Difficult and Failed Intubation in Obstetrics - Full Clinical Guideline

Reference No.: ANAES/12:23/F7

Contents

1. Introduction

Failed intubation is a rare, but potentially fatal, complication of general anaesthesia in obstetrics.

2. Purpose & Outcomes

This guideline enables all members of the team to know the structure of decision making made by the anaesthetist in the situation of failed or difficult intubation. This is based on national guidelines released in 2015 by The Difficult Airway Society (DAS).

3. Abbreviations

LMA - Laryngeal Mask Airway
ODP - Operating Department Practitioners
DAS - Difficult Airway Society

4. Key Responsibilities & Duties

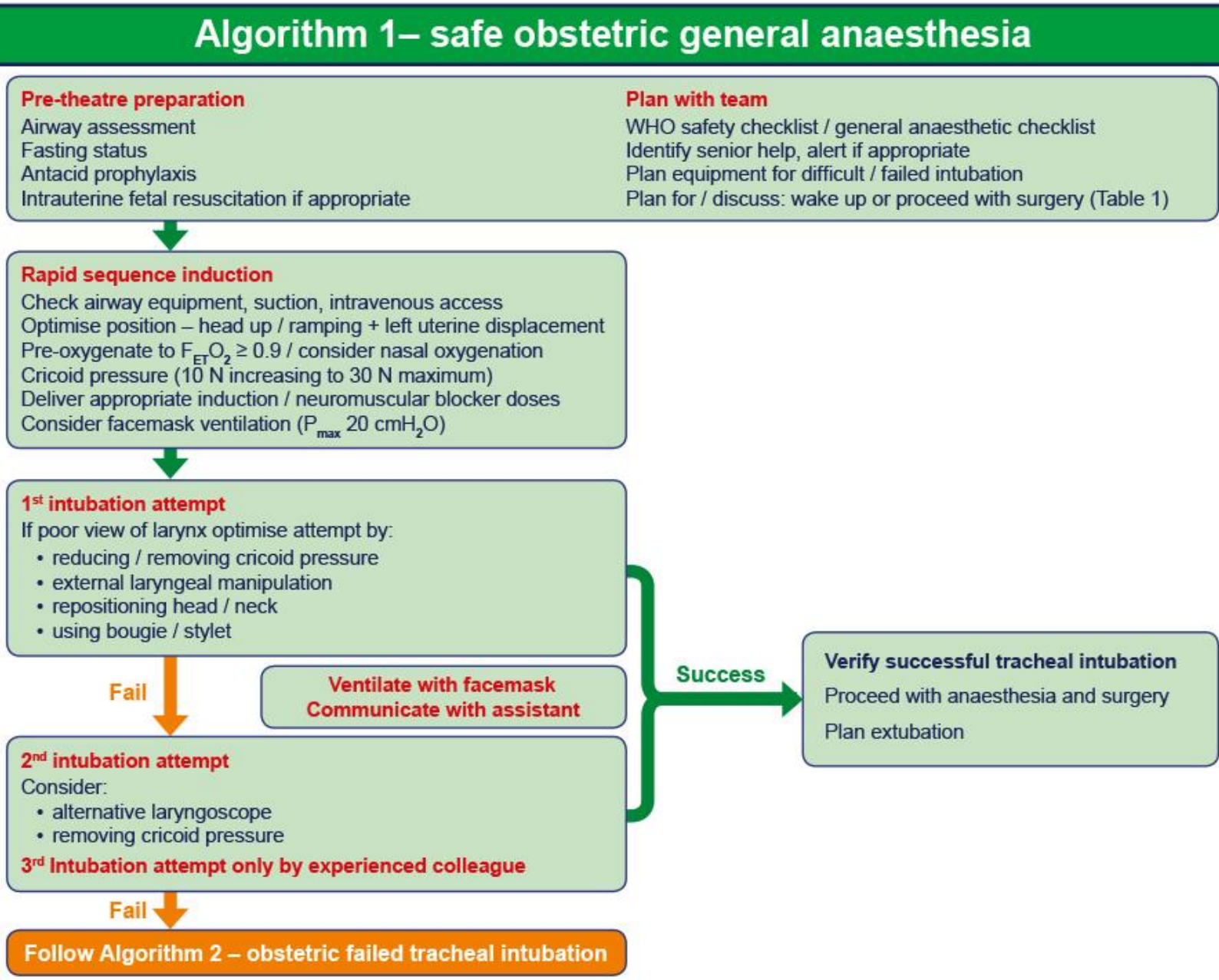
The Anaesthetist on delivery suite will manage the circumstances of difficult or failed intubation. Operating Department Practitioners (ODPs) are trained in how to assist in this role. Other members of staff may be asked to collect equipment, or telephone for further anaesthetic assistance when necessary.

5. Recommendations

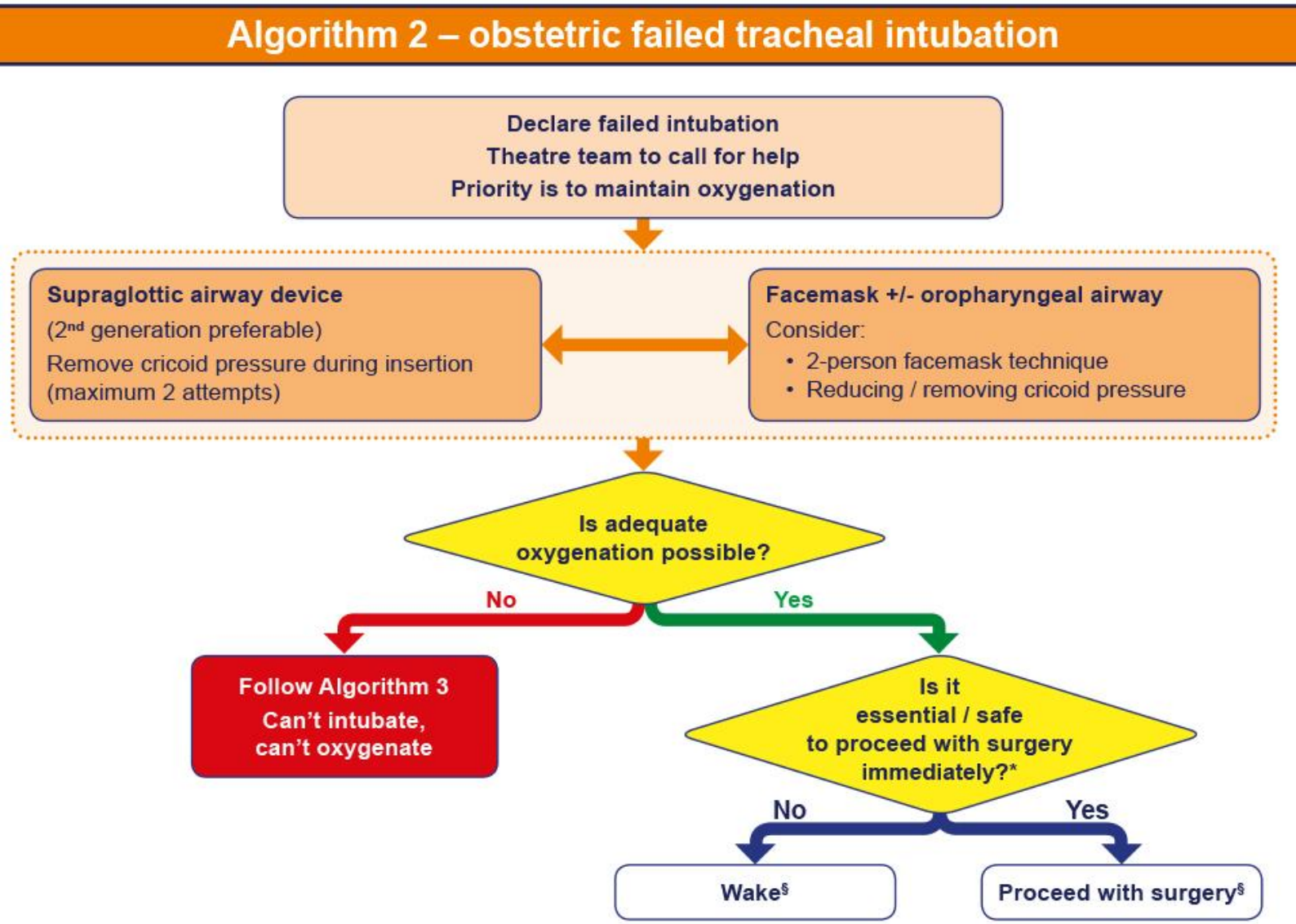
- Send for help as soon as difficulty with intubation becomes apparent.
- It is expected that except where there is immediate danger to either the mother's or foetuses life, an anaesthetist with limited obstetric experience will allow her to wake up and not to proceed further until advice has been obtained.

- Anaesthetists with more extensive obstetric experience may utilise the guideline below to help make decisions regarding waking or continuing, however unless an indication to continue exists waking would still be the default option.
- Follow the DAS algorithms for failed intubation and failed oxygenation.
- Follow trust guidelines for subsequent extubation of a difficult airway, including planning for emergency re-intubation
- Observe closely for complications of traumatic intubation, in a setting with appropriately trained staff available if necessary.

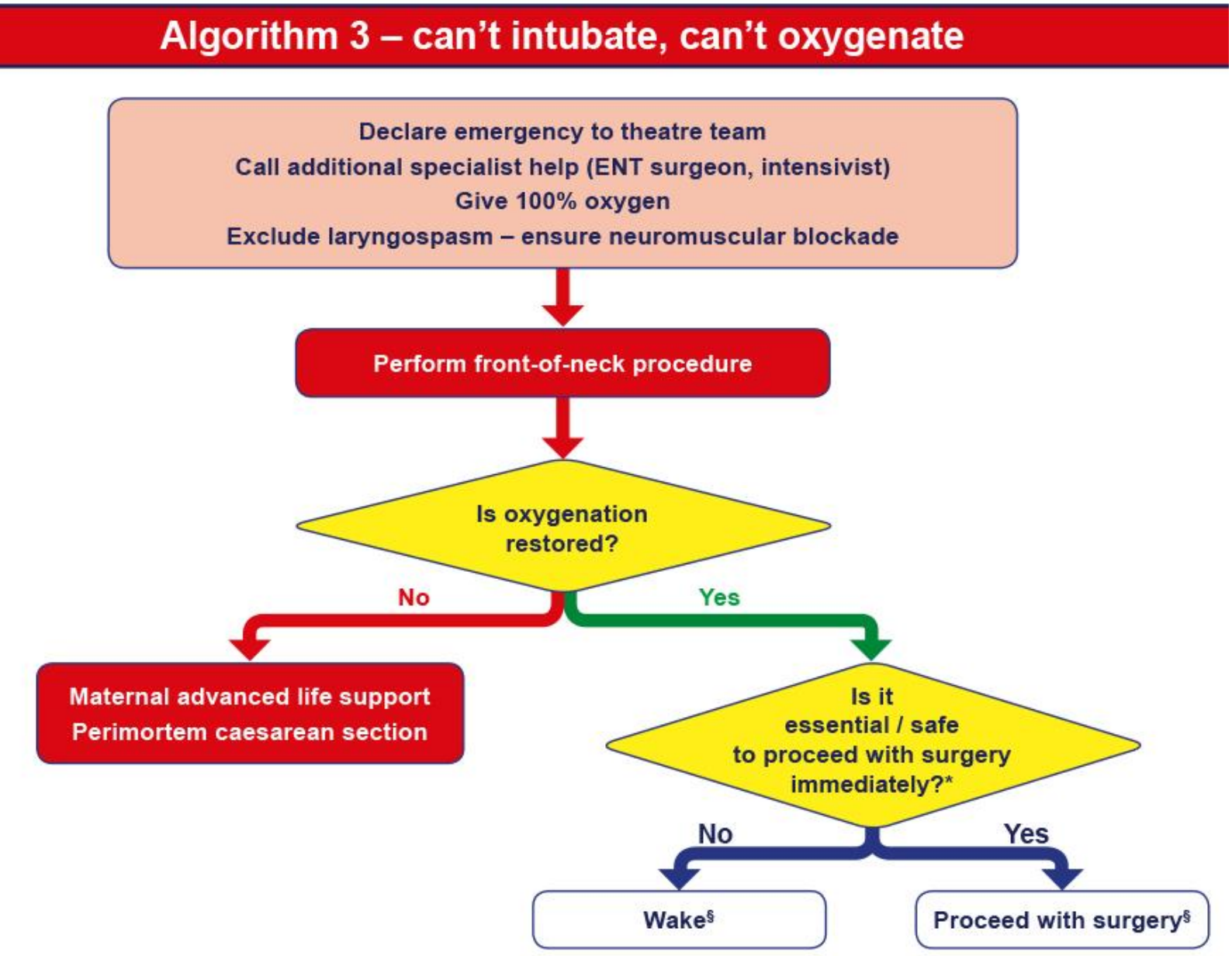
6. Safe General Obstetric Anaesthesia



7. Failed Intubation Drill



8. Failed Oxygenation Drill



9. Proceed with Surgery?

Table 1 – proceed with surgery?

	Factors to consider	WAKE			PROCEED
Before induction	**Maternal condition**	• No compromise	• Mild acute compromise	• Haemorrhage responsive to resuscitation	• Hypovolaemia requiring corrective surgery • Critical cardiac or respiratory compromise, cardiac arrest
	Fetal condition	• No compromise	• Compromise corrected with intrauterine resuscitation, pH < 7.2 but > 7.15	• Continuing fetal heart rate abnormality despite intrauterine resuscitation, pH < 7.15	• Sustained bradycardia • Fetal haemorrhage • Suspected uterine rupture
	Anaesthetist	• Novice	• Junior trainee	• Senior trainee	• Consultant / specialist
	Obesity	• Supermorbid	• Morbid	• Obese	• Normal
	Surgical factors	• Complex surgery or major haemorrhage anticipated	• Multiple uterine scars • Some surgical difficulties expected	• Single uterine scar	• No risk factors
	Aspiration risk	• Recent food	• No recent food • In labour • Opioids given • Antacids not given	• No recent food • In labour • Opioids not given • Antacids given	• Fasted • Not in labour • Antacids given
	Alternative anaesthesia • **regional** • **securing airway awake**	• No anticipated difficulty	• Predicted difficulty	• Relatively contraindicated	• Absolutely contraindicated or has failed • Surgery started
After failed intubation	**Airway device / ventilation**	• Difficult facemask ventilation • Front-of-neck	• Adequate facemask ventilation	• First generation supraglottic airway device	• Second generation supraglottic airway device
	Airway hazards	• Laryngeal oedema • Stridor	• Bleeding • Trauma	• Secretions	• None evident

- Note: If inexperienced in obstetric anaesthesia it is expected that except where there is immediate danger to the mother's or foetuses life, you will allow her to wake up and not to proceed further until advice has been obtained.

10. Equipment that MUST be Readily Available in Maternity Theatre

- 2 x Macintosh laryngoscopes (MAC 3 and 4)
- Video laryngoscope (C-Mac / Glidescope)
- McCoy laryngoscope
- Short laryngoscope handle
- Gum elastic bougie
- Range of endotracheal tubes (Sizes 6.0 to 8.0)
- Oropharyngeal airways
- Second generation LMA (Sizes 3,4 and 5)
- Equipment for surgical cricothyroidotomy
    a. Number 10 scalpel
    b. Gum elastic bougie
    c. Size 6.0 reinforced endotracheal tube

11. References

Yentis, S M et al 2001 Analgesia, Anaesthesia and Pregnancy, A Practical Guide, Chapter 38, pp 102-106, London, WB Saunders

C. Frerk, V. S. Mitchell, A. F. McNarry, C. Mendonca, R. Bhagrath, A. Patel, E. P. O'Sullivan, N. M. Woodall and I. Ahmad, Difficult Airway Society, Difficult Airway Society 2015 guidelines for management of unanticipated difficult intubation in adults. *British Journal of Anaesthesia*, 115 (6): 827–848 (2015) doi:10.1093/bja/aev371

Documentation Control

Reference Number: ANAES/12:23/F7	**Version: 5**		**Status: FINAL**	
Version / Amendment	Version	Date	Author	Reason
	1	May 2004	Dr R Broadbent, Cons Obstetric Anaesthetist	New
	2	May 2011	Dr M Walters, Cons Obstetric Anaesthetist	Review of guideline
	3	Dec 2014	Dr R Caranza Consultant Anaesthetist	Review
	4	April 2018	Dr M Walters – Consultant Anaesthetist	Review
	5	Nov 2023	Dr J Bland Consultant Anaesthetist	Review
Intended Recipients: All staff caring for women in the maternity services				

Development of Guideline:	Dr M Walters – Consultant Anaesthetist
Consultation with:	Anaesthetic & Obstetric staff
Approved By:	17/04/18 Maternity Guidelines Group: Miss S Rajendran – Chair 17/05/18 Maternity Development & Governance Committee / ACD: Dr J Ashworth Head of Midwifery / Divisional Nurse Director: Mrs J Haslam 11/06/18 Divisional Governance: Dr B Pearson - Chair

Dissemination: Cascaded through lead midwives/doctors, Published on Intranet, NHS mail circulation list. Article in BU newsletter.

	Reviewed and approved by Obstetric Anaesthetists - Dec 2023
Implementation date:	02/01/2024
Review Date:	November 2026
Key Contact:	Audit Coordinator - Obstetrics and Gynaecology