Treatment of babies with reflux or GORD

The information on this sheet is based upon my professional experience as a pharmacist with a specialised interest in the safety of drugs in breastmilk, supported by evidence from expert sources. However, I cannot take responsibility for the prescription of medication which remains with the healthcare professionals involved. I am happy to discuss the evidence by email wendy@breastfeeding-and-medication.co.uk

It seems form social media that many babies are now being diagnosed and treated for reflux (GOR). Before labelling a baby as having a medical condition it is often useful to seek input from a breastfeeding expert and consideration of the position the baby is in after a breastfeed (https://breastfeedingnetwork.org.uk/wp-content/dibm/reflux%20and%20breastfeeding.pdf).

NICE define reflux as “the passage of gastric contents into the oesophagus. It is a common physiological event that can happen at all ages from infancy to old age and is often asymptomatic. It occurs more frequently after feeds/meals. In many infants, GOR is associated with a tendency to 'overt regurgitation' – the visible regurgitation of feeds.” And that “in well infants, effortless regurgitation of feeds:

- is very common (it affects at least 40% of infants)
- usually begins before the infant is 8 weeks old
- may be frequent (5% of those affected have 6 or more episodes each day)
- usually becomes less frequent with time (it resolves in 90% of affected infants before they are 1 year old)
- does not usually need further investigation or treatment.

Gastro-oesophageal reflux disease (GORD) however, refers to gastro-oesophageal reflux that causes symptoms (for example, discomfort or pain) severe enough to merit medical treatment, or to gastro-oesophageal reflux-associated complications (such as oesophagitis or pulmonary aspiration).

1.3 Pharmacological treatment of GORD

NICE recommends that acid-suppressing drugs, such as proton pump inhibitors (PPIs e.g. omeprazole) or H2 receptor antagonists (H2Ras e.g. ranitidine), can be used to treat overt regurgitation in infants and children if no other medical issues have been identified

A trial is suggested if symptoms are accompanied by

- unexplained feeding difficulties (for example, refusing feeds, gagging or choking)
- distressed behaviour
- faltering growth.

Medical treatment

- First line treatment is often Gaviscon sachets after every feed. These are often difficult to administer to an exclusively breastfed baby during or after a feed even if mixed in breastmilk instead of water. Gaviscon is also often associated with constipation.

- H2 receptor antagonist normally ranitidine is normally chosen but unlicensed to treat GORD in children.

Neonate: 2 mg/kg 3 times a day (max. per dose 3 mg/kg 3 times a day), oral absorption is unreliable. For Child 1–5 months: 1 mg/kg 3 times a day (max. per dose 3 mg/kg 3 times a day). For Child 6 months–2 years: 2–4 mg/kg twice daily.

A solution of 150mg/10ml is usually dispensed and the pharmacist will calculate the dose and provide a suitable oral syringe. Some liquids are sugar free but contain alcohol. The level of alcohol is considered insignificant but anecdotally some babies reject the taste. It is possible for the pharmacist to supply a specially manufactured product, but the cost may be around £474 rather than £6.45 for 150ml and such prescription would be strongly discouraged by most CCGs. (NI Formulary)

- PPI prescribed may be omeprazole or lansoprazole. Both are unlicensed to treat GORD in children

Omeprazole dose. Neonate: 700 micrograms/kg once daily for 7–14 days, then increased if necessary to 1.4–2.8 mg/kg once daily. For Child 1 month–1 year: 700 micrograms/kg once daily, increased if necessary to 3 mg/kg once daily (max. per dose 20 mg). For Child 2–17 years (body-weight 10–19 kg) 10 mg once daily, increased if necessary to 20 mg once daily, in severe ulcerating reflux oesophagitis, maximum 12 weeks at higher dose.

The medication is prepared by adding half (5mg) or one 10mg MUPS tablet into a 10ml syringe. 10ml of previously boiled and cooled water is then drawn up into the syringe. The resultant solution contains the enteric coated pellets which can be given directly. If the pellets are broken down e.g by crushing tablet first the drug will be destroyed before it gets to the site of action. Similarly crushing capsules inactivates the drug.

A special liquid suspension can be prepared but has poor evidence of efficacy as it involves crushing the capsules and suspending them. It is also costly.

Lansoprazole dose. Neonate: 2 mg/kg 3 times a day (max. per dose 3 mg/kg 3 times a day), oral absorption is unreliable. For Child 1–5 months 1 mg/kg 3 times a day (max. per dose 3 mg/kg 3 times a day). For Child 6 months–2 years 2–4 mg/kg twice daily.

The medication is prepared by adding a quarter of half of a fast tab to a 10ml syringe and drawing up 10ml water into the syringe which is administered to the baby.

References

NICE NG 1 2015 Gastro-oesophageal reflux disease in children and young people: diagnosis and management

Northern Ireland Medicines Management. Supplement: Omeprazole / Lansoprazole / Ranitidine in Infants Feb 2017.

BNF Children online access

NICE CKS GORD in children 2015. https://cks.nice.org.uk/gord-in-children#!scenario

Local Feeding Information Board Colic and Reflux Briefing Paper September 2015 http://lifib.org.uk/colic-and-reflux-briefing-paper-september-2015/

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