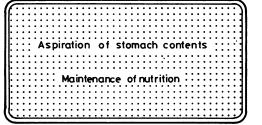
# Procedures in Practice

A TUCKER JENNIFER LEWIS

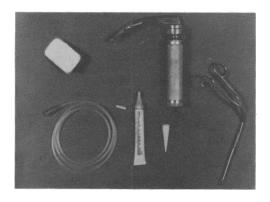
# PASSING A NASOGASTRIC TUBE

### **Indications**



There are two main indications for passing a nasogastric tube. One is to aspirate stomach contents, either as a diagnostic test—for example, using pentagastrin—or as a therapeutic measure—for example, in the "acute abdomen." The other is to maintain nutrition of the patient, either when he should not swallow—for example, after pharyngeal surgery—or when he cannot swallow—for example, in postcricoid carcinoma, before treatment.

## **Equipment**



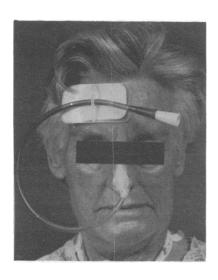
Nasogastric tube—Select a large (say, 16 French gauge) rather than a small tube, as this will be less likely to block during use or form a false passage during its introduction.

Lubricating jelly—Although a simple water-soluble jelly (for example, K-Y) is usually used, lignocaine gel 2% antiseptic may be more comfortable for the patient, especially if the tube does not pass at the first attempt.

Syringe (60 ml) for aspirating.

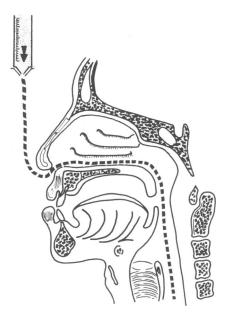
Blue litmus paper to test the aspirated fluid for acid and confirm that the tip of the tube is in the stomach.

#### **Procedure**



A sterile technique is not required, although simple hygiene should be observed. Explain the procedure to the patient. Lubricate the nose with lignocaine jelly via the supplied applicator, and allow this to take effect. Gravity will assist the passage of the fluid to the back of the nose.

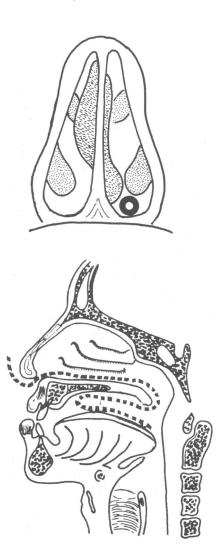
With the patient sitting, introduce the lubricated tube along the floor of the nose. Resistance will be felt as the tip reaches the nasopharynx, which is the least comfortable part of the procedure. Ask him to swallow (with a glass of water if not contraindicated), while continuing to advance the tube, which should pass down the oesophagus without resistance. At 40 cm the gastro-oesophageal junction is reached. Pass this and anchor the tube to the nose with adhesive tape.



Absence of stomach contents will mean there is no aspirate to test. Connect to the tube a 60 ml syringe filled with air and auscultate the stomach while an assistant slowly empties the syringe. It is important that the operator should not leave the patient until the position of the tip is confirmed, and if in doubt an x-ray film should be obtained.

If the tube is to be used for feeding purposes the first feed should always consist of sterile water.

### **Problems**



Choking usually indicates that the tube has entered the trachea and should be withdrawn immediately.

Difficulties in passing the tube may occur at any point along the route: Nose—Pass the tube along the floor of the nose and not towards the bridge. If one nostril is narrowed by a deviation of the nasal septum, use the other side, although there is often a "tunnel" along the floor of the nose which can be used. In the event of persistent difficulty select a smaller tube and consider using a topical vasoconstrictor (for example, ephedrine 0.5% drops).

Oropharynx—Reflex gagging by the patient may direct the tube into the mouth. There are various ways of dealing with this problem: try the following in order. (a) Repeated attempts. Withdraw the tip into the nasopharynx and advance again until it passes into the oesophagus. (b) Cool the tube in a refrigerator to stiffen it so that it is less likely to coil. (c) Observe the passage of the tube through the mouth with a depressor on the tongue. Use a pair of long forceps (for example, McGill's) to guide the tube down. (d) As a final measure, give the patient a benzocaine lozenge 10 mg to suck for 10 minutes. Then lay him flat, remove the head of the bed, and use a Mackintosh laryngoscope to visualise the oropharynx. Direct the tube past the base of the tongue as an assistant introduces it through the 'nose. There is no need to visualise the larynx, for as long as the tube passes along the posterior pharyngeal wall it should enter the oesophagus.

Oesophagus—A stricture or pharyngeal pouch may prevent the tube from passing, and this is probably the only indication for a general anaesthetic.

Obstruction of the tube may be due to blockage by its contents or to the tube twisting on itself. A blockage should be cleared by flushing (citrate solution seems to help), and a twisted tube corrected by partially withdrawing it until it functions again, then relocating it.

Perforation of the oesophagus is extremely unlikely in the absence of oesophageal disease.

Mr A Tucker, FRCS, is a lecturer in the department of otolaryngology and Mrs Jennifer Lewis, SRN, a clinical teacher at the Royal Liverpool Hospital, Liverpool.