Guidance for General Practitioners on the use of oral Fosfomcyin 3 gram sachets for the treatment of multi-drug resistant Urinary Tract Infections (UTI's) in community based patients

Multi-drug resistant organisms

There has been a steady increase in the prevalence of Multi-Drug resistant infections isolated during culture and sensitivity testing for Urinary Tract Infections (UTI's). In symptomatic patients and those who are clinically unwell, treatment is indicated in order to prevent bacteraemia.   Multi drug resistant infections e.g. Extended Spectrum Beta Lactamase (ESBL) urinary tract infections are often only sensitive to Nitrofurantoin or Meropenem.   Nitrofurantoin is used frequently both empirically and on receipt of culture and sensitivity results by GP's and within East Lancashire Hospitals for the treatment of UTI's. It is however limited by the fact that for it to be effective patients must have a creatinine clearance of ≥60mL/min. In patients whose creatinine clearance falls below 60mL/min their resistant urinary infections require treatment with injectable antibiotics such as Meropenem and this is both costly and requires admission to hospital for cannulation and administration as an infusion.

Fosfomycin information

Fosfomycin is licensed for UTI treatments in the UK. Fosfomycin is well absorbed following oral administration and is excreted unchanged into the urine. Fosfomycin following a single 3g sachet produces very high urine levels and concentrations remain above the Minimum Inhibitory Concentration (MIC) for up to 48 hours, a repeat dose is required for men after 3 days.

Inclusion/Exclusion criteria

Inclusion:

   Fosfomycin identified on ICE following urine culture results
   OR
   Following discussion with a Consultant Microbiologist at ELHT
   Patients suffering from a symptomatic UTI
   No other suitable ORAL alternatives to Fosfomycin (this may be due to resistance, patient allergies, renal function)

Exclusion:

   Intolerance or allergy to Fosfomycin
   Pregnancy or breastfeeding
   Creatinine clearance <10ml/min

Prescribing information

	MEN	WOMEN
Drug / Dose / Formulation	Fosfomycin 3g sachet	Fosfomycin 3g sachet
Quantity	2 sachet	1 sachet
Directions	Take the contents of ONE sachet in a glass of water AS A SINGLE DOSE. REPEAT DOSE AFTER 3 DAYS. Take at least two hours before or after food. The ideal time to take this medicine is in the evening before going to bed.	Take the contents of ONE sachet in a glass of water AS A SINGLE DOSE. Take at least two hours before or after food. The ideal time to take this medicine is in the evening before going to bed.
Contraindications	Known allergy to Fosfomycin / Creatinine clearance <10mL/min	
Cautions	Pregnancy and breastfeeding	
Adverse effects	Nausea, diarrhoea, pyrosis, skin rash and anaphylaxis have been reported	
Drug interactions	Metoclopramide – avoid concomitant use	
Full SPC	https://www.medicines.org.uk/emc/medicine/32238	

Supply procedure

Fosfomycin may now be routinely supplied by community pharmacies via FP10. The following system has been implemented to facilitate the supply of Fosfomycin to patients with resistant UTI's:

1. GP receives result of urine culture via ICE system indicating a resistant UTI has been identified and that the use of Fosfomycin is indicated. It should be assumed that where Fosfomycin is reported on the ICE system that this has been reviewed and approved by a Consultant Microbiologist at East Lancashire Hospitals.

   OR

   GP receives result of urine culture following telephone call from Consultant Microbiologist at East Lancashire Hospitals indicating a resistant UTI has been identified and that the use of Fosfomycin is indicated.

2. GP issues FP10 for Fosfomycin 3g sachet(s) **- (Monuril®)**

NB. ELHT Consultant Microbiologists can be contacted by calling: 01254 734541

References:
http://www.mhra.gov.uk/home/groups/spcpil/documents/spcpil/con1372740544547.pdf
ESUOM 17: Multidrug resistant urinary tract infections: fosfomycin trometamol accessed at
http://www.nice.org.uk/mpc/evidencesummariesunlicensedofflabelmedicines/ESUOM17.jsp