# CLINICAL GUIDELINE FOR

Failed intubation in obstetric patients

## 1. Aim/Purpose of this Guideline

To give guidance to obstetric anaesthetists in the management of a failed intubation in an obstetric patient

## 2. The Guidance

**Definition**
A failed intubation in obstetrics is one that is not accomplished following a single dose of Suxamethonium.

**Incidence**
The incidence of failed intubation has been shown to be as high as 1 in 250 in Obstetric patients.

**Background**
Failed tracheal intubation is an important factor contributing to maternal morbidity and mortality and can delay the delivery of the compromised foetus.
Anaesthetists cannot always predict difficult intubations, but the following can minimise the risk;

1. Adequate assessment of the airway pre-operatively
2. Having adjunctive airway equipment available
3. Having a robust plan for the management of a failed intubation (Failed Intubation Drill).

**Pre-operative assessment**
An anaesthetic risk assessment should be completed at booking by the midwife and an anaesthetic referral made should any single risk factor be identified
An anaesthetic assessment should be arranged and should include;

- Assessment of the airway
  Mouth opening (should be greater than 3 finger breadths)
  Mallampatti view
  Jaw slide (to push lower incisors anterior to the upper incisors)
  Neck movement (full range of movement – 90 degrees) and size.
  Large protruding Incisors
- Consideration of
  Weight (original booking weight),
  presence of large breasts
  Evidence of laryngeal swelling (Pre-eclampsia/ URTI)
  History of previous problems
  Full stomach
- Preparation of the woman
  Administer antacid medication – Ranitidine/Metoclopramide/Sodium Citrate.
  An explanation of the Rapid Sequence Induction to the mother.

**Equipment**

Should include, but not exhaustive;

- Selection of Laryngoscopes (long and short, McCoy, Polio blades)
- Selection of tracheal tubes
- Gum elastic bougie
- Selection of oral and nasal airways
- LMA's/ILMA's/Proseal LMA's sizes 3&4
- Quick Trac kit
- Cricothyrotomy kit

**Plan**

At the end of this guideline is a clear flow diagram to explain the sequence of events following a failed intubation.

**Important points**

- The prime aim of the failed intubation drill is to keep the mother oxygenated!
- Regional anaesthesia is preferred to a General Anaesthetic for delivery of the distressed neonate by caesarean section unless contraindicated.
- Maternal welfare always takes precedence over fetal compromise.
- Morbidly obese women should not be anaesthetised by trainees without senior consultation.

**Hints and Tips**

- Make sure that your patient is in the optimum position, with a decent pillow (for good head position) prior to commencing the rapid sequence induction.
- Draw up an adequate dose of Suxamethonium (Note: at a dose of 1.5mg/kg this = more than 100mg for some patients)
- Have a second syringe full of Suxamethonium drawn up just in case you drop the first syringe on the floor during induction.
- Ensure adequate pre-oxygenation time as this increases the time you have to view the larynx
- **DO NOT GIVE A 2ND DOSE of SUXAMETHONIUM** no matter how tempting.
- Most obstetric anaesthetists will use a smaller ETT when performing a rapid sequence induction.
- If at first you cannot see the larynx, move the ODP's hand as the cricoid pressure may distort your view. If you need to, ease the cricoid pressure to obtain a better view of the larynx.
- Post-operatively the mother must be counselled about the difficult intubation.

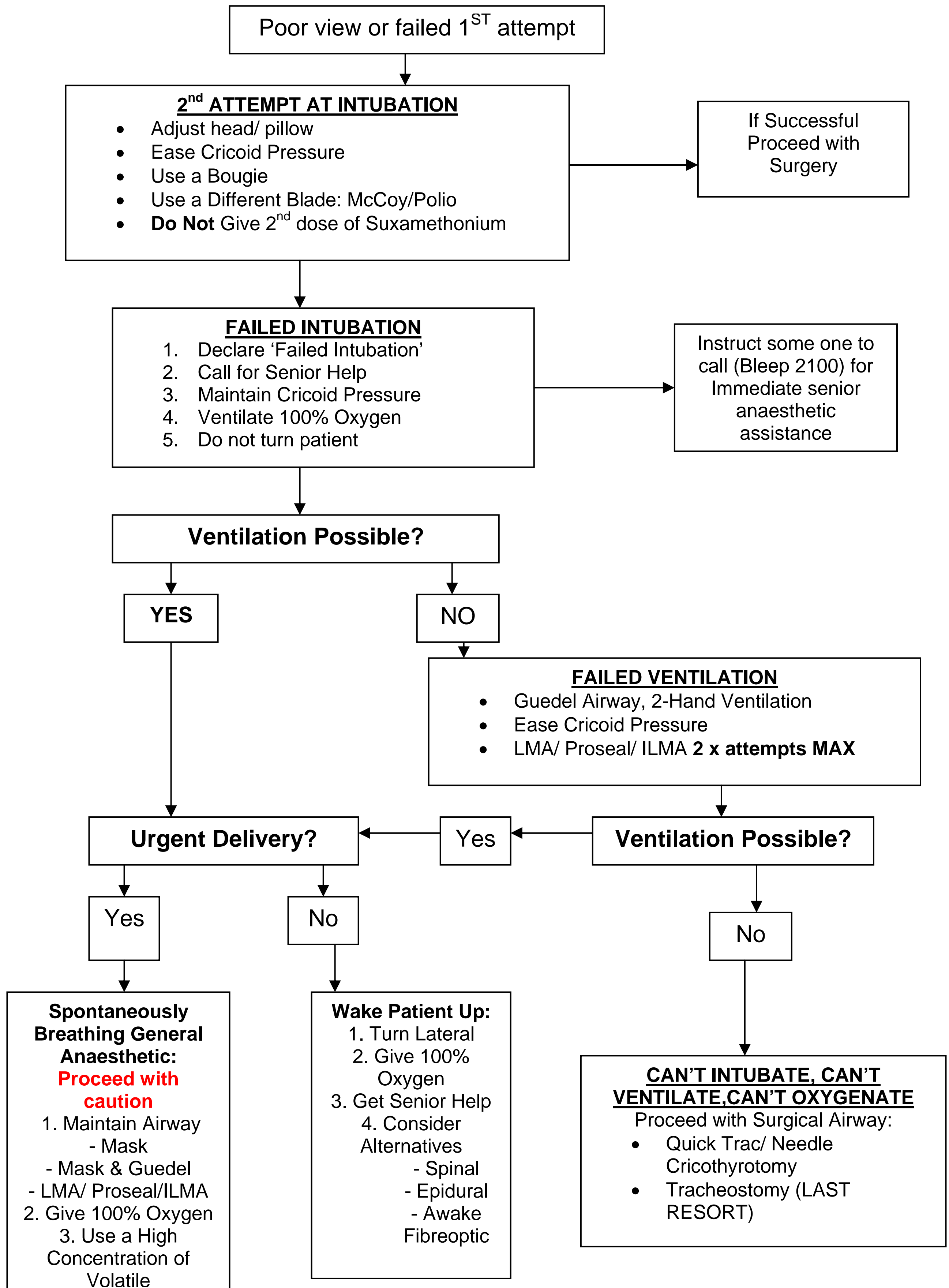
**Training and awareness**

Annual training to be carried out by all the anaesthetists that work on the obstetric unit.

**Documentation**

There should be clear documentation in the maternal records as to the events and treatment administered.

# Failed Intubation Drill



## References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2. Gurinder, M et al. Management of the difficult and failed airway in obstetric anaesthesia – review article. Journal of Anaesthesia. 2008; 22: 38-48.
3. Hawthorne, L et al. Failed intubation revisited: 17-yr experience in a teaching maternity unit. British Journal of Anaesthesia. 1996; 76: 680-684
4. Awan, R et al. Case Report and Review. Use of a ProSeal™ laryngeal mask airway for airway maintenance during emergency Caesarean section after failed tracheal intubation .2004;92:144-146.
5. Obstetric Anaesthetist Association website – www.oaa-anaes.ac.uk
6. Royal College of Anaesthetists website – www.rcoa.ac.uk
7. PD Barnardo, JG Jenkins. Failed tracheal intubation in obstetrics: a 6-year review in a UK region. Anaesthesia 2000;55:685-694
8. Anon. 7th Annual Report of the Confidential Enquiry into Maternal Deaths in United Kingdom:1985-87, 1988-90, 1991,93.2003-05.London HMSO.
9. RCH: 2009. Guideline antacid prophylaxis in labour


3: Compliance monitoring

| Element to be monitored | All cases of failed intubation |
|---|---|
| Lead | Anaesthetic risk management lead |
| Tool | All cases of failed intubation will be reported via the trusts electronic reporting system (datix) and reviewed at the clinical incident review meeting. |
| Frequency | Every case |
| Reporting arrangements | Individual feedback for each case.<br>Any training needs identified to be reported to the anaesthetic training lead consultant |
| Acting on recommendations and Lead(s) | Any action plans will be monitored though the maternity risk management forum |
| Change in practice and lessons to be shared | One to one individual feedback<br>Training needs addressed through consultant anesthetic training lead |

# 3. Equality and Diversity

3.1. This document complies with the Royal Cornwall Hospitals NHS Trust service Equality and Diversity statement.

### *3.2. Equality Impact Assessment*

The Initial Equality Impact Assessment Screening Form is at Appendix 2.

# Appendix 1. Governance Information

| | |
|---|---|
| **Document Title** | **Failed intubation in obstetric patients** |
| **Date Issued/Approved:** | 1st March 2012 |
| **Date Valid From:** | 1st March 2012 |
| **Date for Review:** | 1st March 2015 |
| **Directorate / Department responsible (author/owner):** | Dr Catherine Ralph<br>Obstetric and gynaecology directorate |
| **Contact details:** | 01872 253132 |
| **Brief summary of contents** | To give guidance to obstetric anaesthetists in the management of a failed intubation in an obstetric patient |
| **Suggested Keywords:** | Failed intubation |
| **Target Audience** | RCHT: ✓ / PCT: / CFT: |
| **Executive Director responsible for Policy:** | Executive Director of Nursing, Midwifery and AHPs |
| **Date revised:** | |
| **This document replaces (exact title of previous version):** | **Failed intubation in obstetric patients** |
| **Approval route (names of committees)/consultation:** | Maternity guidelines meeting<br>Obstetric consultant anaesthetists meeting |
| **Divisional Manager confirming approval processes** | (Original Copy Signed) |
| **Name and Post Title of additional signatories** | |
| **Signature of Executive Director giving approval** | (Original Copy Signed) |
| **Publication Location (refer to Policy on Policies – Approvals and Ratification):** | Internet & Intranet: ✓ / Intranet Only: |
| **Document Library Folder/Sub Folder** | Midwifery and obstetrics<br>Anaesthetics |
| **Links to key external standards** | |
| **Related Documents:** | |
| **Training Need Identified?** | Training ongoing though training log |

| | books |
|---|---|

**Version Control Table**

| Date | Version No | Summary of Changes | Changes Made by *(Name and Job Title)* |
|---|---|---|---|
| January 2006 | V1.0 | Initial Issue | Dr Bill Harvey Consultant anaesthetist |
| December 2009 | V1.1 | Addition of a flow chart | Dr Catherine Ralph Consultant anaesthetist |
| February 2012 | V1.2 | Addition of compliance monitoring table | Dr Catherine Ralph Consultant anaesthetist |
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**This document is to be retained for 10 years from the date of expiry.**

**This document is only valid on the day of printing**

**Controlled Document**
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# Appendix 2.Initial Equality Impact Assessment Screening Form

<table>
<tr><td colspan="3">Name of service, strategy, policy or project (hereafter referred to as policy) to be assessed: Failed intubation in obstetric patients</td></tr>
<tr><td colspan="2">Directorate and service area:<br>Obstetrics<br>anaesthetics</td><td>Is this a new or existing Procedure?<br>Exisiting</td></tr>
<tr><td colspan="2">Name of individual completing assessment: Jan Clarkson</td><td>Telephone:<br>01872 252270</td></tr>
<tr><td>1. Policy Aim*</td><td colspan="2">To give guidance to obstetric anaesthetists in the management of a failed intubation in an obstetric patient</td></tr>
<tr><td>2. Policy Objectives*</td><td colspan="2">To ensure an appropriately managed failed intubation incident</td></tr>
<tr><td>3. Policy – intended Outcomes*</td><td colspan="2">Safety of the woman</td></tr>
<tr><td>4. How will you measure the outcome?</td><td colspan="2">As per Compliance monitoring tool</td></tr>
<tr><td>5. Who is intended to benefit from the Policy?</td><td colspan="2">Obstetric patients undergoing general anaesthesia</td></tr>
<tr><td>6a. Is consultation required with the workforce, equality groups, local interest groups etc. around this policy?<br><br>b. If yes, have these groups been consulted?<br><br>c. Please list any groups who have been consulted about this procedure.</td><td colspan="2"></td></tr>
</table>

*Please see Glossary

**7. The Impact**
Please complete the following table using ticks. You should refer to the EA guidance notes for areas of possible impact and also the Glossary if needed.

- Where you think that the *policy* could have a **positive** impact on any of the equality group(s) like promoting equality and equal opportunities or improving relations within equality groups, tick the 'Positive impact' box.
- Where you think that the *policy* could have a **negative** impact on any of the equality group(s) i.e. it could disadvantage them, tick the 'Negative impact' box.
- Where you think that the *policy* has **no impact** on any of the equality group(s) listed below i.e. it has no effect currently on equality groups, tick the 'No impact' box.

| Equality Group | Positive Impact | Negative Impact | No Impact | Reasons for decision |
|---|---|---|---|---|
| Age | | | | |
| Disability | | | | |
| Religion or belief | | | | |
| Gender | | | | |
| Transgender | | | | |
| Pregnancy/ Maternity | Yes | | | |
| Race | | | | |
| Sexual Orientation | | | | |
| Marriage / Civil Partnership | | | | |

**You will need to continue to a full Equality Impact Assessment if the following have been highlighted:**

- **A negative impact and**
- **No consultation (this excludes any *policies* which have been identified as not requiring consultation).**

| 8. If there is no evidence that the *policy* promotes equality, equal opportunities or improved relations - could it be adapted so that it does? How? | Full statement of commitment to policy of equal opportunities is included in the policy |
|---|---|

Please sign and date this form.

**Keep one copy and send a copy to Matron, Equality, Diversity and Human Rights**, c/o Royal Cornwall Hospitals NHS Trust, Human Resources Department, Chyvean House, Penventinnie Lane, Truro, Cornwall, TR1 3LJ

A summary of the results will be published on the Trust's web site.

Signed Jan Clarkson
Date 10th February 2012