

To Dip

..... or

Not to Dip?

TRAINING HANDBOOK



“IDEAL FOR NEW STAFF TRAINING
AND REFRESHER TRAINING!”

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How to use this Training Package

This training pack contains resources for all care home team members. It provides care home staff with knowledge about UTIs and skills in how to use the UTI assessment tool and prevent dehydration, an important risk factor for UTIs.

The video (included on the DVD at the front of the pack), along with this booklet, are ideal for training all staff on UTIs and could be repeated on a regular basis as refresher training for continuing team members to ensure all staff are up to date.

Introduction

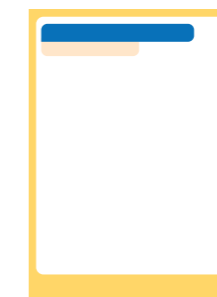
Urinary Tract Infections (or UTIs) are the second most common cause for antibiotics being prescribed in the community. Older people living in care homes are particularly vulnerable to infections; often having multiple health conditions, continence problems and memory impairment. Some may have temporary or long-term urinary catheters. All of these factors increase the risk of urinary tract infections.

The most severe form of UTI (a bloodstream infection) is of growing concern nationally, therefore accurate diagnosis and appropriate treatment of UTI are a priority for the NHS.

'To Dip or Not to Dip': Background

'To Dip or Not to Dip' is a quality improvement initiative which aims to improve the diagnosis and management of UTIs in older people living in care homes. It is based on a project carried out in South-West England (NHS Bath and North East Somerset CCG), that demonstrated a significant reduction in antibiotic prescriptions for UTI. Admissions to hospital for residents with UTIs or dehydration were also reduced. The To Dip or Not to Dip pathway is based on best practice guidelines, and supports care homes staff to prevent and recognise UTIs.

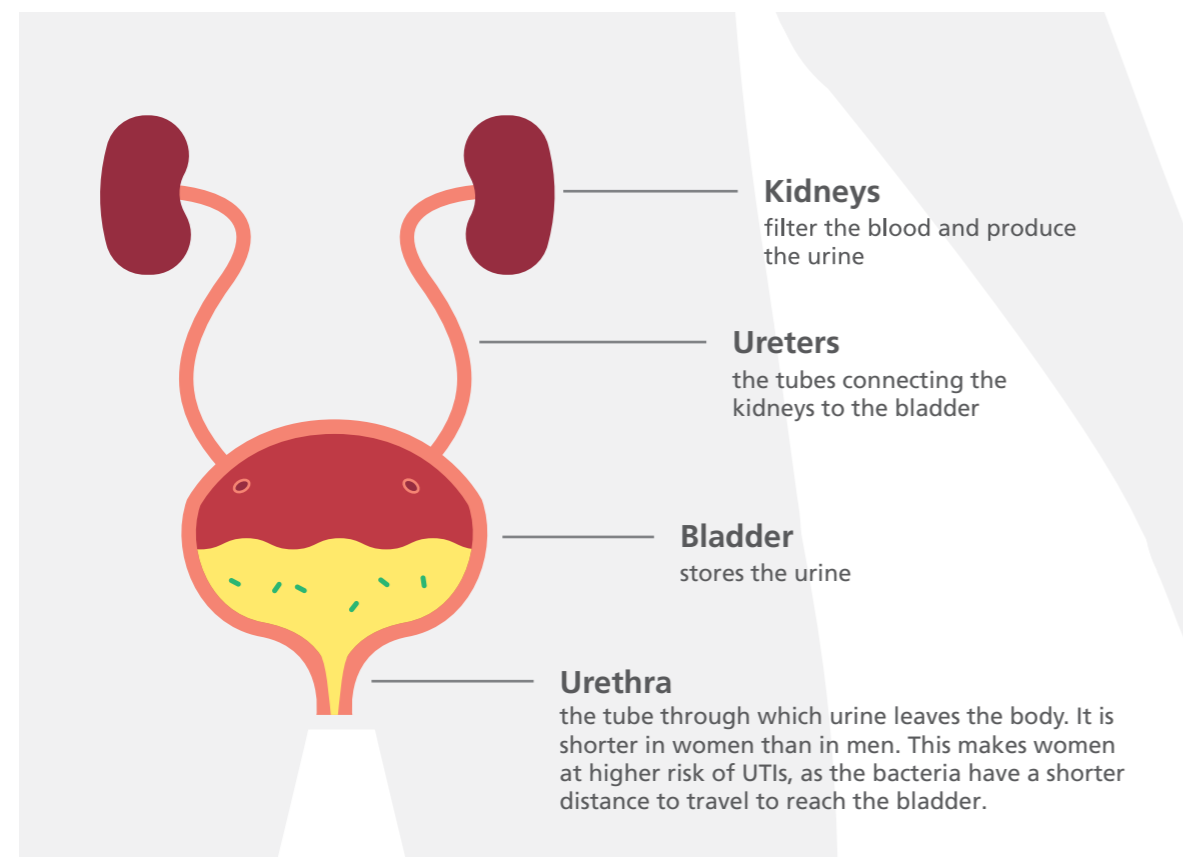
The To Dip or Not to Dip team have worked closely with different healthcare professionals to develop a UTI assessment tool based on best practice guidelines, and educational resources (such as the DVD, leaflet and posters) for use in care homes and GP practices.



Urinary Tract Infections in Older People: The Facts

UTIs are caused by bacteria entering the bladder through the urethra, and multiplying within the urine in the bladder. Bacteria may also travel up to the kidneys and cause a kidney infection (this is called pyelonephritis), which can lead to bloodstream infections. These bacteria are usually the person's own bowel bacteria, or may be introduced through the presence of a urinary catheter.

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Signs and Symptoms of a UTI

A UTI in an older person without a urinary catheter is defined as two or more of the following symptoms:

- Pain on passing urine (this is called 'dysuria')
- Need to pass urine urgently (this is called 'urgency')
- New or worsening urinary incontinence
- Need to pass urine more frequently (this is called 'frequency')
- Visible blood in the urine (this is called 'haematuria')
- Shivering or chills, (this is called 'rigors') or a temperature less than 36°C or above 38°C
- New or worsening confusion or agitation
- Lower abdominal or back pain (this is called 'suprapubic pain' where the bladder is or 'flank pain' where the kidneys are).

In people with a urinary catheter, the symptoms are different because the person is not passing urine for themselves.

In older people with a urinary catheter in place, a UTI is defined as one or more of the following symptoms:

- Shivering or chills ('rigors') or a temperature less than 36°C or above 38°C
- New pain or tenderness where the kidneys are (this is called 'flank tenderness')
- New or worsening confusion or agitation



In older people, the presence of bacteria in the urine does not always mean an infection is present

It is very important to understand that the presence of bacteria in the urine **may be a normal finding** in older people. Bacteria often live harmlessly in the bladder of older people, without affecting them or causing any signs of infection. This is called "asymptomatic bacteriuria". Evidence suggests this affects up to 40% of men and 50% of women over 65 years living in care homes. In people with long-term urinary catheters, 100% will develop bacteria in the urine.

What's the problem with urine dipsticks?

Urine dipsticks detect the presence of nitrites (a chemical made by bacteria) and leucocyte esterase (a chemical in white blood cells).

These tests will usually be positive if there are bacteria in the urine, **whether they are causing an infection or not.**

A positive urine dipstick is therefore not useful as a clinical decision-making tool in older people and can often mislead people into thinking a UTI is present. Another diagnosis or cause for the person's symptoms might be missed, and antibiotics may be given inappropriately which can be harmful. Frequent use of urine dipsticks is linked to higher rates of antibiotic use.

Urine dipstick results are not very helpful in older people and using signs and symptoms are a more accurate way of assessing for possible UTI. The best practice guidelines advise this approach.



What do the best practice guidelines for UTI advise?

The best practice guidelines state that:

- ➔ "Do not use urine dipstick testing in the diagnosis of older people with possible UTI" (SAPG UTI in Older People)
- ➔ "Do not use dipstick testing to diagnose UTI in adults with urinary catheters" (NICE QS90)
- ➔ "People >65 years should have a clinical assessment prior to being diagnosed with a urinary tract infection" (NICE QS90)

Antibiotics: More Harm than Good?

Antibiotics are powerful and precious drugs. They are the only drug where **the more you use them, the less they work.** It is important that we only use antibiotics where there is strong clinical evidence of a bacterial infection. If we do not do this, there will be less effective treatment options available to treat severe infections, such as bloodstream infections.

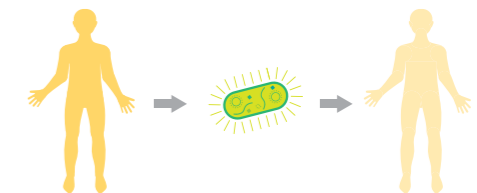


When antibiotics are frequently used, or used when they are not really required, bacteria can develop resistance. This means that the bacteria are no longer killed by the antibiotic and the antibiotic might not work against the infection. There are very few new antibiotics in development and we need to protect the antibiotics that we have by using them appropriately. Preventing antibiotic resistance is everybody's responsibility, not just those who can prescribe the antibiotics. All care professionals have a role to play in protecting antibiotics, so they will still work when needed, for people now and in the future.

If antibiotics are given to older people for bacteria in the urine **without symptoms of an infection, 1 in 3** will develop side-effects. Older people are more at risk of the side-effects of antibiotics.

Important Side Effects of Antibiotics include:

- Allergic reactions such as rashes
- Stomach upsets and diarrhoea
- Medication interactions
- *C.difficile* diarrhoea ("*C.diff*"), a life-threatening bowel infection
- Antibiotic resistance: These resistant bacteria can easily spread in care homes, so people who have not even received antibiotics may also be at risk.



To Dip or Not to Dip Assessment Tool

The To Dip or Not to Dip pathway uses an assessment tool in residents with suspected UTIs to support the assessment, without using a urine dipstick.

The UTI Assessment Tool is to be used by care home staff in residents over 65 years with suspected UTI. Do not

perform a urine dipstick, instead use the flow chart to identify any signs and symptoms of a UTI in the resident. If you are unsure, discuss with a senior member of staff (nurse or manager). This form will help the clinician, e.g. GP, Nurse Practitioner or Community Matron, to decide whether further assessment or antibiotics are required.

2. Are there any symptoms to suggest an alternative diagnosis? This box contains questions about symptoms of other common infections, as the presence of these make a UTI much less likely. If any of these are present, then seek guidance through the usual referral routes.



Do Not Dipstick!

3. Does the person have a catheter? This is important as the symptoms and the management of UTI are different if a urinary catheter is in place.

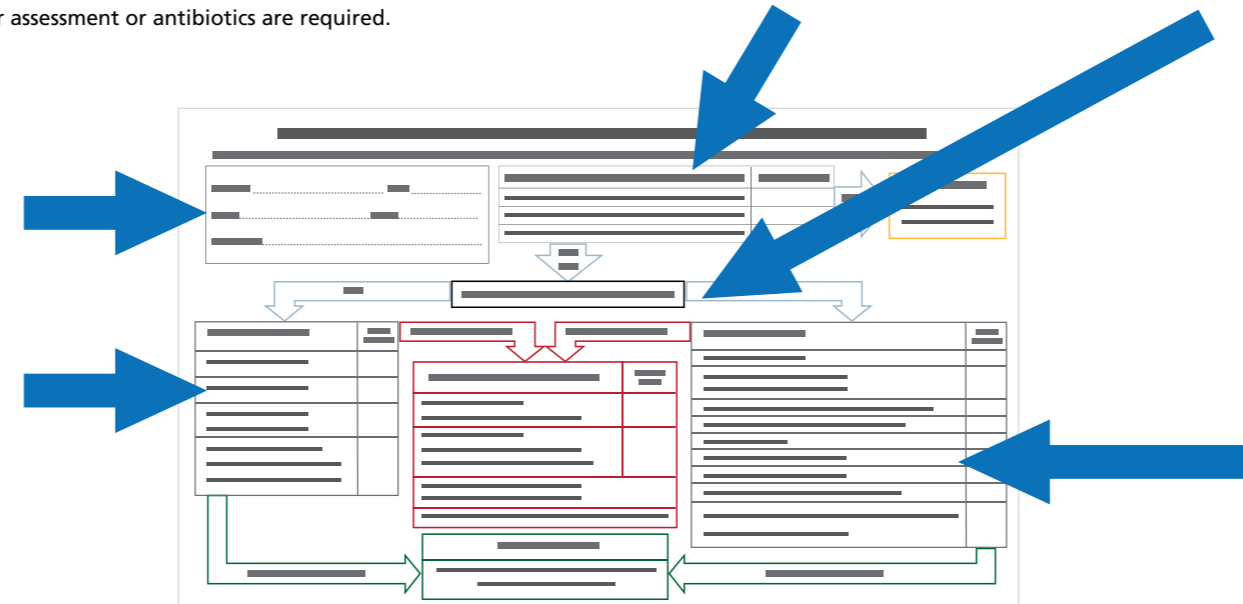


4. Fill in the appropriate box depending on whether the resident has a catheter or not. It is important to consider the resident's usual status, for example if pre-existing confusion or urinary incontinence is present.

5. Without a urinary catheter: Two or more symptoms increased the likelihood of a UTI being present. If there are two or more symptoms, a UTI is possible and action is required.

1. Fill in the resident's details.

6. With a urinary catheter: If there is one or more symptoms, a UTI is possible and action is required.



If the resident does not have the signs and symptoms of a UTI, then a UTI is unlikely. If you are still concerned about the resident even if they do not have the symptoms of a UTI, then discuss with a clinician through your usual referral route.

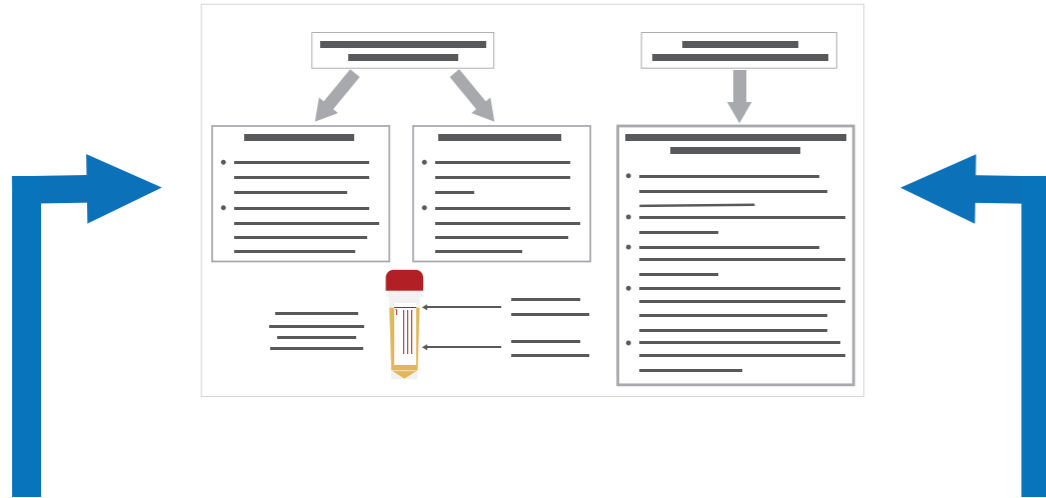


Once the necessary action(s) have been taken, file the assessment tool in the resident's folder to keep as evidence of good practice.

Actions

- Obtaining a urine sample for culture is very important in older people as they are at higher risk of antibiotic resistant bacteria. Turn over the page to find out more about urine samples.
- Within normal working hours on weekdays, follow the referral process in the box on your local assessment tool. Out-of-hours and at weekends, follow your usual out-of-hours referral route (e.g. NHS 111). Use the information on the assessment tool to support you when communicating with the out-of-hours care providers.

Obtaining a Urine Sample



If a resident with a urinary catheter in place has a suspected UTI, a urine sample must be taken by a professional trained in using the 'aseptic non-touch technique'. This is to prevent the introduction of outside bacteria into the catheter.

Urine cultures are very important in older people to guide antibiotic choice. If bacteria grow in the laboratory, they can be tested against different antibiotics which informs the prescriber which is the best and safest antibiotic to use, or whether an alternative antibiotic is required due to a resistant infection.

Wherever possible, try to obtain a urine sample and use a boric acid specimen container (this is usually a red-top container). These contain a powder that is a preservative to prevent any bacteria from overgrowing if there is a delay in reaching the laboratory. It is important to fill these containers with urine **up to the line** indicated on the label, so that there is the right ratio of urine to preservative. If there is only a small amount of urine collected from the resident, use a universal specimen container instead so that the sample can still be processed. Samples should be transported to the laboratory as soon as possible, and refrigerated (if possible) if there is a significant delay, for example overnight.

Some care homes may have urine collection pads such as Newcastle pads, to enable collection of urine from an incontinent resident. These may be helpful if it is very difficult to obtain a clean catch sample of urine. The pad should be worn for as short a time as possible prior to collecting the urine from it, to reduce contamination. Although urine collected in this way may become contaminated with skin or bowel bacteria, it is probably

better than not sending a urine sample, as many residents will not be able to produce a urine sample 'on-demand'. There is lack of high-quality evidence about the best method of obtaining urine samples in older people with urinary and/or faecal incontinence.

Prevention is Better Than Cure

Now you understand more about UTIs, dipsticks and bacteria in the urine in older people, there are some simple steps you can take to reduce the risk of UTIs in the residents that you care for.

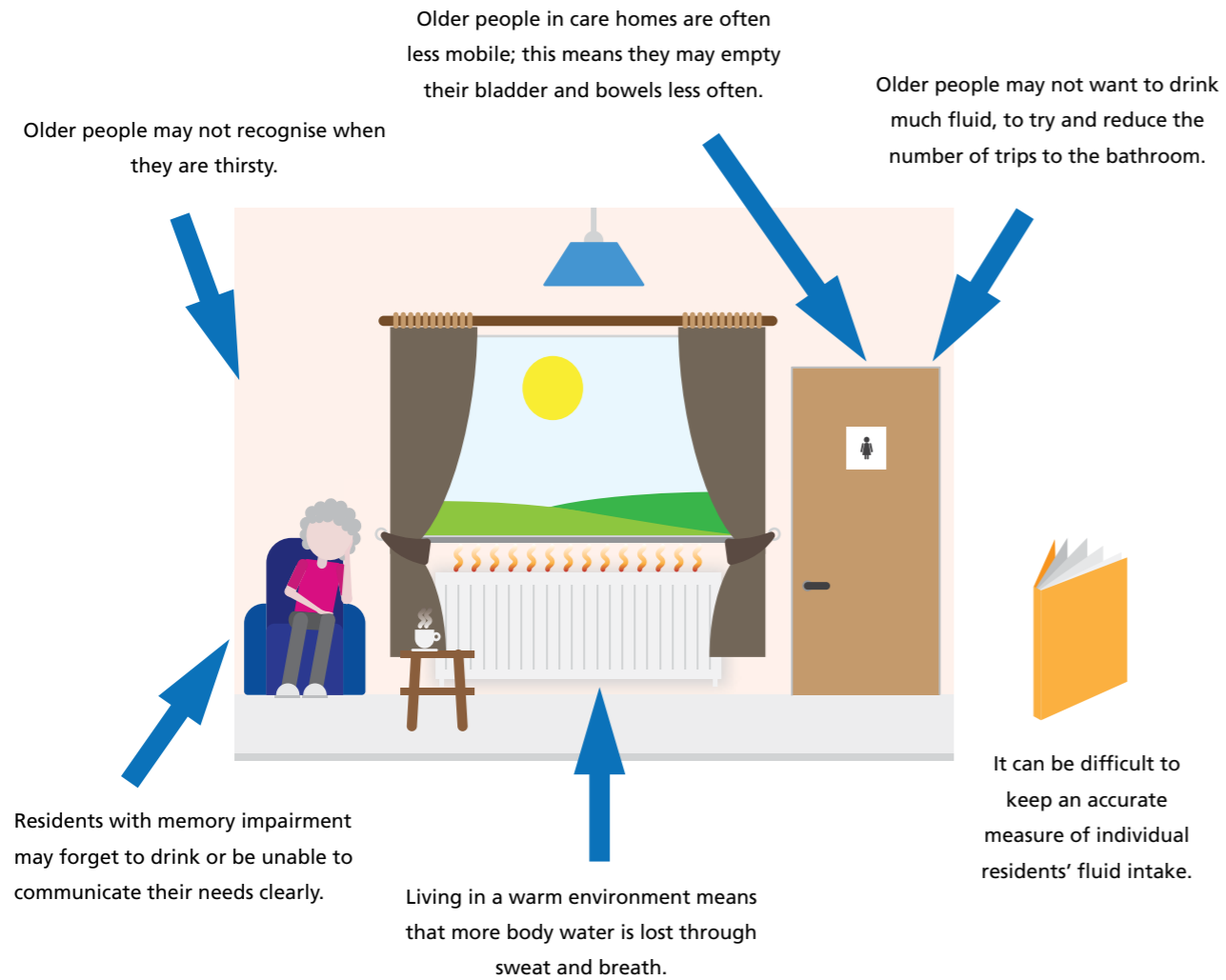
Dehydration

Dehydration occurs when the body loses more water than it takes in. It leads to small volumes of urine being produced by the kidneys, which can become stale in the bladder over time, allowing any harmful bacteria to multiply and cause an infection. Keeping urine flowing through the bladder regularly is one of the main ways of protecting the body against infection.

Preventing dehydration and recognising the signs of dehydration are key interventions that you can make as a caring professional to reduce the risk of UTI.

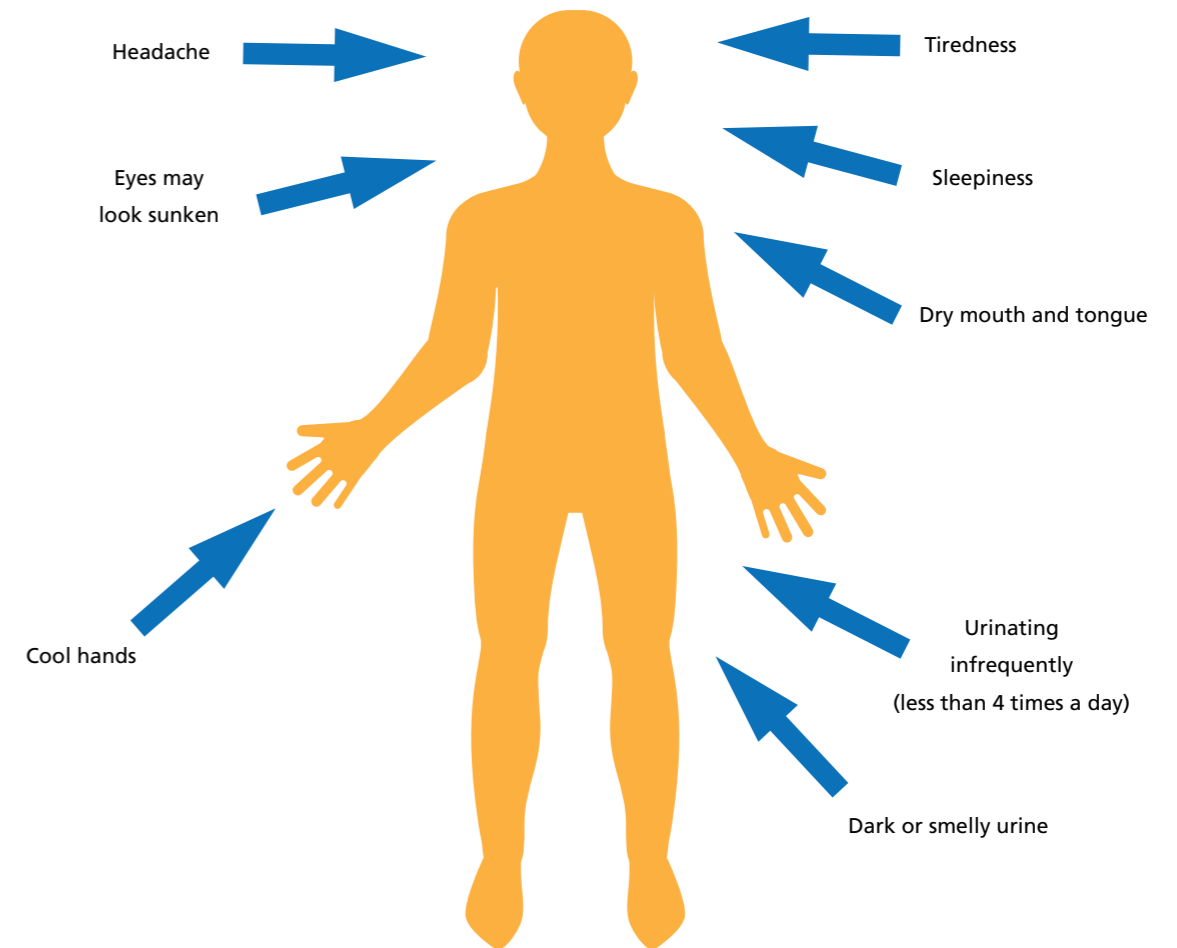


Why do Older People in Care Homes become Dehydrated?



Recognising the Signs of Dehydration

There are some simple signs you can look for, to help you identify whether a resident is becoming dehydrated. Taking a 'top-to-toe approach', starting at the head and working downwards, can help you to remember what to look for.



The Urine Colour Chart



The Urine Colour Chart is a very quick and easy way to assess the hydration status of a resident. If the urine is any of the colours that suggest dehydration, monitor and record their fluid intake and output wherever possible and encourage an increase in fluids. If they do not improve, develop more signs of dehydration, or become more unwell, contact a clinician for advice as soon as possible.

How much do people need to drink?

Most residents need to drink **1.5 – 2 litres** of fluids a day. An average cup of water is around 200ml. An average cup of tea is around 150ml. This equates to around 8 drinks per day, but this assumes that all of the drink is consumed which may not happen. Recording what fluid is actually drunk, rather than what has been offered, is

more accurate. There may be some residents who are on a 'fluid restriction' due to certain medical conditions or medications, if you are unsure if this applies to a resident, you should seek guidance from their GP.



How to prevent dehydration

The NHS website for 'Think Kidneys' contains lots of resources for care homes about dehydration and kidney injury. They recommend considering the following to improve fluid intake in residents:

- Encourage residents to drink regularly throughout the day and offer drinks if giving care at night
- Use a cup suitable for the resident – they may prefer to use a straw if a cup is difficult.
- Consider jelly and other food rich in fluid to increase fluid intake if the resident doesn't want to drink much
- Encouraging regular toileting for residents who are continent is important to ensure any bacteria are flushed out and urine does not stagnate in the bladder.
- Act quickly to resolve constipation. Constipation can stop the bladder from emptying fully, as the bowel can press on the bladder. Seek advice from GP or nursing colleagues if a resident becomes constipated.
- Seek advice from Continence Specialists or other professionals for residents with continence problems.

For more information visit www.thinkkidneys.nhs.uk and look under Resources section for Care Homes.

What do people say about To Dip or Not to Dip?

“The Rookery has had no urine infections so far, I feel this is due to the To Dip or Not to Dip project making us more mindful as to when to act towards a possible UTI. Staff are a lot more aware of the signs and symptoms of dehydration and UTIs, and the importance of better urine testing with the use of red topped bottles to enable the healthcare professionals to prescribe the correct antibiotics for the care home residents”.

Donna Atchinson, Manager at The Rookery Care Home, Nottinghamshire

“Trying to provide a consistent approach to urine samples provided by our care homes has been an area we have been keen to address for a long time. It has been great to work alongside the project team, local care homes and practice staff to implement ‘To Dip or Not to Dip’. The early feedback we have received from the care homes is that they find it extremely easy to use and highlights to them the importance of improving hydration as well as identifying residents who may need appropriate onward signposting”.

Dr Nicole Atkinson, GP, Nottingham West CCG



“To Dip or Not to Dip has raised more awareness of UTIs and dehydration through the care home training provided for the staff and the Assessment tool is a good pathway for UTIs in care homes”.

Sam Fell, Manager at Edward House Care Home, Nottinghamshire



Acknowledgements

‘To Dip or Not to Dip’ is an original quality improvement project by Elizabeth Beech and Mandy Slatter in NHS Bath and North East Somerset Clinical Commissioning Group

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