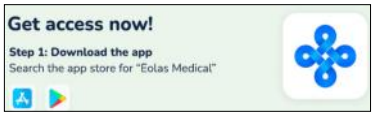
NORTHERN IRELAND MEDICINES MANAGEMENT
UTI Supplement
July 2025

Antibiotics
Antivirals
Antifungals
Antiparasitics

NI Formulary—UTI updates

The NI Primary Care antimicrobial guidelines for the management of UTIs have recently been updated to reflect local antimicrobial resistance patterns and new NICE guidance.

- **Lower UTI Children and young people under 16 years**
- **Recurrent UTI**



The antimicrobial guidelines are now hosted by Eolas Medical. An information sheet on how to set up Eolas is available on PCI.

In this issue

Lower UTI in children and young people under 16

For advice on diagnosis and referral see NICE NG224 Urinary tract infection in under 16s: diagnosis and management.

Under 12s: Trimethoprim remains the preferred NI Formulary first choice
- if not used in last 3 months
- or if shown to be previously susceptible but not used

Risk of resistance may be higher with recent use, e.g. previous 3 months, and in complicated UTIs, consider alternatives

***NEW* Over 12s: Consider nitrofurantoin tablets**
Due to growing population resistance, **nitrofurantoin tablets** can be considered an alternative first line option for older children.

Nitrofurantoin ***suspension*** is expensive (£395 per bottle) and may not be immediately available in the community. It is therefore not considered a first line primary care option.

Medicines for Children has advice on encouraging children how to swallow tablets.

What if first choice not suitable, or the child is worsening and first choice has been taken for 48 hours?
2nd Choice formulary options include nitrofurantoin tablets (12+ years), nitrofurantoin suspension (all ages, but consider availability as above), cefalexin, and amoxicillin, if culture shows susceptible. Consult EOLAS for dosing.

Antimicrobial (Drug Tariff April 2025)	Quantity	Cost
Trimethoprim 100mg tablets	28	81p
Trimethoprim 200mg tablets	6	63p
Trimethoprim 200mg tablets	14	£1.47
Trimethoprim 50mg/5ml suspension	100ml	£3.38
Nitrofurantoin 100mg capsules	30	£4.22
Nitrofurantoin 100mg MR capsules	14	£9.50
Nitrofurantoin 100mg tablets	28	£5.99
Nitrofurantoin 50mg capsules	30	£1.93
Nitrofurantoin 50mg tablets	28	£5.70
Nitrofurantoin 25mg/5ml suspension	**300ml**	**£394.56**

RECOMMENDED ACTIONS

- ☑ Consider adding Medicines for Children information for parents and carers leaflet How-to-give-tablets and TARGET leaflets to your practice website
- ☑ Consider displaying Tackling Dehydration poster in your waiting area
- ☑ Review patients on UTI prophylactic antibiotic for > 6 months using TARGET How to? Booklet
- ☑ Consider implementing a MSU protocol for rUTIs
- ☑ Promote self-care using AccuRx
- ☑ Encourage symptom recording

Recurrent UTI—NI Formulary Update

The NI Formulary has been updated based on NICE NG112 UTI (recurrent) guidance which applies to women or trans men or non-binary people with a female urinary system aged 16 years and over who are not pregnant.
In pregnancy, under 16s, men, trans women and non-binary people with a male genitourinary system seek specialist advice or refer.

Diagnosis of recurrent UTI (2 or more UTIs in the past 6 months, or 3 or more UTIs in the past 12 months) should be based on detection of a urinary pathogen on culture of the urine and on clinical judgement - the number of recurrences regarded as clinically significant depends on the risks of infection and the impact on the patient.

Recurrent UTI - a repeated UTI, which may be due to relapse or reinfection:

- **Relapse** is recurrent UTI with the same strain of organism. Relapse is the likely cause if infection recurs within a short period (for example within 2 weeks) after treatment
- **Reinfection** is recurrent UTI with a different strain or species of organism. Reinfection is the likely cause if UTI recurs more than 2 weeks after treatment

Pre-treatment

- Any active UTI should be treated before starting prevention strategies
- **Self-care and hygiene measures should be followed alongside medical treatments**

***NEW* Consider Vaginal Oestrogen**

- If the person is perimenopausal or postmenopausal
- If hygiene and behavioural measures alone are ineffective
- Review at 12 months

Consider Single-Dose Antibiotics (One-off Use for Triggers)

- If vaginal oestrogen is not effective or appropriate
- If hygiene and behavioural measures alone are ineffective

***NEW* Consider Methenamine Hippurate (Non-Antibiotic Option)**

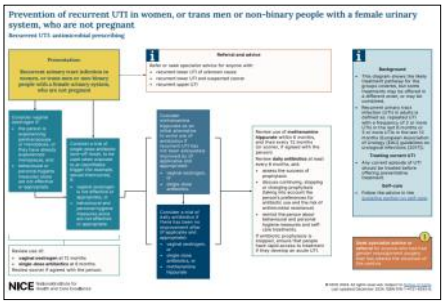
- If previous treatments were ineffective
- Review within 6 months, and then every 12 months or sooner

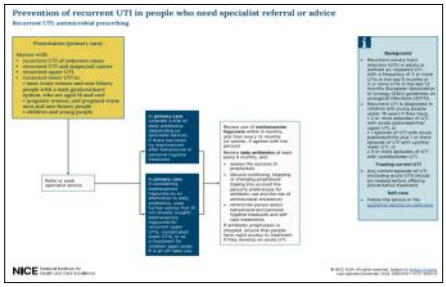
Consider Daily Antibiotics (*If No Improvement*)

- If previous treatments listed above fail (vaginal oestrogen, single-dose antibiotics, or methenamine hippurate)

NOT NEW! Always review at 6 months

- Assess effectiveness and risk of resistance
- Discuss stopping, continuing, or changing treatment
- Ensure rapid access to treatment if UTI recurs after stopping antibiotics





For further information see:
NICE NG112: Urinary tract infection (recurrent): antimicrobial prescribing

Antibiotic prophylaxis > 6 months?

- Antibiotics prescribed for UTI prophylaxis promote resistance, there is **no evidence** to support their use beyond 3 to 6 months
- All studies were conducted pre 2000, none evaluated patients beyond one year
- NICE urologist expert opinion - no further healing occurs after 6 months, continuation beyond this point confers selective advantage to resistant organisms and a poorer prognosis long-term
- **Reminder: Nitrofurantoin** risks of pulmonary and hepatic adverse drug reactions - see MHRA drug safety update.

Review and Trial STOP at 6 Months

Time constraints in practice make it difficult to provide a regular review. TARGET has produced a How to? Booklet to support primary care teams carry out evidence-based, structured clinical reviews of patients with recurrent UTIs:

- It provides steps and resources to review patients who have received antimicrobials for the prevention or treatment of recurrent UTI
- The development team included, general practitioners, pharmacists, nurses, patient representatives, microbiologists and other clinical and policy stakeholders.

Recurrent UTI (rUTI) - Regular Review is Important!

Does our antibiotic use cause increased risk of antibiotic-resistant infections in our patients?

Costelloe et al. found that:

- Antibiotic use in the past 6 months increased the risk of resistance two times (2.18)
- Longer duration and multiple courses of antibiotics were associated with greater resistance
- The odds for resistance were significantly higher for up to a year after the UTI was managed

Sanyaolu et al. found that:

- Only 49% of women who took prophylactic antibiotics met the definition of rUTIs
- 64% of women had urine cultured before starting prophylaxis
- 19% of women prescribed trimethoprim had resistance to it on the antecedent sample.

This highlights the need to improve urine culture testing for sensitivity prior to initiation of prophylactic antibiotics

During the review consider:

Condition and Consultation History

- Establish history of patients' condition
- Patient baseline habits e.g. practising personal hygiene measures
- Are they under the care of a specialist consultant

Treatment history

- Treatment/Prescription history
- Side effects to treatment
- Adherence to treatment

Patient Impact and Preference

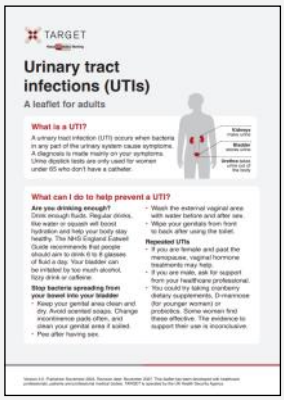
- Patient's perception of their condition
- Explore impact UTIs have had on self esteem or mental health
- What are the patient's preferences and expectations from treatment?

Discussing Discontinuing Antibiotic Prophylaxis

To provide patient reassurance, discuss review frequency, e.g. follow-up in 3 to 6 months to assess progress. In a recent trial 48% of patients who stop continuous antibiotic prophylaxis at 6 months, did not return to suffering recurrent UTIs when assessed 6 months later (Harding et al 2022).

If no breakthrough UTIs

- Discuss trial off antibiotics
- Consider appropriateness of non-antibiotic options as per NICE guidance
- Consider supplying urine sample bottle with instructions of when to use
- Consider supplying back-up prescription e.g. if triggers are known
- Advise to continue prevention measures and maintain adequate hydration
- Provide TARGET patient information leaflet: Treating Your Infection – Urinary Tract Infection (HTML format can be sent to mobile phones or tablets)


TARGET

Urinary tract infections (UTIs)

A leaflet for adults

If breakthrough UTIs

- If multiple breakthrough UTIs, then stop antibiotic prophylaxis as not effective
- **Do not treat breakthrough UTI with increased dose of same prophylactic antibiotic**
- Ask patient for a mid-stream urine (MSU) sample for culture and susceptibility testing
- Refer if needed for urology investigations
- Prescribe an empirical course of antibiotics for acute UTI whilst patient awaits review by specialist. Review with susceptibility result
- Consider appropriateness of non-antibiotic options as per NICE guidance
- Consider change in treatment when sensitivities are known
- Provide TARGET patient information leaflet

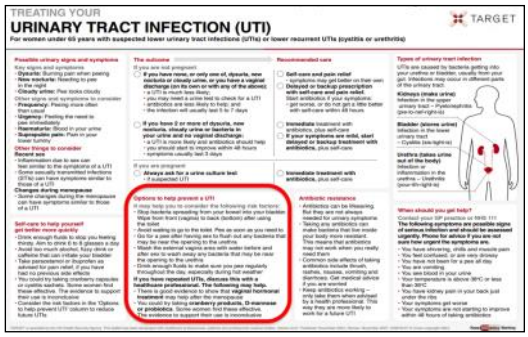
Urine Samples

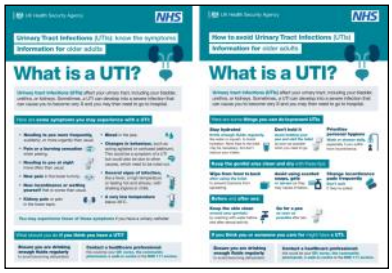
- Patients with recurrent UTIs should have a MSU sample sent for culture when symptomatic
- Patients should be counselled on how to provide a specimen to minimise the chance of contamination
- Empirical antibiotic therapy can be started whilst awaiting results
- Urine culture should be repeated with each symptomatic episode to provide susceptibility results and guide treatment

DO NOT send a sample after treatment for test of cure. Urine cultures sent in the absence of symptoms are unlikely to be helpful, may detect asymptomatic bacteriuria and lead to inappropriate antibiotic use.

UTI Prevention—Self Care

- Patients should be given advice about behavioural, personal hygiene measures and lifestyle including hydration to reduce the risk of UTI
- Be aware that some people may find these messages repetitive and/or stigmatizing if they are already aware or they relate to personal or intimate behaviours
- Encourage patient to write journal of symptoms and preceding activities to identify any triggers that can be avoided or managed with single dose antibiotic prophylaxis (see How to? Booklet section 4.1 for example journal template)
- The TARGET Treating Your UTI patient information leaflets are endorsed by NICE. They include information on the types of UTI, illness duration, self-care and prevention advice and some advice on recurring UTIs and when to re-consult. The leaflets are available free on the TARGET website and can also be linked to your computer clinical systems. For instance, Accurx has embedded all TARGET leaflets into their SMS services. The UTI leaflets are also available in multiple languages
- Dehydration in warmer weather can cause a significant increase in the incidence of UTIs
- Display Tackling Dehydration poster in your waiting area
- It's important to advise patients to maintain adequate hydration (6-8 glasses per day) and avoid too much alcohol
- UKSHA prevention and awareness toolkit is a useful resources for patients over 65 and to share with carers.





UTI Prevention—Non Antimicrobial Options

In addition to self-care and personal hygiene measures other non antimicrobial options are recommended by NICE or patients may wish to purchase OTC products.

Non Antimicrobial Options

Vaginal Oestrogen

- Off-licence but recommended by NICE
- Can take up to 3 months to become effective, advise patient to re-consult if no improvement
- May be of benefit for other related symptoms such as vaginal dryness
- Can be used in perimenopausal, menopausal or postmenopausal women, trans men and non-binary people with a female urinary system

Methenamine (Hiprex®)

- A urinary antiseptic **r**ecommended by NICE before daily antibiotic prophylaxis
- Requires an acidic urine, therefore avoid products that contain potassium citrate or sodium citrate that alkalinise the urine
- **DO NOT co-prescribe Vitamin C.**

OTC Options
Available to buy - (Do Not Prescribe)

- D-mannose is a sugar found in most fruit available as powder or tablets, the evidence is conflicting
- Cranberry products are **contra-indicated in patients taking warfarin**, the evidence is conflicting for different patient groups
- Probiotics (lactobacillus) evidence is inconclusive

NOTE: Advise people taking cranberry products or D-mannose about the sugar content of these products, which should be considered as part of the person's daily sugar intake.

This newsletter has been produced for GP practices and community pharmacies by the DoH Strategic Planning and Performance Group Regional Pharmacy and Medicines Management Team. If you have any queries or require further information on the contents, please contact one of the Pharmacy Advisers.