



Community Infection Prevention and Control Policy for Care Home settings

Urinary catheter care

URINARY CATHETER CARE

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URINARY CATHETER CARE

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1. Introduction

A urinary catheter is a thin flexible hollow tube that drains urine from the bladder into a drainage bag and is a closed system. The catheter is inserted into the bladder either through the urethra (genital area) or through a small hole made in the abdomen (supra pubic). The catheter is held in place by a small balloon filled with sterile water. Each time a break is made in the closed system, e.g. changing a catheter bag, it is an opportunity for infection to be introduced. This policy sets out the practices required to reduce as much as possible, the infection risks involved with catheterisation and catheter use.

Always use 'Standard infection control precautions' (SICPs) and, where required, 'Transmission based precautions' (TBPs), refer to the 'SICPs and TBPs Policy for Care Home Settings'.

2. Urinary tract infections

At least 23% of **all** infections are due to a urinary tract infection (UTI) and of those, 80% are due to the use of urinary catheters. All people with a urinary catheter are at increased risk of acquiring a UTI and the longer a catheter is in place, the greater the risk. It is important that the need for a urinary catheter should be reviewed by a registered nurse on a regular basis.

The risk of acquiring a catheter associated UTI (CAUTI) is linked to the:

- Method of catheterisation
- Length of time the catheter has been in place
- Quality of catheter care
- Resident susceptibility to infection
- Unnecessary emptying and/or changing of catheter drainage bags
- Unnecessary taking of urine samples

A few days after catheter insertion, microorganisms may be isolated from the urine, which, in the absence of any symptoms of UTI is called asymptomatic bacteriuria. The risk of acquiring bacteriuria increases approximately 5% for each day of catheterisation and within a month of catheter insertion, almost all catheterised residents will develop bacteriuria.

Approximately 24% of residents with bacteriuria develop a CAUTI, of which up to 4% develop a severe secondary infection, e.g. bacteraemia (bloodstream infection), and of these, 10-33% die.

Antibiotic treatment is not required for bacteriuria, unless the resident develops signs and symptoms of a CAUTI, see below.

Urine should not be dipsticked for nitrites and leukocytes in residents >65 years old or those with urinary catheters. Urine dipsticks are unreliable in diagnosing UTI in the over 65s and residents with catheters. Using urine dipsticks in these resident groups can lead to harm through unnecessary antibiotic use and missed alternative diagnoses. Refer to the 'Specimen collection Policy for Care Home settings'.

Treating a resident with bacteriuria who has no signs or symptoms of a CAUTI will do more harm than good, with the risk of them becoming colonised with multi-resistant organisms or acquiring *Clostridioides difficile* (*C. difficile*) infection.

3. Signs and symptoms of CAUTI

In a resident with a urinary catheter, a UTI is likely if the resident has:

2 or more of the following

- History/presence of fever (temperature 1.5°C above normal twice in the last 12 hours) or rigors (shivering, chills)
- New pain or tenderness in the lower back or abdomen
- New or worsening delirium/debility (new onset confusion)
- Visible haematuria (blood in urine)

Offensive smelling or cloudy urine is not a symptom of CAUTI.

It is important to check the catheter for blockage and consider removal or replacement.

4. Training and monitoring

Staff should be trained and competent in aseptic technique and the relevant procedures relating to urinary catheter care and urine catheter drainage that they undertake in their role, e.g. use, selection, insertion, maintenance and removal of indwelling catheters.

- Personal care givers looking after residents with indwelling devices are not responsible for giving clinical care, but need to have knowledge of asepsis and an understanding of the importance of not introducing contamination to these devices.
- Adherence to the principles of asepsis, refer to the 'Aseptic technique Policy for Care Home settings', plays a vital role in preventing the transmission of infection in any environment. It is the responsibility of each member of staff

who undertakes an aseptic technique to understand the meaning of these principles and to incorporate them into their everyday practice.

- Staff undertaking an aseptic technique should be free from infection, e.g. colds, sore throats, septic lesions.

It is good practice to undertake peer audits to monitor competency and a record of training and audit should be available. An assessment record and audit tool are available to download at www.infectionpreventioncontrol.co.uk.

5. Assessing the need

- The decision to catheterise should be made following a full holistic continence assessment with consideration given to alternative methods of management.
- Assessment should take account of the possible sexual, physical, social, psychological and environmental impact of catheterisation.
- Where appropriate, refer to your local Continence Nurse Specialist or the resident's GP.
- Assess the resident's needs prior to catheterising:
 - Latex sensitivity
 - Lidocaine sensitivity
 - Type of sterile drainage bag and sampling point (urometer, 2 litre bag, leg bag), or catheter valve
 - Dignity and comfort
 - History and previous catheterisation
- Review the necessity for the catheter regularly remove as soon as possible. Further advice can be obtained from your local Continence Nurse Specialist or the resident's GP.

6. Selection of catheter

Select the type and gauge of catheter to be inserted based on the resident's individual characteristics, including:

- Age
- Gender
- Any allergy or sensitivity to catheter materials
- History of symptomatic UTI
- Resident's preference and comfort

- Previous catheter history
- Reason for catheterisation
- The choice of catheter material is determined by the expected maximum duration that the catheter is to be in situ. Catheters are generally categorised as being for short-term (maximum of 4 weeks duration) or long-term (maximum of 12 weeks duration)
- If the catheter is regularly requiring changing after less than 4 weeks, discuss with your local Continence Nurse Specialist or the resident's GP
- Evidence suggests silver coated (alloy or oxide) catheters reduce the incidence of bacteriuria, but there is insufficient evidence on their effect in the reduction of CAUTI in short term catheters. These catheters have a duration of 28 days
- Select the smallest gauge catheter possible with a 10 ml balloon:
 - 12-14 for a female
 - 12-16 for a male

This will minimise the factors below which predispose to CAUTI:

- Urethral trauma
- Mucosal irritation
- Residual urine
- Occasionally, residents with urological conditions may require a larger gauge catheter and balloon. Discuss with your local Continence Nurse Specialist or the resident's GP
- Single use self-lubricating hydrophilic catheters are the recommended choice for intermittent self-catheterisation

7. Always

- Use SICPs.
- Clean hands and wear appropriate PPE, e.g. gloves (sterile for catheterisation, non-sterile for catheter care), disposable apron, when dealing with all aspects of catheter care. Facial protection should be worn when there is a risk of splashing to the face.
- Dispose of all catheter care items as offensive waste if there is no confirmed or suspected infection or as infectious waste if there a confirmed or suspected infection.
- Clean hands after removing and disposing of PPE.

8. Catheter insertion

- Catheter insertion should only be undertaken by a practitioner who has received training in the procedure and is deemed to be competent.
- Catheterisation is an aseptic procedure and, therefore, sterile equipment (including a sterile syringe to inflate the balloon) and an aseptic technique must be used.
- The perineum will require cleansing with soap and warm water before commencing the aseptic technique.
- To minimise introduction of bacteria during catheterisation, the urethral meatus should be cleaned using sterile normal saline prior to catheter insertion.
- For both male and female residents, a lubricant or anaesthetic gel from a single use container must be used and inserted directly into the urethra. Anaesthetic gels should be left for the recommended time.
- A new catheter should be used after each unsuccessful attempt.
- Catheter balloons must only be filled with sterile water.
- Attach the catheter to a sterile closed drainage bag.
- Intermittent self-catheterisation is always an aseptic technique when undertaken by a care worker. When undertaken by the resident, it is a clean technique (where gloves are not required, but strict hand hygiene should be used).

9. Documentation

Urinary catheter passport

- The use of a resident held 'Urinary catheter passport' will help to provide continuity of care between health and social care providers in both community and hospital settings.
- The required details should be recorded in the passport for the first catheterisation performed.
- The passport should then be issued to the resident, which should be shown at all GP or hospital appointments.
- Each subsequent catheterisation should be recorded in the passport.
- Information on 'My Catheter Passport' can be found at www.infectionpreventioncontrol.co.uk.

Resident's notes

The following details should be documented in the resident's notes (use adhesive label if provided by manufacturer).

- Resident consent.
- Amount of urine drained, description and colour.
- Specimen collected (if required) and the reason why.
- Any problems or resident discomfort, the number of attempts.
- Reason for catheterisation or catheter change.
- Date of insertion.
- Catheter brand, size, type.
- Balloon size, batch number, expiry date.
- Lubricant used - lot number and expiry date.
- In men, was any obstruction felt at prostatic area.
- No pain related to balloon inflation, free movement of the catheter once balloon inflated.
- Any history of MRSA in the urine.
- Type of cleansing lotion used.
- Name of person catheterising and signature.
- Implement care plan.

10. Catheter care

- Use a catheter anchoring device or strap and two leg straps to prevent pulling and damage to the urethra.
- Move the catheter anchoring device daily, from leg to leg, to avoid pressure damage to the skin and urethra.
- Inspect the urethral opening daily for signs of pressure damage. If damage noted, record in the resident's records and inform the resident's GP.
- Do not change catheters unnecessarily, but if the catheter is frequently blocking, bypassing, etc., discuss with your local Continence Nurse Specialist or the resident's GP.

11. Catheter bags

- Catheter drainage bags may be body-worn, i.e. leg bag, or free standing.
- For mobile residents, a leg bag should always be used, held in place with an anchoring device or strap and two leg straps to reduce the risk of damage to the urethra/bladder by the catheter/catheter drainage bag being pulled.
- Position the urine drainage bag below the level of the bladder to allow good drainage. Incorrect positioning, even for a short time, is linked to back flow

(urine in the tube or bag flowing back into the bladder) and higher rates of infection.

- Body worn (leg bag) systems should be changed weekly (or in line with manufacturer's instructions). Each change should be documented in the resident's notes.
- When opening the closed system to fit a new bag, a rigorous non-touch clean technique is essential. The tip of the new drainage tube must not be touched before inserting into the catheter. Refer to the 'Aseptic technique Policy for Care Home settings'.
- Catheter valves are sometimes used for residents with urological conditions as an alternative to a leg bag. They need to be changed every 5-7 days as per manufacturer's instructions, using a rigorous non-touch clean technique. Refer to the 'Aseptic technique Policy for Care Home settings'.
- Unnecessary emptying, changing or taking urine samples, increases the risk of CAUTI and inappropriate antibiotic prescribing and should be avoided.
- Maintenance of a closed system is essential to prevent infection.
- Single use 2 litre night bags should be added for overnight drainage in residents with body worn (leg bag) systems, using a non-touch clean technique. Refer to the 'Aseptic technique Policy for Care Home settings'.
- Catheter bags must be kept off the floor (attach to a stand/hanger).

12. Catheter hygiene

Routine personal hygiene for residents, such as a daily bath or shower, is important to maintain catheter hygiene. For residents who are unable to bathe or shower, staff should wash the genital area and the external catheter tube, in a direction away from the body, daily with soap and warm water. For female residents it is important to wash the genital area from front to back to prevent contamination from the anal area (back passage).

The genital area and external catheter tube should also be washed, rinsed and dried following any incontinent bowel movement.

13. Emptying a catheter bag

A catheter drainage bag should **not** be emptied more often than necessary as this increases the risk of infection. However, the bag must be emptied before it becomes completely full, e.g. 2/3rds full, to avoid back flow of urine to the bladder.

- Where possible, educate and encourage the resident to empty their own drainage bag, using a clean technique and effective hand hygiene.

- A rigorous non-touch clean technique is required for this procedure.
- The outlet port should be swabbed with a wipe containing 70% alcohol before and after opening. A separate single use clean container should be used for each resident to empty the urine into, which is then emptied and disposed of appropriately. If reusable containers are used, they must be heat disinfected in a bed pan washer disinfectant.
- Empty the bag into the container by releasing the drainage tap.
- Avoid contact between the urine drainage bag tap and the container.

14. Catheter specimen of urine

Refer to the 'Specimen collection Policy for Care Home settings'.

15. Catheter maintenance solutions

Bladder instillations or washouts must not be used to prevent CAUTI.

Evidence does not demonstrate any beneficial effect of bladder irrigation, installation or washout with antiseptic or antimicrobial agents for the prevention of CAUTI. The introduction of such bladder maintenance solutions may have local toxic effects and contribute to the development of antibiotic resistance.

Continuous or intermittent bladder irrigation may be required for other urological or catheter management indications.

- If a catheter is blocked/not draining, remove the catheter and re-catheterise.
- Antibiotic prophylaxis when changing catheters should only be used, following discussion with the GP, for residents:
 - With a history of CAUTI following catheter change
 - Following traumatic insertion or removal of a catheter, e.g. frank haematuria or 2 or more failed attempts of catheterisation

16. Suprapubic catheters

Suprapubic catheters are urinary catheters inserted directly into the bladder through a small hole in the abdomen made under aseptic conditions.

Suprapubic catheters	
Indications for suprapubic catheterisation	<p>Short-term: Following urological, gynaecological or other types of surgery</p> <p>Long-term: As an alternative to urethral drainage:</p> <ul style="list-style-type: none"> • In sexually active adults • In those for whom a urethral catheter has proved problematic or intolerable • In some wheelchair bound people • In those residents for whom urethral route is not possible
Catheter selection	<p>For long-term drainage the catheter used is:</p> <ul style="list-style-type: none"> • Hydrogel coated latex 16-18 CH 10 ml balloon • Standard length • For residents with a latex allergy - use a silicone catheter
<p>Catheter management</p> <p>The main principles of care and management of the suprapubic catheter are similar to for those of the urethral catheter.</p> <p>Prevention of infection is the primary aim</p>	<ul style="list-style-type: none"> • Aseptic technique should be used when cleaning the insertion site until the site has healed (7-10 days) • A sterile dry dressing may be required for the first 24/48 hours after initial insertion • When the insertion site has healed, the site and catheter can be cleaned daily using a clean cloth, soap and warm water • The catheter, as it emerges, must be supported at right angles to the abdomen. Clothing must, therefore, not be too tight
First and subsequent routine catheter change	<ul style="list-style-type: none"> • Within 6 weeks, the suprapubic tract should be established. The first catheter change should be undertaken at hospital • Catheter changes for long-term catheters can be undertaken 12 weekly by a practitioner who has received training and has been assessed as competent
Drainage system	<ul style="list-style-type: none"> • As for urethral catheter, although a holster appliance may be more comfortable.

17. Infection Prevention and Control resources, education and training

See Appendix 1 for the 'Urinary catheter care: Quick reference guide'. The Community Infection Prevention and Control (IPC) Team have produced a wide range of innovative educational and IPC resources designed to assist your Care Home in achieving compliance with the *Health and Social Care Act 2008: code of practice on the prevention and control of infections and related resources* and CQC registration requirements.

These resources are either free to download from the website or available at a minimal cost covering administration and printing:

- 30 IPC Policy documents for Care Home settings
- Preventing Infection Workbook: Guidance for Care Homes
- IPC CQC inspection preparation Pack for Care Homes
- IPC audit tools, posters, leaflets and factsheets
- IPC Bulletin for Care Homes

In addition, we hold IPC educational training events in North Yorkshire.

Further information on these high quality evidence-based resources is available at www.infectionpreventioncontrol.co.uk.

18. References

Department of Health and Social Care (Updated December 2022) *Health and Social Care Act 2008: code of practice on the prevention and control of infections and related guidance*

European Association of Urology (2012) *Nurses Evidence-based Guidelines for Best Practice in Urological Health Care Catheterisation Indwelling catheters in adults Urethral and Suprapubic*

Ford J, Hughes G and Phillips P (October 2017) *Literature review of silver-coated urinary catheters – (SMTL)*

Loveday HP et al (2014) Epic 3: National Evidence Based Guidelines for Preventing Healthcare-Associated Infections in NHS Hospitals in England *Journal of Hospital Infection* 86S1 (2014) S1-S70

National Institute for Health and Care Excellence (2012, updated 2017) *Healthcare-Associated Infections: prevention and control in primary and community care*

Oxford Academic Health Science Network Patient Safety *Reducing UTIs through hydration*

Public Health England (2007, updated 2020) *Urinary tract infection: diagnostic tools for primary care* [Urinary tract infection: diagnostic tools for primary care - GOV.UK \(www.gov.uk\)](https://www.gov.uk/government/publications/urinary-tract-infection-diagnostic-tools-for-primary-care)

Royal College of Nursing (2021) *Catheter Care RCN guidance for Health Care Professionals*

Royal Marsden NHS Foundation Trust (2020) *The Royal Marsden Hospital Manual of Clinical and Cancer Nursing Procedures 10th Edition*

19. Appendices

Appendix 1: Urinary catheter care: Quick reference guide

Urinary catheter care: Quick reference guide



Introduction

A urinary catheter is a thin flexible hollow tube that drains urine from the bladder into a drainage bag and is a close system. The catheter is inserted into the bladder either through the urethra (genital area) or through a small hole made in the abdomen (supra pubic). The catheter is held in place by a small balloon filled with sterile water. Each time a break is made in the closed system, e.g. changing a catheter bag, it is an opportunity for infection to be introduced.

When inserting a urinary catheter

Ensure that:

- The decision to catheterise is made following a full holistic continence assessment with consideration given to alternative methods of management
- Sterile equipment and an aseptic technique is used
- Hands are clean and appropriate PPE is worn when dealing with all aspects of catheter care
- The smallest gauge catheter is selected with a 10 ml balloon
- The perineum is cleaned with soap and warm water before commencing the aseptic technique
- The urethral meatus is cleaned using sterile normal saline prior to catheter insertion
- A lubricant or anaesthetic gel from a single use container must be used and inserted directly into the urethra
- The catheter is attached to a sterile closed drainage bag
- Full details are documented in resident's notes and recorded in the urinary catheter passport

When caring for a urinary catheter

Ensure that:

- Review the necessity for the catheter regularly remove as soon as possible
- A catheter anchoring device is used with two leg straps to prevent pulling and damage to the urethra
- The urine drainage bag is positioned below the level of the bladder to allow good drainage
- When opening the closed system to fit a new bag, a rigorous non-touch clean technique is essential. The tip of the new drainage tube must not be touched before inserting into the catheter
- Routine personal hygiene for residents, such as a daily bath or shower, is important to maintain catheter hygiene
- The catheter drainage bag is **not** be emptied more often than necessary as this increases the risk of infection. However, the bag must be emptied before it becomes completely full, e.g. 2/3rds full, to avoid back flow of urine to the bladder
- Single use 2 litre night bags should be added for overnight drainage in residents with body worn (leg bag) systems, using a non-touch clean technique

Key points:

- Always use SICPs
- Hand hygiene and the use of PPE, is important in all aspects of catheter care
- Dispose of all catheter care items as offensive waste if there is no confirmed or suspected infection or as infectious waste if there a confirmed or suspected infection

For further information, please refer to the full Policy which can be found at www.infectionpreventioncontrol.co.uk/care-homes/policies/

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