GUIDELINES FOR CLEARING A BLOCKED ENTERAL FEEDING TUBE USING PANCREATIC ENZYMES

PURPOSE
To describe the procedure for use of a solution of pancreatic enzyme and sodium bicarbonate to treat clogged enteral feeding tubes.

POLICY STATEMENTS
Prevention is the key factor in the management of enteral feeding tube occlusion. Adequate amounts of sterile water flushes should be used every 4 hours or before and after tube feeds and medication administration. To prevent tube clogging due to medication administration, liquid formulations should be used whenever possible. If an occlusion does occur, water should be used first due to proven efficacy and no risk of adverse effects. Use of beverages such as carbonated soda and cranberry juice is not recommended because of the risk of worsening the clog and lack of evidence of efficacy.

The use of pancreatic enzyme/sodium bicarbonate solution to treat a clogged enteral feeding tube requires a prescriber order. The order must specify drug name, dosage, route and indication.

SITE APPLICABILITY
Applicable to all areas where patients with feeding tubes are cared for.

PRACTICE LEVEL/COMPETENCIES
The practice of compounding pancreatic enzyme/sodium bicarbonate solution and instilling solution into a feeding tube to attempt to clear an occlusion is a foundational level nursing competency.

EQUIPMENT
- Pancreatic enzyme capsule: non-enteric coated (e.g. Cotazym plain)
- Sodium bicarbonate - 4 mL 8.4% solution
- Warm water (Sterile water for neonates, infants under 1 year and for critically ill or immunocompromised patients)
- 60 mL syringe
- med cup

PROCEDURE

<table>
<thead>
<tr>
<th>Procedure</th>
<th>Rationale</th>
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<tbody>
<tr>
<td>1. CHECK chart for prescriber’s order.</td>
<td>Requires prescriber order.</td>
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<tr>
<td>2. ASSEMBLE equipment.</td>
<td>Facilitates completion of procedure in a timely manner.</td>
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<tr>
<td>3. IDENTIFY patient and EXPLAIN procedure.</td>
<td>Failure to correctly identify patients prior to procedures may result in errors. Reduces child and family’s anxiety. Evaluates and reinforces understanding of previously taught information and confirms consent for procedure.</td>
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<td>4. PERFORM hand hygiene.</td>
<td>Routine infection control practices; reduces transmission of microorganisms.</td>
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<td>5. ATTEMPT to clear tube with warm water using a 60 mL syringe and firm pulling and pushing action. If unsuccessful, attempt to aspirate as much of the contents as possible.</td>
<td>Warm water has been shown to be efficacious in clearing most enteral tube occlusions.</td>
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<tr>
<td>6. PLACE the contents of an opened pancreatic enzyme capsule into a med cup and ADD 4 mL sodium bicarbonate 8.4% solution and dissolve</td>
<td>Sodium bicarbonate is required to activate the pancreatic enzyme.</td>
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pancreatic enzyme thoroughly. Additional warm water may be added if required.

7. **DRAW** up the dissolved solution into the 60 mL syringe and instill it into the tube. **CLAMP** the tube for 5-15 minutes. **MILK** the tube to get solution as close as possible to blocked area.

8. **UNCLAMP** tube and attempt to flush again with warm water (sterile water for neonates, infants under 1 year and for critically ill or immunocompromised patients) and firm pulling and pushing action. If the tube remains occluded, repeat above steps, leaving the solution dwell for up to one hour.

9. If two attempts do not clear the tube then it most likely will need to be replaced. **CONSULT** with the physician for possible replacement of the tube.

10. **REMOVE** and **DISPOSE** equipment appropriately. **PERFORM** hand hygiene. **DOCUMENT** on appropriate record:
    - date and time
    - assessment of occlusion
    - medications and doses
    - amount of water flush (if fluid restricted)
    - response to the procedure (i.e. was the tube cleared?)
    - any other pertinent actions or observations

**REFERENCES**


