*v.1 Obstetric Anaesthetists’ Association 2024. Issued under Creative Commons license CC BY-NC-SA 4.0. See* [*www.oaa-anaes.ac.uk/qrh*](http://www.oaa-anaes.ac.uk/qrh)

|  |  |
| --- | --- |
| **Box C: Acceptable preductal saturations** | |
| **2 min** | 65% |
| **5 min** | 85% |
| **10 min** | 90% |

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| --- | --- | --- | --- | --- |
| **Box D: Laryngeal mask and endotracheal tube placement** | | | | |
| **Gestation** weeks | **Weight** kg | **Laryngeal mask size** | **ETT size** | **Length at lips** cm |
| **≤ 24** | ≤ 0.7 | Not recommended | 2.0 – 2.5 | 5.0 – 5.5 |
| **25 - 26** | 0.8 – 0.9 | Consider in extremis | 2.5 | 6.0 |
| **27 - 29** | 1.0 – 1.3 | Consider iGel size 1  -*or-*  Laryngeal mask size  0.5 / 00 | 2.5 – 3.0 | 6.5 |
| **30 - 32** | 1.4 – 1.8 | 3.0 | 7.0 |
| **33 - 34** | 1.9 – 2.2 | 3.0 | 7.5 |
| **35 - 37** | 2.5 – 2.9 | iGel size 1  -*or*-  Laryngeal mask size 1 | 3.5 | 8.0 |
| **38 - 40** | 3.1 – 3.5 | 3.5 | 8.5 |
| **41 - 43** | 3.6 – 4.2 | 4.0 | 9.0 |

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| **Box E: Drug doses** |
| **Adrenaline** (every 3-5 min if HR <60/min) 20 mcg/kg (0.2 ml/kg of 1:10,000 [0.1 mg/ml])  **Glucose** 250 mg/kg (2.5 ml/kg of 10% glucose solution)  **Sodium bicarbonate** 1–2 mmol/kg (2 – 4 ml/kg of 4.2% solution  **Fluids** 10 mL/kg O Rh-negative blood or isotonic crystalloid |

4-2 Unexpected need for Newborn Resuscitation v.1

The approach to the assessment, stabilisation and resuscitation of all babies should follow UK Newborn Life Support Guidance

START

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| --- | --- | --- | --- | --- |
| **Box A: Initial settings** | | | | |
| **Gestation** weeks | **Inspired oxygen** % | **PIP** cm H20 | **PEEP** cm H20 | **Facemask** mm |
| **< 28** | 30 | 25 | 5 | 35 - 42 |
| **28 - 31** | 21 - 30 | 25 | 5 | 42 |
| > **31** | 21 | 30 | 5 | 42 - 50 |
| **Inflation breaths: 5 breaths lasting 2 – 3 s Ventilation breaths 30 / min** | | | | |
| **Box B: Airway opening manoeuvres** | | | | |
| **Attempt steps sequentially. Reassess chest movement and HR after each step**  Optimise neutral head position  Jaw thrust with another person assisting with ventilation Oropharyngeal suction under direct vision  Consider laryngeal mask (**Box D**)  Increase inspiratory pressure and / or inspiratory time Consider intubation (**Box D**) | | | | |

|  |  |  |
| --- | --- | --- |
| **❶** | ⯈  ⯈ | **Call for help** (neonatal crash team)  **Ask** “who will be team leader?”  **Team leader assigns** checklist reader and scribe |
| **❷** |  | **Switch on** resuscitaire + heat source, check gas supply. Confirm initial settings (**Box A**) |
|  |  | **Start** clock at time of baby’s birth. Note time |
| **❸** | ⯈ | **Start resuscitation algorithm**  Dry, wrap, stimulate and keep baby warm (if ≤ 32 weeks place undried in |
|  | ⯈ | plastic wrap + radiant heat)  Put head in neutral position and open airway |
|  | ⯈ | Assess colour, tone, breathing, heart rate |
| ❹ | ⯈ | **Check breathing**  If gasping/not breathing  give 5 inflation breaths lasting 2-3 sec using settings (**Box A**) |
|  | ⯈ | looking for chest movement with breaths -*and*- assessing heart rate after 5 breaths  If chest not moving  **❺** if chest moving  ❻ |
| **❺** | ⯈ | **Optimise airway (Box B) -*and-* repeat 5 inflation breaths**  Perform airway opening manoeuvres sequentially -*and*- repeat 5 inflation breaths until |
|  |  | chest movement seen or HR increases then  ❻ |
| ❻ | ⯈ | **Assess HR**  If HR > 60/min and increasing continue uninterrupted ventilation breaths 30/min until |
|  | ⯈  ⯈ | baby breathing adequately and HR >100/min  If HR < 60/min  optimise airway (**Box B**) and give 30s ventilation -*then-* reassess If HR remains < 60/min  ❼  Monitor saturations on right hand  titrate oxygen (**Box C**) |
| ❼ | ⯈ | **Start CPR and call senior neonatal help**  If not intubated consider intubation. Alternative is laryngeal mask (**Box D**) |
|  | ⯈  ⯈  ⯈  ⯈  ⯈  ⯈ | Ventilate with 100% oxygen  Synchronise 3 chest compressions: 1 breath -*and*- ensure chest movement throughout Check HR and chest movement every 30 sec  Continue CPR until HR > 60/min  If HR remains <60/min  insert UVC -*and*- give appropriate drug (**Box E**)  Check for pneumothorax, hypovolaemia, congenital abnormalities, kit failure |