

Enteral Feeding Procedures

Appendix 1: Nasogastric Tube (Checking the Position)

Procedure

Prior to accessing NGT for any reason, the support worker must ensure that the tube is in the stomach. Coughing, vomiting and movement can move the tube out of the correct position.

The position of the tube must be checked:

- prior to each feed
- before each medication
- before putting anything down the tube
- if the participant has vomited
- 4-hourly if receiving continuous feeds.

The support worker should perform the following observations and obtain a gastric aspirate to establish tube position.

- ensure taping is secure
- observe and document the position marker on NGT – compared to initial measurements
- observe participant for any signs of respiratory distress.

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Appendix 2: Obtaining Gastric Aspirate

Equipment

To check the position of the tube, support workers need to have prepared the following equipment:

- Enteral syringe for aspiration
- Gloves.

Procedure

1. Attach a 20-50ml enteral syringe to the enteral tube in an adult.
2. Small-bore tubes can be difficult to aspirate therefore the following are suggested techniques to try enhancing the ability to obtain aspirate:
 - Turn the participant onto their side. This will allow the tip of the tube to move to a position where fluid has accumulated.
 - Using an enteral syringe, insufflate 1-5ml of air into the tube. This may move the tube away from the wall of the stomach. It will also clear the tube of any residual fluid.
 - Wait for 15-30 minutes. This will allow fluid to accumulate in the stomach and try aspirating again.
 - If no aspirate obtained, advance the tube by 1-2 cm, and try aspirating again.

If aspirate is not obtained, discuss with the Registered Nurse and consider removing the tube or checking position by x-ray (referral to Health Practitioner/medical centre will be required).

Gastrostomy

Correct placement of the gastrostomy tube should be confirmed prior to administration of an enteral feed by checking insertion site at the abdominal wall and observing the participant for abdominal pain or discomfort.

If the support worker is unsure regarding the position of the gastrostomy or jejunostomy tube, contact the Registered Nurse.

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Appendix 3: NG Tube Monitoring during Continuous Feeds

Procedure

The position of the tube needs to be checked 4-hourly with change of feeds. It is recommended that the feed be ceased and withdraw aspirate.

Should there be any dispute as to the position of the tube, do not recommence feeds. Discuss with the Registered Nurse.

The following needs to be checked 2-hourly during the feed:

- Taping
- Marker on NGT
- Observe participant for signs of respiratory distress
- Check infusion hourly and document intake.

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Appendix 4: Flushing Enteral Tubes

Procedure

The purpose of flushing is to check for tube patency and prevent clogging of enteral tubes.

Enteral feeding tubes should be flushed regularly with water (or sterile water if appropriate):

- prior to and after feeding
- prior to, in-between and after medications
- regularly in between tube use.

Modify flush volumes throughout as needed to push feed or medications to the end of the tube.

Support workers should prepare an enteral syringe, enteral tube connector and water for a flush (tap or sterile water if appropriate).

Enteral tubes should be flushed with between 5 – 20mls of water depending on the viscosity of the feed/medication.

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Appendix 5: Venting

Procedure

Feeding tubes may be used to facilitate venting or decompression of the stomach from the accumulation of air during such interventions as High Flow Nasal Prongs, Non-Invasive or Invasive Ventilation.

Enteral feeding or administration of medication may proceed in this case dependent on the participant's condition.

The tube may be clamped for 30 minutes to an hour post administration to prevent loss of feed or medication.

Continuous venting may be facilitated following administration by securing the distal end of the tube above the head of the participant. This may be attached to the end of a 5mL or 10mL enteral syringe with the plunger removed to create a reservoir should gastric contents reflux.

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Appendix 6: Feeds and Administration of Feeds

General

Feeds can be administered via syringe, gravity feeding set or feeding pump. The method selected is dependent of the nature of the feed and clinical status of the participant. It is also necessary to discuss feeding options with the family.

Feeds should be recommended and ordered by the participant's Health Practitioner and/or dietitian, taking in to account the nutritional needs and clinical condition of the participant.

Procedure

Administration of Feeds

When preparing to administer feeds, support workers must confirm the position of the enteral tube.

Prior to and after feeds, support workers should adequately flush the enteral tube.

Position:

- Lying prone/supine during feeding increases the risk of aspiration and therefore where clinically possible the participant should be placed in an upright position.
- If unable to sit up for a bolus feed or if receiving continuous feeding, the head of the bed should be elevated 30-45 degrees during feeding and for at least 30 minutes after the feed to reduce the risk of aspiration.

Using a Syringe for a Bolus Feed

1. Remove the plunger from the syringe and place the tip of the syringe into the enteral tube connector at end of the enteral tube.
2. Holding the syringe and enteral tube straight, pour the prescribed amount of feed into the syringe. Let it flow slowly through the tube e.g., 250ml over 20 minutes.
3. Pour the prescribed amount of water into the syringe and allow to flow through to flush the feeding tube appropriately.

Using Gravity Feeding for Bolus, Intermittent Feeds and Continuous Feeds

1. Using a gravity feeding set with the roller clamp closed, attach the set to the feeding container with the correct prescribed amount of feed and hang the container on the pole.
2. Squeeze the drip chamber until it is one third full of the feeding solution.
3. Remove the protective cap from the end of the giving set and open the roller clamp, allowing the feed to run down to the end of the giving set (to prime the line), then close the roller clamp.
4. Connect the giving set to the enteral tube connector at the end of the enteral tube.

5. Open the roller clamp and set the flow rate by counting the drops per minute. As a guide, 20 drops of standard feed is approximately 1ml. Use the following equation to calculate the drip rate: $(\text{ml}/\text{hour})/3 = \text{drops}/\text{minute}$
6. Open and close the roller clamp until the desired drip rate is set correctly. Check the drip rate regularly to ensure the feed is still running at the required rate.

Temperature of Feeds

Bolus Feeds

Feeds given as a bolus should be removed from the fridge 15-20 minutes before administration to bring them to room temperature. Feeds given as a bolus may be warmed in an approved bottle warmer. This would be appropriate for participants who experience discomfort with cooler feeds.

Continuous Feeds

Continuous feeds should **NOT** be warmed. They may be removed from the fridge 15-20 minutes prior to administration to bring it to room temperature and should not hang for longer than 4-hours.

Please Note: Feeds should NOT be warmed in a microwave or in jugs of boiling water.

Completion of Feed

The tube must be flushed with water to prevent the tube from blocking.

Giving sets:

- Rinse out with warm water (tap or sterile).
- Ensure tip of giving set is covered between uses.
- Only prime the giving set with formula immediately prior to feeding time.
- The set should be changed every 24 hours or as per manufactures instructions.

Titration Feeds

Support workers may need to titrate the rate/volume of an enteral feed up or down depending on the clinical status, nutritional needs, size and ability of the participant to tolerate feeds.

Titration Up

Caution should be taken if titrating feeds up and down in participants with a metabolic condition.

When titrating feeds up, support workers should have a goal rate/volume of feed ordered by the healthcare practitioner or Dietician.

Feeds should be titrated up in a slow but steady manner, which may need to be adjusted if the participant is not able to tolerate the rate/volume of feed.

Titration Down

When titrating a feed down, the support worker must document why the feed was titrated down and inform the Registered Nurse. The Registered Nurse may need to notify the Dietician

and/or healthcare practitioner to inform them that the participant is not tolerating feeds and review the *Enteral Feeding Support Plan* to ensure the participant is still receiving adequate nutrition and hydration.

Type of Feeds

The decision for which type of enteral feed a participant should receive should be made in consultation with the Dietician, healthcare practitioner, support workers and family, considering the nutritional needs, clinical status, and tolerance of feeds of the participant.

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Appendix 7: Medication Administration

Procedure

Support workers who are preparing and administering medication via an enteral tube must adhere to Australian Quality Care's *Management of Medication Policy and Procedure*.

Do not administer drugs through tubes used for aspiration or on free drainage unless specifically directed by the healthcare practitioner as per the participant's *Enteral Feeding Support Plan*.

1. Confirm that the enteral feeding tube is the intended route for a medication before administration.
2. Confirm the position of the enteral tube prior to medication administration.
3. Adequately flush the enteral tube before, in-between and after medication administration.

Unblocking Tubes

Blocking of tubes can occur due to:

- interaction between gastric acid, formula, and medications
- interactions between medications if tube is not flushed between medications.
- inappropriately prepared medications e.g., inadequately crushed tablets
- small internal diameter of the tubes and longer tubes
- binding of medication to the tube
- viscosity of some liquid preparation
- poor flushing technique
- bacterial colonization of the nasogastric tube

Flushing is the single most effective action that prolongs the life of nasogastric tubes. It is recommended that flushing occur **BEFORE, DURING** and **AFTER** administration of enteral medications and feeds.

To unblock enteral tubes, flush the tube in a pulsating manner (push/pull) with 10-20ml with warm water, if it is safe to do so considering the participant's age, size, and clinical status. It may be appropriate to allow the warm water to soak, by clamping/capping the tube, in the tube to assist with unblocking.

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Appendix 8: Feed Intolerance

Procedure

The support worker should monitor and observe the participant to assess if the participant is tolerating enteral feeds.

Signs the participant is not tolerating feeds includes the vomiting of large gastric residual feed because of delayed gastric emptying.

Tubes Falling Out

Nasogastric Tube Dislodgment or Accidental Removal

Consider ongoing nutritional needs and clinical status of the participant and in consultation with the Registered Nurse, healthcare practitioner and/or Dietician decide if the tube should be replaced.

Dislodgement of a Gastrostomy Tube

1. Stop the feed/medication administration immediately.
2. Contact the Registered Nurse to review.
3. Keep the tube in place by taping it to the skin until a plan for re-insertion can be made.

Accidental Removal of a Gastrostomy Tube

Tube needs to be reinserted as soon as possible to prevent stoma closure.

Gastrostomy tubes should be reinserted and taped into position if the balloon has burst.

If the tube cannot be reinserted, consider using a foley catheter to keep stoma patent until an appropriate tube can be found.

Contact the Registered Nurse to review who can liaise with the participant's Health Practitioner as required.

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