



PAEDIATRIC ACUTE CARE GUIDELINE

Pyloric Stenosis

Scope (Staff):	All Emergency Department Clinicians
Scope (Area):	Emergency Department

This document should be read in conjunction with this DISCLAIMER
<http://kidshealthwa.com/about/disclaimer/>

Pyloric Stenosis

Background

- Hypertrophic pyloric stenosis should be suspected in infants 3-6 weeks old with non bilious vomiting after meals
- Projectile vomiting is not always present

General

- The typical age range is 3-6 weeks of age, but it is rare < 10 days old and > 11 weeks
- The incidence is 1:450
- Males account for 85% of cases

Risk factors

- 20% have a positive family history

Assessment

History

- Gradual onset of non-bilious vomiting after feeds, becoming more forceful and

sometimes projectile in nature

- Vomitus may be lightly blood streaked
- The child is typically hungry and irritable, and easily re-fed after a vomit
- Failure to gain weight, or even weight loss is common

Examination

- Infant may be dehydrated
- Visible gastric peristalsis, from left to right across the hypogastrium may be seen after a feed, just before the baby vomits
- A pyloric mass (“pyloric tumour”) may be felt below the liver edge just lateral to the edge of the right rectus abdomens muscle. It is best felt when the stomach is empty, just after a vomit.

Investigations

- Bloods – venous blood gas (VBG), U&E, FBC, BGL
- VBG shows a metabolic alkalosis (hypochloraemic, hypokalemic alkalosis) in those with metabolic derangement
- Abdominal ultrasound will usually confirm the diagnosis. Where this is not readily available plain abdominal films may show the “single bubble” of gastric dilatation (with little or no air beyond the pylorus).
- A barium swallow can confirm the presence of gastric outlet obstruction

Differential diagnoses

- Infants with pyloric stenosis are diagnosed earlier leading to fewer cases having classic symptoms, signs and metabolic derangements
- Doctors treating infants thus need to be alert to non-classical presentations of pyloric stenosis
- Pyloric Stenosis should be considered as a differential diagnosis of all infants presenting with vomiting, particularly those under 3 months of age

Management

Initial management

- Nil by mouth
- Insert intravenous cannula (and take bloods)
- Assess degree of dehydration

- Commence **IV fluids**
 - 0.9% saline + 5% glucose + 20mmol KCl (per 1000mL bag of fluid)
 - **Fluid Rate** = maintenance plus calculated deficit over 24 hours. See ED guideline: [Fluid – Intravenous Therapy](#)
- Nasogastric tubes (NGT) are not routinely inserted in the Emergency Department. The need for one will be assessed by the surgeons and can be inserted on the ward if required.
- Surgical Team referral

Further management

- A pyloromyotomy is performed once the fluid and electrolyte derangement has been corrected
- If a nasogastric tube is inserted all gastric losses via the NGT are replaced with Hartmann's solution or 0.9% saline via a second infusion
- A dose of intravenous Flucloxacillin will be given at the time of surgery. This does not need to be prescribed by Emergency Department staff. See ED Guideline: [Antibiotics](#).

Health information (for carers)

- Provide parent with [Pyloric Stenosis Health Fact Sheet](#)
- Feeds are usually recommenced 4 hours after surgery
- The duration of hospitalisation is usually 2-4 days

Tags

abdomen, abdominal, alkalosis, blood stained, blood streaked, dehydrated, dehydration, failure to thrive, ftt, gastric, hungry, hypochloaemic, hypokalaemic, infant, infants, irritable, mass, metabolic alkalosis, non-bilious, pallor, peristalsis, projectile, pyloric, pyloric mass, pyloric stenosis, pyloromyotomy, stenosis, tumour, u/s, ultrasound, vomiting, vomits, weightloss

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