidence of ratified training and assessment to their manager and demonstrate competency prior to performing Insertion of a Urinary Catheter within RCHT.

7.2.4. Staff undertaking indwelling urinary catheterisation will attend the mandatory BLS training annually and maintain competency in the recognition and immediate management of anaphylactic shock. All staff must be aware of the location of the Anaphylaxis box in their area.

7.2.5. Workforce competencies can be viewed at <http://www.skillsforhealth.org.uk/>

- 'Insert & secure urethral catheters' (CC02)
- **HWB7:** Interventions and treatments
- **Level 4:** Plan, deliver and evaluate interventions and/or treatments when there are complex issues and/or serious illness
  
- 'Care for individuals with urethral catheters' (CC03)
- 'Manage supra-pubic catheters' (CC04)
  
- **HWB5:** Provision of care to meet health and wellbeing needs
- **Level 2:** Undertake care activities to meet health and wellbeing needs of individuals with a greater degree of dependency
  
- 'Review catheter care' (CC07)
- **HWB2:** Assessment and care planning to meet people's health and wellbeing needs
- **Level 3:** Assess health and wellbeing needs and develop, monitor and review care plans to meet specific needs

7.2.6. Supporting materials can also be accessed via e-learning modules 'Preventing Healthcare-Associated Infections Associated with Long-term Urinary Catheters' & 'Preventing Healthcare-Associated Infections Associated with Short-term Urinary Catheters' <http://www.nsahealth.org.uk/>

## 8. Monitoring compliance and effectiveness

Element to be monitored	Urinary catheter and Catheter Associated Urinary Tract Infections (CAUTI) prevalence is monitored monthly as part of Safety Thermometer reporting - Ward to Board
Lead	RCHT Continence Care Lead and Divisional Associate Directors of Nursing
Tool	The National Safety Thermometer tool and website are used.
Frequency	Monthly
Reporting arrangements	Ward and Divisional Performance Assurance Framework Documents and the Trust Board Integrated Performance Report
Acting on recommendations and Lead(s)	Divisional and Specialty Governance and Performance Meetings
Change in practice and lessons to be shared	Led by Associate Directors of Nursing

## 9. Updating and Review

The policy will be kept under review by the RCHT Continence Lead. It will be reviewed at a minimum of every three years. All major revisions will be fully consulted upon; minor changes will be approved at Senior Nurse and Midwifery Group before Executive Director sign-off. The version control take will track updates and reviews.

## 10. Equality and Diversity

10.1. This document complies with the Royal Cornwall Hospitals NHS Trust service Equality and Diversity statement which can be found in the 'Equality, Diversity & Human Rights Policy' or the Equality and Diversity website.

### 10.2. Equality Impact Assessment

The Initial Equality Impact Assessment Screening Form is at Appendix 2.



## Appendix 1. Governance Information

<b>Document Title</b>	Adult Urinary Catheterisation Policy V5.0			
<b>Date Issued/Approved:</b>	15 <sup>th</sup> May 2018			
<b>Date Valid From:</b>	March 2019			
<b>Date Valid To:</b>	March 2022			
<b>Directorate / Department responsible (author/owner):</b>	Frazer Underwood – Consultant Nurse / Associate Chief Nurse Corporate Nursing			
<b>Contact details:</b>	01872 255043			
<b>Brief summary of contents</b>	The policy sets out Trust practice and guidance for urinary catheterisation in adults			
<b>Suggested Keywords:</b>	Urinary Catheter, Urinary Catheterisation, Catheter, Catheterisation, Continence, Incontinence			
<b>Target Audience</b>	RCHT	CFT	KCCG	
	✓			
<b>Executive Director responsible for Policy:</b>	Kim O’Keeffe Chief Nurse			
<b>Date revised:</b>	15 <sup>th</sup> May 2018			
<b>This document replaces (exact title of previous version):</b>	RCHT Adult Urinary Catheterisation Policy V4.2			
<b>Approval route (names of committees)/consultation:</b>	RCHT Senior Nurse and Midwife Group			
<b>Divisional Manager confirming approval processes</b>	Frazer Underwood – Consultant Nurse / Associate Chief Nurse			
<b>Name and Post Title of additional signatories</b>	Not Required			
<b>Name and Signature of Divisional/Directorate Governance Lead confirming approval by specialty and divisional management meetings</b>	{Original Copy Signed}			
	Name: Frazer Underwood			
<b>Signature of Executive Director giving approval</b>	{Original Copy Signed}			
<b>Publication Location (refer to Policy on Policies – Approvals and Ratification):</b>	Internet & Intranet	✓	Intranet Only	

<b>Document Library Folder/Sub Folder</b>	Corporate Clinical
<b>Links to key external standards</b>	
<b>Related Documents:</b>	See Appendix 3
<b>Training Need Identified?</b>	Yes

### Version Control Table

<b>Date</b>	<b>Version No</b>	<b>Summary of Changes</b>	<b>Changes Made by (Name and Job Title)</b>
Nov 2008	v. 2.0	Existing policy	-
Apr 2011	v. 3.0	Revision of existing policy by RCHT Continence Action Group reflecting best practice review	Frazer Underwood, Consultant Nurse / Associate Director of Nursing
May 2014	v. 4.0	Tri-annual review: switch to current policy format; minor updates and alterations; role of RCHT Continence Action Group added; Updates relating to new 'Foley Pack' introduction (section 6.6.5; 6.14 and 6.18 specifically)	Frazer Underwood, Consultant Nurse / Associate Director of Nursing
May 2014	v4.1	Local update made to training and support section (section 7.2)	Frazer Underwood, Consultant Nurse / Associate Director of Nursing
May 2015	v4.2	Clarity added to section 5.3.3 and 5.3.4. Non-registered staff allowed to insert catheters is only competent Assistant Practitioners. And new dignity statement added	Frazer Underwood, Consultant Nurse / Associate Director of Nursing
May 2018	V5.0	Three year review of document – minor amendments made to align with latest Cornwall Partnership Foundation Trust version (new sections at 6.6.2 5th bullet point and 6.9.6); references made to the Royal Marsden Hospital Manual of Clinical Nursing Procedures for urinary catheter procedural guidelines throughout the document	Frazer Underwood, Consultant Nurse / Associate Chief Nurse

**All or part of this document can be released under the Freedom of Information Act 2000**

**This document is to be retained for 10 years from the date of expiry.**  
**This document is only valid on the day of printing**


### **Controlled Document**

This document has been created following the Royal Cornwall Hospitals NHS Trust Policy on Document Production. It should not be altered in any way without the express permission of the author or their Line Manager.

## Appendix 2. Initial Equality Impact Assessment Form

This assessment will need to be completed in stages to allow for adequate consultation with the relevant groups.

<b>Adult Urinary Catheterisation Policy V5.0</b>						
<b>Directorate and service area:</b> Corporate			<b>Is this a new or existing <i>Policy</i>?</b> Existing			
<b>Name of individual completing assessment:</b> Frazer Underwood – Consultant Nurse / Associate Chief Nurse			<b>Telephone:</b> 01872 25 5043			
1. <i>Policy Aim</i> *		To support health care staff to undertake safe clinical assessment, effective intervention and provide optimal after care for patients requiring urinary catheterisation.				
2. <i>Policy Objectives</i> *		To provide the expected standards of care.				
3. <i>Policy – intended Outcomes</i> *		<ul style="list-style-type: none"> <li>• Clear responsibilities</li> <li>• Written scope of practice</li> <li>• Set educational requirements for the skill</li> </ul>				
4. *How will you measure the outcome?		<ul style="list-style-type: none"> <li>• Saving Lives audit (Insertion)</li> <li>• Saving Lives audit (on-going care)</li> <li>• Prevalence Audits</li> </ul>				
5. Who is intended to benefit from the <i>policy</i> ?		The patient and also health care staff through standardised practice and care.				
6a Who did you consult with		Workforce	Patients	Local groups	External organisations	Other
				X	X	
b). Please identify the groups who have been consulted about this procedure.		<b>Please record specific names of groups</b> <ul style="list-style-type: none"> <li>• Consultant Nurse for Bowel and Bladder Care in Cornwall Partnership Foundation Trust</li> <li>• RCHT Senior Nurse and Midwife Group</li> </ul>				
What was the outcome of the consultation?		Support received.				

7. The Impact				
Please complete the following table. <b>If you are unsure/don't know if there is a negative impact you need to repeat the consultation step.</b>				
Are there concerns that the policy <b>could</b> have differential impact on:				
Equality Strands:	Yes	No	Unsure	Rationale for Assessment / Existing Evidence
<b>Age</b>		✓		No differential impact identified
<b>Sex</b> (male, female, trans-gender / gender reassignment)		✓		No differential impact identified
<b>Race / Ethnic communities /groups</b>		✓		Any written information should be available in alternative languages
<b>Disability -</b> Learning disability, physical impairment, sensory impairment, mental health conditions and some long term health conditions.		✓		Any information leaflets provided should be available in alternative formats e.g. large print, easy read etc.
<b>Religion / other beliefs</b>		✓		No differential impact identified
<b>Marriage and Civil partnership</b>		✓		No differential impact identified
<b>Pregnancy and maternity</b>		✓		No differential impact identified
<b>Sexual Orientation,</b> Bisexual, Gay, heterosexual, Lesbian		✓		No differential impact identified
<p><b>You will need to continue to a full Equality Impact Assessment if the following have been highlighted:</b></p> <ul style="list-style-type: none"> <li>You have ticked "Yes" in any column above and</li> <li>No consultation or evidence of there being consultation- this <u>excludes</u> any <i>policies</i> which have been identified as not requiring consultation. <b>or</b></li> <li>Major this relates to service redesign or development</li> </ul>				
8. Please indicate if a full equality analysis is recommended.			<b>Yes</b>	<b>No</b> ✓
9. If you are <b>not</b> recommending a Full Impact assessment please explain why.				
N/A				
Signature of policy developer / lead manager / director			Date of completion and submission	
<b>Frazer Underwood</b>			<b>15<sup>th</sup> May 2018</b>	
Names and signatures of members carrying out the Screening Assessment		1. Frazer Underwood 2. Human Rights, Equality & Inclusion Lead		

--	--	--

**Keep one copy and send a copy to the Human Rights, Equality and Inclusion Lead**  
c/o Royal Cornwall Hospitals NHS Trust, Human Resources Department, Knowledge Spa,  
Truro, Cornwall, TR1 3HD

**This EIA will not be uploaded to the Trust website without the signature of the Human Rights, Equality & Inclusion Lead.**

A summary of the results will be published on the Trust's web site.

Signed Frazer Underwood

Date 15<sup>th</sup> May 2018

## Appendix 3 References and further reading

**BNF (2018)** British National Formulary 75 March-September 2018

**Department of Health (2006)** Essential Steps to safe, clean care: urinary catheter care  
Department of Health, 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, Art No: CD004012. DOI:10.1002/14651858.CD004012.pub4.

**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

**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

**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

**NPSA (2009)** Female urinary catheters causing trauma to adult males Rapid Response Report (NPSA/2009/RRR02) National Patient Safety Agency

**RCN (2012)** Catheter Care: RCN guidance for nurses Royal College of Nursing

**Tenke P et al (2012)** Update on biofilm infections in the urinary tract World Journal of Urology Volume 30, Number 1 (2012), 51-57

## Further selected references

**Cottenden A et al (2013)** Management using continence products (Committee 20 page 1651) In: Incontinence 5th Edition 2013 ISBN: 978-9953-493-21-3

**Fader M; Pettersson L; Brooks R et al (1997)** A multicentre comparative evaluation of catheter valves British Journal of Nursing Vol 6; No 7; 359-367

**German K; Rowley P; Stone D et al (1997)** A randomized cross-over study comparing the use of a catheter valve and a leg-bag in urethrally catheterized male patients British Journal of Urology 79 96-98

**Getliffe K (2002)** Managing recurrent urinary catheter encrustation British Journal of Community Nursing Vol 7; No 11; 574-580

**Jepson RG, Williams G, Craig JC (2012)** Cranberries for preventing urinary tract infections. Cochrane Database of Systematic Reviews 2012, Issue 10. Art. No.: CD001321. DOI: 10.1002/14651858.CD001321.pub5.

**Khan A A , Mathur S, Feneley R & Timoney A G (2007)** Developing a strategy to reduce the high morbidity of patients with long-term urinary catheters: the BioMed catheter research clinic. British Journal of Urology International, 100: 1298-1301

**Maki D G & Tambyah P A (2001)** Engineering out the risk of infection with urinary catheters. Emerging Infectious Diseases, 7: 1-6

**Nyman M H, Johansson J-E & Gustafsson M (2010)** A randomised controlled trial on the effect of clamping the indwelling urinary catheter in patients with hip fracture Journal of Clinical Nursing 19, 405-413

**Peate I (2001)** Patient management following suprapubic catheterisation In: Management of Continence and Urinary Catheter Care edited by Cruickshank J P & Woodward S; BJN Monograph; Mark Allen Publishing Ltd

**Raz R, Schiller D & Nicolle L E (1998)** Replacement of catheter improves the outcome of patients with permanent urinary catheter and symptomatic bacteriuria. Abstracts, 38th. Annual ICAAC, San Diego, California.

**Tambyah P A, Halvorson K T & Maki D G (1999)** Prospective Study of Pathogenesis of Catheter-Associated Urinary Tract Infections, Mayo Clinic Proceedings, 74:131-136

## Appendix 4 Catheter Selection Matrix

Catheter type	Duration	Material and comments
Short term	Up to 1 week	<ul style="list-style-type: none"> <li>Plastic – post-op or intermittent catheterisation</li> <li>Latex – uncoated latex rarely used as high surface friction can cause discomfort and tissue trauma</li> </ul>
Medium term	Up to 4 weeks	<ul style="list-style-type: none"> <li>Poly-tetra-flouride-ethylene (PTFE) bonded latex - smoother outer surface</li> <li>Sliver-alloy hydrogel coated</li> </ul>
Long term	Up to 12 weeks	<ul style="list-style-type: none"> <li>Silicone bonded with an elastomer – not pure silicone</li> <li>100% silicone – thin walled, better drainage capacity</li> <li>Hydrogel bonded – highest compatibility with human tissue, less risk of trauma and less biofilm/encrustation formation</li> </ul>

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

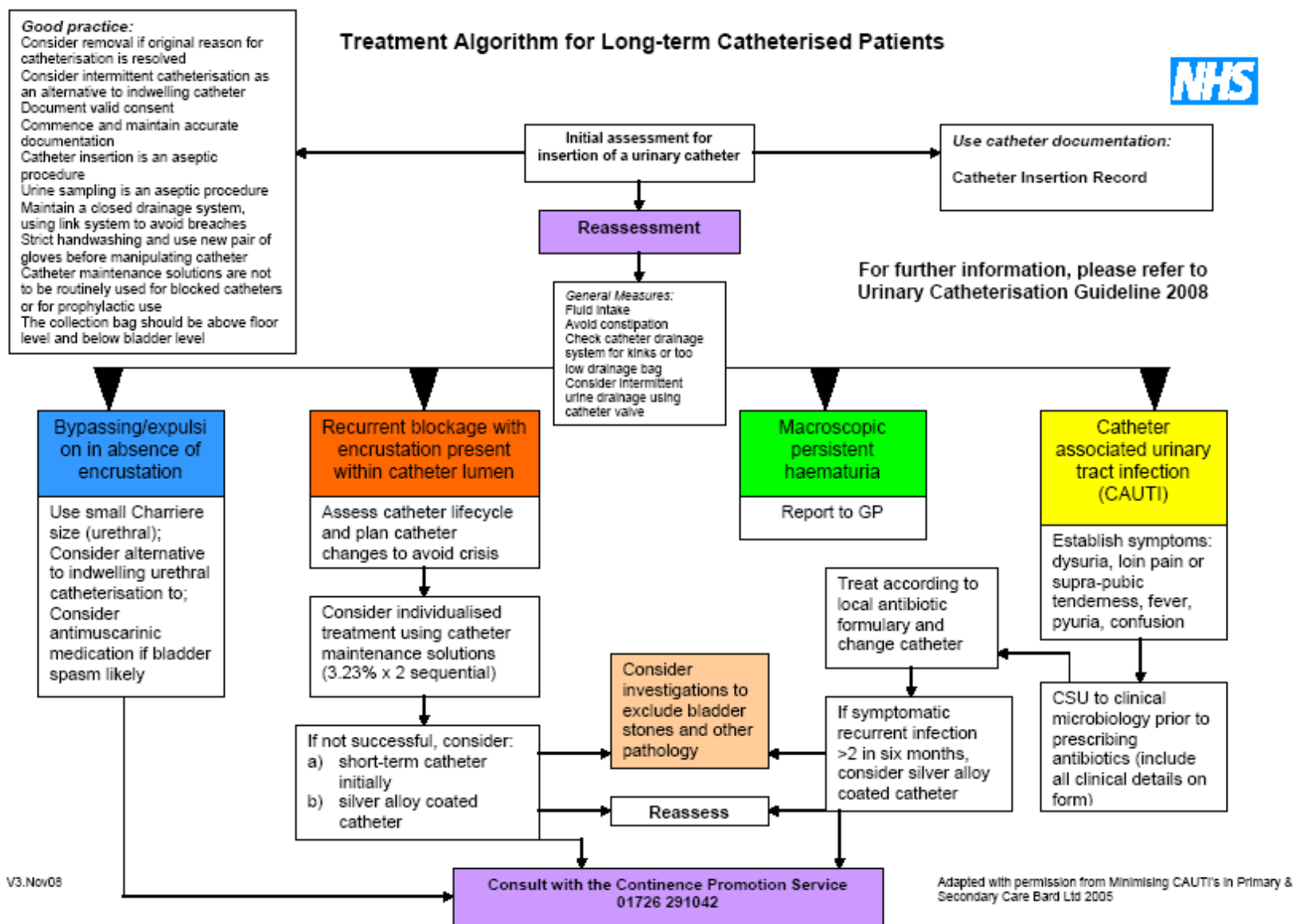


## Appendix 5 Problem Solving Urinary Catheter Problems

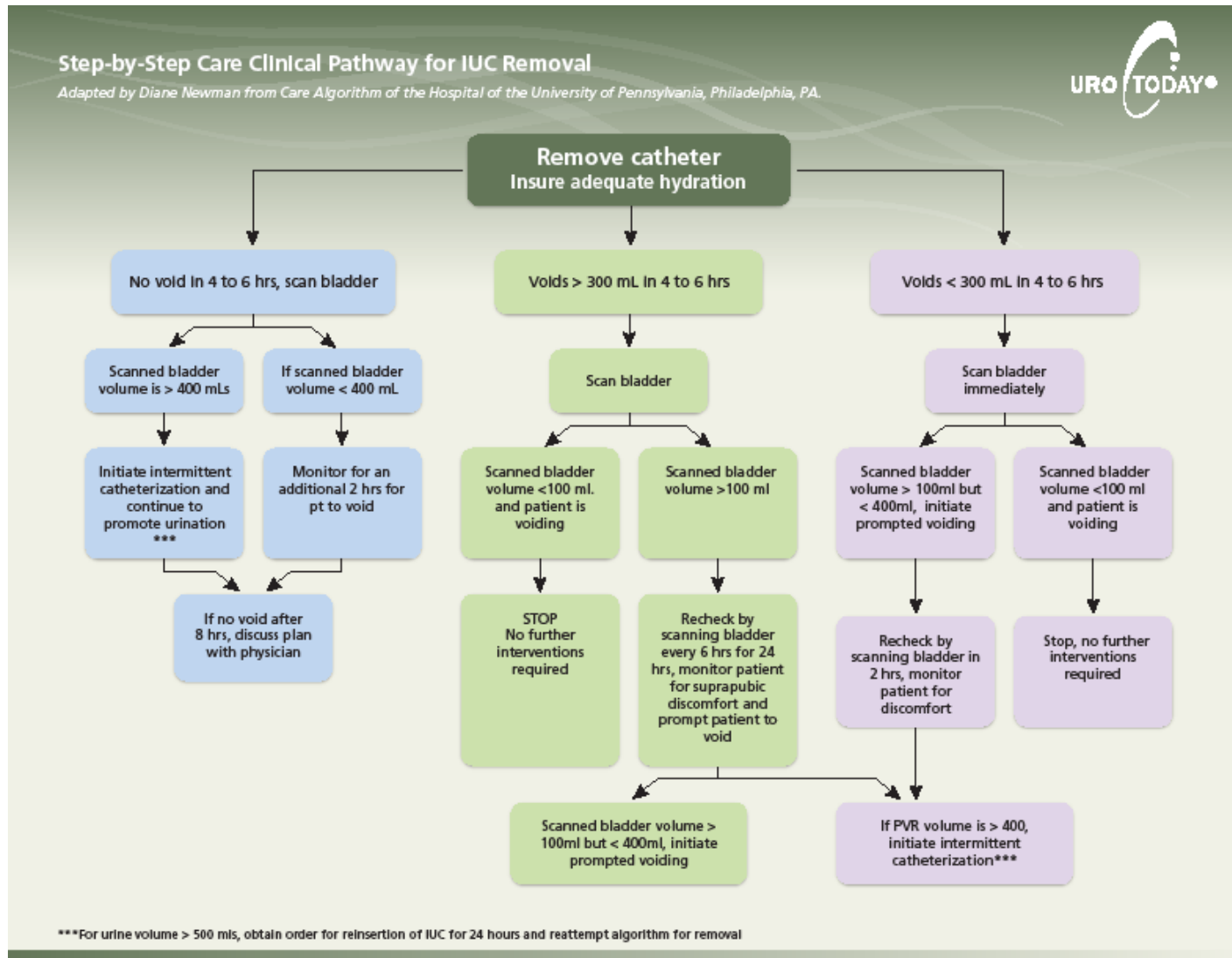
Problem	Possible reasons and action to take
<b>Urine does not drain</b>	<p>Check for mechanical obstruction – kinked tubing; occlusion by leg straps; bag higher than level of bladder</p> <p>Check for constipation</p> <p>Occlusion of catheter eyes by anaesthetic gel or bladder mucosa – gently instill 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 maybe dehydrated or in renal failure</p> <p>If new catheter doesn't drain – check that it's in the urethra; that the catheter is correct length and that eyelets are in the bladder</p>
<b>Encrustation</b>	<p>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>
<b>Haematuria</b>	<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> <p>If occult, refer to GP to consider investigation, e.g. cystoscopy.</p>
<b>Urine bypassing</b>	<p>Check for tube kinking and/or constipation</p> <p>If due to bladder spasm or irritation: consider anticholinergic medication; consider a smaller catheter size; check balloon size; consider catheter material (latex allergy)</p> <p>If due to encrustation: change and inspect catheter</p>
<b>Cramping pain</b>	<p>This should subside after 24 hours of initial insertion; if it persists, it may be bladder spasm and anticholinergic therapy should be considered</p>
<b>Urethral discomfort</b>	<p>May be due to distension of urethra by too large a catheter or by occlusion of the paraurethral glands – change to a smaller catheter.</p>
<b>Urethral discharge</b>	<p>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.</p> <p>However, in the catheterised patient, the mucus drains away through peristaltic action and gravity rather than being flushed away and can result in presence of mucus outside the urethra and on the catheter surface.</p>
<b>Blocking due to debris in urine</b>	<p>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.</p>

<b>Non-deflating balloon</b>	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 this fails, it has been reported that using a sterile needle and syringe, which is inserted into the arm above the inflation valve is another method to deflate the balloon. If unsuccessful, discuss with doctor regarding a urological opinion. NEVER cut the valve off.
<b>Catheter rejection</b>	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.
<b>Difficulty in removing catheter</b>	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 catheter. If the catheter cannot be removed, stop and refer to the urological team in collaboration with the doctor.

# Appendix 6 Treatment Algorithm for Long-term Catheterised Patients



# Appendix 7 Bladders Scanning Algorithm Post Urinary Catheter Removal



Newman D (2010) Step-by-Step Care Clinical Pathway for IUC Removal. Reproduced with permission from Diane K. Newman, available from Urotoday website.

## Appendix 8 Autonomic Dysreflexia<sup>1</sup> information

**Autonomic dysreflexia** (also known as autonomic hyperreflexia) is one of the most serious life threatening conditions that affect people with spinal cord injury at or above the level of the 6th thoracic vertebrae.

The syndrome develops secondary to any noxious stimulus below the level of injury. As the spinal cord is damaged, signals cannot pass normally to the brain, therefore, the body produces exaggerated abnormal nerve signals which cause problems above and below the level of the spinal injury. Below the injury, blood vessels go into spasm causing the blood pressure to rise. Above the level of injury, the body senses the high blood pressure and tries to relax the blood vessels (can only influence the blood vessels above the level of injury) which causes flushing and blotchiness of skin and pounding headache.

Symptoms may be mild or severe and patients may present with one or more of the following:

- Pounding headache
- Flushing and/or blotching above the level of cord damage
- Pallor below the level of injury
- Slowed heart rate
- Profuse sweating (above level of injury)
- Palpitations
- Goosebumps
- Blurred vision or seeing spots before your eyes
- Stuffy nose
- Feeling of doom and gloom, anxiety, apprehension
- Elevated blood pressure.

**N.B. Under normal circumstances a tetraplegic person may have a low blood pressure (eg 90/60). A rise of 20mmHg can be quite significant; therefore if the BP rises to 120/80mmHg it could become an emergency situation. Hypertension may be severe enough to lead to seizures, stroke or ultimately death.**

**Bladder problems are the most common cause of autonomic dysreflexia:**

- Overfull bladder
- Kidney or bladder stones
- High pressure voiding
- Urinary tract infection
- Blocked catheter
- Defective drainage system (eg kinked tubing or leg bag too full).

### Treatment

Identify the source of the noxious stimulus. Removing the stimulus will cause the symptoms to settle.

---

<sup>1</sup> Appendix 9 sourced with permission from NHS Quality Improvement Scotland, in 'Best Practice Statement: Urinary Catheterisation & Catheter Care (June 2004)  
Adult Urinary Catheterisation Policy V5.0

Reduce the blood pressure by returning the patient to bed and place in a sitting position. (If bladder problems suspected only sit patient to 45 degrees. Sitting at 90 degrees may cause increased pressure on the full bladder.)

### **Check Bladder**

If patient is not catheterised and bladder appears full, catheterise immediately and leave on free

drainage. Catheter should be lubricated with an anaesthetic gel prior to insertion.

If catheterised, empty leg bag and untwist any kinked tubing. If catheter appears blocked change the catheter immediately.

**DO NOT ATTEMPT A CATHETER MAINTENANCE SOLUTION;** this will only distend the bladder further with potentially fatal consequence.

If infection is suspected commence antibiotic therapy.

Check bowel and check for other potential causes and treat appropriately.