LRI Children's Hospital

Pyloric Stenosis

Staff relevant to:	Nursing staff, medical teams and other relevant health care professionals. These guidelines apply to paediatric patients within UHL Children's Hospital only.
Team approval date:	September 2023
Version:	4
Revision due:	September 2026
Reviewed by:	H Dagash
Trust Ref:	C159/2016

1. Introduction and Who Guideline applies to

Pyloric Stenosis is a common condition affecting 2-4 in 1000 babies. It affects more males than females (4:1) and is familial with polygenic inheritance. Babies are usually affected between 2 and 6 weeks of age and can be older in the preterm infant (note that diagnosis may be delayed in preterm infants). A diagnosis of reflux is much more likely (~ 65% of infants at 3 months). Hypochloraemic hypokalaemic metabolic alkalosis on blood gas.

This guideline is intended for use by medical staff, nurses and other relevant health care professionals.

2. Guideline Standards and Procedures

Symptoms:

- Projectile non-bilious vomiting
- Hungry baby
- Weight loss
- Possible dehydration

Examination:

- Pyloric mass in RUQ
- Visible gastric peristalsis

Investigations:

- Full blood count
- Urea and electrolytes
- Bicarbonate
- Capillary / venous gases
- Ultrasound of abdomen if no palpable mass is felt and in large infant

Management:

Babies with non-bilious vomiting should be seen in the first instance by the Paediatrician unless the condition has been confirmed by USS in the peripheral hospital or the gases and history are consistent with the diagnosis.

Inform surgeons if the blood gases and history are consistent with the diagnosis.

- Nil by mouth
- Insert large – bore nasogastric tube (8Fr) and keep on free drainage with two hourly aspiration
- Consider performing test feed:
    - Feed and aspirate on NG at the same time to prevent vomiting
    - Observe for peristaltic waves
    - Palpate for pyloric mass

- Commence IV fluids:

Dehydrated	175ml/kg/24 hours of 0.9% Sodium chloride / 5% Glucose with 10mmol Potassium chloride (KCL) per 500ml bag
Not dehydrated	150ml/kg/24 hours of 0.9% Sodium chloride / 5% Glucose with 10mmol Potassium chloride (KCL) per 500ml bag
AND Replace gastric losses	ml for ml with 0.9% with Sodium chloride 0.9%

- Daily urea and electrolytes
- Capillary gases daily
- Inform surgeons if blood gas and history consistent with diagnosis
- Inform anaesthetists

Normal gas when Cl > 100 mmols/L and HCO3 <28 mmols/L and K >3.5 mmols/L

Surgery

- Perform only when blood results are normal – Laparoscopic Pyloromyotomy
- Operation to be done in daylight hours
- If perforation, keep NBM 24-48 hours, NGT and administer antibiotics

Post op care

- IV fluids:
    - 150ml/kg/24 hours of 0.9% Sodium chloride with 5% Glucose

- Remove nasogastric tube on return to the ward unless otherwise indicated in operation notes
- Feed after 4 hours and reduce IV fluids accordingly
- Discharge home 24-48 hours post op
- Minor vomiting expected for one week post op
- No follow up is required

3. Education and Training

None

4. Monitoring Compliance

None identified at present

5. Supporting References

M. Pachl, M de la Hunt, G Jawaheer (ed). Key Clinical Topics in Paediatric Surgery. H. Dagash. 2014

6. Key Words

Laparoscopic Pyloromyotomy, Non-bilious vomiting, Pyloric Stenosis

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The Trust recognises the diversity of the local community it serves. Our aim therefore is to provide a safe environment free from discrimination and treat all individuals fairly with dignity and appropriately according to their needs.
As part of its development, this policy and its impact on equality have been reviewed and no detriment was identified.

CONTACT AND REVIEW DETAILS	
Guideline Lead (Name and Title) Mr H Dagash - Consultant	**Executive Lead** Chief Medical Officer
Details of Changes made during review: Added – **examination under guidelines** Added - **minor vomiting expected for one week post op** Added - **Normal gas when Cl > 100 mmols/L and HCO3 <28 mmols/L and K >3.5 mmols/L under management**	