



Say No to Infection (SNTI) Urinary Tract Infections & Catheter Fact Sheet

What is a Urinary Tract Infection (UTI)?

Urinary-tract infections (UTI's) are common infections that can affect any part of the urinary tract. They occur more frequently in women and are usually independent of any risk factor. UTI's are predominantly caused by bacteria from the gastrointestinal tract entering the urinary tract, with *Escherichia coli* being the most common cause. Infection due to *Candida albicans* is rare but may occur in hospitalised patients who are immunocompromised or have an indwelling catheter.

The insertion of a catheter into the urinary tract increases the risk of developing a UTI, and the longer the catheter is in place, this further increases the risk of *bacteriuria within the urinary system*.

The catheter acts as a pathway or portal of entry, allowing bacteria from skin or the environment to enter the urethra and travel up to the bladder, bypassing the body's usual defences.

Equally the health care worker can contribute to the transfer of germs from unwashed hands, contaminated PPE or breach in asepsis (sterile) during catheter insertion process.

Causes of urinary tract infections (UTI's)

UTI's are usually caused by bacteria from faeces entering the urinary tract. The bacteria enter through the tube that carries urine out of the body (urethra). Women have a shorter urethra than men. This means bacteria are more likely to reach the bladder or kidneys and cause an infection.

Things that increase the risk of bacteria getting into the bladder include:

- Conditions that block the urinary tract – such as kidney stones.
- Conditions that make it difficult to fully empty the bladder – such as an enlarged prostate gland in men.
- Urinary catheters (a tube in your bladder used to drain urine).
- Having a weakened immune system – for example, people with diabetes or people having chemotherapy.
- Not drinking enough fluids.
- Not keeping the genital area clean and dry.

How to recognise a UTI in older, frail or people with a Urinary catheter

In older, frail people and people with a urinary catheter, symptoms of a UTI may also include:

- Changes in behaviour, such as acting confused or agitated.
- Wetting themselves (incontinence) that is worse than usual.
- New shivering or shaking (rigors)
- Urgent or frequent need to urinate.

- Pain in the side of the body or suprapubic.
- Visible blood in urine.
- Reduced urine output

How to prevent urinary tract infections in the older and frail people

- Ensure the *female* resident knows how to wipe from front to back when using the toilet.
- Encourage and facilitate hand hygiene for residents after using the toilet.
- Encourage the resident to drink plenty of fluids, particularly water – so they can regularly pee during the day and not feel thirsty (it is recommended that 6 - 8 glasses of fluid intake per day to stay healthy) Please also ensure that this is documented in the resident's care plan.
- Ensure incontinence pads are changed straight away if they're soiled
- Providing patient with education on importance of good personal hygiene if they are independent.

To dip or not to dip?

Urine dipsticks detect the presence of nitrates (a chemical made by bacteria) and leukocytes in the white blood cells. Up to 50% of older adults will have bacteria present, this increases to 100% if they have a long-term catheter. This bacterium is called 'asymptomatic bacteriuria' and is not harmful. These bacteria will result in a positive dipstick. If a patient is treated with antibiotics that are not beneficial, this may cause a patient harm. Frequent use of urine dipsticks leads to higher antibiotic use.

NB: Please do not obtain urine dip sticks or urine specimens from the bottom of catheter collection bags.

Dipstick testing of urine is unreliable and a poor indicator of infection in many care home residents, because they already have background bacteria in their urine.

Check for all NEW signs/symptoms of UTI

New onset dysuria alone OR 2 or more of the following:

- Temperature 1.5 c above the residents normal.
- New frequency or urgency.
- New incontinence.
- New or worsening delirium/debility.
- New suprapubic pain.
- Visible haematuria.

NB: If fever and delirium/debility only: consider other causes before treating for UTI using the PINCH ME acronym below:

P = pain	H = poor hydration
I = other infection	M = medication
N = poor nutrition	E = environmental change
C = constipation	

NB: if urinary catheter: also check for catheter blockage AND consider catheter removal or replacement as per competency or consider district nurse (DN) referral.

If resident **shows 2 or more signs and symptoms of UTI**, please use **UTI flow chart resource** <https://www.happyhealthylives.uk/document-library/> to guide you on how to recognise the symptoms and manage the resident with suspected infection.

If possible, please obtain a urine sample in the correct urine specimen collection pot which contains Boric acid.

NB: please enquire with the GP surgery to check their specimen collection policy and local transport collection times.

The longer it takes for the specimen to get to the lab, the more difficult it is for the bacteria to be identified in the laboratory which could delay diagnosis.

When to contact a GP

- Symptoms of a UTI in any gender for the first time.
- A resident with 2 or more symptoms of a UTI
- An older, frail person who may have a UTI
- Symptoms of a UTI after surgery
- Symptoms are getting worse or do not improve within 2 days.
- The symptoms come back after treatment.
- To obtain urine specimen results if one was collected - urine dip sticks alone are not enough evidence to confirm a UTI.



Ongoing Catheter care

Daily monitoring of catheter care is important to recognise any changes in urine flow or output and identify any issues associated with indwelling urinary catheter devices.

There is evidence to support the theory that the longer urinary catheters remain in place, unless clinically indicated, will increase the risk of urinary tract infections (NICE 2018) please refer to guidance below for more information.

[Recommendations | Urinary tract infection \(catheter-associated\): antimicrobial prescribing | Guidance | NICE](#)

NB: Catheter insertion issues should be documented within the resident's catheter passport, although this may not be evidence of a catheter associated urinary tract infection (CAUTI) this could contribute to increased risk of infection due to multiple catheters attempts or trauma caused on catheter insertion. It supports continuity of care for MDT involvement and patient care planning tailored for the resident. This booklet will also include troubleshooting and FAQ page if there are issues with re-catheterisation with a helpline.

For 'best practice' catheter care risk assessment, please utilise resource **SNTI HOUDINI checklist as follows -**

HOUDINI (is an acronym used to determine why a catheter is inserted)

Haematuria – blood clots & heavy bleeding

Obstruction – catheterised by a urologist (retention)

Urology, gynaecology, perineal surgery, or prolonged surgery

Decubitus ulcer – to assist the heal of a sacral wound in residents with incontinence.

Input/output – monitoring of fluid balance.

Nursing at the end of life

Immobilisation

Other

Communication

- Please ensure that if a catheter is inserted in a care setting that the catheter passport goes with the resident to all medical appointments to ensure continuity of care.
- If the urinary catheter was inserted in acute or clinical setting, the catheter passport should also be discharged with the resident and should return with a catheter discharge pack or catheter products for the next catheter change.
- Use fluid intake charts to monitor input and urine output and ongoing catheter care check list.
- Offer drinks regular or foods high in liquid content as per local risk assessment.
- Escalate and document any concerns in relation to catheter care.

NB: To access the regional NHS England system catheter passport for Coventry and Warwickshire providers please email learning and development team for Coventry and Warwickshire county council - lynnbassett@warwickshire.gov.uk.