

# Neonatal Resuscitation Program 9th Edition

Table 4-2. Initial Settings for Ventilation

Oxygen concentration (FiO <sub>2</sub> )	≥ 35 weeks' gestation = 21% 32-34 weeks' gestation = 21%-30% < 32 weeks' gestation ≥ 30%
Gas flow	10 L/minute
Rate	30-60 breaths/minute
PIP	25 cm H <sub>2</sub> O Range: 25-30 cm H <sub>2</sub> O ≥ 32 weeks' gestation 20-25 cm H <sub>2</sub> O < 32 weeks' gestation
PEEP	5 cm H <sub>2</sub> O

Table 5-1. Endotracheal Tube and Suction Catheter Size for Newborn Infants of Various Weights and Gestational Ages

Weight (grams)	Gestational Age (weeks)	Endotracheal Tube Size (mm ID)	Suction Catheter (F)
< 800	22-25	2.5*	5
800-1,200	26-28	2.5	5 or 6
1,201-2,200	29-34	3.0	6 or 8
> 2,200	> 34	3.5	8

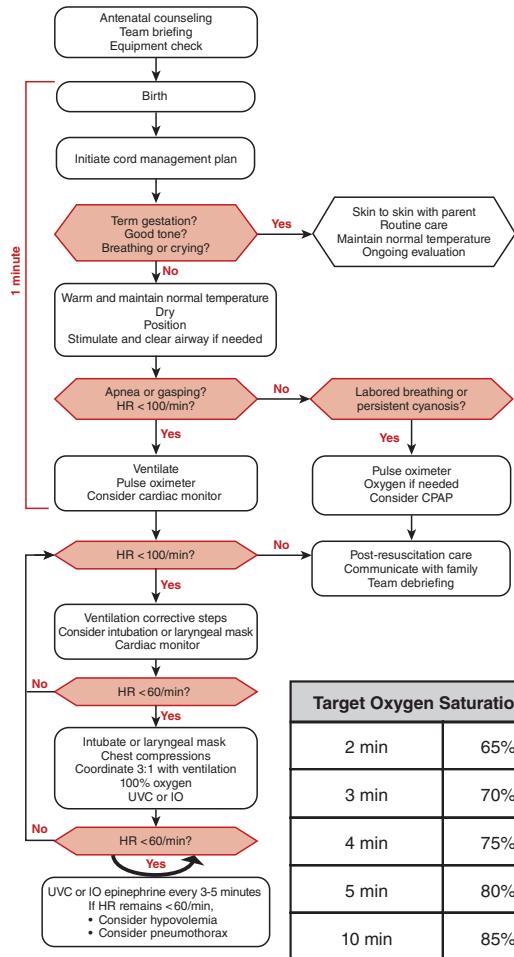
\*A 2.0 mm ID endotracheal tube (optional) may be considered.

Table 5-3. Initial Endotracheal Tube Insertion Depth ("Tip to Gum") for Orotracheal Intubation

Gestation	Insertion Depth at Gum	Infant's Weight
< 23 weeks	5.0-5.5 cm	< 500 grams
23-24 weeks	5.5 cm	500-600 g
25-26 weeks	6.0 cm	700-800 g
27-29 weeks	6.5 cm	900-1,000 g
30-32 weeks	7.0 cm	1,100-1,400 g
33-34 weeks	7.5 cm	1,500-1,800 g
35-37 weeks	8.0 cm	1,900-2,400 g
38-40 weeks	8.5 cm	2,500-3,100 g
41-43 weeks	9.0 cm	3,200-4,200 g

Laryngoscope blades (straight Miller)\*

- a. No. 1 (term newborn infant)
- b. No. 0 (preterm infant)
- c. No. 00 (optional for extremely preterm infant)



Target Oxygen Saturation Table	
2 min	65%-70%
3 min	70%-75%
4 min	75%-80%
5 min	80%-85%
10 min	85%-95%

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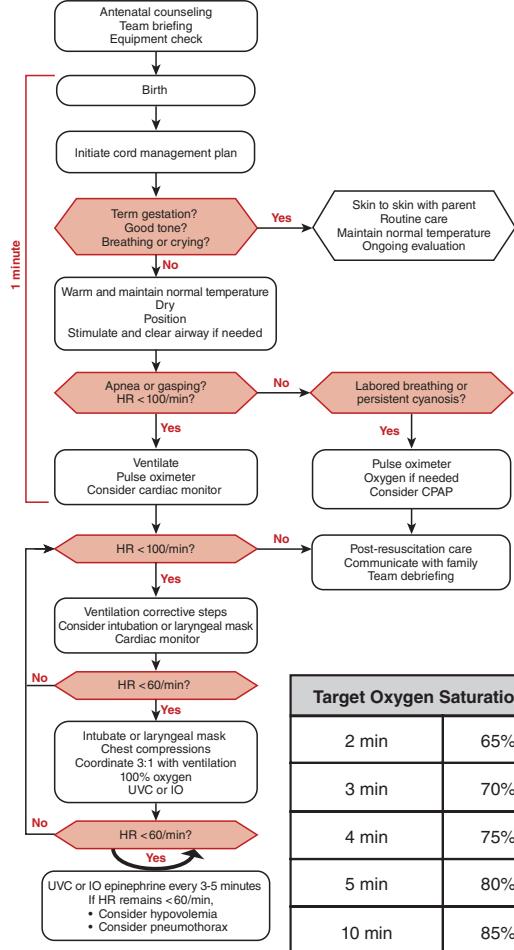
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Neonatal Code Medications									
Drug	Dose*	0.5 kg	1 kg	2 kg	3 kg	4 kg	Administration	0.5 kg	1 kg
Epinephrine IV/IO	0.02 mg/kg	IV Dose: 0.01 mg	IV Dose: 0.02 mg	IV Dose: 0.04 mg	IV Dose: 0.06 mg	IV Dose: 0.08 mg	IV/IO rapid push. Flush with 3 mL NS.	IV Dose: 0.01 mg	IV Dose: 0.02 mg
Concentration: 0.1 mg/mL 1 mg/10 mL	Equal to 0.2 mL/kg	Volume: 0.1 mL	Volume: 0.2 mL	Volume: 0.4 mL	Volume: 0.6 mL	Volume: 0.8 mL	Repeat every 3-5 minutes if heart rate less than 60 bpm.	Volume: 0.1 mL	Volume: 0.2 mL
Epinephrine ETT	0.1 mg/kg	ET Dose: 0.1 mg	ET Dose: 0.2 mg	ET Dose: 0.3 mg	ET Dose: 0.4 mg	ET Dose: 0.4 mg	May administer while vascular access is being established. ET rapid push.	ET Dose: 0.1 mg/kg	ET Dose: 0.2 mg
Concentration: 0.1 mg/mL 1 mg/10 mL	Equal to 1 mL/kg	Volume: 1 mL	Volume: 2 mL	Volume: 3 mL	Volume: 4 mL	Volume: 4 mL	No need for flush. Provide PPV breaths to distribute into lungs.	Volume: 0.5 mL	Volume: 1 mL
Normal Saline IV 0.9% NaCl	10 mL/kg	5 mL IV	10 mL IV	20 mL IV	30 mL IV	40 mL IV	Give over 5-10 min.	10 mL/kg	5 mL IV
									40 mL IV

\*The recommended dose range for intravenous or intramuscular administration is 0.01 to 0.03 mg/kg (equal to 0.1 to 0.3 mL/kg).

The recommended dose range for endotracheal administration is 0.01 to 0.03 mg/kg (equal to 0.1 to 0.3 mL/kg).

These suggested epinephrine doses are based on a desire to simplify dosing for educational efficiency and do not endorse any particular dose within the recommended dosing range.

Additional research is needed to ascertain the ideal epinephrine dose.

Table 6-1. Neonatal Chest Compressions

Compressor position	Head of bed
Thumb position on the sternum	Two thumbs positioned in the midline just below the nipples. Avoid the ribs and xiphoid.
Depth	One-third anterior-posterior chest diameter
Rate	90 compressions per minute coordinated with 30 breaths per minute
Rhythm	One-and-Two-and-Three-and-Breathe
Oxygen concentration (FiO <sub>2</sub> )	100% until heart rate $\geq$ 60 bpm and reliable signal on pulse oximeter
Response check	60 seconds after starting coordinated compressions and ventilations
Stop compressions	Heart rate $\geq$ 60 bpm

Table 4-3. The MR SOPA Ventilation Corrective Steps

Corrective Step		Actions
M	Mask adjustment.	Reapply the mask and lift the jaw forward. Consider the 2-hand hold.
R	Reposition the head and neck.	Place head neutral or slightly extended.
S	Suction the mouth and nose.	Use a bulb syringe.
O	Open the mouth.	Use a finger to gently open the mouth.
P	Pressure increase.	Increase in 5-cm H <sub>2</sub> O increments until you achieve chest movement. Maximum recommended pressure is 40 cm H <sub>2</sub> O term, 30 cm H <sub>2</sub> O preterm.
A	Alternative airway.	Insert a laryngeal mask or an endotracheal tube.

Table 5-4. Sudden Deterioration After Intubation (DOPE)

D	Displaced endotracheal tube
O	Obstructed endotracheal tube
P	Pneumothorax
E	Equipment failure

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