Vomiting baby

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See also: ***Cow's milk protein allergy***. To skip straight to management of GORD click **here**

Background

- Differential diagnosis:

Medical	Surgical
Physiological reflux	Pyloric stenosis
Overfeeding	Necrotising enterocolitis
Gastro-oesophageal reflux disease	Malrotation with midgut volvulus
Sepsis	Congenital atresias, stenosis, webs
Inborn errors of metabolism	Hirschsprung disease
Adrenal crisis (Congenital adrenal hyperplasia)	Intussusception
Raised intracranial pressure	Hepatobiliary disease
UTI, otitis media, tonsillitis	Renal disease (obstructive uropathy)
Dietary protein intolerance or allergy e.g. cow's milk protein allergy (CMPA)	
Gastroenteritis	

Assessment

Nature of vomit

- *Milky or mucous vomit suggests a cause above the duodenum e.g. overfeeding, gastric reflux, pyloric stenosis.*
- *Bilious or faeculent vomiting implies bowel obstruction*
- *True projectile vomiting (other side of the room) implies pyloric stenosis*


Bilious vomiting

Onset and pattern

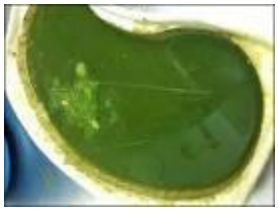
- *Started after milk feeds initiated? Always post feeds?*

Associated symptoms

- *Fever, abdominal pain / distension, diarrhoea, irritability etc.*

Feed volumes / diet

- *Standard volumes = 150 ml/kg/day or 8 – 12 breastfeeds a day*



Access to toxic substances, infectious contacts

Weigh and measure head circumference and plot on growth chart.

Concerning features:

- Significant weight loss or faltering growth
- Bilious vomiting
- Consistently forceful vomiting
- Haematemesis or blood in stool
- Onset of vomiting > 6 months old
- Early morning vomiting
- Altered conscious level / lethargy
- Bruising
- Abdominal distension / peritonism
- Bulging fontanelle / rapidly increasing head circumference
- Fever

Investigations *to consider*:

If the child is well:
- Urine dip and forced culture

If the child is unwell:
- Bloods: FBC, CRP, U+E, blood gas with blood sugar, blood cultures
- Urine: dip and forced culture, metabolic screen, toxicology screen
- Lumbar puncture
- CXR
- Abdominal x-ray / ultrasound scan (discuss with Paediatric Surgery Registrar)
- Cranial CT scan / ultrasound scan (discuss with Paediatric Radiologist)

Management

(See **management of vomiting baby flow chart** on page 4)

Gastro-oesophageal reflux disease in infants (GORD)

- Pathological process. Different to physiological reflux which is common (at least 40% of infants), may be frequent, and usually resolves by 1 year of age.
- Clinical features may include feed refusal, back arching / irritability temporarily related to feeds or reflux episodes, faltering growth.
- Management steps:

Step 1.

Reassurance and education regarding feed volume and frequency, anti-reflux positioning and avoidance of tobacco smoke.

Step 2.

In **formula fed** infants, offer thickened feeds (pre-thickened formula or Carobel. Available in small quantities from the milk kitchen on L9, then ask GP to prescribe as not available at Pharm@Sea),

In **breast fed** infants, offer a 2 week trial of Gaviscon infant sachets (available at Pharm@Sea). If successful, continue with it, but try stopping at intervals to see if infant has recovered.

Step 3.

In formula-fed infants, if thickeners are not effective, stop the thickened feeds and start a 2 week trial of Gaviscon infant sachets. If successful, continue with it, but try stopping at intervals to see if there is recovery.

Step 4.

Start a 2 week trial of cow's milk-free formula in formula-fed infants / maternal cow's milk-free diet in breast fed infants if suspicion of CMPA or intolerance (see CMPA guideline). Refer to Paediatric Dieticians if starting CMP-free diet.

Step 5.

If all above measures are unsuccessful, start a 4 week trial of an acid suppressing drug. If improvement seen, continue for 3 months.

- **Ranitidine** 1 – 6 months: 1 mg/kg TDS, max. 3 mg/kg TDS
  6 months – 3 years: 2 – 4 mg/kg BD

or

- **Omeprazole** 700 micrograms/kg once daily, increased if necessary to 3 mg/kg (max. 20mg) once daily.

If starting child on acid suppression medication, **follow up in paediatric clinic** after GP review at 4 weeks to assess response *(does not need to be Paediatric Gastroenterology unless problems are persistent).*

Management flow chart for vomiting babies < 1 year