



TARGET

Keep Antibiotics Working

# Urinary tract infections: Applying diagnostic and prescribing guidance in practice

TARGET Antibiotics Webinar  
March 2024

# Introductions – TARGET and RCGP



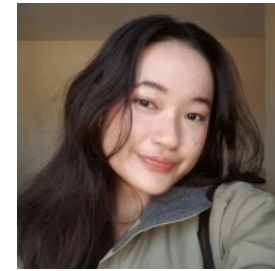
Dr Donna Lecky



Emily Cooper



Catherine Hayes



Ming Lee



Julie Brooke



Liam Clayton



Joseph Besford



Lizzie Richmond



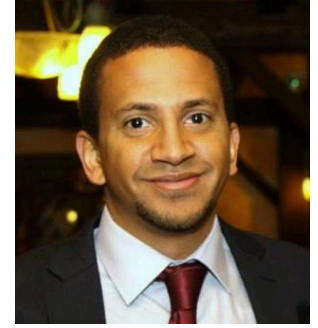
Dr Dharini Shanmugabavan



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# Introductions Speakers and panellists



**Dr Philippa Moore**  
Consultant Medical  
Microbiologist,  
Gloucestershire Hosp.  
NHS Foundation Trust

**Elizabeth Beech MBE**  
Regional Antimicrobial  
Stewardship Lead  
South West Region,  
NHS England

**Naomi Fleming**  
Regional Antimicrobial  
Stewardship Lead  
East of England  
Region, NHS England

**Avril Tucker**  
Antimicrobial  
Pharmacist,  
NHS Wales

**Dr Leigh Sanyaolu**  
General Practitioner  
and Doctoral Fellow  
at Cardiff University

Panellist/Speaker

Panellist/Speaker

Panellist

Panellist

Panellist



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# Aims

1. Discuss antibiotic resistance rates and trends linked to urinary tract infections (UTIs)
2. Capture and discuss ways to assess prescribing trends for your practice and locality
3. Identify and discuss national diagnostic and prescribing guidance specific to the management of UTIs in different patient groups
4. Utilise evidence-based strategies and resources when discussing antibiotics with patients in the context of UTIs



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## Dr. Philippa Moore

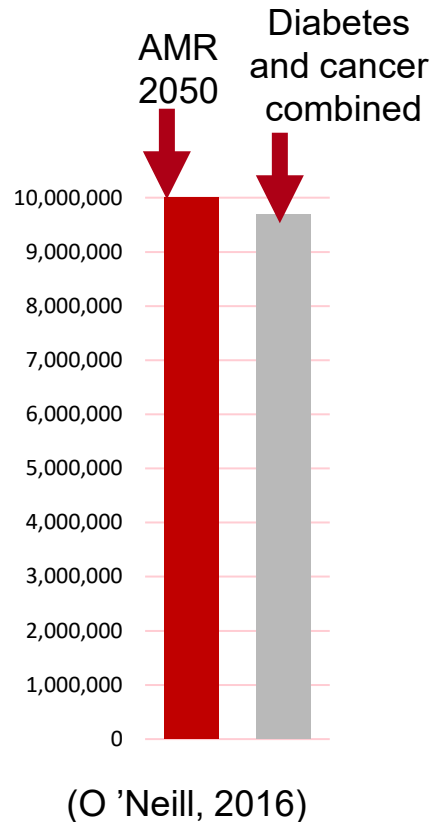
Consultant Medical Microbiologist  
Speaker



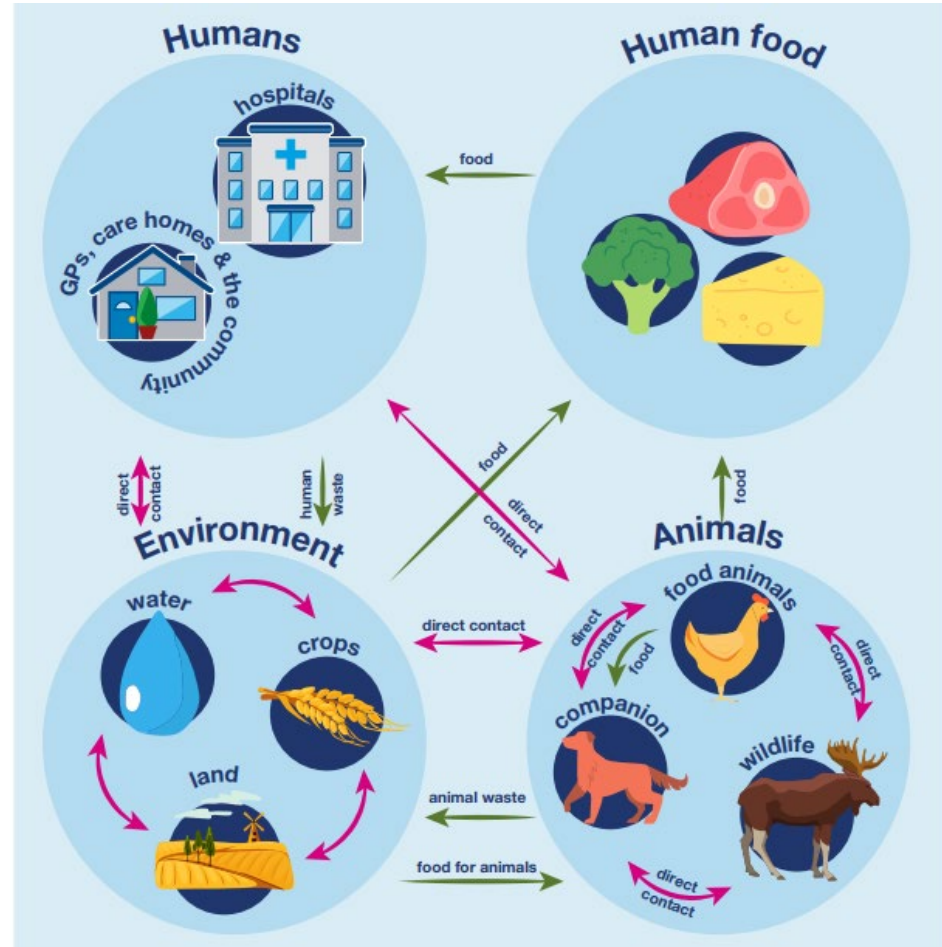
# The challenge of antimicrobial resistance

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One Health approach targets multiple causes of antimicrobial resistance



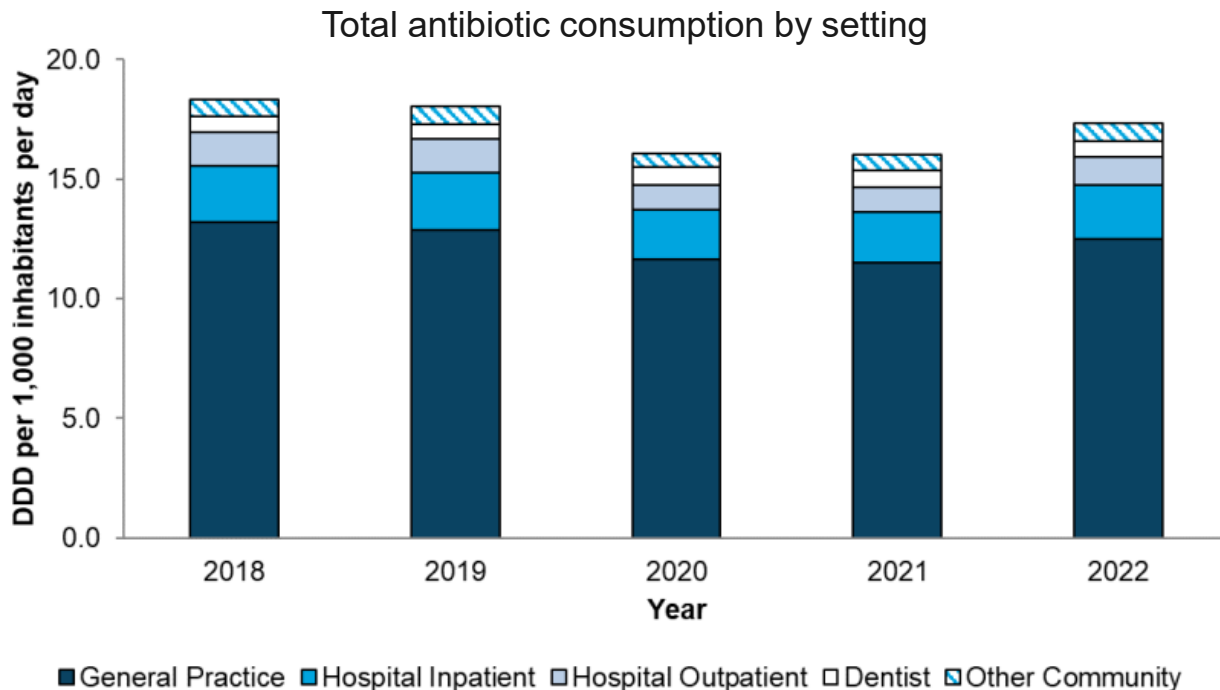
(Scottish One Health AMR/AMU 2022)



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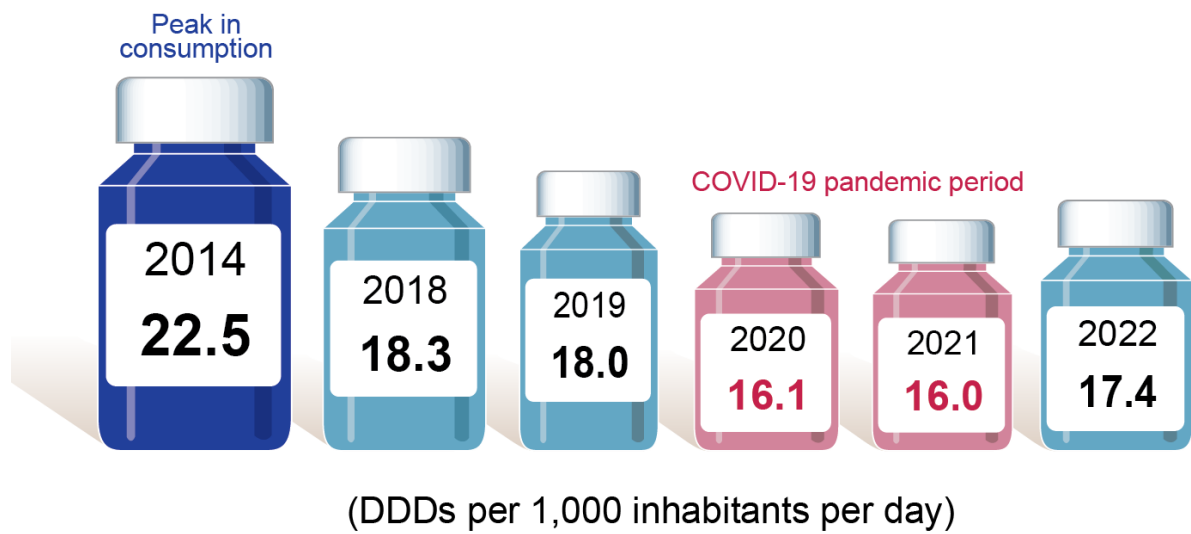
# The majority of antibiotics are prescribed in general practice



(UKHSA, 2023)



# Antibiotic prescribing increased in 2022



Antibiotic prescribing in England 2014-2022

(UKHSA, 2023)



# Clinical Scenario: Urinary Tract Infection (UTI)





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# Clinical Scenario: UTI – women under 65 years

Please consider the following details:

- 35 year old
- Strong smelling urine
- Dysuria over 2 days
- Frequency
- Recent laparoscopy and removal endometriosis
- Had trimethoprim in the past month for suspected UTI post operation

**What more could you ask?**

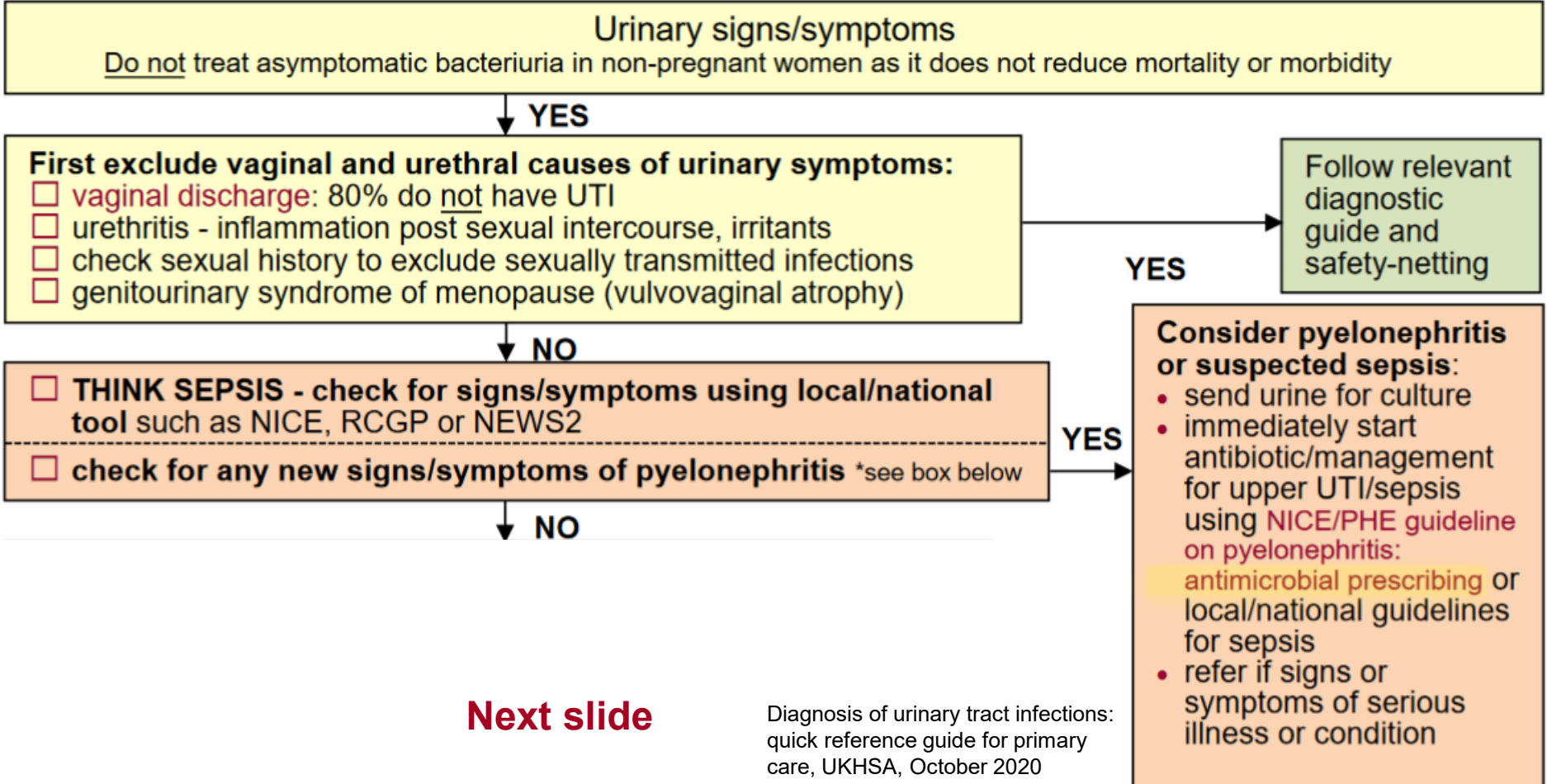


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# UKHSA UTI Diagnostic Tool:

## Flowchart for women (under 65 years) with suspected UTI

Excludes women with recurrent UTI (2 episodes in last 6 months, or 3 episodes in last 12 months) or urinary catheter  
This flow chart will be suitable for some women over 65 years in the community setting



Next slide

Diagnosis of urinary tract infections: quick reference guide for primary care, UKHSA, October 2020

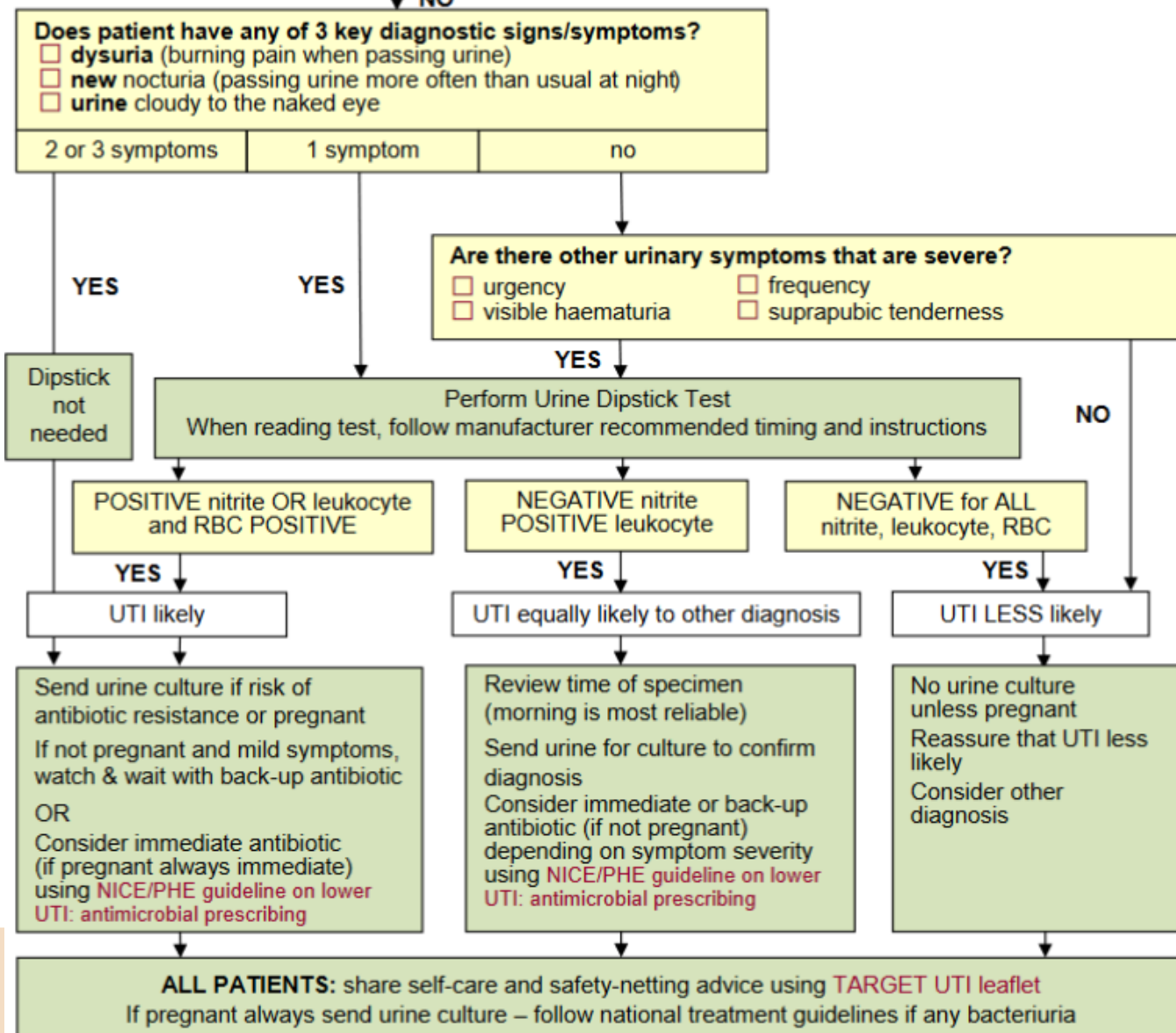


# UKHSA UTI Diagnostic Tool:

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Clinical Scenario  
Urinary Tract Infection





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# What about those at higher risk of asymptomatic bacteriuria like older adults and those with a urinary catheter?

- 80 year old resident in nursing home
- Strong smelling urine, but clear looking
- Increasing confusion over 2 days
- No history of fever, temp 37.4° C.
- Has had antibiotics in past for suspected UTI

**What do you think a urine dipstick result will be?**

1. Positive for all

- + Nitrite
- + Leukocyte
- + RBC

2. Positive nitrite, negative leukocyte and RBC positive

- + Nitrite
- Leukocyte
- + RBC

3. Positive nitrite, positive leukocyte and RBC negative

- + Nitrite
- + Leukocyte
- RBC

4. Negative for all

- Nitrite
- Leukocyte
- RBC

Clinical Scenario  
Urinary Tract Infection



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# UKHSA UTI Diagnostic Tools: Older adults and those with a Urinary Catheter

Flowchart for suspected UTI in catheterised adults or those over 65 years

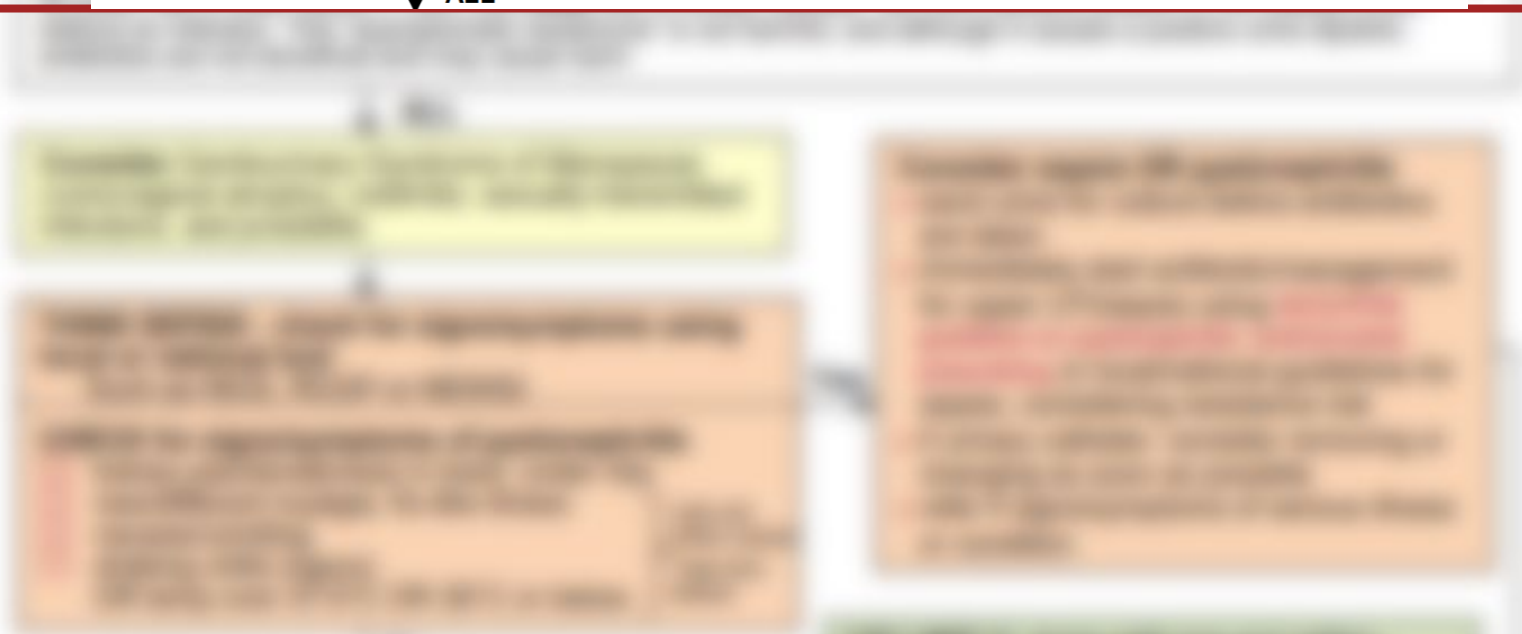
Urinary signs/symptoms, abnormal temperature, non-specific signs of infection<sup>1B+,2B+,3D,4B-</sup>

Yes

**Do not perform urine dipsticks:** Dipsticks become more unreliable with increasing age over 65 years. By 80 years half of older adults in care, and **most** with a urinary catheter, will have bacteria present in the bladder/urine without an infection. This “asymptomatic bacteriuria” is not harmful, and although it causes a positive urine dipstick, antibiotics are not beneficial and may cause harm<sup>5B+,6A-,7B+,8C,9A+</sup>

ALL

Clinical Scenario  
Urinary Tract Infection



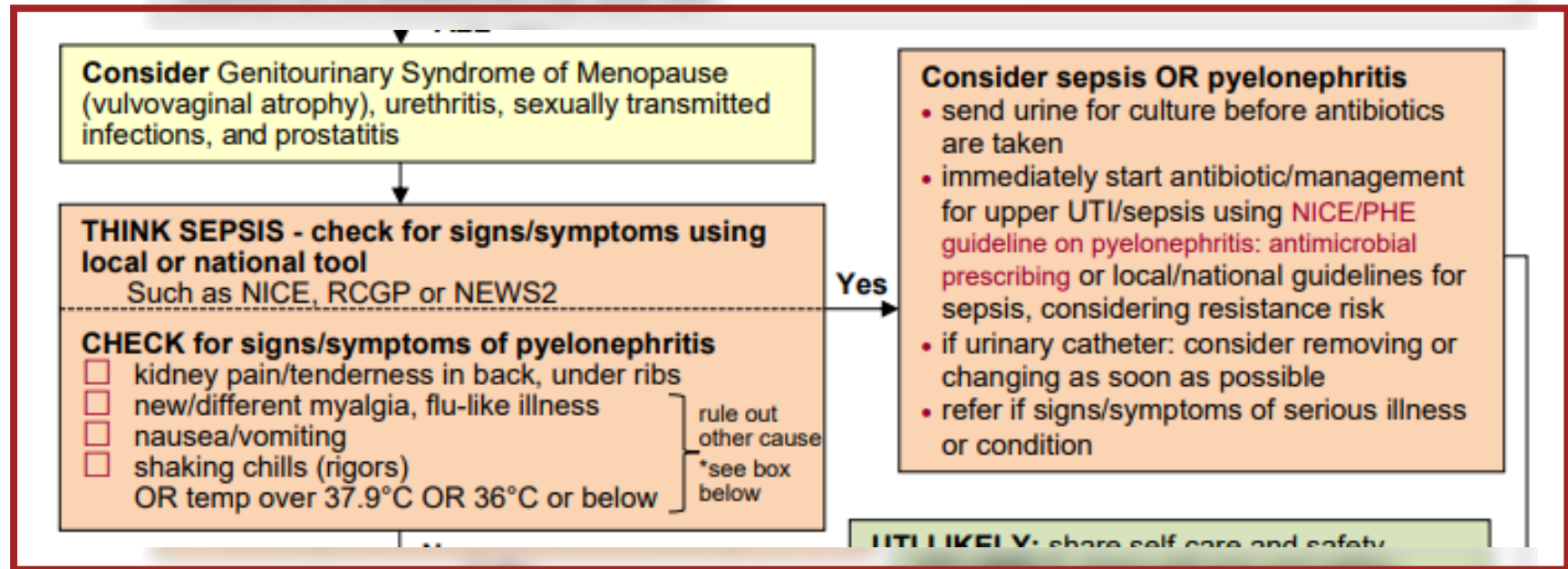


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# UKHSA UTI Diagnostic Tools: Older adults and those with a Urinary Catheter

Clinical Scenario  
Urinary Tract Infection



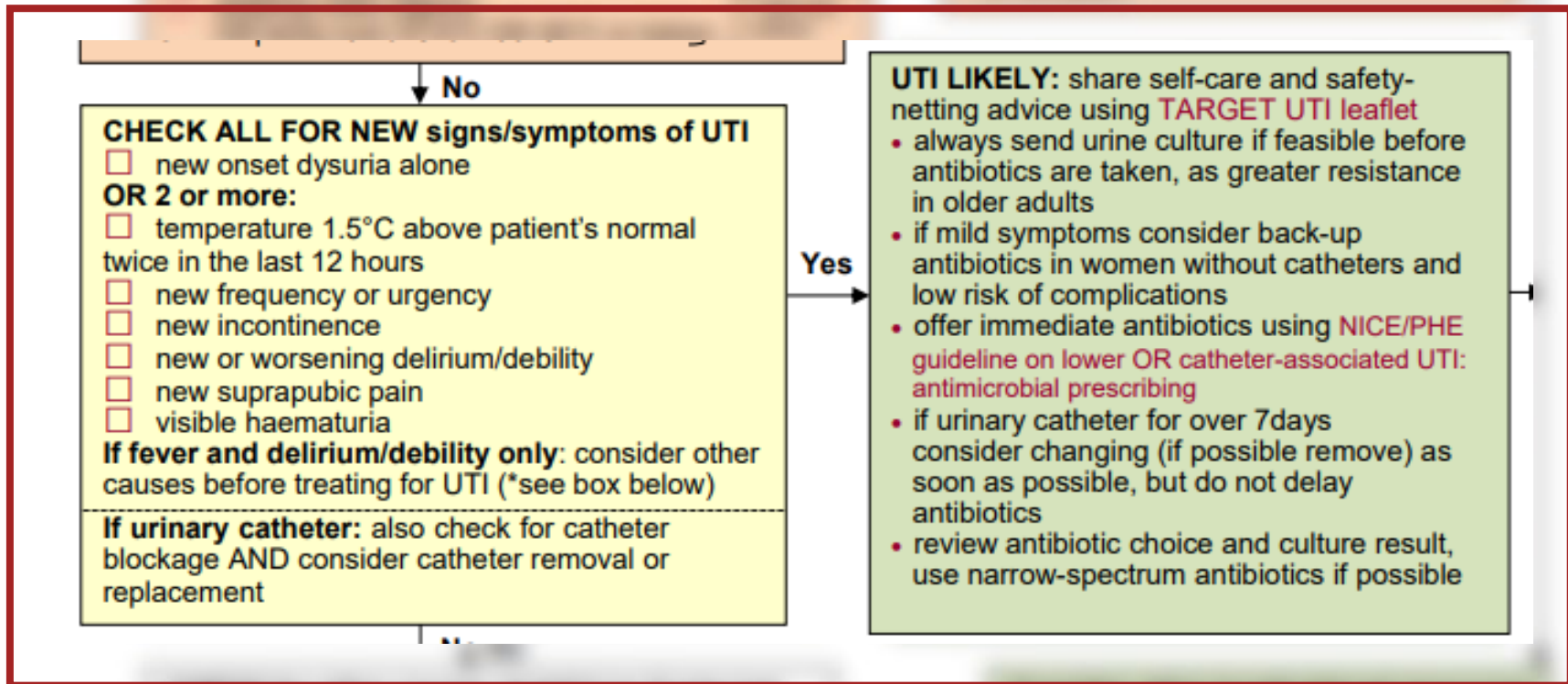


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# UKHSA UTI Diagnostic Tools: Older adults and those with a Urinary Catheter

Clinical Scenario  
Urinary Tract Infection





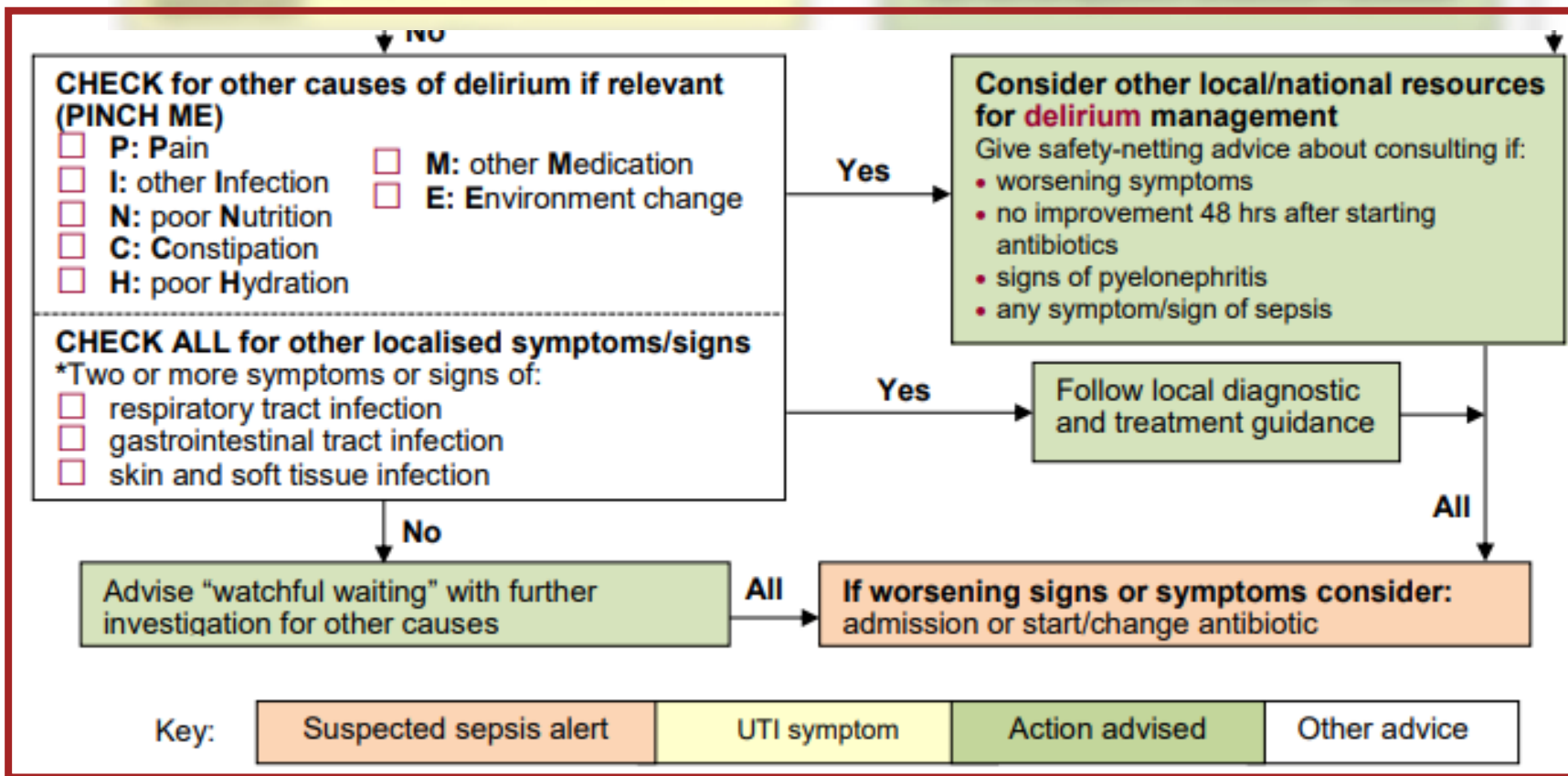


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# UKHSA UTI Diagnostic Tools: Older adults

Clinical Scenario  
Urinary Tract Infection





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# Why do we need to worry about our antibiotic use for UTI?

Clinical Scenario  
Urinary Tract Infection





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# UTIs are linked to blood stream infections and resistance

Yearly estimated burden of *E.coli* resistant blood stream infections (BSIs) has reduced from 2017 but we need to keep momentum<sup>1</sup>

*E. coli* bacteria are the most common cause of BSIs that are resistant to antibiotics<sup>1</sup>

51% of *E. coli* blood stream infections are potentially linked to the urogenital tract<sup>2</sup>

After RTIs, UTIs are the most prescribed for infection in primary care<sup>3</sup>



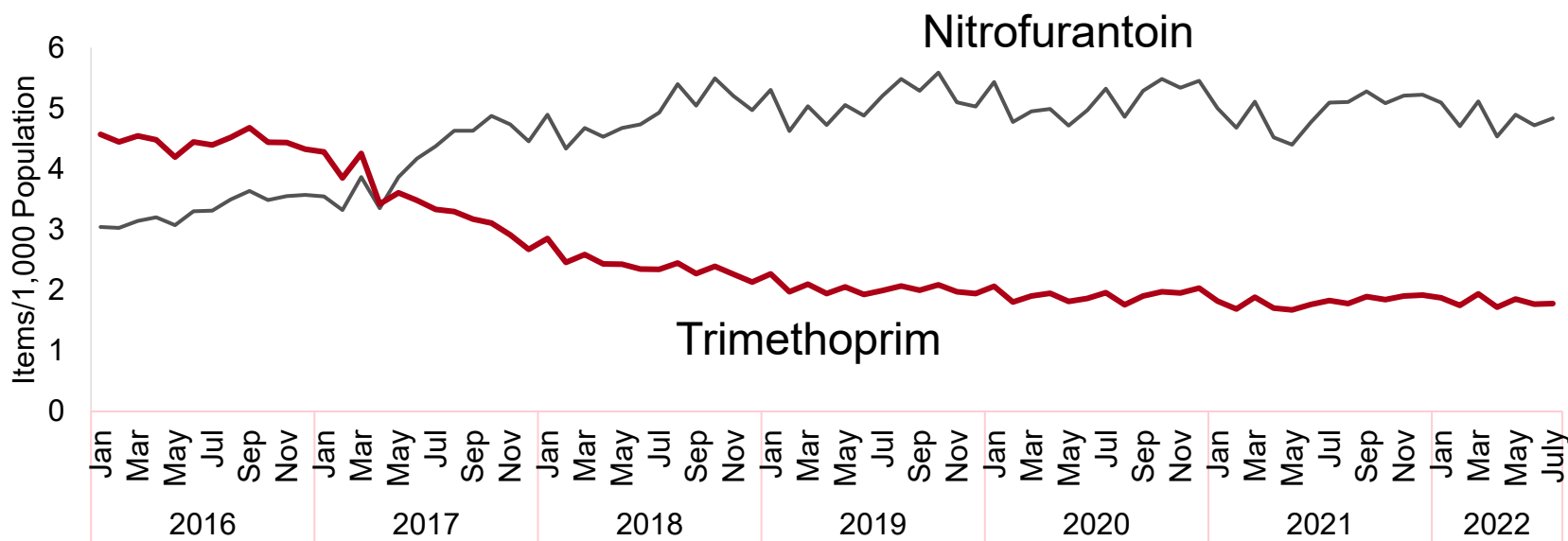
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# Antibiotic use for UTI has changed

## Trimethoprim and Nitrofurantoin use across England

Clinical Scenario  
Urinary Tract Infection



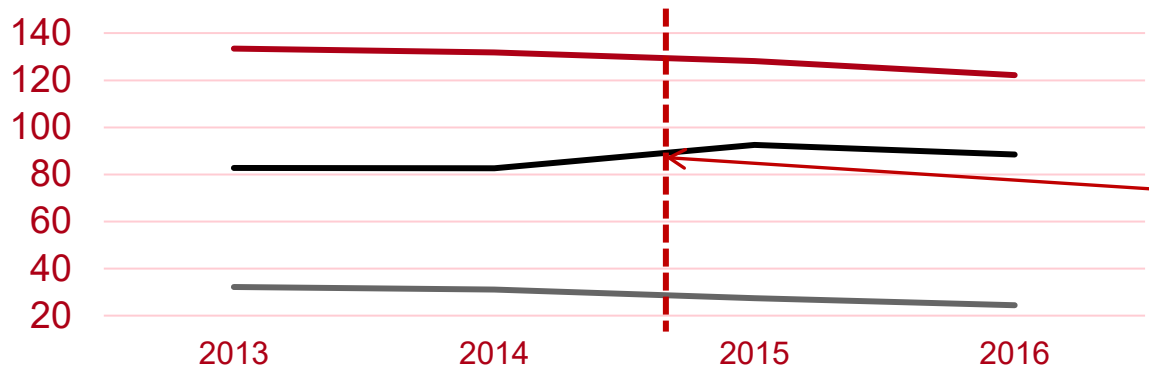


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# Antibiotic resistance in UTI can be reduced

Median number of dispensed antibiotic items/1000 registered practice population/year in South West of England 2013-2016



Guidance replaced Trimethoprim with Nitrofurantoin as first line choice – Dec 2014.

- Trimethoprim - 8.46% reduction
- Nitrofurantoin - 6.55% increase
- Ciprofloxacin - 24.2% reduction

Relationship between antibiotic dispensing and resistance in following quarter:

- Ciprofloxacin – Odds of resistance 0.982 (95% CI: 0.965 to 0.999)
- Trimethoprim – Odds of resistance 0.992 (95% CI: 0.988 to 0.997)
- Nitrofurantoin – Odds of resistance 0.999 (95% CI: 0.988 to 1.013)

Clinical Scenario  
Urinary Tract Infection

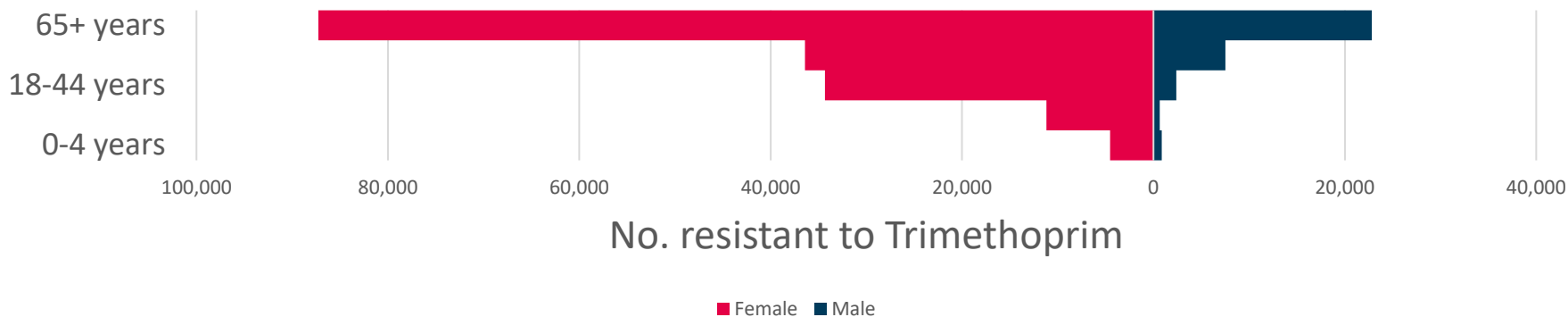


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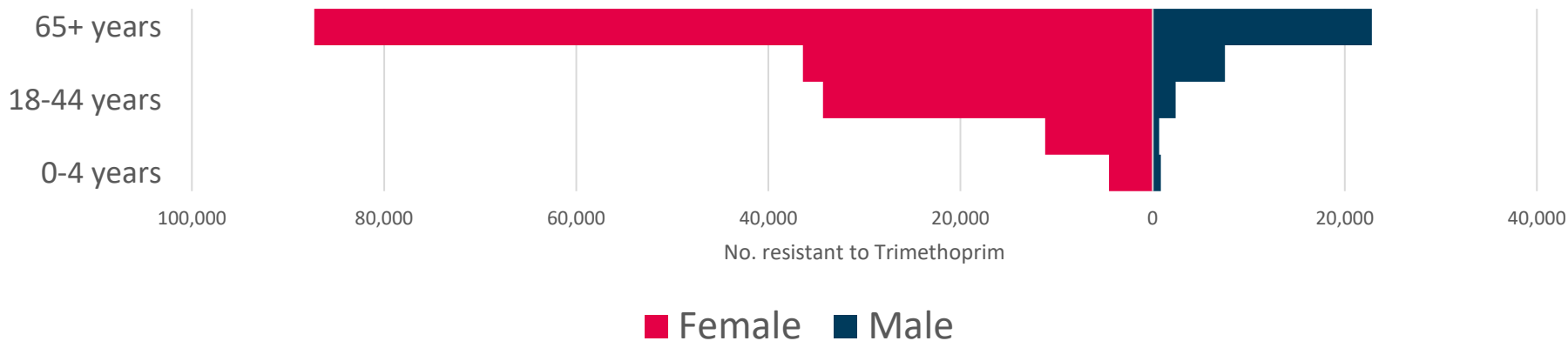
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# Antibiotic resistance in urine samples rises with age

*E. coli* resistance to Trimethoprim by age & sex, 2022



*E. coli* resistance to Trimethoprim by age & sex, 2022





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# Antibiotic resistance affects the recovery of patients with UTI

## Clinical outcomes of uncomplicated UTIs in English GP treated with empirical trimethoprim

Clinical Scenario  
Urinary Tract Infection

	Patients with:		P-value
	Resistant UTI	Susceptible UTI	
Median time to symptom resolution (207)	7 days	4 days	0.0002
Re-consultation in first week or less (317)	17/44, 39%	17/273, 6%	<0.0001
Further antibiotic in first week (317)	16/44, 36%	11/273, 4%	<0.0001
Still had bacteriuria at 1 month (132)	8/19 42%	23/113, 20%	0.04

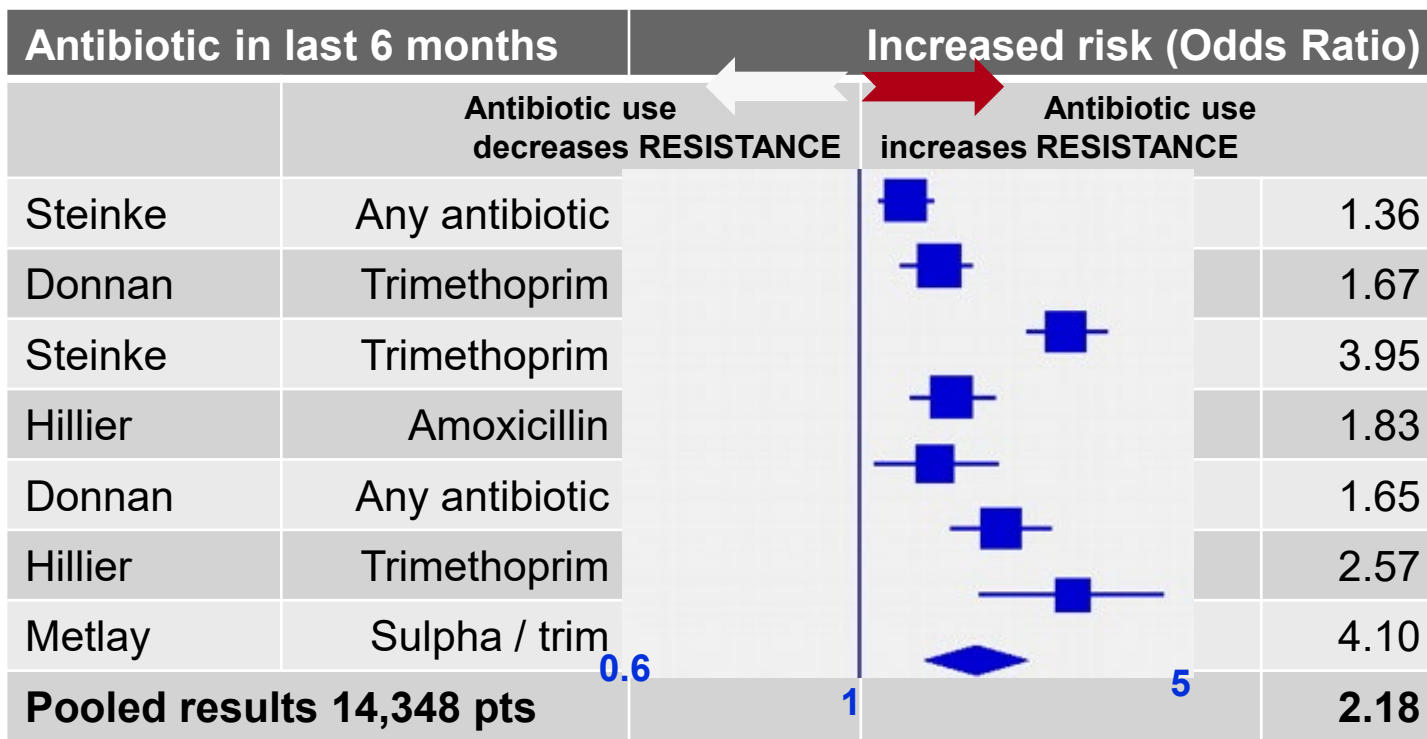


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# Antibiotic use in UTI increases risk of resistance

*This Forest plots shows individual study and pooled odds ratio of increased risk of resistance*



**Longer duration and multiple courses associated with greater resistance**

Clinical Scenario  
Urinary Tract Infection





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# Risk of resistance persists for at least 12 months after your prescribing

## Effect of antibiotic prescribing in primary care on antimicrobial resistance in individual patients: systematic review and meta-analysis

Clinical Scenario  
Urinary Tract Infection

	Increased risk of resistant organism	
	Antibiotic in past 2 months	Antibiotic in past 12 months
<b>UTI</b> 5 studies: n = 14,348	2.5 pooled odds of resistance	1.33 pooled odds of resistance

# UTI management and shared decision making



# TREATING YOUR INFECTION – URINARY TRACT INFECTION (UTI)

For women under 65 years with suspected lower urinary tract infections (UTIs) or lower recurrent UTIs (cystitis or urethritis)

Possible urinary signs & symptoms	The outcome	Recommended care	Treatment
<p><b>Key signs/symptoms:</b>  <b>Dysuria:</b> Burning pain when passing urine (wee)  <b>New nocturia:</b> Needing to pass urine in the night  <b>Cloudy urine:</b> Visible cloudy colour when passing urine</p> <p><b>Other signs/symptoms to consider:</b>  <b>Frequency:</b> Passing urine more often than usual  <b>Urgency:</b> Feeling the need to pass urine immediately  <b>Haematuria:</b> Blood in your urine  <b>Suprapubic pain:</b> Pain in your lower tummy</p> <p><b>Other things to consider:</b>  <b>Recent sexual history</b>  <ul style="list-style-type: none"> <li>Inflammation due to sexual activity can feel similar to the symptoms of a UTI</li> <li>Some sexually transmitted infections (STIs) can have symptoms similar to those of a UTI</li> </ul> <b>Changes during menopause</b>  <ul style="list-style-type: none"> <li>Some changes during the menopause can have symptoms similar to those of a UTI</li> </ul> </p>	<p><b>Non-pregnant</b></p> <p><input type="checkbox"/> If none of the above symptoms are present, you may not need any treatment.</p> <p><b>AND/OR</b></p> <ul style="list-style-type: none"> <li>UTI much worse</li> <li>You may need antibiotics for a UTI</li> <li>Antibiotics are usually prescribed for a UTI</li> <li>Usually last for 3-5 days</li> </ul> <p><input type="checkbox"/> If 2 or more of the above symptoms are present, you may need antibiotics.</p> <ul style="list-style-type: none"> <li>UTI more likely to be recurrent</li> <li>You should be given antibiotics</li> <li>Symptoms should improve within 48 hours</li> </ul>	<p>and pain relief. Symptoms may get better on their own.</p> <p>or backup prescription of pain relief and pain relief antibiotics if symptoms do not get a little better with pain relief within 48 hours.</p> <p>ate antibiotic prescription if symptoms, delayed or no improvement with pain relief.</p>	<p>UTIs are caused by bacteria in the bladder, which can occur in urine.</p> <p><b>Bladder (stores urine)</b> Infection in the lower urinary tract • Cystitis (sis-tight-is).</p> <p><b>Urethra (takes urine out of the body)</b></p>
<p><b>If you think you have a UTI</b></p> <p><b>Self-care to help you feel better more quickly</b></p> <ul style="list-style-type: none"> <li>Drink enough fluids to stop you feeling thirsty. Aim to drink 6 to 8 glasses</li> <li>Avoid too much alcohol, fizzy drinks or caffeine that can irritate your bladder</li> <li>Take paracetamol or ibuprofen at regular intervals for pain relief, if you need it.</li> </ul>	<p>ways request urine culture</p> <p>visit <a href="http://www.gov.uk/coronavirus">http://www.gov.uk/coronavirus</a> to prevent a UTI</p> <p><b>Use risk factors:</b></p> <ul style="list-style-type: none"> <li>your bowel into your bladder (bottom) after using the toilet.</li> </ul>	<p>Immediate antibiotic prescription plus self-care</p>	<p>Antibiotics taken by mouth, for any reason, affect our gut bacteria making some resistant.</p>
<p><b>Recurrent UTI prevention</b></p> <p>Options to help prevent UTI (column to reduce future UTIs)</p>	<p><b>Self-care &amp; safety netting advice</b></p> <ul style="list-style-type: none"> <li>Avoid waiting to pass urine. Pass urine as soon as you need to.</li> <li>Go for a <b>wee after having sex</b> to flush out any bacteria that may be near the opening to the urethra.</li> <li><b>Wash</b> the external vagina area with water before and after sex to wash away any bacteria that may be near the opening to the urethra.</li> <li><b>Drink</b> enough fluids to make sure you wee regularly throughout the day, especially during hot weather.</li> </ul> <p><b>If you have a recurrent UTI, the following may help</b></p> <ul style="list-style-type: none"> <li><b>Cranberry products and D-mannose:</b> There is some evidence to say that these work to help prevent recurrent UTI.</li> <li><b>After the menopause:</b> Topical hormonal treatment may help; for example, vaginal pessaries.</li> <li>Antibiotics at night or after sex may be considered</li> </ul>	<p><b>How to prevent UTIs</b></p>	<p><b>Picture helps patients understand cause</b></p>
		<p><b>Flow chart helps patient understand antibiotics and resistance</b></p>	<p>1. You have shivering, chills and muscle pain                  2. You feel confused, or are very drowsy                  3. You have not passed urine all day                  4. You are vomiting                  5. You see blood in your urine                  6. Your temperature is above 38°C or less than 36°C.                  7. You have kidney pain in your back just under the ribs                  8. Your symptoms get worse                  9. Your symptoms are not starting to improve within 48 hours of taking antibiotics</p>



A urinary tract infection occurs when bacteria enter the urine system.

Diagnosis is made from your symptoms. Urine tests are only used in women aged 65 without catheters.

### What you should do

#### Are you drinking enough fluid?



Drink enough fluid (at least 6-8 glasses a day), and to avoid constipation. Your bladder can be affected by constipation. Prevent constipation by eating a healthy diet. If diabetic, maintain blood sugar levels.

#### Stop bacteria spreading

- Keep the genital area clean and dry.
- Change incontinence pads regularly.
- Pass urine after intercourse.
- Women should wipe from front to back after sex, and wipe from front to back after using the toilet.

#### If you have recurrent UTIs

Ask your doctor about D-mannose or cranberry supplements.

### What symptoms you should look out for

#### Signs/symptoms in a urinary tract infection

- Burning pain when passing urine
- A new need to pass urine frequently
- Urine is a visible cloudy colour
- Passing urine more often than usual
- Feeling the need to pass urine immediately
- Blood in your urine
- Pain in your lower tummy

#### If you have a catheter, consider these symptoms

- Shivering or shaking
- High or low temperature
- Kidney pain in your back just under the ribs

#### Urinary symptoms may also be caused by:

- Pain or discomfort after sexual activity
- A sexually transmitted infection (STI)
- Vaginal changes during or after the menopause

### Common questions

If you think you may have a UTI, visit <http://www.gov.uk/condition-urinary-tract-infection> for guidance and information.

### What you can do



Drink enough fluid so that you pass urine regularly during the day.



Take your antibiotics regularly, 4 times a day to relieve symptoms.



There is evidence that taking probiotics can help reduce the risk of a UTI.

### If you have recurrent UTIs

- Antibiotics at night
- Vaginal hormones

### Advice about antibiotics

- Antibiotics can be used to treat a serious urine infection, but antibiotics are not always needed for mild urinary tract infections.
- Antibiotics make bacteria resistant to antibiotics, so your next UTI may be more difficult to treat.

### When should you seek more urgent help?

You should consult a health professional if you have UTI symptoms and:

- Your symptoms are getting a lot worse, or not starting to improve within 2 days of starting antibiotics
- You are pregnant, male or post operation

#### The following symptoms are possible signs of a serious urinary infection and should be assessed urgently:



Shivering, chills and muscle pain



Feeling very confused, drowsy or slurred speech



Not passing urine all day



Temperature is above 38°C or less than 36°C



Trouble breathing



Kidney pain in your back just under the ribs



Visible blood in your urine



Very cold skin

### Contact your GP Practice or

NHS 111 (England and Wales)



[www.111.nhs.uk](http://www.111.nhs.uk)



Galw Iechyd Cymru

[www.111.wales.nhs.uk](http://www.111.wales.nhs.uk)

Dial 111 (Scotland)



[www.nhs24.scot](http://www.nhs24.scot)

GP practice (NI)



Project supported by the PHA

Trust your instincts, ask for advice if you are not sure how urgent your symptoms are

Speak to your doctor

Speak to NHS111, a pharmacist

Taking antibiotics

TARGET is operated by the UK Health Security Agency. Developed in collaboration with professional medical bodies. Version 1.1, March 2021, Revision: March 2023



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# Web text - UTI Patient Information Leaflets

## TARGET antibiotics t



TARGET stands for Treat Antibiotics care clinicians to champion and impl CPD and revalidation requirements.

## Table of contents

- How to use these leaflets
- Self-care Leaflet
  - Self-care Leaflet HTML
- UTI Leaflet - Women Under 65 Years
  - UTI Leaflet - Women Under 65 HTML
- UTI Leaflet - Older Adults
  - UTI Leaflet - Older Adults HTML
- UTI Leaflet - Combined For Adults
  - UTI Leaflet - Combined For Adults HTML
- RTI Leaflet
  - RTI Leaflet - HTML
- RTI Pictorial Leaflet
  - RTI Pictorial Leaflet - HTML
- RTI leaflet - other settings
- Pharmacy Antibiotic Checklist
- Other useful leaflets (not developed by TARGET)



Discussing antibiotics with patients



Urine



resource



Leaflets to discuss with patients



Anti and p



ick



Getting the most from the TARGET toolkit



Learr



ribers

Message Patient



POWER, Michelle (Mrs)



NHS No. 289-646-0683

15-Sep-1926 (94y)

Female



Consent given for communication by SMS text messaging (04-01-18)

Michelle's number

0777777777

Phone

Email

Template Pathway Florey Video

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### My templates

#### TARGET

UTI - Adults over 65

UTI - Combined

UTI - Women under 65 (uncomplicated)

Manage templates...

The Accurx Practice (29392)

Attach

Delay this message until 7.30am Monday

Allow patient to respond with text or photos

Send and save

Dr Tom Brown

Location: (unknown)



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# Non-antibiotic prevention and management

**Always discuss risks and facilitate shared decision making!**

NICE guideline for prevention of **non-recurrent** lower UTI:

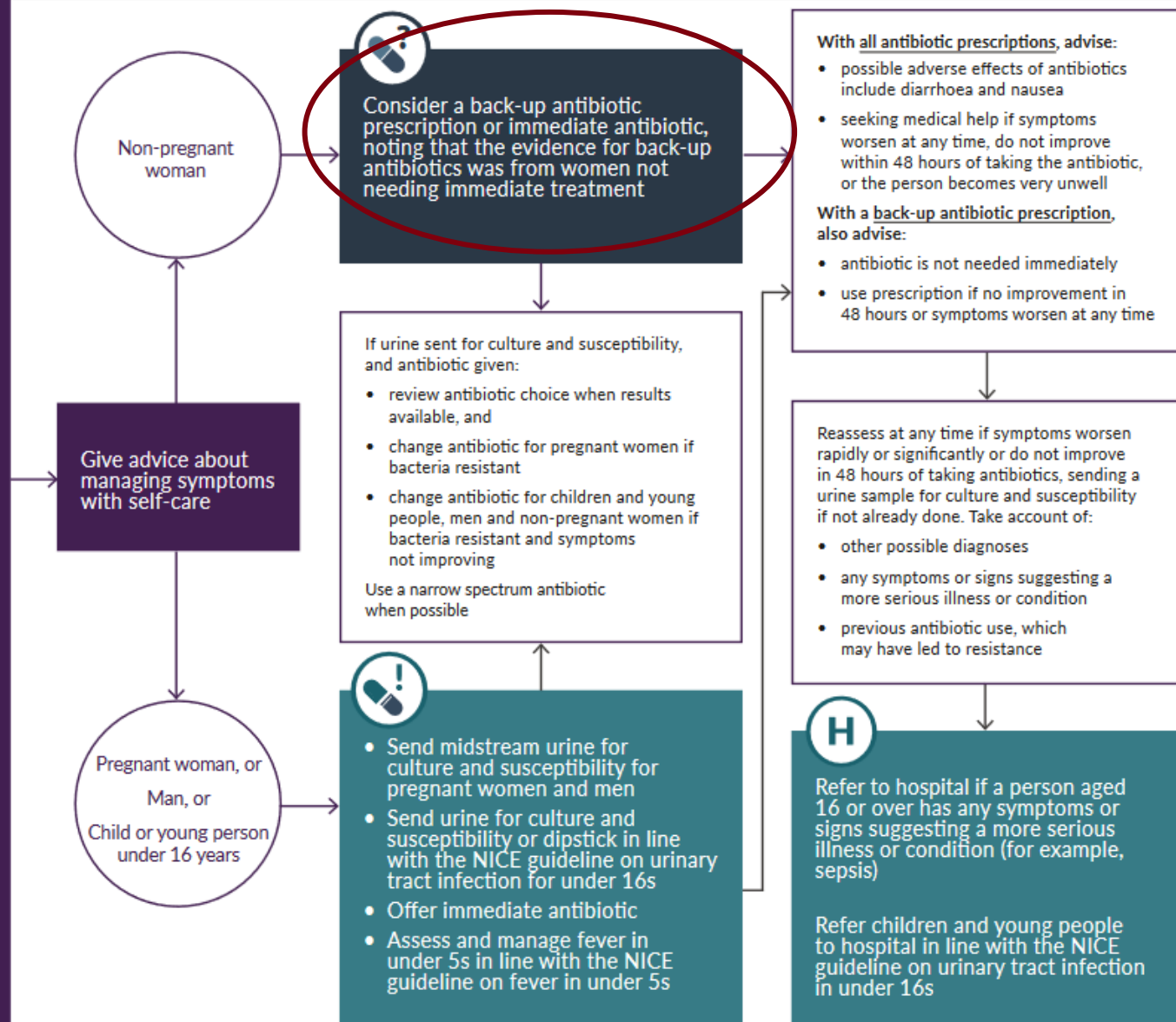
- no evidence was found to support or disprove use of cranberry products
- recommend paracetamol (or ibuprofen if appropriate) and drinking enough fluid to avoid dehydration

NICE guideline for **recurrent** UTI prevention in non-pregnant women

- lowest effective dose of vaginal oestrogen
- some may wish to try D-mannose or other cranberry products
- in 2022, NICE have reviewed the evidence for use of Methenamine Hippurate (Hiprex) and state that this may impact guidance

# UTI (lower): antimicrobial prescribing

Lower urinary tract infection (UTI)



### Background

- Lower UTI (cystitis) is a bladder infection usually caused by bacteria travelling up to the urethra from the gastrointestinal tract

### Self-care

- Advise paracetamol for pain or, if preferred and suitable, ibuprofen
- Advise drinking enough fluid to avoid dehydration
- No evidence found for cranberry products or urine alkalinising agents to treat lower UTI

### Antibiotics

- When considering antibiotics, take account of severity of symptoms, risk of complications, previous urine culture and susceptibility results, previous antibiotic use which may have led to resistant bacteria and local antimicrobial resistance data

### Asymptomatic bacteriuria

- Asymptomatic bacteriuria is significant levels of bacteria in urine with no UTI symptoms
- Treated in pregnant women because risk factor for pyelonephritis and premature delivery
- Not screened for or treated in non-pregnant women, men, children or young people

May 2022

NICE uses 'offer' when there is more certainty of benefit and 'consider' when evidence of benefit is less clear.



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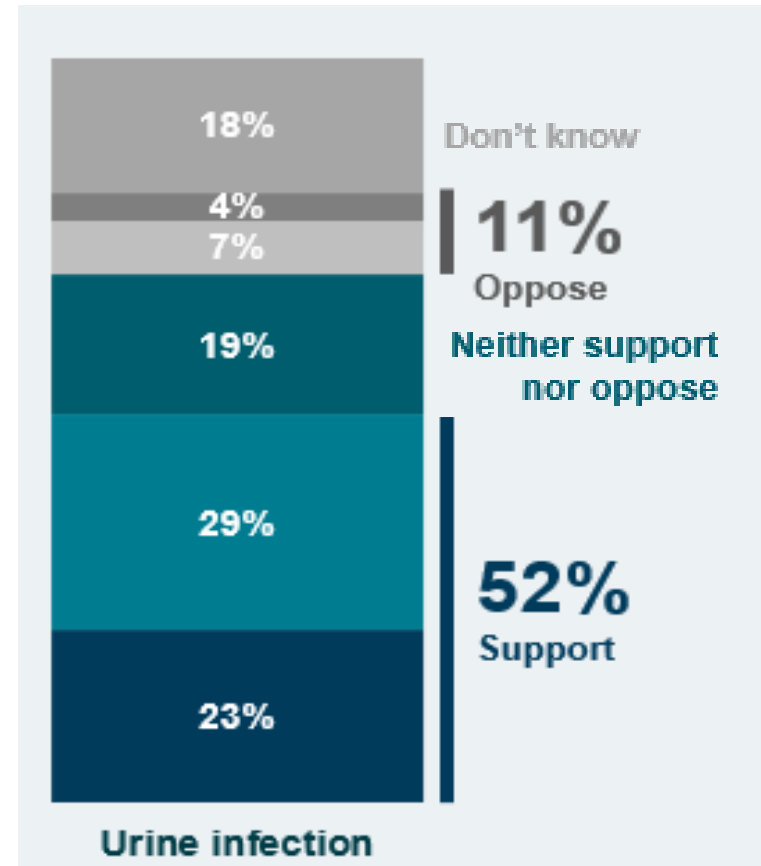
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# Back up prescribing for UTI is generally acceptable to patients – data from 2023

Do you support or oppose clinicians prescribing delayed/back-up antibiotic prescriptions for UTI?

- 54% of the population are in favour of delayed antibiotics
- 16% of patients who received a delayed prescription had a UTI
- When asked about UTI, 52% of respondents were in favour of a delayed antibiotic

**Consider back-up rather than immediate antibiotics –**  
but explain rationale, pain relief, and how to collect prescription



Clinical Scenario  
Urinary Tract Infection





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# NICE prescribing guidance for lower UTI – non-pregnant women

First choice:

- Nitrofurantoin if eGFR] is 45 ml/minute or more: 100mg m/r BD (or if unavailable 50mg QDS)
  - Trimethoprim if low risk of resistance 200mg BD
- 3 days

Always safety net, and provide information on pain relief and self-care

If giving antibiotics send urine for culture & susceptibilities, if risk of resistance or over 65 years old



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# Consider: Risk factors for resistance

Low risk of resistance:

- younger women with acute UTI and no resistance risks

Risk factors for increased resistance include:

- care home resident,
- recurrent UTI (2 in 6 months;  $\geq 3$  in 12 months),
- unresolving urinary symptoms,
- hospitalisation for  $>7d$  in the last 6 months,
- recent travel to a country with increased resistance,
- previous UTI resistant to trimethoprim, cephalosporins, or quinolones.'

If risk of resistance: always safety net and send urine for culture & susceptibilities

Clinical Scenario  
Urinary Tract Infection



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# UTI and the link to blood stream infections

Estimate the prevalence of *E.coli* **blood stream** infections, which are resistant to co-amoxiclav last year in England.

- a) 0-10%
- b) 11-20%
- c) 21-30%
- d) 31-40%
- e) Over 40%

41.4%



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# Reduced 3Cs to help reduce *Clostridium difficile* in the community

## Reduce use of

- Ciprofloxacin
  - Cephalosporins
  - Co-amoxiclav
- } for UTI

## Increase use of

- Nitrofurantoin
- Pivmecillinam

**Trimethoprim still good for UTI if there is a low risk of resistance**

Clinical Scenario  
Urinary Tract Infection



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# NICE prescribing guidance for lower UTI – non-pregnant women

## Second choice:

- Nitrofurantoin (if eGFR is 45 ml/minute or more, and it was not used as first-choice)
- Pivmecillinam: 400 mg initial dose, then 200 mg three times a day for a total of 3 days
- Fosfomycin: 3g single dose sachet in women



# NICE prescribing guidance - pyelonephritis

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First choice for non-pregnant women and men aged 16 years and over

First choice for pregnant women aged 12 years and over

Antibiotic <sup>1</sup>	Dosage and course length
First choice oral antibiotic <sup>2</sup>	
Cefalexin	500 mg twice or three times a day (up to 1 to 1.5 g three or four times a day for severe infections) for 7 to 10 days
Co-amoxiclav (only if culture results available and susceptible)	500/125 mg three times a day for 7 to 10 days
Trimethoprim (only if culture results available and susceptible)	200 mg twice a day for 14 days
Ciprofloxacin (consider safety issues <sup>3</sup> )	

MHRA Jan 2024: Fluoroquinolones only prescribed when others inappropriate – Check NICE for updates regarding Cipro

Antibiotic <sup>1</sup>	Dosage and course length
First choice oral antibiotic <sup>2</sup>	
Cefalexin	500 mg twice or three times a day (up to 1 to 1.5 g three or four times a day for severe infections) for 7 to 10 days
First choice intravenous antibiotic (if vomiting, unable to take oral antibiotics, or severely unwell) <sup>2,3</sup>	
Cefuroxime	750 mg to 1.5 g three or four times a day
Second choice antibiotics or combining antibiotics if susceptibility or sepsis a concern	
Consult local microbiologist	

Clinical Scenario  
Urinary Tract Infection



TARGET

Keep Antibiotics Working

# What can you do to learn more about UTI using TARGET resources?



## Rapid Update Quiz Urinary Tract Infection (UTI)

NICE endorsement (E228):

This quiz accurately reflects recommendations in the NICE guidance on [urinary tract infection \(lower\)](#), [urinary tract infection \(recurrent\)](#), [urinary tract infection under 16s](#) and [pyelonephritis \(acute\)](#). It also supports statements 2 and 4 in the NICE quality standard for [urinary tract infections in adults](#).

National Institute for Health and Care Excellence, March 2020.

UTI V1.13 June 2020

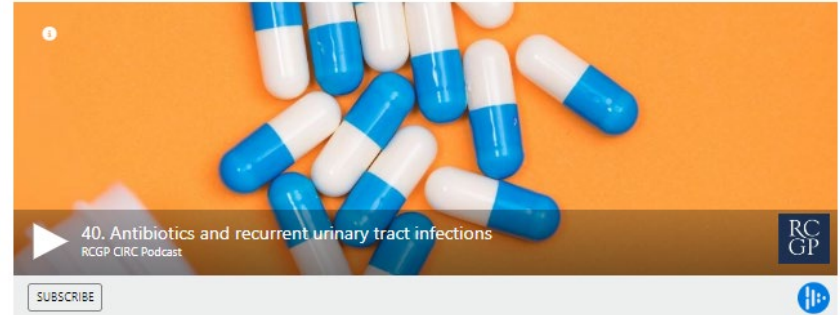
1

[rcgp.org.uk/TARGETantibiotics](http://rcgp.org.uk/TARGETantibiotics)

**Rapid update quiz:** This training quiz is for clinicians who manage patients with suspected UTI.

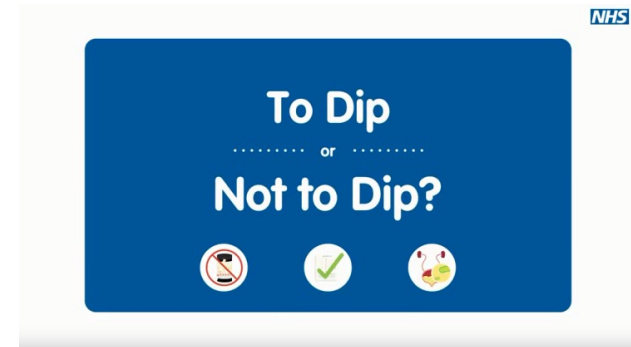
Clinical Scenario  
Urinary Tract Infection

## Recurrent UTI podcast



Encourage non-medical staff to watch this To Dip or Not To Dip **training animation:**

<https://www.youtube.com/watch?v=rZ5T1Cz7DHQ>





TARGET

Keep Antibiotics Working

# TARGET Audits: Urinary Tract infection (UTI)

The TARGET website has audit templates for:

- Acute otitis media
- **UTI**
  - **Women under 65 years**
  - **Older adults**
  - **CAUTI**
- Sore Throat
- Acute Cough
- Otitis Externa
- Acute Sinusitis

Clinical Scenario  
Urinary Tract Infection

TARGET antibiotics Audit tools: UTI audit for PEOPLE WITH CATHETERS																								
3	Total consultations used in this audit																					Audit date range	to	
4	Practice population																							
5	Total number patients with indwelling urinary catheters																							
6	Rate of indwelling catheterisations (GP registered population prescribed indwelling catheters per 1,000 patients, national average = 2.37*)																							
7	Number of episodes of suspected UTI audited																							
8	Number of people with indwelling catheters, without contact query infection in the last 6																							
9	Number of people with indwelling catheter on prophylactic antibiotics to prevent CAUTI																							
10																								
11	COVID-19: It is assumed that COVID-19 will have been excluded as a likely cause for high temperature																							
12																								
13	Main results table (NOTE: complete the table using the numbers 1 and 0 where yes=1, no=0)																							
Patients in audit consulting with suspected UTI, WITH URINARY CATHETER																								
complete the table using the numbers 1 and 0 where yes=1, no=0																								
14	Compliance with PHE Guidance for Management of UTI in >65s and NICE antibiotic UTI (catheter), antimicrobial	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	Number of patients (N)	% of Total with UTI	Your target % for good practice
15	Patient ID																							
16	Diagnostic decision																							
17	A Telephone/Surgery/Visit																							
18	B Initials or role of consulting clinician																							
19	C Catheter coded in notes (Snomed or read-code)																							
20	D Clear documentation that urinary catheter appropriate																							
21																								



# Routine data for UTI improvement

Presented by:

**Elizabeth Beech MBE Regional Antimicrobial  
Stewardship Lead South West Region**

# NHS England Model Health System AMR Dashboard - UTI

## Urinary Tract Infection

- Risk Factors →
- Antibiotic prescribing in primary care →
- Catheter prescribing in primary care →
- Community E.coli Positive Urine susceptibility testing →
- A&E attendances →
- Inpatient admissions →
- E.coli and Klebsiella bacteraemia rates →
- Inequalities →

## How to access?

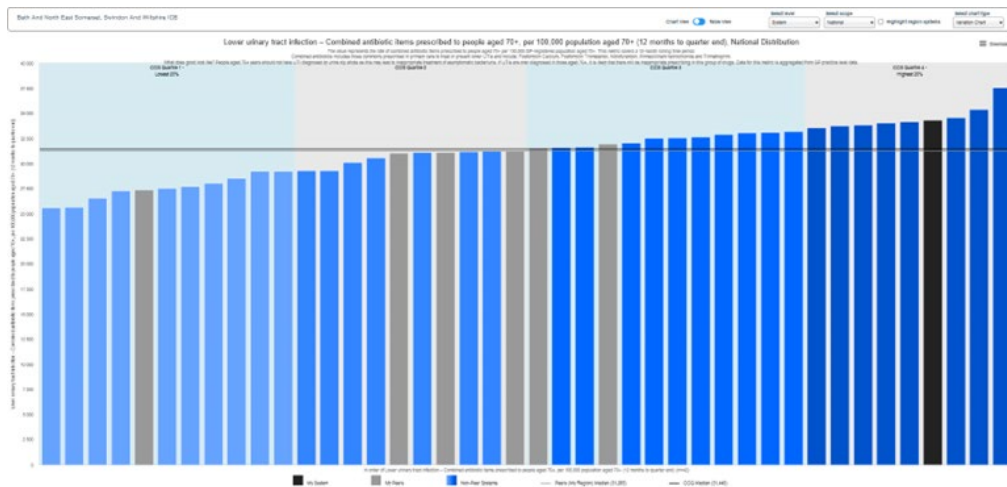
Via Model Health System [here](#) registration required

## Why use?

Improvement of the UTI pathway at an integrated care system level. Reports a wide variety of UTI related metrics based on routine NHS data. Includes metric reporting by gender

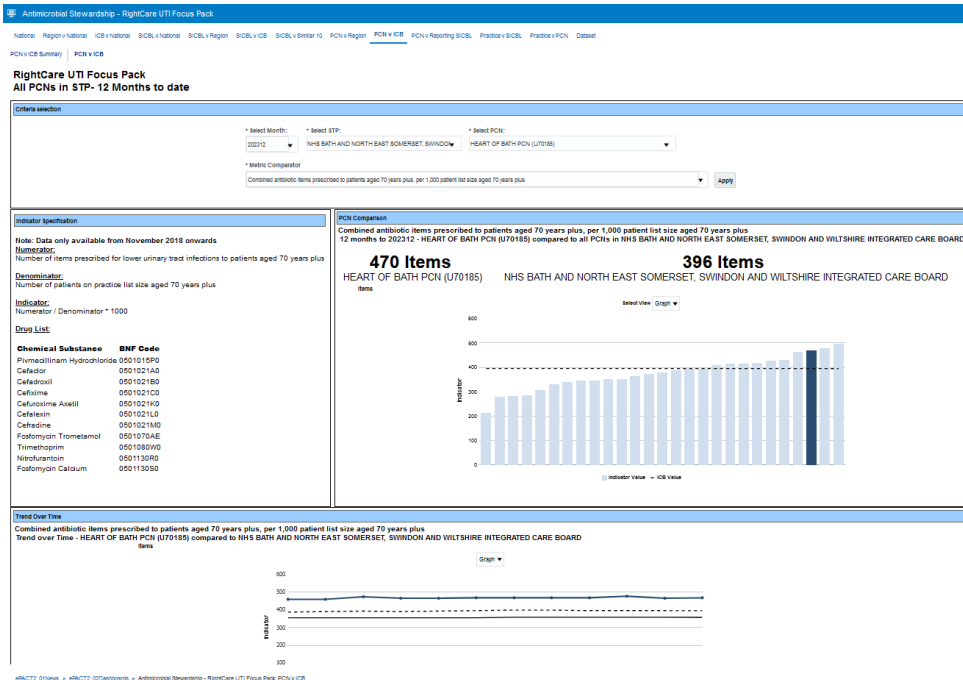
## Good for:

System level improvement in a defined population known to have higher risk of antibiotic resistant UTI, and highest burden of Gram-negative blood stream infections (GNBSI). Reports population use of urinary catheters



# NHS BSA ePACT2 Antimicrobial Stewardship Dashboard RightCare UTI Focus Pack

This dashboard is due to be replaced in 2024  
Combined antibiotic items prescribed to patients aged 70 years plus per 1,000 patient list size aged 70 years plus for BSW PCN



## How to access?

Via NHSBSA ePACT2 [here](#) registration required. RightCare UTI data packs via FutureNHS [here](#)

## Why use?

Aligns to the primary care antibiotic prescribing metrics in use in RightCare UTI data pack which focus on improving the management of lower UTI in people aged 70+Y in primary care

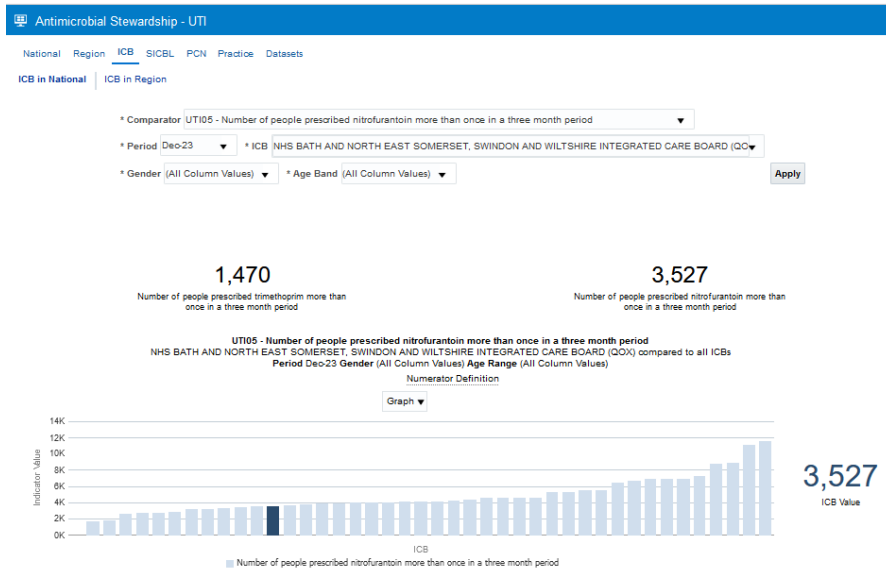
## Good for:

Improvement in a defined population known to have higher risk of antibiotic resistant UTI, and highest burden of Gram-negative blood stream infections (GNBSI).

# NHS BSA ePACT2 Antimicrobial Stewardship Dashboard UTI



Nearing publication and will report people metrics



Home > Drug Safety Update

## Nitrofurantoin: reminder of the risks of pulmonary and hepatic adverse drug reactions

Healthcare professionals prescribing nitrofurantoin should be alert to the risks of pulmonary and hepatic adverse drug reactions and advise patients to be vigilant for the signs and symptoms in need of further investigation.

## How to access?

Via NHSBSA ePACT2 [here](#) registration required.

## Why use?

Aligns to the primary care antibiotic prescribing metrics in use in Model Health System which focus on improving the management of lower UTI in people aged 70+Y in primary care

## Good for:

Improvement in antibiotic management of LUTI in selected populations by age and gender. Includes population metric for urinary catheter use by age and gender.

Reports people counts for repeated nitrofurantoin and trimethoprim risks

# Many thanks

- Avril Tucker - Antimicrobial Pharmacist, NHS Wales
- Catherine Hayes – PCIU, UKHSA
- Dharini Shanmugabavan – RCGP
- Donna Lecky – PCIU, UKHSA
- Elizabeth Beech – Antimicrobial Stewardship Lead, NHS South West
- Emily Cooper – Primary Care and Interventions Unit (PCIU), UKHSA
- Joseph Besford – RCGP
- Katherine Henderson – Lead Scientist for AMR/AMU, UKHSA
- Kate Ellis – Senior Scientist for NIHR IPAP AMRP in UTI, UKHSA
- Leigh Sanyaolu – GP and Researcher at Cardiff University
- Liam Clayton – PCIU, UKHSA
- Lizzie Richmond - RCGP
- Naomi Fleming – Antimicrobial Stewardship Lead, NHS East of England
- Philippa Moore – Consultant microbiologist, NHS Gloucestershire
- Rebecca Guy – Principal Scientist - Epidemiology, UKHSA
- The AMR team within UKHSA

# Panel Discussion



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