PURPOSE: To provide the nurse with guidelines to remove gastric secretions, relieve abdominal distention and/or maintain patency of gastric tubes.

KNOWLEDGE BASE:

1. Suctioning will empty the contents of the stomach and relieve distention. The stomach may be kept empty by means of suction while healing occurs in the abdominal area or when vomiting is undesirable. The secretions in the stomach are usually very thin liquids if the patient has not been eating solid food. Therefore, low suction is used unless otherwise ordered by physician. An order by the physician is needed for this procedure.

2. Use lowest suction setting that will effectively decompress the stomach. Recommended settings:
   - Neonatal 10-40 mm Hg
   - Older Children 40-60 mm Hg.

3. A gastric tube is irrigated to ensure patency, to prevent mucosal damage. The volume of irrigation fluid varies with the size of the patient and the tube. The gastric tube may need to be irrigated on a regular basis depending on the type of the tube, purpose, feedings, medication and type of drainage. If the condition of the patient contraindicates routine irrigations, as in gastric surgery patients, the nurse will obtain a physician’s order before irrigating the gastric tube.

4. A surgically placed Gastrostomy tube (G-tube) is done under general anesthesia. A button can only be inserted into a well-established G-tube site, usually 4-6 weeks later on an outpatient basis by a gastroenterologist.
DEFINITION: Salem sump tube: This double lumen Nasogastric (NG) tube has a primary suction/drainage lumen and a smaller vent lumen. Air flows through the blue vented lumen continuously. This prevents a vacuum from forming when the tube adheres to the stomach lining, thus avoiding damage to the delicate gastric mucosa.

PATIENT EDUCATION: 1. Explain the procedure to the patient and family.
2. Instruct patient/family on rationale and procedure for suction decompression or irrigation.

EQUIPMENT:
2. Gastric suction: Gomco pump (comes with connector tubing from CS) or wall suction unit (with container and connector tubing from CS).
3. Gastric irrigation:
4. Irrigating solution (usually normal saline)
5. Irrigation kit (includes container and catheter-tipped syringe)
6. Exam gloves
7. Stethoscope.

PROCEDURE: GENERAL:
1. Confirm physician order if appropriate; wash hands.
2. Measure gastric drainage every four to six hours and prn or per physician order. Note volume, consistency and color of drainage. Mark container with date and time of check.
3. When using a Salem Sump tube, keep the blue pigtail above the patient’s stomach or above the specimen trap container. If fluid appears in blue lumen, flush with 10ml air and place blue end of anti-reflux valve into blue lumen immediately.
4. For gravity drainage from nasogastric or orogastric tube, attach specimen trap container to the end of the gastric tube.
5. To place a gastric button to gravity drainage, insert feeding tube or gastric decompression tube and connect to specimen trap.
6. To place surgically implanted gastrostomy tube to gravity drainage, attach to specimen trap container.
PROCEDURE (continued):

GASTRIC SUCTION WITH GOMCO:
1. Check physician's order; wash hands.
2. Check all tubing for cleanliness and dryness. Connect the 12" length of clear PVC tubing to the 2000ml-canister cap at connection marked “vacuum”.
3. Connect the 72” length of clear PVC tubing to the connection marked “patient”.
4. Plug the line cord into a grounded outlet, making sure it is the same voltage as indicated on the unit nameplate.
5. Push the selector switch on the front control panel to LOW (90) unless otherwise ordered.
6. In order to ensure the suction apparatus is functioning, submerge the end of the patient tube (72”) into a container of water. Aspiration of water into the 2000ml suction canister should be noted.
7. Attach the Salem tube to the suction tube (72”). Instill 5 to 20 ml of air to the vent lumen of the Salem tube to make sure it is patent. This air instillation should create a soft hissing sound on the vent. Absence of this sound may indicate a clogged tube. Refer to Irrigation below.
8. If using an anti-reflux valve, insert the blue end of the valve into the blue vent lumen at the Salem tube. The anti-reflux valve prevents the backflow of gastric contents through the vent lumen. The air column under the valve can be maximized by inserting the blue end of the valve into the blue vent prior to passing the tube. If the patient tube has been passed, inject 10 ml of air into the blue vent lumen prior to inserting the valve.
9. Turn the switch to ON.
10. Disconnect the suction tubing and irrigate with normal saline as needed to clear the tubing. Make sure to record the amount of saline used as input.
11. Evaluate the fluid intake in relation to the amount removed by the suction machine.

IRRIGATION:
1. Confirm physician order if appropriate; wash hands.
2. Before beginning irrigation, place patient at a 30-45 degree elevation (unless contraindicated or not tolerated) since this helps avoid gastric reflux of irrigant.
3. Explain the procedure to the patient, provide privacy and wash hands. Don exam gloves due to standard precautions. Leaking suction tubing can cause contact with body fluids.
PROCEDURE (continued):

1. Pour the irrigating solution into the irrigation container.
2. Note the amount of irrigation solution used so that an accurate Intake & Output record is maintained.
3. Unclamp the tube or disconnect it from the suction equipment.
4. Check for NG tube placement by instilling air and auscultating at abdomen. If tube is found to be in stomach, draw up 10-30ml of irrigant into catheter tip syringe.
5. Slowly instill the irrigant into the NG tube.
6. Gently aspirate the solution with the syringe or connect the tube to the suction equipment. Gentle aspiration prevents the exertion of excessive pressure on a suture line and on the delicate gastric mucosa.
7. After attaching the primary lumen of the Salem tube to suction, instill 5 to 20ml of air to the vent lumen to make sure it is patent. This air instillation could create a soft hissing sound in the vent.
8. Measure the amount of drainage and record it in the Intake & Output record.

NOTE: Subtract the amount instilled for irrigation.

NOTES:

1. Assess bowel sounds regularly to check for gastrointestinal function. Make sure pump is off or tube is clamped for accurate assessment.
2. If the nasogastric tube is not functioning, the patient may need to be repositioned or, if possible, rotate the tube and reposition it. If the tube was inserted during surgery, do not reposition it as it may interfere with gastric or esophageal sutures. Notify the Doctor.
3. One disadvantage of the Salem pump is reflux of gastric contents into the vent tube when stomach pressure exceeds atmospheric pressure. This problem may result from a clogged suction/drainage lumen or improper setup of the suction system. Unless contraindicated, the vent tube may be placed above the patient’s midline to prevent a siphoning effect.

NOTE: An anti-reflux valve, available in Central Service, may be used in the vent tube per physician order. Inject 10ml air in blue lumen, then place blue cap in blue lumen to keep patent.
4. If drainage occurs from the vent tube, irrigate the main lumen with solution and follow with air irrigation through the vent tube. Do not clamp or occlude the vent tube. Do not irrigate with fluid through the vent tube.
GASTRIC SUCTION, GRAVITY DRAINAGE AND IRRIGATION (PEDIATRIC) (ped15)

Pediatric Assessment/Reassessment Flowsheet: Document volume, consistency and color of drainage, use of gravity drainage/type and amount of suction used, irrigations (including volume and results, replacement fluid if ordered). Document under Drains; also under Equipment/Supplies. Document presence or absence of bowel sounds using GI assessment standard.

Pediatric I&O Flowsheet: At end of every shift, or more frequently if ordered, enter amount of contents collected in container. Record any irrigant as input.

REFERENCES:
Sarasota Memorial Hospital Nursing Procedure. Gastric Suction – GOMCO (suc04). Sarasota, FL.

Sarasota Memorial Hospital Nursing Procedure. Gastrostomy Tubes (G-Tube) Care and Reinsertion (PEG, G-Tube, Button). (ped05). Sarasota, FL.


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