Neonatal resuscitation reference chart

**Newborn Life Support**

At all stages ask: do you need help?

1. **Term gestation? Breathing or crying? Good tone?**
   - YES: Stay with Mother
   - NO: Maintain normal temperature, ongoing evaluation

2. **SpO2 monitoring**
   - YES: Ensure open airway; Consider CPAP
   - NO: Laboured breathing or persistent cyanosis?

3. **HR below 100?**
   - YES: Positive pressure ventilation, SpO2 monitoring
   - NO: Ensure open airway; Reduce leaks; Consider: Increase pressure & oxygen Intubation or laryngeal mask

4. **HR below 60?**
   - YES: Three chest compressions to each breath; 100% oxygen Intubation or laryngeal mask; Venous access
   - NO: Targeted pre-ductal SpO2 after birth

5. **IV Adrenaline 1:10,000 solution**
   - YES: IV Adrenaline; Consider volume expansion
   - NO: Ongoing evaluation

**Airway**
- Effective ventilation is the key to successful neonatal resuscitation
- Routine suctioning NOT required
- Suction ONLY when obvious obstruction

**Positive pressure ventilation**
- If heart rate less than 100 bpm and inadequate ventilation commence PPV:
  - 40–60 breaths per minute
  - Pressure* 30/5 cm H2O (term baby) or 20–25/5 cm H2O (preterm baby)
  - Initially use air (term baby) or up to 30% (preterm baby)
  - Titrate O2 concentration with reference to SpO2 and pressures as indicated
- *Pressures refers to positive inspiratory pressure (PIP) and positive end expiratory pressure (PEEP)

**Cardiac compressions**
- Use 2 thumb technique compress ⅓ diameter of chest over lower ⅓ of sternum
- Give 3 compressions to each breath
- Insert vascular access
- Administer 100% oxygen

**Endotracheal intubation**

<table>
<thead>
<tr>
<th>Corrected age (weeks)</th>
<th>Actual weight (kg)</th>
<th>ETT internal diameter (mm)</th>
<th>ETT mark at upper lip (cm)</th>
<th>ETT suction catheter size (F)</th>
</tr>
</thead>
<tbody>
<tr>
<td>23–24</td>
<td>0.5–0.6</td>
<td>2.5</td>
<td>5.5</td>
<td>5–6</td>
</tr>
<tr>
<td>25–26</td>
<td>0.7–0.8</td>
<td>3.0</td>
<td>7.0</td>
<td>5–6</td>
</tr>
<tr>
<td>27–29</td>
<td>0.9–1.0</td>
<td>3.5</td>
<td>8.0</td>
<td>6–8</td>
</tr>
<tr>
<td>30–32</td>
<td>1.1–1.4</td>
<td>4.0</td>
<td>9.0</td>
<td>6–8</td>
</tr>
<tr>
<td>33–34</td>
<td>1.5–1.8</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>35–37</td>
<td>1.9–2.4</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>38–40</td>
<td>2.5–3.1</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>41–43</td>
<td>3.2–4.2</td>
<td>3.5–4.0</td>
<td>9.0</td>
<td>6–8</td>
</tr>
</tbody>
</table>

ETT size = Corrected age (weeks) + 10

**Volume expanders**

<table>
<thead>
<tr>
<th>0.9% sodium chloride or O RhD negative blood</th>
<th>10 mL/kg</th>
<th>Draw into large syringe for UVC administration</th>
<th>Administer over several minutes and repeat as required</th>
</tr>
</thead>
</table>

**Abbreviations**: CPAP Continuous positive airway pressure; ETT Endotracheal tube; HR Heart rate; SpO2 Oxygen saturation; UVC Umbilical vein catheter