clinicalskills.net

Catheter care

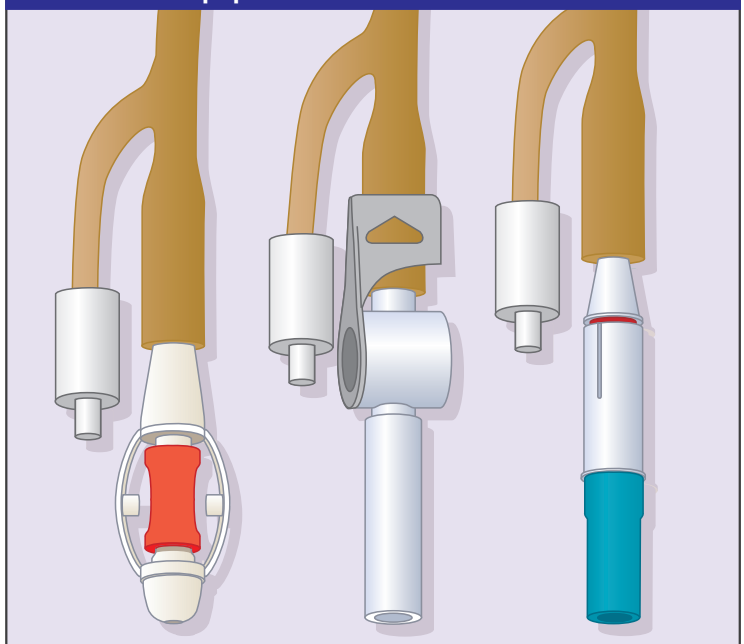
Edited by Rachel Leaver, Lecturer Practitioner—Urological Nursing,
University College London Hospital NHS Foundation Trust

Guidance from the National Institute for Health and Care Excellence (NICE, 2017) suggests that indwelling urinary catheters should only be used after alternative methods of managing urinary problems have been considered. Some patients may feel apprehensive about having a catheter inserted. The procedure may have been necessary to relieve urinary retention, or to improve the patient's quality of life and offer greater independence.

It is essential that patients who have had an indwelling catheter inserted are given adequate information on how to care for their catheter and change the drainage equipment. If patients are too ill to care for their own catheter, or lack the mobility or manual dexterity to do so, healthcare professionals and/or their carers will need to take responsibility for this aspect of care. Some patients may be able to choose between using a continuous urine drainage bag or a catheter valve.

For information on how to remove a catheter, see the clinicalskills.net procedure, "Trial removal of a catheter".

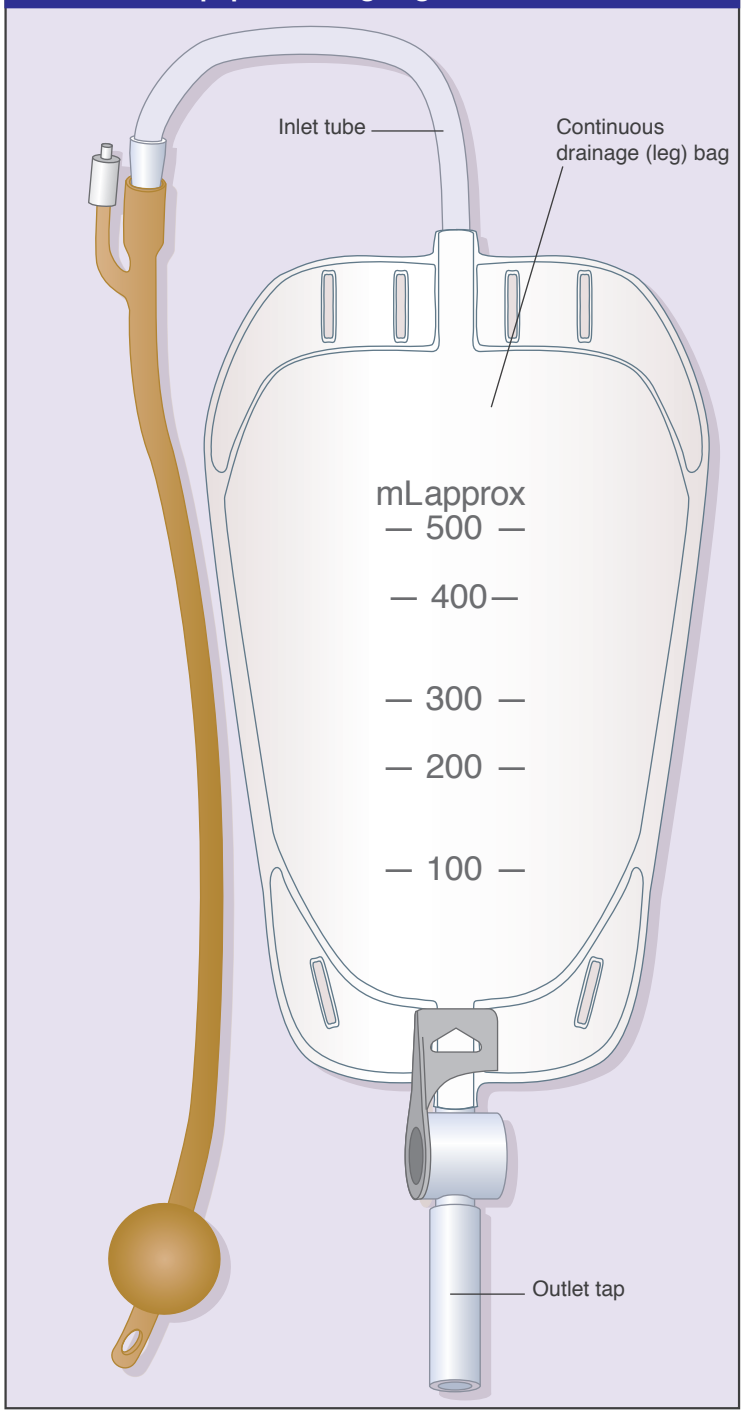
Selection of equipment—catheter valve



Before use, read manufacturer's instructions

Patients who have bladder sensation, a stable bladder, and who are likely to have a trial without catheter, should be offered a catheter valve rather than a continuous drainage bag. The patient can release the catheter valve several times a day when they feel that the bladder is full and needs to be emptied. It is therefore necessary to carefully assess the patient and their bladder function before selecting a catheter valve. Several types of catheter valves are available. A continuous drainage bag can be attached to most catheter valves to allow urine drainage overnight. In an acute setting, a valve-less catheter on continuous drainage into a large-capacity bag is most commonly used. Catheter valves that are currently available on the Drug Tariff should be changed every 5–7 days, in accordance with local policy and the manufacturer's recommendations. A catheter valve is contraindicated for patients with reduced bladder capacity, absence of bladder sensation and cognitive impairment, as well as those who do not have the manual dexterity to operate the catheter valve.

Selection of equipment—leg bag



If a leg bag is the most appropriate urinary drainage system for the patient, the following features will influence your choice: the length of the drainage tubing (short, medium or long), the volume of urine to be contained (350 mL, 500 mL, 750 mL) and the outlet tap, which needs to be easy to open for the user/carer. Most leg bags have an integral sampling port to enable a urine sample to be taken.

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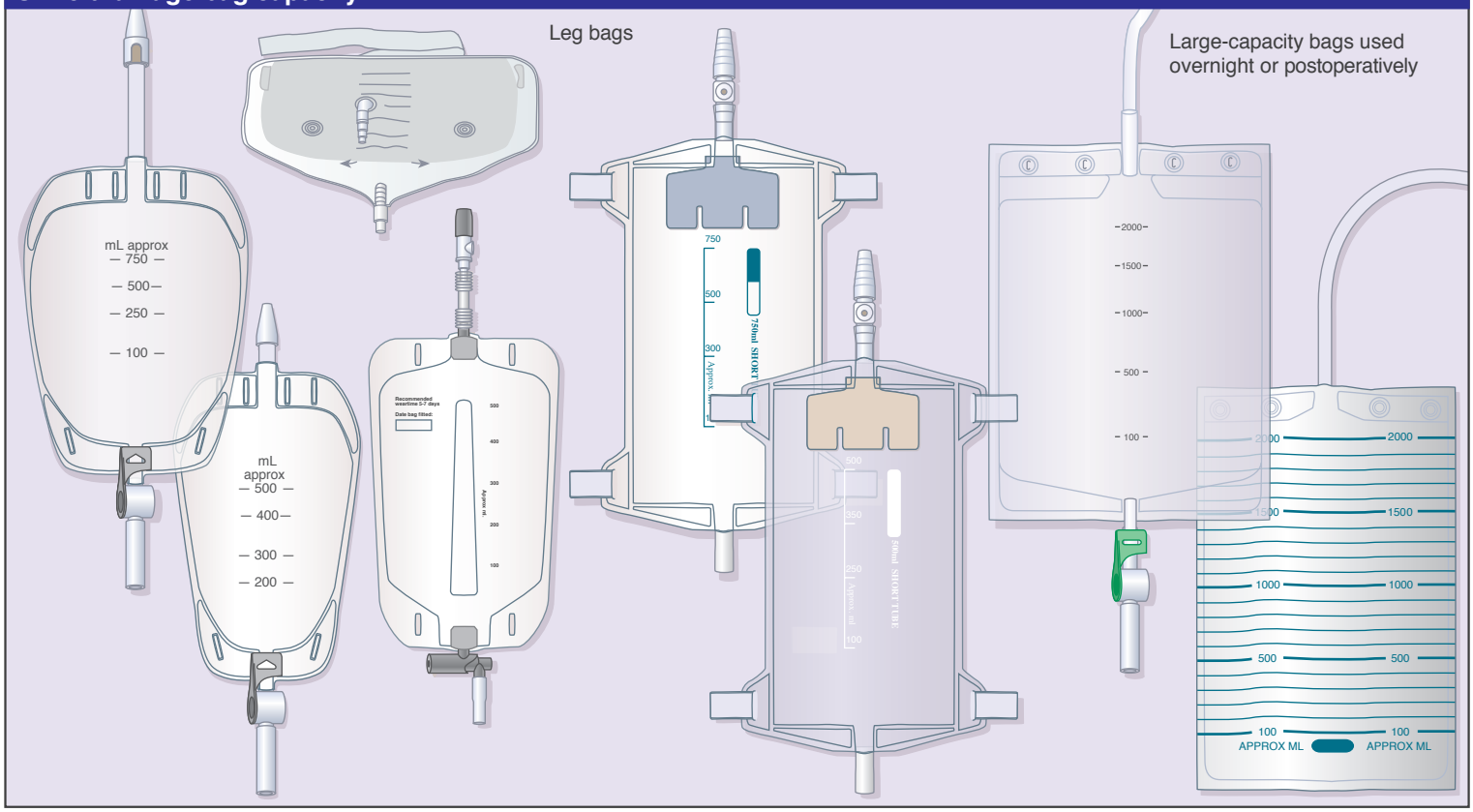
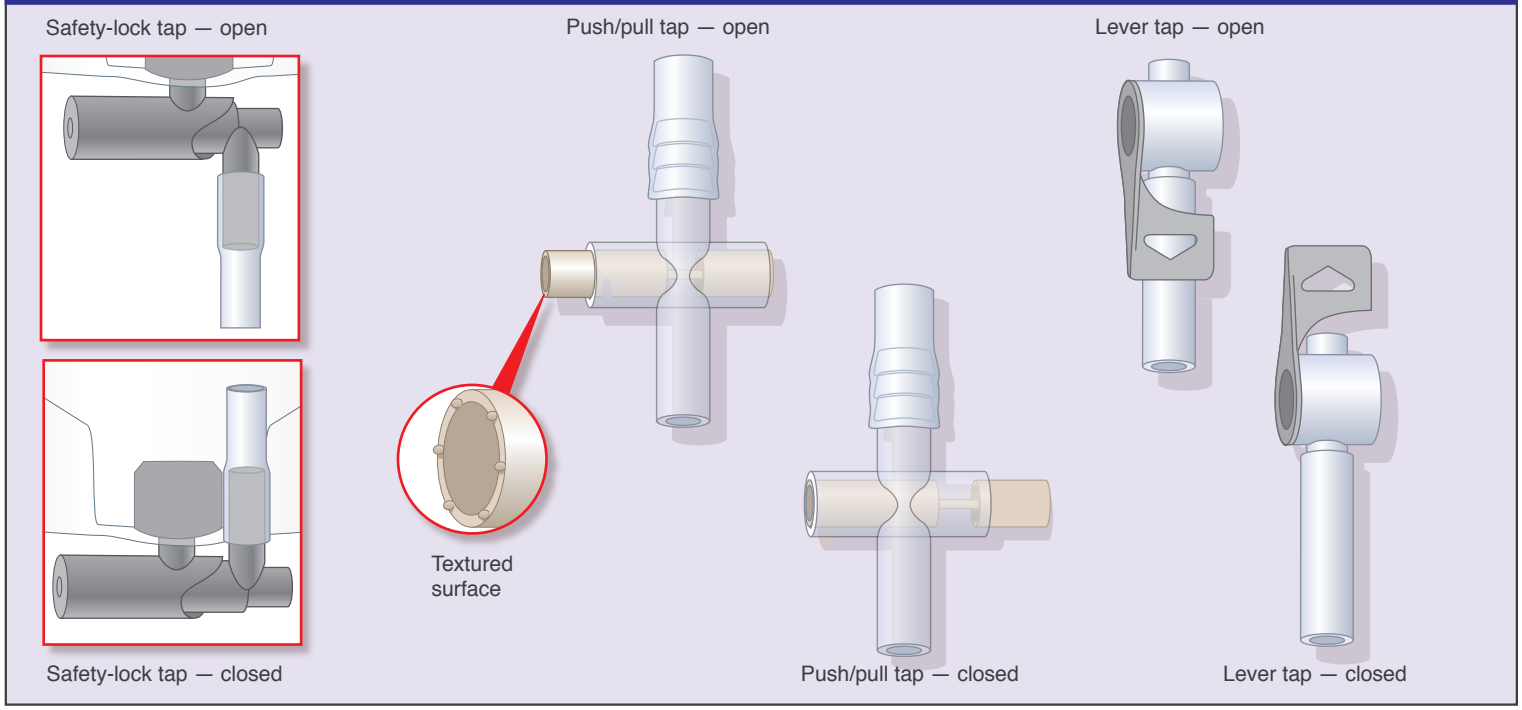
Urine drainage bag capacity



The leg bags worn by most patients hold 350 mL, 500 mL or 750 mL, although larger sizes can also be obtained. Specially designed larger-capacity leg bags are available for wheelchair users. If the patient prefers to use a large-capacity bag overnight, 2-litre continuous drainage bags (not worn on the body) are available; either single-use bags which usually have no drainage tap into which the leg bag can drain, or reusable bags with taps which can be attached to the leg bag or directly to the catheter itself to allow urine to drain. These drainage bags should be worn below the level of the bladder to allow efficient urine drainage. There are also bags which can be worn on the abdomen, roughly level with the bladder, which have an anti-reflux valve to prevent urine flowing back into the bladder.

Outlet taps



Patients need good manual dexterity in order to open the outlet tap and so empty the bag. The illustration shows some of the outlet taps that are currently available. These include lever taps and push/pull devices. The safety-lock tap must be pushed down and then squeezed to start the flow of urine. Patients with poor vision can feel for the textured surface on some of these devices, to guide them when opening the tap.

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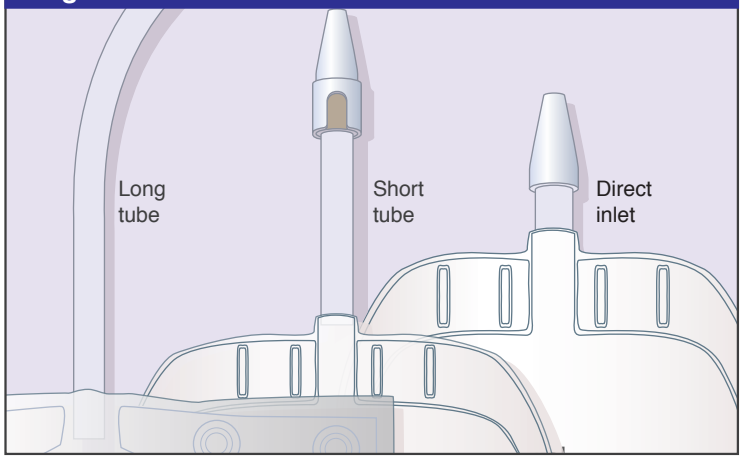
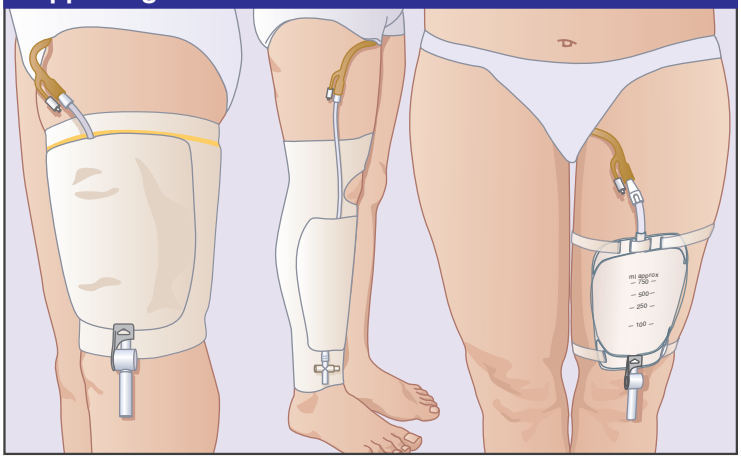
Length of the inlet tube



Whether the drainage bag will be held on the thigh, knee or calf will determine the inlet tube length of the bag selected. The tube may be short, long or adjustable in length, or the bag may have a direct inlet. Ask the patient where they prefer to wear the drainage bag.

Supporting accessories

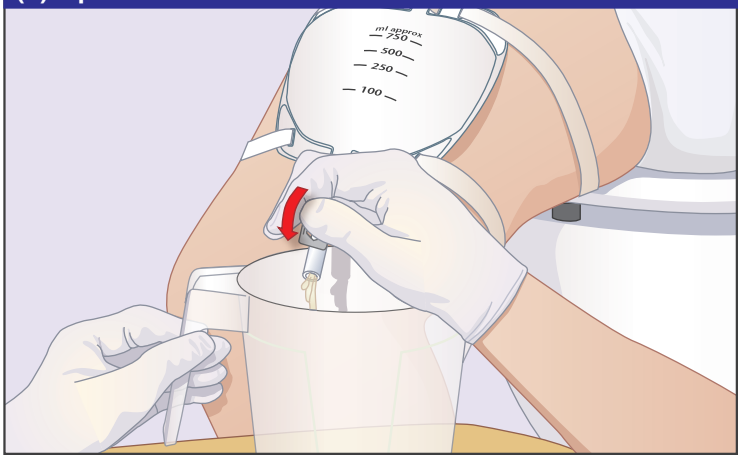


There are several ways of fixing the drainage bag to the leg, which help to support the bag and prevent traction on the catheter. These include open-weave 'net' sleeves to fit the thigh or calf, leg straps and garments; some are available on prescription. All leg bags must be changed every 5–7 days, or as recommended by the manufacturer.

Emptying the drainage bag: (a) Preparation

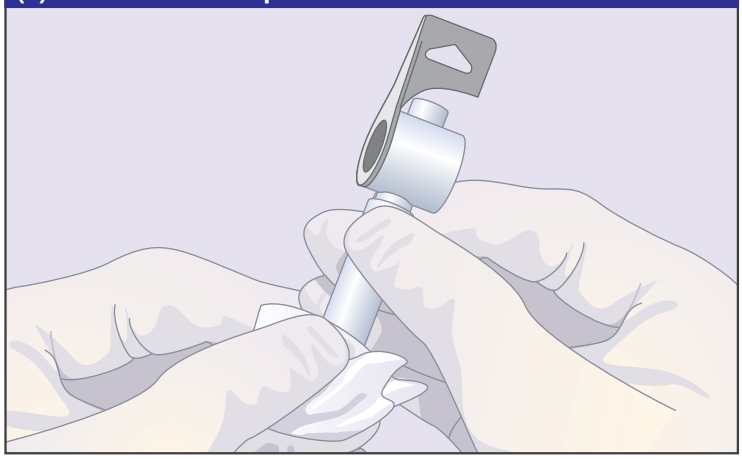
In preparation for emptying the drainage bag, put on an apron, wash your hands and put on clean, non-sterile gloves.

(b) Open the valve



Ask the patient to sit in a suitable position. Hold the valve over a disposable container or jug, and open the valve. Empty the drainage bag, ensuring that the tap does not touch the container. Use a separate and clean container for each patient (Loveday *et al.*, 2014).

(c) Clean the outlet port



When all the urine has drained out, close the valve. Clean the outlet port, and allow it to dry, according to local policy. See also clinicalskills.net procedure on "Emptying an indwelling urinary catheter bag".

(d) Dispose of urine

In order to preserve the patient's dignity it is important to cover the jug in which the discarded urine is transported to the toilet or sluice. After disposing of urine, remove gloves and apron and wash hands. If the patient is able to, and if the urine does not need to be measured, encourage them to empty the drainage bag directly into the toilet. Ensure that patients have access to handwashing facilities if they undertake this procedure (Loveday *et al.*, 2014).

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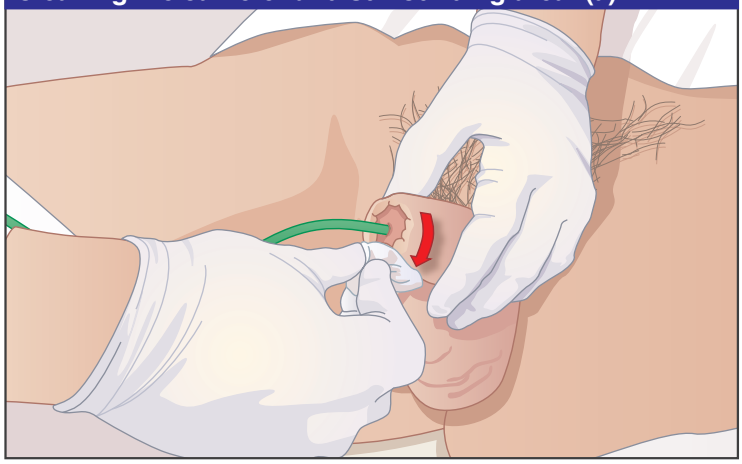
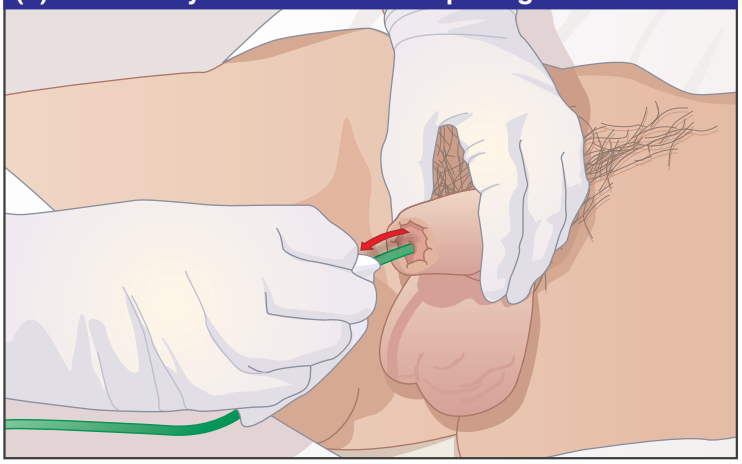
Cleaning the catheter and surrounding area: (a)



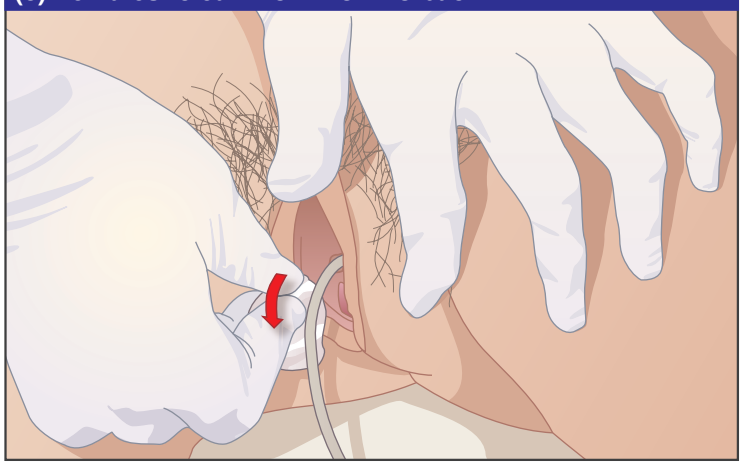
If undertaking catheter care for the patient, the healthcare professional or carer should clean around the catheter site where it enters the urethra at least once a day, using mild soap and water with a single-use cloth (NICE, 2019).

(b) Clean away from the urethral opening



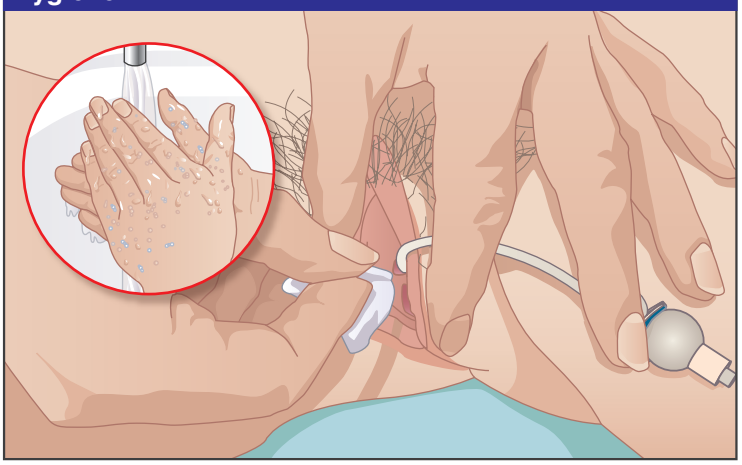
When cleaning the urethral orifice, it is important to clean away from the opening, to avoid contaminating the catheter where it enters the body.

(c) Females: clean from front to back



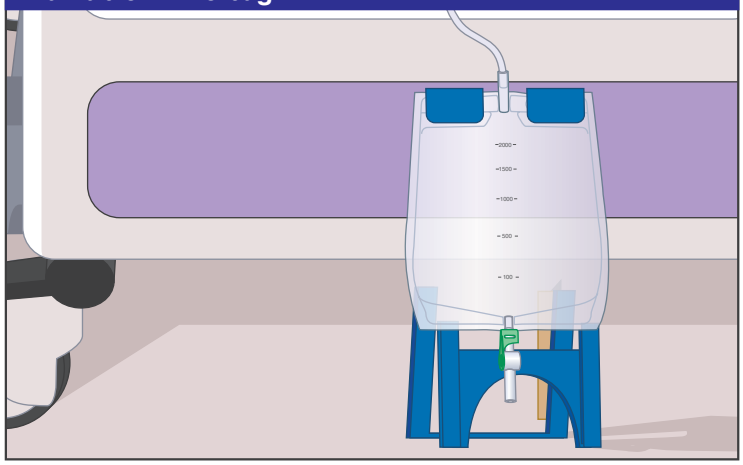
In females, take care to clean from front to back, i.e., wipe away from the urethral orifice towards the perineum/anus. After cleaning, remove gloves, then apron and wash your hands (Loveday *et al.*, 2014). Report and record in the notes any signs of discharge that may be cause for concern. Daily washing is recommended, but if discharge is thick and copious it may be necessary to wash more frequently.

Hygiene



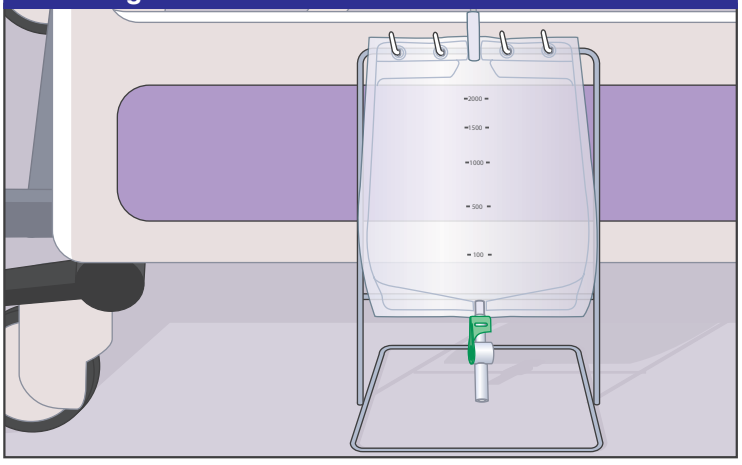
It is important to teach the patient to care for the catheter, as this will promote independence and reduce the risk of cross-contamination. The patient must wash their hands before manipulating the catheter (Loveday *et al.,* 2014). Bathing or showering daily is possible with the catheter in situ, using mild soap and a clean cloth to cleanse the genital area.

Drainable 2-litre bag



Drainable 2-litre bags are available for postoperative use or for patients who are confined to bed. These bags may also be used for monitoring urine output, particularly in the presence of haematuria. The drainable bag is sterile and therefore designed to be attached directly to the catheter.

Urine bag stand



Drainable bags should be changed every 5–7 days, in accordance with local policy and manufacturer's recommendations. It is important to secure a 2-litre urinary bag to an appropriate stand, so that the outlet tap is not touching the floor, thus preventing contamination of the outlet tap (Loveday *et al.,* 2014; DH, 2010).

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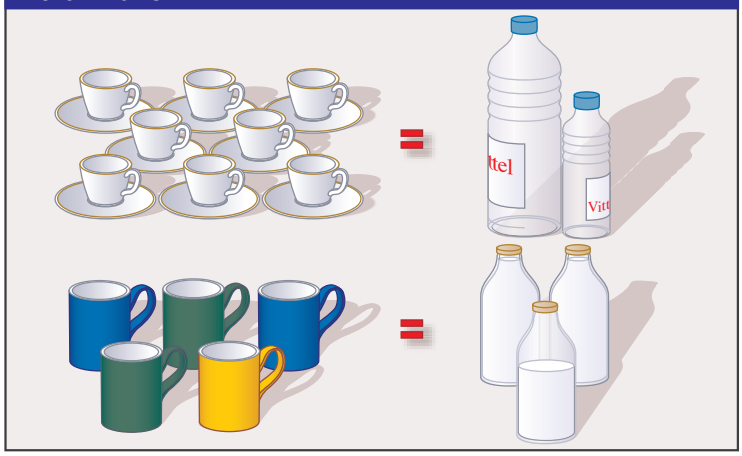
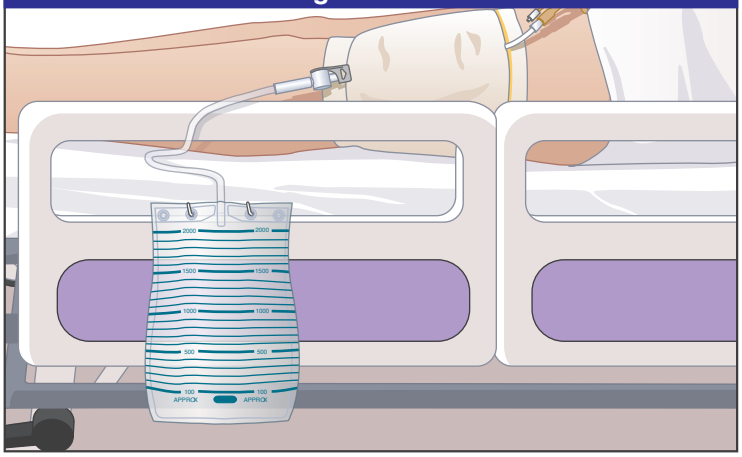
Fluid intake



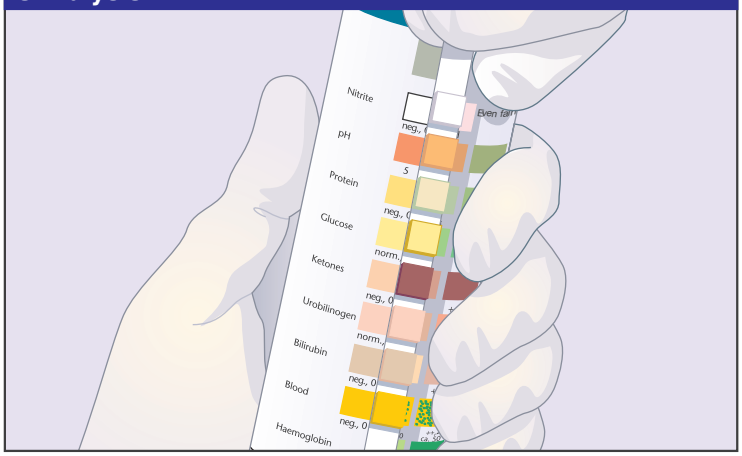
It is important that patients understand how much fluid to drink a day. Cranberry juice may reduce the risk of urinary tract infection developing in the catheterised patient (see clinicalskills.net procedure on “Fluid intake and continence care”). Cranberry juice is not recommended for patients who are on warfarin.

Non-drainable 2-litre bag



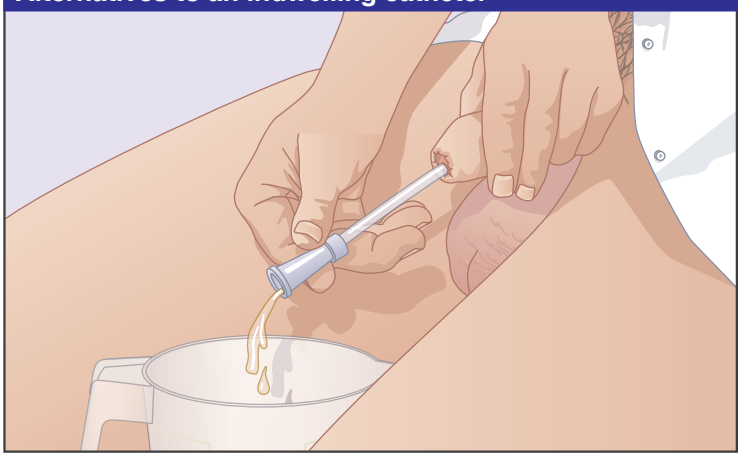
This type of bag is clean, as opposed to sterile, and designed to be attached to a leg bag or catheter valve for overnight use. The outlet tap on the leg bag or valve, when attached to the non-drainable bag, is opened to allow urine to drain directly into the bag. In the morning, the non-drainable bag is disconnected from the leg bag or valve and disposed of.

Urinalysis



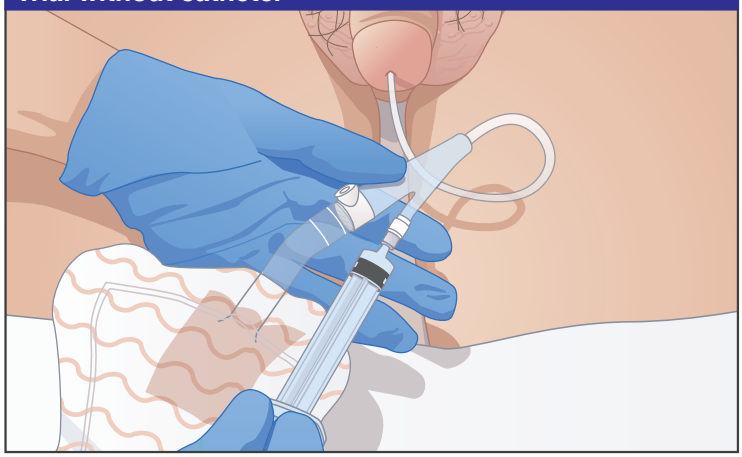
Urine testing using urine testing strips is a relatively cheap, non-invasive and reliable way of monitoring the components of urine in the catheterised patient. Detecting changes in pH may help to identify patients whose catheters have the potential to block due to bacterial activity in the urine. It should not be used to diagnose a urinary tract infection (also see procedure on “Urinalysis”).

Alternatives to an indwelling catheter



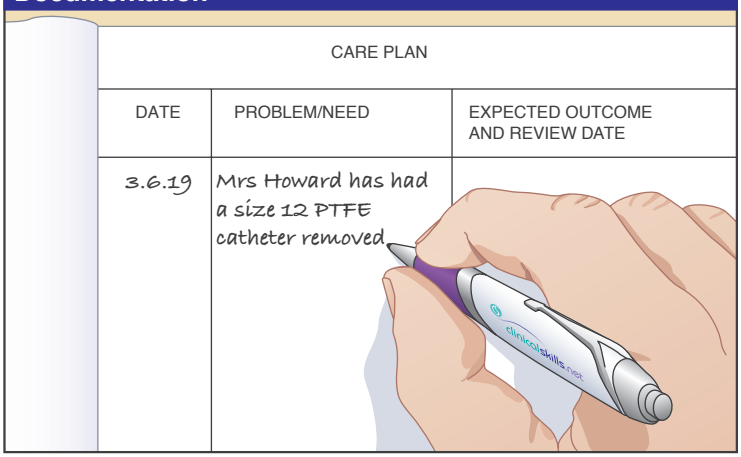
NICE guidelines (NICE, 2019) recommend seeking alternatives to indwelling catheters, such as intermittent catheterisation or using a urinary sheath.

Trial without catheter



All patients must be offered a trial without catheter where appropriate; this should be planned as soon as possible after initial catheterisation (see clinicalskills.net procedure, “Trial removal of a catheter”). If they fail the trial and need to be recatheterised, consider teaching patients to undertake intermittent self-catheterisation instead of having an indwelling catheter, if their condition allows it.

Documentation



CARE PLAN

DATE	PROBLEM/NEED	EXPECTED OUTCOME AND REVIEW DATE
3.6.19	Mrs Howard has had a size 12 PTFE catheter removed	

All catheter care must be documented in the patient’s notes, including a proposed date for the catheter to be removed or changed. Short-term indwelling urethral catheters should be changed when clinically indicated and in line with the manufacturer's recommendations (Loveday *et al.,* 2014).