PICU Enteral Feeding Guidelines

Aim to start enteral feeds within 12hrs of admission

- For patients with contraindications to enteral feeds (mechanical bowel obstruction, NEC, ischaemic bowel, significant GI bleed) do not initiate feeding
- For patients with no contraindications to enteral feeds, follow standard bolus feeding pathway
- For patients with relative contraindications to enteral feeds (abdominal distension, severe diarrhoea, ileus, post -operative cardiac and GI surgery, shocked, receiving more than one inotrope), discuss with PICU consultant before commencing enteral feeds and follow slow start bolus feeding pathway
- Identify goal feeding volume. Unless specified otherwise, the default is the total daily maintenance volume requirement as per 4:2:1 rule, divided by 12 (2hrly feeds)
- Commence with EBM or full strength isotonic, age/weight appropriate formula, unless child requires a specialised formula
- Titrate IV fluids to enteral volume

Standard bolus feeding (q2h):

- Start at 25% of 2 hourly goal volume
- Check gastric aspirate 4 hourly - return and record
- If gastric aspirate less than 5ml/kg or 200ml if child greater than 40kg, increase bolus volume by starting bolus volume every 4 hours until goal 2hourly volume is achieved
- If gastric aspirate greater than 5ml/kg or 200ml (child >40kg), return 5ml/kg (max 200ml) and discard the rest. Hold next feed and continue at current volume until next gastric aspirate due
- Consider progressing to 3 hourly feeds when 100% desired volume achieved and aspirates consistently less than 5ml/kg or 200ml (child > 40Kg)

Slow start bolus feeding (q2h):

- Start at 10% of 2 hourly goal volume
- Check gastric aspirate 4 hourly - return and record
- If gastric aspirate less than 5ml/kg or 200ml if child greater than 40kg, increase bolus volume by starting bolus volume every 4 hours until goal 2hourly volume achieved
- If gastric aspirate greater than 5ml/kg or 200ml (child >40kg), return 5ml/kg (max 200ml) and discard the rest. Hold next feed and continue at current rate until next gastric aspirate due
- Consider progressing to 3 hourly feeds when 100% desired volume achieved and aspirates consistently less than 5ml/kg or 200 ml (child > 40kg)

- If required to withhold feed more then twice in 24 hrs, in consultation with medical staff consider IV erythromycin 2mg/kg x 8 hrly
- Following erythromycin administration, rest 1 hour, then check aspirate hourly. When aspirate is < 5ml/kg or 200ml (child > 40kg) restart flowchart at either 10% or 25% as patient condition dictates.
- If required to withhold feed more than twice in next 24 hrs, in consultation with medical staff consider nasojejunal tube

Place nasojejunal tube, confirm position and commence continuous enteral feeding:

- Start at 0.5ml/kg/hr (max 10ml/hr)
- Ensure gastric tube also insitu to allow venting of air from stomach and 4 hourly check of gastric aspirate for presence of feed (it is not necessary to check volume of aspirate)
- As long as feed is not detected in gastric aspirate, increase rate by the starting rate every 4 hours until desired goal hourly rate is achieved.
- If feed is detected in gastric aspirate, verify tube position.
- If patient vomits, aspirate NG and discard

Theatre or procedures requiring general anaesthesia/sedation

Intubated:

- If absorbing their feed (NG or NJ) AND NOT having a procedure that involves the airway OR changing the endotracheal /tracheostomy tube then feed can continue up until the time that they go to the operating room/undergo procedure.

Non-intubated :

- If NJ fed they can have this continued up until the time they go to the operating room or undergo procedure.
- ALL others are NPO as per the Starship anaesthesia department guidelines:
  - EBM and infant formula – 4 hours
  - Child enteral formula, cows milk and food – 6 hours
  - Clear fluids allowed up to 2 hours preoperatively

Extubation:

NG feed is to be stopped 2-4 hours prior to extubation and recommenced 2-4 hours post extubation as agreed with medical staff.

If absorbing NJ feed, this can be temporarily stopped during extubation procedure and recommenced once NJ tube position is verified.

Other:

Consider gastric trophic feeds 0.5 – 1ml/kg/hr (max 5ml/hr) and IVN if the patient is unable to commence full enteral nutrition

If vomiting or abdominal distension, stop feeds and discuss with medical staff

Refer to bowel protocol (and/or discuss with dietician as required) for issues with constipation and diarrhoea