The North West Neonatal Network (NWNODN) consists of 3 locality neonatal networks, Cheshire and Merseyside (CM) Lancashire and South Cumbria (LSC) and Greater Manchester (GM). This document has agreed by locality Clinical Effective Groups (CEG) and can be adapted for local use.

Please acknowledge source if this document is adapted for local use.
Elective Intubation/ Elective ETT change on NNU Guideline and Checklist.

Date and time of intubation:

Tick all boxes:

- Establish working IV access
- Ensure 2 members of staff are available to assist (it is difficult to intubate with less than 2 staff)
- Allocate roles before procedure, ensure all are aware of their role
- Prescribe and draw up premedication drugs, morphine, suxamethonium and atropine. Ensure all are drawn up and labelled and ready to give with flushes (refer to guidance on back of page)
- Ensure ventilator is fully set up with planned ventilator parameters and correct baby weight
- Ensure baby is fully monitored including ECG
- Ensure shift co-ordinator and Consultant are aware of intubation
- Insert NG tube if not already in place and aspirate stomach. Leave NGT on free drainage
- Ensure Neopuff is on (set flow rate 8-10 L/min) check PIP and PEEP (usually PIP 20-30 and PEEP 5cm/H2O) Set appropriate FiO2 on mixer. For already ventilated babies be guided by pressure and oxygen requirements
- Check appropriate sized face mask and hat are in place
- Ensure suction is available and working and a Yankeur is available
- Prepare ETT according to the size and gestation of the baby or current ETT in position (reference on back of page) It may be appropriate to use a slightly larger ETT if a significant leak is present or the baby has been intubated for a long time
- Place appropriate ETT holder on ETT and ensure it is pushed down to the blue hub
- If used- insert introducer until the tip is just within the ETT and secure firmly to the hub flange to ensure the tip does not extend beyond the ETT. Bend ETT to a curved shape – select appropriate laryngoscope blade slide and ensure light is working. Check Pedicap/Neostat is immediately available but do not use routinely unless clinically indicated
- Turn on ‘air curtain’ on incubator (if available) flatten incubator bed, drop side, revolve baby tray and slide tray out of the incubator to full extent. Cover baby with a towel or blanket to keep warm
- Pre-oxygenate with current respiratory support. Do not remove the ETT until immediately before re-intubation (ie wait for the pre med to work) , unless condition of baby
deteriorates such that face mask ventilation is necessary prior to intubation (eg blocked ETT or dislodged)

With all equipment checked and staff ready –give pre meds- morphine first, wait 2 minutes (if clinical condition allows) and then give suxamethonium . Have atropine ready drawn up in case it is needed for bradycardia.

Visualise cords, extubate, re intubate and secure ETT

REMEMBER: OXYGENATE- PREMEDICATE-EXTUBATE-INTUBATE

**Current Weight**--------**g**

<table>
<thead>
<tr>
<th>Current ETT size--------<strong>mm</strong></th>
<th>ETT Size/Length Guide</th>
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</thead>
<tbody>
<tr>
<td>ETT size mm</td>
<td>Length cm</td>
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<tr>
<td>-----------------</td>
<td>------------</td>
</tr>
<tr>
<td>2.5 mm</td>
<td>6 cm</td>
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<tr>
<td>2.5-3.0 mm</td>
<td>6-7 cm</td>
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<tr>
<td>3.0 mm</td>
<td>7-8 cm</td>
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<tr>
<td>3.0-3.5 mm</td>
<td>8-9 cm</td>
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<tr>
<td>3.5-4.0 mm</td>
<td>9-10 cm</td>
</tr>
</tbody>
</table>

**Pedicap/Neostat Use**

Despite ETT being in the trachea , colour may not change to yellow if there is no effective cardiac output

Despite pedicap/neostat showing a yellow colour, if clinical condition does not improve, adjust length of ETT (it may be too long) increase pressure on neopuff (may need increased pressure to open the lung) and rule out pneumothorax.

**Premedication prior to neonatal intubation – Drug preparation.**

**Morphine 10milligrams/ml**

1. Draw up 1ml of morphine from 10mg/ml ampoule
2. Draw up 9 mls of Sodium Chloride 0.9% into a 10 ml luer lock syringe
3. Add 1ml (10mg) of morphine to the 9 ml syringe of Sodium Chloride 0.9% to give a total volume of 10 mls
4. Mix well- the solution is now 1mg/ml of morphine
5. Now use a 1 ml luer lock syringe withdraw the amount of morphine required from the prepared syringe above.

**Recommended Dose:** 100micrograms/kg. Slow bolus over 3-5 minutes
Suxemethonium Ampoule: 100milligrams/2mls= 50milligrams in 1 ml

1. Draw up 1 ml (50mg) suxamethonium into a 1ml luer lock syringe
2. Draw up 4 mls of Sodium Chloride 0.9% into a 5ml luer lock syringe
3. Add the 1 ml of suxemethonium to the 4ml syringe of Sodium Chloride 0.9% to give a total volume of 5 mls
4. Mix well- you now have a solution of 10mg/ml suxemethonium
5. Now using a 1ml luer lock syringe withdraw the amount of suxemethonium required from the solution above

Recommended Dose: 2milligrams/kg. Give as intravenous bolus over 10-30 seconds

Atropine pre-filled syringe strength 500micrograms/5ml-100micrograms/1ml

1. From the pre-filled syringe, draw up the required dose with a 1ml luer lock syringe

Recommended Dose: 10micrograms/kg. Give an intravenous bolus over 1 minute