

Care Home IPC Webinar: Catheter care and the prevention of CAUTI in the care home sector

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Transcription

Slide 1: Introduction

Hello, my name is Suzanne Watson.

I'm the Senior Infection Control Nurse for NHS Fife Infection Control Care Home Team.

We're going to talk today about catheter care and the prevention of catheter associated urinary tract infections in the care home setting, but we'll know these from here on in as CAUTI.

Slide 2: Learning outcomes

So learning outcomes.

We'll discuss and understand what a catheter is and why they're used, and also the associated risks of using catheters.

We understand how a CAUTI is and identify the signs of a CAUTI.

Also infectious agents that cause CAUTI and bloodstream infections.

We'll also take a look at the Catheter Passport, which includes the essentials of catheter care and documentation and also the useful resources that are available for staff to access in catheter care and the reduction in prevention of CAUTIs.

Slide 3: What is a catheter?

So what is a catheter?

A catheter is a thin, hollow, flexible tube which is inserted into the bladder.

It's used to drain urine essentially.

There are two different ways in which these can be put into your bladder.

So it could be through the urethra or supra-pubicly.

So we'll have a further look at this.

Slide 4: Urethral catheter

So the catheter is put into the urethra, which is the tube that carries the urine from the bladder to the outside of the body.

The opening is situated at the tip of the penis or just above the vagina.

When the catheter tube enters the bladder, a small balloon near the tip of the catheter is inflated sterile water and that keeps it in place.

The drainage bag can then be attached to the leg or around the waist depending on what system is being used, and for overnight it can then be attached to the overnight drainage bags which are slightly bigger.

Slide 5: Supra-pubic catheter

For the supra-pubic catheter, some individuals will have one of these.

The catheter will be put in via a small incision or cut made in the abdomen.

This is usually done in hospital by a doctor during a short operation, either using local or general anaesthetic.

Just like the urethral catheter, the tube will sit in the bladder and be kept in place by the inflated balloon.

Slide 6: Risks associated with catheters

So having a catheter, specifically a long-term catheter in the urinary tract significantly increases the risk of UTIs because it provides a pathway for bacteria to enter the urinary tract and cause infection.

The catheter is essentially a foreign body.

It can disrupt the body's natural defences of the urinary system, and this makes it easier for bugs and bacteria to proliferate and multiply as the body's natural defences react to the catheter.

This can cause pain and spasms as the body tries to expel it.

However, it is normal for people with catheters to have some bacteria in their urine, but they will not necessarily have a UTI or a urinary tract infection unless they also have symptoms of infection.

For example, a positive dipstick test does not always indicate there's an infection or need for antibiotics.

The presence of active symptoms should be considered prior to the treatment of a UTI.

Urethral damage can cause damage such as a false passageway.

This is when the catheter tube on insertion deviates from the intended refill pathway and creates a new abnormal channel within the urethral wall.

A consequence of this is that subsequent catheterisations can be more difficult and increases the risk of infection and sepsis.

Catheters can also get blocked in obstructions due to a number of reasons.

This could be something simple such as the tube kinking and also due to a build up of debris and salts.

This can lead to leakage, bladder distention and infection.

The leakage of urine can also cause irritation to the skin, but this can also be caused by allergies to the catheter and friction.

All of the above risks can lead to infection and even urinary sepsis, blood infection, for example, E.coli bacteraemia, which we'll discuss further.

Slide 7: Signs of CAUTI

So how do we spot signs of the CAUTI?

So we have to respond to unusual alterations of changes in behaviour.

Has the resident taken to their bed?

Is there a change in their usual behaviour?

For example, if they walk with or without purpose most days and suddenly they stop, they're likely to be unwell and it's essential that this is highlighted and acted upon.

Here are just a few of the other symptoms we might see.

So generally feeling unwell, fever, new pain in the tummy, lower tummy or back and also pain in the area where the catheter is put in and or pus like discharge in the urine.

Slide 8: Escherichia coli bacteraemia (ECB)

So E.coli bacteraemias or ECB's.

All boards in Scotland carry out mandatory surveillance on healthcare associated infections.

This provides intelligence to support and develop interventions for improvement in all forms of healthcare, including any which may be needed in care homes.

Quarterly or three-monthly comparison data collated by ARHAI Scotland is then published as a report and includes infection rates, the causative infection agent and information about the source of those infections Scotland wide and within each health board area.

This includes E.coli bacteraemia and the percentage of those being reported as healthcare associated infections, some of which will be CAUTI and if being described

as either a hospital acquired infection, a community acquired infection or healthcare associated infection.

This will include care home residents.

This infectious agent E.coli was responsible during 2023 for up to 75% of gram-negative bacteraemias which is sepsis or bloodstream infections in Scotland.

This continues to be monitored and requires to be considered locally to enable rate reductions and improvement.

The next ARHAI Annual Report is nearing completion and is scheduled for release later on in the year and will include the information gathered during 2024.

Slide 9: ECBs and CAUTIs

For the ECBs caused by CAUTIs and which is healthcare associated accounts for over a fifth of cases, that's 22%.

Remember, care home cases will be included in that figure as they are classified as healthcare associated, whilst the blood culture will likely be obtained in hospital as the case is admitted with sepsis. The associated quality improvement opportunities may need to take place within other facilities such as the care home.

Slide 10 and 11: National Catheter Passport

Since 2018, every individual with a catheter should be being issued with a catheter passport.

This passport is a useful method of communicating and sharing history of the catheter and contains information on how one should be cared for safely.

In addition, there are clinical sections that nurses, doctors, or care providers can complete.

Every clinical detail should be recorded in the passport including difficult catheterisations, the date of the last catheterisation so it's known when it's due to be removed or changed, and the regular assessment for its ongoing need.

Effective documentation of all catheter-associated care is important to make other health professionals and care providers aware of any ongoing challenges with the resident's catheters and also to support their own clinical decisions whilst they care for them.

This could include hospital admission for re-catheterisation and individuals known to have had a past medical history of a difficult catheterisation.

Slide 12: Daily Catheter Care

Daily care provision to prevent infection and encrustation at the insertion site and to promote comfort must include keeping it clean, performing visual checks and supporting the resident's personal hygiene which is washing the genital area and insertion site.

To minimise infectious agents entering the bladder, ensure the tap is not in contact with any surfaces such as the side of urinal or toilet bowl whilst you're emptying the drainage bag.

Ensure the drainage system is not in contact with the floor.

Ensure overnight bags are used overnight only and then discarded and that they are not being reused.

This might appear sustainable and cost effective, however this increases the infection risk and the manufacturers have not designed them to be used in that way.

Most leg bags are intended to be used for a maximum of around five to seven days.

Slide 13: Benefits of daily catheter care

So to recap, the importance of daily catheter checks and cleaning.

Keeping that area clean reduces the risk of introducing infection.

It's also systematic approach to personal care, so everybody is doing it the same way, which upholds high standards.

There's also consistent monitoring of signs of infection, so if anything does change within a day, we know that that's being checked thoroughly every day and this then allows for a timely response to the potential infections.

Good documentation and evidence of caregiving is always important to ensure high standards of infection prevention.

Within the National Catheter Passport is the weekly catheter care bundle, so this is handy if a resident is independent and undertakes their own catheter care.

It's signed off once a week, so it's not appropriate for care staff completing daily care where there might be several staff in a week carrying out that care.

But certainly for a resident who is independent, this is a useful tool to allow them to remember what they're looking for in assessing their catheter site.

Slide 14, 15, 16: Daily catheter care bundle – Scottish Patient Safety Programme

This type of document can be used to supplement daily documentation of care being undertaken by healthcare workers and care home staff and if there is not something like this already in place in your home, it could be something you could introduce with support, perhaps provide by your local QI team or your IPC providers if needed.

Daily care should start with assessing if there is still a requirement and need for the catheter.

Slide 17: Preventing CAUTIs

So short term catheters are changed as needed or after a set period, for example two to four weeks.

Longer term catheters may be changed every one to three months or more frequently if complications arise.

It is important that review dates for renewal of catheters are identified and that staff are aware of the manufacturer's guidance.

We need to ensure adequate fluid intake and this ensures that the catheter remains patent and draining.

Ensure the drainage bag is kept below the level of the bladder and that the tubing is not kinked or restricted and again allows adequate drainage of urine.

Check that the drainage bag is connected and ensure the bag is emptied at appropriate intervals.

This will ensure the bag is not overflowing and regurgitating into the bladder and also that the circuit is not broken too many times which could introduce infection.

Slide 18: Decision aide for diagnosis and management of suspected UTI in people with indwelling catheters.

The Scottish Antimicrobial Prescribing Group has a number of care home specific resources that can support carers and nurses in the care home environment which can be accessed and or printed if a digital device or Internet access is an issue.

This flow chart has been designed to help nursing and care staff and prescribers manage catheterise people with urinary tract infections.

The National Catheter Passport should be used to support good practise in catheter care.

Dipstick testing should not be used to diagnose UTI in patients with indwelling catheters.

If a person does have a fever it could indicate infection, but some people may also have non-specific symptoms of infection such as abdominal pain, alteration of behaviour or loss of diabetes control.

Slide 19 and 20: SAPG Care Home UTI Assessment Tool

As the flow chart highlights, dipsticks are not an effective diagnostic aid.

They may show the presence of bacteria but not necessarily that the person has an infection.

If a urine specimen is required that should be obtained from the port and not the catheter bag.

Resources are available which care home staff can utilise the system with clinical decisions related to escalation of each individual.

It may even be an idea to have this as a poster and have it laminated in your sluice area or where samples are handled as well as any relevant safety brief folders are similar for ease of access.

This is just the next part of the flow chart which can also be laminated and displayed.

Slide 21: Reviewing an ECB CAUTI

When a CAUTI is identified regardless of causative infectious agent, it is recommended that case reviews undertaken to establish lessons learned and any quality improvement opportunities identified.

It is an opportunity to discuss the full situation, what went well, what didn't go well, to maintain the good care and make improvements if required.

Having documentation and placed evidence best practise such as daily catheter care allows transparency and it's evidence of best practise and high standards of care.

Slide 22: Further resources available

There are further resources available for care home staff to access.

This includes National Infection Control Manual, including the A-Z of Pathogens resources and appendices, the Care Home Infection Prevention and Control manual for care home specific guidance and the Scottish Antimicrobial Prescribing Group infection specific guidance, which there's a lot there on catheter care.

And of course the Scottish UTI Network Catheter Passport, which all people with catheters should have been issued with.

Slide 23: Contact Information

If anybody has any questions, I'm happy to have them emailed out to me and answer them all as much as I can at Suzanne.watson@nhs.scot