



Department
of Health &
Social Care



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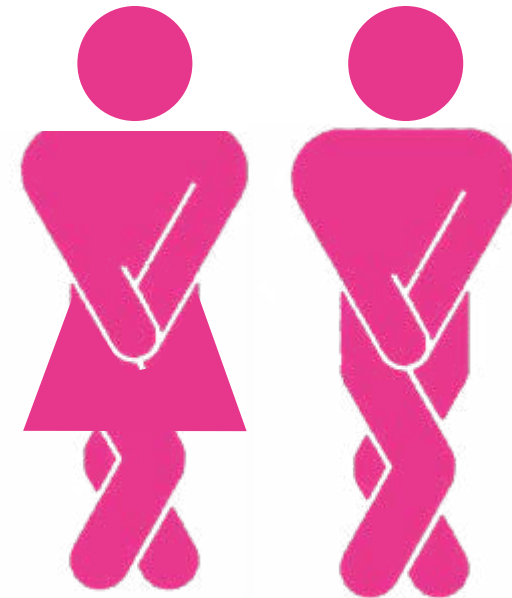
Infection Prevention and Control (IPC) Champion Network meeting

SUMMARY

'Identifying and reducing Urinary Tract Infections (UTIs)'

Thursday 6 June 2024

2-3.30pm, via Zoom



1. Chair's Welcome

Charlotte Fry, RN, DN, QN, Expert Lead Nurse, IPC Champions Network; @cfry_

- Welcome to everyone, good to see you all.
- As you know the IPC Champions Network is for nurses and colleagues working in adult social care settings - we now have 2000+ members in the IPC Network, if you would like to join, please go to: <https://qni.org.uk/nursing-in-the-community/infection-prevention-and-control-champions/>
- For IPC resources visit: <https://qni.org.uk/news-and-events/events/infection-prevention-and-control-ipc-champions-meeting/>
- We have an excellent agenda today with amazing speakers who will speak to us about preventing and reducing UTIs. Thank you to all of them for giving of their time and expertise.
- If you have any ideas or requests for themes for future meetings, please don't hesitate to email me at charlotte.fry@qni.org.uk



2. UTI Surveillance in Care Homes (Wales) A pilot

Dr Wendy Harrison, HARP Team, Public Health Wales, HARP@wales.nhs.uk

- We were tasked by Public Health Wales to scope potential care home infection surveillance: residents of care homes are a vulnerable population to infections and experience poor outcomes
- Over prescribing of antibiotics can lead to resistant infections
- Significant proportion of infections are preventable
- Surveillance data is a valuable marker of the quality of residential care, offers data for improvement and recommendations as well as reassurance for carers and families

Aim of pilot

- Question was, 'What is the prevalence of UTIs within care home residents in Wales?'
- We wanted to provide UTI rates for top causative organisms, produce outputs and recommendations

Methodology

- Extraction of relevant positive urine microbiology results
- Access to registered care home list in Wales
- Link care home residents and microbiology results
- UTI prevalence

Results

- E-Coli found to be top causing organism of UTIs in care homes - in half of infection rates
- Followed by Klebsiella pneumoniae and Proteus Mirabilis (catheter related UTIs)





2. UTI Surveillance in Care Homes (Wales) A pilot

Dr Wendy Harrison, HARP Team, Public Health Wales, HARP@wales.nhs.uk

- Prevalence of UTIs in care home residents was almost half the infection rate noted. Prevalence counts an infection only once per resident (infection rates can include several infections).
- The prevalence results indicate residents in care homes have multiple UTIs within a given year.
- We now have maps of Wales detailing infections by area, by local health authority, MSOA that can be produced quarterly / annually and as time series for comparison of rates

Next steps

- Consider case mix (age gender) in Welsh data
- We will be working on distinguishing between nursing home and residential homes
- Catheterised residents vs non catheterised residents
- Hospitalised residents vs non hospitalised residents

3. Dorset Hydration Project Collective Working

Tina Arnold, Infection Prevention and Control Lead Specialist Nurse, NHS Dorset ICB

- The aim of our project was to improve understanding and awareness of hydration benefits and dehydration risks for people aged 65 and over
- We launched a hydration campaign over Dorset and promoted resources and hydration messages
- Several initial pilots took place in hydration project since April 2023 to March 2024
- Took place in 8 care homes, 2 wards in Shaftesbury Community Hospital, 2 wards in UHD and 1 ward in DCH
- The feedback from staff was very positive, it was so positive everyone wanted to contribute, so we expanded the original pilot.
- We started to promote hydration in primary care, linking with primary care nurses and wanted to share information through wellbeing clinics
- Pivotal working with comms teams, who really worked on the campaign and shared the message, wider than the pilot site, through social media, press releases. They developed a web page where all the resources: posters, videos etc can be downloaded (for free), see here:

<https://staywelldorset.nhs.uk/hydration/#resources>



3. Dorset Hydration Project Collective Working

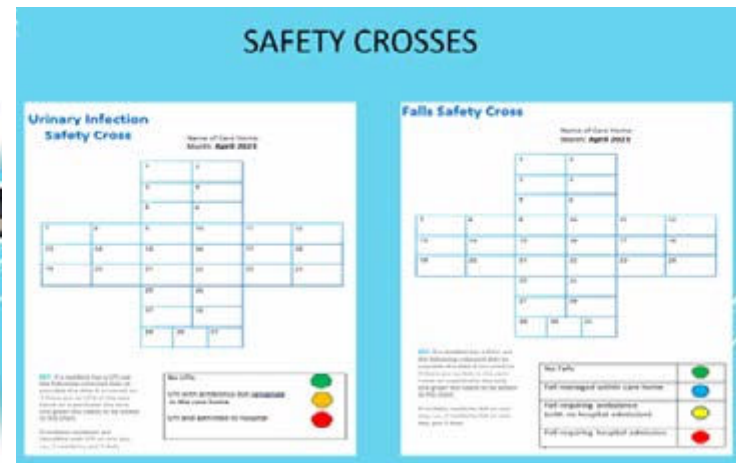
Tina Arnold, Infection Prevention and Control Lead Specialist Nurse, NHS Dorset ICB

- I had never heard of 'safety crosses' but they are very visual tools and easy to complete
- We used these as quantitative data and completed them on a daily basis, we collected the results on a monthly basis
- The feedback from care homes is that even though the pilot phase has finished, they will continue using them
- The impact of the project has been incredible - our colleagues' enthusiasm and commitment led to many amazing initiatives across their services, making positive changes to their patients, residents, families and staff

Results

- There was a reduction of urinary tract infections requiring antimicrobials and falls requiring ambulance attendance
- We carried out group discussions and found that education is a key factor

The success of the project really was down to the staff, they know their residents better than anyone, they were empowered too - but also involving the residents too, was very important and contributed to the success of the project.



4. Adamscourt Care Home

Beverly Harris, Regional Manager, Vauxian Care Ltd

- Our residents are aged 65+ and we have a 25 bedded residential care home. We mostly look after residents with dementia
- We've seen a huge reduction in UTIs since taking part in the project - there have been no UTIs for 8 months! Some behaviours have also reduced in people with dementia (like sun-downing and the challenges of day / night)
- We thought we were quite good at nutrition and hydration but it's not actually until you look deeper into it that you find you can improve
- At first the residents didn't want to know, they just wanted a cup of tea, they don't want to drink too much because it can cause more trips to the bathroom and if they have mobility problems they want to avoid that
- Getting staff on board first is crucial
- It's been such a hugely positive experience, it's impacted the residents and the staff too. The staff themselves say they all feel better, get through their shifts better, it's made such a difference to everyone.
- One resident, Pat, she was mostly non-verbal, but she's started communicating with her husband Bill with a few words and even a few sentences, she's even told him off! He didn't think he'd have that again, so it's been priceless. He too took it on board and he's been for a checkup and his doctors actually asked him how he'd got all his numbers down!



4. Adamscourt Care Home

Beverly Harris, Regional Manager, Vauxian Care Ltd

- We do a tray for carers and/or families and they make them smoothies, it opens up a whole host of experiences - it's about asking, one-to-one, what would you like in your smoothie, making it part of their activities.
- If they just want tea, it's about asking, how do you like your tea? Would you like a builder's tea, do you like lots of milk? It's about thinking, are we getting this right?
- One resident asks for a Coke Float, he used to like them when he was younger
- When we have the nutrition tabard on, it's like a medical round, it's taken that seriously
- We've also had a massive reduction in falls, as well as UTIs, it's just been such a positive experience.
- Download posters here:

<https://staywelldorset.nhs.uk/hydration/#resources>



5. Urinary Tract Infections

Liz Grogan, Deputy Director of IPC, QN, Leeds Community Healthcare NHS Trust

Definition of UTI

- According to NICE, a urinary tract infection, 'can result in several clinical syndromes including acute and chronic pyelonephritis (infection of the kidney) cystitis (infection of the bladder) urethritis (infection of the urethra) epididymitis (infection of the epididymis) and prostatitis (infection of the prostate gland). Infection may spread to surrounding tissues or to the bloodstream.'
- UTIs were first documented in Egypt in 1550 BC and they're still among the most common bacterial infections in the world.

Symptoms

- Needing to pee more frequently, pain or a burning sensation when peeing, needing to pee at night more often than usual, new pain in the lower stomach, new incontinence, kidney pain or lower back pain, blood in the pee, changes in behaviour (delirium), general signs of infection (fever), very low temperature below 36C.
- Personal hygiene and education is very important: we can do more work upstream: educating children and young adults

Facts

- UTI is the 2nd most common healthcare associated infection - up to 50% of these occur in people with a catheter.
- Bacteria in urine doesn't always mean UTI is present - in older people bacteria can live harmlessly in the bladder without causing problems.



5. Urinary Tract Infections

Liz Grogan, Deputy Director of IPC, QN, Leeds Community Healthcare NHS Trust

- Antibiotics can disrupt natural flora of the gut and potentially cause other infections such as CDiff and increase risk of antibiotic resistance
- Most common organism causing uncomplicated UTIs is E.coli, followed by Staphylococcus saprophyticus and Klebsiella

Risk factors

- Increasing age, being female*, being in a care setting, having a catheter, being immunocompromised, diabetes, recent travel to a country with increased antibiotic resistance
- *around 40-50% of women experience at least one UTI during their lifetime and 20-30% of these have a recurrence within 3-4 months. Read article in BMJ here: <https://dtb.bmj.com/content/51/6/69>
- One of my colleagues is leading a project on increased UTIs in menopausal women and the use of vaginal oestrogen, evidence shows it reduces the recurrence.
- In the elderly, those with dementia, UTIs may present differently: confusion / delirium can indicate a UTI along with worsening fever, rigours or central low back tenderness
- Trimethoprim and Nitrofurantoin are the most common antibiotics
- Sepsis: urosepsis is when an untreated UTI spreads through the urinary tract to the kidneys
- At least 44,000 deaths a year associated with sepsis. Sepsis leads to shock, multiple organ failure and death if not recognised early and treated promptly. It's preventable.
- Please see Liz Grogan's recent webinar on Sepsis at The QNI's Care Home Network meeting here: <https://tinyurl.com/rxd89vuv>

5. Urinary Tract Infections

Liz Grogan, Deputy Director of IPC, QN, Leeds Community Healthcare NHS Trust

- Catheter associated UTI (CAUTI) is a UTI in a person who urinary bladder is catheterised or has been catheterised in the past 48 hours
- Ideally the urine sample for culture should be obtained by removing the in-dwelling catheter and obtaining the sample through a new catheter. When this is not possible, the culture should be obtained through the catheter port, not the drainage bag.
- Always question a catheter: does the resident really need a catheter?
The longer the catheter is in, the more chance of getting a CAUTI
- Free poster on signs your patient's got a CAUTI, just google: CAUTI poster Leeds (see right)
- There are lots of ways to encourage hydration as proven by earlier speakers today
- Great video made in West Yorkshire ICB on avoiding UTIs, see it here:

<https://www.youtube.com/watch?v=TX1QvdL1AeY>

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Has your patient got signs and symptoms of a catheter associated urinary tract infection (CAUTI)?

Diagnosis of a CAUTI must always involve assessing for clinical signs and symptoms compatible with a CAUTI.

Signs and symptoms include:

- Fever
- Rigors, shivering, shaking
- New onset or worsening confusion/delirium
- Malaise/fatigue with no other identified cause
- Back pain
- Pelvic discomfort/pain
- Acute haematuria

Dip stick testing of urine must NOT be used to diagnose a CAUTI, because:

- Patients with a urinary catheter may have non-visible haematuria due to ongoing trauma of the catheter
- Patients with a urinary catheter are likely to have bacterial colonisation of their urine due to the presence of the catheter
- These can all be normal findings in a catheterised patient and in isolation does not indicate infection

When to take a catheter sample of urine (CSU):

- A CSU should only be obtained when a diagnosis of CAUTI has been made
- Obtain the CSU before the patient commences antibiotics
- The CSU will help guide antimicrobial treatment but does not help in establishing the diagnosis
- Obtaining a CSU when there is no clinical evidence of a CAUTI may lead to a false positive result and unnecessary treatment with antibiotics

How to obtain a CSU:

- Obtain the specimen aseptically via the drainage bag needle-free sampling port
- Clean the sampling port with a 70% isopropyl alcohol swab and allow to dry
- CSUs may also be obtained aseptically during catheterisation
- The sample should normally be sent in a red-topped (boric acid containing) sterile container and fitted to the line
- A false negative culture result can occur with a small urine volume

Changing the catheter:

- Patients who have a diagnosis of a CAUTI should have their catheter changed with appropriate antibiotic cover*
- Change the catheter after the patient has commenced antibiotics for the CAUTI

References:

- Leeds Community Healthcare NHS Trust, 2020. Urinary catheterisation: signs and symptoms. Leeds: Leicestershire and Lincolnshire NHS Foundation Trust. Available from: <https://www.leicestershireandlincolnshire.nhs.uk/our-services/clinical-services/urology/urinary-catheterisation>
- Leeds Community Healthcare NHS Trust, 2020. Urinary catheterisation: signs and symptoms. Leeds: Leicestershire and Lincolnshire NHS Foundation Trust. Available from: <https://www.leicestershireandlincolnshire.nhs.uk/our-services/clinical-services/urology/urinary-catheterisation>
- NHS.uk. (2024) Urinary catheterisation. Available from: <https://www.nhs.uk/conditions/urinary-catheterisation/>

ANTIBIOTIC GUARDIAN

Prescribing antibiotics when there is no clinical evidence of a CAUTI should not be done and may increase patients' antibiotic resistance to antibiotics.

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Thank you to all 170 delegates who attended today's IPC meeting.

The next meeting will take place on Tuesday 13 August, 2pm-4pm, theme and speakers to be confirmed.

More information will be available here:

<https://qni.org.uk/news-and-events/events/infection-prevention-and-control-ipc-champions-meeting/>



Comments from delegates:

Always great to hear Liz present , so much info

Thank you to everyone, it has been very informative. Some interesting ideas to bring to work

Thank you all so much this was very informative

Thank you so much great afternoon of knowledge!

Very informative session today, really interesting chats from the speakers

thank you . great session. very informative

Thanks Charlotte and Team. Great to join you at another useful event.

