Sengstaken-Blakemore Tube (SBT) Insertion

TARGET AUDIENCE	Secondary care
PATIENT GROUP	Adult patients

Clinical Guidelines Summary

Indications, equipment and procedural and monitoring recommendations for the insertion of a Sengstaken-Blakemore Tube (SBT) for life-threatening variceal bleeding with signs of circulatory collapse when endoscopic haemostasis is not immediately accessible or is unsuccessful in controlling bleeding.

Guideline Body

This section will normally contain more detailed information to support summary and should have a **content** list to start with in his section.

Content list:

- Equipment
- Procedure
- Post-insertion care
- Figures 1-4
- Appendix 1
- Appendix 2

Equipment:

- Cliny Sengstaken Blakemore tube (Fig.1)
- Lubricant (e.g. Optilube or KY Jelly)
- 50ml Luer syringe x 1
- 50ml catheter tip syringe x 1
- Wooden tongue depressors x 2 (or 3m length of ETT tape, 500ml bag of fluid and a drip stand)
- Tape
- Visor

Procedure:

- Ideally, patient's airway should be secured with endotracheal intubation
- Sengstaken-Blakemore tube (Fig. 1):
    - Inflate (with 50ml air) gastric and oesophageal balloons & check no punctures
    - Deflate both balloons completely
    - Clip off and spigot suction/aspiration channels
    - Lubricate Sengstaken-Blakemore tube
- Insert tube to 50cm via the mouth and remove guidewire
    - NB: if the tube is not straight the wire will not be easy to remove
    - If guidewire cannot be removed, do not proceed:
        - Pull the tube back to 45cm and try again

        - If guidewire still cannot be removed, remove tube entirely and try again

- Inflate gastric balloon with 300ml air (Fig.2)
- Do not routinely inflate oesophageal balloon*
- Pull back on the tube until resistance is felt – this pulls the balloon against the gastro-oesophageal junction
    - Tape tongue depressors either side of the tube to maintain traction at the mouth (Fig.3)
    - If tongue depressors unavailable, cut a 3 metre length of ETT tape and tie one end of the tape to the Sengstaken tube around the suction ports and the other end to a 500ml bag of fluid. Place a drip stand at the foot end of the bed and hang the end of the tape attached to the fluid bag over the stand
    - Use the foam block included in the Sengstaken pack to reduce risk of pressure sores to facial soft tissue (Fig.3)
- Arrange portable CXR to confirm tube position (Fig.4)
- Urgently contact on-call endoscopist for GI bleeding if not already present
- Post insertion, complete insertion documentation (Appendix 1) and note SBT insertion in medical notes.
- Ensure medical treatment ongoing:
    - Antibiotics as per protocol for variceal bleeding
    - Terlipressin (2mg IV QDS) provided no contraindications
    - Resuscitation with blood and IV fluids
    - Aim for Hb ≥70
    - SBT can remain in situ for up to 24 hours, but ideally <6h – definitive haemostatis via endoscopy or interventional radiology (TIPSS) should be considered at earliest opportunity

*Oesophageal balloon should be inflated only on the instruction of a Gastroenterologist. If a Gastroenterologist recommends inflation of oesophageal balloon, they will provide instructions on how to do so and necessary post insertion care. If the on call endoscopist for GI bleeding is not a Gastroenterologist, contact the local TIPSS centre for advice.

Post-insertion care:

- Allow free drainage via gastric aspiration port (labelled as ‘Gastric Suction’ on SBT).
- Check and document hourly (Appendix 2): position of tube at mouth, volume drained from gastric port, skin integrity around nose and mouth.

    - If there is any change in position of tube at the mouth, contact medical staff for review as the tube may have slipped and not be providing adequate traction/tamponade.
    - If fresh blood drains from gastric or oesophageal suction ports, escalate promptly to medical staff for review.

- If the patient is transferred from another hospital:
    - CXR should be repeated on arrival to confirm tube position.
    - Oesophageal balloon should be aspirated to ensure it is empty.

See attached for Figures 1-4 and Appendix 1 & 2.

References/Evidence

Guideline adapted from existing NHS GGC & Lothian guideline with permission of author (Dr John Paul Seenan).

Figures 2-3:

Reproduced with permission of author (Dr John Paul Seenan).

Figure 4:

Gaillard F, Sengstaken-Blakemore tube. Case study, Radiopaedia.org (Accessed on 10 Oct 2023) https://doi.org/10.53347/rID-12118

Appendices

1. Governance information for Guidance document

Lead Author(s):	Dr Christopher Kelly / Dr Jennifer Veryan
Endorsing Body:	NHSL Endoscopy Governance Group
Version Number:	1
Approval date	April 2024
Review Date:	April 2027
Responsible Person (if different from lead author)	Dr Jennifer Veryan

CONSULTATION AND DISTRIBUTION RECORD	
Contributing Author / Authors	
Consultation Process / Stakeholders:	Circulated pan NHSL via Endoscopy Governance Group and adapted based on group comments before approval
Distribution	Adult acute sites within NHSL

CHANGE RECORD			
Date	**Lead Author**	**Change**	**Version No.**
		e.g. Review, revise and update of policy in line with contemporary professional structures and practice	1
			2
			3
		.	4
			5

2.You can include additional appendices with complimentary information that doesn't fit into the main text of your guideline, but is crucial and supports its understanding.

e.g. supporting documents for implementation of guideline, patient information, specific monitoring requirements for secondary and primary care clinicians, dosing regimen/considerations according to weight and/or creatinine clearance