Royal Aberdeen Children’s Hospital (RACH) Guidance on Oral/Enteral Proton Pump Inhibitor (PPI) selection and administration (for children)

Consult BNFC, SPC and/or pharmacy for dosing and licensing information

Note: ~Omeprazole suspension is the only PPI licensed for use in children < 1 year. Other omeprazole preparations (licensed from 1 year of age + ≥10kg), used off-label, may be deemed more appropriate depending on individual circumstances. Omeprazole suspension is available in two strengths. The most cost-effective strength of the suspension should be prescribed (consider dose, pack size and in-use expiry). Parents/carers should be counselled at any change of dose/strength. Where there is a need for continued PPI use, preparation choice should be reviewed once the child reaches 1 year of age + ≥10kg, or sooner if clinically indicated. The need for review should be discussed with parent/carer at initial prescribing of suspension if longterm use is anticipated.

* Esomeprazole granules are the first line option for enteral administration in children ≥ 1 year of age unless there are repeated problems with administration via enteral feeding tube using the method described in the administration leaflet (below), or an option involving a smaller volume is required. May be used off-label in some children <1 year of age, depending on individual circumstances.

M Freeman, RACH Pharmacy Dept. March 2021. V. 2.0 Review by: Dr S. Bunn, Dr I. Chalmers, K. Neave, A. Davie, F. Doney, L. Coyle.
(Adapted from NHS Tayside Guidance for PPI selection for children with GORD)
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Approximate Equivalent doses of Proton Pump Inhibitors

<table>
<thead>
<tr>
<th>Proton Pump Inhibitor</th>
<th>Equivalent dose</th>
</tr>
</thead>
<tbody>
<tr>
<td>Esomeprazole</td>
<td>10mg</td>
</tr>
<tr>
<td>Lansoprazole</td>
<td>30mg</td>
</tr>
<tr>
<td>Omeprazole</td>
<td>20mg</td>
</tr>
</tbody>
</table>

Administration guidance for patients unable to swallow capsules/tablets whole

Omeprazole 10mg and 20mg capsules/dispersible tablets.
For oral administration using dispersible tablets, the dose should be rounded to the nearest whole / three-quarter / half / quarter of a 10mg or 20mg tablet. The tablet should be cut as appropriate for the prescribed dose and the dose can then be dispersed in a small amount of water, fruit juice or applesauce for oral administration. DO NOT mix with milk or carbonated water. Patients/carers should be advised that the dispersion should be given immediately (or within 15 minutes). Tablets are not scored so dose will be approximate.

Alternatively, for a full 10mg or 20mg oral dose the capsules can be opened and the contents dispersed in water / sprinkled on soft food such as yoghurt.

Lansoprazole 15mg and 30mg capsules/dispersible tablets.
For oral administration using dispersible tablets, the dose should be rounded to the nearest whole / three-quarter / half / quarter of a 15mg or 30mg tablet. The tablet should be cut as appropriate for the prescribed dose. Tablets are not scored so dose will be approximate. Lansoprazole orodispersible tablets are fruit flavoured and should be placed on the tongue and gently sucked. The tablet rapidly disperses in the mouth. Alternatively, the tablet can be dispersed in a small amount of water for oral administration.
For enteral tube administration the prescribed dose should be dispersed in at least 10mL water and the tube flushed well afterwards. The Zoton Fastab® brand is preferred for enteral tube administration as the diameter of the micro-granules varies with brand used.

Alternatively, for a full 15mg or 30mg oral dose, the capsules may be opened and the granules mixed with a small amount of water, apple/tomato juice or sprinkled onto a small amount of soft food (e.g. yoghurt, apply puree) to ease administration.

After preparing the suspension or mixture, the drug should be administered immediately. It is recommended that lansoprazole is given at least 30 minutes before food.

Esomeprazole 10mg gastro resistant granules for suspension (sachets)
See guidance below. Parents should be given a copy of this guidance. Note that it is essential to leave the granules sitting in the water for a few minutes in order for the granules to disperse fully to reduce the risk of blocking the enteral tube.

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Esomeprazole gastro-resistant granules for suspension (Nexium®) – Administration Guidance for Enteral tubes

1. For a 10 mg dose, add the contents of a 10 mg sachet into 15 mL of water.

2. For a 20 mg dose add the contents of two 10 mg sachets into 30 mL of water.

3. Stir.

4. Leave for at least 2 minutes to thicken. This is essential for the granules to disperse fully.

5. Stir again.

6. Draw the suspension into a syringe.

7. Administer through the enteric tube, French size 6 or larger within 30 minutes after reconstitution.

8. Refill the syringe with a small volume of water and administer (this will rinse the syringe and ensure that the total dose is administered)

9. Shake and flush any remaining contents from the enteric tube into the stomach

Any unused suspension should be discarded.

Up to a 50mL volume of water is recommended for jejunal tube administration at any one time.

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