

# The Sheffield Obstetric Difficult Airway Course

## The SODA Course

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### Introduction

At this tertiary obstetric centre, there have been 10 cases of failed intubation from January 2009 to July 2013. The case reviews found the incidence of failed intubation to be 1 in 119 for caesarean section under general anaesthesia (GA) [1]. This is higher than the incidence of 1 in 224 from a national UK study [2]. All 10 cases occurred out of hours and the primary anaesthetist was a trainee with distant supervision. Less common risk factors included high body mass index and mallampati score > 1. There was no maternal morbidity and mortality. We have designed an educational training course titled 'The Sheffield Obstetric Difficult Airway Course: The SODA Course' for anaesthetists in training.

### Course learning objectives

- Increase knowledge of the key issues.
- Equip the candidate with airway strategies and advance airway skills.
- Promote an attitude of leadership, communication, team-working and professionalism under pressure.

The overall course aim is to empower the candidate, enabling them to manage the difficult obstetric airway with confidence and success. Therefore, decreasing the failed intubation incidence and increasing the safety of mothers under general anaesthesia.

### Method

- First course took place on the 22<sup>nd</sup> September 2014 at the clinical skills centre, which has full simulation facilities.
- Teaching faculty of consultant obstetric anaesthetists and anaesthetic registrars with an interest in obstetric anaesthesia.
- Course content mapped to curriculum and study leave approved.
- Teaching styles include lectures, practical workshops and simulation.
- Lecture presentations on case reviews, human factors lecture, 'HAPPE' checklist [3], Jessop Wing obstetric failed intubation drill [4] and optimal patient positioning using the Oxford HELP Pillow (almamedical).

- 3 airway workshops on failed primary intubation, secondary intubation, oxygenation and ventilation and rescue techniques for 'can't intubate and can't ventilate' plans.
- Practice with video-laryngoscopes, second generation supraglottic airway devices, fiberoptic assisted intubation, jet ventilation, needle and surgical cricothyroidotomy.
- Interactive discussion on decision to 'deliver vs wake' patient.
- 4 difficult obstetric airway simulated scenarios in the SBAR format with debriefing sessions.
- Course feedback and attendance certificates distribution.

[SBAR - Situation, Background, Assessment, Recommendation]

### HAPPE Checklist

- This is an obstetric emergency GA induction checklist used at this tertiary obstetric centre.
- It is a verbal time out between the anaesthetist and operating department practitioner prior to GA.
- Focuses on availability of help, extent of airway difficulty, optimisation of patient position, preparation of airway equipment, drug doses and formulation of back up airway plans.
- Candidates used this checklist in the scenarios to improve team communication and preparation.

Fig 1. HAPPE Checklist

### Course Feedback

- Based on feedback from 10 candidates.
- Each section scored on a 1-5 scale, 1 = strongly disagree, 2 = disagree, 3 = neutral, 4 = agree, 5 = strongly agree
- All strongly agreed or agreed that the course structure, content and lectures were presented in an organised manner and relevant to training.
- All strongly agreed or agreed that the workshops and scenarios had relevant learning objectives.
- 3 candidates disagreed with the statement 'there was enough time for practice and discussion' in the workshops.
- All strongly agreed or agreed that the HAPPE checklist is useful and helps with decision making.
- All strongly agreed that the course is of high quality.

### A few candidate comments

"Very useful because this is something which causes a lot of anxiety"  
 "More time with equipment"  
 "Realistic scenarios and repetition of checklist"  
 "Excellent faculty and well organised"

### Conclusions

The first course has received positive feedback. We will revise our workshop timings. We envisage a fall in our failed intubation incidence overall. This will involve conducting a review in the near future and continued collation of candidate feedback. The course will be conducted annually. Sustainability will be ensured through a committed core faculty, allocated internal budget and approved study leave.

The SODA course has achievable learning objectives, enabling the candidate to use strategies and skills to successfully manage the difficult obstetric airway. Ensuring the safety of mothers, under general anaesthesia, is our ultimate goal.

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### References

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2. AC. Quinn, D. Milne, M. Columb, H. Gorton and M. Knight. Failed tracheal intubation in obstetric anaesthesia: 2 year national case-control study in the UK. British Journal of Anaesthesia (2012). doi:10.1093/bja/aes320.
3. The Jessop Wing Obstetric Emergency GA Induction 'HAPPE' Checklist.
4. The Jessop Wing Obstetric Failed Intubation Drill.

