

ENT TECHNICAL SKILLS

MODULE: ENT

TARGET: CT1 – ST4

BACKGROUND:

Ear Nose and Throat (ENT) Surgery requires both specific technical skills and modifications of generic skills such as knot tying – for example at depth within a confined space. The procedures chosen for this skills simulation session are common skills required in ENT practice with the exception of surgical airways manoeuvres which fortunately are infrequently required, but may provide life-saving treatment in an airway emergency.

RELEVANT AREAS OF THE CURRICULUM

Module 3: Basic surgical skills

Knot tying
Range and choice of material for suture and ligation
Safe application of knots for surgical sutures and ligatures
Haemostasis:
Surgical techniques
Tissue handling and retraction:
Choice of instruments
Principles of endoscopy

INFORMATION FOR FACULTY

This skills simulation will involve 4 stations .
It is suggested that learners rotate around these stations spending around 15 minutes at each station.

SCENE SETTING

4 station technical skills simulation – learners will rotate around the stations

- Station 1 - Tonsillar ties at depth
- Station 2 - FB removal from ear / Grommet placement
- Station 3 - Airway manoeuvres
- Station 4 - Flexible nasendoscopy

Location: Bench-top laboratory setting
Expected duration of each scenario 15mins with on-going technical feedback throughout procedure

STATION 1 – TONSILLAR TIES AT DEPTH

Tonsillectomy is one of the most commonly performed ENT elective surgical procedures. One of the crucial steps of the procedure is tying off the tonsillar artery. Slippage of this tie can result in brisk bleeding which may be potentially life-threatening. One of the particular technical challenges is tying at depth in a small space.

LEARNING OBJECTIVES

To be able to control bleeding at depth by initial application of an appropriate haemostat
To be able to arrest bleeding at depth by tying off a vessel at depth

STATION 1 EQUIPMENT AND CONSUMABLES

Disused coffee jar eg. Nescafe
Red coloured string taped onto inside of coffee jar
Curved Negus forceps
Dennis Brown forceps
Mollison's Pillar retractor
Knot pusher
2/0 Vicryl ties
Heavy suture scissors

PARTICIPANT BRIEFING

Apply secure tonsillar ties to the simulated bleeding vessel

FACULTY BRIEFING

Please pay specific attention to the ability of the learner to perform one-handed knot tying as well as keeping the knot under tension whilst at depth.

STATION 2 – FOREIGN BODY REMOVAL FROM EAR / GROMMET INSERTION**LEARNING OBJECTIVES**

Learners should understand how to set up and focus the microscope

Learners should practice their fine motor control skills – manipulating tiny objects within the ear canal

Learners should gain familiarity with using instruments such as crocodile forceps and the myringotome

STATION EQUIPMENT AND CONSUMABLES**Foreign body removal from ear canal / grommet insertion**

To run this station you need a skills lab equipped with microscopes – any skills lab that runs a temporal bone course will have suitable microscopes.

Take a 2ml syringe and using a sharp knife cut off the nozzle end.

Create an 'tympanic membrane' by placing masking tape over this cut end.

Make a plasticine 'ear' (plasticine available from toy shops) and sink the 2ml syringe into it.

Beads

Dried peas

Grommets

Myringotome

Crocodile forceps

Frazier fine suction cannula (fenestrated)

PARTICIPANT BRIEFING

Remove the FB safely from the ear canal

Place a grommet securely through the tympanic membrane

FACULTY BRIEFING

Help the learners to complete the tasks – in particular they may need assistance orientating the grommet

STATION 3 – AIRWAY MANOEUVRES

LEARNING OBJECTIVES

Learners should understand indications for a surgical airway
Learners should practice emergency needle cricothyroidotomy and discuss needle insufflation
Learners should practice emergency surgical cricothyroidotomy

STATION EQUIPMENT AND CONSUMABLES

Airway Manoeuvres

Sheep larynges – 1 per learner – available from Fresh Tissue Supplies (Cricothyroidotomy trainer with ties £6.50 each)
Green 22 gauge needle
Insufflation tubing
Scalpel handle size 3
11 blade
Mini-trachy
Non sterile gloves
Clinical waste bags for disposal of materials

PARTICIPANT BRIEFING

Perform a needle cricothyroidotomy and set up gas insufflation
Perform a surgical cricothyroidotomy and insert a mini trachy

FACULTY BRIEFING

Help the learners to complete the tasks – discuss indications for a surgical airway.
Check knowledge of surface anatomy

POINTS FOR FURTHER DISCUSSION

Case of Elaine Bromiley – video from You Tube is useful to show. Whilst this mainly highlights the human factors involved in decision-making the skills learned at this station would have been useful in this scenario.

<http://www.youtube.com/watch?v=JzlvgtPlof4>

STATION 4 – NASENOSCOPY

In this station the learners will perform nasendoscopy on each other.

It is useful to have input from the Infection Control team at the hospital that the simulation is taking place as the staff member responsible for ENT procedures will have a keen interest in educating learners in proper scope cleaning and maintenance.

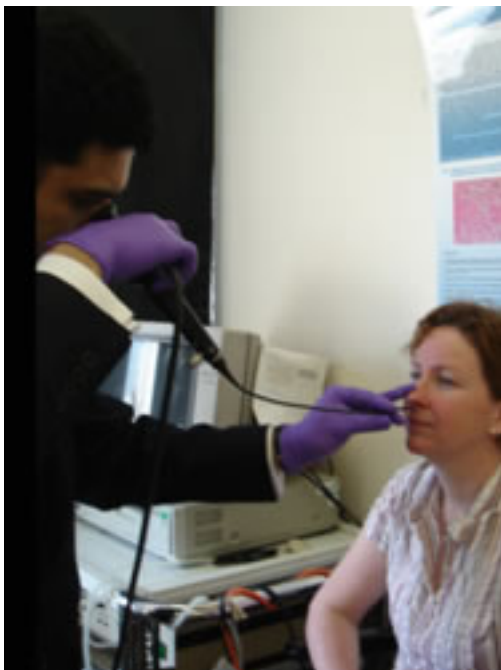
LEARNING OBJECTIVES

Learners should understand how to prepare a patient for nasendoscopy

Learners should practice their nasendoscopy technique

Learners should understand how to clean the scope after usage using the Tristel wipe system

STATION EQUIPMENT AND CONSUMABLES



Nasendoscopy

To run this station you need a nasendoscopy and ideally a video viewing screen to allow faculty to point out landmarks to all learners.

Nasendoscope – Contact the Storz rep for your area – they will likely lend a nasendoscope for training as well as a video screen

Lignocaine nasal spray with disposable spray tips

Box of Tristel wipes

Tissues

PARTICIPANT BRIEFING

Perform a nasendoscopy on one another specifically identifying anatomical landmarks.

FACULTY BRIEFING

Help the learners to complete the task, please identify epiglottis, piriform fossae and vocal cords for the learners.

POINTS FOR FURTHER DISCUSSION

Indications for nasendoscopy

Positioning of patient

How to diminish discomfort

Safety issues including infection control and use of Tristel wipe system

SURGERY > TECHNICAL SCENARIO 5 > ENT SKILLS

INFORMATION FOR PARTICIPANTS

KEY POINTS

This skills simulation addressed 4 specific technical skills – whilst these will require further practice it is hoped that this session will have allowed you to gain familiarity with the equipment and principles.

WORKPLACE-BASED ASSESSMENTS

There is a PBA for arrest of post-tonsillar bleeding and DOPS for nasendoscopy, aural microsuction and grommet insertion. See ISCP website.

PARTICIPANT REFLECTION

What have you learned from this experience? (Please try and list 3 things)

How will you be able to put into practice what you have learned?

Which skills were your particular strengths?

Which were your weaker skills where you need further practice?

PARTICIPANT FEEDBACK

Date of training session:.....

Learner grade:.....

	Strongly Agree	Agree	Neither agree nor disagree	Disagree	Strongly Disagree
I found this simulation useful					
I understand more about the simulation subject					
I have more confidence to deal with this condition					
The material covered was relevant to me					

Please write down one thing you have learned today, and that you will use in your clinical practice.

How could this scenario be improved for future participants? This is especially important if you have ticked anything in the disagree/strongly disagree box.

FACULTY DEBRIEF – TO BE COMPLETED BY FACULTY TEAM

What went particularly well during this skills simulation?

What did not go well, or as well as planned?

Why didn't it go well?

How could the skills simulation be improved for future participants?