PROTOCOL FOR NASO/OROGASTRIC TUBE FEEDING

Rationale

Infants less than 34 weeks gestation often do not suck effectively, lack co-ordination of sucking, swallowing and breathing and have delayed gastric emptying (Spence 2000). Therefore, most infants in the NICU require enteral tube feeding.

Practice

Insertion of feeding tubes and verifying tube position

Preterm infants are not able to acidify stomach contents to the same degree as term infants, so a pH of 5 and below (with 6 used at your discretion for preterm infants) indicates that the tube is in the stomach.

- Place the infant in the supine position with the head in the midline and contained as appropriate.
- Select the appropriate size tube for the infant, surgical infants may need a larger size tube to be left on free drainage.
- To measure the gastric tube length, place the tube tip at the xiphisternum and measure to the ear lobe and then the nose for nasogastric tubes or mouth for orogastric tubes.
- Advance the tube gently but quickly down the mouth or nostril into the oesophagus until the measured length is inserted. If the infant has a dummy, then sucking on this may facilitate the advancement of the tube. If resistance is met, the tube should be removed and when the infant has settled, a second attempt can be made.
- Confirm the position of the tube by gently aspirating with a 10ml syringe, using a larger syringe allows gentle suction, Test with pH paper, correct placement should read 5 and below (6 at your discretion).
- Secure the tube using Tegaderm.

HOWEVER, IF THERE IS ANY DOUBT OF POSITION THE TUBE SHOULD BE REMOVED AND A NEW ONE INSERTED.
Maintaining the safety of the infant

- Ensure that the tube is tested with PH paper prior to each feed to check tube position if no aspirate is obtained. Secondary confirmation may be made by the following methods:
  - Changing the position of the baby, this may facilitate the tip of the gastric tube to enter the gastric fluid pool (NATIONAL PATIENT SAFETY AGENCY 2005).
  - Instilling 1-2 mls of air and then aspirating tube again (the tube may be stuck against the abdominal wall).
  - Checking the length of the tube alone is not a reliable secondary confirmation.
- Document the size and length of the tube inserted as well as the date and time of insertion.
- Replace tubes as per manufacturer’s guidance.
- **IF THE INFANT HAS HAD SURGERY FOR A TOF REPAIR DO NOT REPASS AN NGT THAT HAS BEEN DISLODGED.**

Tube feeding

- Withdraw plunger until resistance is met and attach syringe to the tube.
- If pump feeding record the pump time on the nursing care plan, Ensure the syringe is upright if feed is EBM.
- Remove the plunger and allow milk to flow down the tube by gravity.
- Gentle pressure with the plunger may be applied.
- The higher the tube is held the faster the milk will flow.
- **IT IS THE RESPONSIBILITY OF THE NURSE NOT TO LEAVE BABIES UNATTENDED DURING A FEED.**
- The registered nurse is accountable to ensure the safety of the baby during feeds.
- On completion of a feed disconnect the empty syringe, Infants receiving CPAP should have the tube left open with a clean syringe attached to facilitate escape of air from the stomach. Babies with reflux may also benefit from this.
- When increasing the volume of feeds aspirate the stomach as per the enteral feeding protocol to check tolerance of feeds.
- Dirty aspirates containing bile, mucus or blood should be discarded.
- Bilious aspirate in isolation does not necessarily mean non-toleration or indicate the need to discontinue. Seek medical advice.
**Signs of non-tolerance of feeds**

- Vomiting
- Large gastric aspirates
- Abdominal distension
- Persistent dark bilious aspirates
- If the baby has any of the above signs then seek medical advice.

**Withholding feeds**

Nursing staff should alert medical staff to risk factors for stopping feeds.

- Respiratory rate > 60
- Poor blood gas i.e. blood gas less than 7.20
- Increasing oxygen requirement
- IUGR
- Abdominal distension
- Paralysis is not a contra indication for feeding

**Use of Gaviscon**

- If a baby is showing signs of reflux, then Gaviscon may be prescribed, and administered as per the TMBU and SCBU formulary
- Flush gastric tubes with 1ml air following Gaviscon administration, NOT water.

**Documentation**

- Changes of gastric tubes should be documented on metavision/careplan
- Document the length of the gastric tube after each new insertion on the nursing care plan.
- Document actual mls/kg of enteral feeds over 24 hour period on the care plan and on Metavision
- Record type of milk given on Metavision/careplan
Record any changes with feeding on the weight chart (eg. If the baby starts fortifier etc.).

References


www.npsa.nhs.uk/advice

http://www.adhb.govt.nz/newborn/guidelines/nutrition/EnteralFeeding.htm#NG-OG