

NASOGASTRIC TUBE ADMINISTRATION OF FEED, FLUID OR MEDICATION

Procedure is the same for nasogastric and orogastric tubes. As nasogastric tubes (NGT) are more commonly used in babies, the term nasogastric will be used throughout this guideline

INDICATIONS

- Contraindications to oral feeding, or baby unable to take full requirements orally
- Nasogastric or orogastric tube in place

EQUIPMENT

- Enteral syringes
- pH testing strips
- Gravity/bolus feeding set
- Feed/fluids/medication according to prescription
- Prescription (for medication)

PROCEDURE

Preparation

- See **Nasogastric tube insertion** guideline
- Discuss procedure with parents/carer
- Wash hands and prepare equipment
- Bring milk to room temperature by removing from fridge and warming in a waterless warmer or in hot water. Never deliver fridge-cold milk directly via nasogastric or orogastric tube (see **Nutrition and enteral feeding** guideline)

Position of baby for feeding

- Baby need not be lying down. It is preferable to feed baby whilst receiving kangaroo care
- An awake and stable baby can be held for tube feed
- preferably skin-to-skin with parents holding baby in an upright position
- baby can also be placed in elevated side lying feeding position (ESLP) if skin-to-skin not possible at time of feed
- If lying flat in a cot elevate mattress to 30° before feeding and return to flat position within 1 hr

Checking pH

- Check pH of aspirate before **every** feed/use of tube according to NPSA guidelines (see **Nasogastric tube insertion** guideline)
- if pH 0–5.5, commence feed and document pH
- if pH 5.0–5.5 confirm pH interpretation with a second person before commencing feed
- if pH ≥ 6 , **do not** commence feed. Repeat aspiration and retest
- If repeated test ≥ 6 , seek advice from senior clinician and undertake risk assessment following NPSA algorithm (see **Nasogastric tube insertion** guideline). Document decision made and rationale
- If no aspirate obtained, **do not** feed. Follow procedure outlined in NPSA guideline

Feeding

- Avoid rigid feeding patterns (e.g. 1 bottle/2 tube, alternate bottle/tube etc.) (see **Bottle feeding** guideline)
- When handling tubes, ensure clean technique. Pay careful attention to feed preparation and administration
- Administer feed by gravity
- Remove plunger, connect to tube, pour small volume of feed into barrel, raise level of barrel above baby's stomach. Control speed of administration by raising or lowering barrel
- Do not plunge feed
- Ensure tube feed takes approximately the same time as a suckling feed e.g.:
 - 20 min for 3-hrly full feed volume requirement
 - 10 min for 50% volume

- 5 min for 25% volume

Monitoring

- Observe baby throughout feed for signs of deterioration or distress (change in colour, cyanosis, apnoea, bradycardia, vomiting, straining, squirming, grimacing and other avoidance behaviour)
- Observe for abdominal distension following a feed
- If appropriate developmental stage/capabilities, offer small drops of milk to mouth to taste, but **avoid in babies with no swallow mechanism**
- Consider offering baby mother's breast for nuzzling or non-nutritive sucking during tube feed [see **Non-nutritive sucking (NNS)** guideline]
- On completion of feed, instil small amount of air into tube (0.5–1 mL)

DOCUMENTATION

- Document feed details:
 - pH of aspirate
 - type of feed
 - volume of feed
 - time of feed
 - behaviour/response during feed
 - adverse reactions (vomiting etc.)
- Ensure feed chart is signed

FURTHER MANAGEMENT

- For administration of medication, remember to check baby identity and prescription. Follow Trust policy for administration of medicines and British Association of Parenteral and Enteral Nutrition (BAPEN) guidance
- document administration of medication on prescription chart
- Flushing of NGT is not routine in preterm babies. To avoid medication remaining in NGT try to give medications pre-feed. Where this is not possible 1 mL of feed can be used to flush tube after inserting medication

FURTHER INFORMATION

- **Nasogastric tube insertion** guideline