

# GASTRO-OESOPHAGEAL REFLUX (GOR)

## RECOGNITION AND ASSESSMENT

### Symptoms

- Frequent vomiting after feeds in otherwise healthy baby
- Recurrent desaturations in ventilated babies (exclude BPD spells)
- Chronic lung disease of prematurity may be worsened by recurrent aspiration caused by GOR

### Risk factors

- Immaturity of the lower oesophageal sphincter
- Chronic relaxation of the sphincter
- Increased abdominal pressure
- Gastric distension
- Hiatus hernia
- Malrotation
- Oesophageal dysmotility
- Neuro-developmental abnormalities

### Differential diagnosis

- Suspect cow's milk protein intolerance (CMPI) in babies who are formula bottle fed and have recurrent vomiting and irritability despite appropriate management of GOR

## INVESTIGATIONS

- Litmus test (pH paper on two occasions) for acid in oropharyngeal secretions (OPS), but not after stimulation for apnoea or bradycardia (which can cause a GOR episode) and not immediately after a feed
- 24 hr pH monitoring is of limited value in preterm babies. Perform in cases where repeated apnoea/bradycardia is resistant to other measures

## MANAGEMENT

### Position

- Head upwards, at an angle of 30°
- Nurse baby prone or in left lateral position [if monitored](#)

### Feeding

- Frequent low volume feeds
- Avoid overfeeding
- Infant Gaviscon (1 dose = half dual sachet)
  - breastfed: give during or after a feed (add 5 mL sterile water/milk to make a paste, then add another 5-10 mL and give with a spoon)
  - bottle fed: add to at least 115 mL of milk
  - NG fed: make up with 5 mL water and give 1 mL per 25 ml of feed

**Caution: Gaviscon contains sodium 0.92 mmol/half a dual sachet**

- If symptoms persist, [consider](#) change to Instant Carobel (will thicken [with](#) cold or hand-warm milk). Add 2 scoops to 100 mL shake well and leave for 3-4 min to thicken. Shake feed again and give immediately. Take care that thickened liquid does not block fine bore nasogastric tube

**Warning: do not give Gaviscon and Carobel together as [this](#) will cause the milk to become too thick**

### Drugs

- If above measures fail, add [ranitidine 2 mg/kg orally 8 hrly or 0.5 mg/kg IV 12 hrly <32 wks or 6 hrly ≥32 wks \(as infusion over 10-15 min\)](#)

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- If still no improvement, change ranitidine to omeprazole 0.7 mg/kg/day and add domperidone 300 microgram/kg 4–8 hrly

**Other measures**

- If symptoms persist, consider other measures, :in discussion with senior consultant e.g.
- erythromycin 4 mg/kg four times daily
- cow's milk protein-free formula (in artificially fed infants)
- some neonates with suspected CMPI are also allergic to hydrolysate formula and will respond to an amino acid-based formula