

IIB12: ENTERAL TUBE MEDICATION ADMINISTRATION

Policy

The facility assures the safe and effective administration of enteral formulas and medications via enteral tubes. Selection of enteral formulas, routes and methods of administration, and the decision to administer medications via enteral tubes are based on nursing assessment of the resident's condition, in consultation with the physician, dietitian, and consultant pharmacist.

Equipment

- A. Medication(s).
- B. 60mL catheter-tipped syringe (no needle).
- C. Mortar & pestle or pill crusher.
- D. Warm water for dissolving medications and flushing tube (sterile water for irrigation is recommended).
- E. Clamp.
- F. Stethoscope.
- G. Examination gloves.
- H. Barrier (e.g., disposable tray) for carrying medication/cups and water to bedside.

Procedures

- A. The physician's order must specify the route of administration of any medication via feeding tube. This is either "via G-tube", "via NG tube", or via J-tube".
- B. Tablets that must be crushed prior to administration via feeding tube require a specific order related to crushing.
- C. Put on examination gloves.
- D. For medications incompatible with tube feeding (ex: Dilantin® (phenytoin) Suspension): Turn off pump to stop continuous feeding **[30 minutes]** prior to medication administration if medication is associated with an incompatibility or should be given on an empty stomach.^{1,2,3} If there are any questions or concerns regarding which medications necessitate this procedure or if going without nutritional feedings for this time period may compromise the resident, consult with the resident's physician. Adjustment to the administration rate of the feeding must be made to accommodate the time needed for medication administration.
- E. Establish the privacy of the patient.

F. Check the medication administration record (MAR) to confirm the order: note the medication, dose, route (tube), volume of water for flushing.

G. Prepare medications for administration

- 1) NOTE: Medication administration via tube requires flushing with water at several steps in the procedure. The total volume of water used for flushing should be included in the total amount allowed per day for fluid-restricted residents.
- 2) Crush immediate-release tablets into a fine powder, and dissolve in 5-10mL of warm water, or prescribed amount.
- 3) Open immediate release capsules, crush contents into a fine powder, and dissolve in 5-10mL of warm water, or prescribed amount. NOTE: Warm water should always be used. Cold water can cause cramping or an unpleasant feeling in the stomach).
- 4) Dilute liquid medications with 10-30mL (30mL may be needed if liquid is viscous) of warm water or enteral formula (if the liquid medication is hyperosmolar and compatible with enteral formulas).
- 5) Sustained-release capsules and enteric coated capsules – check with manufacturer. The pellets inside SOME microencapsulated dosage forms may be poured down the feeding tube after being removed from the capsule, provided that the pellets are not crushed.
- 6) Some medications require apple juice or other liquid for proper transport of the capsule contents down the tube. Check the manufacturer's instructions or contact the pharmacist if there are questions about any medications.
- 7) Elevate head of bed to 30-45 degrees (semi-Fowler's or high-Fowler's position) and leave in this position at least 30 minutes after administration of medications.
- 8) With gloves on, check for proper tube placement using air and auscultation only. Never check placement with water
- 9) Check gastric content for residual feeding. Return residual volumes to the stomach. Report any residual above 100ml.
- 10) If a pump is being used for continuous infusion, turn it off if it hasn't already been (See step D.)
- 11) Remove plunger from the 60mL catheter-tipped syringe and connect syringe to clamped tubing.
- 12) Put 15-30mL of water in syringe and flush tubing using gravity flow. Clamp tubing after the syringe is empty, allowing water to remain in the tube.
- 13) Pour dissolved/dilute medication in syringe and unclamp tubing, allowing medication to flow by gravity.

- 14) Flush with 5-10ml warm water between each medication. Pinch tubing below the syringe tip when each volume of liquid clears the syringe to avoid excessive air form entering the stomach. This can cause discomfort or emesis.
- 15) Flush tubing with 15-30mL of water, or prescribed amount. **[If administering more than one medication, flush with 5mL of water, or prescribed amount, between each medication, or per physician's orders.]** Allow water to remain in tubing.
- 16) Clamp tubing and detach syringe.
- 17) Restart continuous feeding, if appropriate. If a medication with incompatibility issues was administered, leave pump off for 30 minutes after medication administration.

H. Managing Complications

- 1) Clogged tube – clogging can occur from kinking of the tube or from internal blockage
 - a. Check first to see that the tube is not kinked.
 - b. If the clog is still present, gently “milk” the tube from top to bottom to release any clog that may be in this part of the tube.
 - c. Do NOT force-flush the tube or use a rigid object in an attempt to clear the tube. If the clog is persistent, contact the MD if the above techniques fail.
- 2) Emesis
 - a. If emesis occurs, stop the feeding pump immediately and elevate the head of the bed to approximately 45 degrees.
 - b. Check for bowel sounds
 - c. Determine if the resident is in any pain.
 - d. Observe for any signs of aspiration – cough, sweating, shortness of breath, blueness of lips and skin
 - e. Notify the physician.

See also general guidelines and references for administering medication through enteral feeding tubes, Section IIA9: GENERAL GUIDELINES FOR ADMINISTERING MEDICATIONS VIA ENTERAL TUBE.

Consult facility's nursing policy and procedure manual regarding enteral tube feedings for additional information.

References:

¹ASPEN Enteral Nutrition Practice Recommendations Task Force. Enteral Nutrition Practice Recommendations. *J Parenter Enteral Nutr.* January 27, 2009.

²Williams NT. Medication administration through enteral feeding tubes. *Am J Health-Syst Pharm.* 2008;65(24): 2347-2357; accessed 3/6/2010 at: <http://www.medscape.com/viewarticle/585397>.

³Boullata JI. Drug administration through an enteral feeding tube. *Am J Nurs.* October 2009; 109(10): 34-42.