Introduction

Omeprazole and Esomeprazole are proton pump inhibitors (PPI) used in the management of GORD. They inhibit gastric acid secretion by blocking the hydrogen-potassium adenosine triphosphatase enzyme system (the ‘proton pump’) of the gastric parietal cell, thereby reducing the amount of acid in the stomach.

Indication for use

**OMEPRAZOLE 4mg/mL SUSPENSION**
is ONLY to be used in children less than 1 year old and/or less than 10kg body weight, who require administration via a gastrostomy.

**ESOMEPRAZOLE 10mg SACHETS OF GRANULES FOR ORAL SUSPENSION**
are to be used in children greater than 1 year old and greater than 10kg body weight, who require administration via a gastrostomy.

*Prescribed dosage of either medicine should be in-line with current BNFc guidance.*

Children receiving these medicines will be under shared care between their GP and a primary treatment centre WHICH MAY NOT BE the Royal Alexandra Children’s Hospital.

A child receiving Omeprazole suspension may be suitable to switch to Esomeprazole granules when they are both >1 year old and >10kg weight. This switch would represent a significant cost saving, however should only be done after discussion with the primary treatment centre.

Presentation and Storage

- Omeprazole 4mg/mL suspension: 75mL bottle, stored at room temperature before re-constitution. After re-constitution, the suspension must be stored in a refrigerator (2 – 8 °C) with a shelf life of 28 days from date of re-constitution.

- Esomeprazole 10 mg gastro-resistant granules for oral suspension, sachets to be stored at room temperature
**Preparation and Administration**

Both Omeprazole and Esomeprazole products are suitable for use with enteral tubes sizes 6 – 16 French gauge.

**Omeprazole 4mg/mL suspension:**

It is recommended that a pharmacist constitutes Omeprazole Oral Suspension prior to its dispensing to the patient.

The container is a two compartment system containing powder both in the cap and in the bottle. The two powders first need to be combined and are then to be constituted in water. A red mixing disk will drop into the medicine to help mix the powders and also mix the constituted suspension after addition of the water. It should remain in the bottle.

1. Combination of powder in cap and bottle
   - Shake the bottle for 10 seconds to loosen the powder.
   - Twist the red cap anti-clockwise (see arrow on cap) until the seal is broken to release the powder in the red cap into the bottle.
   - Twist the red cap back to the original position, securely fastening the red cap onto the bottle.

2. Constitution of the powder
   - Shake the bottle vigorously for ten seconds to mix the powders.
   - Tap the base of the bottle three times on a hard horizontal surface to make sure all powder is in the bottle and not in the cap.
   - Remove the red cap from the bottle.
   - Add 64mL of water by using a suitable measuring device up to the line on the label.
   - Securely fasten the red cap onto the bottle and shake vigorously for 30 seconds.

Note: It is normal to have the red plastic disc in the suspension during use; do not attempt to remove it.

   - Remove the red cap and red ring and throw away and replace with the grey plastic screw-cap.
   - Leave for fifteen minutes for product to reach final consistency.

The reconstituted suspension will be a white / off-white / brownish suspension. It may contain dark specks due to the sweetener.

   - Draw up the entire suspension into an appropriately sized enteral EnFit syringe (purple)
   - Administer through the enteral tube immediately after reconstitution
   - Refill the syringe with water or 0.9% sodium chloride to flush any remaining contents from the enteral tube into the stomach.
Esomeprazole 10mg Sachets of Granules for Oral Suspension:

- Add the contents of ONE sachet to 15mL of water or TWO sachets to 30mL of water (depending on dose)
- Stir until the granules have dispersed
- Draw up the entire suspension into an appropriately sized enteral EnFit syringe (purple)
- Administer through the enteral tube immediately after reconstitution
- Refill the syringe with water or 0.9% sodium chloride to flush any remaining contents from the enteral tube into the stomach.

If the child is fluid restricted please contact a Pharmacist

Side Effects & Drug interactions

Please refer to the most up to date version of the BNF for Children (available online via https://bnfc.nice.org.uk/) for full details of side effects and known drug interactions.

Information suitable for giving to patients and their parents/carers can be found at https://www.medicinesforchildren.org.uk

Disposal of waste

In a healthcare setting: As per local policy for non-cytotoxic waste

At home: Any unused medicine should be returned to a Pharmacy for safe disposal. No specific advice required for managing spillages.

References:

1. Nexium 10 mg gastro-resistant granules for oral suspension, sachet Summary of Product characteristics, UK. Updated 22 June 2017. Accessed 20 April 2020
2. Omeprazole 4mg/mL, powder for oral suspension, Summary of Product characteristics, UK. Updated 04 March 2020. Accessed 20 April 2020