Barts Health NHS
NHS Trust

TRUST CLINICAL GUIDELINES

Urinary Catheterisation and Management Guidelines

APPROVING COMMITTEE(S)	Clinical Polices Group	Date approved:	13/06/16
EFFECTIVE FROM	Date of approval		
DISTRIBUTION	DONS, ADONS, Senior Nurses, Ward Managers, Clinical Teams, Community Health Services		
RELATED DOCUMENTS	*Chaperone Guideline *Consent to Examination and Treatment *Continence assessment form/care pathway http://bartshealthintranet/About-Us/Corporate-Directorates/Nursing-and-Governance/Care-Standards/Documents/Continence-assessment-and-care-pathway-tool.pdf *Digital rectal examination (DRE), digital removal of faeces (DRF), Digital rectal stimulation (DRS) and Administration of suppository/ Enema Guideline *Hand Hygiene *Healthcare Record Keeping *Healthcare Records Management *Infection Control Policy, Principles and Responsibilities *Protecting patients' privacy and dignity/eliminating mixed sex accommodation *Standard Precautions - Use of Protective Equipment – Infection Control Policy *Waste Management policy		
STANDARDS	*epic3: National Evidence-Based Guidelines for Preventing Healthcare-Associated Infections in NHS Hospitals in England *NMC The Code 2015 *RCN guidance for nurses for Catheter care *Department of Health – The Health Act 2006 - Code of practice for the prevention and control of healthcare-associated infections *Department of health – High Impact Intervention 6 – urinary catheter care bundle *NICE Clinical guidelines CG2 – infection control prevention of healthcare- associated infection in primary and community care *NHS High Impact Actions: Protection from Infection		
OWNER	Director of Nursing RLH		
AUTHOR/FURTHER INFORMATION	CNS Continence		
SUPERCEDED DOCUMENTS	Legacy versions of Barts and the London, Whipps Cross Hospital and Newham General Hospital.		

REVIEW DUE	3 years after approval
KEYWORDS	Urinary Catheterisation, suprapubic, catheter management, intermittent catheterisation
INTRANET LOCATION(S)	http://bartshealthintranet/Policies-and-Guidelines/Trust-wide-policies.aspx

	Barts Health	Community Nurses Clinical Leads Practice Development Team Director of Nursing Associate Director of Nursing for Children Deputy Director Infection Prevention and Control Consultant Microbiologists Urology Consultants Urology Nurse Specialists Paediatric Stoma/Continence Nurse Specialists
	External Partner(s)	
	Included in policy: *For the groups listed below, failure to follow the policy may result in investigation and management action which may include formal action in line with the Trust's disciplinary or capability procedures for Trust employees, and other action in relation to organisations contracted to the Trust, which may result in the termination of a contract, assignment, placement, secondment or honorary arrangement.*	
	All Trust staff, working in whatever capacity	
	Other staff, students and contractors working within the Trust	
	Exempted from policy: *The following groups are exempt from this policy*	
	Non-clinical staff	
	Volunteers	

WeConnect Digital Programme

In October 2019, every Barts Health NHS Trust clinical policy was reviewed to determine if it would be impacted due to the We Connect Digital Programme and the digital development of nursing documentation, electronic prescribing and physician documents.

This policy is one such policy which has been changed accordingly

Therefore, please note that information regarding the patient will be entered into the individual electronic patient record on Millennium. In the event of downtime to Millennium, the Trust will revert to downtime procedures as defined in individual department business continuity plans.

Barts Health NHS Trust

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1 INTRODUCTION

1.1 The purpose of these guidelines is to provide principles of practice from assessment to removal of urinary catheter (urethral and suprapubic) with the aim to prevent complications and reduce catheter related bacteraemia. The majority of hospital-acquired infections are associated with an invasive device; the most serious of these are blood stream infections of which urinary catheters are a risk factor.

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

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

1.4 For the purpose of this document, the term 'nurse' also refers to midwife

2 DEFINITIONS

Urinary catheterisation	Urinary catheterisation is the process by which a tube (catheter) is inserted into the bladder for the purposes of draining urine, instilling irrigating fluids or drugs, or for urodynamic investigations
Suprapubic catheterisation	The insertion of a suprapubic catheter is usually a surgical procedure under a local or general anaesthetic. It is the process of passing a catheter percutaneously through the abdominal wall directly into the bladder.
Intermittent catheterisation	It is passing the catheter into the bladder in order to drain the urine and removing it immediately afterwards when drainage has ceased. It can be performed by a patient's spouse, carer or health professional, or patients themselves.
Patient	For this purpose of these guidelines, a patient is an individual over the age of 1 year old. For younger patients discuss care with the medical team.

3 QUICK REFERENCE GUIDE FOR URINARY CATHETERISATION AND AFTER CARE

a	Assessing the need for catheterisation	See Section 5
b	Catheter selection	See sections 6 & 7 NB: To avoid risk of mis-selection, standard and female length catheters must be stored on separate shelves
c	Catheter insertion	Appendices 3,4,5
d	Catheter maintenance	See Appendices 6-12 *All patients with indwelling catheter should have a catheter care pathway (Appendix .13) *For patient who is admitted with a urinary catheter, change the catheter if you can not ascertain the insertion date. *Refer patient to community nurses if they go home with catheter

e	Education of Patients and/or Relatives	See section 9 *Patients, carers and/or relatives must be educated on adequate fluid intake, prevention of constipation and their role in preventing urinary tract infection *Give patients/relatives/carers appropriate patient information leaflet on catheter care.

4 DUTIES AND RESPONSIBILITIES

Nurses/midwives/medical staff/healthcare support workers

4.1 Healthcare support workers are **not** to perform urinary catheterisation be it male or female.

4.2 Paediatric nurses should contact their PDN regarding training for catheterisation prior to completing the relevant competencies. Should a paediatric patient require catheterisation and no competent nusing staff are available please contact the medical team.

4.3 Medical staff may perform any urinary catheterisation, they should acknowledge the limit of their competency and refer to urology team as required for specialiast advice and support.

4.4 Bank and agency staff are personally accountable for their actions and expected to comply with these guidelines

4.5 Healthcare professionals responsible for the delivery of care for patients with urinary catheters must be familiar with this guideline and associated policies and guidelines.

4.6 Consent for the procedure/care should be gained in line with th Trust consent policy.

4.7 All medical and nursing staff who perform urinary catheterisation should document the need for catheterisation and residual urine in the patient's healthcare record. The urinary catheter sticker should be put in patient's healthcare record

4.8 All catheter management plans must be documented in the patient's healthcare record.

4.9 Healthcare professionals should use an appropriate lubricant (such as Instilagel) from a sterile single use container prior to urinary catheterisation to minimise urethral trauma and infection. This also applies to women who require urinary catheterisation irrespective of having epidural anaesthesia or patient controlled analgesia (PCA).

4.10 The need for continous catheterisation should be reviewed daily during ward rounds and documented in patient's healthcare record.

4.11 Female catherisation:-

- Pre-registration nurse and midwife (3rd Year) may catheterise female patients after education and training at the university; under direct supervision of a competent registered nurse or midwife.

4.12 Male catherisation:-

- Nurses who have attended the Trust male catheterisation course, performed 3 supervised male urethral catheterisations and completed their competencies can undertake the procedure unsupervised.
- If a nurse has been trained in another NHS trust and can provide a certficate of competency for male catheterisation a competent should assess the new staff

member against this clinical guideline using the competency assessment sheet (appendix 14).

Patients

4.13 Patients who wish to be trained to perform self care such as self-catheterisation, bladder washout with catheter maintenance solution, change of urine drainage bags or flip flo valve should be trained and assessed as competent by an appropriately qualified and competent nurse.

Carer (not healthcare support worker)

4.14 The patient and their personal carer may wish for the carer to maintain their established programme of bladder management. However the carer(s) needs to be identified and trained by the competent community nurse and/ or a continence nurse specialist in consultation with the patient, family, and community care providers. Furthermore, the arrangements should be acceptable and promote the autonomy of the patient; be sustainable and provide optimum freedom and flexibility in order to minimise the constraints upon the quality of life of the patient and family.

4.15 The registered nurse needs to ensure that the person who does the work is competent to do it, and that adequate supervision or support is provided. It should be documented in the healthcare record that the patient is in agreement with carer in performing the bladder management programme.

Team leaders – Consultants, Ward managers and Community nursing team leaders

4.16 Are responsible for ensuring that healthcare professionals in their teams are trained and competent in carrying out the procedures. Also they are to ensure the implementation of the guidelines within their relevant area.

4.17 Individual wards and community team must undertake Safety Thermometer audit. Safety Thermometer audits are undertaken once per month to monitor harm associated with catheter associated urinary tract infection (CAUTI). The data staff collected is as follows:

- Catheters - If patient has had a urinary catheter during the last 72 hours (3 days) select the number of days it has been in situ

- UTI - Treatment for a UTI based on notes, clinical judgement and patient feedback. An old UTI should be selected if treatment for or diagnosis of the UTI started before the patient was admitted to the hospital.

4.18 Staff must read the audit guidance carefully to ensure harm associated with Barts Health care is accurately captured

Continence Nurse Specialists

4.19 Develop and review guideline and procedures relating to the urinary catheterisation and ensure these are implemented by means of support, advice and education.

4.20 Run study days on male urinary catheterisation for registered nurses and Operating Department Practitioners. This covers indications, contra-indications, complications, types of catheter and catheterisation, catheter care/documentation, trouble shooting, scenarios, step-by-step guide and practice on anatomical models. After thcompletions of competencies a ‘certificate of competency’ is issued by continence service.

5 ASSESSING THE NEED FOR CATHETERISATION

5.1 Urinary catheterisation should only be used when there is clear medical indication. The indications for urinary catheterisation are listed in the table below.

5.2 If none of the criteria for urinary catheterisation below are met and your patient is incontinent, carry out a continence assessment.

5.3 A nurse who has completed their training can make the decision to catheterise for urinary retention.

5.4 All medical and nursing staff who perform urinary catheterisation should document the need for catheterisation in the patient's healthcare record

1.Drainage	a) Acute or chronic urine retention b) Pre and post operative care in certain procedures c)Accurate measurement of urine output
2. Investigation	a) To establish a post-micturition residual volume of urine when a bladder scan is unavailable b) Bladder function tests.e.g urodynamics, cystogram c) To obtain an uncontaminated urine specimen
3. Instillation	a) To administer intravesical medication b) Bladder irrigation or washout
4. Others	a) To assist in healing of sacral or perineal wound in incontinent patients b) End of life care

5.5 The decision for suprapubic catheterisation is made by the urology team. **Indications for Suprapubic catheterisation are:-**

- Some gynaecological conditions e.g. colposuspension.
- Complex pelvic or urological surgery.
- Unable to catheterise urethrally e.g. due to urethral trauma, stricture, grossly enlarged prostate, anatomical difficulties.
- Patients who are unable to tolerate urethral catheterisation e.g. persistently expelling their urethral catheter for instance due to spasms, weak pelvic floor.
- May be better suited for patient's needs e.g. some wheelchair bound patients, sexual needs.
- Patient's choice for ease of care and sexual needs
- Current or past trauma to urethra or pelvic area
- Long term urinary catheterisation

6 SELECTION OF CATHETER

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

Size of catheter

Urethral catheterisation

- Female size 12; Male – 12 to 14;

- Paediatric – sizes 5 to 10 dependent on age of child. Smallest catheter that facilitates good drainage and is also comfortable is determined by the medical team

Suprapubic catheterisation

- Size 16 or 18 (both sexes)
- For paediatrics catheter size is surgeons decision based on age/size of child

6.2 If the urine contains blood clots or there is prostate/bladder bleeding, a size 22Ch 3-way irrigating catheter should be considered. At this stage, urological advice from Urology Specialist Registrar must be sought.

7 TYPES OF URINARY CATHETER

7.1 The types of urinary catheter available in the Trust are listed below

Material	Type	Use and Duration
PTFE coated	2- way Foley ® with 10 ml balloon	Short – medium term. Up to 28 days
Hydrogel coated latex	2-way Foley ® with 10 ml balloon	Long term. Up to 12 weeks.
All silicone	2-way Foley ® with 10 ml balloon	Long term. Up to 12 weeks. **Also for patient with latex allergy**
Rigid PVC	3-way Foley® with 30 ml balloon	Bladder irrigation in patients with haematuria. Used to promote haemostasis post bladder/prostate surgery. To remain in situ for up to 7 days
PTFE coated latex	3-way Foley® with 30 ml balloon	Bladder irrigation in patients with haematuria. Used to promote haemostasis post bladder/prostate surgery. To remain in situ for up to 28 days

Catheter Length

Females - length 23-26cm, which correlates with the length of the female urethra. *Use standard length in female patients who are obese, bedbound or wheel chair users.*

Males – Standard length 40-43cm

Paediatric – determined by the surgical team (lengths 20-35cm available)

Balloon size

7.2 Use a 10ml retention balloon in adults. All catheter balloons should be inflated to the volume indicated on the catheter sticker using sterile water. They should not be over or under inflated. Some catheters have pre-filled balloons with a reservoir and clip at the balloon channel for release after insertion.

7.3 In some urology patients (particularly post-surgery) a larger volume balloon and larger diameter catheter may be needed as indicated by the urologist and documented in healthcare record.

7.4 **Paediatric** - follow manufacturer's instructions for paediatric catheters

8 CHILDREN

8.1 The healthcare professional will inform the child and family of need for catheterisation.

8.2 If appropriate a play specialist should help to prepare the child for the procedure.

8.3 The child may experience discomfort from the catheter, even if it is the correct size and correctly positioned

8.4 The appropriate children's community nursing team must be informed prior to the child's discharge if a child is going home with a urinary catheter

9 EDUCATION OF PATIENTS AND/OR RELATIVES

- The aim of catheter education is to facilitate self-care so as to reduce the risk of infection and promote independence and dignity. The patient's ability to self-care following education should be assessed.
- There are range of leaflets on catheter care and these can be accessed via the hyperlinks below

A. **Taking care of your suprapubic catheter –**
http://rl1vmsps02/BHFileshare/Shared%20Documents/All%20Trust/Patient%20Literature/Nursing%20and%20Governance/Continence%20Service/374%20Taking%20care%20of%20your%20suprapubic%20urinary%20catheter.pdf

B. **Caring for your catheter**
http://rl1vmsps02/BHFileshare/Shared%20Documents/All%20Trust/Patient%20Literature/Nursing%20and%20Governance/Continence%20Service/375%20Guide%20to%20using%20a%20urinary%20catheter%20valve.pdf

C. **Guide to using a urinary catheter valve**
http://rl1vmsps02/BHFileshare/Shared%20Documents/All%20Trust/Patient%20Literature/Nursing%20and%20Governance/Continence%20Service/375%20Guide%20to%20using%20a%20urinary%20catheter%20valve.pdf

D **Sex, sexuality and body image**

- In hospital, a catheter is often in view, which can affect self-esteem and dignity. Independence in catheter care and the use of leg bags should be encouraged.
- A flip flow valve may be used by both male and female instead of the drainage bag. Alternatives include electively having a supra-pubic catheter or performing intermittent self-catheterisation.
- Men can secure the catheter along the shaft of the penis using a condom prior to having sex. Women can tape their catheter to the abdomen.

E **Securing the catheter**

- The use of a catheter securement device will prevent urethral trauma caused by the swinging or pulling of the catheter tubing. This will also prevent a 'piston' effect which increases the risk of infection.

F. Discharge advice

- Patients' self-care of the catheter should be assessed.
- Give catheter care information leaflet.
- Referral to a community nurses for support with catheter care.
- Arrange 'Trial without Catheter' (TWOC) clinic appointment as deem fit.

10 MONITORING THE EFFECTIVENESS OF THIS POLICY

Issue being monitored	Monitoring method	Responsibility	Frequency	Reviewed by and actions arising followed up by
Urinary catheterisation and management	Mismanagement will be reported as a clinical incident on the Trust incident reporting system	Ward sister and Community team leader	Monthly	Appropriate action taken and recorded on the incident reporting system
Urinary catheterisation and management	Individual wards/community teams must undertake audit of insertion and on-going care using the Saving Lives audit proforma (Appendix 10 & 11)	Ward managers/community team leaders	Monthly	Senior Nurse
Number of patients with catheters and catheter Associated Urinary Tract Infections	Safety Thermometer, point prevalence audit undertaken	Ward Manager	Monthly	Senior Nurse

Appendix 1: Change Log

Change Log – Urinary Catheterisation and Management Guidelines		
Substantive changes since previous version	**Reason for Change**	**Author & Group(s) approving change(s)**
Change of layout and some content	Legacy versions standardised for one BH guideline	Continence Service

Appendix 2: Organisational Impact Assessment

Name of guidelines	Urinary catheterisation and Management				
Date of impact assessment	Nov 2015	**Completed by**	Juliana Tinhunu	**Position**	CNS

Area for consideration	**Description of issue**	**Trust contact**	**Guidelines author description of how issue has been taken into account in the guidelines**
Financial impact on Trust	Does the policy impose an additional direct or indirect financial cost on the Trust and how will this be managed?	TBC	N/A
Impact on PFI Service Providers: • Carillion • Synergy • SFS • Other (s5q530	How will the policy impact on the volume/cost of services provided by the Trust's PFI partner and how has this been addressed?	TBC	N/A
Impact on other partner organisations	How will the policy impact on other partners?	TBC	N/A

Appendix 3: Catheter Insertion Female

Equipment

- Sterile catheterisation pack containing gallipot, receiver, gauze swab, drape
- 2 pairs of sterile gloves
- Alcohol based hand rub
- Disposable plastic apron
- Appropriate catheter (2)
- Sachet of 0.9% sodium chloride solution
- Single use sterile anaesthetic lubricating gel e.g Instillagel
- Drainage bag or catheter valve (urine meter for hourly measurement; leg/2 litre bag for free drainage)
- Catheter stabilisation device. e.g. StatLock
- Clinical waste disposal bag

Pre-procedure	
Action	**Rationale**
1. Explain and discuss the procedure with the patient. Offer chaperone	To ensure that the patient understands the procedure and gives an informed consent
2. Screen the bed	To ensure patient's privacy. To allow dust and airborne organisms to settle before the sterile field is exposed.
3. Prepare the trolley by cleaning it with detergent wipes, dry with paper towel. Clean again with 70% alcohol wipes and let it air dry. Place all equipment required on the bottom shelf.	To reserve top shelf for clean working surface
4.Take the trolley to the patient's bedside, disturbing screens as little as possible	To minimise airborne contamination
5. Assist the patient into the supine position with knees bent, hips flexed and feet resting apart. Ensure that patient is not unduly exposed.	To enable area to be seen and preserve dignity
6. Ensure good light source is available	To enable genital area to be clearly seen
7. Decontaminate hands using soap and water	To reduce risk of cross-infection
8. Put on a disposable apron	To reduce risk of cross-ifection from micro-organism on uniform
Procedure	
9. Open the outer cover of the catheterisation pack and slide the pack on top shelf of the trolley	To prepare equipment
10. Using a non-touch technique, open sterile pack. Then empty the 0.9% sodium chloride sachet into the gallipot, open the sterile (single use) lubricating gel, appropriately-sized catheter, drainage bag, catheter securement device and 2 pairs of sterile gloves onto the sterile field.	To reduce risk of introducing infection into the urinary tract.
11. Decontaminate hands with alcohol handrub and put on the **first pair of sterile gloves**	Hands may have been contaminated by handling of outer packs. To reduce risk of cross-infection
12. Clean the labia minora with 0.9% sodium chloride solution, using a gauze swab for each in sinlge downward strokes. Use one hand to separate the labia minora so that the urethral meatus is seen. Clean around the urethral orifice with 0.9% sodium chloride using single downward strokes	To reduce the risk of introducing infection into the urinary tract
13. Position the sterile drape over the abdomen and thighs with the external genitalia visible	To create sterile field

through the hole of the sheet.	
14. Separate the labia minora, insert the nozzle of the single use lubricating gel into the urethral meatus. Slowly instil the gel, after which you remove the nozzle and wait for 5 minutes.	Adequate lubrication helps to prevent urethral trauma. Use of local anaesthetic minimises patient's discomfort.
15. Remove gloves and use alcohol hand rub before replacing with **second pair of sterile gloves**.	To maintain sterility
16. Place the receiver between the patient's legs on the sterile drape.	To provide a temporary container for urine as it drains
17. Open the inner wrapper of the catheter leaving it to act as a sleeve, insert the catheter tip into the urethral meatus until urine flows.	
18. Once urine flows, insert the catheter a further 2-3 cm	To ensure the catheter is in the bladder before inflating the balloon. Inadvertent inflation of the balloon within the urethra causes trauma.
19. If urine does not flow. Leave the 1st catheter insitu, look for the meatus above the catheter and insert the second sterile catheter in the meatus above the 1st catheter.	Catheter might be in the vagina. Leaving the first catheter insitu serves as a guide.
20. Once the second catheter drains urine remove the first catheter. Inflate the balloon in the remaining catheter according to the manufacturer's instruction	
21. If required obtain urine specimen for bacteriological test at this point.	
22. Withdraw the catheter slightly and attach it to drainage bag or catheter valve.	To ensure that the balloon is inflated and the catheter is secure
23. Secure the catheter using a stabilisation device, for example StatLock.	To maintain patient's comfort and reduce the risk of urethral or bladder neck trauma.
Post-procedure	
24. Make the patient comfortable and ensure that the area is dry	If the area is left wet or moist, secondary infection and skin irritation may occur.
25. Measure the amount of urine drained	To aid further management especially in patients with urinary retention. It is not necessary to measure the amount of urine in patients having routine catheter change.
26. Dispose of equipment including apron and gloves in a clinical waste bag and seal the bag before removing the trolley.	To prevent environmental contamination
27. Decontaminate hands with alcohol hand rub	To prevent environmental contamination
28. Draw back the curtains	
29. Dispose of clinical waste in a larger bin	To prevent environmental contamination
30. Decontaminate hands with soap and water	To reduce risk of cross-infection
31. Document the following in the patient's healthcare records • Informed/verbal consent • Date of insertion • Reason for catheterisation • Any difficulty on insertion e.g. trauma, bleeding, resistance, pain or discomfort • Volume of urine (residual) drained •Urine specimen if sent for MC&S	To provide a point of reference or comparison in the event of later queries.

NB:

- Place sticky label from catheter package in the patient's healthcare record.
- **Document in 'Insertion and Removal Device Record'**.
- **Antibiotic prophylaxis is not recommended for insertion/changing of urinary catheters in patients at risk of infective endocarditis**

- **Consider antibiotic prophylaxis for patients who:**
  i. have a history of symptomatic urinary tract infection after catheter change
  ii. experience trauma during catheterisation leading to frank haematuria iii. had two or more attempts of catheterisation (NICE 2012)

When to Abandon Catheterisation

i. Doubt over position of the catheter
ii. Patient is very distressed and asks you to stop and withdraws their consent
iii. Obstruction and cannot pass the catheter
iv. Spasm causing obstruction to passage.
v. Urethral bleeding

Appendix 4 Catheterisation male urethral

Equipment

- Sterile catheterisation pack containing gallipot, reciever, gauze swab, drape
- 2 pairs of sterile gloves
- Alcohol based handrub
- Disposable plastic apron
- Appropriate catheter
- Sachet of 0.9% sodium chloride solution
- Single use sterile anaesthetic lubricating gel
- Drainage bag or catheter valve (urine meter for hourly measurement; leg/2 litre bag for free drainage)
- Catheter stabilisation device.e.g. StatLock
- Clinical waste diposal bag

Pre-procedure	
Action	**Rationale**
1.Explain and discuss the procedure with the patient. Offer chaperone	To ensure that the patient understands the procedure and gives an informed consent
2. Screen the bed	To ensure patient's privacy. To allow dust and airbone organisms to settle before the sterile field is exposed
3. Prepare the trolley by cleaning it with detergent wipes, dry with paper towel. Clean again with 70% alcohol wipes and let it air dry. Place all equipment required on the bottom shelf.	To reserve top shelf for clean working surface
4.Take the trolley to the patient's bedside, disturbing screens as little as possible	To minimise airborne contamination
5. Assist the patient into the supine position with legs extended on the bed. Ensure that patient is not unduly exposed.	To enable area to be seen and preserve dignity
6. Remove underpants or pyjama trousers and use a towel to cover the patient's thighs and genital area.	To maintain patient's dignity and comfort.
7. Decontaminate hands using soap and water	To reduce risk of cross-infection
8. Put on a disposable apron	To reduce risk of cross-ifection from micro-organism on uniform
Procedure	
9. Open the outer cover of the catheterisation pack and slide the pack on top shelf of the trolley	To prepare equipment
10. Using a non-touch technique, open the catheterisation pack. Then empty the 0.9% sodium chloride sachet into the gallipot, open the sterile (single use) lubricating gel, appropriately-sized catheter, drainage bag, catheter securement device and 2 pairs of sterile gloves onto the sterile field.	To reduce risk of introducing infection into the urinary tract.
11. Remove cover from the patient's genital area	
12. Decontaminate hands with alcohol handrub and put on **first pair of sterile gloves**	Hands may have been contaminated by handling of outer packs. To reduce risk of cross-infection.
13. With one hand, wrap a sterile gauze swab around the penis. Retract foreskin (if present). With the other hand, clean the glans penis and the urethral meatus with 0.9% sodium chloride using a gauze swab at a time. Swab away from the urethral orifice.	To minimise infection of the urinary tract.
14. Position the sterile drape over the abdomen	To create a sterile field.

and thighs with the penis passes through the hole of the drape.	
15. Insert the nozzle of the single use lubricating gel into the urethral meatus. Slowly instil the gel, after which you remove the nozzle. Warn the patient slight stinging may be experienced.	Adequate lubrication helps to prevent urethral trauma. Use of local anaesthetic minuses patient's discomfort.
16. Hold the tip of the penis gently to occlude the urethral meatus and wait for 5 minutes.	To prevent the gel from escaping and allow the anaesthetic property to take effect
17. Remove gloves and use alcohol hand rub before replacing with **second pair of sterile gloves**.	To maintain sterility
18. Place the receiver between the patient's legs on the sterile towel.	To provide a temporary container for urine as it drains
19. Open the inner wrapper of the catheter leaving it to act as a sleeve. Using the gauze swab grasp penis with the non-dominant hand raising it until it is almost totally extended. Maintain this hold of the penis and insert the catheter.	Maintaining a grasp of the penis prevents its retraction while the manoeuvre straightens the penile urethra and facilitates ease of catheterisation
20. If resistance is felt at the external sphincter, increase the traction on the penis slightly and apply steady, gentle pressure on the catheter. Ask the patient to cough gently.	Some resistance may be due to spasm of the external sphincter. Coughing gently helps to relax the external sphincter.
21. When urine begins to flow, advance the catheter almost to its bifurcation	Advancing the catheter ensures that it is correctly positioned in the bladder
22. If urine does not flow immediately, check that the catheter is the correct length. If no urine flows gently instil 20 ml of 0.9% sodium chloride into the catheter. If no urine flows seek medical advice/review.	To ensure the catheter is in the bladder. To clear any lubricant residue blocking the catheter eyes.
23. Inflate the balloon according to the manufacturer's instruction when urine begins to flow	
24. If required obtain urine specimen for bacteriological test at this point.	
25. Withdraw the catheter slightly and attach it to drainage bag or catheter valve.	To ensure that the balloon is inflated and the catheter is secure
26. Replace foreskin (if previously retracted)	To prevent paraphimosis
27. Secure the catheter using a stabilisation device, for example StatLock.	To maintain patient's comfort and reduce the risk of urethral or bladder neck trauma.
Post-procedure	
28. Make the patient comfortable and ensure that the area is dry	If the area is left wet or moist, secondary infection and skin irritation may occur.
29. Measure the amount of urine drained	To aid further managemnt especially in patients with urinary retention. It is not necessary to measure the amount of urine in patients having routine catheter change.
30. Dispose of equipment including apron and gloves in a clinical waste bag and seal the bag before removing the trolley.	To prevent environmental contamination
31. Decontaminate hands with alcohol hand rub	To prevent environmental contamination
32. Draw back the curtains	
33. Dispose of clinical waste in a larger bin	To prevent environmental contamination
34. Decontaminate hands with soap and water	To reduce risk of cross-infection
35. Document the following in the patient's healthcare records • Consent • Date of insertion • Reason for catheterisation • Any difficulty on insertion e.g. trauma, bleeding,	To provide a point of reference or comparison in the event of later queries.

resistance, urethral laceration, pain or discomfort • Volume of urine (residual) drained • Urine specimen if sent for MC&S	

NB:

- Place sticky label from catheter package in the patient's healthcare record.
- **Document in 'Insertion and Removal Device Record'**.
- **Antibiotic prophylaxis is not recommended for insertion/changing of urinary catheters in patients at risk of infective endocarditis**
- **Consider antibiotic prophylaxis for patients who:**

  i. have a history of symptomatic urinary tract infection after catheter change
  ii. experience trauma during catheterisation leading to frank haematuria iii.
  had two or more attempts of catheterisation (NICE 2012)

When to Abandon Catheterisation

i. Doubt over position of the catheter
ii. Patient is very distressed and asks you to stop and withdraws their consent
iii. Obstruction and cannot pass the catheter
iv. Spasm causing obstruction to passage.
v. Urethral bleeding

Appendix 5 Intermittent Urethral Catheterisation

Equipment

- Appropriately sized pre-lubricated intermittent catheter
- 2 pairs of sterile gloves
- Alcohol based hand rub
- Suitable receiver if the catheter has no integral
- bag Catheterisation pack
- Sachet of 0.9% sodium chloride solution
- Disposable bed pad
- Clinical waste disposal bag

Procedure	
Action	**Rationale**
1. Explain and discuss the procedure with the patient. Offer chaperone	To ensure that the patient understands the procedure and gives a valid consent
2. Screen the bed	To ensure patient's privacy. To allow dust and airborne organisms to settle before the sterile field is exposed
3. Prepare the trolley, placing all equipment required on the bottom shelf	To reserve top shelf for clean working surface
4. Assist the patient *(male)* into the supine position with legs extended on the bed and *female* patient into the supine position with knees bent, hips flexed and feet resting apart. Ensure that patient is not unduly exposed.	To enable area to be seen
5. Remove appropriate clothing and use a towel to cover the patient's thighs and genital area. Place the disposable bed pad beneath the patient's thighs	To maintain patient's dignity and comfort.
6. Decontaminate hands using soap and water	To reduce risk of cross-infection
7. Put on a disposable apron	To reduce risk of cross-ifection from micro-organism on uniform
8. Open the outer cover of the catheterisation pack and slide the pack on top shelf of the trolley	To prepare equipment
9. Using a non-touch technique, open the catheterisation pack. Then empty the 0.9% sodium chloride sachet into the gallipot, open the appropriately-sized catheter and 2 pairs of sterile gloves onto the sterile field.	To reduce risk of introducing infection into the urinary tract.
10. Remove cover from the patient's genital area	
11. Decontaminate hands with alcohol handrub and put on **first pair of sterile gloves**	Hands may have been contaminated by handling of outer packs. To reduce risk of cross-infection
12. **Male** - With one hand, wrap a sterile gauze swab around the penis. Retract foreskin (if present). With the other hand, clean the glans penis and the urethral meatus with 0.9% sodium chloride solution using one gauze swab at a time. Swab away from the urethral orifice. ***Female*** - . Clean the labia minora with 0.9% sodium chloride solution, using a gauze swab for each in single downward strokes. Use one hand to separate the labia minora so that the urethral meatus is seen. Clean around the urethral orifice with 0.9% sodium chloride using single downward strokes	To minimise infection of the urinary tract.

13. Remove gloves and use alcohol hand rub before **replacing with second pair of sterile gloves**.	To maintain sterility
14. Place the receiver *(if the catheter does not have an integral bag)* between the patient's legs on the disposable bed pad.	To provide a temporary container for urine as it drains
15. Open the inner wrapper of the catheter leaving it to act as a sleeve. In *male patient*, using the gauze swab grasp penis with the non-dominant hand raising it until it is almost totally extended. Maintain this hold of the penis and insert the catheter. In *female patient*, separate the labia minora, insert the catheter tip into the urethral meatus until urine flows.	Maintaining a grasp of the penis prevents its retraction while the manoeuvre straightens the penile urethra and facilitates ease of catheterisation
16. For males if resistance is felt at the external sphincter, increase the traction on the penis slightly and apply steady, gentle pressure on the catheter. Ask the patient to cough gently.	Some resistance may be due to spasm of the external sphincter. Coughing gently helps to relax the external sphincter.
17. If required obtain urine specimen for bacteriological test at this point.	
18. Once the urine stops draining, ask the patient exhales, gently remove catheter.	To relax the pelvic floor muscles
19. Clean the meatus and make patient comfortable. Replace foreskin if previously retracted.	To maintain patient comfort and dignity
20. Dispose of equipment in the clinical waste disposal bag, seal and place in the clinical waste bin.	
21. Decontaminate hands with alcohol hand rub	To prevent environmental contamination
22. Draw back the curtains	
23. Decontaminate hands with soap and water	To reduce risk of cross-infection
24. Document the following in the patient's healthcare records: ease of insertion, amount, colour, odour of urine drained and if urine specimen was sent for MC&S	To provide a point of reference or comparison in the event of later queries.

NB:

When to Abandon Catheterisation

i. Doubt over position of the catheter
ii. Patient is very distressed and asks you to stop and withdraws their consent
iii. Obstruction and cannot pass the catheter
iv. Spasm causing obstruction to passage.
v. Urethral bleeding

Appendix 6: Changing suprapubic catheter

a) Only appropriately trained nursing and medical staff should carry out this procedure.

b) Changing a suprapubic catheter is an aseptic procedure and is the same for either gender. The safest way to change it is to allow the bladder to partially fill with urine by clamping the drainage tubing. The frequency of changing a suprapubic catheter will depend on the catheter material, as described in previous section.

c) If dealing with obese patient, either the patient or another person, after washing their hands, may need to hold and separate overlapping folds of skin to aid access to cystostomy area. If a suprapubic catheter falls out or is removed, it must be re-inserted within 15-20 minutes. After this time, the tract may begin to close and make it difficult or impossible to reintroduce.

d) Paediatrics may require general anaesthetic for change of supra pubic catheter.

Equipment

- Disposable plastic apron
- Disposable gloves x 1
- Sterile gloves x 2
- Alcohol based hand rub
- Catheterisation pack
- Lubricating gel
- Appropriate catheter
- Sachet of 0.9% sodium chloride solution
- Drainage bag or catheter valve (urine meter for hourly measurement; leg/2 litre bag for free drainage
- Clinical waste disposal bag

Procedure	
Action	**Rationale**
1.Explain and discuss the procedure with the patient. Offer chaperone	To ensure that the patient understands the procedure and gives an informed consent
2. Screen the bed	To ensure patient's privacy. To allow dust and airbone organisms to settle before the sterile field is exposed
3. Prepare the trolley by cleaning it with detergent wipes, dry with paper towel. Clean again with 70% alcohol wipes and let it air dry. Placing all equipment required on the bottom shelf.	To reserve top shelf for clean working surface
4.Take the trolley to the patient's bedside, disturbing screens as little as possible	To minimise airborne contamination
5. Assist the patient into the supine position with legs extended on the bed. Ensure that patient is not unduly exposed.	To enable area to be seen
6. Decontaminate hands using soap and water, put on non-sterile gloves and apron, remove old dressing, (if any) and observe skin surface around cystostomy site. If suspicious of any infection take swab for MC&S.	
7. Remove your gloves and use alcohol hand rub.	
9. Using a non-touch technique, open the catheterisation pack. Then empty the 0.9% sodium chloride sachet into the gallipot, open the appropriately-sized catheter and 2 pairs of sterile gloves onto the sterile field.	To reduce risk of introducing infection into the urinary tract.

9. Change gloves using hand rub in between. Instil the lubricating gel into cystostomy site.	To reduce the risk of infection. For ease of removal
10. Put on **first pair of sterile gloves**. Clean around cystostomy area with 0.9% sodium chloride.	
11. Deflate the balloon using the syringe. Replace your gloves with the second pair of sterile gloves	
12. With your non-dominant hand, grip the catheter at skin surface area and remove it slowly. Judge the length of the catheter which was inserted. Check that the balloon and tip are intact.	This is a useful guide for re-insertion. To ensure that no catheter material is left in the bladder as this can lead to urinary tract infection
13. Expose the catheter from the inner wrap; take hold of it at the distance judged from the old catheter.	To reduce the risk of infection.
14. Gently insert it down the cystostomy tract. Once urine has drained inflate the balloon. Resistance to balloon inflation or patient discomfort may indicate that the balloon is in the bladder wall or urethra. If so deflate and reposition the catheter.	
15. Attach the new drainage bag or catheter valve.	
16. Make the patient comfortable.	
17. Dispose of equipment in the clinical waste disposal bag, seal and place in the clinical waste bin.	To prevent environmental contamination
18. Decontaminate hands with alcohol hand rub	To prevent environmental contamination
19. Draw back the curtains	
20. Decontaminate hands with soap and water	To reduce risk of cross-infection
21. Document the following in the patient's healthcare records: date, informed consent, reason for change, ease of removal/re-insertion, date for next change and if urine specimen was sent for MC&S.	To provide a point of reference or comparison in the event of later queries.

Appendix 7 Collecting a catheter speciman of urine (CSU)

A closed catheter drainage system must always be maintained to reduce the risk of introducing infection. Therefore a catheter specimen of urine must be taken from the sampling port on the drainage bag using non touch technique and never by either disconnecting the system or from the drainage bag itself.

EQUIPMENT
Disposable gloves and apron
2% Chlorhexidine/Alcohol swab
Disposable clamp
Sterile gauze
Sterile 20ml syringe
Sterile urine specimen collection pot

Procedure

- Explain procedure to patient to obtain consent and co-operation.
- Screen the bed to promote privacy.
- Wash hands and put on gloves and apron.
- Place gauze around the drainage tube below the sampling port, apply clamp and allow urine to collect. Never clamp the catheter.
- Swab the sample port with a 2% Chlorhexidine/alcohol swab and allow the port to dry.
- Insert the syringe firmly into the centre of the sampling port.
- Aspirate 20mls of urine and place in collection pot.
- Remove clamp and gauze
- Remove gloves and apron and decontaminate hands
- Label container and appropriate pathology request form and send to the laboratory.
  N.B. If the container is left at room temperature, any contaminant inoculated into the specimen at the time of collection will grow rapidly making the culture invalid
- Document in the patient's healthcare records the date and time the specimen was taken

Appendix 8 Catheter maintenance (emptying urine bag, bladder washouts and irrigation)

A Emptying of urine drainage bag

Equipment

- Disposable gloves and apron
- Clean container (jug or urinal)
- Alcohol wipe

Procedure

- Explain the procedure to patient to obtain verbal consent and co-operation
- Assemble equipment, decontaminate hands and put on gloves and apron to reduce the risk of cross-infection
- Hold drainage system with one hand, open outlet tap with other hand and drain urine into jug(s). *Use a jug/urinal per patient*.
- Ensure outlet tap does not touch the sides of the jug to prevent contamination
- Close outlet tap and clean it with an alcohol wipe
- Reposition bag on stand/straps of leg bag
- Cover jugs to prevent environmental contamination with paper towel
- If there are no special instructions for the patient (i.e. 24-hour urine collection) then dispose of urine in sluice having noted volume, colour and presence of sediments/blood clots
- Wash jugs in sluice machine unless disposable.
- Remove gloves and apron and decontaminate hands
- Document the volume, colour, odour and presence of sediments/blood clots in the appropriate chart.

B Changing of urine drainage bag

Equipment

- Disposable gloves and apron
- Clean jugs and covers
- New drainage bag
- Clinical waste disposal bag
- Procedure sheet

Procedure

- Explain the procedure to obtain verbal consent and co-operation.
- Assemble equipment.
- Decontaminate hands and put on apron and gloves.
- Place procedure sheet under catheter/drainage bag junction
- Empty the urine from the drainage bags into the jug and (measure volume as necessary).
- Remove old drainage bag from catheter and connect the new bag using a non-touch technique
- Dispose of the old drainage bag in the clinical waste bag
- Remove apron and gloves and decontaminate hands.
- Ensure the new drainage bag is correctly attached and dated
- Document actions in patient's healthcare records.

NB

- Patients in hospital with a night drainage bag connected to a leg bag at night should empty and dispose of the night bag each morning.

- Patients at home with a night drainage bag connected to a leg bag at night, may wash through the night bag with running water in the morning before reconnecting the following night (use same for 5-7 nights, then change).

C Bladder Washout

Bladder washouts must be perscribed. Bladder washout is performed to remove debris or clots from the bladder or catheter to establish free drainage. Bladder washout should only be used when absolutely necessary as breaking the closed drainage system increases the risk of catheter associated urinary tract infection. The procedure must be performed aseptically. Isotonic sodium chloride 0.9% or Uro-Tainer® PHMB is most commonly used for blood clots/debris and 3.2% Citric acid (e.g.Suby G) for encrustation.

Equipment

- Disposable gloves
- Sterile gloves
- Alcohol based hand rub
- Appropriate solution (e.g.Uro-Tainer - 0.9% sodium chloride) at room temperature
- Sterile gauze
- Catheterisation pack
- Procedure sheet
- Urine drainage bag
- Clinical waste disposal bag

Procedure

- Explain the procedure to obtain consent and co-operation.
- Screen the bed area.
- Ensure the patient is in a comfortable position allowing access to the catheter
- Decontaminate hands, put on apron and take the trolley with the equipment to the bedside.
- Place the disposable pad under the patient's buttocks.
- Place sheet over the genital area to maintain dignity.
- Empty drainage bag as per guidelines.
- Open the catheterisation pack on top of the trolley, Uro-Tainer (0.9% sodium chloride or Suby G, as appropriate) on top along with drainage bag and sterile gloves.
- Place the dressing towel between the patient's thighs and under the junction of the catheter and tubing of the drainage bag.
- Decontaminate hands and put on sterile gloves.
- Cover both the catheter and drainage tubes with a piece of sterile gauze and disconnect.
- Place the catheter end into the receiver and the drainage bag into the open clinical waste bag, still using the gauze.
- Attach Uro-Tainer solution bag to the catheter, gently squeeze and allow the rest to run by gravity into and out of the bladder.
- Repeat the process until the urine is flowing freely and is clear, or the patient is more comfortable.
- Note the volume instilled and drained.
- After the procedure, attach the new drainage bag and assist the patient to redress
- Dispose of all clinical waste into a waste bag.
- Note the volume, colour and presence of sediments in the urine, dispose in the sluice
- Remove apron, decontaminate hands and clean trolley.
- Record colour and consistency of urine drained.

D Bladder Irrigation

Bladder irrigation must be prescribed. Bladder irrigation is the continuous washing out of the bladder with sterile fluid, usually 0.9% sodium chloride to prevent the formation and retention of blood clots. Three-way catheters are used for this procedure in order that fluid may simultaneously be run into and drained out from the bladder.

Equipment

- Sterile dressing pack
- Sterile gloves
- Disposable irrigation set
- Infusion stand

- Disposable pad
- Alcohol based hand rub
- Irrigation fluid
- Sterile jug
- Apron

Procedure	
Action	**Rationale**
1. Explain and discuss the procedure with the patient.	To ensure that the patient understands the procedure and gives an informed consent
2. Screen the bed. Ensure that the patient is in a comfortable position, allowing the nurse access to the catheter.	For the patient's privacy and to reduce the risk of cross-infection
3. Open the outer wrappings of the pack and put it on the top shelf of the trolley.	To prepare equipment
4. Insert the end of the irrigation giving set into the fluid bag and hang the bag on the infusion stand. Allow fluid to run through the tubing so that air is expelled.	To prime the irrigation set so that it is ready for use. Air is expelled in order to prevent discomfort from air in the patient's bladder.
5. Perform the procedure using an aseptic technique.	To minimize the risk of infection
6. Clean hands with alcohol based hand rub. Put on gloves.	To minimize the risk of cross-infection
7. Place a sterile paper towel under the irrigation inlet of the catheter and remove the spigot.	To create a sterile field. To contain leakage of urine through the irrigation arm of the catheter when the spigot is removed.
8. Discard the spigot and gloves.	To prevent reuse and reduce risk of cross-infection
9. Put on sterile gloves. Clean around the end of the irrigation arm with sterile gauze	To remove surface organisms from gloves and catheter and to reduce the risk of introducing infection into the catheter
10. Attach the irrigation giving set to the irrigation arm of the catheter. Keep the clamp of the irrigation giving set closed	To prevent over-distension of the bladder, which can occur if fluid is run into the bladder before the drainage tube has been unclamped
11. Empty the urine from the catheter bag into a sterile jug.	Urine drainage should be measured before commencing irrigation so that the fluid balance may be monitored more accurately.
12. Adjust the rate of infusion according to the degree of haematuria and ensure that fluid is draining into the catheter bag.	To check that the drainage system is patent and to prevent fluid accumulating in the bladder. Also to remove blood from the bladder before it clots and to minimize the risk of catheter obstruction and clot retention
13. Make the patient comfortable, remove unnecessary equipment and clean the trolley	To reduce the risk of cross-infection
14. Record information in relevant documents; this should include • reason for irrigation • date and time irrigation commenced • volume, colour and characteristics of urine output	To provide a point of reference or comparison in the event of later queries
15. Check the volume in the drainage bag frequently when infusion is in progress, and empty bags before they reach their capacity	To ensure that fluid is draining from the bladder and to detect blockages as soon as possible; also to prevent over-distension of the bladder and patient discomfort.
16. Ensure an accurate fluid balance is maintained throughout irrigation	So that urine output is known and any related problems, for example renal dysfunction, may be detected quickly and easily.

Appendix 9 Removal of Urinary Catheter

- The decision to remove a catheter should be discussed and agreed with the healthcare team and the decision documented on the healthcare record.
- Urinary catheter should be removed as soon as no longer required to prevent complications such as infections, encrustation and/or damage to the bladder neck.
- It is important that patients are not constipated prior to catheter removal as this can prevent the patient passing urine post removal or may even interfere with the removal itself in case of urethral catheter.
- The nurse should **ideally remove catheter early in the morning** so that any retention problems can be dealt with during the day.
- Inform the patient of the possibility of urgency, frequency and dysuria once the catheter has been removed.

Equipment

- Disposable apron and gloves
- Clinical waste disposal bag
- 10ml syringe for 2-way catheter and 30ml syringe for 3-way catheter
- 10ml for urine specimen collection and specimen bottle
- Disposable wipes
- Clean urinal or jug

Procedure	
Action	**Rationale**
1. Explain procedure to the patient and answer any questions. Inform them of potential symptoms that they may experience following removal such as urgency, frequency, dysuria and/or discomfort.	To gain an informed consent and for patient to know what to expect and can plan daily activity.
2. Check the patient's health care records to see how much water was inflated into the balloon.	
3. Gather and take the relevant equipment to the bedside.	
4. Screen bed. Assist/ask the patient to lie in the supine position. Ensure that the patient is not unduly exposed.	To maintain their privacy, dignity and comfort.
5. Decontaminate hands with soap and water and put on disposable gloves	To reduce the risk of cross infection
6. If a specimen is required, clamp below the sampling port. Take the specimen using the sampling port.	To obtain an adequate urine sample
7. Release the catheter from the securement device and remove device.	For easier removal of catheter
8. In men, retract the foreskin if present. Use saline-soaked gauze to clean the meatus, always swabbing away from the urethral meatus. In women, clean from the urethra towards the vagina/perineum.	To reduce the risk of infection
9. Place disposable wipe under the catheter exit.	To absorb any urine at the end of the catheter tip as it is being removed.
10. Attach the syringe to the balloon channel to deflate the balloon. Do not pull on the syringe but allow the water to come back naturally.	
11. Once the correct amount of water has been removed, ask the patient to relax and breathe in and out. As the patient exhales, gently remove catheter.	To relax the pelvic floor muscles
12. Inspect the catheter tip and balloon, dispose of same with other equipment used in the clinical	To ensure no fragment is left in the bladder as this can be a source of recurrent infection

waste.	
13. Clean the meatus and make patient comfortable. Replace foreskin if retracted.	To maintain patient comfort and dignity
14. Dispose of equipment in the clinical waste disposal bag, seal and place in the clinical waste bin.	
15. Draw back the curtains	
16. Decontaminate hands	To reduce risk of cross-infection
17. Document the following in the patient's healthcare records: time of removal, urethral laceration (if present), if urine specimen was for MC&S, state of the catheter tip and balloon.	To provide a point of reference or comparison in the event of later queries.

NB:

- Keep strict input and output chart for 24 hours if patient remains in hospital
- Encourage patient to drink one litre of fluid within the first 4 hours post-catheter removal unless contraindicated.
- Ask the patient to use urinal, jug or bedpan when voiding where possible.
- Ideally a bladder scan should be carried out to assess the first post-void residual volume. If any concerns re voiding post catheter removal escalate to medical team.

Appendix 10: Troubleshooting for urinary catheter care

Urine does not drain (Old urinary catheter)

- Check for any mechanical obstruction – kinked tubing, occlusion of the tubing by leg straps, drainage bag higher than the level of the bladder.
- Consider a bladder scan to check volume.
- Consider the patient's general condition, could they be dehydrated or in renal failure – consult with the medical team.
- Bladder washout may be beneficial.
- Check for constipation and if present treat appropriately.
- If the catheter does not start draining, change the catheter and inspect the old catheter for encrustation.

Recurrent catheter blockage/Encrustation

- Ensure fluid intake >2 litres/24hours
- Exclude constipation and treat if present
- Consider using a suitable Catheter Maintenance Solution (e.g Suby G as
- prescribed). If blockage recurs, replace catheter with open ended catheter

Haematuria

This may be caused on introduction of the catheter by urethral trauma. If slight it should be recorded and observation made of haemostasis. If the haematuria is persistent it may be due to infection, renal/bladder pathology e.g. carcinoma, calculi etc. If severe medical help should be sought urgently.

Urine bypassing

Check for kinked tubing or constipation, if no other apparent causes consider bladder spasm or irritations which may require use of antimuscarinic medication and/or a smaller size catheter. If you suspect encrustation, change the catheter and inspect for encrustation

Infection/Use of antibiotics

Symptoms include pyrexia, loin pain, offensive urine or confusion. Obtain CSU, perform urinalysis. If blood, protein, leucocytes or nitrates is present, send specimen for MC&S. Inform the medical staff as antibiotics may be required. Patients should be treated with antibiotics only if there is clinical evidence of infection i.e. the patient is febrile, has a raised white cell count and has proven bacteriuria. *If treatment of a urinary tract infection is required the urinary catheter must be changed after administration of prescribed antibiotics.*

NB: Treatment of asymptomatic bacteriuria is not recommended in catheterised patients because catheterised patients are known have bacteria colonisation in their bladder.

Recurrent urethral catheter expulsion

Recurrent spontaneous expulsion of a fully inflated catheter balloon is common in women due to lax pelvic floor muscles. Rule out urinary retention/incomplete bladder emptying, if present consider suprapubic catheetrisation. And if not use incontinence pads.

Sediment

- Encourage adequate fluid intake
- Use appropriate Catheter Maintenance Solution
- Change urine drainage bag if necessary

Pyuria (Pus in the urine)

- Take CSU for urgent MC&S
- Change urine drainage bag
- Ensure adequate fluid intake
- Contact medical team who may ask a microbiologist for advice regarding use of suitable antibiotics

Catheter balloon will not deflate

- Try a different syringe
- Leave it attached with the plunger removed for 20mins
- Check if the patient is constipated
- 'Milk' the catheter along its length to remove or unblock any obstructions caused by debris or encrustation
- Insert 2 ml of sterile water, which may help to clear any blockage
- If all fails, attach a 25 gauge (orange) needle to the syringe, pierce the catheter above the valve, inserting the needle into the inflation chamber and draw back, this will bypass a faulty valve

DO NOT

- Attempt to burst the balloon by over inflating
- it Never cut the catheter or the inflation arm
- Never leave a catheter in-situ for longer than the recommended time
- Attempt to inflate the balloon if bleeding is observed on insertion of a catheter, remove and seek medical advice.
- If the balloon will still not deflate seek urology assistance,

Appendix 11: Saving Lives - High Impact Intervention No 6 (Urinary Catheter Care Bundle)

URINARY CATHETER CARE: INSERTION ACTIONS		
CARE ELEMENT	**SAVING LIVES (DoH 2007)**	**BARTS HEALTH NHS TRUST Additional guidance**
Catheter needed?	*Avoid if possible?	*Refer to Trust guidelines for Urinary Catheter for indications for urinary catheterisation.
Clean the urethral meatus	*Prior to insertion of catheter. *Clean with 0.9% sodium chloride	* Clean with 0.9% sodium chloride solution using downward strokes.
Sterile lubricant used	*Use 'single use' sterile lubricant	*Use a single use sterile lubricant with anaesthetic properties
Sterile, closed drainage system	* Choice of urinary catheters should be based on individual patient assessment and local policy	*Educate patient and carer about the closed drainage system *The drainage system should be below the level of the bladder to prevent backflow or urine *Ensure catheter is secured using a stabilisation device to prevent urethral trauma. * Change drainage bag weekly and date
Hand hygiene	*Decontaminate hands before and after each patient contact *Use correct hand hygiene procedure	*Reinforce the importance of hand hygiene in reducing rates of infection
Aseptic technique	*Gown, gloves and drapes as indicated should be used for the insertion of invasive devices	* Non sterile products **must not** come into contact with sterile products *Sterility maintained throughout the procedure *Sterile gloves and a disposable plastic apron worn. Sterile gowns in theatre are an acceptable alternative to a plastic apron. *Document use of aseptic technique
Personal Protective Equipment	*Gloves are single use items and are removed and discarded immediately after the care activity *Eye/face protection is indicated if there is a risk of splashing with blood or bodily fluids	
Documentation		*Document indication, residual urine and consent *Place sticker from catheter pack in patient's healthcare record

Appendix 12: Saving Lives -High Impact Intervention No 6

URINARY CATHETER CARE: ONGOING ACTIONS		
CARE ELEMENT	**SAVING LIVES (DoH 2007)**	**BARTS HEALTH NHS TRUST Additional guidance**
Hand hygiene	*Decontaminate hands before and after each patient contact *Use correct hand hygiene procedure	***** Reinforce the importance of hand hygiene in reducing rates of infection
Catheter hygiene	*Clean catheter site regularly as per local policy	*Educate the patient about catheter care where appropriate *Catheter care should be performed at least daily using soap and water, more so if there is discharge.
Sampling	*Perform using 'non-touch' aseptic technique via a designated catheter sampling port.	*A catheter specimen of urine must be taken from the specific sampling port on the drainage bag and never by either disconnecting the system or from the drainage bag itself
Drainage bag position	***** Above floor but below bladder level to prevent reflux or contamination	*****Maintain a closed system *The drainage bag should be below bladder level, well supported and the tap must not be in contact with the floor *Catheter bags should be emptied when they are at least ¾ full *Catheter bags should be emptied on an individual basis using a separate jug for each patient. *Only a disposable jug or a sterilisable jug should be used *****Drainage bags should be changed every 7 days
Catheter manipulation	***** Examination gloves are worn to manipulate catheter, and manipulation is preceded and followed by hand decontamination	
Catheter needed?	*****Remove as soon as possible	*Daily review of continual catheterisation and documented in the patient's healthcare record *Catheter should be changed according to manufacturer's instruction

Barts Health NHS Trust

Appendix 13: Urinary catheter nursing care pathway

Patient Name:			**Hospital No**
Hospital Site:			
GOAL STATEMENTS **A)** To prevent or minimise the risks or complications associated with catheterisation and catheter management. **B)** To ensure catheter remains patent and draining.			**HCP Name** **Date**
	NURSING NTERVENTIONS	**ACTION TAKEN**	**HCP Name** **Date**
C1	**Catheter care:** Daily assessment of need for continued catheterisation completed Closed drainage system maintained Catheter securement device in use Drainage bag is positioned below level of bladder and not in contact with floor Ensure adequate fluid intake *(1½ - 2 litres unless contra-indicated)* Monitor for signs of sympatomatic UTI .e.g. new suprapubic tenderness, rigors/high temp, sudden onset or increased confusion	Obtain CSU from sampling port using aseptic technique, dipstick and discuss result with Dr	
C2	**Catheter Drainage & Change:** Ensure use of gloves, apron and effective hand washing before and after handling catheter/drainage bags. Daily meatal hygiene using soap and water Change leg bag/night bag/ catheter valve every 7 days	Use a separate container for each patient Date bag at time of change. Record on catheter care bundle.	
C3	**Education:** Educate patient/carer/family on catheter care and their role in prevention of UTI	Patient information leaflet on catheter care provided	
C4	**Discharge Planning:** Referral made to Community nurse/care Home staff. Referral made to TWOC if appropriate.		

Trial without catheter (TWOC) guidance

- **Ensure patient is not constipated**
- **Nurse ideally removes catheter at 06:00 so that any retention problem can be dealt with during the day.**
- **Inform patient of potential post-catheter symptoms, such as urgency, frequency, incontinence and discomfort**
- **Maintain STRICT fluid balance chart. Ensure patient drinks a glass of fluid hourly up to 1½ to 2 litres/day (unless contra-indicated). Encourage patient to void urine on desire.**
- **Monitor patient for signs of voiding dysfunction with or without urinary retention or pain**
- **If not voided within 6 hours of catheter removal removal encourage the patient to try**
- **Assess bladder function – measure post void residual (PVR) using a bladder scanner. If residual >200ml re-check and consider bladder drainage using intermittent catheterisation**
- **If the TWOC fails intermittent self-catheterisation if appropriate, if not, an indwelling catheter will need to be re-inserted**

If incontinence occurs following TWOC provide appropriate containment .i.e. penile sheath, urinal, bedpan, pads etc

Appendix 14: Competency assessment for male urinary catheterisation

Aim: To demonstrate safe and efficient practice in male catheterisation using aseptic technique.

No	Standard	Yes/No	Comment
1	Provides appropriate rationale for the catheterisation being undertaken		
2	Demonstrates appropriate knowledge of the normal lower urinary tract anatomy and physiology		
3	Explains the procedure to the patient, obtains consent and offers chaperone		
4	Ensures privacy and maintains dignity of the patient		
5	Understands the importance of correct catheter selection (including non-latex catheters for those with sensitivity/allergy)		
6	Checks and selects appropriate equipment		
7	Positions patient and ensures patient can maintain the position		
8	Decontaminates hand using soap and water and puts on disposable apron		
9	Opens the Catheter Pack and supplementary Packs Using Aseptic Technique		
10	Decontaminates hand with alcohol hand rub, puts on **first pair of sterile gloves**		
11	With one hand, wraps a sterile gauze swab around the penis. Retract foreskin (if present). With the other hand, cleans the glans penis with 0.9% sodium chloride using a gauze swab at a time. Swabs away from the urethral orifice.		
12	Positions the sterile drape over the abdomen and thighs with the penis passes through the hole of the drape.		
13	Instils the instillagel slowly into the urethra (wait for 5mins). Warn the patient slight stinging may be experienced. Change gloves and **replace with second pair of sterile gloves** using alcohol hand rub in between.		
14	Place the receiver between the patient's legs on the sterile towel.		
15	Opens the inner wrapper of the catheter leaving it to act as a sleeve. Using the gauze swab grasp penis with the non-dominant hand raising it until it is almost totally extended. Maintain this hold of the penis and insert the catheter.		
16	When urine begins to flow, advance the catheter almost to its bifurcation		
17	Inflates the balloon according to the manufacturer's instruction		
18	Withdraw catheter slightly and attach to drainge bag or catheter valve		
19	Replaces fore skin (if previously retracted)		
20	Secure catheter with a stabilisation device		
21	Make patient comfortable and enusre the area is dry		
22	Measure the amount drained		
23	Dispose of equipment including apron and gloves in a clinical waste bin and seal the bag before removing the trolley		
24	Decontaminate hands with alcohol hand rub		
25	Draw back the screen		
26	Dispose of clinical waste in a larger bin		

27	Decontaminate hands with soap and water		
28	Document appropriately in the patient's healthcare record		

ACCREDITATION SHEET

I have attended the study session on _____

Candidate's name: _____

Trainer's name and signature: _____

The candidate must perform the task on **three** different occasions. The candidate's assessor should sign below to show the candidate has been observed and has met all the performance criteria.

Assessor's signature **Date**

1. _____ _____

2. _____ _____

3._____ _____

I am satisfied the candidate has the appropriate underpinning knowledge and skills

Ward Manager's signature: _____

Date: _____

I confirm I have had the appropriate training and have the knowledge and skills to undertake this procedure.

Practitioner's signature: _____

Date: _____

Appendix 15: References

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