

Nasogastric Feeding Guidelines for Patients on the Children's PICU

1. Nasogastric feeding should be commenced within 4 hours of the child's admission to ITU unless contraindicated.

Contraindications

- Total gastrointestinal failure
- Gastrointestinal tract surgery with anastomosis formation
- Septic shock
- Unstable respiratory status in a non- intubated patient
- Awaiting extubation

If the patient is nil by mouth then he/she should be commenced on Ranitidine. The enteral feeding guidelines should be followed if feeding into the stomach and if feeding into the jejunum refer to the jejunal feeding guidelines.

2. Food allergy or intolerance should be checked with parent / carer. If no such problem exists, then the feeds of choice should be as follows unless requested by the dietician.
 - < 1 year - Infatrini
 - 1-10 years - (8 – 30kg) Paediasure
 - > 10 years - (>30kg) Osmolite

3. The usual feeding period for enteral nutrition on the unit is 24 hours.

Once full enteral feeding is established then the patient can be changed to 2 –3 hourly bolus feeding if the clinical condition allows.

Example of Feed Calculation.

10 kg child receiving 80mls/kg of which 720mls allowed as feeds.

Thus $720/24 = 30\text{mls/hour}$

Maximize fluid allowed for feed by ensuring concentrated drug infusions (as recommended by Pharmacy guidelines).

4. Once feeding then aspirate after 4 hours. If the 4 hourly aspirate is greater than 4 hours worth of feed and not bile or heavily blood stained replace aspirate and continue. If the 4 hourly aspirate is greater than 4 hours worth of feed then discard half and continue to feed as per flow chart. If the feeding continues to fail then consider the following:
 - Pro-kinetics
 - Naso-jejunal tube

- Feed reduction
 - Sedation
5. If all methods of enteral feeding have failed then consider commencing parenteral nutrition.
 6. If feeds are discontinued then the reason must be documented.
 7. Once the patient is tolerating full enteral feeds discuss with the dietician as regards the needs for any extra calorie supplementation.
 8. If there are any diarrhoeal symptoms then discuss this with the medical staff and the dietician.
 9. IV maintenance fluid should be started if the feeds are discontinued for whatever reason, unless specifically stated otherwise by the consultant.

References

1. Chellis M.J, Snaders S.V., Webster H. et al. "Early enteral feeding in the paediatric intensive care unit". J. Par. Ent. Nut., 1996 Vol 20. No.1
2. Dietch E.A. "Bacterial translocation; the influence of dietary variable".
3. Martin L., Cox S. "Paediatric Enteral Feeding Guideline: A Guide of Best Practice".
4. Whitney D., Berry P., Feinberg I., Curley M.A.Q. "Decreasing unnecessary variation in enteral feeding practices in multidisciplinary ICU. Impact of a clinical practice guideline".

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Assess patient's needs for enteral feeding within 4 hours of admission.
 Confirm patient's actual or estimated weight in kg.
 Confirm patient's fluid requirement/restriction with medical staff.
 Calculate final feed allowed (total fluids allowed – volume of all intravenous fluids).
 RATE = total volume feed/24 hours.
 Confirm correct position of nasogastric tube (X-ray, pH).

Commence continuous feeds at 2mls/kg/hour
 Infatrini < 1 year (8kg)
 Paediasure 1-10yr (8-30kg)
 Osmolite > 10yrs (>30kg)

Aspirate NGT after 4 hours.
 Record pH on observation chart.
 (Do not aspirate more than 4 hourly)

Replace ½ aspirate & reduce rate by 50% to minimum 1ml/hour.
 Consider:
 Prokinetics, nasojejunal feeds, reduction in sedation. Last resort TPN

Replace aspirate and increase feed rate by 1ml/kg/hour or to maximum feed allowed if less

Replace aspirate and consider changing to 2 hourly bolus feed

Replace ½ aspirate & reduce rate by 1ml/kg/hr

Replace ½ aspirate & leave feed on same rate

No

Yes

Is aspirate greater than 4 hours worth of feed?

No

Yes

Is feed rate on maximum hourly rate?

Yes

Yes

No

Is the rate > 1ml/kg/hour

No

Is this the first aspirate (4 hours worth)?