

# Urinary Tract Infection Toolkit

(Including catheter associated urinary tract infections)

## A Guide for Care Homes



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## 1. Introduction and Purpose

This toolkit has been developed by Shropshire Clinical Commissioning Group infection prevention and control (IPC) team and staff from the independent care sector homes as a resource to assist in not only preventing urinary tract infections (UTI) but managing clients with a UTI.

## 2. Background

UTI is one of the most common infections acquired as a result of health care, accounting for 17.2% of healthcare-associated infections, with between 43% and 56% of UTIs associated with a urethral catheter (Smyth 2006 & Loveday et al. 2014). Approximately 3.6% of those with catheter associated urinary tract infection (CAUTI) develop life-threatening secondary infections, such as bacteraemia or sepsis, where mortality rates range from 10% to 33% (Saint 2000, Shuman and Chenoweth 2010). People at particular risk are those who are immunocompromised, the elderly and people with diabetes (Ha U, and Cho Y 2006).

## 3. What is a UTI?

A UTI is an infection involving the kidneys, ureters, bladder, or urethra. These are the structures that urine passes through before being eliminated from the body.

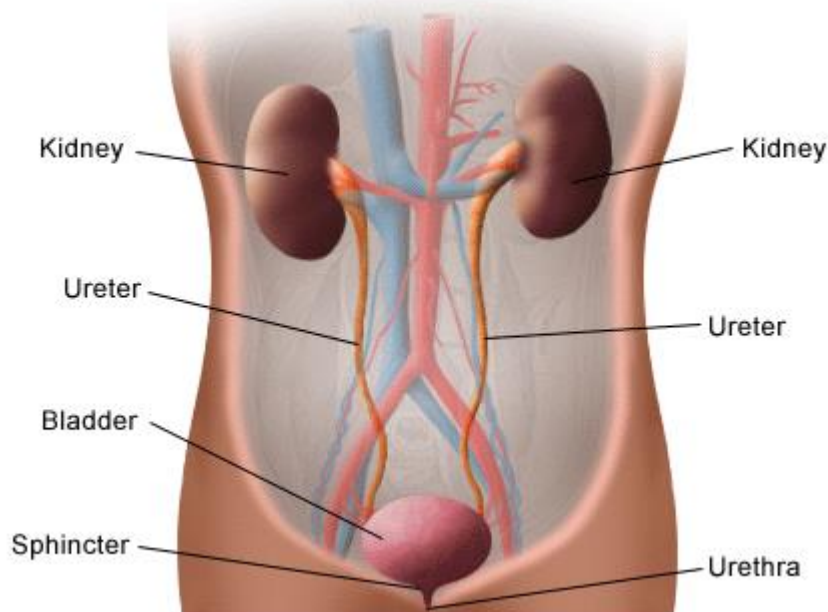


Figure 1: Urinary Tract

## 4. What Causes a UTI?

UTIs are the second most common type of infection in humans and are more common in women than in men.

The most common cause of UTI's is bacteria entering the bladder through the urethra.

This occurs because the entrances to the urethra, vagina and anus are very close together allowing bacteria easy access to the bladder. The commonest bacteria which cause UTIs are *Escherichia coli* (E. coli); these are found in large quantities in the bowel where they do no harm.

Urine normally contains no bacteria but, if bacteria from the bowel get into the bladder they can cause an infection. Usually the body flushes out the bacteria when you pass urine, although this may not always happen. Some groups of people are more prone to getting UTIs than others. These include those with the following:

- ❖ Kidney or bladder stones
- ❖ Diabetes or any other disorder that can affect the immune system
- ❖ Faecal/bowel incontinence
- ❖ Urinary catheters (a permanent tube in the urethra which drains the urine away from the bladder)
- ❖ The elderly
- ❖ Those who do not drink sufficient amounts of fluids (less than six to eight glasses of water a day or the equivalent)
- ❖ Restricted flow of urine/the bladder not being able to empty properly (causing the accumulation of stale urine). This may be caused by:
  - Prostate problems in men, causing bladder outlet obstruction
  - Narrowing (stricture) in the urethra, also causing bladder outlet obstruction
  - An under-active bladder/weak bladder muscle
  - Menopause

## **5. Signs and Symptoms of a UTI**

- ❖ A burning/stinging sensation when passing urine – for residents who may not be able to express where they have pain use a pain chart (Appendix 1), for residents with dementia use pain chart (Appendix 2). For clients with learning disabilities ensure an 'assessment of my pain' chart (Appendix 3) has been completed on admission to the home, for
- ❖ Frequent or strong urges to pass urine, even when the person has little to pass
- ❖ Cloudy, dark or blood stained urine
- ❖ Foul smelling urine (in under 65 years)
- ❖ Pain in the back or lower abdomen – use pain charts as above
- ❖ Groin pain in men – use pain charts as above
- ❖ Confusion (especially in the elderly)
- ❖ Change in behaviour
- ❖ Loss of appetite
- ❖ New or worsening urinary incontinence
- ❖ Raised temperature

## **6. Diagnosis and Treatment**

Diagnosis of a UTI must always involve assessing for clinical signs and symptoms of a UTI. Up to 50% of care home residents and 90% of patients with urinary catheters will have a positive dipstick with NO UTI present due to bacteria in the urine without symptoms of urinary tract infection (asymptomatic bacteriuria).

If you suspect a resident has a UTI complete the UTI assessment form (Appendix 4) once completed telephone GP to discuss. Document the outcome of the GP contact on the form and file in the resident's medical records.

Consider sending a urine specimen if more than 2 signs and symptoms of infection are present. If the resident is symptomatic they may require treatment with antibiotics which the GP will prescribe. Care home residents have a higher risk of antibiotic resistance; therefore sending a urine specimen will determine the correct antibiotic required to treat the infection.

### **6.1 Procedure for Obtaining a Clean Specimen of Urine**

Only staff who have received training in urine collection should undertake this procedure.

Ensure resident's genital area is washed prior to procedure for obtaining a specimen to be sent to the laboratory as follows:

- Wash hands and use personal protective equipment (PPE) – single use apron and single use gloves
- Place a clean container (bed pan, disposable hat/bowel) in the commode or toilet and put the seat down
- Sit the resident on toilet to pass urine into the clean container
- Pour urine into collection container – red topped bottle
- Send to GP surgery along with specimen request form (Appendix 5)

Label the specimen bottle and fully complete the specimen request form requesting testing for MC&S and including ALL symptoms, naming recent antibiotics and the name of the care home. You may wish to send a copy of the UTI assessment form, with the specimen, to the GP if not sent by fax.

## **7. How to Help Prevent a UTI**

### **7.1 Maintain Good Hand Hygiene**

- ❖ Ensure staff have access to hand hygiene at the point of care
- ❖ Ensure all staff undergo annual competency assessments (Appendix 6)
- ❖ Ensure residents are given leaflets on preventing the spread of infection including hand hygiene (Appendix 7)
- ❖ Encourage resident hand hygiene

## **7.2 Hydration**

Dehydration can reduce the flow of blood to the kidneys causing acute kidney injury and infection. In the UK, up to 100,000 deaths a year are associated with acute kidney injury, of which up to a third of those deaths could be avoided (NHSE 2017)

- ❖ Ensure residents are given information leaflets on hydration and how to prevent dehydration (Appendix 8)
- ❖ Encourage a good intake of fluids every day to maintain a good urinary output which helps to “flush out” the urinary system
- ❖ Dilute squash with sparkling water
- ❖ Encourage residents to eat fruit and vegetables which have a high water content (Appendix 9)
- ❖ Ensure residents always have a glass of fluids within easy reach
- ❖ Ensure residents who are unable to drink without assistance are helped with drinks frequently
- ❖ Monitor the colour of residents urine (Appendix 10)
- ❖ Use fluid balance charts to monitor intake and output (Appendix 11)

## **7.3 Bowel and Bladder Care**

- ❖ Advise residents to eat lots of fruit and fibre. This is good for their bowel and will help them avoid being constipated. Being constipated prevents emptying of the bladder properly
- ❖ Do not hold urine in the bladder for too long. Discuss with residents the need for them to pass urine as soon as they feel the need to, and not letting the bladder get over full
- ❖ People with dementia should be prompted to use the toilet on a regular basis. Make sure the location of the toilet is clear. A sign on the door, with a picture, may help. Consider changing the colour of the toilet seat - a black or red seat with a white pan can make it easier to see

## **7.4 Personal Care**

- ❖ Keep genital and groin area clean by using a separate flannel/cloth night and morning
- ❖ Use plain water for washing; always wipe from “front to back”
- ❖ Avoid bubble baths, talcum powder, all personal (vaginal) deodorants & feminine wipes which may irritate the urethra
- ❖ A bath every day is not necessary and may, in fact, be harmful – a shallow bath is better than a deep one and a shower is better still

## **7.5 Mobility**

Encourage mobility as this helps move the urine in the bladder. This includes standing the resident up as well as walking. When a resident is in bed changing position especially from side to side will move the urine around inside the bladder.

## 8. How to Ease Symptoms of UTI

Unless there is medical restriction on fluid intake, encourage the resident to drink 6 to 8 cups of fluid either water or another bland liquid such as milk or weak tea. Avoid offering them strong coffee, tea or alcohol as this can irritate the bladder.

### Symptoms of Dehydration Include:

- Dry mouth or lips
- Dry skin
- Thirst
- Dizziness
- Tiredness
- Headache
- Dark coloured, strong smelling urine
- Light-headedness
- Reduced alertness
- Reduced ability to concentrate

## 9. Catheter Associated Urinary Tract Infection

### 9.1 What is a Catheter Associated Urinary Tract Infection?

A urinary catheter is a hollow tube inserted into the bladder to aid the drainage of urine. When a person has a urinary catheter in situ it increases the risk of having a urinary tract infections (UTI). A UTI in a person with a urinary catheter in situ is called a catheter associated urinary tract infection (CAUTI).

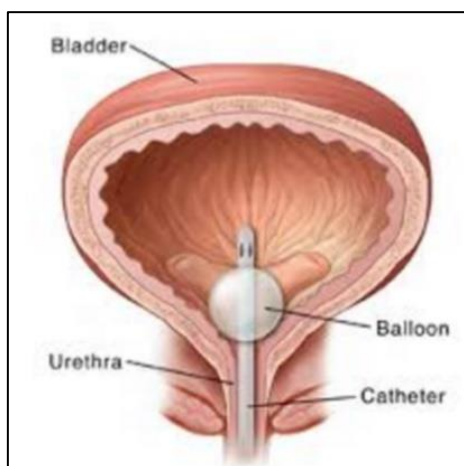


Figure 2: Position of urinary catheter in the bladder

Only nursing staff who have received training and have been assessed as competent can undertake urinary catheterisation of residents. Nursing staff who undertake urinary catheterisation of residents should have annual competency assessments to provide assurance that standards are being maintained (Appendix 12). When a resident has a

catheter inserted for the first time and at every change of catheter a urinary catheter card (Appendix 13) should be completed.

## 10. Why do CAUTIs Occur?

Whilst a urinary catheter is in situ biofilms may form on the catheter in the bladder. A biofilm is any group of microorganisms where cells stick to each other and often these cells adhere to a surface e.g. a urinary catheter.

All staff who care for residents with a urinary catheter should receive training and undertake annual competency assessments (Appendix 14).



Figure 3: Biofilm on a urinary catheter

## 11. Symptoms of a CAUTI may Include:

- A burning/stinging sensation in the urethra or bladder
- Bladder spasms or leakage
- Cloudy, dark or blood stained urine
- Catheter obstruction
- Foul smelling urine in the under 65 year age group
- Pain in the back or lower abdomen
- Confusion (especially in the elderly)
- Loss of appetite
- New or worsening urinary incontinence
- Raised temperature
- Groin pain in men

## 12. Diagnosis and Treatment

CAUTIs are diagnosed either through clinical symptoms or in conjunction with sending a sample of urine to the laboratory. Only staff trained in obtaining urinary catheter specimens of urine (CSU) should carry out the procedure.

**NEVER undertake a urine dip stick on a urine sample from an indwelling urinary catheter (24 hours after catheter insertion urine will be colonised with micro-organisms, and all CSUs will test positive for nitrites)**



If a GP advises a CSU to be sent to the laboratory for testing the specimen of urine must be obtained using an aseptic technique. Ensure resident's genital area is washed prior to procedure for obtaining urine specimen as follows:

### **Equipment**

- Single use plastic apron
- Single use non-sterile vinyl gloves
- Sterile 10ml syringe
- X2 70% alcohol swabs suitable for equipment use
- Single patient use disposable clamp
- Specimen containers
- Laboratory request form
- Detergent wipe for equipment

### **Procedure**

- Decontaminate hands
- Put on a disposable apron
- If there is no urine in the catheter bag tubing, clamp tubing 2-3 inches below the sampling port using a single patient use, scissor style clamp
- Apply gloves
- Clean sampling port prior to attaching the syringe with a 70% alcohol wipe suitable for equipment use
- Attach a sterile 10ml syringe to the sampling port to aspirate urine
- Clean the sampling port with 70% alcohol wipe after removal of the syringe
- Place urine in red top specimen container (which contains borate) to send to laboratory
- Remove clamp from catheter bag tubing and decontaminate with a detergent wipe

Label the specimen bottle and fully complete the specimen request form (Appendix 5) requesting testing for MC&S, include ALL symptoms, stating that the sample is a CSU, naming any recent antibiotics the resident has taken and the name and address of the care home.

If the resident is symptomatic they may require treatment with antibiotics which the GP will prescribe, based on the antimicrobial sensitivities of the CSU reported by laboratory.

### **13. How to Ease Symptoms of CAUTI**

Unless there is medical restriction on fluid intake, encourage the resident to drink 6 to 8 cups of fluid either water or another bland liquid such as milk or weak tea. Avoid offering them strong coffee, tea or alcohol as this can irritate the bladder and may worsen symptoms. Encourage mobility of the resident as this moves the urine around in the bladder, prevents pooling of urine and aids drainage.

#### 14. Advice on the Prevention of CAUTI's

- ❖ Maintain good hand hygiene – resident and carers
- ❖ Ensure the visible catheter tube is cleaned daily and after bowel movements
- ❖ If the resident is incontinent of faeces ensure pads are changed as soon as possible after bowel movement and the catheter tube is washed and dried
- ❖ Encourage a good intake of fluids every day to maintain a good urinary output which helps to “flush out” the urinary system
- ❖ Advise the resident to try to eat lots of fruit and fibre and drink plenty of fluid. This is good for their bowel and will help them avoid being constipated. Being constipated prevents emptying of the bladder properly
- ❖ Keep genital and groin area clean by using a separate flannel/cloth night and morning
- ❖ Use plain water for washing; always wipe from “front to back”
- ❖ Encourage mobility because this stops the urine from pooling under the catheter draining hole
- ❖ Ensure the urine drainage bag is always below the bladder but not on the floor
- ❖ Ensure the night catheter bag is on a catheter stand which should be washed daily with warm water and general purpose detergent, dried thoroughly and stored in their room (not in the toilet or sluice)
- ❖ Ensure a closed drainage system is in use at all times
- ❖ Ensure the date the catheter was inserted is documented and a system is in place to record the date it is due to be changed
- ❖ Empty the catheter bag regularly when  $\frac{3}{4}$  full
- ❖ If the catheter bag cannot be emptied directly into the toilet, a clean, named resident specific container should be used to empty the urine from the catheter bag. The container should then be cleaned thoroughly after use

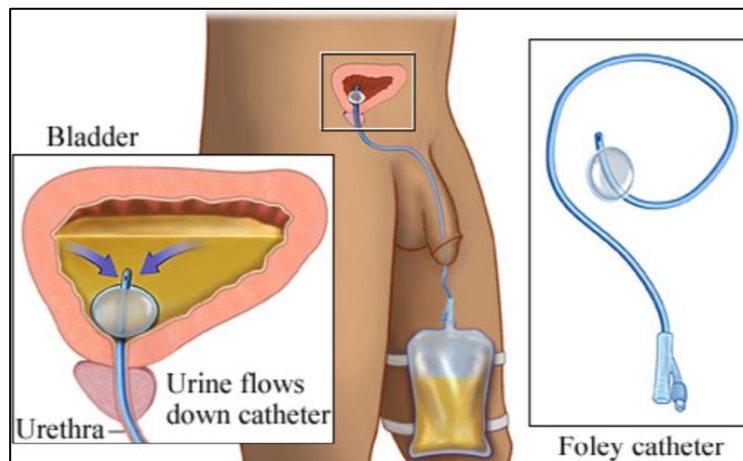


Figure 4: Bladder full of urine showing the area where urine can pool below the drainage hole of the urinary catheter

## **15. Use of Personal Protective Equipment (PPE)**

### **Gloves**

- Gloves should be worn for all procedures where contact with blood or bodily fluid is likely, this will include urine
- Hands must be decontaminated after removing gloves

### **Plastic Aprons**

- Disposable plastic single use aprons should be worn for resident contact and when there is a risk of contamination of clothing or uniform with bodily fluids
- The apron must be changed between residents
- Decontaminate hands after removing apron

## **16. Care Equipment**

- Equipment should as far as possible be allocated to each individual resident.

## **17. Environmental Measures**

- Ensure that the rooms of residents with infection are cleaned daily, and are prioritised for frequently-touched surface cleaning (e.g. over-bed tables, lockers, lavatory surfaces in resident bathrooms, door knobs, TV remote controls, light switches and equipment in the immediate vicinity of the resident)
- Keep the resident environment clean and clutter free
- Use disposable cleaning materials and a general purpose detergent solution in accordance with local policy, no additional disinfection required

## **18. Linen**

- Resident's soiled clothes and linen should be placed in a red alginate bag and thoroughly washed on the hottest wash possible for the fabric.
- Clean bed linen should not be stored in bedrooms
- Towels in ensuite should not be located within 1 metre of the toilet and should be changed daily

## **19. Waste**

- All PPE should be disposed of as clinical waste
- Clinical waste should be disposed of according to standard infection control principles

## 20. Glossary

Term / Abbreviation	Explanation / Definition
CAUTI	Catheter associated urinary tract infection
CCG	Clinical commissioning group
CSU	Catheter specimen of urine
E coli	<i>Escherichia coli</i>
GP	General practitioner
IPC	Infection prevention and control
LD	Learning disability
MC&S	Micro culture and sensitivity
PPE	Personal protective equipment
UTI	Urinary tract infection

## 21. Further Information and Advice can be Obtained From

Shropshire CCG, Infection Prevention and Control Team, Telephone: 01743 277523.

Shropshire Community Health NHS Trust Continence Team. Telephone 01743 444062.

Information posters - Appendix 15.

## 22. References

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Shuman EK, Chenoweth CE. (2010) Recognition and prevention of healthcare-associated urinary tract infections in the intensive care unit. *Critical Care Medicine*;38(Suppl.):S373–S379.

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## Appendix 1 - Pain Assessment Tool

Name .....

Date of birth .....

**Numeric Rating Scale**


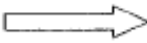

**Wong-Baker FACES® Pain Rating Scale**

					
<b>0</b>	<b>2</b>	<b>4</b>	<b>6</b>	<b>8</b>	<b>10</b>
No Hurt	Hurts Little Bit	Hurts Little More	Hurts Even More	Hurts Whole Lot	Hurts Worst

Name of staff completing assessment .....

Signature ..... Date .....

## Appendix 2 - Abbey Pain Scale Chart

Abbey Pain Scale					
For measurement of pain in people with dementia who cannot verbalise.					
How to use scale : While observing the resident, score questions 1 to 6.					
Name of resident : .....					
Name and designation of person completing the scale : .....					
Date : ..... Time : .....					
Latest pain relief given was.....at.....hrs.					
<b>Q1. Vocalisation</b> eg whimpering, groaning, crying Absent 0 Mild 1 Moderate 2 Severe 3	<b>Q1</b> <input type="text"/>				
<b>Q2. Facial expression</b> eg looking tense, frowning, grimacing, looking frightened Absent 0 Mild 1 Moderate 2 Severe 3	<b>Q2</b> <input type="text"/>				
<b>Q3. Change in body language</b> eg fidgeting, rocking, guarding part of body, withdrawn Absent 0 Mild 1 Moderate 2 Severe 3	<b>Q3</b> <input type="text"/>				
<b>Q4. Behavioural Change</b> eg increased confusion, refusing to eat, alteration in usual patterns Absent 0 Mild 1 Moderate 2 Severe 3	<b>Q4</b> <input type="text"/>				
<b>Q5. Physiological change</b> eg temperature, pulse or blood pressure outside normal limits, perspiring, flushing or pallor Absent 0 Mild 1 Moderate 2 Severe 3	<b>Q5</b> <input type="text"/>				
<b>Q6. Physical changes</b> eg skin tears, pressure areas, arthritis, contractures, previous injuries Absent 0 Mild 1 Moderate 2 Severe 3	<b>Q6</b> <input type="text"/>				
Add scores for 1 - 6 and record here  <b>Total Pain Score</b> <input type="text"/>					
Now tick the box that matches the Total Pain Score  <table border="1" style="display: inline-table;"> <tr> <td>0 - 2 No pain</td> <td>3 - 7 Mild</td> <td>8 - 13 Moderate</td> <td>14 + Severe</td> </tr> </table>		0 - 2 No pain	3 - 7 Mild	8 - 13 Moderate	14 + Severe
0 - 2 No pain	3 - 7 Mild	8 - 13 Moderate	14 + Severe		
Finally, tick the box which matches the type of pain  <table border="1" style="display: inline-table;"> <tr> <td>Chronic</td> <td>Acute</td> <td>Acute on Chronic</td> </tr> </table>		Chronic	Acute	Acute on Chronic	
Chronic	Acute	Acute on Chronic			
<small>Abbey, J; De Bellis, A; Piller, N; Esterman, A; Giles, L; Parker, D and Lowcay, B.            Funded by the JH &amp; JD Gunn Medical Research Foundation 1998 - 2002            (This document may be reproduced with this acknowledgement retained)</small>					

# Assessment of my pain

Name: \_\_\_\_\_ Date of Birth: \_\_\_\_\_

**I may not be able to tell you when**

**I am in pain, please observe me.**



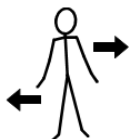
Changes to my general appearance.

Think about: weight loss, pressure areas, swelling, red areas, skin tears.

☐☐

Changes to my facial expressions. Think about:

tense, frowning, grimacing, clenching teeth, biting lip.

☐☐

Changes to my body language.

Think about: fidgeting, rocking, guarding a part of the body, change to posture, sleeping position, purposeless movements, rubbing.

☐☐

Changes to my vocal sounds.

Think about: whimpering, groaning, crying, pitch, volume.

☐☐

Changes in my behaviour.

Think about: confused, lack of appetite, alteration in usual patterns/routines

☐☐

Completed by: \_\_\_\_\_

Date: \_\_\_\_\_



## Appendix 4 - UTI Assessment Form



Shropshire and Telford:  
Reducing infection for all

### Urinary Tract Infection (UTI) Assessment Form

Resident.....

DOB.....

Care Home.....

Date.....

Diagnosis of a UTI must always involve assessing for clinical signs and symptoms of a UTI. Up to 50% of care home residents and 90% of patients with urinary catheters will have a positive dipstick with **NO** UTI present due to bacteria in the urine without symptoms of urinary tract infection (asymptomatic bacteriuria).

- **NEVER** dipstick catheter specimens of urine
- **DO NOT** perform urine dipstick in residents aged 65yrs or older
- If the urine is clear UTI is very unlikely
- Consider sending a urine specimen if more than 2 signs/symptoms of infection are present

Symptoms	Tick if present
Pain on urinating	
Need to pass urine urgently/new incontinence	
Need to urinate more often than usual	
Pain in lower tummy/above pubic area	
Blood in urine	
Passing bigger volumes of urine than usual	
Lower back pain	

Signs of any other infection	Tick if present
Cough	
Shortness of breath	
Sputum production	
Nausea/vomiting	
Diarrhoea	
Abdominal pain	
Red/warm/swollen area of skin	

Record of observations	Tick if present
Temperature more than 38C or below 36C or shaking chills (rigors), clammy skin in past 24 hours	
Heart rate less than 50 beats/min	
Respiratory rate more than 20 breaths/min	
Blood Glucose more than 7.7mmols in absence of diabetes	
Bloods taken to check WCC & CRP	
New onset or worsening behaviour, confusion or agitation	
Increased falls	

**1, 2, 3 is healthy wee**

**4 to 8 you must hydrate**

1	
2	
3	
4	
5	
6	
7	
8	

Urinary catheter      Yes or No      Short or long term

Reason for catheter.....

GP notified YES/NO    Action Taken.....

Name of Nurse/Carer.....

Signature.....

## Appendix 5 - Specimen Request Form

### Specimen Request

Name of Care Home:

Location:

Name of resident .....

Date of birth .....

NHS Number (if known) .....

Specimen type	Please tick
MSU – Clean catch urine specimen	<input checked="" type="checkbox"/>
CSU – Catheter urine via sampling port only	<input type="checkbox"/>
Faeces	<input type="checkbox"/>
Sputum	<input type="checkbox"/>
Blood	<input type="checkbox"/>
Vaginal discharge	<input type="checkbox"/>
Throat swab	<input type="checkbox"/>
Wound swab include site taken e.g. left hand / right shin	<input type="checkbox"/>

Date and time specimen obtained .....

Relevant medical history .....

.....

Recent antibiotics .....

**Reason for specimen:** List symptoms –

1. 4.

2. 5.

3. 6.

Test to be carried out by laboratory: e.g. Virology (for outbreak of diarrhoea), MC&S, FBC, U&Es

a.

b.

Signature of care home staff ..... Print Name .....

Designation of staff ..... Date taken to GP .....

Please would you send this specimen to the laboratory for testing indicating the symptoms listed above.

## Check to Protect

### Hand Hygiene Assessment Tool

Name..... Job Title.....

Observation	Yes	No	Assessors comments
1. Is the staff member aware of what hand hygiene facilities are available?			
2. Is staff member bare below the elbows?			
3. Is the correct hand hygiene technique demonstrated?			
4. Are hands decontaminated at the appropriate times?			

Additional comments

Signature of Assessor .....

Print Name.....

Job Title.....

Date.....

### Your 5 moments for HAND HYGIENE



Based on WHO poster 'Your 5 Moments for Hand Hygiene' and reproduced with their kind permission

# Check to Protect - Hand Hygiene

## Prompts for Assessors

	Observation	Criteria required
1	Awareness of hand hygiene facilities	Staff aware of nearest hand wash basin or alcohol gel dispenser
2	Is the staff member bare below the elbow	Staff member not wearing: Long sleeve clothing Stoned / engraved rings Wrist watches Wrist jewellery Charity bands Nail varnish Nail art/piercing False nails Long nails
3	Correct hand hygiene technique	Technique used for hand washing or alcohol gel effectively decontaminates the hands – follows the 7 steps
4	Hands decontaminated at appropriate times	Hands are decontaminated prior to patient contact and following patient contact – as detailed in 5 moments

## How to wash your hands:

Wet hands with water if using soap

Apply enough soap or hand gel to cover all hand surfaces

1. Rub palms against each other.
2. Rub the back of each hand by placing the right palm on top of the back of the left hand and vice versa.
3. Rub palms together while interlacing the fingers together.
4. Interlock hands and rub the backs of fingers against the opposite hand.
5. Rub the thumbs by clasping each thumb in the opposite hand and rubbing rotationally.
6. Rotationally rub tips of fingers against palms.
7. Rub wrist with opposite hand.

Dry thoroughly with paper towel if using soap and water.

Duration of procedure: At least 20 seconds for gel

At least 40 seconds when using soap and water

## Appendix 7 - Preventing the Spread of Infection Leaflet

### Other sources of information about health and health care:

- **Public Health England**  
Website: [www.gov.uk/topic/health-protection/infectious-diseases](http://www.gov.uk/topic/health-protection/infectious-diseases)
- NHS Choices will connect people with the information and services they need, when they need it most.  
Website: [www.nhs.uk](http://www.nhs.uk)
- **Patient UK** provides leaflets on health and disease translated into 11 other languages as well as links to national support/self-help groups and a directory of UK health websites.  
Website: [www.patient.co.uk](http://www.patient.co.uk)

This leaflet is provided for your information only. It must not be used as a substitute for professional medical care by a qualified doctor or other health care professional. Always check with your doctor if you have any concerns about your condition or treatment. Shropshire Clinical Commissioning Group are not responsible or liable, directly or indirectly, for ANY form of damages whatsoever resulting from the use (or misuse) of information contained in this leaflet or found on web pages linked to by this leaflet.

Information Produced by Infection Prevention and Control Team  
Publication Date: September 2017. Review Date September 2018.  
Shropshire Clinical Commissioning Group

## Preventing the Spread of Infections

### Information for residents, family and friends



## Reducing the Risk of Healthcare Associated Infections

The publicity about healthcare associated infections has caused a great deal of concern around the country; however the risk of acquiring such an infection is low.

Infection Prevention and Control is everybody's business and we can all play a part in reducing the risk of infection in ourselves, relatives, colleagues and friends. Therefore this leaflet has been produced to offer some general advice relevant to everybody visiting a care home.

## Why do infections happen in Healthcare?

Some medical procedures and treatment can increase the risk of infection for example:

- Urinary catheterisation (inserting a tube into the bladder)
- Intravenous lines (inserting a tube into the vein - because they introduce a break in the skin)
- Surgery involving cutting the skin (the skin is one of the body's most important defences against infection)
- Some medications can lower a patient's resistance to infection e.g. steroids and treatment for cancer
- Widespread use of antibiotics may allow an infection to develop with resistant bacteria and this is more difficult to treat

## What can be done to help reduce the spread of infection?

### Hand Hygiene

- Wash your hands with soap and water after using the toilet/commode etc. If you are unable to use a sink moist skin wipes are a useful alternative
- Wash your hands before eating/taking medication
- Where supplied use the alcohol hand gel to clean your hands especially before and after entering the care home
- Avoid touching your wounds, catheters, intravenous lines etc unless you have been instructed to do so. Always clean your hands before and after if for any reason you need to touch them

- If you require to be examined or to have a procedure, do not be afraid to ask the staff if they have washed their hands or used alcohol hand gel first. Staff are more than happy to be asked by you if they have cleaned their hands. [It's OK to ask](#)

## Environment

- The area where you are receiving care/treatment or visiting should be clean. However, if you are concerned about the cleaning standards or something looking dirty please report it immediately to the person in charge
- Ensure the bed table and area around your bed is clutter free which makes cleaning easier
- Visitors should not sit on beds - if there are no chairs ask a member of staff for assistance
- Ensure you always wear shoes or slippers on your feet when walking around
- Children should be discouraged from crawling on the floor and must be supervised at all times

## Infection

- Visitors should not visit care homes if they are unwell and not until 48 hours of being symptom free
- If you are a resident and are concerned you are developing signs of infection such as any diarrhoea or vomiting, or a red or painful area of skin report it immediately to a member of staff
- It may happen that you or a group of residents are isolated or cared for separately from other residents. This is to prevent the spread of infection or protect individuals from infections
- If there is an infection present within the home you may be asked to wash your hands before and after entering a resident's room

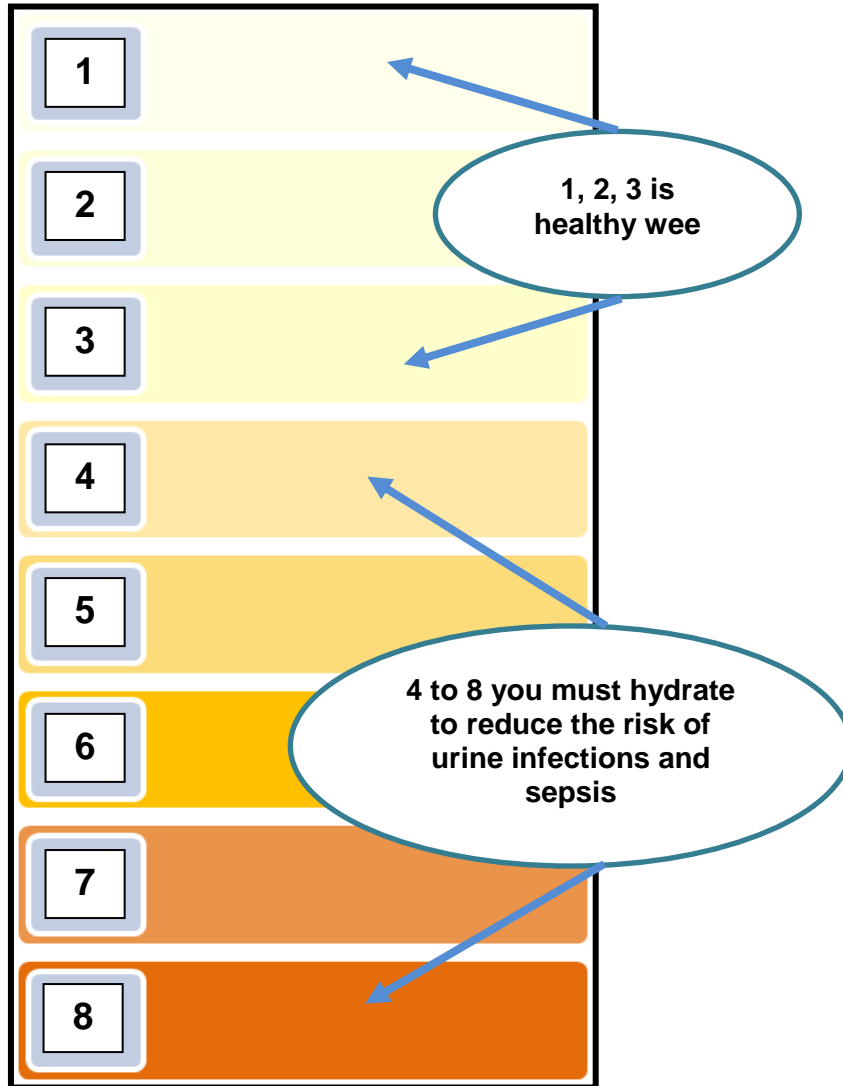
## Further Information

This leaflet gives general information. If you require further details, please speak to the care home staff.

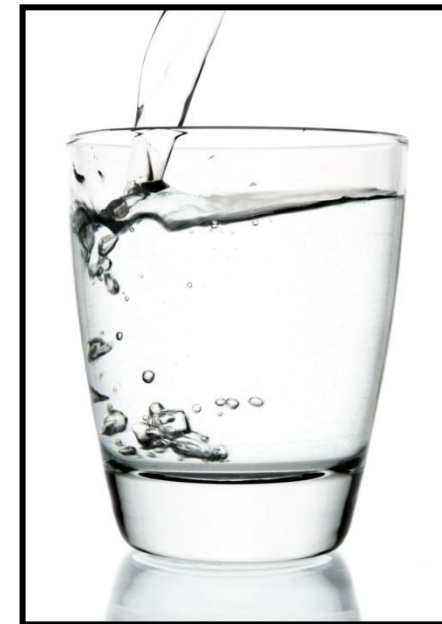
## Appendix 8 - Are You Drinking Enough Fluids Leaflet

### What colour is your wee?

Keep yourself well and stay hydrated



## Are You Drinking Enough Fluids?



Hydration Leaflet February 2018 Version 1

## What is Dehydration and What Causes it?

Water makes up over two thirds of the healthy human body. It is essential for lubricating the joints and eyes, aiding digestion, flushing out waste and toxins and keeping skin healthy.

Dehydration occurs when the normal fluid content of your body is reduced and is generally caused by not drinking enough fluid or by losing fluid and not replacing it.

You can lose fluid through vomiting, diarrhoea, sweating, and frequent urination due to an underlying medical condition and some medication.

## Drink Plenty of Fluids

Adults should drink a minimum of 1.2 to 2.0 litres (six to eight glasses) of fluid every day.

Higher intakes of total fluid will be required for those who are physically active or who are exposed to hot environments. Obese adults may also require higher intake of total fluid.

Individuals with certain conditions e.g. heart failure and kidney failure can retain fluid, and may need fluid to be limited, your GP or consultant will advise on optimal levels in these instances.

## Symptoms of Dehydration Include:

- Dry mouth or lips
- Dry skin
- Thirst
- Dizziness
- Tiredness
- Headache
- Dark coloured, strong smelling urine
- Light-headedness
- Reduced alertness
- Reduced ability to concentrate

Increase your intake of fluid (e.g. decaffeinated tea/coffee, herbal/fruit tea, squash, milk, juice) if you experience any signs of dehydration, or if you experience bladder or bowel urgency or frequency.

A simple method to track your body's hydration levels is by monitoring your urine; the colour of your urine can reflect how much water your body needs. (See 'what colour is your wee chart' overleaf)

## Good Hydration Can Help With the Treatment and Prevention of:

Sepsis - a rare but serious complication of an infection. Without quick treatment, sepsis can lead to multiple organ failure and death.

Common signs and symptoms include fever, increased heart rate, increased breathing rate, and confusion. For more information please visit <https://www.nhs.uk/conditions/sepsis/>.

- Pressure ulcers
- Constipation
- Confusion
- Kidney and gallstones
- Urinary Tract Infection (UTI)
- Circulatory problems
- Diabetes control
- Incontinence
- Low blood pressure
- Heart disease

Some individuals with a UTI may experience mild urinary incontinence and it may be tempting to reduce your fluid intake. However, this may exacerbate your symptoms and you should continue to maintain your fluid intake.

## Practical Tips

- Have water at meal times and at least hourly
- Try hot water with a piece of fruit in e.g. lemon or orange for a change
- Fruit or herbal teas make a change for those who like hot drinks
- Try warm squash e.g. blackcurrant or orange
- Try 'traditional' flavours of drinks e.g. dandelion and burdock, cream soda, ginger ale

Eat hydrating foods such as custard, soup, juice of tinned fruit, ice cream, jelly, ice lollies and smoothies.

Also eat fruit and vegetables that have a high fluid content e.g. pears, melon, orange, peach, tomatoes, cucumber, pineapple





Shropshire and Telford:  
Reducing infection for all

## Top 10 Hydrating Fruit and Veg



96%  
water



96%  
water



95%  
water



95%  
water



94%  
water



95%  
water



95%  
water



92%  
water



90%  
water



89%  
water

## Appendix 10 - What Colour is Your Wee Poster

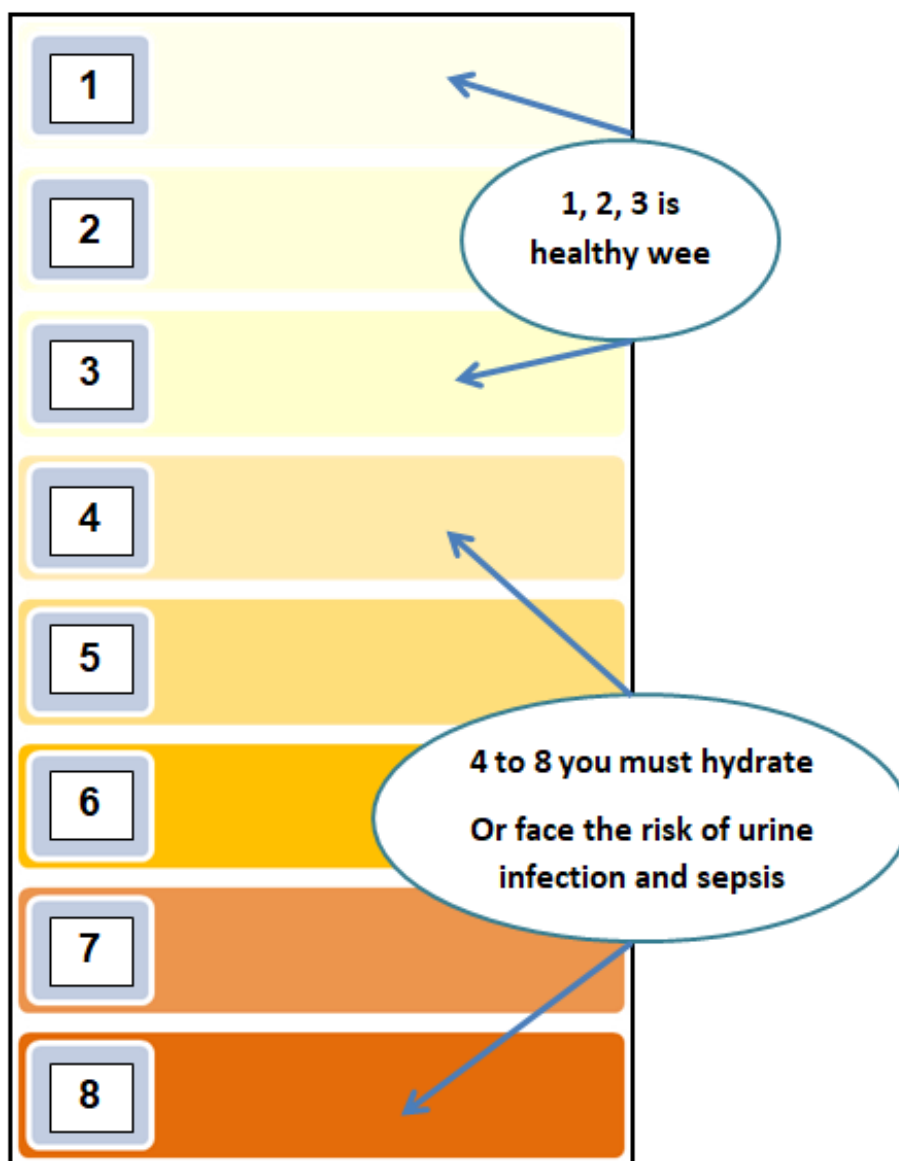


Shropshire and Telford:  
Reducing infection for all

### What colour is your wee?

Dehydration can reduce the flow of blood to the kidneys causing acute kidney injury and infection. In the UK, up to 100,000 deaths a year are associated with acute kidney injury, of which up to a third of those deaths could be avoided (\*NHSE 2017)

### Keep yourself well and stay hydrated



\*NHS England and UK Renal Registry (2017) Acute Kidney Injury and Hydration: A Learning Guide for Care Homes

## Appendix 11 - Fluid Chart

### Standard Fluid Balance Chart

FLUID RESTRICTION (if any)..... Date..... /..... /.....

THICKENED FLUIDS (please circle) NORMAL STAGE 1 STAGE 2

Surname.....

First Name.....

DOB...../...../.....

VOLUME INPUT					OUTPUT			
Time	Oral Intake	Vol	Other (e.g. enteral)	Vol	TOTAL	Urine	Other (e.g. drain)	TOTAL
0:00								
1:00								
2:00								
3:00								
4:00								
5:00								
6:00								
7:00								
8:00								
9:00								
10:00								
11:00								
12:00								
TOTAL								
13:00								
14:00								
15:00								
16:00								
17:00								
18:00								
19:00								
20:00								
21:00								
22:00								
23:00								
24:00								
24HR TOTAL						TOTAL OUTPUT		

1 Average Beaker- 250ml



1 Average Cup and Saucer -190ml



1 Average Mug -260ml



1 Average Milk Portion on cereal- 100ml



**Check to Protect**  
**Urinary Catheter Insertion Assessment Tool**

**Name..... Job Title.....**

Observation	Yes	No	Assessors comments
1. Has the staff member undertaken an assessment for the initial or continued need of the catheter? Have alternatives been considered?			
2. Are hands decontaminated at the appropriate times?			
3. Is the correct equipment assembled?			
4. Is the correct PPE being used?			
5. Is the genital area cleansed with soap and water prior to procedure?			
6. Is an aseptic technique and correct procedure followed as per policy procedure?			
7. Is the catheter connected to a sterile, closed urinary drainage system?			
8. Is the catheter bag positioned correctly and secured using appropriate method?			
9. Is all waste including PPE disposed of correctly?			
10. Is documentation completed accurately and correctly?			

Additional comments
---------------------

**Signature of Assessor .....**      **Print Name.....**

**Job Title.....**      **Date.....**

## Check to Protect – Urinary Catheter Insertion

### Prompts for Assessors

	Observation	Criteria required
1	Assessment of need for catheter	Staff member has assessed the need for a catheter and reason documented in care plan. Assessment made of continuing need at each catheter change and reason documented.
2	Hand decontamination	Hands are decontaminated prior to procedure During procedure if required e.g. changing gloves After procedure
3	Correct equipment	All equipment is obtained prior to commencement of procedure and dates and packaging checked e.g. Clean trolley/tray Catheter pack Correct size catheter Catheter bag Catheter support PPE
4	Correct PPE	Disposable apron Single use/Sterile gloves
5	Cleansing of genital area	Area cleaned with soap and water
6	Aseptic technique and correct procedure used	Aseptic technique observed. Correct catheter technique used as per policy Including use of local anaesthetic gel
7	Sterile drainage system	Sterile drainage system in use e.g. day bag in use
8	Correct position of catheter bag	Catheter bag is positioned below bladder level G straps used Net support Night stand Tap/bag not on floor
9	Disposal of waste/PPE	Disposed of in correct waste stream as per policy
10	Documentation	All documentation completed in a timely manner

## Appendix 13 - Urinary Catheter Card

### Indwelling Urinary Catheter Card

#### REASON FOR CATHETERISATION:

- Retention –state reason for retention (e.g. spinal injury, neurological illness, benign prostatic hyperplasia/other).....
- Intractable urinary incontinence

Date of initial insertion ..... / ..... / .....

Location of patient at initial insertion e.g. hospital .....

Site: suprapubic / urethral      Size of catheter:.....ch

Type of catheter: 28 days PTFE / 12 week all silicone/hydrogel

Length of catheter: female/standard

DATE OF PLANNED TRIAL WITHOUT CATHETER: ..... / ..... / .....

### Indwelling Urinary Catheter Card

#### REASON FOR CATHETERISATION:

- Retention –state reason for retention (e.g. spinal injury, neurological illness, benign prostatic hyperplasia/other).....
- Intractable urinary incontinence

Date of initial insertion ..... / ..... / .....

Location of patient at initial insertion e.g. hospital .....

Site: suprapubic / urethral      Size of catheter:.....ch

Type of catheter: 28 days PTFE / 12 week all silicone/hydrogel

Length of catheter: female/standard

DATE OF PLANNED TRIAL WITHOUT CATHETER: ..... / ..... / .....

What colour is your wee?

1	1,2,3 is healthy wee
2	
3	
4	4 to 8 you must hydrate or face the risk of urine infection and sepsis
5	
6	
7	
8	

CARRY THIS CARD WITH YOU AT ALL TIMES AND PRESENT IT WHEN YOU ATTEND HOSPITAL, YOUR GP PRACTICE OR WHEN YOU SEE YOUR DISTRICT NURSE

Patient name .....
Patient NHS number .....
GP Practice..... Phone no .....
District nurse phone no .....
Out of hours contact number 111

What colour is your wee?

1	1,2,3 is healthy wee
2	
3	
4	4 to 8 you must hydrate or face the risk of urine infection and sepsis
5	
6	
7	
8	

CARRY THIS CARD WITH YOU AT ALL TIMES AND PRESENT IT WHEN YOU ATTEND HOSPITAL, YOUR GP PRACTICE OR WHEN YOU SEE YOUR DISTRICT NURSE

Patient name .....
Patient NHS number .....
GP Practice..... Phone no .....
District nurse phone no .....
Out of hours contact number 111

**Check to Protect**  
**Urinary Catheter Daily Care Assessment Tool**

**Name..... Job Title.....**

Observation	Yes	No	Assessors comments
1. Is the correct equipment available?			
2. Are hands decontaminated before and after catheter care?			
3. Is the correct PPE worn and disposed of correctly as per waste policy?			
4. Is the container used when emptying the urine bag washed correctly after use?			
5. Is urine disposed of appropriately?			
6. Is catheter bag positioned and supported correctly?			
7. If supra pubic catheter is the site checked and documentation completed?			

Additional comments
---------------------

**Signature of Assessor .....**

**Print Name.....**

**Job Title.....**

**Date.....**

# Check to Protect – Urinary Catheter Daily Care

## Prompt for Assessors

	Observations	Criteria required
1	Correct equipment	Clean receptacle e.g. jug / urine bottle Catheter day bag Catheter night bag
2	Hand decontamination	Hands washed prior to procedure and following removal of PPE
3	Correct PPE	Single use apron Single use gloves Goggles if required
4	Urine container decontaminated correctly	Container placed in pot washer Container washed in detergent and dried thoroughly in the sluice or appropriate area Container stored dry and inverted
5	Urine is disposed of appropriately	Disposed of down toilet/sluice hopper
6	Catheter bag positioned and supported correctly	G straps Net support Bag below the level of the bladder Bag not on floor e.g. night stand in use Check bag/tap of day bag not on floor
7	Supra pubic catheter site checked	Site checked for signs of change e.g. redness/infection Information documented in care plan



## Urine Dipsticks Not Used Here!

**NHS**  
Shropshire  
Clinical Commissioning Group



National Guidelines advise that **urine dipsticks should not be used to diagnose a UTI** in older people. Instead this home is using an assessment tool



**Bacteria in the urine can be normal** in older people



If we think a resident may have a UTI, we use an assessment tool to check for signs and symptoms and take the appropriate action



Giving antibiotics when they are not really needed will lead to **1 in 3 residents developing side-effects such as diarrhoea and may lead to antibiotic resistance**



**Please speak to the care home manager if you have any questions**

# Recognising Urinary Tract Infections

## In residents without a urinary catheter

This home is part of an initiative to improve the care of residents suspected of having a UTI.

National Guidelines **no longer recommend using urine dipsticks** to diagnose UTIs in older people.

Instead this care home uses a **UTI assessment tool** to help carers in assessing residents for UTIs.



Residents with **none or only one** of the problems suggestive of a UTI on the assessment tool:

These patients are unlikely to have a UTI.  
Remember, smelly or dark urine is not a sign of a UTI without other symptoms present.

UTI Unlikely

Residents with symptoms suggestive of a different infection, such as:

- Diarrhoea and/or vomiting
- New cough or breathlessness
- New area of red warm skin

These residents are more likely to have a different infection, and not a UTI.

Consider  
Alternative  
Infections

Residents with **two or more** problems suggestive of a UTI on the assessment tool:

- Pain on passing urine
- New or worsening incontinence
- Passing urine more frequently
- Lower tummy pain
- New back pain
- Blood in urine
- Inappropriate shivering/chills
- Temperature  $<36^{\circ}\text{C}$  or  $>38^{\circ}\text{C}$
- New or worsening confusion or agitation

These residents may have a UTI.  
Follow the actions on the Assessment Tool.

UTI Likely

**Please speak to the care home manager if you have any questions**

# Preventing Urinary Tract Infections

**NHS**  
Shropshire  
Clinical Commissioning Group

## Recognise Dehydration



## Prevent Dehydration

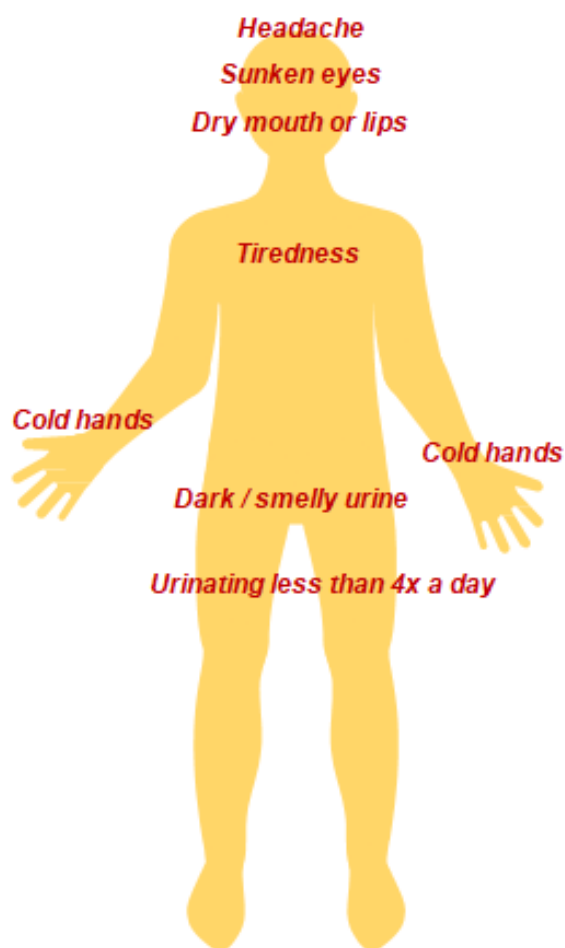
Encourage residents to **drink 1.5—2 litres of fluids every day** (unless advised not to by GP)



Encourage **regular bladder emptying** and **mobilise** as much as able

Act quickly to resolve **constipation** and **continence** problems

## Signs of Dehydration



**Please speak to the care home manager if you have any questions**