

Trimethoprim resistance rates update and risk factors for increased resistance

Prescribing tip for information only

NHS England has a target to halve the number of healthcare associated Gram Negative Bloodstream Infections (GNBSI) by 2021. Escherichia Coli BSI represents the most common cause of GNBSI and these are the focus for 2017 – 2019. Whilst there are many sources for E.coli infection the most common are Urinary Tract Infections (approximately 50%). In order to prevent progression of infections from the urinary tract to the blood it is important that UTIs are treated with the correct antibiotics¹.

Nationally, trimethoprim resistance is common in laboratory processed urine samples (34% resistance identified in NHS laboratories in 2016 from all healthcare settings)¹.

2017 Resistance Rates in Chorley & South Ribble and Greater Preston

During 2017, 13,666 coliform bacteria were isolated in the LTHTr Microbiology Lab from urine samples submitted from Chorley & South Ribble and Greater Preston primary care and antibiotic sensitivity was tested on all coliforms. Locally, trimethoprim resistance in primary care was 32.6%. Nitrofurantoin resistance rate was much lower; 7.7% resistance was identified locally². Coliforms (mainly E.coli) account for about 90% of all UTIs detected in the community.

Factors associated with UTIs caused by a resistant organism

Risk factors for increased resistance include: Age > 65 years, care home resident, recurrent UTI, hospitalisation for more than 7 days in the last 6 months, unresolving urinary symptoms, recent travel to a country with increased antimicrobial resistance, previous UTI resistance to trimethoprim, cephalosporins or quinolones. **If risk of resistance**, send urine for culture and susceptibilities and give safety net advice³.

For Adult Male and Non-Pregnant Female patients: Nitrofurantoin (If GFR \geq 45ml/min) is the first line choice for treatment of lower UTI.

A copy of the C&SR and GP 'Management of Infection Guidance for Primary Care, January 2018' guidelines are available for download via the Medicines Optimisation page of SharePoint.

<http://cpg.centrallancashire.nhs.uk/mmopt/AntibioticFormulary/Management%20of%20infection%20guidance%20for%20Primary%20Care%20version%203.2%20January%202018.pdf>

If pyelonephritis is suspected, antibiotic treatment choices and management differs – please refer to the local guidelines

Public Health England have produced a quick reference guide (June 2017): Diagnosis of urinary tract infections and the link to this is below:

[PHE Urinary Tract Infection Guidance](#)

References:

1. English surveillance programme for antimicrobial utilisation and resistance (ESPAUR) Report 2017
2. LTHTr Microbiology Update 2018. Report for GPs
3. Public Health England. Management and treatment of common infections. Antibiotic guidance for Primary care November 2017.

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