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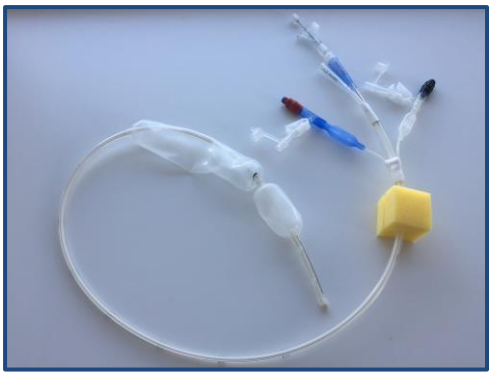
NHS Trust

Sengstaken / Minnesota Tube Care in Critical Care

Aim To provide a guide for the care of patients with Sengstaken-Blakemore tubes or Minnesota tubes on Critical Care
Scope Medical and nursing monitoring and care of patients with Sengstaken/Minnesota tubes.
This is not a guide for the insertion of tubes which is performed by competent individuals according to approved protocols.

Step 1. Identification of specific type of tube inserted

Sengstaken-Blakemore Tube:
• *External:* Three main lumens
• *Internal:* Gastric balloon, Oesophageal balloon and Gastric suction port
Minnesota Tube: Main tube stocked in DCCQ – may be labeled as a Sengstaken tube
• *External:* Four main lumens
• *Internal:* Gastric balloon, Oesophageal balloon, Gastric suction port and oesophageal suction port



Step 2. Maintenance of traction

• Cut a length of ETT tape to approximately 3 metres
• Tie one end of the tape to the end of the Sengstaken tube around the suction port
• Tie the other end of the tape to a 500mL bag of fluid
• Place a drip stand at the foot of the bed and hang the tape over the stand (see picture)
• Shorten tape if necessary to allow bag to hang
• Note the length of the Sengstaken tube at the nose/lips in CIS
• Traction should maintained on the tube at all times

Prevention of complications
• *Ulceration of mucosa:* Ensure traction maintained at angle which prevents Sengstaken tube from putting pressure on nasal soft tissues or oral commissures (use foam block included with tube)
• *Dislodgement of tube:* Check CXR on admission to confirm position of gastric balloon following insertion and re-check length of tube at nose/lips hourly.
• *Oesophageal ischaemia/necrosis:* Balloon only to be inflated under guidance and regularly deflated (see steps 3&4)

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Nursing Observations

Hourly
• *Insertion Site Check:* Check insertion site (lips/nose) for signs of trauma or skin necrosis and tube length
• *Aspiration:* Aspirate from gastric suction port with catheter-tip syringe
• *Balloon pressures:* Check oesophageal balloon pressure if inflated and record in CIS

Two-Hourly
• *Aspiration:* Aspirate from oesophageal suction port if oesophageal balloon inflated to remove secretions

12-Hourly
• *Deflate gastric balloon:* Once haemorrhage controlled, take off traction *THEN* deflate gastric balloon to assess for signs of rebleeding. If bleeding has ceased then leave tube in with balloon deflated (see Step 4)

Step 3. Management of active bleeding after tube insertion

- If continuing to aspirate fresh blood from gastric suction port contact doctor immediately
- Consider increase to 1L traction if still bleeding from gastric port (normally gastric varix) – discuss with gastroenterology to confirm plan for management of ongoing haemorrhage
- Consider inflation of oesophageal balloon in uncontrolled haemorrhage only: discuss with gastroenterology team prior to oesophageal balloon inflation
- Doctor to slowly inflate oesophageal balloon to 30mmHg
- Continue to inflate oesophageal balloon until bleeding stopped or 40mmHg reached
- Confirm position of oesophageal balloon with CXR

Step 4. Management of oesophageal balloon and removal of Sengstaken tube

- After bleeding controlled reduce oesophageal balloon pressure every 3hrs by 5mmHg until reaching 25mmHg without bleeding
- If bleeding recurs, increase pressure in 5mmHg increments until bleeding stopped or 40mmHg reached
- **Deflate oesophageal balloon for 5 mins every 6hrs if bleeding is controlled to help prevent necrosis**
- Maintain oesophageal balloon pressure at 25mmHg for 12-24hrs
- Remove tube after 24-48hrs (confirm with gastroenterology team):
    - Take off tube traction *THEN* deflate gastric balloon
    - If no bleeding after 12-24hrs remove Sengstaken tube

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