



A Multifaceted Approach to Reducing Obstetric Failed Intubations; A Completed Audit Cycle

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The Sheffield Obstetric Difficult Airway Course Structure
S.O.D.A

Lectures

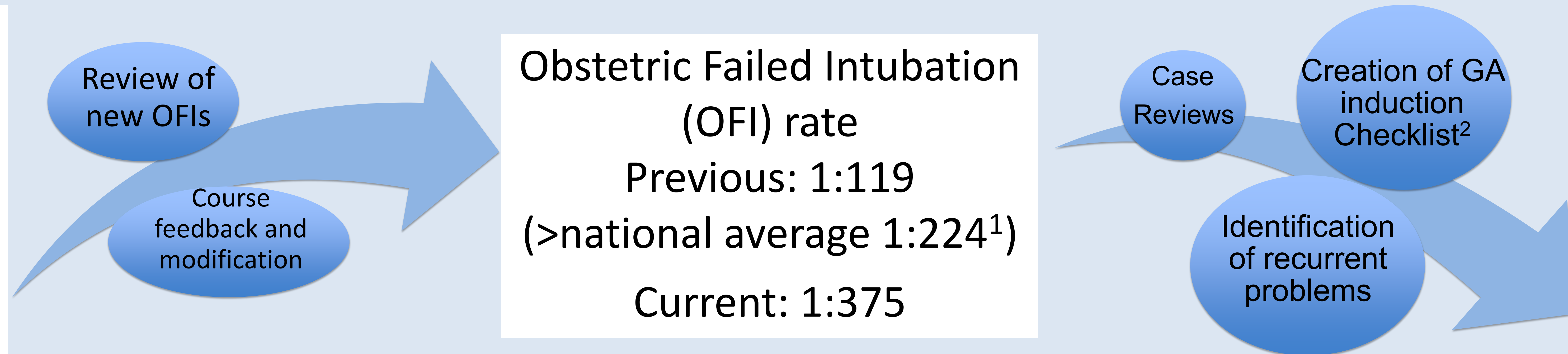
Review of evidence and guidelines **NAP4/5**, **MBRRACE**
Summary of local case series
Human factors relating to obstetric anaesthesia
Introduction to HAPPE checklist (see opposite)

Workshops

- 1.) **Plan A** – Initial intubation strategy
Video laryngoscopes
Oxford HELP pillow, demonstration by it's designer
- 2.) **Plan C** – Oxygenation and ventilation
Supra-glottic airway devices
Plan B – Secondary intubation strategy (MOH/ critical care requirement)
- 3.) **Plan D** – Can't intubate, can't ventilate
Techniques and pitfalls
Narrow bore and surgical cricothyroidotomy
Jet ventilation
- 4.) Decision to wake v continue
Airway obstruction, bronchospasm and laryngospasm

Simulation

Difficult intubation
Can't intubate, can ventilate
Can't intubate, can't ventilate
Arrival of second anaesthetist to difficult situation



Sheffield Obstetric Difficult Airway (SODA)
Approach: The future...

- Apply for CPD points and open out course regionally and ultimately nationally
- Disseminate HAPPE induction checklist regionally

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The (modified) Jessop Wing Obstetric Emergency GA Induction Checklist
Are you HAPPE to continue?

H istory and H elp Relevant medical and obstetric history?
GA still necessary? CTG reviewed?
Experienced help required? Available?

A irway Assessment Difficult airway risk factors present? If multiple risk factors consider getting help and/or reconsider regional anaesthesia
Prepare for difficulty if risk factors present and GA required

P ositioning and cricoid Ramped/ Correct position +/- Oxford Pillow?
Check hair/accessories?
Cricoid Pressure (BURP manoeuvre)
Remember to adjust or release cricoid pressure if difficulty encountered at any stage

P re oxygenation Check oxygen on at 10 L / min
Good seal & consistent EtCO₂ trace
Aim for EtO₂ >85%
Consider assisted ventilation during induction

E quipment and drugs **Rescue plan for failure or difficulty?**
Suction ready?
Maximum 2 intubation attempts (3rd by experience colleague)
Chosen alternative laryngoscope/SAD ready to hand?
Bougie, smaller ETT size ready?
Induction drugs dose adequate +/- opiate? (Check weight)
Spare induction agent available?
Suxamethonium 1.5mg/kg minimum (allow time to work)
Wake patient or continue surgery if airway difficulty?



Education through trainee induction,
MDT simulation and airway course

References:

1. Quinn, A. C., Milne, D., Columb, M., Gorton, H. & Knight, M. Failed tracheal intubation in obstetric anaesthesia: 2 yr national case-control study in the UK. *British Journal of Anaesthesia* (2012). doi:10.1093/bja/aes320
2. Thomas A, Parsons K, Meer C, Woolnough M, Roberts F. Obstetric failed intubation case series: avoiding the chaos of an emergency caesarean section under general anaesthesia: are you "H.A.P.P.E."? *International Journal of Obstetrics* (2014); Volume 23, issue S1 (May), P18



Summary

- Our obstetric failed intubation (FI) rate was found to be higher than the national average
- Cases of FI were reviewed after ethical approval and a checklist developed to highlight the recurring problems found
- Current equipment was reviewed and new equipment purchased
- Our difficult airways course (SODA) was developed for education and dissemination of our learning points
- We have successfully reduced our FI rate to below the national average (now 1:375)