CenTre Neonatal Transport Airway Management & Intubation guideline

Trust ref:C67/2024

Contents

1. Introduction and who this guideline applies to

This guideline is aimed at all health care professionals involved in the care and transfer of infants within the CenTre neonatal transfer service.

(Note. This document provides guidance specific to CenTre Neonatal Transport and is additional to UHL, NUH & UHCW clinical guidelines.)

Aim of the guideline:

This guideline aims to provide information about:

- Management of the airway of a baby who is requiring respiratory support during transfer.
- Indications for intubation.
- Procedure for intubation by transport team including checklist.

- Management of a difficult airway

Key points:

- A stable airway is a priority for transfer, there should be a low threshold for intubation and ventilation if there is any concern a baby may deteriorate during transport.
- If there are any doubts about whether a baby requires intubation and ventilation for transfer, this should be discussed with the transport consultant.

Related documents:

To access related documents below use trust intranet or CenTre EOLAS app to access UHL/NUH guidelines libraries.

- Difficult Airway UHL Neonatal Guideline.pdf Trust ref: C5/2014
- Premedication for Neonatal Intubation UHL Neonatal Guideline.pdf Trust ref: C13/2007

2. Standards and procedures

During the referral process, consideration should be made as to whether the referring team should intubate the infant prior to the transport team's arrival.

2.1 Indications for intubation:

- Respiratory failure: rising FiO_2 > 40%, pH <7.2 or $PaCO_2$ > 7KPa in a baby without chronic lung disease
- Apnoeas
- Concern about unstable airway, for example, congenital anomalies or impaired conscious level
- If the infant has received medication that is likely to cause respiratory depression or apnea e.g. >10ng/kg/min prostin or >20mg/kg phenobarbitone
- CPAP pressures >6cm H20 or currently on BIPAP at time of referral.
- If there are any concerns about whether ventilation is indicated for transport discuss with the transport consultant

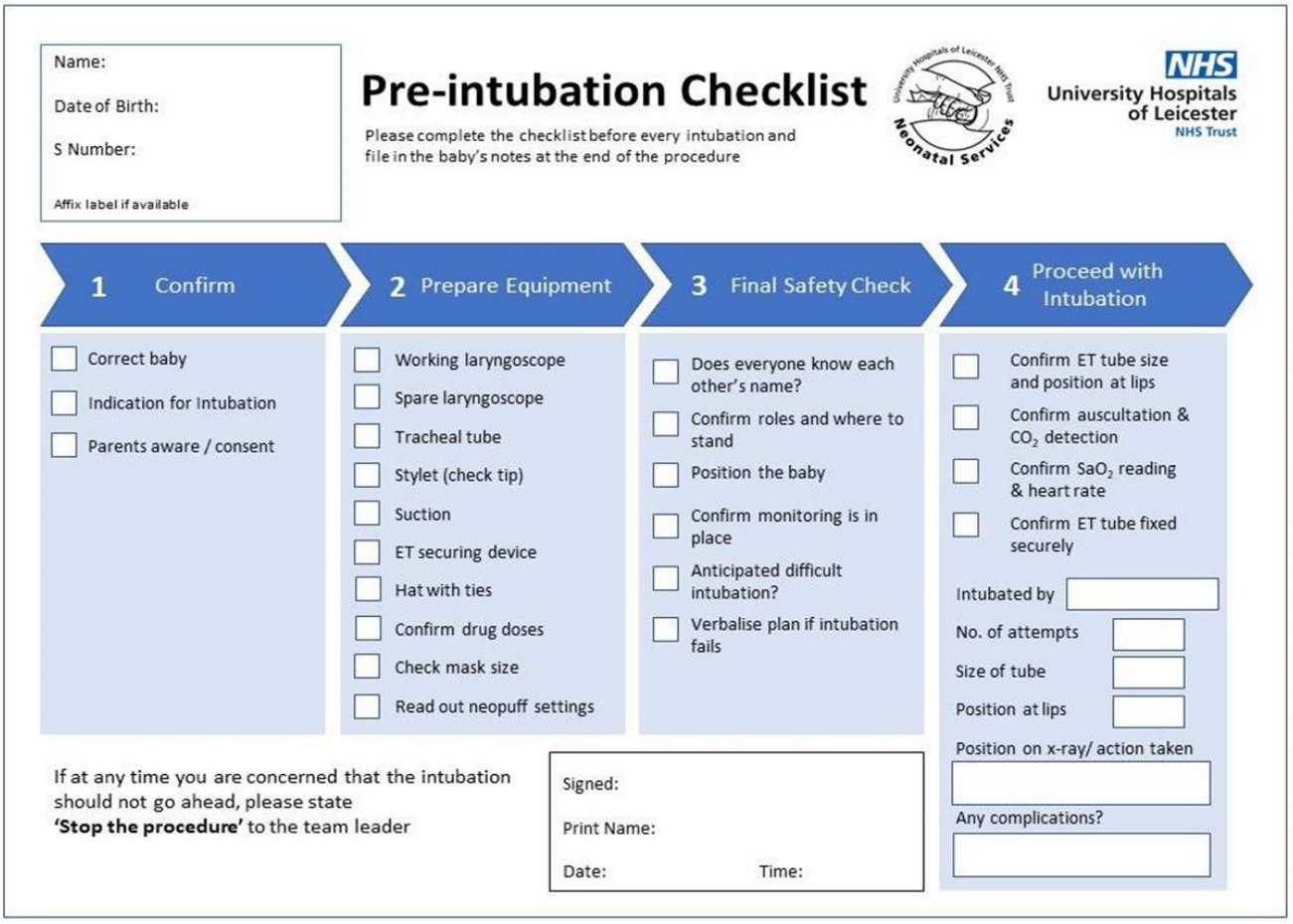
On arrival the transport team will assess the infant's respiratory status and stability of airway. There should be a low threshold for intubation and ventilation if there are any concerns on assessment that the infant may deteriorate in transit.

2.2 Premedication for Intubation

Where possible pre-medication should be given prior to intubation. For transport teams where local nurses are drawing these medications up and administering them, the safest choice of medication is those which are agreed and used locally (if this is not possible or felt not to be appropriate then UHL/NUH agreed medications should be used (see Premedication for Neonatal Intubation UHL Neonatal Guideline.pdf). Intubation drugs are not currently carried by CenTre teams.

2.3 Procedure for intubation

Use intubation checklist for procedures where intubation is planned (this may not be possible in the case of emergency intubation). Have an awareness of the local team available for escalation in case of difficult airway issues.



Name:

Date of Birth:

S Number:

Affix label if available

Pre-intubation Checklist

Please complete the checklist before every intubation and file in the baby's notes at the end of the procedure

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1 Confirm

- ☐ Correct baby
- ☐ Indication for Intubation
- ☐ Parents aware / consent

2 Prepare Equipment

- ☐ Working laryngoscope
- ☐ Spare laryngoscope
- ☐ Tracheal tube
- ☐ Stylet (check tip)
- ☐ Suction
- ☐ ET securing device
- ☐ Hat with ties
- ☐ Confirm drug doses
- ☐ Check mask size
- ☐ Read out neopuff settings

3 Final Safety Check

- ☐ Does everyone know each other's name?
- ☐ Confirm roles and where to stand
- ☐ Position the baby
- ☐ Confirm monitoring is in place
- ☐ Anticipated difficult intubation?
- ☐ Verbalise plan if intubation fails

4 Proceed with Intubation

- ☐ Confirm ET tube size and position at lips
- ☐ Confirm auscultation & CO_2 detection
- ☐ Confirm SaO_2 reading & heart rate
- ☐ Confirm ET tube fixed securely

Intubated by

No. of attempts

Size of tube

Position at lips

Position on x-ray/ action taken

Any complications?

If at any time you are concerned that the intubation should not go ahead, please state **'Stop the procedure'** to the team leader

Signed:

Print Name:

Date: Time:

2.4 Difficult Airway

In the event of a difficult airway, seek senior help as soon as possible and utilise difficult airway algorithm to assist with the situation. Difficult airway equipment is available for all transfers in the pouch in the equipment bag. Video laryngoscope is not routinely carried on ambulance but will be carried when available in the event of transfer of baby with known difficult airway. Laryngeal mask airways/iGels are available in the airway bag on all trollies for emergency airway problems, which can be fixed with tape and connected to the transport ventilator if required.

- Consider using the expertise in the local unit (like anesthetist) and also the difficult airway kit in the local unit. Escalate early to the transport consultant.

- Babies requiring transfer with either tracheostomy, Nasal Pharyngeal Airway (NPA) insitu or known difficult airway will require consultant discussion prior to transfer regarding management and may require consultant to accompany team during transfer.

- In a challenging circumstance when the only secure airway available is an I-gel, this needs to be secured well prior to transfer. If possible, the transport consultant should try to accompany the team in this circumstance.

- In the event of extubation in the ambulance and the team is not able to re-intubate, an i-gel or laryngeal mask should be considered and used to transfer the neonate to the nearest hospital with Emergency department (ED). The team should discuss with Transport consultant and call the ED/neonatal service to notify the local team of what has occurred.

2.5 Fixation of Endotracheal Tube (ETT)

Many variations of ETT fixings are in use around the region which may differ to those used locally, however if the tube is considered secure and in a good position these should be used and not routinely changed unless there is a problem. CenTre teams carry both neofit and hat, tie and clamp fixations for ETTs.

- Changing fixation- There is no indication for ‘routine’ re-intubation of an ETT just to change the fixation system.

3. **Education and training**
   None

4. **Monitoring Compliance**
   None

5. **Supporting References**

Difficult Airway UHL Neonatal Guideline.pdf Trust ref: C5/2014

Premedication for Neonatal Intubation UHL Neonatal Guideline.pdf Trust ref: C13/2007

6. **Key Words**

Difficult airway, Premedication for neonatal intubation, Ventilation

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The Trust recognises the diversity of the local community it serves. Our aim therefore is to provide a safe environment free from discrimination and treat all individuals fairly with dignity and appropriately according to their needs.
As part of its development, this policy and its impact on equality have been reviewed and no detriment was identified.

CONTACT AND REVIEW DETAILS			
Guideline Lead (Name and Title) Author: **Jo Behrsin** & Emma Blackbourn Contact : A Lakshmanan - Consultant Neonatal transport S Stephenson – Neonatal transport educator			**Executive Lead** Chief Medical Officer
Details of Changes made during review:			
Date	**Issue Number**	**Reviewed By**	**Description Of Changes (If Any)**
September 2024	**2**	**Emma Blackbourn** CenTre Clinical Practice Group and CenTre Senior Team Group	