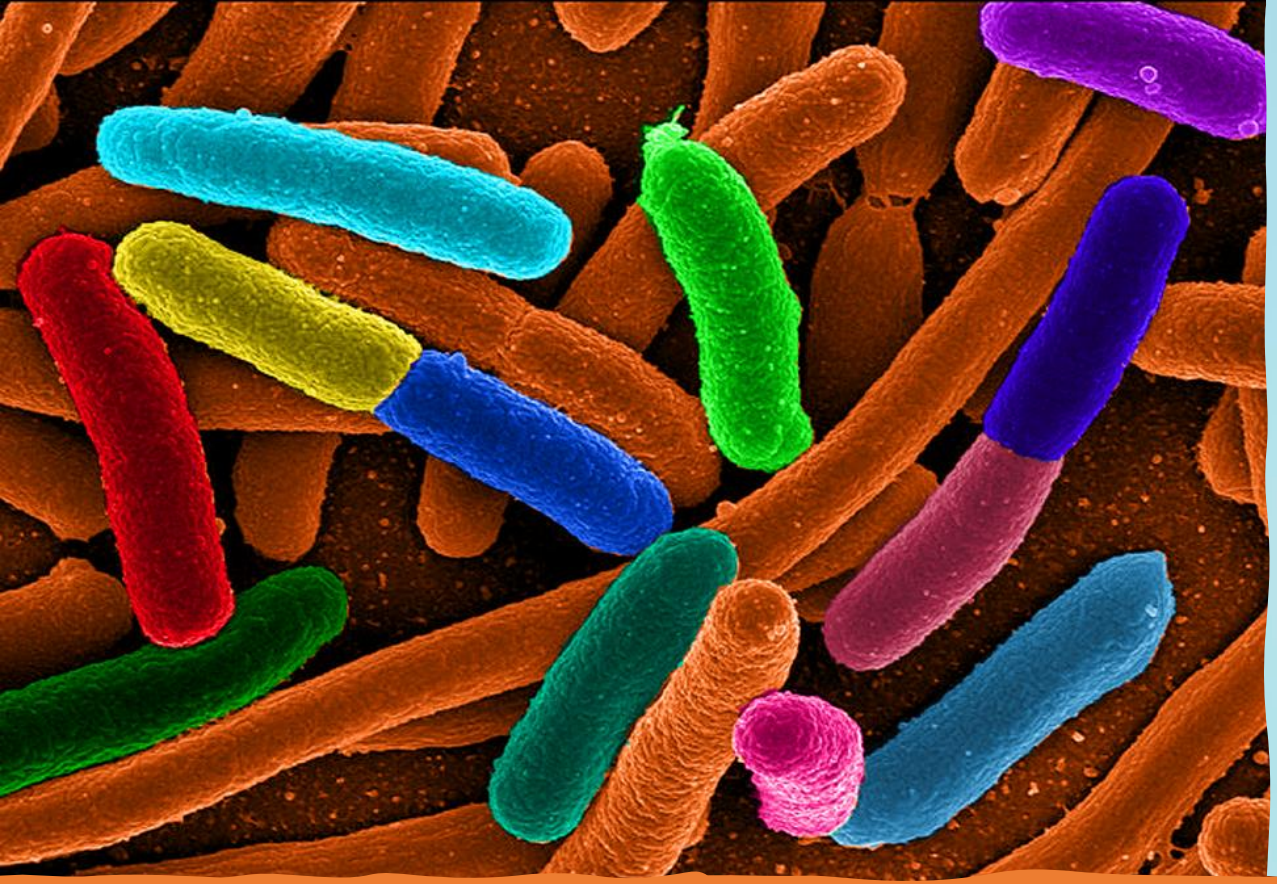


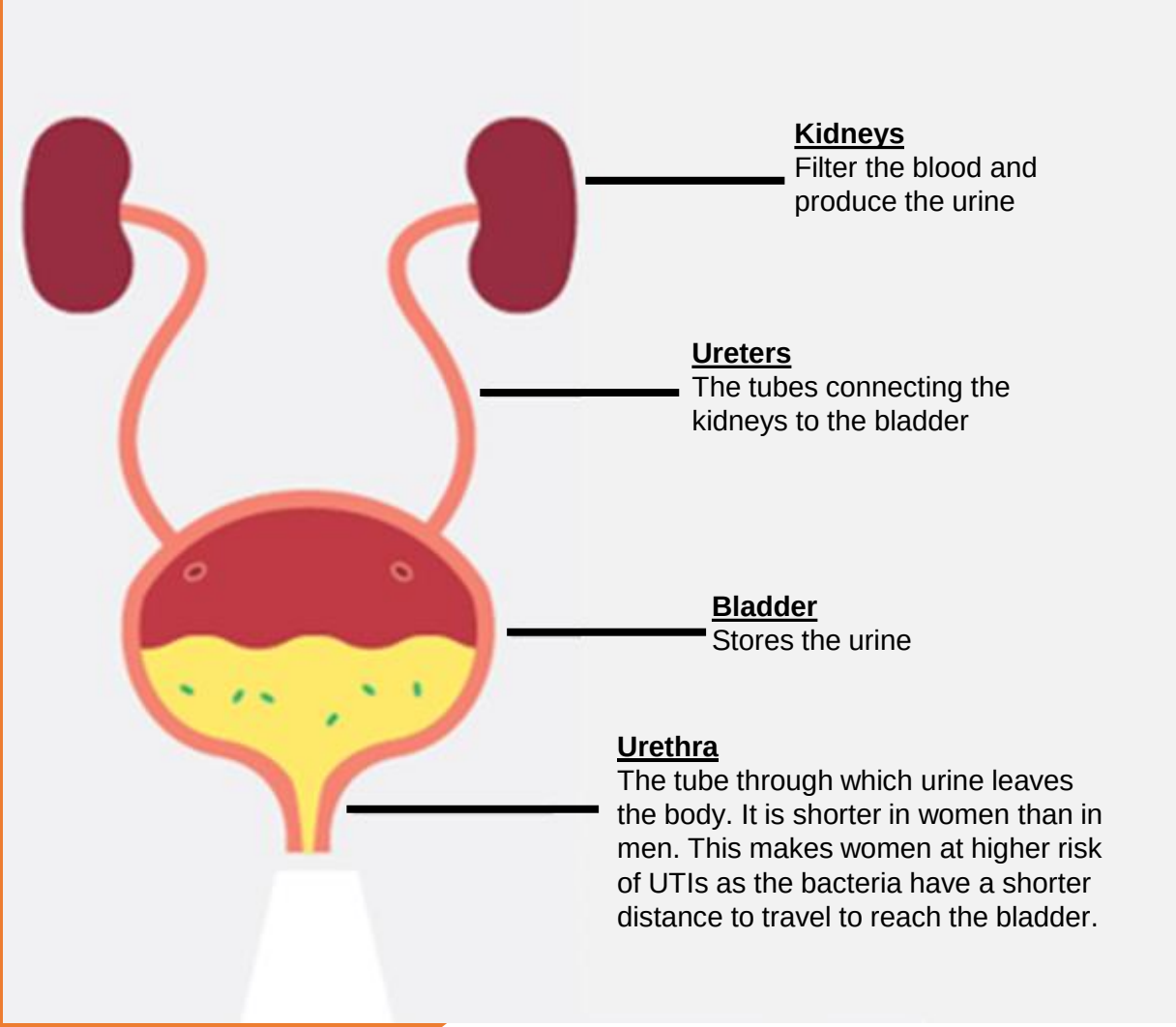
Reducing Urinary Tract Infections

By:

- Improving Hydration
- Continence care
- Appropriate catheter hygiene and maintenance

Urinary tract infection (UTI)

An infection that occurs anywhere in the urinary tract



Symptoms of UTI

- Pain when passing urine
- Urgent or frequent need to pass urine
- New or worsening incontinence
- Visible blood in urine
- Shivering/ fever
- Confusion/agitation
- Abdominal or back pain

UTI – What do we know?

Who is at greatest risk of UTI in the older population?

a. Men
b. Women
c. No difference

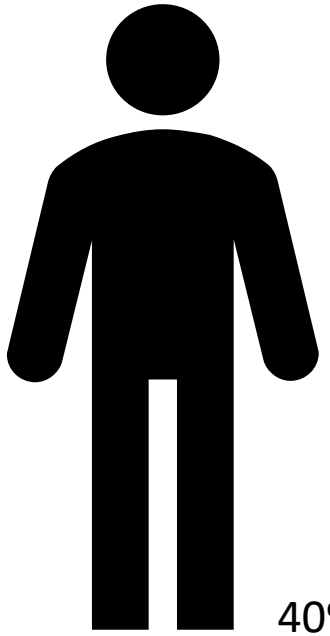
What time of the year are UTI's most common in the UK?

a. New Year
b. Spring
c. Summer

What percentage of care home residents are prescribed antibiotics for UTI in a year

a. 19%
b. 28%
c. 43%

Bacteria in the urine does not always mean an infection is present



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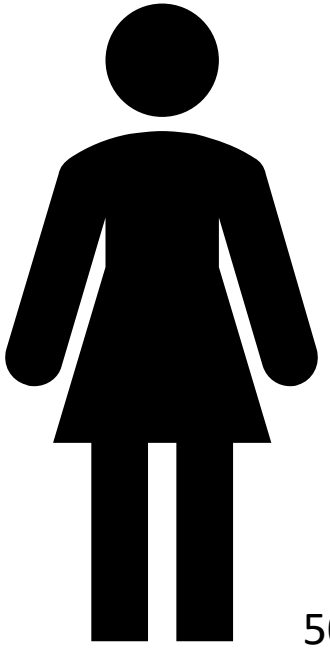

50%

Figure D

100%

Why is that relevant?

Urine dipsticks detect the presence of nitrates made by bacteria and leukocyte esterase (a chemical in white blood cells) and will usually test positive if there are bacteria in the urine, **whether they are causing infection or not!**

- Not useful in older people to diagnose UTI
- Can be misleading
- Other causes of symptoms can be missed
- Inappropriate antibiotic prescribing – can be harmful
- Frequent use of urine dipsticks is linked to higher rates of antibiotic use
- Using signs and symptoms is a more accurate way of assessing possible UTI

No Dip training video link:
https://www.youtube.com/watch?v=rZ5T1Cz7DHQ

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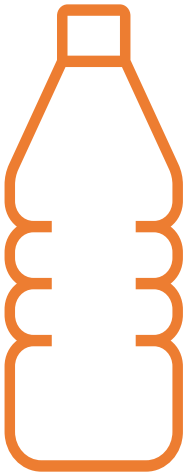
Dehydration



Fluid is required by the body for it to function.

Our bodies constantly lose fluid through breathing, sweating or going to the toilet.

Dehydration occurs when we take in less fluid than we lose.

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Older people are at a much greater risk of becoming dehydrated due to changes that occur in the body during the ageing process.

- Reduced kidney's function
- Our body's ability to manage and store water
- Altered sense of thirst
- Excessive fluid losses i.e., medications such as diuretics and laxatives or diarrhea, sweating and vomiting.
- Other functional changes in the body can cause swallowing difficulties (dysphagia)
- Physical difficulties

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The consequences of dehydration can be severe and include:

- Urinary and respiratory tract infections
- Potential for blood stream infections
- Confusion, delirium, dizziness, tiredness, constipation, headache, medication toxicity
- Falls
- Pressure Ulcers
- Hospital admission

There are some simple signs to look out for to identify if someone is becoming dehydrated.

These include:

- A dry mouth, lips and tongue.
- Sunken eyes.
- Dry fragile skin.
- Headache / dizziness.
- Confusion.
- Constipation.
- Tiredness, or not wanting to take part in activities.
- Urinating infrequently or passing small amounts of dark coloured urine which may be smelly.

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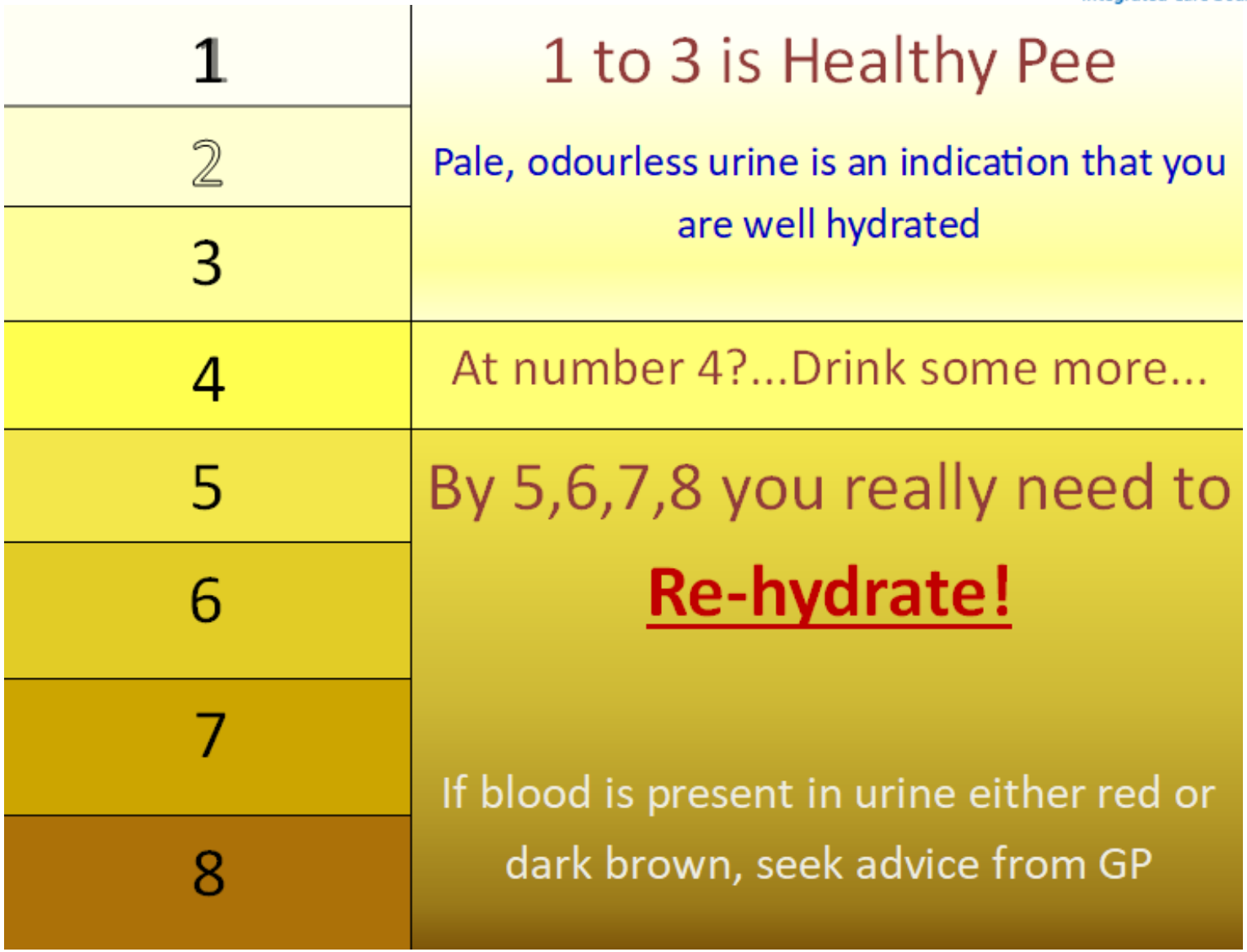
Spotting dehydration

The urine colour guide provides a good indication if a person is drinking enough



Hydration

Think Drink!

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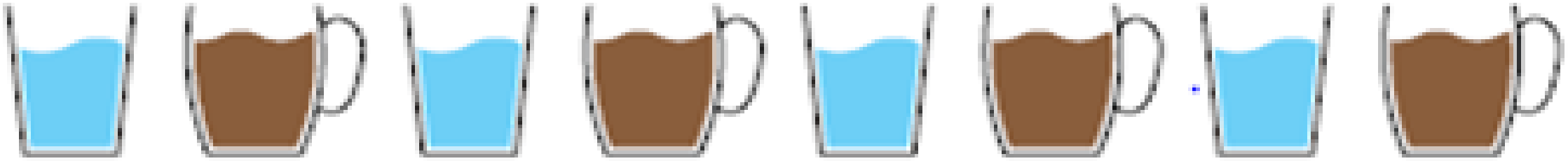

It is recommended that adults drink at least 1500mls of fluid every day. This equates to approximately 6-8mugs or glasses. All fluids count (except alcohol) water, juice, tea, coffee, milk…

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Recognising which individuals are most at risk of dehydration?

Individual assessment is key!

Level of assistance/ encouragement required

Any swallowing difficulties – physical, emotional, cognitive

Other barriers such as fear of incontinence or frequency

Lack of understanding of the need for hydration

Personal likes/ dislikes/preferences

Oral health

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What assessment tool do you use?

ROC To Drink Assessment Tool & Care Plan Summary.pdf

MUST Nutritional Screen.pdf

GULP-Dehydration-risk-screening-tool.pdf

Activity 1: Influences on drinking behaviour

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Negative Influences

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Physical incapacity- frailty, poor grip/ dexterity, reduced sense of taste and thirst, ‘too tired’.

Cognitive impairment so people forget to drink.

Fear of incontinence and frequency-this is a major barrier to drinking adequately.

Perceived lack of carers’ time so people 'don't want to be a bother’.

Reliance on others to provide fluids

Drinking aids not used effectively or not available when required.

Drinking is seen as a nuisance or a chore (Godfrey et al 2012) so there is a negative response when offered a drink

Individuals with challenging behavior who have negative responses to most suggestions and interventions, including drinking

What do people think?

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I am not always given what I like to drink

I like a cup of tea first thing in the morning when I wake up but don't usually get one until breakfast

I love a nice cup of tea but don't like to ask as they are so busy

I often avoid drinking because I am worried about incontinence

Positive Influences

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Availability of drinks - everywhere, at any time, at the right temperature and of the right type

Help and support while drinking if required

Pleasure from drinking - it helps swallowing and chewing and makes mouths feel pleasant.

Social interaction- drinking with others is part of everyday life and is usually enjoyable.

Toileting access or support is readily available , bearing in mind that improving hydration will NOT cause extra toileting in the long term.

Understanding the importance of drinking and getting the regular drinking habit

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Think about all the different individuals in your home…

Can you answer yes!

Are drinks readily available? At the correct temperature? Do you provide a choice of drink, served at the correct temperature?

Can independent drinkers ask staff for drinks? If not, are they offered fluids regularly?

Is sufficient help and support given to those residents who need encouragement and prompting to drink. Are they supported with suitable drinking vessels

Is sufficient help and support given to individuals who need assistance to drink. Are they supported with suitable drinking aids where required and the same level of support throughout the day

Are individuals adequately supported with toileting access/continence? Bearing in mind that improving hydration will not cause extra toileting in the long term.

Is drinking made pleasurable? Drinking with others is part of everyday life and is usually enjoyable

Are individuals supported with information about the importance of drinking and are relatives encouraged to be involved?

Do you know if individuals are getting enough to drink? How is this recorded? Is this information monitored and acted upon if needed?

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What time do you have your first/last drink? Do you always have the same thing at these times?

Do you have any emotional attachment to a drink? E.g., it reminds you of childhood/family?

Are the properties of your drinks important? E.g., tea very hot, not too milky, bottled or tap water?

What happens when you do not get the drink you want? Or you cannot drink it when you want to?

Time of day	What and how much do you drink?
Early morning	3 cups of tea
Breakfast time	1 cup of tea and a glass of fresh orange
Mid morning	2/3 cups of tea
Lunch time	Can of diet coke
Mid afternoon	2 cups of tea
Tea time	1 cup or team and a glass of water
Evening	A glass of wine and a glass of juice
Supper time	1 cup of team

Activity 2: When and what do you drink?

Activity 3: Choosing a cup or glass

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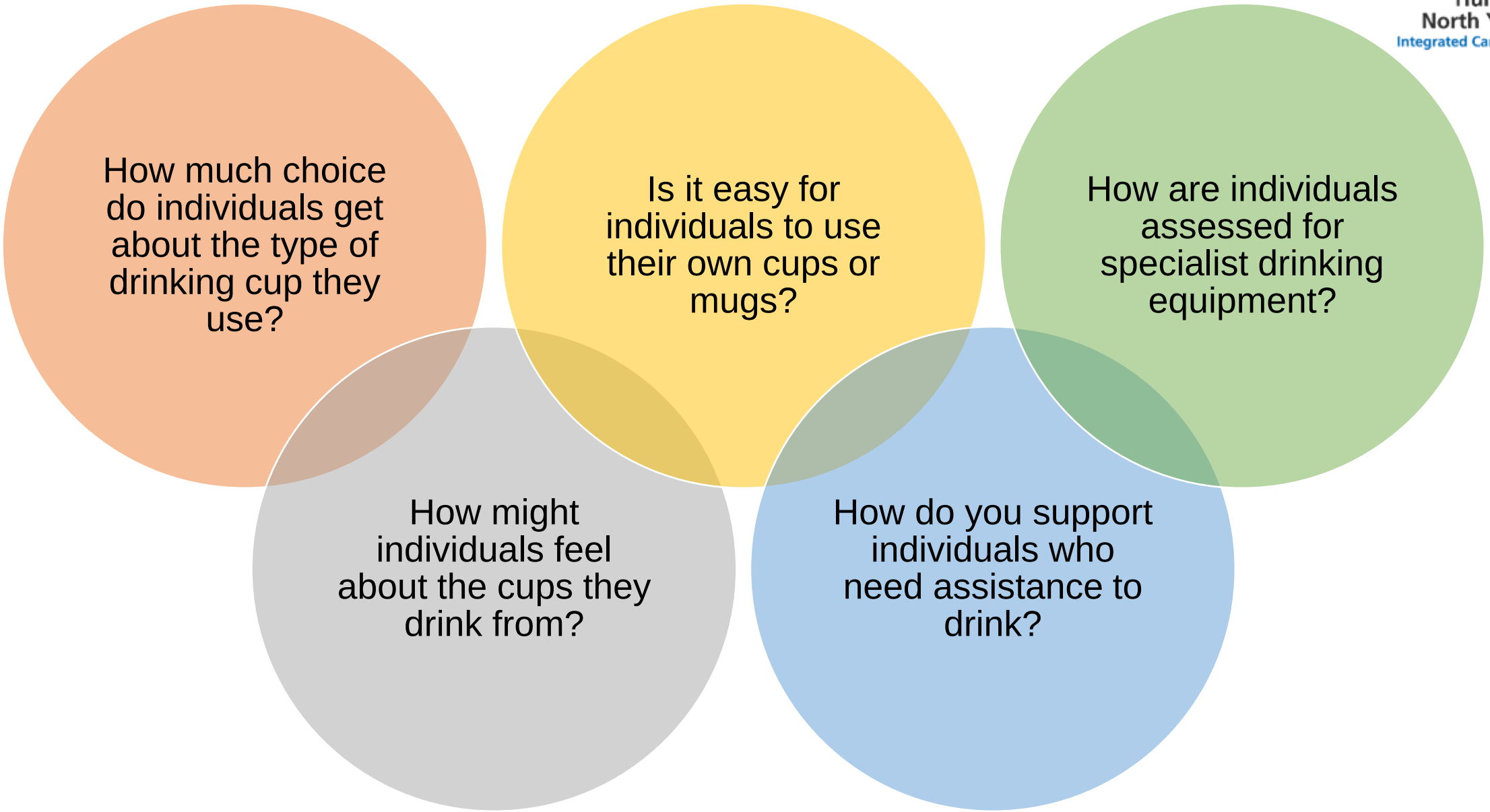


Monitoring Fluid balance

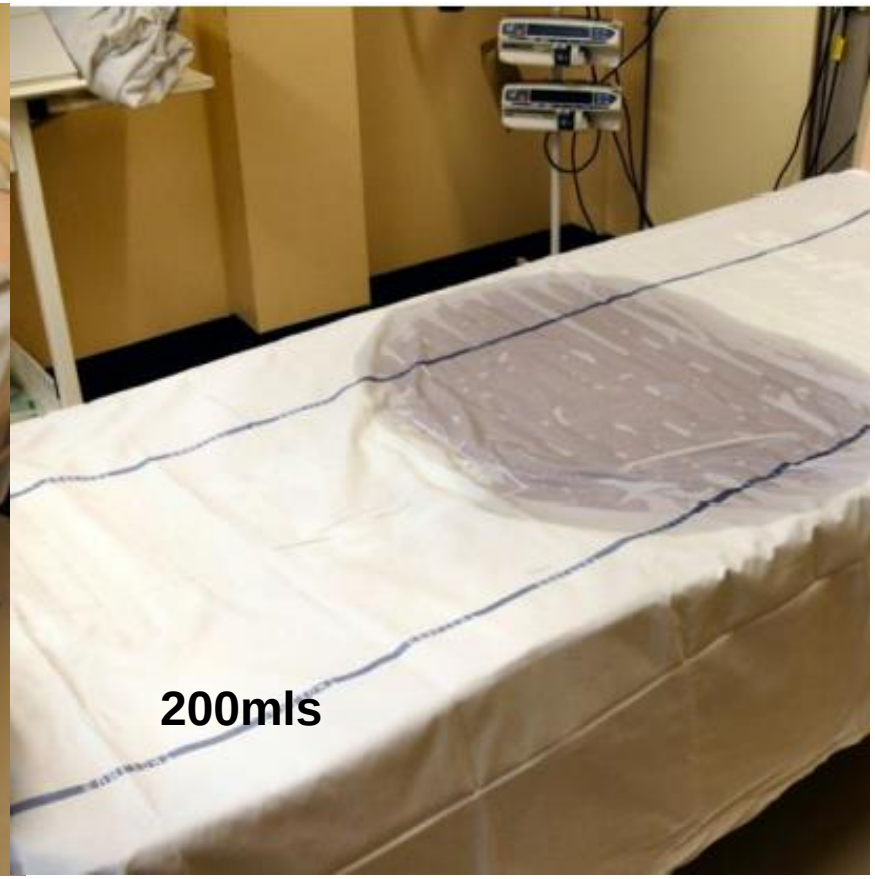
Challenges

- Independent drinking/toileting
- Assisted by relatives/friends with drinking toileting
- Incontinence – how do we know how much urine is in a pad or wet bed?

Encourage residents and relatives to participate in recording fluid balance

Provide standard measures to make documenting easier

moisture indicators on pads and estimation can be helpful



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What can we do to improve hydration?

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...for improving HYDRATION

- Identify those with poor fluid intake/at risk of dehydration or people that require help with drinking
- Ensure sufficient drinking opportunities are available, providing support, encouragement, reassurance and adequate time
- Provide drinks with every meal
- Explore individual preferences, drinks/vessels/aids
- Ensure a wide range of drinks are readily available, served fresh and at the correct temperature
- Try serving water with slices of orange, lemon or lime
- Increase knowledge & understanding of the importance of adequate hydration
- Increase availability of fluid rich foods
- Provide ice pops, lollies or ice cream for people that don't like drinking
- Many people will take extra drinks with medication – use this opportunity to offer extra

Give HYDRATION a BOOST!

PDF

Hydration boosters (2) easy read.pdf

High fluid foods all contribute valuable fluid, i.e.,

- Ice cream, ice lolly's, jelly's & milky puddings, yoghurts, custard.
- Smoothies.
- Water rich fruit or veg such as melon and cucumber.
- Stewed, pureed or tinned fruit.
- Soups, stews and sauces.

Get Creative!

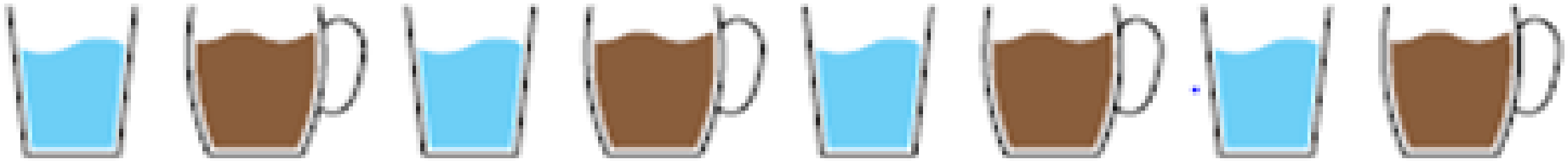
Consider:

- Fizzy vs flat water.
- Ice cubes.
- Flavours and colours.
- A variety of drinking vessels.
- Themed events and social occasions such as mocktails / afternoon tea / tasting sessions.

Knowledge Check!

What is the minimum recommended amount of fluid that an older person should drink every day?

a. 500mls b. 2000mls c. 1000mls d. 1500mls



It is recommended that adults drink at least 1500mls of fluid every day. This equates to approximately 6-8mugs or glasses. All fluids count (except alcohol) water, juice, tea, coffee, milk…

Knowledge Check!

What factors make older people at increased risk of dehydration?

- Reduced kidney's function
- Our body's ability to manage and store water
- Altered sense of thirst
- Excessive fluid losses i.e., medications such as diuretics and laxatives or diarrhoea, sweating and vomiting.
- Other functional changes in the body can cause swallowing difficulties (dysphagia)
- Physical difficulties

Knowledge Check!

What factors make older people at increased risk of dehydration?

a) Urinary Incontinence
b) UTI
c) Falls
d) Kidney failure
e) Drug Toxicity
f) Hospital admission
g) Confusion
h) Constipation
i) Pressure ulcers

All these conditions have been linked to dehydration

Knowledge Check!

Which of the following could be signs of dehydration?

a) Dry fragile skin
b) A dry mouth, lips & tongue
c) Sunken Eyes
d) Headache/dizziness
e) Confusion
f) Constipation
g) Tiredness/ not wanting to take part in activities
h) Passing small amounts of dark coloured, smelly urine

All these signs indicate that a person may be dehydrated

Knowledge Check!

Which older people are at the highest risk of dehydration?

- Those with dementia
- Totally dependent on carers
- Partially dependent on carers
- All older people are risk

All older people are at risk - Even those who can drink independently without assistance or prompting often do not consume enough fluids.

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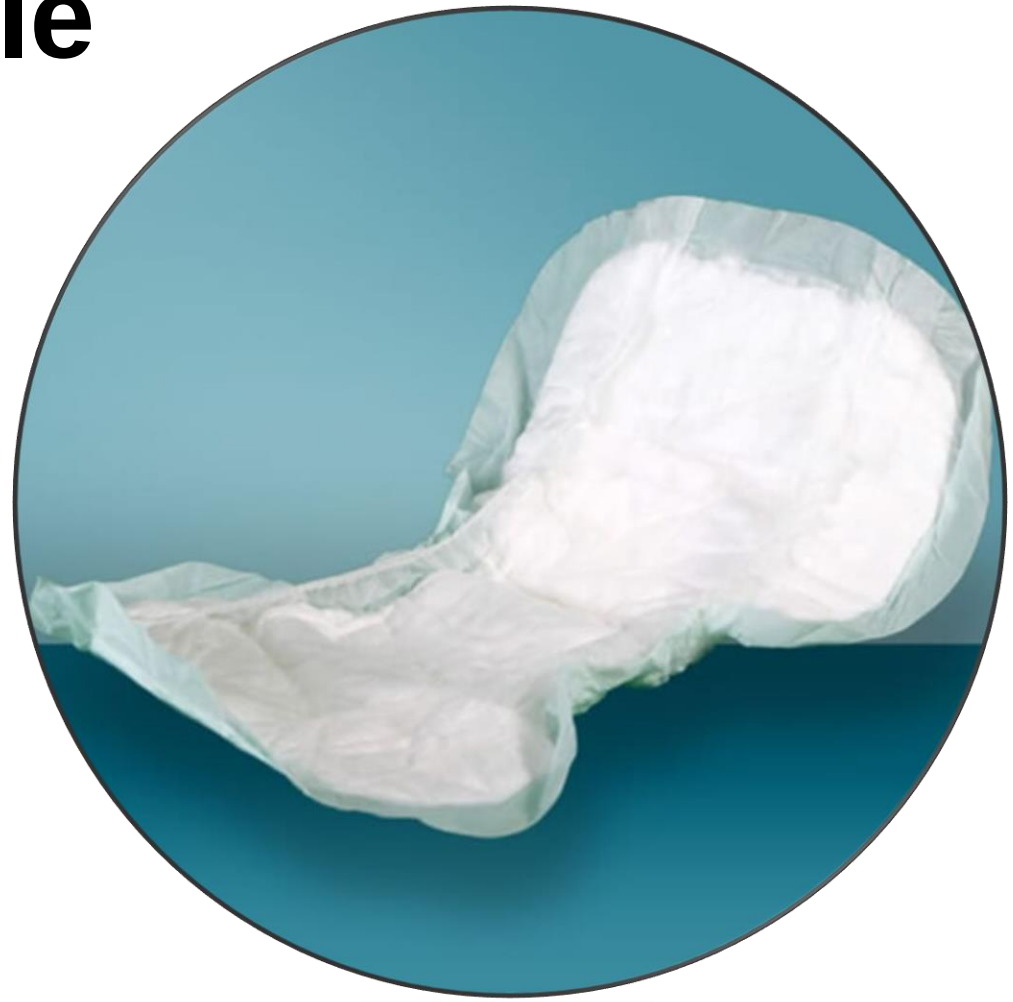
Preventing UTI in people with incontinence

UTI’s are more common in people with incontinence

- Change continence products regularly
- Remove products from front to back
- Wipe the genital area from front to back
- Use Gentle unscented soap for cleaning
- Keep the area as dry as possible – bacteria love moisture!
- Encourage and promote regular toileting



Case study 1 – Charles

Charles is a 73-year-old gentleman. He has been in the care home for 3 months.

Charles has a diagnosis of dementia, but he can eat and drink independently.

He is not fussy and will drink anything but really likes tea and apple juice.

He doesn't talk much but will ask for specific drinks.

Charles spends much of the day sitting in his armchair, his medication makes him sleep.

It can take Charles a long time to eat his meal. Sometimes, by the time he has finished his main course, the trays have gone back to the kitchen, and it is too late for him to have a dessert.

Residents are usually given tea or coffee after their meal, but Charles doesn't always get offered any as he is still eating. The carers are then too busy and often forget to check on him.

The carers don't like to disturb Charles if he is sleeping and sometimes doesn't get offered a drink in the afternoon.

When he does get a drink, he doesn't always finish it as he falls asleep again and the drink is taken away.

Today the carer looking after Charles observes that he seems to be more lethargic then usual and a little confused. She's worried that something seems to be wrong with him and informs the nurse in charge that he appears a little 'off'. The nurse reviews the nursing notes: the records indicate that he has been constipated for the past three days and yesterday's entry indicated he had 'strong and smelly urine'.

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Case study 2 – Dolly

Dolly is an 81-year-old lady who has been a resident in the care home for 3 years.

She has a history of strokes and is diagnosed with dementia.

Dolly is now bedbound although occasionally the care staff transfer her to a chair using the hoist.

Dolly finds it difficult to hold a cup independently, often spilling her drink down herself. Dolly needs some assistance with eating and drinking.

Carers report that Dolly takes a lot of time to eat and drink and often her food is cold before she has finished.

Dolly is offered water with meals, but she often spits it out and nurses report the same problem when they try to give her water with medication.

Her daughter has brought in peppermint tea which she says Dolly really likes.

Dolly also sleeps for long periods of time and is regularly the last person to be woken up for breakfast, by which time staff are often busy washing other residents.

It is difficult for staff to find the time to help her drink throughout the day.

This afternoon the carers have reported that Dolly appears more confused, and they haven't been able to get her to eat or drink anything. One carer notices that Dolly's breathing is noisy and when her incontinence pad is changed it is completely dry. Dolly has been on a fluid chart for three days and when this is reviewed it shows that she has been drinking about 400ml of fluid a day

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Catheter Care

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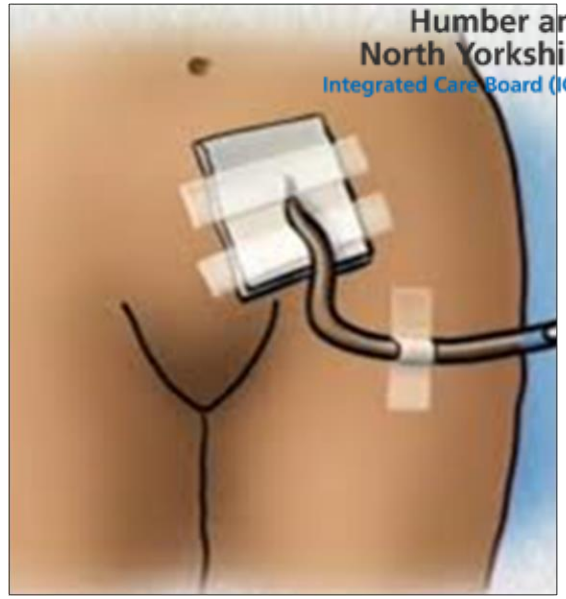
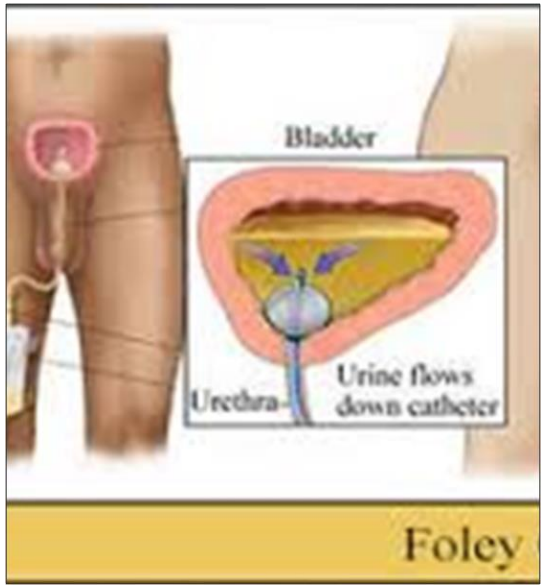
What is a urinary catheter?

A thin, flexible, hollow tube that drains urine from the bladder into a drainage bag

It is inserted into the bladder, either via the urethra or through a hole made in the abdomen (Suprapubic)





Catheterisation is a major risk factor in the development of a UTI.

Bacteria or yeast can travel along the catheter and cause infection in the bladder or kidneys

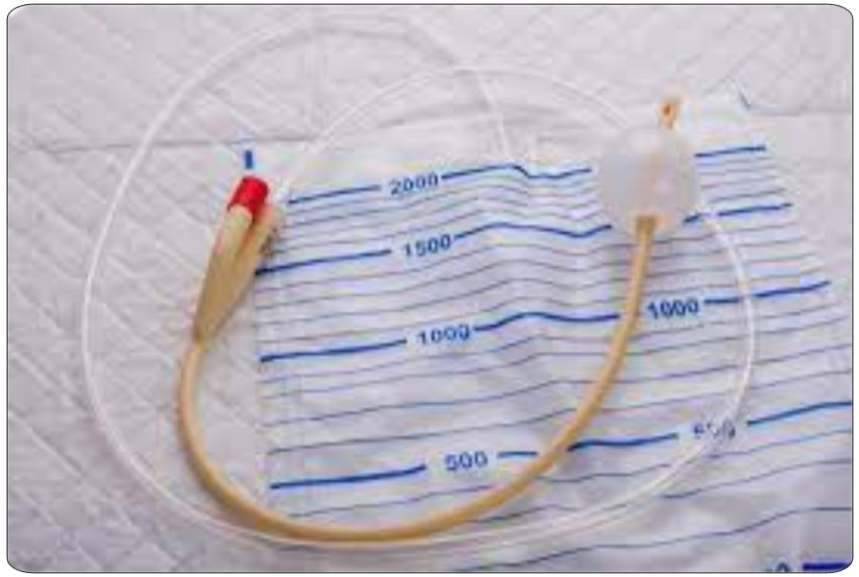
A catheter is a foreign body which can irritate and damage the mucosa (layer of protective mucus) providing an area for bacterial growth

Catheter associated UTI (CAUTI)

Between 43% and 56% of UTI's are associated with catheter use

Virtually all service users with long term catheters will have bacteriuria

All service users with a catheter are at an increased risk of UTI



By day 10, 50% of people with a catheter will have bacteriuria (bacteria in urine)

The risk of UTI increases 5% each day a catheter is in place

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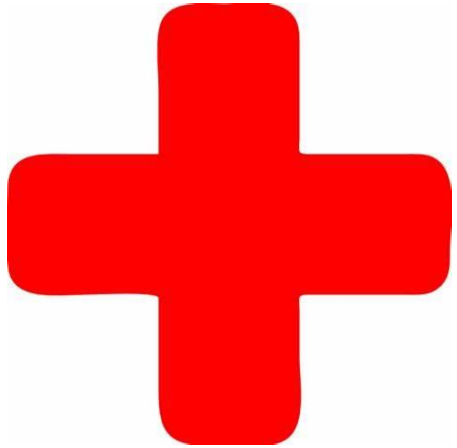
The risks of long-term catheters

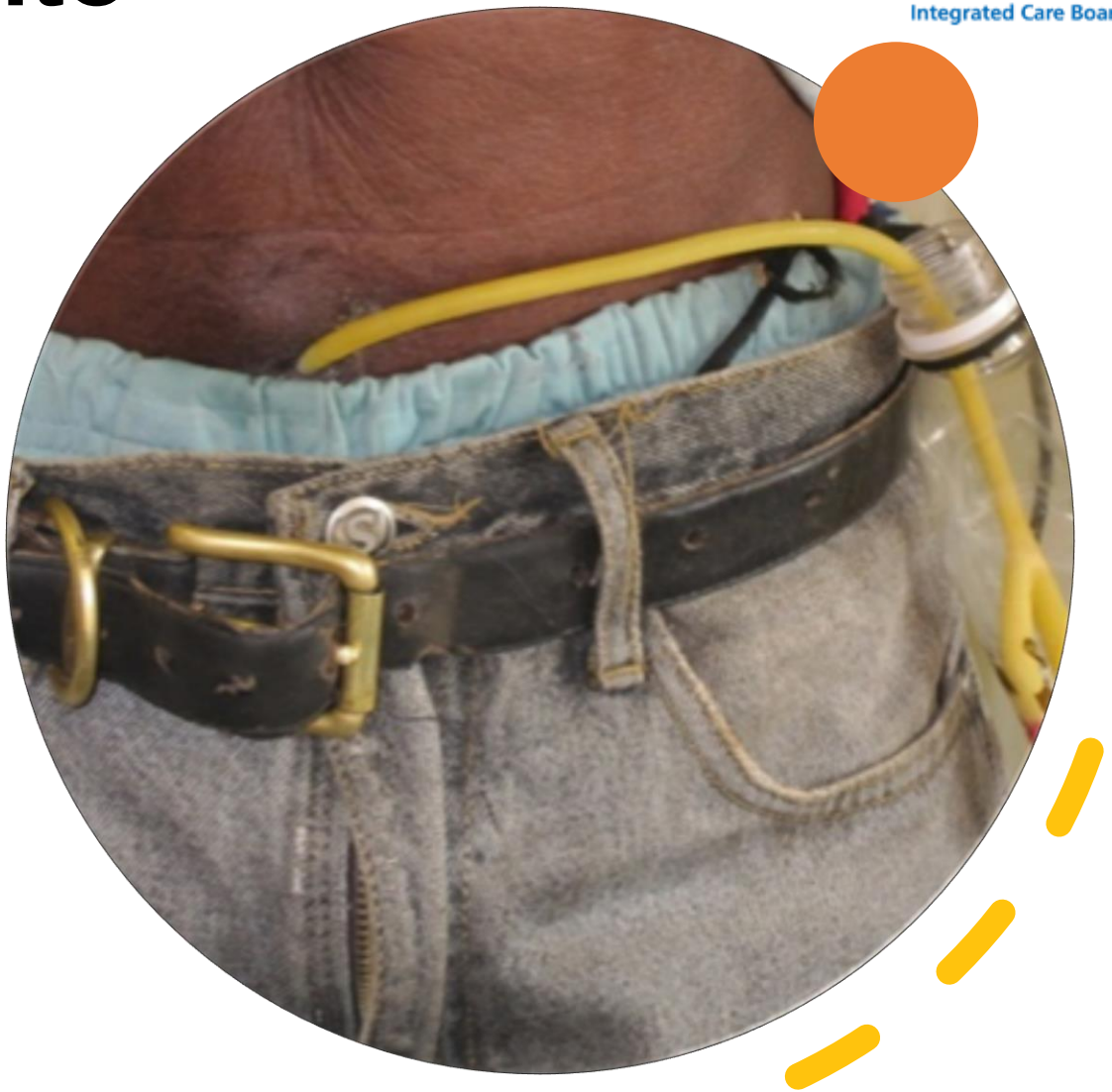
- Patients catheterised for > 75% of year
- 3x more likely to be hospitalised
- 3x more likely to receive antibiotics
- 3x more likely to die

Kunin et al Am.J.Epidemiology 1992,
McNulty et al 2009 B. J. Infection Control



How does bacteria get into the bladder of someone with a catheter?

- Poor hand hygiene
- Trauma
- Breaking of the connection between the catheter and the bag
- Putting the bag above the patient's bladder – no back flow control
- Pulling the catheter out with the balloon intact
- Not cleaning the meatus (opening into the body) daily (most UTI's are caused by the patient's own bowel flora (natural organisms that live in the gut /bowel)
- Using a home-made drainage system or leave the catheter to drip onto a continence pad



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Reducing the risks of CAUTI through correct catheter hygiene and maintenance

Hands should be washed, and appropriate PPE worn - (Disposable gloves & apron) when touching a catheter/catheter bag

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Personal Hygiene

Routine personal hygiene is all that is needed to maintain cleanliness, i.e., daily bath or shower.

Individuals who are unable to bath or shower daily, should be helped to wash the urethral opening at least twice daily with soap and water and following a bowel movement

Females – wash genital area from front to back with warm water and unperfumed liquid soap, dry area gently

Men - gently retract the foreskin (if present and possible), wash with warm water and unperfumed soap, dry area gently and replace foreskin (this is essential otherwise complications can result)

Ensure the catheter is clean where it exits the body

Avoid use of highly scented shower gel/bubble bath and avoid use of talc

Do not use creams unless prescribed

Report any abnormal discharge from where the catheter exits the body or if visible in the urine

- The drainage bag and tube should always be positioned below the level of the bladder to prevent backflow
- Drainage bags should be emptied when 2/3 full
- The catheter tubing must not be kinked or occluded, or pass under pressure areas
- The bag must be kept off the floor
- A separate single use clean container should be used to empty drainage bags, and the drainage valve must not touch the container on emptying the bag
- If a drainage bag becomes disconnected always replace it with a new bag
- Ensure adequate fluid intake

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The catheter and drainage bag should be adequately fixed to prevent trauma

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Urine Sampling

- Never take urine directly from the bag
- Always use the sampling port
- Clean the port prior to use
- Use a red topped bottle for samples
- (Antibiotic treatment should be based on what is in the bladder, not the bag!!)

Urine Dipstick

- Urinalysis (Dipstick) doesn't diagnose CAUTI (Catheter associated UTI)
- Do not dipstick urine from a catheter!

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Catheter Hygiene Quick quiz

1. What should you always do prior to touching a catheter or drainage bag?

Decontaminate hands and wear a disposable apron and gloves

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2. If a catheter stops draining, what action should you take?

Check for any kinks or loops in the tubing, ensure drainage bag is below bladder level. If neither are causing the problem, Call GP or D/N

Figure D

3. How often should a catheter bag be emptied & why?

When it is approximately 2/3rds full. Too often increases the risk of infection as it creates a break in the closed drainage system. If allowed to get too full urine backs up and stagnates in the tube, increasing the risk of infection

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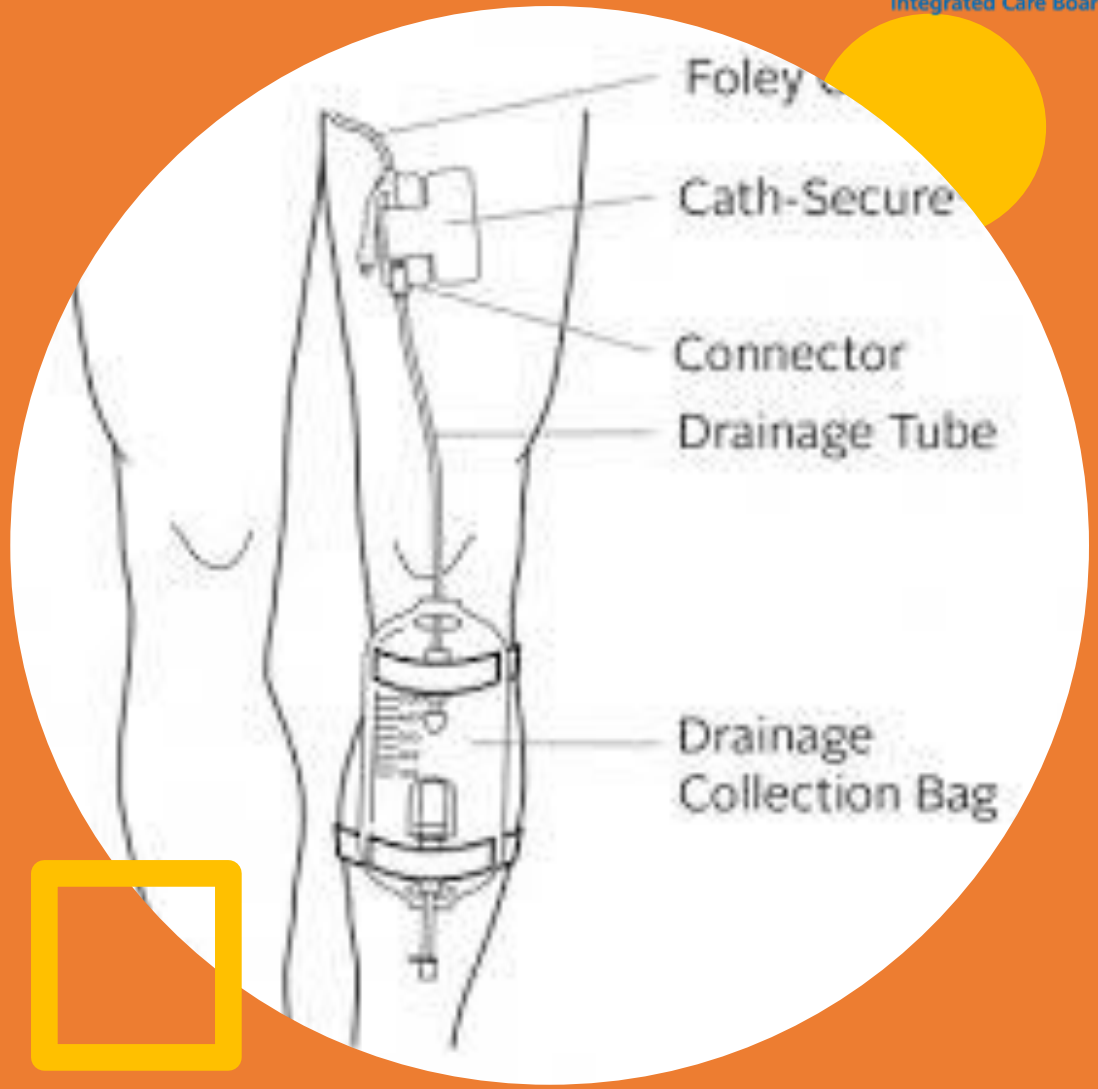
4.How should catheter leg bags be positioned?



Comfortably, securely and below bladder level to prevent backflow

5. How often should a catheter leg bag be changed?

According to manufacturer's instructions (usually weekly)

6. How many times can a catheter leg bag be washed and re-used prior to discarding?

None, catheter bags are single use only and should not be re-used

7. How should a catheter overnight drainage bag be positioned?

It should be attached to a nightstand, below bladder level, ensuring that no part of the bag or drainage tap are touching the floor

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8. How many times can an overnight drainage bag be used?

Once only. Overnight drainage bags are single use only and should not be re-used

9. What container should you use to empty a drainage bag?

A separate single use clean container should be used to empty drainage bags, and the drainage valve must not touch the container on emptying the bag

10. What should you do on completion of any care intervention?

Decontaminate hands and remove PPE


OVER
to
You...