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Clinical guideline for the re-insertion and removal of a supra-pubic catheter and catheter care

Lead executive	Lead Clinical Director	
Authors details	Community Urology Lead Nurse – Community Continence Lead	
Type of document	Guidance	
Target audience	All clinical staff within physical health	
Document purpose	This guideline is intended to serve as an evidence based guide for Competent Practitioners employed by Cheshire and Wirral Partnership NHS Foundation Trust (CWP), in the removal and aseptic re-insertion of a supra- pubic catheter for both male and female patients. It also provides guidance on catheter care. Please note this guideline is intended for adult patients only.	

Approving meeting	CSU – Clinical Governance & Risk Group	Date May 2020
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CWP documents to be read in conjunction with			
HR6	Mandatory Employee Learning (MEL) policy		
<u>IC2</u>	Hand decontamination policy and procedure		
<u>HS1</u>	Waste management policy		
<u>IC3</u>	Standard (universal) infection control precautions policy		
<u>CP3</u>	Health records policy		
<u>CC4</u>	Clinical guidelines for catheter maintenance solution		
<u>CC5</u>	Clinical guidelines for intermittent catheterisation		
<u>MP16</u>	Non-medical prescribing policy		
<u>GR26</u>	Safe manual handling of people and loads policy		
<u>MH1</u>	Mental Health Law policy suite		
<u>GR24</u>	Use of latex products		
	Community CWP NHS Foundation Trust – Intranet		
	COVID-19 Updates (Access most recent available)		
	Community CWP NHS Foundation Trust (2018) Guidance for maintaining safe		
	catheterisation and preventing infection and bacteraemia associated with urethral and		
	suprapubic catheters		
	Patients living in Western Cheshire including Residential/Nursing Home		
	Community CWP Foundation Trust (2019) Looking after your urethral catheter		

Document change history			
What is different?	Additional catheter related procedures & updated research based evidence New Guidance regarding Personal Protection Equipment (PPE)		
Appendices / electronic forms	Additional catheter related procedures & updated research based evidence New Guidance regarding Personal Protection Equipment (PPE)		
What is the impact of change?Additional catheter related procedures & updated research based eviden New Guidance regarding Personal Protection Equipment (PPE)			

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External references

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Does this document affect one group less or more favourably than another on the basis of:			
- Race	No		
 Ethnic origins (including gypsies and travellers) 	No		
- Nationality	No		
- Gender	No		
- Culture	No		
- Religion or belief	No		
- Sexual orientation including lesbian, gay and bisexual people	No		
- Age	No		
 Disability - learning disabilities, physical disability, sensory impairment and mental health problems 	No		
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human resource department.			
Was a full impact assessment required? No			
What is the level of impact? Low			

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Quick reference flowchart for suprapubic catheterisation

For quick reference the guide below is a summary of actions required.



1. Introduction

This guideline is intended to serve as an evidence based guide for Registered Nurses and Nursing Associate/Assistant Practitioners employed by CWP, in the removal and aseptic re-insertion of a supra-pubic catheter for both male and female patients. It also provides guidance on catheter care. Please note this guideline is intended for **adult** patients only.

2. Definitions

To provide guidance for Registered Nurses in:

- Carrying out a urinary catheter assessment and review;
- The removal and re-insertion of a supra-pubic catheter;
- The decision and procedure for trial without catheter (TWOC);
- How to empty and change the drainage bag or catheter valve;
- Taking a urine sample via catheter sample port using an aseptic technique;
- Patient and carer education regarding catheter care;
- The delegation and supervision of any catheter related procedures to Nursing Associates, Assistant Practitioners, patients or carers.

To provide guidance for Nursing Associate/Assistant Practitioners in:

- The removal and re-insertion of a suprapubic catheter;
- How to empty and change the drainage bag or catheter valve;
- Taking a urine sample via catheter sample port using an aseptic technique;
- Patient and carer education regarding catheter care.

3. Qualification and training

This guidance applies to all clinical staff employed by CWP:

- Registered Nurses who are currently registered with the Nursing and Midwifery Council (NMC);
- Nursing Associates who are currently registered with the Nursing and Midwifery Council (NMC);
- Assistant Practitioners who have completed a recognised Assistant Practitioners course.

Following completion of CWP catheterisation training, it is recommended that the Registered Nurse, Nursing Associate or Assistant Practitioner should complete a minimum of 3 supervised practices or until they feel confident and competent in:

Supra-pubic catheterisation - This should be recorded in the Competency document – supra-pubic catheterisation (<u>Appendix 1</u>).

If the Registered Nurse, Nursing Associate or Assistant Practitioner was competent and confident in suprapubic recatheterisations prior to joining CWP, if they can provide evidence of having urinary catheter training with completed competencies and evidence of keeping skills and knowledge up to date they will be deemed competent for the purposes of performing this procedure within CWP.

The supervision of these practical procedures can only be undertaken by a Registered Nurse who has:

- Completed the CWP catheterisation training and competencies with evidence of keeping skills and knowledge up to date or; prior to joining CWP, if they can provide evidence of having urinary catheter training and competencies with evidence of keeping skills and knowledge up to date;
- Is confident and experienced in inserting and removing a urethral indwelling catheter in male and female adult patients;
- Completed the Competency document female / male indwelling urethral catheterisation (<u>Appendix 1</u>).

In order to maintain knowledge and skills the Registered Nurse, Nursing Associate and Assistant Practitioner should be able to provide evidence of such if requested.

A Registered Nurse who can demonstrate competence to this professional level may delegate these procedures to patients or carers as appropriate. However it is the Registered Nurse's responsibility to ensure that the patient / carer, Nursing Associate and Assistant Practitioner's competencies are assessed and reviewed.

4. Assessment

Initial supra-pubic catheterisation and the first change of the supra-pubic catheter will be carried out by a specially trained heath care professional in a hospital setting. As there is a small risk of the following complications (NPSA, 2009)

- Peritoneal perforation with or without bowel perforation;
- Infection;
- Haematuria;
- Fistula;
- Incisional hernia around the site of the supra-pubic catheter.

Subsequent changes can be carried out in the patient's home (if housebound), or for non-housebound patients community catheter clinics, health centre or GP practice by a Registered Nurse, Nursing Associate or Assistant Practitioner, providing she / he meets the criteria set in chapter 3 "Qualifications and training" in this guidance.

In this guideline supra-pubic catheterisation can be used for the following reasons:

- To relieve retention of urine;
- If patient requires long-term catheterisation and is sexually active;
- Surgery;
- As a last resort, to manage urinary incontinence.

It is the Registered Nurse's responsibility to be aware of the medical and / or surgical history, physical and mental health, social environment and the reasons for catheterisation. This will ensure that no contra-indications exist prior to re catheterisation as well as identify any known allergies. If the practitioner has any concerns prior to re-catheterisation medical advice should be sought (NHS QIS, 2004; NICE, 2017).

Factors that need to be considered before teaching a patient / carer how to look after the catheter and how to empty change and position the drainage system:

- Cognitive ability;
- Dexterity;
- Home / social environment;
- Compliance with catheter care.

Relevant continence and catheter assessment templates can be found on EMIS.

5. Risks associated with supra pubic catheterisation

Catheterisation carries a high clinical risk, which may involve some or all of the following: (Hagen, 2010; Inelmen et al, 2007):

- Bleeding;
- Infection;
- Bowel perforation: The risk for bowel injury is less than 0.25% in low-risk patients (Hall et at, 2019);
- Catheter obstruction or leakage;
- Urinary tract stones;
- Chronic renal inflammation;
- Renal failure;
- Bladder cancer;
- Autonomic Dysreflexia (<u>Appendix 2</u>);
- In extreme cases death can occur.

Urinary tract infections are the commonest source of acquired infection, particularly when inserting a catheter into the bladder. Most catheter-associated infections are derived from the patient's own colonic flora (NICE, 2017).

A major risk factor for the development of catheter-associated bacteriuria is the duration of catheterisation. To reduce this risk the catheter system should remain closed and the duration of catheterisation should be minimal as most episodes of short-term catheter-associated bacteriuria are asymptomatic and are caused by a single organism. Further organisms tend to be acquired by patients catheterised for more than 30 days (Tenke, et al, 2008).

Routine urine culture in an asymptomatic catheterised patient is not recommended because treatment is generally not necessary, except for some special cases. Antibiotic treatment is recommended only for symptomatic infection (Gilbert, 2005; Lin, 2008; Tenke P, et al, 2008; Trautner, 2010).

Antibiotic prophylaxis when changing catheters should only be considered for patients with a history of symptomatic urinary tract infection following catheter change (RCN, 2019).

6. Contra-indications

It is presumed safe to re-catheterise any community patient unless there is evidence to the contrary, i.e. warnings on patient's medical records.

For patients who have the following conditions, re-catheterisation in the community is contra-indicated and arrangements must be made with the Urology Department at Secondary Care. In an emergency, i.e. blocked catheter, these patients should be directed to the Emergency Department:-

- Urology specific radiotherapy within previous 3 months;
- Post-operative radical prostatectomy, or urethrotomy within previous month;
- Suspicion of bladder cancer e.g. visible haematuria of unknown cause (exclude UTI);
- History of difficult catheterisations requiring hospital admission.

7. Patient consent and information

Prior to re-catheterisation the consent of the patient must be verbally obtained and documented following a full explanation of the procedure and potential complications (MH13 Consent to treatment).

To support any verbal explanation an information leaflet on catheter care should be given to the patient.

It is the Registered Nurse, Nursing Associate or Assistant Practitioner's responsibility to assess, and teach the patient and /or his carer on (IC2 - Hand decontamination policy and procedure) how to attach, empty and remove either a leg / night bag or a catheter valve and how to clean the insertion site (NICE, 2017) as indicated in this guideline (Section 13)

8. Review

It is the responsibility of the Registered Nurse to review the need for catheterisation when

- the patient is referred to the service;
- the catheter is due to be changed;
- identified problems occur, e.g. blockage, CAUTI.

This review may include assessment for the following:

- Symptoms of a symptomatic urinary tract infection (fever/pyrexia, loin pain, malaise, lethargy, haematuria (eliminate trauma), change in mental state/confusion);
- Bowel perforation (abdominal pain, localised peritonitis, feeling systematically unwell). Medical help should be sought immediately (NPSA, 2009);
- Observation of the supra-pubic site for abnormalities including infection or over granulation;
- Identifying how often the catheter is changed;

- Problems with catheter leakage, blockage (CC4 Clinical guideline on the use of a catheter maintenance solution);
- Checking if the patient / carer is maintaining the closed system and using a clean technique when emptying or changing the drainage system (NICE, 2017);
- Checking the patient / carer is using correct hand decontamination before and after manipulation of the catheter (NICE, 2017).

8.1. Common catheter problems and possible solutions

Long-term catheterisation is rarely completely free of complications. The following table gives an overview of the most common catheter related issues and possible solutions.

Catheter	Possible Reasons	Possible Solution
Problem		
Urine not draining into bag.	Incorrectly sited catheter; it may be in the urethra and not fully into the bladder.	May require re-catheterising
	Incorrect positioning of the drainage bag above the level of the bladder can prevent flow of urine. Drainage tubing may be kinked.	Check tubing and ensure drainage bag is below level of bladder. Assess position of tubing to ensure free drainage
	Blockage (due to debris?)	Re-catheterise Cut the removed catheter vertically at the tip to establish the cause of blockage and implement appropriate remedial actions e.g. catheter maintenance solutions
Haematuria.	Trauma post-catheterisation.	Observe output and document severity of haematuria. Encourage fluid intake. Seek medical advice if haematuria persists or if frank haematuria with clots is seen.
	Catheter associated urinary tract infection.	Encourage fluid intake. Obtain catheter specimen of urine using the sample port and send to laboratory.Recatheterise if catheter has been in situ > 7 days. Refer to CWP CAUTI guidelines
Bypassing of urine around catheter	May indicate presence of infection	Obtain a catheter specimen of urine using the sampling port.
	Bladder spasm/instability.	Discuss drinking programme e.g. avoid caffeinated or alcoholic fluids Consider use of anti-cholinergic medication. Consider smaller Charrier catheter
	Constipation.	Increase fluid intake and dietary fibre intake.
	Incorrect positioning of drainage system.	Check drainage bag is in correct position, i.e. below level of the

		bladder
	Overfull drainage bag	Drainage bag should be emptied when 2/3 full
	Kinked tubing / poorly supported drainage bag.	Assess position of tubing to ensure free drainage
	Blockage - Encrustation/Blood/Debris	See above
	Bladder stones	Patient might require urological investigations to establish the presence of bladder stones.
	Wrong length or Charrier of catheter	Change catheter
	Over / under inflated catheter balloon	Change catheter
Pain or discomfort	The 'eyelets' of the catheter may be occluded by urothelium due to hydrostatic suction.	Gentle manipulation of the catheter position in the bladder – insert a further 2-3 cm and withdraw gently.
	Due to choice of catheter	Ensure appropriate material, Charrier and length of catheter
	Bladder spasms	Discuss drinking programme e.g. avoid caffeinated and alcoholic fluids. Consider anti- cholinergic medication
	Catheter associated urinary tract infection.	Encourage fluid intake. Obtain catheter specimen of urine using the sample port and send to laboratory.Recatheterise if catheter has been in situ > 7 days. Refer to CWP CAUTI guidelines
Catheter	Valve port and balloon inflation	Valve port should always be
retaining balloon will not deflate	channel may be compressed	aspirated slowly. If done forcefully, the valve mechanism may
	Faulty valve mechanism.	collapse. If attempts fail, refer the patient to the Emergency Department.

For catheter changes that are known or suspected to be problematic, please contact the Community Continence & Urology Advisory Service 0151 488 8230 for advice and support.

9. Trial without catheter (TWOC) (See Section 12)

If a suprapubic catheter is present, a catheter valve can be used to stop continuous drainage, if appropriate. The supra-pubic catheter acts as a safety valve to prevent distension of the bladder if urethral voiding is difficult (Robinson, 2006). If voiding is satisfactory and the residual is low, the catheter can be removed (RCN, 2019).

Contra-indications for a trial without catheter in the community:

Urology specific radiotherapy within previous 3 months;

- Post-operative radical prostatectomy, or urethrotomy within previous month;
- Suspicion of bladder cancer e.g. visible haematuria of unknown cause (exclude UTI);
- Difficult catheterisation requiring hospital admission.

Cautions for trial without catheter:

- Presence of a large urogenital prolapse or large fibroid uterus;
- Previous failed TWOC;
- Any surgery for stress incontinence;
- Medication, e.g. anti-cholinergics; (RCN, 2019)
- A volume greater than 1,000ml drained when the patient was first catheterised;
- Current urinary tract infection (UTI);
- Ongoing constipation.

The Registered Nurse, Nursing Associate or Assistant Practitioner should advise patients to report **immediately** any of the following symptoms:

- Inability to pass urine and suspected urinary residual;
- Sensation of incomplete emptying;
- Discomfort when they pass urine;
- Lower abdominal pain;
- Haematuria;
- Symptoms of Urinary Tract Infection frequency / urgency/dysuria;
- Incontinence.

If trial without catheter is unsuccessful, the Registered Nurse needs to decide if the patient requires the continuation of the supra-pubic catheter or whether intermittent urethral self-catheterisation is an alternative option (<u>CC5 clinical guidelines for intermittent catheterisation</u>) and if another trial without catheter can be considered.

10. Equipment required

The equipment for the insertion / removal of a supra-pubic catheter and the equipment for the attachment, emptying and removal of leg / night bag or catheter valve is listed in the related procedures (Section 11).

10.1. Selection of catheter

When choosing a catheter the Registered Nurse, Nursing Associate or Assistant Practitioner needs to check that the catheter is licensed for supra-pubic use and take into consideration the following:

Duration of the catheterisation:

- Short term catheter: licensed up to 28 days;
- Long term catheter: licensed up to 12 weeks (Robinson, 2006).

The length of the catheter:

• Standard length catheters (previously known as "male" catheters) (40-45cm) should be used for supra-pubic catheterisation.

The tip of the catheter:

- Straight rounded tip: most commonly used;
- Open ended urinary catheters: There is no tip to the end of this type of catheter, creating an additional drainage channel. They offer an alternative option when the catheter blocks or leaks on a repeated basis.

Catheter material

- Polytetrafluoroethylene (PTFE) (licensed for 28 days):
 - Highly elastic;
 - o Inexpensive;

- Prone to encrustation (Cox et al, 1988);
- Unsuitable for patients who are allergic to latex.
- Silver Alloy Hydrogel Coated Latex (licensed for 28 days):
 - Inhibits bacterial growth. (Newman, 2007);
 - Biocompatible and low surface friction which aids patient's comfort and reduces irritation;
 - o Unsuitable for patients allergic to latex.
- All silicone (licensed for 12 weeks):
 - Suitable for patients with a latex allergy;
 - Reduced irritation (Madeo et al, 2009);
 - Wider lumen inside, therefore allowing better drainage (Dougherty et al, 2011; Newman, 2007);
 - Formation of a 'cuff' on deflation of the balloon of all silicone catheters causes difficulty in removal (Parkin, 2002);
 - Silicone is semi permeable which may lead to deflation of the balloon and premature failure of the catheter (Getliffe, 1993; Newman, 2007).
- Silicone Elastomer Coated Latex (Teflon) (licensed for 12 weeks):
 - Smooth internal and external surfaces resistant to encrustation (Newman, 2007);
 - Coating reduces water absorption, irritation and tissue damage (Newman, 2007);
 - Unsuitable for patients with a latex allergy.
- Hydrogel coated silicone (licensed for 12 weeks):
 - Suitable for patients allergic to latex;
 - Reduced irritation (Madeo et al, 2009);
 - Hydrogel coating enhances comfort and may reduce resistance to blockage;
 - Silicone is semi permeable which may lead to deflation of the balloon and premature failure of the catheter (Getliffe, 1993);
 - Formation of a 'cuff' on deflation of the balloon of all silicone catheters causes difficulty in removal (Parkin, 2002).
- Hydrogel coated Latex (licensed for 12 weeks):
 - o Biocompatible;
 - Low surface friction improves patients comfort (Seth, 1998);
 - Unsuitable for patients with a latex allergy.

Balloon size:

- 5 -10ml;
- 30ml balloons are for post-urological procedures in Secondary Care only and *not* for routine catheterisation. 30ml balloon catheters are not indicated for patients with a history of catheter expulsion.

NICE (2017) recommends that the balloon gets inflated with 10mls of sterile water. It is the Registered Nurse or Assistant Practitioners/Nursing Associate's responsibility to ensure the correct amount and type of fluid is used to inflate the catheter retaining balloon as per manufacturer's guidelines.

Deflation of catheter retaining balloon:

Attach a 10ml syringe to the deflation port and allow the internal pressure to release the balloon fluid.

A gentle pull on the syringe may be required to assist the deflation. Do not draw back with force as this can damage the balloon deflation mechanism.

If more than 10mls of fluid has been withdrawn, re-attach an empty syringe to check if further fluid might drain.

If the balloon does not deflate, send the patient to the Emergency Department (ED).

Solution to inflate catheter retaining balloon:

At present sterile water is used to inflate the catheter balloon as it is widely believed normal saline can result in crystal formation ending up in blockage of balloon channel, although the evidence for this is questioned (Hui, 2004).

Some manufacturers add glycerine to their solution to reduce premature balloon deflation, as it is claimed this equalises the osmotic pressure between the solution in the balloon and the urine (LINC medical).

For patients who have frequent catheter blockages due to encrustation, the use of Farco-fill Protect to inflate the balloon instead of a standard solution can be considered. Farco-Fill Protect contains a broad-spectrum antimicrobial agent (triclosan) which is released from the solution in the balloon into to urine. It aims to reduce the amount of bacteria in the urine and therefore potentially reduce encrustation of the catheter and premature catheter changes. Farco-Fill Protect can be used for suprapubic catheters for up to 4 weeks (NICE, 2017).

10.2. Selection of drainage systems and securement devices

Leg bag

• Sterile leg bags must be used with indwelling catheters. Leg bags are available in different capacities and the life style of the patient and fluid input/output will determine which leg bag capacity to use. Leg bags are changed every 5 -7 days as per manufacturer's recommendations.

Night bag - Sterile & non sterile:

- Only sterile night bags must be used when connecting directly to a catheter. These are changed every 5 7 days;
- Non-sterile night bags should only be used when connecting to a leg bag or catheter valve. These are single use only.

Catheter valve

- Sterile catheter valves are connected directly to the indwelling catheter. These are changed every 5 7 days as per manufacturer's recommendations (NHS Quality Improvement Scotland, 2004);
- Patients can attach a non-sterile night bag to the catheter valve at night to allow free drainage.

Contra-indications for use of a catheter valve include:

- Patients with no or limited bladder sensation;
- Patients with reduced bladder capacity;
- Patients with cognitive impairment;
- Patients with insufficient manual dexterity to open & close the valve.

Securement devices

- The catheter should be secured at the bifurcation of the catheter tubing using a securement device e.g. Thigh strap or adhesive fixation strip;
- A leg bag should be secured to the leg with either leg bag straps or a leg bag holder. This will minimise the risks of traction and will prove more comfortable for the patient.

10.3. Catheter lubricant gel

The value of local anaesthesia during catheterisation has been questioned. Strong data is lacking, and the results from studies are contradictory.

- A single use, sterile plain lubricating gel syringe can be used for supra-pubic catheterisation;
- A local anaesthetic lubricating gel is recommended when catheterising patients if they have a history of low pain threshold on recatheterisation. Some research has shown that local anaesthetic gel can also possess anti-microbial activity.

Contra-indications for local anaesthetic lubricating gel:

- Hypersensitivity to the active ingredients;
- In patients who have damaged or bleeding supra-pubic tract, as this will increase the rate of absorption of lidocaine across the damaged mucosa;
- Use with caution in patients with impaired cardiac conditions, hepatic insufficiency, epilepsy and who are taking anti-arrhythmic drugs. (Clinimed, 2005)

10.4. Personal Protective equipment (PPE)

Transmission of infection risk

To become an infection risk a microorganism has to get from the source into the host by some means. Most micro-organisms usually have a particular route of entry. Infection at work can occur via:

- breathing in infectious aerosols/droplets from the air, e.g. respiratory discharges such as coughs and sneezes;
- splashes of blood and other body fluids into the eye and other mucous membranes, such as the nose and the mouth (HSE, 2003).

Components must include;

- Gloves (Sterile gloves if aseptic technique);
- Apron;
- Mouth/Nose mask;
- Goggles or face shield (Brown et al 2019).

Expert opinion recommends that face and eye protection reduce the risk of occupational exposure of healthcare practitioners. Face masks and eye protection must be worn where there is a risk of blood, body fluids, secretions or excretions splashing into the face and eyes (NGCG 2003, NICE 2012).

To be effective, face masks and eye protection must be worn correctly, changed frequently, removed properly, disposed of safely and used in combination with good universal hygiene behaviour (Public Health England, 2020) (<u>Appendix 4</u>).

11. Procedure for removal and re - insertion of a supra-pubic catheter

- Personal Protective Equipment PPE including eye protection (Section 10.4)
- Catheterisation / Sterile dressing pack containing:
 - Sterile gloves;
 - Disposable plastic apron;
 - Disposable bag;
 - Sterile non-woven swabs;
 - Sterile towel;
 - Disposable procedure sheet or towel;
 - o Receiver tray.
- Sterile saline 0.9% for cleansing;
- If performing a recatheterisation; Sterile 10ml syringe for removal of fluid from catheter balloon;
- Sterile standard length catheter. **If the patient is allergic to Latex**, this should be clearly marked on EMIS (<u>GR24 Use of latex products</u>) and a 100% silicone catheter should be used;
- Non Lidocaine Sterile lubricating gel 11mls; unless a gel containing Lidocaine is prescribed;
- Sterile water for injections (10ml ampoule), sterile syringe (10 ml), sterile needle x1 and sharps

box. This is not necessary pre-filled balloon or if pre filled syringe is present;

- Sterile drainage system;
- Securement device for catheter (thigh strap or adhesive fixation device) and leg bag (with straps or leg bag holder).

No.	Action	Rationale
1.	Explain the procedure to the patient. Obtain patient's consent (MH13 Consent to treatment) and record in the patient's records.	The patient understands the procedure and gives informed consent.
2.	Check in patients records how much sterile water was used to inflate the balloon.	The amount of fluid that is withdrawn can be slightly less due to osmosis.
3.	Prepare the environment work area.	To provide a safe working area
4.	Wash hands <u>(IC2 - Hand decontamination</u> policy and procedure)	To minimise the risk of cross infection.
5.	Don Personal protective Equipment PPE (Appendix 4)	To minimise the risk of cross infection
6.	Assist patient into an appropriate position (GR26 – Policy for safe manual handling people and loads) & cover the patient	To maintain patient's dignity and comfort.
7.	Loosen securement device, empty leg/night bag/catheter valve by opening tap and draining urine into a receiver.	Reduce risk of spillage
8.	Remove gloves and wash hands (IC2 - Hand decontamination policy and procedure)	To minimise the risk of cross infection
9.	Adhering to strict aseptic technique (IC3 – Standard universal infection control precautions policy) Hand decontamination policy and procedure Open the outer package of the catheterisation or dressing pack. Carefully open the inner package remembering no touch technique (ANTT) Place all necessary equipment on sterile surface. Disposing of outer packaging as required. If preference is to attach sterile drainage system to catheter pre insertion, open the packaging of drainage system and allow to fall onto sterile field	To prepare equipment and to reduce the risk of introducing infection into the bladder.

No.	Action	Rationale
10.	It is currently CWP practice to use a non- lidocaine catheter gel unless the patient has a history of UTIs or has a low pain threshold. If catheter gel containing Lidocaine is required check patient history for allergies	 Avoid lidocaine if the patient: is hypersensitive to the active ingredients; has damaged or bleeding tissue, as this will increase the rate of absorption of lidocaine across the damaged mucosa; Has impaired cardiac conditions, hepatic insufficiency, and epilepsy and is taking anti-arrhythmic drugs (Tzortzis et al, 2009).
	If the patient is allergic to chlorhexidine, use a lubricant without this ingredient.	To minimalise the risk of anaphylaxis
11.	Don sterile gloves from catheter/dressing pack. Attach 10ml syringe to catheter retaining balloon valve and allow the balloon liquid to pass into syringe (a gentle pull on syringe may be required to initiate) Remove existing indwelling catheter. Be aware of the angle at which the catheter is removed and also the length of catheter	See procedure <u>(Section 12)</u> of this guideline for the removal of a supra-pubic catheter. To aid re-insertion
	withdrawn. Remove gloves. Wash bands as (IC2 - Hand decontamination	
12.	policy and procedure)	To minimise the risk of cross infection
13.	Put on new sterile gloves	To minimise the risk of cross infection
14.	Cleanse around the supra-pubic stoma with a sterile woven swab and sterile saline	To reduce the risk of introducing infection during catheterisation.
15.	Using a pre filled syringe place a few mls of lubricating gel into the dressing tray/pot to lubricate the tip of the catheter. Insert the remaining catheter lubricant gel into the supra-pubic tract as per manufacturer's guidance.	Adequate lubrication helps reduce trauma and minimises the discomfort experienced by the patient. (Cochran, 2007; NHS QIS 2004; NICE, 2017)
	Insert the lubricated catheter at the same angle of removal into the abdominal tract	Please note that the cystostomy tract can close quickly due to detrusor contraction.
40	Advance the catheter slightly further than the length of the catheter that was removed.	To ensure safe insertion of the catheter.
16.	You may need to use a corkscrewing action.	To aid insertion.
	If you are unable to insert the catheter re attempt using a smaller charriere or stop the procedure and seek medical advice	To avoid trauma to the supra-pubic tract.

No.	Action	Rationale
		A proper inflation is necessary for the creation of a symmetrical balloon.
17.	Inflate the balloon as per manufacturer's guidelines. Wait for urine to drain and then inflate	An under-inflated balloon can result in a pear- shaped balloon configuration with deflection of the catheter tip.
	catheter retaining balloon.	An over-inflated balloon increases urine pooled in the bladder base with the associated risks of bladder spasms or bacteriuria. (Cochran, 2007)
18.	Withdraw the catheter slightly and connect to the new sterile drainage system if not already attached pre catheter insertion. Observe for continuing urinary drainage	Maintaining a closed drainage system reduces the risk of catheter-related infection (Cochran, 2007; NHS QIS 2004; NICE, 2012; Tenke, 2008)
	urine, which can be bloodstained.	To observe that the catheter is patent.
19.	Secure catheter to abdomen or thigh using a catheter strap or adhesive fixation device .	To prevent any traction on the catheter
20.	Dispose of equipment and sharps appropriately (HS1 Waste management policy and procedure)	To minimise the risk of cross infection
21.	Doff Personal Protective Equipment PPE (Appendix 4) and dispose appropriately	To minimise the risk of cross infection
22.	Wash and dry hands (IC2 - Hand decontamination policy and procedure)	To minimise the risk of cross infection
23.	 Record information on EMIS using catheter template, (CP3 – Health records policy) to include: Catheter type, size, make and batch number; How much sterile water is used to inflate the balloon; Date of insertion; Batch No of lubricant; Date of next catheter change and subsequent review. 	To provide a point of reference/ essential patient record

No.	Action	Rationale
24.	 Instruct patient / carer on effective catheter care Wash hands before and after dealing with the catheter and drainage system (NICE, 2017) The insertion area of the catheter should be washed with soap and water and does not require a dressing unless indicated Check the drainage bag is below the level of the bladder Check that catheter and drainage bag are correctly secured Maintain closed system Advice on when and how to change / attach drainage system Drink at least 1.5 litres of fluids if not contra-indicated Avoid constipation How to dispose of equipment Advise patient on problems that may occur, i.e. symptoms of infection, blockage, pain, haematuria, 	To promote prompt intervention

12. Procedure for a Trial without catheter (TWOC) with a Suprapubic catheter

It is recommended to remove the catheter in the morning (6am – 9am).

- Personal Protective Equipment PPE including eye protection (Section 10.4);
- Catheter removal or dressing pack;
- Disposable gloves;
- Apron;
- Plastic Bag;
- Syringe 10ml;
- Sachet of 0.9% saline;
- Nursing procedure sheet or towel;
- Catheter valve.

No.	Action	Rationale
1.	Explain the procedure to the patient. Obtain patient's consent (MH13 Consent to treatment) and record in the patient's records.	To ensure that the patient understands the procedure and gives informed consent.
2.	Prepare the environment work area	To provide a safe working are
3.	Wash hands (IC2 - Hand decontamination policy and procedure)	To minimise the risk of cross infection

4.	Don Personal protective Equipment PPE (Appendix 4)	To minimise the risk of cross infection
5	Assist the patient into a suitable position and cover the genital area (<u>GR26 – Policy for safe</u> <u>manual handling people and loads)</u> & cover patient	This ensures that the patient receives advice, support and monitoring during the day. It also reduces the risk of disrupted sleep.
6.	Empty the drainage bag or drain bladder via catheter valve	To minimise risk of urinary spillage
7.	Doth gloves and Don new disposable gloves	To minimise the risk of cross infection
8.	Do not remove catheter . Remove drainage device from suprapubic catheter and Insert a new catheter valve.	Allows the bladder to fill naturally
4.	Encourage the patient to drink approximately 1000 - 1500mls over 4 – 6 hours, if not contra- indicated.	To ensure adequate fluid intake
5.	Patients / carers should record and document fluid intake, urine output and sensation to void.	Input and output should be approximately equal
6.	Provide contact numbers in case problems occur	To allow prompt intervention
7.	 Patients should be advised to report immediately any of the following symptoms: Inability to pass urine and suspected urine residual; Sensation of incomplete emptying; Discomfort when they pass urine; Lower abdominal pain; Haematuria; Symptoms of Urinary Tract Infection; frequency / urgency /dysuria; Incontinence. 	To allow prompt intervention
8.	The nurse should visit the patient approximately 6 hours after the catheter removal or earlier if any problems occur.	To ensure that they are passing adequate amounts of urine (> 150mls for each void and less than 300mls urinary residual).
9.	If possible perform an ultrasound of the bladder with a portable scanner. Alternatively if a bladder scanner is not available the nurse may catheterise with an intermittent catheter to determine the amount of residual urine as per (CC5 Clinical guideline for insertion and removal of an intermittent catheter - IC) If the residual is < 300mls and the patient is voiding > 150ms each void the TWOC has been successful.	If the results are borderline ask patient to continue with recording fluid input/output and supply CWP Evening service contact number.

10.	In case of urinary retention a sterile drainage bag should be attached to the catheter valve then open catheter valve and allow drainage of the bladder. The TWOC has been unsuccessful.	To drain the bladder, alleviate pain, prevent bladder rupture and kidney reflux
11.	If advice required Contact the Continence & Urology Service OR CWP District Nursing Evening Service.	0151 488 8230 01244 397452

13. Procedure – Drainage system

13.1. Emptying a leg drainage bag/sterile night bag/catheter valve

- Should be emptied regularly (usually when 2 / 3 full);
- Be positioned below the level of the bladder;
- Change every 5 to 7 days according to manufacturer's instructions. (Cochran, 2007; NICE, 2012).

- Personal Protective Equipment PPE including eye protection (Section 10.4);
- Apron and Disposable Non-Sterile Gloves;
- Receiver;
- Tissue.

No.	Action	Rationale
1.	Explain the procedure to the patient. Obtain patient's consent (MH13 Consent to treatment) and record in the patient's records.	To ensure that the patient understands the procedure and gives informed consent
2.	Prepare the environment work area	To provide a safe working area
3.	Wash hands (IC2 - Hand decontamination policy and procedure)	To minimise the risk of cross infection
	Don Personal protective Equipment PPE (Appendix 4)	To minimise the risk of cross infection
4.	Loosen securement device straps open the drainage bag tap/catheter valve and empty all urine into receiver/jug or toilet.	
5.	Close the tap/catheter valve wipe it dry with the tissue. Measure amount of urine (if requested), and empty into toilet.	To minimise the risk of cross infection
6.	Remove and dispose of equipment appropriately (HS1 Waste management policy and procedure)	To minimise the risk of cross infection
7.	Doff Personal protective Equipment PPE (<u>Appendix 4</u>) and dispose appropriately	To leave a clean safe environment.
8.	Wash hands (IC2 - Hand decontamination	To minimise the risk of cross infection

No.	Action	Rationale
	policy and procedure)	

13.2. Changing a leg drainage bag / sterile night bag /catheter valve

- Personal Protective Equipment PPE including eye protection (Section 10.4);
- Sterile leg/night bag;
- Disposable Non-Sterile Gloves;
- Apron;
- Plastic Bag;
- Receiver.

No.	Action	Rationale
1.	Explain the procedure to the patient. Obtain patient's consent (MH13 Consent to treatment) and record in the patient's records.	To ensure that the patient understands the procedure and gives informed consent
2.	Prepare the environment work area	To provide a safe working area
3.	Wash hands (IC2 - Hand decontamination policy and procedure)	To minimise the risk of cross infection
	Don Personal protective Equipment PPE (Appendix 4)	To minimise the risk of cross infection
4.	Loosen securement device, empty drainage bag/catheter valve by opening tap and emptying all urine into receiver/toilet	Safe disposal of equipment.
5.	Remove gloves, wash hands (IC2 - Hand decontamination policy and procedure) _and put on clean gloves	To minimise the risk of cross infection
6.	Disconnect drainage bag/catheter valve from catheter and place in receiver for disposal, while continuing to hold catheter.	To prevent leakage of urine.
7.	Remove protective cap from the new drainage bag or open packaging on catheter valve being careful not to touch the connecting end, immediately insert into the end of the catheter.	To facilitate drainage of urine.
8.	Secure new drainage bag/catheter valve using chosen method of support.	To prevent tension on the catheter by weight or urine.
9.	Remove and dispose of equipment appropriately (HS1 Waste management policy and procedure)	To minimise the risk of cross infection
10.	Doff Personal protective Equipment PPE (<u>Appendix 4)</u> and dispose appropriately	To minimise the risk of cross infection

No.	Action	Rationale
11.	Wash hands (IC2 - Hand decontamination policy and procedure)	To minimise risk of cross infection.
12.	Report any concerns to the appropriate health professional, i.e. the amount of urine passed; colour, odour, appearance of the urine.	For prompt response to any identified problems.

13.3. Applying a single use, non-sterile night drainage bag to a leg bag/ catheter valve

A night bag can be attached to the leg bag to allow free overnight drainage. The leg bag should NEVER be disconnected from the catheter to apply a night bag. (Cochran, 2007; NICE, 2017; NHS QIS, 2004)

Equipment:		
•	Personal Protective Equipment – PPE including eye protection (Section 10.4)	
•	Apron and Disposable Non-Sterile Gloves;	
•	Non-sterile, single use, 2 litre night bag;	
•	Receiver;	

Tissue.

No.	Action	Rationale
1.	Explain the procedure to the patient. Obtain patient's consent (MH13 Consent to treatment) and record in the patient's records.	To ensure that the patient understands the procedure and gives informed consent
2.	Prepare the environment work area	To provide a safe working area
3.	Wash hands (IC2 - Hand decontamination policy and procedure)	To minimise the risk of cross infection
	Don Personal protective Equipment PPE (Appendix 4)	To minimise the risk of cross infection
4.	Loosen securement device, empty leg bag/catheter valve by opening tap and emptying all urine into receiver / toilet.	To prevent leakage of urine.
5.	Close the tap, wipe it dry with the tissue	To prevent leakage of urine.
6.	Attach the non-sterile, single use, night bag to the leg bag/catheter valve.	For effective night time drainage of urine.
7.	Open tap from leg drainage bag/catheter valve to the night bag	To ensure urine drains correctly.

13.4. Removal of a single use, non-sterile night drainage bag from a leg bag/ catheter valve

Equipment:					
•	Personal Protective Equipment – PPE (Section 10.4)				
•	Apron;				
•	Disposable non-sterile gloves;				
•	Plastic bag.				
No.	Action Rationale				

No.	Action	Rationale
1.	Explain the procedure to the patient. Obtain patient's consent <u>(MH13 Consent to</u> <u>treatment)</u> and record in the patient's records.	To ensure that the patient understands the procedure and gives informed consent
2.	Prepare the environment work area	To provide a safe working area
3.	Wash hands (IC2 - Hand decontamination policy and procedure)	To minimise the risk of cross infection
	Don Personal protective Equipment PPE (Appendix 4)	To minimise the risk of cross infection
4.	Close tap on the leg bag or the catheter valve	To prevent spillage of urine.
5.	Remove the night bag from the leg bag or catheter valve	For patient's comfort and dignity.
6.	Empty the night bag into the toilet as per manufacturer's instructions	Safe disposal of bodily fluids.
7.	Remove and dispose of equipment appropriately <u>(HS1 Waste management</u> policy and procedure)	To minimise the risk of cross infection
	Doff Personal protective Equipment PPE (Appendix 4) and dispose appropriately	To minimise the risk of cross infection
8.	Wash hands (IC2 - Hand decontamination policy and procedure)	To minimise the risk of cross infection
9.	Report any concerns to appropriate health personnel, i.e. the amount of urine passed; colour, odour, appearance of the urine.	For prompt response to any identified problems

14. Catheter specimen of urine (CSU)

Catheter specimens of urine are only taken for a valid reason, such as suspected symptomatic infection. If the patient is symptomatic to UTI, the catheter should be changed if the catheter has been in situ for over 7 days. (Appendix 3)

A urine sample should be taken from the sample port (NICE, 2017). Samples are collected from the sample port on the drainage bag to ensure that the closed system is maintained. Disconnecting the catheter from the urine bag to obtain a urine sample, increases the risk of catheter-related infection (NICE, 2017) (Dougherty et al, 2011)).

If the patient has a catheter valve in situ, it is recommended to use a new sterile catheter valve and to attach a sterile leg bag. The specimen of urine is then obtained using the sample port of the leg bag.

- Personal Protective Equipment PPE (Section 10.4)
- Non-sterile disposable gloves;
- Apron;
- Sterile syringe 10ml;

- Plastic bag;
- Appropriate urine specimen bottle / syringe as recommended by the laboratory;
- Isopropyl alcohol 70% impregnated swab.

No.	Action	Rationale
	Explain the procedure to the patient.	To ensure that the patient understands the
1.	Obtain patient's consent (MH13 Consent to	procedure and gives informed consent
	treatment) and record in the patient's records.	
2.	Label specimen bottle "Catheter Specimen	Ensure correct sample and patient
	Urine"	identification
3.	Prepare work environment	To provide a safe working area
4	Wash hands (IC2 - Hand decontamination	To minimise the risk of cross infection
	policy and procedure)	
5	Don Personal protective Equipment PPE	To minimise the risk of cross infection
5	(Appendix 4)	
	Occlude drainage tubing a minimum of 3	So there is urine available in the drainage
6.	inches below the sampling port by kinking the	tube
	tubing until urine is visible under the sample	
	port	
	Prior to obtaining a catheter sample of urine,	Alconol-Impregnated wipes are effective for
7.	70% imprograted sweb and allowed to dry	rapid disinfection. Allowing the cleaned
	thoroughly	of the organisms (Doughorty of al. 2011)
	Insert the sterile syringe into the centre of the	To avoid any needle-stick injury (Cochran
	needle-free sample port using a non-touch	2007)
8.	technique. Press the syringe firmly and twist	2001)
	gently to access the sampling port.	
	Slowly aspirate urine sample into syringe	
	Disconnect the syringe from the sample port	To ensure the specimen is not contaminated
9.	and empty the contents of the syringe into the	
	specimen bottle or syringe.	
10.	Unkink tubing	To allow free drainage of urine
	Remove and dispose of equipment	To minimise the risk of cross infection
11.	appropriately (HS1 Waste management	
	policy and procedure)	—
12.	Doff Personal protective Equipment PPE	I o minimise the risk of cross infection
	(Appendix 4) and dispose appropriately	To minimize the view of energy infection
13.	vash hands (IC2 - Hand decontamination	to minimise the risk of cross infection
14	Dut the lebelled bettle intermisrehieleau beg	To identify correct patient & comple
	with the request form	ro identity correct patient & sample
	Information to be recorded in the nationt's	To provide a point of reference/ essential
15.	records (CP3 – Health records policy)	patient records

Appendix 1 - Competency document – supra-pubic catheterisation

Prior to completing this document, the Registered Nurse, Nursing Associate and Assistant Practitioner must have completed the CWP catheterisation training. The practical procedure should be carried out as directed per "Clinical Guideline for the removal and re-insertion of a supra-pubic catheter & catheter care". In order to complete this document it is recommended that the practitioner undertakes a minimum of 3 supervised practices in supra-pubic catheterisation or until the practitioner feels confident and competent to carry out the procedure. Following completion of competencies it is the Registered Nurse, Nursing Associate or Assistant Practitioner's responsibility to keep skills and knowledge up to date.

The document should be kept in your professional portfolio as evidence.

Practitioners name	Base									
Designation										
The nurse should be able to demonstrate competency in the following elements and		Date	Initial	Date	Initial	Data	Initial			
work within CWP guidelines and policies			initiai	Date	initiai	Date	mitiai			
- Assess and review the	 Assess and review the need for catheterisation 									
 Identify medical/surgical 										
- Explain procedure and	associate risks to the patient									
- Gain informed consent	(MH13 Consent to treatment)									
- Work within CWP's Infe	ection Prevention & Control policies as outlined in the									
catheterisation guidelin	es									
- Check equipment and	materials to ensure they are safe and fit for purpose before									
usage. Check type, siz	e, expiry date of catheter and drainage systems									
 Don Personal Protectiv 	e Equipment (<u>Appendix 4)</u>									
- Prepare patient										
- Prepare environment a	nd equipment for the catheterisation									
- Remove previous cathe	eter and observe catheter tip.									
- Insert catheter using ar	n aseptic technique (IC3 Standard universal infection control									
precautions policy)										
 Know when not to proc 	eed or abandon urethral catheterisation and what actions to take									
 Attach drainage bag/va 	lve and secure catheter									
- Give advice and suppo	rt on catheter care and hand hygiene to patient/carer									
 Dispose of clinical was 	te appropriately (HS1 Waste management policy and									
procedure). Doff Perso	nal protective Equipment PPE (<u>Appendix 4)</u>									
- Record information (CF	23 – Health records policy) and contact numbers in patient care									
plan										

Appendix 2 – Information on Autonomic Dysreflexia

Patients with spinal cord injuries at T6 and above are particularly susceptible to autonomic dysreflexia. Spinal injury patients are usually aware of this condition and have experienced it prior to hospital discharge. However, health care professionals need to be aware that a small proportion of patients who have severe forms of Parkinson's Disease, Multiple Sclerosis, Cerebral Palsy or Spina Bifida or had a severe stroke may also develop Autonomic Dysreflexia (NHS, 2018).

Autonomic Dysreflexia is a sudden and potentially lethal surge of blood pressure often triggered without warning by acute pain or a harmful stimulus. This occurs because the body is unable to lower the blood pressure therefore the blood pressure will continue to rise until the offending stimulus is removed.

Factors that can trigger Autonomic Dysreflexia:

- Full bladder / blocked catheter;
- Constipation;
- Skin i.e. cuts, bites, burns;
- Sexual activity / menstruation;
- Labour;
- Medical tests including gynaecological examination, cystoscopy.

Symptoms of Autonomic Dysreflexia may be mild or severe. Patients can present with one or more of the following:

- Cool, clammy skin;
- Flushed face;
- Blotchiness;
- Sweating above level of injury;
- Pounding headache;
- Seeing spots or blurred vision;
- Nausea;
- Feeling Anxious;
- Increased blood pressure.

Treatment for Autonomic Dysreflexia:

- Sit the patient up;
- Identify and remove irritation (i.e. kinking of the tubing, recatheterise immediately if catheter is blocked);
- Do NOT administer a catheter maintenance solution as this will increase the distension and stimulus with potentially fatal consequence;
- Give prescribed medication for Autonomic Dysreflexia;
- Monitor blood pressure;
- Contact 999 if the cause cannot be identified or the hypertension cannot be controlled.

If you suspect the symptoms of Autonomic Dysreflexia in a patient who has not been diagnosed with it previously, i.e. patients who have severe forms of Parkinson's Disease, Multiple Sclerosis, Cerebral Palsy or Spina Bifida or had a severe stroke:-

- Contact 999;
- Sit the patient up;

- Identify and remove the irritation;
- Monitor blood pressure.

Appendix 3 – Catheter associated urinary tract infections (CAUTIs)

Guidance for maintaining safe catheterisation and preventing infection and bacteraemia associated with urethral and suprapubic catheters Patients living in Western Cheshire to include Residential/Nursing Homes

Initial urinary catheterisation or re-catheterisation, please refer to: Guidelines for insertion of urethral catheter CC7 & Suprapubic catheter CC6

Short term catheters are licensed for up to 4 weeks Long term catheters are licensed for up to 12 weeks

Plan re-catheterisation for 10 - 12 weeks, schedule on EMIS

Change catheter earlier if required i.e. when the catheter is blocked or when the patient presents with

Symptoms of a catheter associated urinary tract infection (CAUTI)

Please ensure all patients are included on the appropriate spreadsheet

(Community Care Team or Community Continence & Urology Service)

Check if the patient is symptomatic of a systemic CAUTI prior to re-catheterisation

Note: most patients with a urinary catheter will show positive to protein/nitrates on dipstick urine test; this is NOT a diagnosis of SYSTEMIC CAUTI and therefore is not recommended

Signs & symptoms of CAUTI include:

Fever/Pyrexia, Loin Pain, Malaise, lethargy, Haematuria (eliminate trauma), change in mental state (confusion)

If patient is symptomatic of a systemic CAUTI re-catheterise only if the catheter has been in situ for more than 7 days. For all patients;

- Obtain Catheter Specimen of Urine (CSU) from the needle free sample port on the leg drainage bag.
 Note Do not take the CSU from free urinary drainage
 Non-Medical Prescribers (NMPs) and GP's can initiate antibiotic treatment
 Refer to West Cheshire CCG antibiotic formulary
- Request a prescription for antibiotics from GP or NMP
- The onus of reviewing the CSU is with the **Prescriber**
- Prescribers check EMIS & review CSU result within 5 days
- If the culture is negative and patient is asymptomatic no further action is needed
- If the culture is negative but patient remains symptomatic of infection repeat CSU NMP discuss treatment with GP
- If the culture is positive and antibiotic sensitivities are inconsistent with the initial antibiotic treatment and patient remains symptomatic of CAUTI NMP discuss with GP

Infection Prevention & Control Team 01244 397700

Community Continence & Urology Service 0151 488 8230

Appendix 4 - Public Health England

Guide to donning and doffing standard Personal Protective Equipment (PPE) for health and social care

Before putting on the PPE, perform hand hygiene. Use alcohol handrub or gel or soap and water. Make sure you are hydrated and are not wearing any jewellery, bracelets, watches or stoned rings.



Doffing or taking off PPE

Surgical masks are single session use, gloves and apron should be changed between patients.

