Strategies for Older People living in care homes to prevent Urinary Tract Infection

Project findings

Core project team:

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NIHR Project 130396 'StOP UTI': Strategies for older people living in care homes to prevent UTI: a realist synthesis of the evidence

Background

- UTI is the most common infection in older people living in care homes (around 40% of infections)
- UTI is often difficult to recognise in older people
- This may result in over or under treatment
- Guidance about strategies for preventing UTI/CAUTI in care homes is limited

What is the research about?

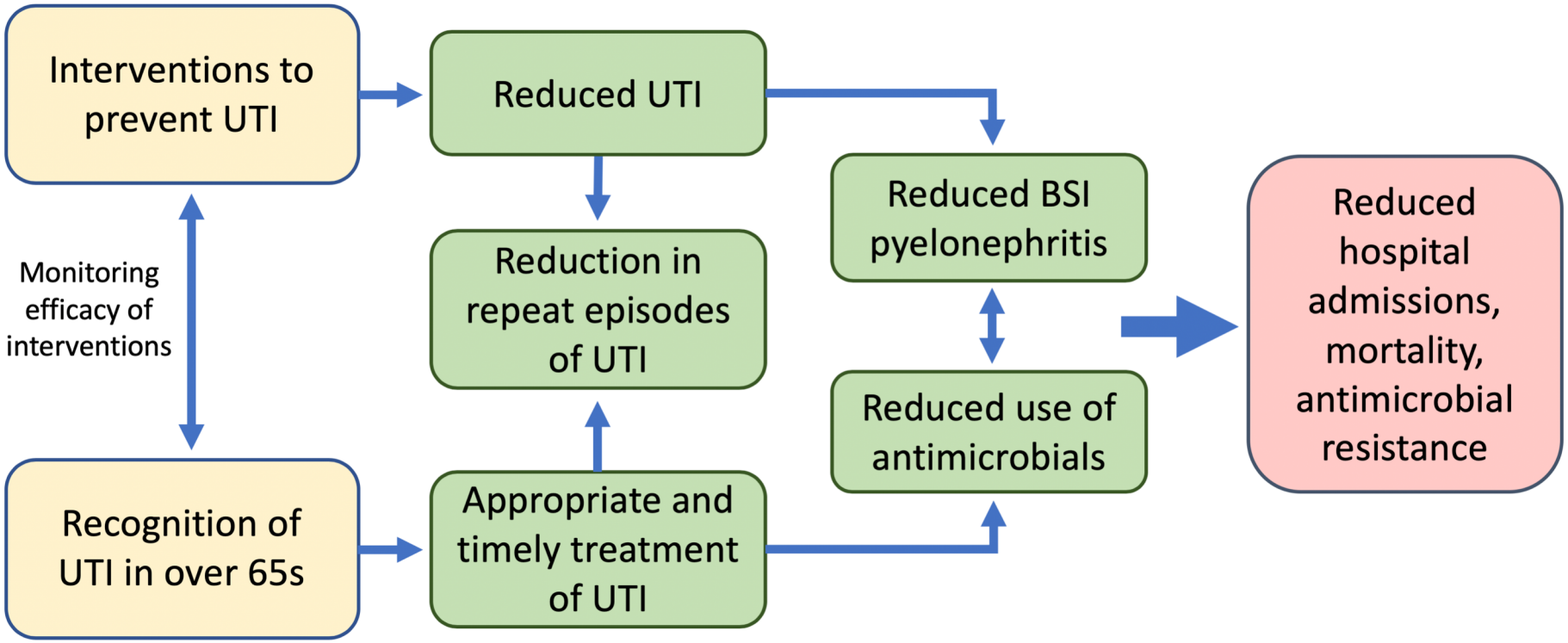
- ‘Realist’ review of existing evidence to identify evidence-informed strategies (‘programme theories’) that are effective in preventing older people in care homes from developing UTI/CAUTI
- Involvement of stakeholders throughout the project

Research questions

- Preventing urinary tract infection (UTI) among older people with or without urinary catheters living in care homes: what works, for whom, why and in what circumstances?

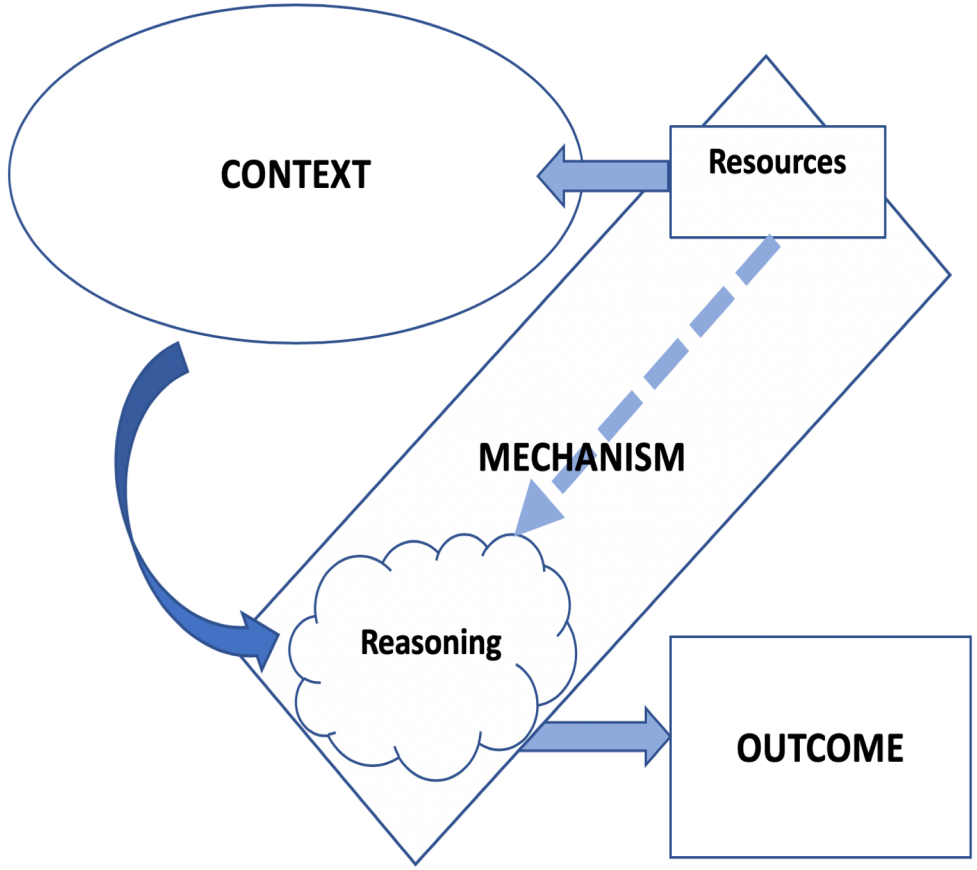
- What are the contextual factors and mechanisms that enable interventions designed to support the prevention and recognition of UTI?

How recognition of UTI is integral to its prevention



Context-Mechanism-Outcome configuration

(Dalkin *et al* 2015)



Method: Realist synthesis of evidence

Stage 1 Scoping the review	Stage 2 Retrieval and review of evidence	Stage 3 Analysis, synthesis and hypothesis testing	Stage 4 Consultation and dissemination
• Initial scoping search • Concept mining initial theory formulation • Consultation with stakeholders and project advisory group	• Systematic search for evidence • Appraisal and data extraction • Evidence tables linked to initial theories	• Synthesis of evidence • Formulation of context-mechanism-outcome configurations • Stakeholder interviews	• Developing narrative and outputs from final programme theory • Consultation with stakeholders and project advisory group • Active dissemination strategy

University of Southampton | University of West London – The Career University | University of Hertfordshire UH | UK Health Security Agency | Prifysgol Bangor University | Lancaster University | University of Exeter

StOP UTI

Importance of Patient and Public Involvement

- To ensure the project is underpinned by **multiple perspectives**
- Focuses on **what is important** to care home residents and their families /representatives
- **Joint decision-making** at key stages
- To ensure our findings and resources **reach carers and the public**

Findings: 3 theory areas

1) Care strategies for residents to prevent UTI/CAUTI

2) Strategies to support early recognition of UTI/CAUTI

3) Making best practice happen

Theory area 1: Care strategies for residents to prevent UTI/CAUTI

1. Hydration recognised as a priority for all residents
2. Recognising and preventing recurrent UTI
3. Preventing catheter-associated UTI

1. Evidence for link between hydration, UTI & care homes

- Older people more vulnerable to dehydration
- Dehydration is a significant problem among older people in care homes (Hooper 2016 found in 48%, hospital admissions Wolfe 2015)
- Link between hydration and UTI demonstrated in pre-menopausal women with low fluid intake (Hooper 2018, Su 2006)
- Some evidence for association between increasing hydration and reduction in UTI in care homes (Lean 2018, Wilson 2018)

Hydration recognised as a priority for all residents

Background

- Care routines limit the number of opportunities and choice for residents to drink
- Supporting some residents to drink can be difficult and time consuming
- Tension between encouraging and forcing some residents to drink
- Strategies that incorporate additional opportunities to drink into daily care routines associated with increased fluid consumption

Prioritise hydration into work routines

Educate/train staff to recognise importance of hydration

Staff have increased knowledge & awareness

- are empowered to prioritise hydration
- are confident to prioritise hydration in care activity

Time is allocated to offer drinks & support residents

Fluid intake is monitored, and action taken to support residents to drink more

Background

- Fluid consumption not accurately recorded and poor hydration missed
- Setting daily fluid intake targets for individual residents alongside staff education and support by the organisation/managers

Systems and documentation designed to alert care staff to residents with poor intake

Realistic target fluid intakes set

Actions agreed to manage residents with inadequate intake

Staff motivated to take corrective action to increase fluid intake

2. Management of recurrent UTI

- Recurrent UTI associated with vaginal atrophy in post-menopausal women and urinary tract abnormalities in men
- Evidence for effective treatments (NICE 2018):
  - Low dose prophylactic antibiotics
  - Topical oestrogen
  - D-mannose
- Current systems do not support the identification and treatment of recurrent UTI in care home residents

Strategies are in place to prevent recurrent UTI

Background

- Staff need to be aware that treatments are available for recurrent UTI
- Staff can identify and assess residents who have recurrent UTI
- Involvement of GPs and continence advisors to advise on appropriate treatment

Staff recognise recurrent UTI as health problem

Systems alert care home staff/GPs to residents at risk of recurrent UTI

Proactive management facilitated by primary care and continence advisory services

Staff less accepting of the inevitability of recurrent UTI and initiate preventative action

3. Catheters increase the risk of UTI

- Indwelling urinary catheters increase the risk of UTI because the catheter by passes the normal defences of the body
- Many catheterised patients have repeat episodes of CAUTI (Meddings 2014)
- Catheters are often inserted during a hospital stay and the reason for catheterisation is not clearly documented or communicated (McNulty 2006)
- Catheter removal is the most effective strategy to prevent CAUTI (Epic 2014)

Preventing catheter- associated UTI

Background

- Strategies that have been successful in reducing the risk have used:
  - Defined care bundles focused on the removal of catheters and catheter management
  - Staff education
  - Measurement and feedback on CAUTI rates plus support from IP specialist
    - Enables care homes to identify where improvement can be made and sustain change

Flexible education and training to help staff recognise CAUTI as health problem

Specialist support from IP/continence staff- measurement

Staff have confidence to assess urinary catheter need, identify alternatives and apply principles of infection prevention to their management

Staff are enabled and motivated to implement best practice in the management of urine catheters and challenge their use

Questions, comments, discussion

EYETOEYEPIX / GETTY IMAGES

Have we identified what might work?

Is there anything that we have missed?

What are the implementation issues that might need to be considered?

Theory area 2: Strategies to support early recognition of UTI/CAUTI

- Improving understanding of UTI recognition
- Identifying and acting upon changes in a resident that may indicate UTI/CAUTI
- Active monitoring of residents with early signs suggestive of UTI/CAUTI

Evidence for early recognition of UTI / CAUTI

- Care home staff are often the first to know when a resident's condition changes (Arnold 2020; Hughes 2020; Jones 2017; Tingstrom 2010)
- Symptoms of UTI/CAUTI can be less pronounced and more generalised in this group (Arinzon 2021; Rowe 2013; Chu 2018)
- Early signs/symptoms can be indistinguishable from other types of infection or related other causes, especially if resident has dementia (Rowe, 2013; Chu 2018; Berman 1987)
- Relying on urine dipsticks can lead to a misdiagnosis and overuse of antibiotics

Improving understanding of UTI recognition

Background

- It can be difficult for care home staff to change their intuitive understanding of UTI
- evidence-based symptoms of UTI can be difficult to observe in care home residents, who more often present with non-specific changes

Interactive education, which focuses on the role and work of care home staff using examples they can relate to

Commitment to supporting frequent opportunities for shared learning (and unlearning), reflection and application to practice

Knowledgeable and confident staff are more able to differentiate between UTI and other diagnoses

Increased tendency to consider alternative explanations for changes in a resident's condition

Reduced reliance on urine dipsticks and less importance placed on non-evidence-based signs such as changes in the colour and smell of urine

Identifying and acting upon changes that may indicate UTI/CAUTI

Background

- Healthcare support workers are often the first to recognise changes in a care home resident that could indicate UTI/CAUTI
- They can find it difficult to assess changes and communicate their concerns to senior colleagues

Whole care team actively involved in recognition and prevention of UTI and see the relevance to their role

Use of co-produced interventions (e.g. structured decision support tools and processes) that fit with existing ways of working

Staff at all levels are enabled to gather and convey accurate and relevant information using shared language

Staff feel motivated to communicate their observations and believe their concerns will be acted upon

Early suspicions of UTI/CAUTI can be investigated and escalated clearly to the GP when needed; GP is more likely to regard staff concerns as valid

Active monitoring of residents with early signs suggestive of UTI/CAUTI

Background

- Where there is diagnostic uncertainty, concern for missing a diagnosis and/or pressure from care home staff/family can lead to low-value practices or overprescribing
- “Active monitoring” should be a well-defined period within a protocol with clear actions, timelines, and roles

Diagnostic uncertainty in a resident with early non-specific signs of UTI/CAUTI

Effective communication between care home staff, residents and family carers and the primary care team

Direct engagement with the resident and family carers using a protocol for active monitoring with clearly defined actions and strategies

- Concerns of the residents, family carers and staff are validated
- Acceptance of active monitoring plans as a proactive step before resorting to antibiotics

Questions, comments, discussion

EYETOEYEPIX / GETTY IMAGES

Have we identified what might work?

Is there anything that we have missed?

What are the implementation issues that might need to be considered?

Theory area 3: Making best practice happen

- Stable leadership and collaborative culture
- Developing knowledgeable care teams

Stable leadership and collaborative culture

Background

- Care homes face challenges related to workforce capability, capacity and stability.
- May have multiple competing care priorities and processes.
- There is pressure to ‘get work done’ and care staff often have minimal autonomy to act as key contexts.

Care home managers embrace a resident centred culture of care and multidisciplinary working; and understand the benefit of implementing and sustaining the use of resources that facilitate meeting care quality, regulatory and commissioning requirements, and actively engage in improvements

Changes to processes and systems fit with patterns of care

Regular opportunities to review resident health status by knowledgeable care home staff who incorporate key data as part of deliberations that agree actions for care

Unit/home managers enabled to monitor the standard of care delivered by staff and staff are enabled to commit time to preventative fundamental care

Developing knowledgeable care teams

Background

- Time for staff learning and development in care homes may be constrained by workload and staff shortages.
- Learning and development needs vary according to the skill mix in the setting.
- Infrastructure and access to electronic educational resources is limited.

Education and training is embedded into the ethos of the care home

Educational resources fit workforce capabilities and preferred methods for learning.

Staff allocated time to reflect and learn.

Encouraged and incentivised to identify their individual learning needs.

Staff believe that change is possible and that it makes a difference to residents to incorporate new knowledge and skills into their care.

Questions, comments, discussion

EYETOEYEPIX / GETTY IMAGES

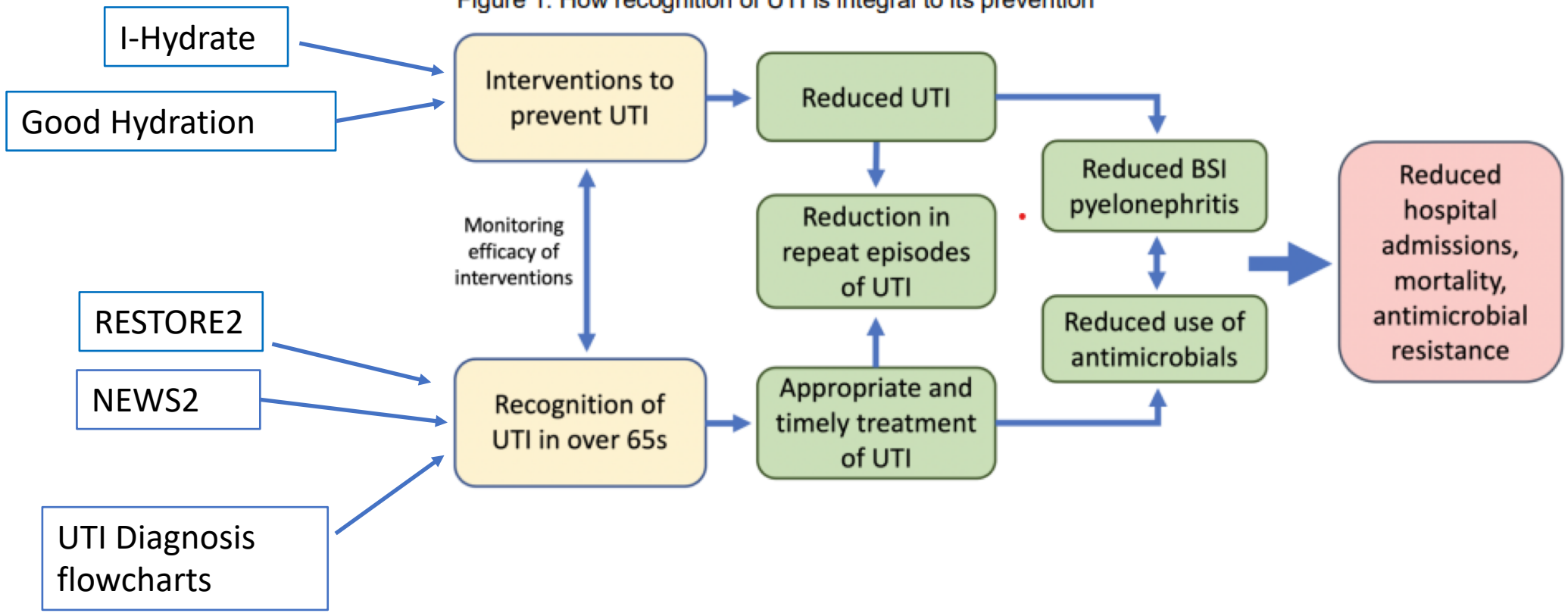
Have we identified what might work?

Is there anything that we have missed?

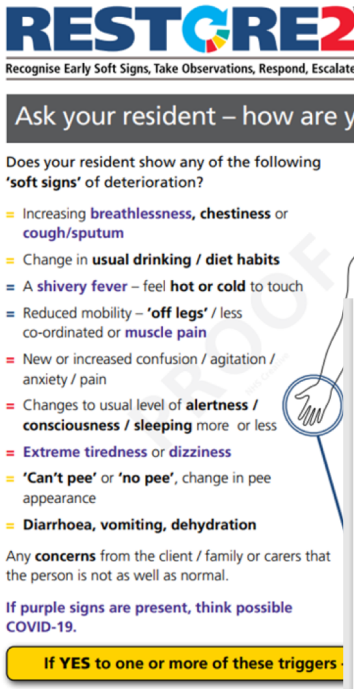
What are the implementation issues that might need to be considered?

RESOURCES

Figure 1: How recognition of UTI is integral to its prevention



Examples of Physical deterioration and escalation tools for care homes



RESTORE2 mini

Recognise Early Soft Signs, Take Observations, Respond, Escalate

Ask your resident – how are you today?

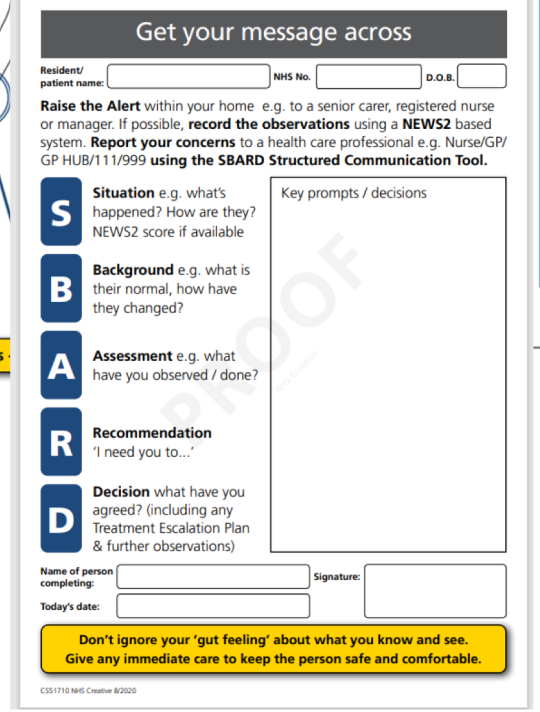
Does your resident show any of the following **'soft signs'** of deterioration?

- = Increasing **breathlessness, chestiness** or **cough/sputum**
- = Change in **usual drinking / diet habits**
- = A **shivery fever** – feel **hot or cold** to touch
- = Reduced mobility – **'off legs'** / less co-ordinated or **muscle pain**
- = New or increased confusion / agitation / anxiety / pain
- = Changes to usual level of **alertness / consciousness / sleeping** more or less
- = **Extreme tiredness** or **dizziness**
- = **'Can't pee'** or **'no pee'**, change in pee appearance
- = **Diarrhoea, vomiting, dehydration**

Any **concerns** from the client / family or carers that the person is not as well as normal.

If purple signs are present, think possible COVID-19.

If YES to one or more of these triggers



Get your message across

Resident/ patient name: NHS No. D.O.B.

Raise the Alert within your home e.g. to a senior carer, registered nurse or manager. If possible, **record the observations** using a **NEWS2** based system. **Report your concerns** to a health care professional e.g. Nurse/GP/ GP HUB/111/999 **using the SBARD Structured Communication Tool.**

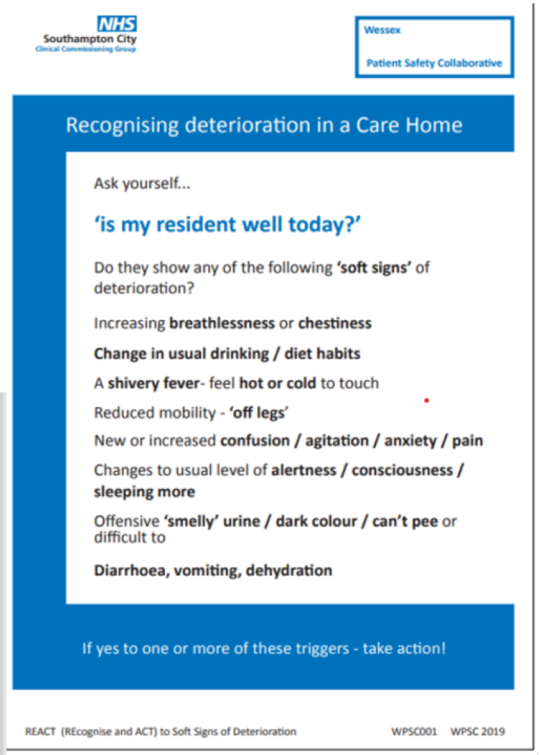
		Key prompts / decisions
S	**Situation** e.g. what's happened? How are they? NEWS2 score if available	
B	**Background** e.g. what is their normal, how have they changed?	
A	**Assessment** e.g. what have you observed / done?	
R	**Recommendation** 'I need you to...'	
D	**Decision** what have you agreed? (including any Treatment Escalation Plan & further observations)	

Name of person completing: Signature:

Today's date:

Don't ignore your 'gut feeling' about what you know and see. Give any immediate care to keep the person safe and comfortable.

CS51710 NHS Creative 8/2020



NHS Southampton City Clinical Commissioning Group

Wessex Patient Safety Collaborative

Recognising deterioration in a Care Home

Ask yourself...

'is my resident well today?'

Do they show any of the following **'soft signs'** of deterioration?

Increasing **breathlessness** or **chestiness**

Change in usual drinking / diet habits

A **shivery fever**- feel **hot or cold** to touch

Reduced mobility - **'off legs'**

New or increased **confusion / agitation / anxiety / pain**

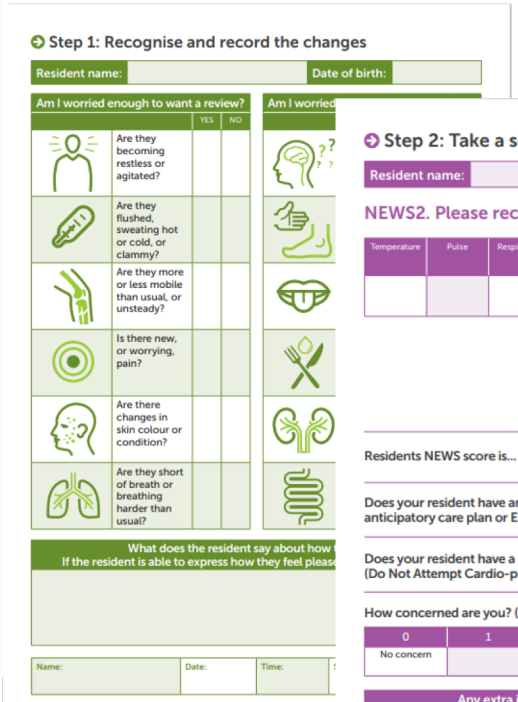
Changes to usual level of **alertness / consciousness / sleeping more**

Offensive **'smelly' urine / dark colour / can't pee** or difficult to

Diarrhoea, vomiting, dehydration

If yes to one or more of these triggers - take action!

REACT (REcognise and ACT) to Soft Signs of Deterioration WPSC001 WPSC 2019



Step 1: Recognise and record the changes

Resident name: Date of birth:

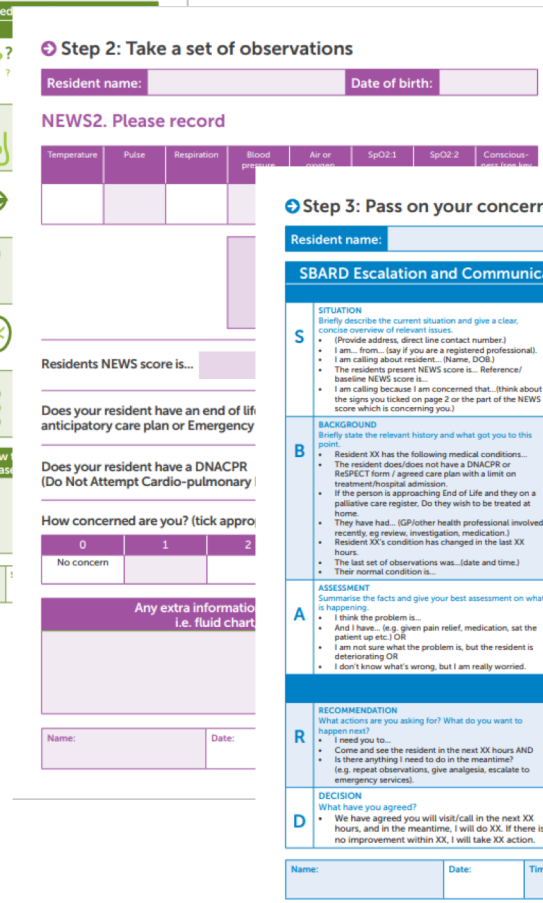
Am I worried enough to want a review?

	YES	NO
Are they becoming restless or agitated?		
Are they flushed, sweating hot or cold, or clammy?		
Are they more or less mobile than usual, or unsteady?		
Is there new, or worrying, pain?		
Are there changes in skin colour or condition?		
Are they short of breath or breathing harder than usual?		

Am I worried

What does the resident say about how
If the resident is able to express how they feel pleas

Name: Date: Time:



Step 2: Take a set of observations

Resident name: Date of birth:

NEWS2. Please record

Temperature	Pulse	Respiration	Blood pressure	Air or oxygen	SpO2:1	SpO2:2	Conscious-ness (AVPU)

Residents NEWS score is...

Does your resident have an end of life anticipatory care plan or Emergency

Does your resident have a DNACPR (Do Not Attempt Cardio-pulmonary

How concerned are you? (tick appro

0	1	2
No concern		

Any extra informatio
i.e. fluid chart

Name: Date:

Step 3: Pass on your concerns

Resident name: Date of birth:

SBARD Escalation and Communication Tool and action tracker

		Notes (including date and time of escalation)
S	SITUATION Briefly describe the current situation and give a clear, concise overview of relevant issues. • (Provide address, direct line contact number.) • I am... from... (say if you are a registered professional). • I am calling about resident... (Name, DOB.) • The residents present NEWS score is... Reference/ baseline NEWS score is... • I am calling because I am concerned that...(think about the signs you ticked on page 2 or the part of the NEWS score which is concerning you.)	
B	BACKGROUND Briefly state the relevant history and what got you to this point. • Resident XX has the following medical conditions... • The resident does/does not have a DNACPR or ReSPECT form / agreed care plan with a limit on treatment/hospital admission. • If the person is approaching End of Life and they on a palliative care register, Do they wish to be treated at home. • They have had... (GP/other health professional involved recently, eg review, investigation, medication.) • Resident XX's condition has changed in the last XX hours. • The last set of observations was...(date and time.) • Their normal condition is...	
A	ASSESSMENT Summarise the facts and give your best assessment on what is happening. • I think the problem is... • And I have... (e.g. given pain relief, medication, sat the patient up etc.) OR • I am not sure what the problem is, but the resident is deteriorating OR • I don't know what's wrong, but I am really worried.	
		Actions I have been asked to take (initial & time when actions completed)
R	RECOMMENDATION What actions are you asking for? What do you want to happen next? • I need you to... • Come and see the resident in the next XX hours AND • Is there anything I need to do in the meantime? (e.g. repeat observations, give analgesia, escalate to emergency services).	
D	DECISION What have you agreed? • We have agreed you will visit/call in the next XX hours, and in the meantime, I will do XX. If there is no improvement within XX, I will take XX action.	

Name: Date: Time: Signature:

Examples of UTI Specific Decision Aids

Resident:……

DOB:……

Care Home:……

Date:…… **Carer:**……

Older Residents (>65) with Suspected UTI (Urinary Tract Infection)

Guidance for Care Home staff:

- Complete sections **1** to **4** and **residents details** and fax to GP
- Add the original form to the residents notes
- **DO NOT PERFORM URINE DIPSTICK** – NOT recommended in patients >65 years
- **CLEAR URINE** – UTI highly unlikely
- **Send MSU** if treatment failure or ≥ 2 signs of infection (especially dysuria, fever or **new** incontinence)

1) Catheter: **N / Y** Reason for catheter:……

2) Signs of any other infection source? **N / Y** **Circle any NEW symptoms:**

*Cough *Shortness of Breath *Sputum Production *Nausea/Vomiting *Diarrhoea *Abdominal Pain *Red/warm/swollen area of skin

3) Can the resident communicate symptoms? **N / Y**

4) Tick the signs and symptoms present in the two tables below:

NEW ONSET - Sign/Symptom	What does this mean?	Tick if present
Dysuria	Pain on urinating	
Urgency	Need to pass urine urgently/new incontinence	
Frequency	Need to urinate more often than usual	
Suprapubic tenderness	Pain in lower tummy/above pubic area	
Haematuria	Visible blood in urine	
Polyuria	Passing bigger volumes of urine than usual	
Loin pain	Pain either side of spine between ribs & pelvis	

Sign/Symptom	Tick if present
New onset or worsening confusion or agitation	
Temperature above 37.9°C or 1.5°C above baseline on two occasions during 12 hours (if able to measure)	
Heart Rate >90 beats/min (if able to measure)	
Respiratory rate >20 breaths/min (if able to measure)	
Diabetic ? Y / N (if able to measure) If N - Blood glucose >7.7 mmol/L	
Bloods taken? N / Y If Y - WCC >12/µL or < 4/µL	

Any other information:……

5) GP Management Decision - <u>circle all</u> which apply and notify home of decision made:

(a) Review in ……hours
(b) Mid Stream Urine specimen (MSU) – particularly if ≥ 2 symptoms
(c) Give person specific hydration advice
(d) Arrange trial without catheter
(e) Antibiotic Prescribed:……

NB. Urine should be sent in case of suspicion of complicated infection, symptoms suggestive of pyelonephritis, failure to respond to initial therapy or recurrent symptoms after treatment of previous UTI.

Other action:…… **Name:**…… **Signed:**…… **Designation:**…… **Date:**……

Hertfordshire Prescribing Guidance (follow link) Download the Herts Antibiotic Guidelines App by visiting the appropriate app store for your device and searching for 'Herts Antibiotic'.

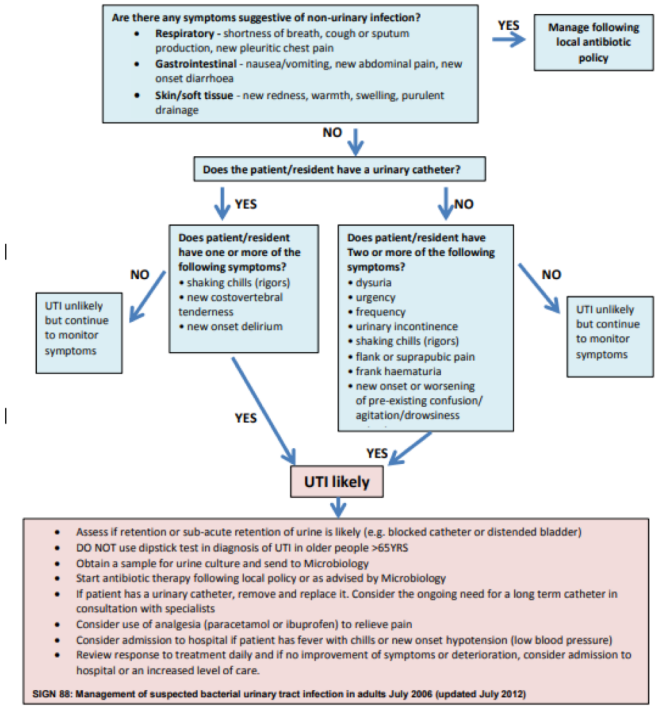
Version: August 2019 Adapted from 'To Dip or Not To Dip' BaNES CCG

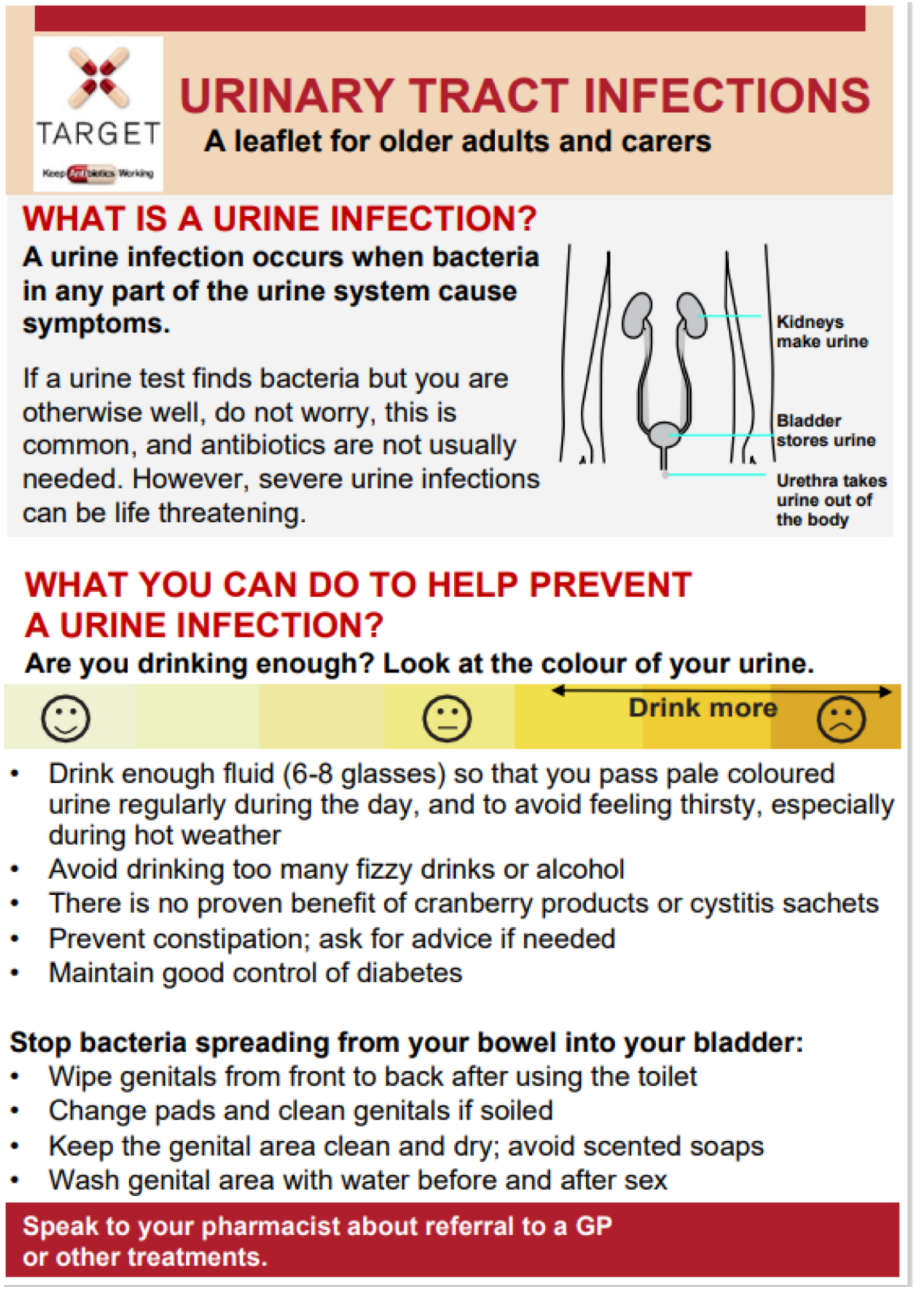
Good Practice Guidance for GPs: Management of UTIs for elderly patients residing in care homes

DIAGNOSIS[1,2]

In elderly patients (over 65 years of age), diagnosis should be based on a full clinical assessment, including vital signs. Please request care staff to complete the **Management of UTIs for elderly patients residing in care homes form (U1).**

Below is a decision aid[3] to guide management of patients/residents with fever defined as temperature >37.9°C or 1.5°C increase above baseline occurring on at least two occasions in last 12 hours. Hypothermia (low temperature of <36°C) may also indicate infection, especially those with comorbidities. Be alert to non-specific symptoms of infection such as abdominal pain, alteration of behaviour or loss of diabetes control.





TARGET
Keep Antibiotics Working

URINARY TRACT INFECTIONS

A leaflet for older adults and carers

WHAT IS A URINE INFECTION?

A urine infection occurs when bacteria in any part of the urine system cause symptoms.

If a urine test finds bacteria but you are otherwise well, do not worry, this is common, and antibiotics are not usually needed. However, severe urine infections can be life threatening.

WHAT YOU CAN DO TO HELP PREVENT A URINE INFECTION?

Are you drinking enough? Look at the colour of your urine.

- Drink enough fluid (6-8 glasses) so that you pass pale coloured urine regularly during the day, and to avoid feeling thirsty, especially during hot weather
- Avoid drinking too many fizzy drinks or alcohol
- There is no proven benefit of cranberry products or cystitis sachets
- Prevent constipation; ask for advice if needed
- Maintain good control of diabetes

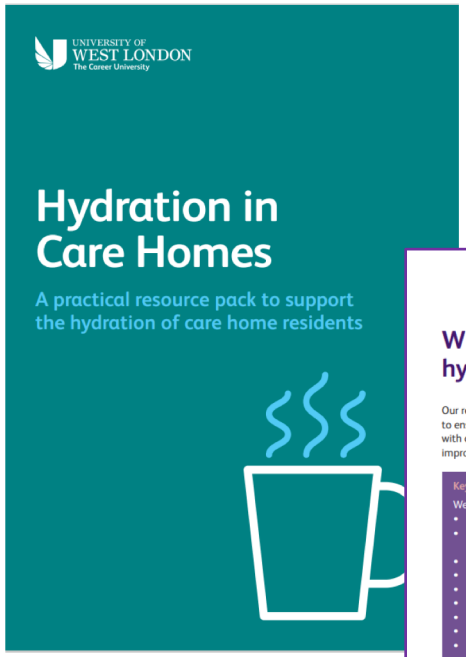
Stop bacteria spreading from your bowel into your bladder:

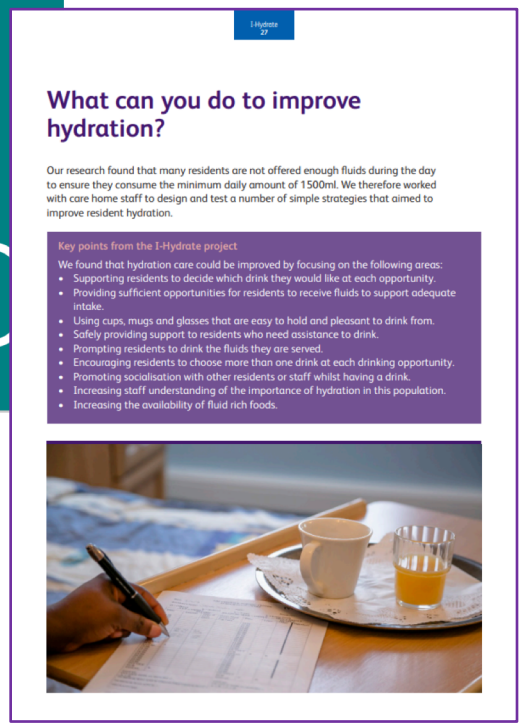
- Wipe genitals from front to back after using the toilet
- Change pads and clean genitals if soiled
- Keep the genital area clean and dry; avoid scented soaps
- Wash genital area with water before and after sex

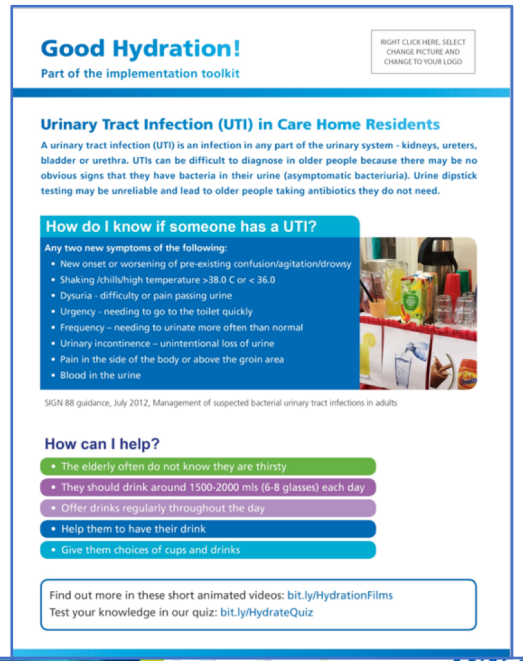
Speak to your pharmacist about referral to a GP or other treatments.

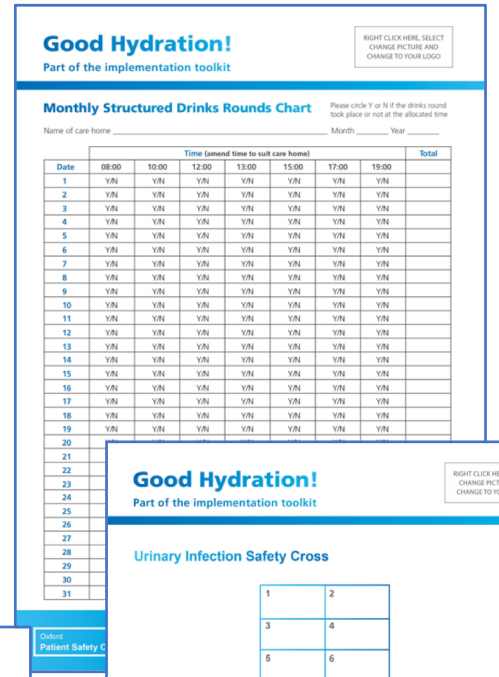
Example of UTI Specific Information

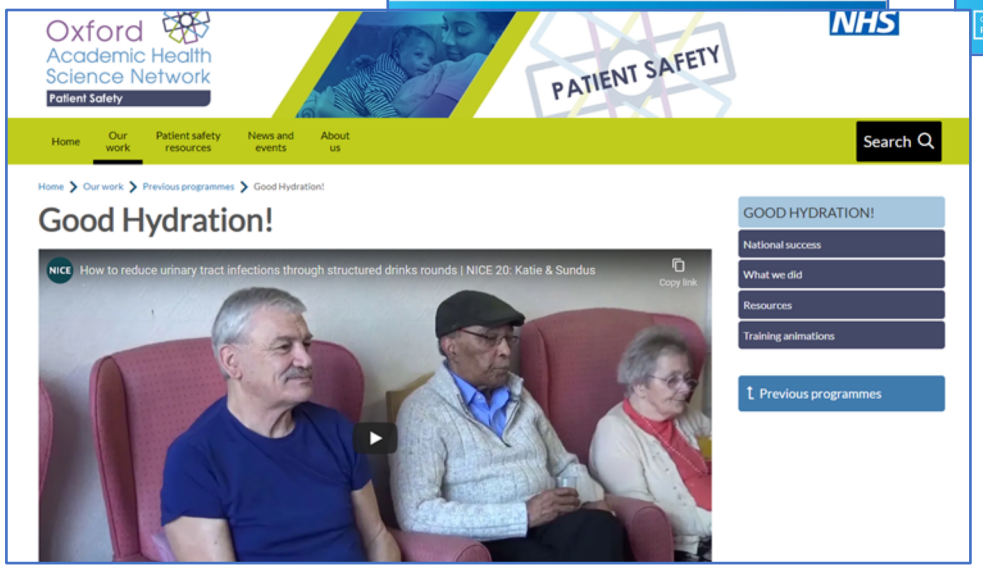
Examples – Improving Hydration in Care Homes

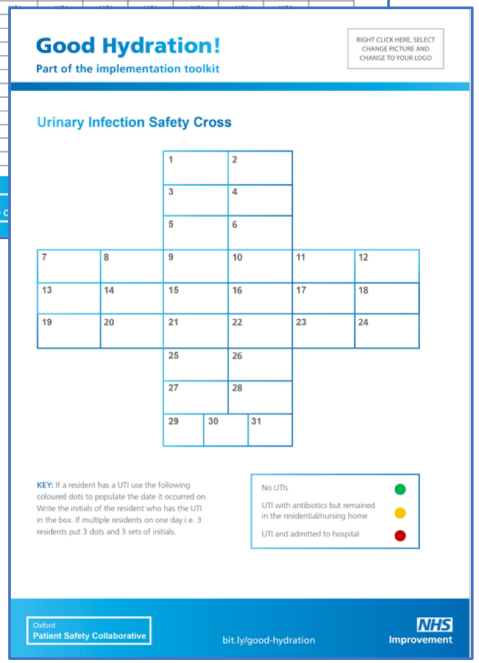




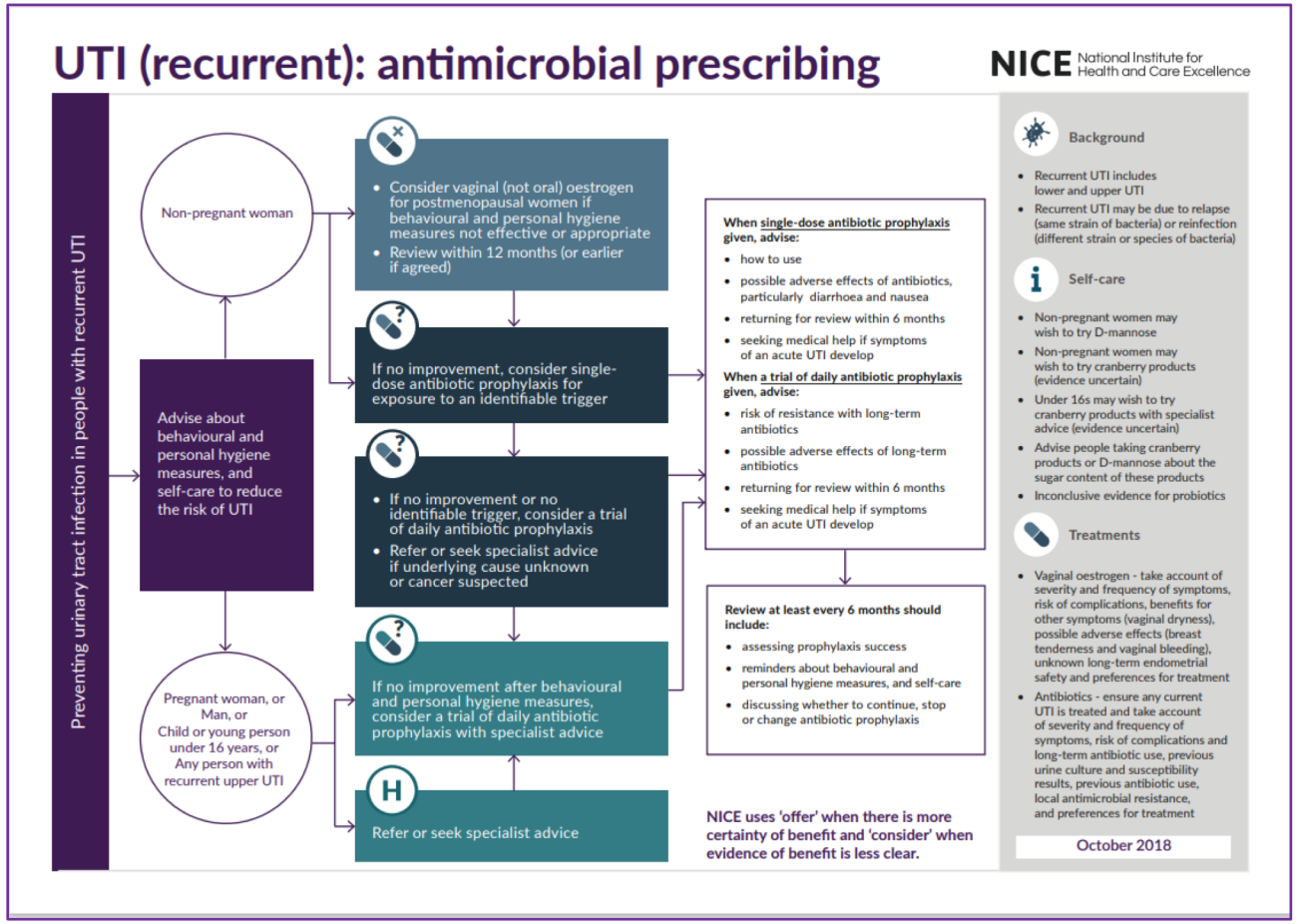




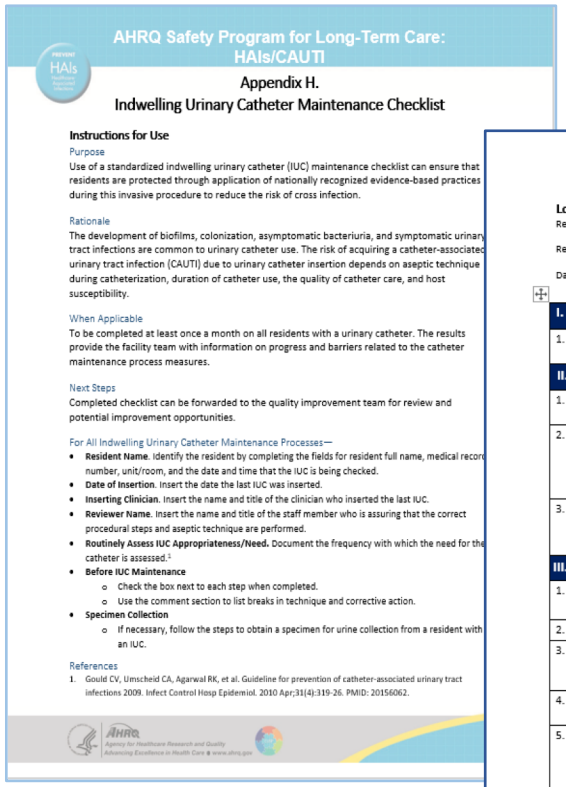




Examples – guidelines for Recurrent UTI



Examples of Indwelling Catheter Care tool



AHRQ Safety Program for Long-Term Care: HAIs/CAUTI

Appendix H.

Indwelling Urinary Catheter Maintenance Checklist

Instructions for Use

Purpose

Use of a standardized indwelling urinary catheter (IUC) maintenance checklist can ensure that residents are protected through application of nationally recognized evidence-based practices during this invasive procedure to reduce the risk of cross infection.

Rationale

The development of biofilms, colonization, asymptomatic bacteriuria, and symptomatic urinary tract infections are common to urinary catheter use. The risk of acquiring a catheter-associated urinary tract infection (CAUTI) due to urinary catheter insertion depends on aseptic technique during catheterization, duration of catheter use, the quality of catheter care, and host susceptibility.

When Applicable

To be completed at least once a month on all residents with a urinary catheter. The results provide the facility team with information on progress and barriers related to the catheter maintenance process measures.

Next Steps

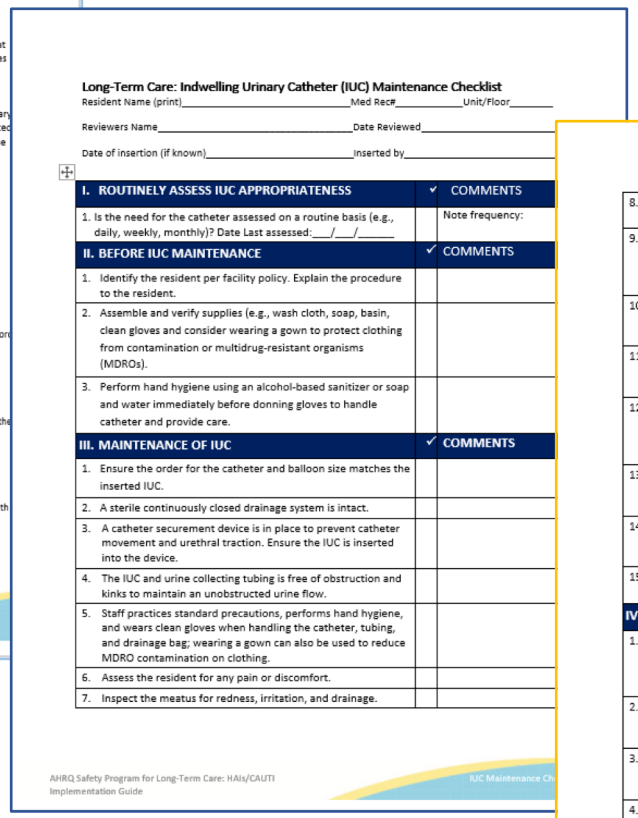
Completed checklist can be forwarded to the quality improvement team for review and potential improvement opportunities.

For All Indwelling Urinary Catheter Maintenance Processes—

- **Resident Name**. Identify the resident by completing the fields for resident full name, medical record number, unit/room, and the date and time that the IUC is being checked.
- **Date of Insertion**. Insert the date the last IUC was inserted.
- **Inserting Clinician**. Insert the name and title of the clinician who inserted the last IUC.
- **Reviewer Name**. Insert the name and title of the staff member who is assuring that the correct procedural steps and aseptic technique are performed.
- **Routinely Assess IUC Appropriateness/Need.** Document the frequency with which the need for the catheter is assessed.[1]
- **Before IUC Maintenance**
  - Check the box next to each step when completed.
  - Use the comment section to list breaks in technique and corrective action.
- **Specimen Collection**
  - If necessary, follow the steps to obtain a specimen for urine collection from a resident with an IUC.

References

1. Gould CV, Umscheid CA, Agarwal RK, et al. Guideline for prevention of catheter-associated urinary tract infections 2009. Infect Control Hosp Epidemiol. 2010 Apr;31(4):319-26. PMID: 20156062.



Long-Term Care: Indwelling Urinary Catheter (IUC) Maintenance Checklist

Resident Name (print)_____Med Rec#_____Unit/Floor_____

Reviewers Name_____Date Reviewed_____

Date of Insertion (if known)_____Inserted by_____

I. ROUTINELY ASSESS IUC APPROPRIATENESS	✓	COMMENTS
1. Is the need for the catheter assessed on a routine basis (e.g., daily, weekly, monthly)? Date Last assessed:___/___/_____		Note frequency:
II. BEFORE IUC MAINTENANCE	**✓**	**COMMENTS**
1. Identify the resident per facility policy. Explain the procedure to the resident.		
2. Assemble and verify supplies (e.g., wash cloth, soap, basin, clean gloves and consider wearing a gown to protect clothing from contamination or multidrug-resistant organisms (MDROs).		
3. Perform hand hygiene using an alcohol-based sanitizer or soap and water immediately before donning gloves to handle catheter and provide care.		
III. MAINTENANCE OF IUC	**✓**	**COMMENTS**
1. Ensure the order for the catheter and balloon size matches the inserted IUC.		
2. A sterile continuously closed drainage system is intact.		
3. A catheter securement device is in place to prevent catheter movement and urethral traction. Ensure the IUC is inserted into the device.		
4. The IUC and urine collecting tubing is free of obstruction and kinks to maintain an unobstructed urine flow.		
5. Staff practices standard precautions, performs hand hygiene, and wears clean gloves when handling the catheter, tubing, and drainage bag; wearing a gown can also be used to reduce MDRO contamination on clothing.		
6. Assess the resident for any pain or discomfort.		
7. Inspect the meatus for redness, irritation, and drainage.		

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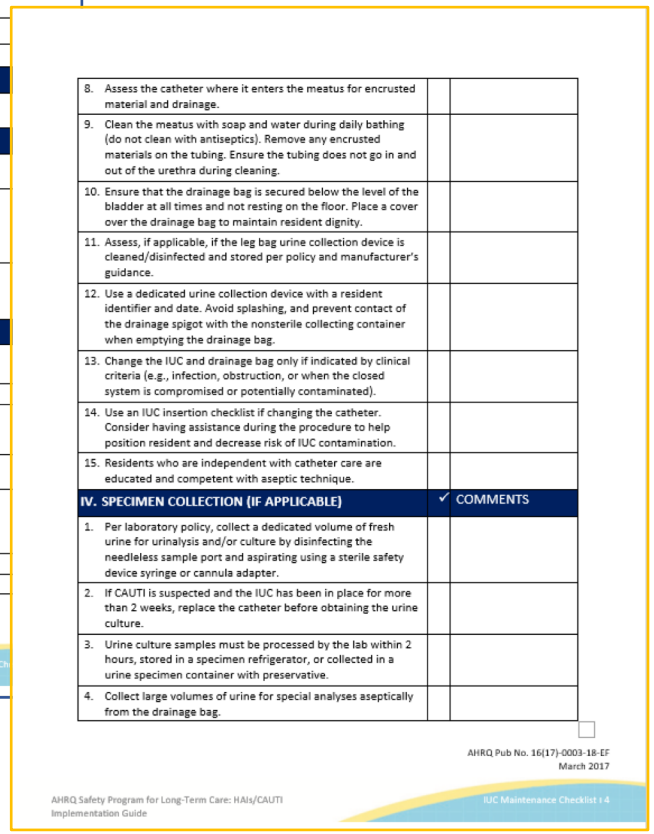
IUC Maintenance Ch



8. Assess the catheter where it enters the meatus for encrusted material and drainage.		
9. Clean the meatus with soap and water during daily bathing (do not clean with antiseptics). Remove any encrusted materials on the tubing. Ensure the tubing does not go in and out of the urethra during cleaning.		
10. Ensure that the drainage bag is secured below the level of the bladder at all times and not resting on the floor. Place a cover over the drainage bag to maintain resident dignity.		
11. Assess, if applicable, if the leg bag urine collection device is cleaned/disinfected and stored per policy and manufacturer's guidance.		
12. Use a dedicated urine collection device with a resident identifier and date. Avoid splashing, and prevent contact of the drainage spigot with the nonsterile collecting container when emptying the drainage bag.		
13. Change the IUC and drainage bag only if indicated by clinical criteria (e.g., infection, obstruction, or when the closed system is compromised or potentially contaminated).		
14. Use an IUC insertion checklist if changing the catheter. Consider having assistance during the procedure to help position resident and decrease risk of IUC contamination.		
15. Residents who are independent with catheter care are educated and competent with aseptic technique.		
IV. SPECIMEN COLLECTION (IF APPLICABLE)	**✓**	**COMMENTS**
1. Per laboratory policy, collect a dedicated volume of fresh urine for urinalysis and/or culture by disinfecting the needleless sample port and aspirating using a sterile safety device syringe or cannula adapter.		
2. If CAUTI is suspected and the IUC has been in place for more than 2 weeks, replace the catheter before obtaining the urine culture.		
3. Urine culture samples must be processed by the lab within 2 hours, stored in a specimen refrigerator, or collected in a urine specimen container with preservative.		
4. Collect large volumes of urine for special analyses aseptically from the drainage bag.		

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Healthcare-associated Infections

HAI Elimination

Catheter-associated Urinary Tract Infection (CAUTI) Toolkit

Activity C: ELC Prevention Collaboratives

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Centers for Disease Control and Prevention

Disclaimer: The findings and conclusions in this presentation are those of the authors and do not necessarily represent the views of the Centers for Disease Control and Prevention.

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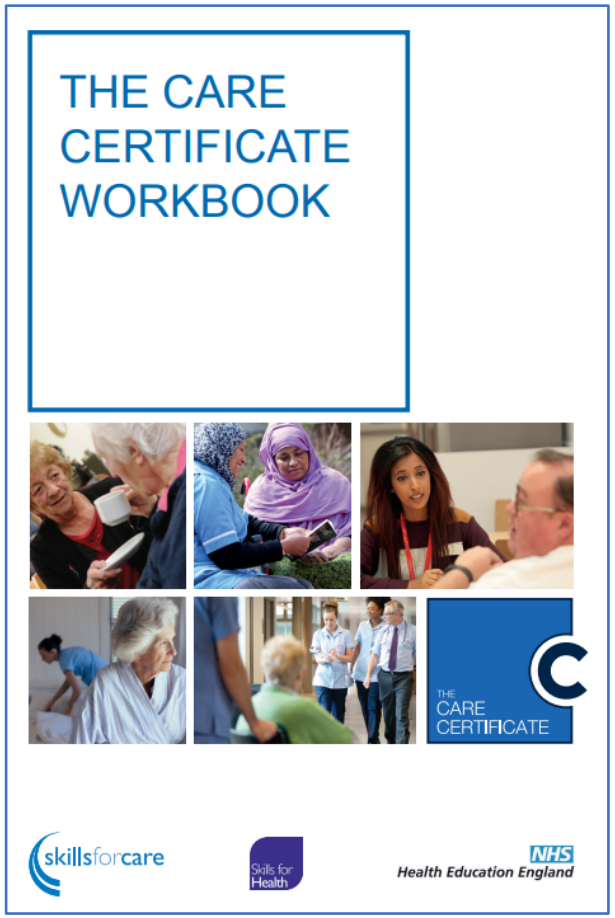
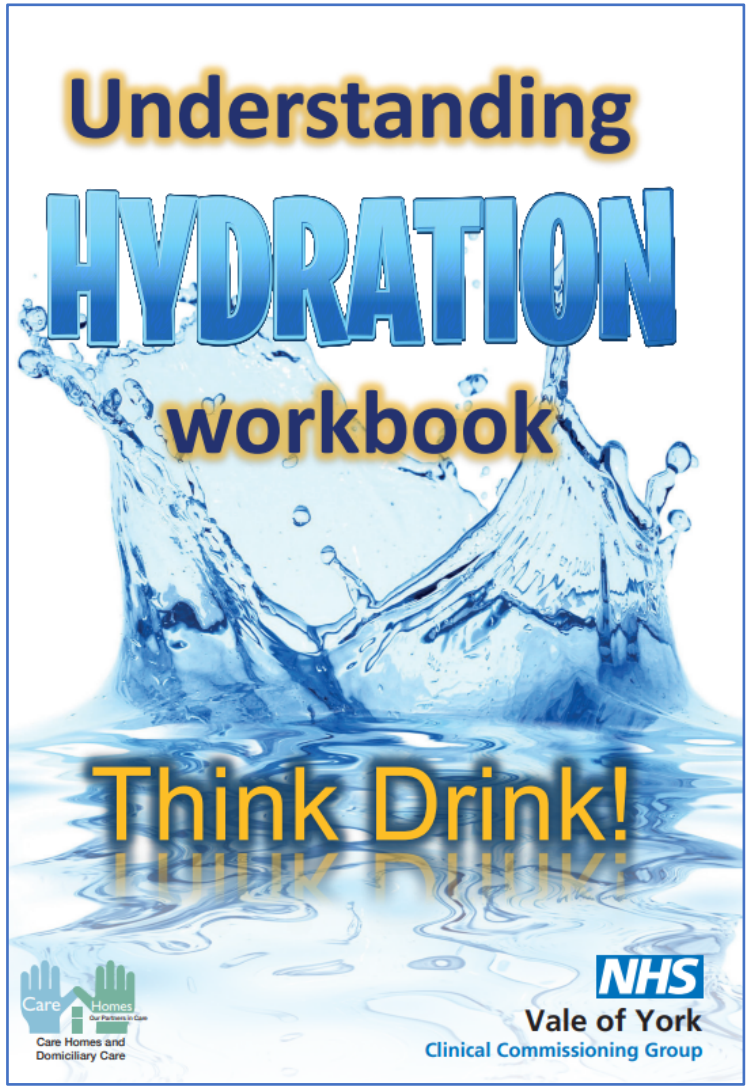
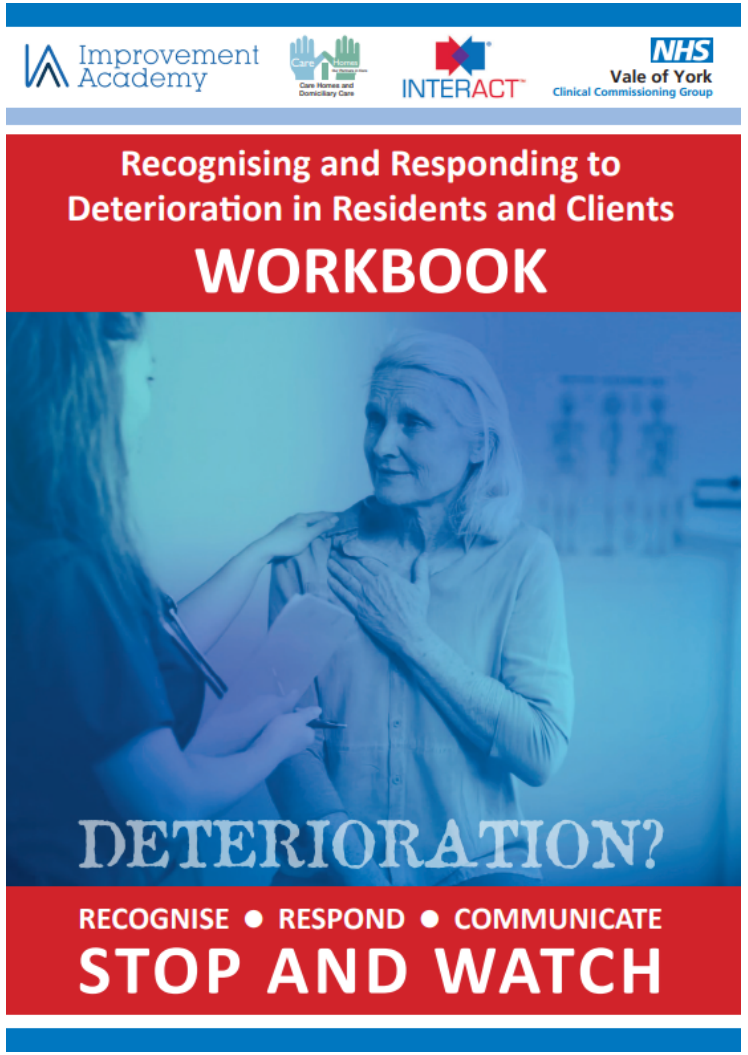
Flexible education?







Digital Tools for Care Homes

Paul O’Brien, CEO Elaros

Questions, comments, discussion

EYETOEYEPIX / GETTY IMAGES

- What is good/not so good about the current resources available?
- Are there gaps in the resources available that would help staff prevent or recognise UTI?
- Would a digital solution that integrates resources for UTI prevention & detection be helpful?

Closing remarks

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