

## UNRECOGNISED OESOPHAGEAL INTUBATION FLASH CARDS

Purpose	Designed for the RCoA Unrecognised Oesophageal Intubation Campaign
Background	A flash card simulation project was piloted at East Kent Hospitals NHS Foundation Trust in 2019 as part of a trust-wide theatre team training project. This was designed and led by Dr Tom Burr (then Simulation Fellow) and Dr Barry Featherstone (Consultant Anaesthetist & EKHUFT Simulation Lead). The concept of flash card simulation has been adapted for use as above.
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**UNRECOGNISED OESOPHAGEAL  
INTUBATION FLASH CARDS**

FOR THEATRE TEAM TRAINING USE

NOT FOR USE DURING A CLINICAL EMERGENCY

## GOALS

- To improve the recognition of oesophageal intubation as quickly as possible under high pressure conditions.
- To improve, reinforce and consolidate understanding of the significance of absent capnograph waveform.
- To improve multi-professional team working in this emergency scenario by rehearsal of the steps and actions necessary.
- To empower team members to speak up and challenge each other when required.

<b>USER GUIDE</b>	
<b>INSTRUCTIONS</b>	<b>GROUND RULES</b>
<p><b>When?</b></p> <ul style="list-style-type: none"> <li>■ Take five minutes to conduct a flash card simulation as a theatre team at the Team Brief.</li> <li>■ This might be at another time during the working day if this works best for your team but all members need to be there.</li> </ul>	<p>Please follow these TEAM rules when running your flashcard simulation as it helps to create an environment for you to learn together:</p> <ul style="list-style-type: none"> <li>■ timely – no longer than five minutes</li> <li>■ enquire – if unsure, ask</li> <li>■ all inclusive – all team members can make valuable contributions</li> <li>■ mutual respect – be civil and polite to one another.</li> </ul>
<p><b>Who?</b></p> <ul style="list-style-type: none"> <li>■ Try to ensure all members of your theatre team remain present.</li> </ul>	
<p><b>How?</b></p> <ul style="list-style-type: none"> <li>■ Familiarise yourselves with TEAM Ground Rules before conducting the flashcard simulation (see back).</li> <li>■ Choose a flash card: Start with flash card 1 if your team has not done this before.</li> <li>■ Choose a member of the team to read the flash card aloud, a suggested reader can be found on each flash card.</li> <li>■ Conduct the flash card simulation. This is a 'talk-through' of the scenario. On the flash card you will find resources to prompt discussion further.</li> <li>■ Please complete the feedback form which shares the learning from your team.</li> </ul>	

## UNRECOGNISED OESOPHAGEAL INTUBATION – FLASH CARD 1

Theme	Technical skills	
Flash card reader	ODP	<b>RESOURCES</b>
Initial scenario	A patient has just been intubated by a consultant anaesthetist for an elective operation. Two minutes later the monitor alarms for oxygen desaturation and the patient becomes cyanosed. The consultant anaesthetist starts treatment for suspected bronchospasm.	<ul style="list-style-type: none"> <li>■ Use a systematic A, B, C, D approach when assessing the patient and remember to re-evaluate. Open your Quick Reference Handbook (QRH) to 1-1 Key Basic Plan for further details.</li> <li>■ A sustained exhaled CO<sub>2</sub> is essential to excluding oesophageal intubation. All 4 PUMA criteria must be met following intubation.</li> </ul>  <ul style="list-style-type: none"> <li>■ Airway operator and assistant should each check and verbalise whether 'sustained exhaled carbon dioxide' and adequate oxygen saturation are present.</li> <li>■ Mobilise your resources early - team and additional help, equipment (e.g. videolaryngoscope, flexible bronchoscope)</li> </ul>
1	What would you do?	
2	How would you assess the patient in safe and stepwise manner?	
Further events	The patient deteriorates further despite treatment. An anaesthetic resident arrives to offer help. There is no ETCO <sub>2</sub> trace on the monitor.	
3	What potential underlying problem must be excluded?	
4	What actions would you take together as a team to address this problem?	
5	What checks following intubation should always be performed to confirm correct positioning?	
6	Can you share what you have learnt from this discussion with the team?	

## UNRECOGNISED OESOPHAGEAL INTUBATION – FLASH CARD 2

Themes		Challenging a more senior anaesthetist, recognising potential fixation error
Flash card reader	Scrub nurse	<b>RESOURCES</b>
Initial scenario	A patient has just been intubated by a consultant anaesthetist for an elective operation. Two minutes later the monitor alarms for hypoxia and the patient turns blue. The consultant anaesthetist starts treatment for suspected bronchospasm.	<ul style="list-style-type: none"> <li>■ Communicating a concern in an emergency can be challenging especially if a senior colleague needs challenging. It can be helpful to use a communication tool, eg PACE:               <ul style="list-style-type: none"> <li>● Probe – ‘Do we have a sustained ETCO<sub>2</sub> trace’</li> <li>● Alert – ‘Dr A, I cannot see a sustained ETCO<sub>2</sub> trace’</li> <li>● Challenge – ‘Dr A I cannot see a ETCO<sub>2</sub> trace and the patient is hypoxic, can we check the ETT position?’</li> <li>● Emergency – ‘Dr A, this is an emergency, we need to check the ETT position before the patient arrests.’</li> </ul> </li> <li>■ Other tools for speaking up include CUSS (Concerned, Uncomfortable, unSafe, Stop!).</li> </ul>
1	What would you do?	
Further events	The patient deteriorates further despite treatment. An anaesthetic resident arrives to offer help. The resident doctor tells the consultant they are concerned there is no ETCO <sub>2</sub> trace. However the consultant reassures them this is not the cause of the problem.	
2	How would you raise this concern again with the consultant anaesthetist?	
3	Despite your best efforts to raise this concern you feel the consultant anaesthetist has become wrongly fixated on bronchospasm. What would you do next?	
4	Can you share what you have learnt from this discussion with the team?	

## UNRECOGNISED OESOPHAGEAL INTUBATION – FLASH CARD 3

Themes	Engaging the team, role allocation	
Flash card reader	TSW	<b>RESOURCES</b>
Initial scenario	A patient has just been intubated by a consultant anaesthetist for an elective operation. Two minutes later the monitor alarms for oxygen desaturation and the patient becomes cyanosed. The consultant anaesthetist starts treatment for suspected bronchospasm.	<ul style="list-style-type: none"> <li>■ Use a systematic A, B, C, D approach when assessing the patient and remember to re-evaluate.</li> <li>■ Share your mental model using a structured communication tool, eg SNAPPI:               <ul style="list-style-type: none"> <li>● Stop – declare an emergency and get the attention of the team</li> <li>● Notify the team of problem</li> <li>● Assessment</li> <li>● Plan – share this with the team</li> <li>● Priorities – order the tasks</li> <li>● Invite ideas – leaders encourage team members to speak up</li> </ul> </li> <li>■ Leadership: nominate a team leader who can evaluate the emergency and verbalise this to the team. They should stand back and be freed from performing practical tasks to improve their situation awareness.</li> <li>■ Role allocation/task delegation: the team leader initiates this, allocate a team member to open and read the QRH aloud.</li> </ul>
1	What would you do?	
Further events	The patient deteriorates further despite treatment. Further anaesthetic help arrives but the situation becomes chaotic and team members start to panic.	
2	How would you restore effective teamwork in this emergency?	
3	You notice there is no clear leader, how would you address this?	
4	How would you allocate roles among the team?	
5	How could you communicate as clearly and effectively as possible?	
6	Can you share what you have learnt from this discussion with the team?	

## References

Quick Reference Handbook, Guidelines for crisis in anaesthesia: Association of Anaesthetists 2021 (<https://bit.ly/3Ftdjre>).

Preventing unrecognised oesophageal intubation: a consensus guideline from the Project for Universal Management of Airways and international airway societies. Chrimes N et al *Anaesthesia* 2022. Epub 17 August. (<https://doi.org/10.1111/anae.15817>).

PACE approach: Yianni L, Rodd I. G236(P) Pace – ‘Probe, Alert, Challenge, Escalate’ Model of Graded Assertiveness Used in Paediatric Resuscitation. *Archives of Disease in Childhood* 2017;102:A93 (<https://bit.ly/3Fwr2Hv>).

SNAPPI approach: Weller JM et al. Frampton, Improving team information sharing with a structured call-out in anaesthetic emergencies: a randomized controlled trial. *Br J Anaesth* 2014;112(6):1042–1049 (<https://bit.ly/3HvlE9g>).

## FLASH CARD SIMULATION SURVEY

Date: \_\_\_\_ / \_\_\_\_ / \_\_\_\_

### Operating list

Team members present at flash card simulation (tick box if applies):

Theatre Support Worker     Anaesthetic nurse/ODP     Anaesthetist     Surgeon     Scrub nurse

Flash card title: \_\_\_\_\_

Has your team identified any changes that need to be made following this flash card simulation? (list up to 3)

1. \_\_\_\_\_
2. \_\_\_\_\_
3. \_\_\_\_\_

To what extent do you agree that this flash card simulation was a beneficial team training opportunity?

Strongly agree     Disagree     Unsure     Agree     Strongly disagree

Comments: \_\_\_\_\_

Are there any ways this flash card simulation could be improved?

Thank you for completing this survey.