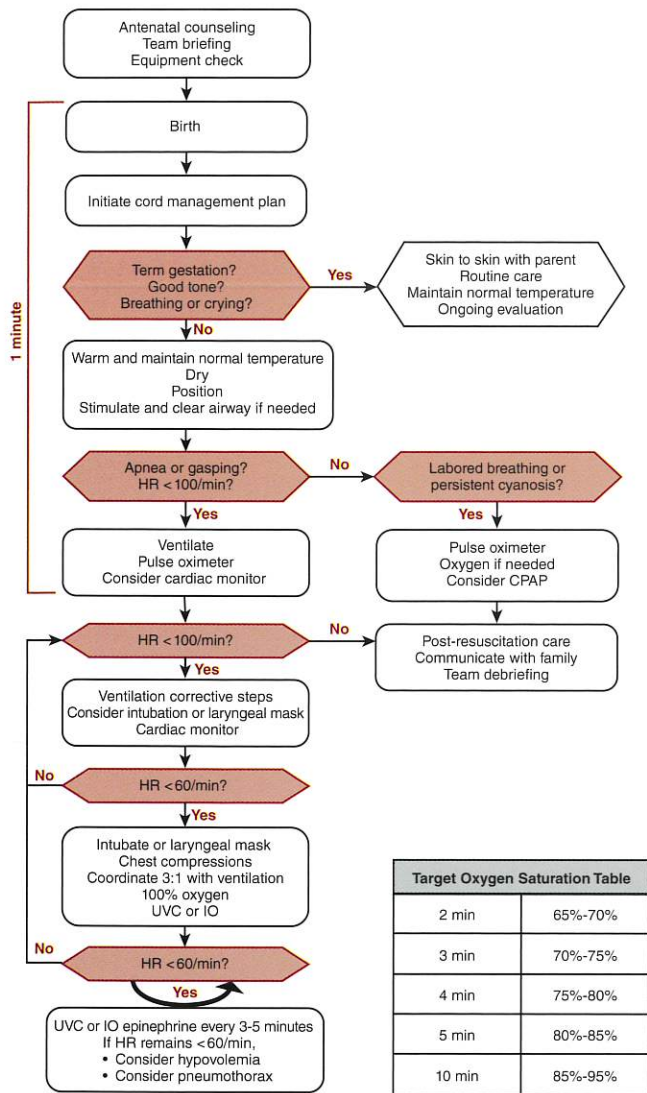


Neonatal Resuscitation Program®, 9th Edition - Reference Chart

The most important and effective step in neonatal resuscitation is ventilation of the infant's lungs.



Initial Settings for Ventilation

Oxygen concentration (Fio ₂)	≥ 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 ₂ O Range: 25-30 cm H ₂ O ≥ 32 weeks' gestation 20-25 cm H ₂ O < 32 weeks' gestation
PEEP	5 cm H ₂ O

Initial Endotracheal Tube Insertion Depth ("Tip to Gum") for Orotracheal Intubation

Gestation	Insertion Depth at Gum	Infant's Weight (Kg)	ET Size (ID, mm)
< 23 weeks	5.0-5.5 cm	< 0.5	2.5 (2.0*)
23-24 weeks	5.5 cm	0.5-0.6	2.5 (2.0*)
25-26 weeks	6.0 cm	0.7-0.8	2.5 (2.0*)
27-29 weeks	6.5 cm	0.9-1.0	2.5
30-32 weeks	7.0 cm	1.0-1.4	2.5-3.0
33-34 weeks	7.5 cm	1.5-1.8	3.0
35-37 weeks	8.0 cm	1.9-2.4	3.0-3.5
38-40 weeks	8.5 cm	2.5-3.1	3.5
41-43 weeks	9.0 cm	3.2-4.2	3.5

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

Insertion depth data adapted from Kempley ST, Moreiras JW, Petrone FL. Endotracheal tube length for neonatal intubation. *Resuscitation*. 2008;77(3):369-373 and Naseh N, Wallström L, Sindelar R, Ågren J. Standardized endotracheal tube and intravascular access placement in infants born at 22-23 weeks gestation. *Pediatr Res*. Published online June 18, 2025.

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

Neonatal Code Medications

Drug	Dose*	0.5 kg	1 kg	2 kg	3 kg	4 kg	Administration
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. Repeat every 3-5 minutes if heart rate less than 60 bpm.
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	
Epinephrine ETT	0.1 mg/kg	ET Dose: 0.05 mg	ET Dose: 0.1 mg	ET Dose: 0.2 mg	ET Dose: 0.3 mg	ET Dose: 0.4 mg	May administer while vascular access is being established. ETT rapid push. No need for flush. Provide PPV breaths to distribute into lungs.
Concentration: 0.1 mg/mL 1 mg/10 mL	Equal to 1 mL/kg	Volume: 0.5 mL	Volume: 1 mL	Volume: 2 mL	Volume: 3 mL	Volume: 4 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.

*The recommended dose range for intravenous or intraosseous 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 0.05 to 0.1 mg/kg (equal to 0.5 to 1 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.



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