



## What is this?

This is a Minnesota tube (4 lumens). Not to be confused with a Sengstaken-Blakemore (SB) tube which has only 3 lumens and cannot aspirate oesophageal contents.

## How does it work?

Once inserted into the GI tract, the inflated balloons tamponade bleeding varies at the Gastro-oesophageal junction (GOJ).

## What are the indications?

Catastrophic variceal upper GI haemorrhage. Either unresponsive to medical/endoscopic therapy or as a bridge to TIPS.

## What are its key features?

See the labelled diagram above. There are 4 lumens- 2 for balloons, 2 for blood aspiration

## How is it inserted?

- (1) Consent if appropriate- team continues resuscitation
- (2) Test gastric and oesophageal balloons with air
- (3) Lubricate the tube
- (4) Ensure endotracheal intubation prior to insertion

- (5) Can be inserted blindly (nasally or orally) or under direct vision with laryngoscope and McGills
- (6) Confirm position with CXR (some say listen for gastric whoosh by flushing gastric suction port).
- (7) Inflate GASTRIC balloon with 50ml aliquots of air up to 500ml (250ml for SB tube)
- (8) Apply traction with a 500ml bag of saline so that the balloon abuts the GOJ
- (9) Note the depth
- (10) Assess for ongoing bleeding using the gastric and oesophageal aspiration ports
- (11) Only inflate the oesophageal balloon if there is ongoing bleeding from oesophageal aspiration. This entails a higher risk of perforation. Cautious inflation to max 40mmHg. Not usually required.

## Does its use confer a survival benefit?

Recent studies suggest that with appropriate patient selection, there is a roughly 60% survival to discharge and 40% one year survival.

## How long can the balloon remain inflated?

24-36 hours maximum as bridge to more definitive therapy

Deflate balloon for 5 mins every hour to reduce risk of pressure necrosis

## Any complications?

- Aspiration of blood (nurse head up, intubate)
- Pain
- Airway obstruction (if not intubated)
- Oesophageal rupture (avoid inflating gastric balloon in oesophagus)
- Pressure necrosis (related to absolute pressure and duration of balloon insertion)