NHS LOTHIAN PAEDIATRIC PROTON PUMP INHIBITOR POLICY AND SWITCH TO ESOMEPRAZOLE

Omeprazole suspension (an unlicensed product) has been reviewed at the Formulary Committee as not recommended for use and an alternative licensed product should be used where one is available and appropriate. In addition omeprazole suspension is very expensive compared to the licensed alternatives.

Overall, for patients requiring a proton pump inhibitor (PPI) (rather than a histamine H2-receptor antagonist (H2RA) or other therapy) our first choice is to prescribe omeprazole MUPS but Lansoprazole FasTab can be used as an alternative

Patients unable to tolerate omeprazole MUPS should receive esomeprazole granules.

There are three groups of patients in whom we currently use liquid omeprazole:

1. **Infants and young children, who are orally fed (no tube) and are having a trial of PPI for suspected reflux and who cannot tolerate omeprazole MUPS.** In this patient group, an immediate change to esomeprazole would be appropriate. There needs to be review of the ongoing need for the medication at the next opportunity by the GP or hospital clinician. It would be inappropriate to change from suspension without consultation with the family, but switching as soon as possible to esomeprazole would be a cost saving and potentially better for the patient. Given that we use omeprazole already under age 1, we should be using esomeprazole for the same pragmatic reasons.

For these patients, a time limited trial for 4 to 6 weeks should be enough to prove it has worked – if there is no benefit, the medication should be stopped (if they have been on PPI for more than 2 months, weaning off by halving or cutting out a dose if on twice daily dosing may be better, then stopping after a week or two) and an alternative strategy used for alternative diagnoses such as Cow's Milk Protein Allergy (CMPA) or eosinophilic oesophagitis (EoE).

2. **NG tube or gastrostomy tube fed children** with oral intake OR no oral intake should be able to have omeprazole MUPS administered safely if properly trained to do so. There will be few who cannot. The children's community nursing team may be key to providing practical advice. Omeprazole MUPS should be tried first and only if they have issues of tube blockage should they be switched to esomeprazole.

Patients with this type of tube already prescribed liquid omeprazole should be switched to esomeprazole granules as soon as practical (GP or hospital clinician). Switching back to MUPS should be considered at the soonest opportunity - if community nurses are involved then they should address training for proper administration along with the medical care provider. This might be an opportunity to rationalise PPI dosage or step down to ranitidine or actually stop medication if not indicated.

3. **Children with any form of jejunal tube (NJ, GJ, PEG-J, PEJ or Roux-en-Y Jejunostomy)** - should be switched if possible to esomeprazole granules at the soonest opportunity under the advice/ instruction of their hospital based team. The administration of esomeprazole has been shown to be safe and practical for these tubes.

Parents of children with jejunal tubes will be notified by the GI team at RHSC that there is no supply of suspension at RHSC. If their child is still on omeprazole suspension and admitted into hospital, they should bring it in to hospital. The transfer to esomeprazole granules will be made during the inpatient stay if appropriate to do so. The GI team at RHSC will provide advice to responsible GPs on the dosage each jejunally fed patient should switch to at the soonest opportunity.

MEDICATION DOSING

Dosing advice for PPI is available in the children's GI section of the LJF and in the current cBNF 2014-2015

Omeprazole MUPS pages 44 – 45

Lansoprazole FasTab page 44

Esomeprazole page 43 – 44

Children under 1 year - paediatric studies for esomeprazole show that 0.5 mg/kg in <1 month old and 1mg/kg in 1 to 11 month old infants was effective.

The dose for children under 10kg should be rounded up or down to either 5mg (7.5mls of the prepared solution, see page 4) or 10mg (15mls) for a time limited trial of 4 to 6 weeks and the medication discontinued if still not effective.

Children age 1-12 years, 10-20 kg should be started on 10mg once daily

Children age 1-12 years, over 20 kg should be started on 10mg (max 20 mg) once daily

Children age 12 -18 years should be started on 20mg (max 40mg) once daily

http://www.ljf.scot.nhs.uk/LothianJointFormularies/Child/1.0/1.3/Pages/default.aspx

http://www.medicines.org.uk/emc/medicine/22313

Method of administration esomeprazole

1. Add the contents of each 10 mg sachet into 15 ml of water (i.e. for 20mg dose 30mls of water).

For patients taking esomeprazole orally, the sachet can be mixed with the same volume of applesauce, orange or apple juice; however the granules must not be chewed or crushed.

2. Stir and leave for a few minutes to thicken.

3. Stir again.

6. Draw the correct volume of suspension into a syringe.

7. Administer through the enteral tube, within 30 minutes after reconstitution.

8. Refill the syringe with 10 ml water for a 10 mg dose and 20 ml for a 20 mg dose and administer.

9. Flush any remaining contents from the syringe or enteral tube. Any unused suspension should be discarded.

Peter Gillett, Consultant Paediatric Gastroenterologist
David Hoole, Senior Pharmacist
Catherine Paxton, Nutrition Nurse Specialist
Jane Pearson, Formulary Pharmacist
Kirsten Thomson, Advanced Paediatric Pharmacist
Hamish Reid, GP

02/04/2015