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Foreword

The Royal College of Nursing's (RCN) catheter care guidance has been used widely by many health care professionals over the years. The guidance has not only influenced practice and teaching, but has also been used, and quoted extensively, within local policies. It is with great pleasure that the RCN is able to publish this updated edition.

By providing a full understanding of the National Occupational Standards (NOS), this revised publication aims to encourage further adoption of the standards across all NHS and independent health care sectors, leading to good quality care for patients.

Continence is one of the fundamentals of nursing care and maintaining continence can significantly increase a patient's quality of life. Many people may need the support of continence products, such as catheters, to help them manage their everyday activities. Catheters can provide an effective way of draining the bladder, for both short and long-term purposes, and it is therefore important that the NOS are available to guide practice in catheter care.

The NOS relating to catheter care were developed through a partnership between the RCN and Skills for Health (SfH), with funding support from B. Braun, BD Medical, Coloplast and Wellsept. The previous edition of Catheter Care has been updated, with input from the RCN Continence Care Forum, other RCN forums and independent health care and academic professionals to give an up-to-date and easy-to-use document.

Sharon Holroyd Editor

We are indebted to the work done by both present and past members of the RCN Continence Care Forum Committee. We are also immensely thankful for the expertise and willingness of other key members of the RCN and others who have suggested additions and changes – their help has been central to the successful revision of this document. I would like to thank Sharon Holroyd for working with previous key contributors to the earlier versions and leading on this new edition.

I am also very grateful to Sharon Holroyd who willingly took on the editorship, incorporating the suggested changes and additions, reviewing other parts and updating the reference section.

I hope practitioners will continue to benefit from this publication and, more especially, our patients, by fostering good evidence-based practice.

I would also like to thank Skills for Health for ensuring the information on the National Occupational Standards is up to date.

Ali Wileman Chair, RCN Continence Care Forum Committee

In 2006 the RCN and Skills for Health (SfH) jointly identified a need for competences related to continence care. On completion of scoping, development, field testing and approval processes, a competence suite – containing six competences for catheter care – was produced. A full insight into the competency frameworks can be found at the SfH website at www.skillsforhealth.org.uk

The following six areas related to catheter care were included in the competence suite.

1. Insert and secure urethral catheters.
2. Monitor, and help individuals to self-monitor, urethral catheters.
3. Manage suprapubic catheters.
4. Undertake a trial without catheter (TWOC).
5. Enable individuals to carry out intermittent self-catheterisation.
6. Review catheter care.

The aims of this updated publication are the same – to produce further clarity and depth to the six competences related to aspects of catheter care. As before, the design and development of this publication has been shaped by a number of considerations and features:

- it is written and designed for a nursing audience
- it aims to link the six approved catheter care related competences within one document and enhance core themes
- the order of content within the document aims to reflect that used by SfH in the design of its competences
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How to use this publication

It is recognised that a diverse workforce of both registered and non-registered staff now deliver health care in a variety of settings. This publication is a resource and framework for practice for any health care professional (HCP) who is required to undertake urinary catheterisation as part of their role (this may be a registered practitioner or an unregistered practitioner working under the guidance/supervision of someone on a professional register). It can be used in a number of ways, including:

- as a practical guide to take the NOS to a user-friendly clinical level within the wider nursing workforce
- forming a catheter care benchmark to reflect and compare competence and practice against, within the wider nursing workforce
- as a point of reference to support academic work related to catheter care for health care professionals
- as a point of reference for the development of KSF-friendly job descriptions related to specialist HCPs working within catheter care
- in recruitment plans, advertising, staff selection and appraisals within the wider nursing workforce
- as a nursing resource to support the development of guidelines, policies and protocols related to catheter care at a local level
- as a guide for the development of catheter care related clinical procedures
- to support catheter care related nursing assessment and the effective use of the nursing process at all levels of practice
- to inform integrated catheter care pathways (ICPs)
- as a framework on which to develop catheter care related teaching material, programmes of learning and courses
- to stimulate nursing audit and research activity in catheter care.

What you need to know

You need to apply:

- legislation, policy and good practice, the current international, European, UK and national legislation, guidelines and local policies, protocols and procedures which affect your work practice in relation to the care of individuals using urinary catheters
- a factual knowledge of the current European and national legislation, national guidelines, organisational policies and protocols in accordance with clinical/ corporate governance which affect your work practice in relation to the care of individuals using urinary catheters.

The above statements appear in a significant number of NOS. In essence, they relate to key documents and publications which influence this specific aspect of care, and outline your areas of responsibility.

National Occupational Standards

Some key documents that relate to catheter care are listed below; this is not a comprehensive or exhaustive list. Please use it as a guide to influence you within your area of care and responsibility.

British Geriatrics Society

British Geriatrics Society (2018)
, London: BGS.

International Continence Society (ICS)

Haylen B, de Ridder D, Freeman R, Swift S, Berghmans B, Lee J, ... Schaer D (2010) An International Urogynecological Association (IUGA)/International Continence Society

Vahr S, Cobussen-Boekhorst H, Eikenboom J, Geng V, Holroyd S, Lester M, ... Vandewinkel C (2013) *Catheterisation. Urethral intermittent in adults*, Arnhem: The Netherlands.

- infection control policy
- Continence Products Formulary.

What you need to know and understand

- The importance of working within your sphere of competence and when to seek

4. Documentation

What you need to do

You need to record clearly, accurately and correctly any relevant information in ongoing patient/person or urinary catheter care records. You also need to be aware of the importance of documentation and the implications of the Data Protection Act 2018. You must be careful with patient records; any disclosure of information should be with the consent of the patient and your employer. You must understand the legal and professional consequences of poor practice.

Knowledge and understanding

What you need to know and understand

- Produce documents in a business environment (**BAA211**).
- Prepare text from notes (**BAA213**).
- Communicate with, and complete records for individuals (**HSC21**).
- Use and develop methods and systems to communicate, record and report (**HSC41**).
- Maintain and manage records and reports (**HSC434**).
- Determine a treatment plan for an individual (**CHS41**).
- Develop clinical protocols for delivery of services (**CHS170**).
- Monitor your own work practice (**GEN23**).
- Capture and transmit information using electronic communication media (**GEN69**).
- Observe, monitor and record the conditions of individuals (**HSC224**).
- Develop models for processing data and information in a health context (**HI5**).
- Provide authorised access to records (**SS34**).
- Protect records (**SS35**).

Skills for Health Competencies

Some general principles relating to documentation apply. These include confidentiality and legibility (so that documents can be photocopied several times and are legible, factual, easy to understand, contain no jargon, remain objective – with no personal opinions).

Good documentation:

- contributes to and establishes a diagnosis
- influences a care bundle and pathway of catheter care for an individual patient
- is a legal record of care bundle provision and what actually happened

- provides effective communication for other health care professionals involved in a patient's care
- is a point of reference and can be used to influence decisions for further interventions
- facilitates product tracing (if for any reason an individual patient experiences product failure)
- provides a record for the investigation of complaints and/or litigation
- facilitates critical reflective thinking
- offers a focus for clinical professional supervision and identification of learning needs
- completes an episode of care, end of a procedure or care bundle (group of procedures, tasks or activities forming a bundle of care).

Ensure all documentation is audit friendly and understood by the patient. You must

- Indications used to ensure catheter was inserted correctly (in men – amount of catheter inserted, obstruction felt at prostatic area, patient reaction to passing the prostatic area, urine drained, no resistance to balloon inflation, no patient reaction or pain related to balloon inflation, free movement of the catheter once balloon inflated).
- If urine is drained, the amount, colour, smell and, if necessary, dipstick and record the result (blood, protein, pH, glucose, nitrite, leucocytes). Dipsticks should not be undertaken routinely as they form part of a wider clinical assessment.
- If no urine drains, document what actions you took.
- Brand, catheter name, material, tip type, catheter length, Charrière size, balloon size, batch number, expiry date (usually found on a sticker on the catheter packaging).
- Cleaning fluid used.
- Lubricant/anaesthetic gel used.
- If specimens were sent, why? Note: A specimen of urine should only be sent if clinically indicated.

Drainage equipment documentation checklist

- Is this type of urinary drainage system appropriate for this particular patient?
- Is the brand, capacity and tube length appropriate?
- What support system is being used and is it appropriate?
- Is a link system being used and what type of night bag (single use or drainable)?
- Check when the drainage system was previously changed and if this is appropriate. Note the date of the change of bag or valve.
- Urinary drainage bags are dated whenever they are changed within health and social care

Catheter removal documentation checklist

- Was the length of time the catheter was in-situ appropriate for the type being used?
- Was the type of catheter, drainage system and support garments/straps being removed appropriate?
- Were the catheter tip and balloon intact upon removal?
- Note if encrustation was present, and to what degree.
- Note if the section of the catheter retained within the bladder was clean or dirty or if debris was evident.
- Did the balloon deflate appropriately?
- Note if the catheter was removed because of blockage, the catheter was not present to allow direct observation, was it dissected to identify the cause and severity?
- Note if the removal was painful.
- Note if blood was present and, if so, where (catheter tip, in the bag, around the meatus, clots in the drainage bag tube) and to what degree (clot, red coloured urine, meatal bleeding, frank haematuria)?
- Note observations around the meatus for any abnormalities (inflammation, swelling, meatal erosion, discharge/amount/colour).
- Note observations of urine and any clinical indication of signs of infection (cloudy, debris, amount, colour and smell, abdominal pain, pyrexia).
- Note patient tolerance of the catheter.
- Have any issues been encountered? eg self expelling, bypassing.

Ongoing observations documentation checklist

- Record the health status of the patient (well/unwell/seriously ill).
- Is the patient febrile, do they have a temperature (over 39°C, are blood cultures needed)?
- Is the patient taking antibiotics for a urinary tract infection? Record the type and duration of course, and if they are appropriate and still required.
- Note patient's tolerance of the catheter and associated drainage system.
- Is the patient in any form of discomfort or pain?
- Note the fluid intake balanced against urinary output.
- If first-time catheterisation takes place in a primary care setting, it is safe practice to monitor and make note of urine output for four hours after catheterisation. If the patient passes more than 200mls per hour after initial drainage, they need to be referred to the accident and emergency unit for fluid replacement as they are in risk of hypovolemic shock.

- Note the hourly urine output in critically ill patients.
- Note bowel activity.
- Note renal status.
- Note relevant blood results (prostate-specific antigen (PSA), urea, creatinine), plus the results, diagnosis and any further interventions.
- If patient is diabetic, glycosuria is indicative of poor blood sugar control and a potential infection risk, if diagnosis is unknown then further investigations are needed to establish a diagnosis.
- Note blood pressure status in relation to proteinuria and nocturnal polyuria (increased night time urinary output) to help establish a diagnosis.
- If a patient is immunocompromised, insertion of an indwelling catheter needs to be

What you need to know

needs and excrete the remainder as urine. The kidneys become less effective with age; at 70 years of age the filtering mechanism is half that of someone who is 40 years of age. HCPs therefore need to know what actions to take if urine production is reduced or stops.

The bladder is a hollow muscular organ situated retroperitoneal in the pelvic cavity. Its shape depends on the volume of urine in it; empty, it is collapsed and becomes spherical when slightly distended. It rises into the abdominal cavity as urine volume increases. The function of the bladder is to store urine. HCPs need to understand how catheter usage affects bladder function from both a positive and negative perspective.

Prostate – only present in males and transgender females. It sits around the urethra just below the level of the bladder. It enlarges normally with age, causing bladder outflow obstruction, which can lead to urinary retention and is a common reason to insert a urinary catheter. Outflow obstruction can also be caused by inflammation of the prostate. In catheterisation technique, it is important to understand how the patient reacts and the feeling of obstruction as the catheter is passed through the prostate gland. It is also important to be aware of catheter insertion and removal techniques in individuals following prostatic surgery.

Urethral sphincters – there are two urethral sphincters. The internal sphincter is under the control of the brain and spinal cord nerve pathways. The external sphincter has an element of learned behaviour that the patient can control. Closure of the sphincters during bladder filling help to maintain continence, but damage or excessive detrusor pressure can lead to incontinence. They may be damaged during catheterisation or post prostatic surgery. In catheterisation, it is important to understand how the patient reacts and the feeling of obstruction as the catheter passes through the sphincters.

Urethra – the anatomy of the urethra makes it sensitive to trauma during catheterisation. The lumen of the urethra is a convoluted, ribbon-like structure, only dilating during urination or when accommodating a urethral catheter. The urethra is lined with transitional epithelium; underlying the epithelium lays is a thin layer of tissue that is rich in blood vessels. Therefore, any trauma to the epithelium during urethral catheterisation provides convenient entry sites for micro-organisms into the blood and lymphatic system.

The female urethra is 3 to 5cm long and its elasticity is influenced by circulating oestrogens. The male urethra is 18 to 22cm long; trauma to the male urethra often results in the formation of scar tissue which can cause urethral stricture. Its function is to allow the discharge of urine from the body. Its length is important in relation to how much of the catheter is needed to reach the bladder.

Catheters come in different lengths and relate to urethral length; a female catheter is not long enough to reach the bladder in a male. In the catheterisation technique of a male patient, the amount of catheter needed to reach the bladder is important.

to the cortex, initiating a conscious desire to void. Parasympathetic impulses from the micturition centre in the sacral spinal cord are conducted to the urinary bladder wall and internal urethral sphincter. These cause contraction of the detrusor muscle and relaxation of the internal urethral sphincter. The cerebral cortex of the brain then allows voluntary relaxation of the external sphincter and urination takes place.

Involuntary micturition – this can occur as a result of:

- unconsciousness
- injury to the spinal nerves controlling the urinary bladder
- irritation due to abnormal constituents in urine
- disease of the urinary bladder
- damage to the external sphincter
- inability of the detrusor muscle to relax.

Urinary retention – this can occur as a result of:

- obstruction at the bladder neck
- enlarged or inflamed prostate
- obstruction of the urethra (stricture)
- contraction of the urethra during urination

- Aldosterone is secreted by the renal cortex; release of aldosterone enhances the reabsorption of sodium and water.
- Glycosuria is usually an indicator of diabetes mellitus. When glucose exceeds the renal threshold in normal glomerular filtration, the sodium glucose symporters cannot work fast enough to reabsorb the glucose and glucose is excreted in the urine. It can lead to symptoms of urgency and frequency, and can also become infected as bacteria have a medium by which to multiply quickly.

HCPs need to link urinary output and symptoms to possible endocrine dysfunction.

Cardiac system – the heart is responsible for pumping blood around the body. As the blood flows through body tissues it picks up waste products which are excreted via the kidneys. An inefficiently functioning heart can produce the side effects of nocturia or nocturnal polyuria. If a catheterised patient produces more urine at night than during the day, it could be nocturnal polyuria and appropriate interventions should be considered.

Pelvic floor muscles – in females, the pelvic floor supports the organs within the abdominal cavity, resists increased intra-abdominal pressure and draws the anus towards the pubis and constricts it. Nerve supply is from sacral nerves S3 to S4 and the perineal and pudendal nerve. Where catheters fall out of females, pelvic floor laxity should be considered as a cause. In males, the bulbocavernosus and deep transverse perineal helps to expel the last drops of urine during micturition. Ischiocavernosus helps to maintain erection of the penis. Nerve supply is from sacral nerves S4 and the perineal and pudendal nerve.

Sexual function – this can become compromised with the use of a catheter. Altered body image due to urethral or suprapubic catheterisation may impede the person's desire to want sexual intercourse. The presence of an indwelling catheter in a male urethra may cause trauma to the urethra on erection. Painful erections, particularly when sleeping, are a common complication of having an indwelling urethral catheter. In undertaking a catheter care review, HCPs must consider sexual needs and plan care where possible to facilitate an individual's ability to meet these. The RCN has produced

(2018). This publication offers guidance for nursing staff to help address the needs of older people in a professional, sensitive, legal and practical way.

Skin – has several functions, but related to continence and catheterisation it offers:

- protection – providing a physical barrier that protects the underlying tissues from physical abrasion, bacterial invasion and dehydration
- sensation – skin contains abundant nerve endings and receptors that detect stimuli related to pain, touch and pressure.

It is important to make every effort to ensure that incontinence and catheterisation do not compromise these vital functions of the skin. Catheterisation can increase sacral skin breakdown due to lack of movement. Where sacral skin breakdown has occurred, catheter-related complications increase because of cross infection from wound to bladder. It can also increase the risk of bacteraemia.





Additional key statements related to consent and catheterisation

- A health care worker may decline temporarily (not consent) to perform any aspect of catheterisation or ongoing catheter care because of a lack of competence, until it is gained within an agreed reasonable period of time (at local level).
- Catheterisation is an invasive procedure with associated serious risks, therefore obtaining documented, valid consent is vital prior to the procedure. In the patient who is unable to give consent, there must be a clearly stated rationale for using a catheter and it must be clear that this is in the best interests of the patient. There should be MDT involvement in this situation and also evidence of consultation with appropriate next of kin.
- The patient expects that it is in their best interests and safety.
- The patient should be provided with supportive, written information, in a format that they can understand.
- The patient should understand the rationale, the alternatives and the consequences of not being catheterised.
- The patient expects that their catheter care reflects up-to-date, evidence-based best practice in the giving of consent.
- Where other health care workers are present to observe or perform, under supervision, aspects of catheter care, patient consent is required.
- Patient consent is required for the use, or not, of a c.

- In gaining consent for screening/testing/monitoring of urine, performing other investigations and reaching a diagnosis, the rationale needs to be explained and the implications of the results.
- If a patient is being discharged from hospital with any form of urinary catheter in

Catheters should only be used after all alternatives have been considered. (NICE, GC171)

Knowledge and understanding

Clinical indications for intermittent, suprapubic or urethral catheterisation

- Acute urinary retention (**AUR**).
- Chronic urinary retention, only if symptomatic and/or with renal compromise.
- Monitoring renal function hourly during critical illness.
- Monitoring/recording/draining residual urine volumes (wherever possible, a bladder scanner is the preferred option to measure residual urine volumes).
- During and post-surgery, for a variety of reasons.
- Allowing bladder irrigation/lavage.
- Allowing instillation of medications, for example, chemotherapy.
- Bypassing an obstruction/voiding difficulties.
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- Where it is viewed as appropriate for the patient to use a catheter, such as: end-of-life care, disability, unfit for surgery, HCPs must remember that the risks associated with catheter usage are serious and increasingly may be more difficult t

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Knowledge and understanding

Using any form of catheter has associated risks and with the continued risk of urine infections and associated life-threatening complications, such as sepsis, it is of great importance that risk assessment becomes an essential part of clinical decisions and catheter care in all care settings.

Patients where the risk of catheter associated urinary tract infection (CAUTI) may be serious

The following are examples of health risks that should be assessed prior to catheterisation and catheter usage. They can be used in the formation of risk assessment tools for HCPs to use in clinical practice. By performing a risk assessment, it may be decided that an indwelling catheter may not be the best management for the patient; intermittent catheterisation or pad, or external appliance may be a better choice. Any patient can experience serious complications as a result of infection but some are particularly vulnerable.

It is important to minimise the use and duration of urinary catheterisation in all patients, but especially those at higher risk for CAUTI-related morbidity and mortality such as:

- women
- the elderly
- individuals with impaired immunity.

Additional risk factors which may increase the potential for serious complications of CAUTI include if the patient:

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- is immuno-suppressed
- has organ transplants
- has poor bowel control/diarrhoea.

Allergy risks related to catheterisation include:

- latex
- soap
- lubrication gels containing lidocaine.

Complications which indicate a need for further investigation include:

- previous difficulty in catheter insertion and/or removal
- history of frequent catheter blockage
- catheter has fallen out
- bypassing of urine
- pain, discomfort and discharge associated with catheter usage
- recurrent infection.

Risks of haematuria include:

- use of medication such as aspirin or warfarin
- recent catheter-related trauma
- recent urinary tract surgery
- known bladder/prostate cancer
- prostatic trauma.

Careful consideration should be given to patients where:

- blood clots have been observed
- meatal bleeding is observed.

When a catheter is already being used the HCP should consider if it is necessary. This can be established using the HOUDINI (Adams et al, 2012) indicators.

H – Haematuria.

O – Obstructed.

U – Urologic surgery.

D

Factors which may increase urinary output when supine (important when considering flow rates or trial without catheter when the patient is upright) include:

- heart disease
- diuretics
- postural oedema
- hypertension.

What you need to know

Knowledge of available catheter equipment including catheter types and sizes,

- catheter size
- type – indwelling, suprapubic
- intermittent, long term, short term
- leg bags, belly bags, night bags
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- Drainable products should not be rinsed/washed out. If the bag is contaminated, it should be changed for a new product even if this is earlier than the scheduled change of seven days (or 28 days in the case of a belly bag).

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- Patient preference due to patient needs for comfort and accessibility (for example, wheelchair user, sexual issues).
- Acute prostatitis.
- Obstruction, stricture, abnormal urethral anatomy.
- Pelvic or urethral trauma.
- To minimise complications of long-term urethral catheterisation.
- Complex urethral or abdominal surgery.
- Neuropathic disorders, such as multiple sclerosis and spinal cord injury, require frequent catheterisation due to catheter expelling frequently.
- Patients who have faecal incontinence and are constantly soiling urethral catheters or suffer moisture lesions.

Adapted from the European Association of Urology Nurses,
(2012) and the British Association of
Urological Surgeons (2010).

Contraindications

- Easier access to the cystostomy site for cleaning and catheter changes.
- Reduced risk of catheter contamination with micro-organisms that are commonly found in the bowel, therefore reducing the number of urinary tract infections.
- Greater freedom to be, or remain, sexually active
- Micturition is still possible if urethra not surgically closed or obstructed.
- Voiding trials (TWOC) may be easier.

Disadvantages of a suprapubic catheter

- It can be difficult to insert and change, including physical, psychological as well as (t i, i)8.1.5 ()8

- Urinary tract infections are associated with catheters, however, suprapubic catheters are less prone to cause symptomatic infection compared to urethral catheterisation (EAUN, 2012). Trauma on removal or changing of catheters can result in infection.

Changing a suprapubic catheter

Following the initial insertion of a suprapubic catheter, the catheter must stay in place for up to 4 to 6 weeks, depending on local guidelines. This allows time for the tract to become established EAUN (2012).

There are potential risks when changing a suprapubic catheter (for example, the loss of the tract) and, therefore, the first change must be done without delay so that the cystostomy is not allowed to close. This procedure is usually performed in hospital and should take no longer than 10 to 15 minutes – from removing the old catheter to replacing the new catheter. A subsequent change, when the cystostomy is established, is not so critical but does need to be carried out immediately after removal of the old catheter.

Most uncomplicated changes occur in a community setting or within the patient's own home. Subsequent changes should be undertaken on an individual basis, when clinically indicated, or when local protocols dictate.

Training and experience in changing a suprapubic catheter is essential. Only appropriately trained staff should undertake a suprapubic catheter change and they should ensure that they comply with local protocol and procedures. It is also important that checks are made with the manufacturer to ensure that the catheters, and any lubricant used, are licensed for suprapubic usage (EAUN, 2012).

Incorrect insertion into the bladder can potentially lead to tissue trauma of the suprapubic tract. Further complications can be caused if the catheter is inserted too far; the catheter can advance into the urethra, resulting in trauma when the balloon is inflated. Therefore, when changing a suprapubic catheter, it is essential to observe:

- the lie of the existing catheter
- the angle of insertion
- how much of the catheter length is viable outside of the body.

On insertion of the catheter, advance the catheter into the tract 3 cm deeper than the removed catheter. If no urine drains, gently apply pressure on the symphysis pubic area. Once urine starts to drain, slowly inflate the catheter balloon according to the manufacturer's instructions. Withdraw the catheter slightly and attach the drainage bag (if this has not already been done) and secure with the appropriate support strap (EAUN, 2012).

Dressings

Dressings are often unnecessary and are best avoided, if a dressing is used to contain a discharge this should be undertaken with strict aseptic technique to protect against infection. Wherever possible, patients should be encouraged to change their own dressing (EAUN, 2012).

Licensed products

If in doubt, check the catheter is licensed for suprapubic usage with the manufacturer. Ensure lubrication and anaesthetic agents are licensed for suprapubic usage.

Antibiotic cover

Local policies should be checked for information on if antibiotic cover is required

What you need to do

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Cautions

- Presence of a large urogenital prolapse.
- Previous failed TWOC.
- Any surgery for stress incontinence.
- Medication (for example, anticholinergics)
- Large fibroid uterus.

Types of TWOC

(Refer to local policy, if available.)

- Early daytime, with an increased fluid intake – undertaken more for the convenience of those involved.
- Daytime extended overnight, with next day review – especially for those patients with likely residual urine volume.
- Night time – useful for inpatients and those with nocturnal polyuria.

How to minimise discomfort during a TWOC

- When removing a catheter at the start of a TWOC, check water volume in the balloon.
- Avoid pulling on the syringe as this may create a vacuum and cause the balloon to cuff, making removal difficult. Instead, allow water to drain out of the balloon under its own pressure.
- Warn the patient of potential discomfort prior to catheter removal.
- Encourage the patient to drink normally (1.5 to 2 litres during the day) prior to TWOC – over consumption may compromise bladder function.
- Advise the patient on protocol should TWOC fail (for example, about catheterisation or learning to perform intermittent self-catheterisation).

Indications to abandon a TWOC

- A patient withdraws consent.
- Bleeding is of concern.
- Pain is of concern.
- Urine has not passed, or an unacceptable amount of residual urine is showing present on a bladder ultrasound (bladder scan9 (e)2 ((e)-(e)2 (Oi2.4 r)-1 (u)0.6p(n)6.7ITextF0 (r)6.4 (a32w5 (

Knowledge and understanding

- Assess bladder and bowel dysfunction

- Possess an in-depth understanding of how individuals should risk assess themselves and how this will influence their self-care.
- Have an in-depth understanding of how to minimise any unnecessary discomfort during and after the procedure, being aware of privacy and dignity.
- Be able to assess the individual's ability to perform self-catheterisation.
- Should explain and demonstrate the relevant aspects of self-catheterisation.
- Enable individuals to develop the necessary skills and actions to carry out intermittent self-catheterisation, safely and correctly.
- Should maintain the comfort and dignity of the individual during and post procedure.
- Always review the continued need and frequency of self-catheterisation (with all its associated risks) with the symptom improvement, quality of life indicators and volumes drained via catheter.
- Review the support required for individuals to successfully continue with ISC on a long term basis.
- Recognise when to stop the catheterisation/intermittent catheterisation in case of bleeding/complications, and to seek help.

- With the usage of portable ultrasound equipment, HCPs can easily identify residual urine status and have the ability to initiate intermittent catheterisation as an intervention. It is imperative that the importance of cause is not over looked and that the patient receives further investigations or onward referral to reach a formal diagnosis.
- Intermittent catheterisation has a reduced infection rate when compared to indwelling catheters, although there still is a risk.
- Where a trial without catheter is unsuccessful, the HCP should, if appropriate, consider introducing the use of intermittent catheterisation.
- There is a reduced risk of infection.

Teaching intermittent catheterisation

When teaching a patient the procedure of intermittent catheterisation, the following must be considered.

- Intermittent catheterisation is best taught by a competent experienced specialist HCP with the relevant communication skills.
- Exclusions to intermittent catheterisation include cognitive impairment and lack of consent.
- Assess the likely level of motivation and compliance with intermittent catheterisation.
- Increased support and follow up may be necessary, particularly in the early stages, to ensure long term compliance.
- Motivational factors for intermittent catheterisation, such as improved quality of life, symptom improvement, reduced risks.
- Explain the anatomical and physiological aspects of self-catheterisation, with the help of visual aids.
- Carry a wide range of samples to ensure the patient has choice. Choice is important to ensure product suitability to individual patient needs and lifestyles. Local formulary may be available in some areas.
- Demonstrate the features, size, preparation, lubrication and handling of the intermittent catheter.
- Use models to demonstrate catheter insertion and removal.
- All products must be used in line with the manufacturer's guidelines.
- Intermittent catheterisation should be taught in a safe environment, with the patient sitting or lying or standing, depending on patient choice and ability.
- Teaching must be in an environment that offers a minimum risk of cross infection.
- Genital and hand hygiene should be supervised prior to insertion and removal.
- Aids and devices, such as mirrors, leg dividers and grips, should be discussed where appropriate.
- It is acceptable for the patient to use a clean technique (EUAN, 2013)

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All aspects of urinary catheter care require regular review

Knowledge and understanding

- Obtain valid consent or authorisation (**CHS167**).
- Plan the assessment of an individual's health status (**CHS38**).
- Plan the interdisciplinary assessment of the health and wellbeing of individuals (**CHS52**).
- Assess an individual's health status (**CHS39**).
- Support individuals in undertaking desired activities (**GEN15**) and enable carers to support individuals (**GEN20**).
- Inform an individual of discharge arrangements (**GEN16**), contribute to the discharge into the care of another service (**GEN17**) or discharge and transfer individuals from a service of your care (**GEN28**).
- Interact with individuals using telecommunications (**GEN21**).
- Minimise the risk of spreading infection by cleaning, disinfecting and maintaining environments (**IPC1**).
-



- Discussing the patient's meatal hygiene practices, ensure the patient/carer is aware that after washing a male, the foreskin must be returned to its usual position to avoid paraphimosis.
- Reviewing the patient's daily fluid intake inclusive of fluid type, the patient's knowledge and health belief regarding daily intake and its appropriateness. Review the 24-hour urine output, urine colour, visual sediment etc.
- Reviewing bowel activity and relationship to the catheter function, stool type (Bristol stool chart) amount passed and how frequently.
- Reviewing the patient's compliance and capability to care independently for their catheter and dependence status.
- Understanding the roles of health care workers and review the appropriateness of those involved; inclusive of community nurses and matrons, urologists and specialist nurses.

Reviewing the risk of infection

The following should be considered.

- Preventing infection. Maintain a closed urinary drainage system as it is essential to avoid the patient acquiring a catheter-associated urinary tract infection (CAUTI). Review any need for breaches in the closed system as part of catheter care assessment. The frequency of drainage bag emptying, catheter valve opening and obtaining a urine sample, increases the risk of CAUTI and must be avoided. The patient/carer or HCP must be educated to only initiate a break in the closed system to empty the drainage bag when three quarters full. The catheter valve may require opening every three to four hours, depending on the fluid intake of the patient. Urine samples must only be obtained when clinically indicated using the sample port and an aseptic technique.
- Clinical indicators for a urinary tract infection (UTI) are pyrexia, tachycardia, as

Antibiotics

Review current treatments and interventions, such as antibiotics and always follow local

- Male/standard length catheter is recommended for females in the following situations: bedbound, immobile, post operatively, emergency situations, critically ill and clinical obesity.
- Female length catheters are recommended for ambulant female patients who are a reasonable weight.

Also check:

- the catheter material
- the balloon size (should be 10ml, unless following prostatic surgery)
- there is a clear rationale for not using a catheter valve – the patient must be educated on the long-term implications when not using a valve
- the capacity of the urine bag – day and night bag
- any complications relating to wearing products or accidental disconnection
- supply issues, stock levels and safe storage
- correct emptying techniques are being used
- correct changing techniques are being used
- correct disposal techniques of urine and equipment are being used – follow local disposal of waste policy.

Catheter-associated complications review

Consider and discuss any complications the patient is experiencing. Complications



- cleaning of perineal area from front to back, to include under foreskin (but ensure this is rolled back to prevent complications)
- how to obtain catheter associated products, store and dispose of them
- common complications and where to seek advice
- information on the catheter passport – ensure patients know it is their property and they should take it with them to any health care setting.

Possible complications

Paraphimosis

Paraphimosis is a urological emergency in which the retracted foreskin of an uncircumcised male cannot be returned to its normal anatomic position. It is important for clinicians to recognise this condition promptly, as it can result in gangrene and amputation of the glans penis.

Paraphimosis can often be effectively treated by manual manipulation of the swollen foreskin tissue. This involves compressing the glans and moving the foreskin back to its normal position, perhaps with the aid of a lubricant, cold compression and local

Bladder irrigation, instillation and washouts do not prevent catheter-associated infection. Regular use can lead to an increased risk if the sterile closed drainage system is repeatedly broken, which can lead to infection, sepsis and death.

When considering the use of washouts/maintenance solutions, there must be evidence of an individualised assessment and the clinical indication for use must be recorded.

Bladder irrigation

This is a continuous irrigation of the bladder via a 3-way catheter for the purpose of removing clots and debris post urology surgery. This method of irrigation is normally used for short periods only and only within an acute care setting

Bladder washouts

These involve flushing the bladder with sterile normal saline to remove clots, debris or mucus. Consider the following when using this technique.

-
-

- An individual risk assessment.
- Clear rationale for use is documented.
-

16. Infection control and catheter care

Knowledge and understanding

- Minimise the risk of transmission of infection by cleaning, disinfecting and maintaining environments **(IPC1)**.
- Minimise the risk of transmission of infection by cleaning, disinfecting (if necessary) and storing all equipment **(IPC4)**.
- Perform hand hygiene to prevent the spread of infection **(IPC2)**.
- Use of personal protective equipment appropriately to protect HCP from the risk of infection from blood/body fluids **(IPC6)**.
- Clean, disinfect and remove spillages of blood and other body fluids to minimise the risk of infection **(IPC3)**.
- Minimise the risk of spreading infection when storing and using clean linen **(IPC12)**.

Skills for Health

What you need to know

- Knowledge of the causes of urinary tract invasion from bacteria and how to minimise this in all care settings.
- Knowledge of the importance of applying standard precautions for the prevention of infection and the potential serious life-threatening consequences of poor practice.
- Knowledge of how to meet standards of environmental cleanliness in the area where catheterisation is to take place, to minimise the infection risk.
- Knowledge of when to undertake urinalysis and obtain a catheter specimen of urine (CSU).
- How to perform an aseptic technique.

National Occupational Standards

General principles of catheter care

- Gloves should only be worn if indicated – eg to avoid contact with blood/body fluids.
- Hands should be washed/decontaminated before and after attending to a catheter or performing catheter care or removal of gloves.
- Meatal care and observation are best undertaken during daily hygiene practices. Only

Defining a urinary tract infection

HCPs must understand the following terms and the associated implications for the care of the patient.

- Colonisation.
- Bacteriuria.
- Urinary tract infection (UTI).
- Catheter-associated urinary tract infection.
- Asymptomatic UTI.
- Symptomatic UTI.
- Uncomplicated UTI.
- Complicated UTI.
- Nosocomial UTI.
- Hospital acquired, community acquired UTI and the classification of each.
- Bacteraemia.
- Septicaemia.

HCPs must understand the aetiology of the following organisms.

- Escherichia coli (E. coli).
- Meticillin-Resistant Staphylococcus Aureus (MRSA).
- Extended spectrum beta-lactamases (ESBL).
- Clostridium difficile (C. diff).
- Candida species.



Broad principles of an aseptic technique

- The patient's area of the body is socially clean.
- Use sterile equipment where required (for example, urinary catheters and bags).
- Hand hygiene – hand washing or hand sanitisers.
- Use protective clothing (aprons and gloves) only when indicated as change between tasks or patient's as required.
- Staff should undertake clinical procedures when bare below the elbow.
- Trolleys and trays should be decontaminated and cleaned prior to individual procedures.
- Create a sterile field to maintain sterility of the procedure.
- Check all equipment sterilisation dates to ensure equipment is in date. Catheters, drainage bags and catheter valves have a shelf life of five years, pre-inflated catheters only three years; they must be discarded if out of date.
- Check the packaging of sterile items to ensure they are intact; discard if damaged.



Indwelling catheters

Acker N (2014) Reducing the risk of infection in indwelling catheterisation, *Journal of Community Nursing* 28(3): 28,30–32.

Bardsley A (2017) How to remove an indwelling urinary catheter in female patients, *Nursing Standard* 31(19): 42-45.

Clayton JL (2017) Indwelling Urinary Catheters: A Pathway to Health Care-Associated Infections, *AORN Journal* 105(5): 446–452.

Davey G (2015) Troubleshooting indwelling catheter problems in the community, *Journal of Community Nursing* 29(4): 67–68,70,72,74.

Fowler S, Godfrey H, Fader M, Timoney AG and Long A (2014) Living with a long-term, indwelling urinary catheter: catheter users' experience, *Journal of Wound, Ostomy and Continence Nursing* 41(6): 597–603.

McGoldrick M (2016) Frequency for changing long-term indwelling urethral catheters, *Home Healthcare Now* 34(2): 105–106.

Prinjha S and Chapple A (2014) Patients' experiences of living with an indwelling urinary catheter, *British Journal of Neuroscience Nursing* 10(2): 62.

Shum A, Wong KS, Sankaran K and Goh ML (2017) Securement of the indwelling urinary catheter for adult patients: a best practice implementation, *International Journal of Evidence-Based Healthcare* 15(1): 3–12.

Wilde MH, McMahon JM, Crean HF and Brasch J (2017) Exploring relationships of catheter-associated urinary tract infection and blockage in people with long-term indwelling urinary catheters, *Journal of Clinical Nursing* 26, 17–18: 2558–2571.

Yarde D (2015) Managing indwelling urinary catheters in adults, *Nursing Times* 111(22): 12–13.

Yates A (2016) Indwelling urinary catheterisation: what is best practice? *British Journal of*

Urology 77(1): 10-11

Meddings J, Rogers MAM, Krein SL, Fakhri MG, Olmsted RN and Saint S (2014) Reducing unnecessary urinary catheter use and other strategies to prevent catheter-associated urinary tract infection: an integrative review, *BMJ Quality and Safety* 23(4): 277–289.

McCoy C, Paredes M, Allen S, Blackey J, Nielsen C, Paluzzi A, Jonas B and Radovich P (2017) Catheter-Associated Urinary Tract Infections *Clinical Journal of Oncology Nursing* 21(4): 460–465.

McNeill L (2017) Back to basics: how evidence-based nursing practice can prevent catheter-associated urinary tract infections, *Urologic Nursing* 37(4): 204–206.

Peate I and Gil M (2015) Closed and open catheter irrigation by a skilled and competent healthcare worker, *British Journal of Healthcare Assistants* 9(2): 71–76.

Public Health England (2015) Stay Smart – Then Focus. *Antimicrobial Stewardship Toolkit for English Hospitals*, London: PHE.

Richards B, Sebastian B, Sullivan H, Reyes R, D’Agostino JF and Hagerty T (2017) Decreasing catheter-associated urinary tract infections in the neurological intensive care unit: one unit’s success, *Critical Care Nurse* 37(3): 42–48.

Townsend T and Anderson P (2015) Decreasing the risk of catheter-associated urinary tract infections, *Nursing Critical Care* 10(6): 36–41.

Catheter solutions

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Farrington N, Fader M, Richardson A, Sartain S (2015) Exploring the role of practical nursing wisdom in the care of patients with urinary problems at the end of life: a qualitative interview study, *Journal of Clinical Nursing* 24(19-20): 2745.

Steggall M and Jones K (2015) Anaesthetic or lubricating gels for urethral catheterisation? *British Journal of Nursing* 24(Sup 9): S12–S14.

Williams C (2017) Making a choice of catheterisation gel and the role of chlorhexidine, *British Journal of Community Nursing* 22(7): 346–351.

Yates A (2015) Selecting gel types for urinary catheter insertion, *Nursing Times* 111(26): 18–20.

Encrustation problems

Gibney LE (2016) Blocked urinary catheters: can they be better managed? *British Journal of Nursing* 25(15): 828.

Holroyd S (2017) A new solution for indwelling catheter encrustation and blockage, *Journal of Community Nursing* 31(1): 48,50–52.

Marchitti CM, Boarin M and Villa G (2015) Encrustations of the urinary catheter and prevention strategies: an observational study,

International Journal of Urological Nursing 9(3): 138–142.

Fixation devices

Nazarko L (2016) Primum non nocere – how securement and fixation of indwelling urinary catheters can reduce the risk of harm, *British Journal of Healthcare Assistants* 10(1): 14–19.

Payne D (2014) Safe and secure: catheter fixation, *Nursing and Residential Care* 16(11): 608–610.

Spinks J (2013) Urinary incontinence and the importance of catheter fixation, *Journal of Community Nursing* 27(5): 24–29.

Wilson M (2016) Urinary catheter securement and fixation in residential care homes, *Nursing and Residential Care* 18(9): 476–479.

Yates A (2013) The importance of fixation and securing devices in supporting indwelling catheters, *British Journal of Community Nursing* 18(12): 588–90.

Yates A (2015) An essential part of catheter management, *Nursing and Residential Care* 17(2): 75–76.

Yates A (2015) Catheter securing and fixation devices: do they really matter? *Nursing and Residential Care* 17(9): 498–501.

Urinalysis and dipsticks

Bardsley A (2015) How to perform a urinalysis, *Nursing Standard* 30(2): 34–6

Dawson CH, Gallo M and Prevc K (2017) TWOC around the clock: a multimodal approach to improving catheter care, *Journal of Infection Prevention* 18(2): 57–64.

Appendix 1: Urinary catheter and related equipment

Catheter material

Latex

Polytetrafluoroethylene Teflon coated latex (PTFE)

Hydrophilic polymer coated

Hydrogel coated silicone

Silicone elastomer coated latex

Silver alloy

Antibiotic coated

Gel coated and PVC free

Drainage bags

Closed drainage system

Bedside drainage bag

Leg bag

Belly bag

Self-contained sterile system (for intermittent catheters)

Securing devices

Adhesive Foley catheter device

Catheter leg strap

Elasticated catheter fixation device

Foley anchoring device

Foley stabilising device

Leg bag sleeve

Urethral catheterisation procedure: male

This procedure has been adapted with kind permission from the *Royal Marsden Manual of Clinical Nursing Procedures* (2015) www.royalmarsdenmanual.com/productinfo and the (2012).

Essential equipment

Sterile catheterisation pack

Catheter(s)

Disposable pad

Sterile anaesthetic gel

Sterile gloves

Sterile water

Apron

Drainage bag

0.9% sodium chloride solution for cleansing (saline)

Attachment device

Stand/holder

Alcohol hand sanitiser

Universal specimen container

1. Explain/discuss the procedure with the patient including the consideration of a chaperone, and gain consent.
2. Prepare the patient, maintaining their dignity (procedure sheet underneath and underwear removed).
3. Clean and prepare the trolley, placing all equipment on the bottom shelf (having checked all expiry dates). Take the trolley to the patient's bedside.
4. Wash hands using approved technique or decontaminate using the hand sanitiser – put apron on.
5. Open catheterisation pack onto the trolley.
6. Using an aseptic non-touch technique, (ANTT) open the supplementary pack.
 - Attach disposable bag onto side of trolley for waste disposal.
 - Slide the catheter and drainage bag from the packaging onto the sterile area.

- If not in catheter pack, prepare 10ml of sterile water for injection and place this to the side of the sterile field.
 - Open the 0.9% sodium chloride and pour into gallipot.
 - Open but do not remove sterile anaesthetic gel from packaging.
7. Prepare the patient by removing the cover that is maintaining their dignity and place a procedure sheet underneath the patient.
 8. Decontaminate hands using hand gel or washing – apply sterile gloves.
 9. Place sterile towel across the patient's thighs, ensuring the scrotal area is covered. Place the receiver between the patient's legs.
 10. Wrap a sterile swab around the penis and with the same non-touch technique, retract the foreskin if present.
 11. Clean the urethral meatus with sterile saline – ensuring finger tips do not touch the glans penis.
 12. Position the penis at a 90° angle to the patient r at ositi at a

23. Retain the sticky labels from the catheter packaging and dispose of equipment, including apron and gloves. Secure the drainage system to the patient; consider their individual needs using either:

- adjustable leg bag straps
- thigh strap device
- leg bag sleeve.

Ensure that the catheter tubing does not become taut when the patient is mobilising. Ensure that the patient's clothing has been repositioned and is comfortable.

24. Wash hands using soap and water, then dry thoroughly using paper towels. Record essential information in the patient's documentation:

- reason for catheterisation
- informed consent
- name of the person inserting or changing the catheter
- date and time of catheterisation
- type of catheter – including manufacturer, material, batch number and expiry date (use manufacturer's catheter sticker)
- size and length of catheter
- type of sterile anaesthetic/lubricating gel used
- volume of sterile water used in the balloon
-

Essential equipment

Sterile catheterisation pack

Catheter(s)

Disposable pad

Sterile anaesthetic gel

Sterile gloves

Non-sterile gloves

Sterile water

Apron

Drainage bag

0.9% sodium chloride solution for cleansing (saline)

Attachment device

Stand/holder

Alcohol hand sanitiser

Universal specimen container (only required if clinical assessment identifies need for

7. Prepare the patient by removing the cover that is maintaining their dignity and place a procedure sheet underneath the patient.
8. Decontaminate hands using hand gel or washing – apply sterile gloves.
9. Place sterile towel across the patient's thighs and place the receiver between the patient's legs.
10. Using the sterile swabs, part the labia minora so that the urethral meatus can be seen – one hand should be used to maintain labial separation until catheterisation is completed.
11. Clean around the meatus with sterile saline – use separate single downward strokes (firstly the labia majora, then the labia minora and then the urethral meatus).
12. Pre-installation – prime the syringe of the anaesthetic gel, then squeeze a small amount onto the tip of the urethra.

Installation – place the tip of the syringe into the urethral opening and slowly insert all 6mls of the gel – remove the syringe and discard.

Wait approximately 3 to 5 minutes (according to manufacturer's instructions) for the gel to take effect.

13. Remove used gloves – use hand sanitiser to decontaminate hands and put on second pair of sterile gloves.
14. Remove catheter packaging from the end and attach the sterile drainage bag (optional)
15. Ensure the water for inflation of the catheter balloon is prepared and ready to use (unless catheter has prefilled device attached). Free packaging from the catheter tip.
16. Introduce the tip of the catheter into the urethral orifice in an upward and backward direction. Advance the catheter until 5 to 6cm has been inserted.
17. When urine begins to flow advance the catheter a further 2 to 5cm.
18. Slowly inflate the balloon according to the manufacturer's guidelines, observing the patient at all times – if discomfort is displayed stop and re-check the catheter's position. Withdraw the catheter slightly and check that it remains secure.
19. Ensure that the meatal area is clean and that the patient is comfortable and dry.
20. Observe the colour and measure the amount of urine drained – collect sample if required.
21. Retain the sticky labels from the catheter packaging and dispose of equipment, including the apron and gloves. Secure the drainage system to the patient; consider their individual needs using either:
 - adjustable leg bag straps
 - thigh strap device
 - leg bag sleeve.

Ensure that the catheter tubing does not become taut when the patient is mobilising.
Ensure that the patient's clothing has been repositioned and is comfortable.

22. Remove PPE, dispose of waste in line with local policy. Wash hands using soap and water, then dry thoroughly using paper towels.

Record essential information in the patient's documentation:

- reason for catheterisation
- informed consent
- name of the person inserting or changing the catheter
- date and time of catheterisation
- type of catheter (including manufacturer, material, batch number and expiry date)
date and time of insertion, site of insertion, size of catheter, and any other relevant information
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Appendix 3: Guidance at a glance – urinary catheters

Check bowel function, frequency, Bristol Stool Type, medication, fluid intake, dietary issues?

Is there a catheter fixation device in use to minimise trauma from catheter migration?

RCN quality assurance

Publication

This is an RCN practice guidance. Practice guidance are evidence-based consensus documents, used to guide decisions about appropriate care of an individual, family or population in a specific context.

Description

There are an increasing number of people with criminal justice setting who have multiple and complex health care needs. From time-to-time these people require attention in NHS settings outside of prison/police custody. This guidance is aimed at nursing staff working in NHS settings and gives further support and advice to provide optimum care to this group of patients.

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The Nine Quality Standards

This publication has met the nine quality standards of the quality framework for RCN professional publications. For more information, or to request further details on how the nine quality standards have been met in relation to this particular professional publication, please contact publicationsfeedback@rcn.org.uk

Evaluation

The authors would value any feedback you have about this publication. Please contact publicationsfeedback@rcn.org.uk clearly stating which publication you are commenting on.

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