Instructions for use of the Triple-Lumen Gastrointestinal Sump Tube

1. Use a spray topical anesthetic for the nostril and nasopharynx. Test anesthesia by passage of a cotton-tipped applicator through the nostril to impinge on the posterior pharynx.

2. Dip the tip of the tube in boiling water as far as the balloon for 30 seconds; immediately bend the tip and hold it till cool so it holds a 30-degree bend. This greatly facilitates passage downward.

3. Pass the well-lubricated tube into the stomach, i.e., to the 60 cm. mark. (To avoid emesis and aspiration, attach the tube to low suction during this intubation and empty the stomach of all content as soon as the tube is down.

4. Insert 20 ml. air into the balloon and withdraw tube to establish positioning at the esophago-gastric junction. (This can be confirmed by deep inspiration, which draws the tube inward some 1 to 2 cm.)

5. Place the patient forward of being on the right side. Empty the balloon.

6. Separate the gastric walls by quick insufflation of 3/4 liter of air, using a resuscitator bag with an adaptor from a disposable endotracheal tube. (If this is not available, a toy balloon of 1 liter capacity can be tied to the removed connector at the hub end of the suction channel, the balloon can be blown up by the surgeon, the connector quickly attached to the suction channel, and the stomach inflated by pressure on the balloon.)

7. Advance tube 12 to 15 cm. to let it fall freely into the pylorus.

8. Empty the stomach of air by connection to suction, and provide 15 to 20 cm. more slack by advancing the tube.

9. Quickly inject 2 ml. Hg into the balloon to initiate peristalsis to carry it through into the duodenum. (Some Hg fails to reach the balloon unless the tube is supported so that the Hg runs downhill all the way and has a "pusher" of 3 to 4 ml. of air to empty the tubing and provide enough content in the balloon to facilitate passage by the stimulated peristalsis.)

10. Beyond the pylorus, active peristalsis can be demonstrated by using a standard IV extension tube (not "mini" tubing) half filled with water as a manometer. Three ml. of air should be inserted into the balloon before connecting the IV extension manometer.

11. Assist further passage by appropriate gravitational positioning of the patient.

12. The balloon may have 6 to 8 ml. of air in it while low in the descending duodenum, but full inflation to 20 ml. should await passage to the neighborhood of the Ligament of Treitz to avoid antiperistaltic return to the stomach.

13. The tube will pass down the small bowel. No attachment at the nose is needed in cooperative patients.
NOTE: It is important that constant rather than intermittent suction be applied to the suction line. With intermittent suction there is danger that intestinal content may enter and plug the sump line. If the patient is to be transferred or if for other reason suction must be interrupted, it is helpful to fill the sump line with isotonic salt solution and plug the fitting to prevent entry of intestinal content into it. This solution can be blown through into the intestine with air after suction has been re-established. Suction need rarely exceed 120 mm. Hg, and higher levels can induce bleeding and focal mucosal necrosis.