Lancashire & South Cumbria Medicines Management Group

LSCMMG Recurrent UTI Prophylactic Antibiotic Pathway

Version 1.2– April 2024

Introduction

VERSION CONTROL		
Version	**Date**	**Amendments made**
1.0	November 2020	New guideline.
1.1	December 2023	Reference to legacy formularies added.
1.2	April 2024	Pathway was updated following discussions with the local AMR group. Nitrofurantoin safety information added.

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1. LSCMMG Recurrent UTI Prophylactic Antibiotic Pathway

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LSCMMG Recurrent UTI Prophylactic Antibiotic Pathway

Adult with recurrent UTIs (excluding catheterised patients)

≥ 3 symptomatic lower UTIs in 12 months
or
≥ 2 symptomatic lower UTIs in 6 months
Note: 2 to 3 positive cultures are required before diagnosing a recurrent UTI

Offer advice on conservative measures:

1. Counselling and behavioural modification (fluid intake and hygiene)
2. Non-antimicrobial measures (e.g. vaginal oestrogens in post-menopausal women)

Continuing symptoms

Red flag symptoms? **See box 1**

Yes

Refer to specialist

Advised commence prophylactic antibiotics?

No

No

Is the underlying cause known?

Acute UTI

At all stages:

Advise the patient to seek medical help if symptoms of **an acute UTI develop.**

Conduct C+S and restart original prophylaxis once resolved if sensitivity to the agent remains.

Discontinue prophylaxis if > 1 breakthrough UTI occurs and refer if not already investigated.

Consider **single-dose** antibiotic prophylaxis following exposure to an identifiable trigger, if appropriate
OR
Commence trial of prophylactic antibiotics – refer to local legacy formularies via: https://www.lancsmmg.nhs.uk/formulary/

Yes

Review at six-months

Any breakthrough UTIs after six-months?

Yes, 1 UTI only

No

Yes, > 1 UTI

Consider stopping at six-months and monitor for recurrence

Refer to specialist – if not already investigated

Box 1: Red flag symptoms

1. **Pregnancy**
All recurrent UTIs in pregnancy should be discussed with the obstetrics team

2. **All men**
3. **Frank haematuria** (even in the context of confirmed UTI)
4. **Neurological disease** e.g. spinal cord injury
5. **Pneumaturia or faecaluria**
6. **Proteus** on repeat urine cultures
7. Suspected **stones**
8. **Obstructive symptoms**, or structural/functional abnormality causing > 200ml residual urine on bladder scan

Adapted from NICE guideline 112

Further information

Nitrofurantoin safety information

The Medicines and Healthcare products Regulatory Agency (MHRA) has issued a reminder about the risks of pulmonary and hepatic adverse reactions associated with Nitrofurantoin. This follows a fatality report of a patient who developed acute pulmonary damage and respiratory failure after a 10-day course of Nitrofurantoin for urinary-tract infection treatment.

Key points from the MHRA advice are:

- Healthcare professionals should increase vigilance for acute pulmonary reactions in the first week of treatment.
- Patients on long-term therapy, especially the elderly, should be closely monitored for new or worsening respiratory symptoms.
- Treatment should be discontinued immediately if new or worsening symptoms of pulmonary damage occur.
- Caution should be exercised when prescribing to patients with pulmonary disease which may mask the signs and symptoms of adverse reactions.
- Healthcare professionals should be vigilant for signs and symptoms of hepatic dysfunction, especially with long-term therapy, and periodically monitor for signs and changes in biochemical tests that would indicate hepatitis or liver injury.
- Caution should be used when prescribing to patients with hepatic dysfunction which may mask the signs and symptoms of adverse reactions.

Patients and their carers are advised to seek immediate medical advice if symptoms of pulmonary or hepatic adverse reactions develop.

The local antimicrobial stewardship committee have recommended that the following baseline test should be completed before commencing nitrofurantoin long-term and repeated three-six monthly thereafter:

LFTs,
Renal function,
Oxygen saturation,
Chest x-ray,
Dyspnoea (using the mMRC dyspnoea score)