

NEONATAL RESUSCITATION

3-5 kg	6-7 kg	8-9 kg	10-11 kg	12-14 kg	15-18 kg	19-23 kg	24-29 kg	30-36 kg
6-11 lbs	13-15 lbs	18-20 lbs	22-24 lbs	26-31 lbs	33-40 lbs	42-51 lbs	53-64 lbs	66-81 lbs
18-24 in	24-26 in	26-29 in	29-33 in	33-38 in	38-43 in	43-48 in	48-52 in	52-57 in

Maintain body heat of infant during and post resuscitation

UNIVERSAL PATIENT CARE PROTOCOL (For Mother)

Dry Infant and Keep Warm

BVM 30 seconds at 40 – 60 Breaths per minute with ROOM AIR IF NOT BREATHING Suction only if airway appears obstructed

Stimulate infant and note APGAR Score at 1 Min and 5 Min

Respirations Present?

Newborn Oxygen Saturation

Time	Saturation
1 Min	60-65%
2 Min	65-70%
3 Min	70-75%
4 Min	75-80%
5 Min	80-85%
10 Min	85-95%

Attempt to maintain these

No

Yes

Assess Heart Rate

HR > 100

Reassess Heart Rate

HR < 100

BVM 30 seconds at 40 – 60 Breaths per minute with ROOM AIR

HR < 60

HR 60 - 100

HR > 100

EFFECTIVE VENTILATIONS NEONATAL AIRWAY PROTOCOL

Begin CPR 3:1 Ratio

IV / IO / PROCEDURE

EPINEPHrine
0.02 mg / kg IV / IO or
0.1 mg / kg ETT
of
0.1 mg / ml Concentration
Repeat every 3 - 5 minutes
Double Check EPI Concentration

CONSIDER
NORMAL SALINE BOLUS
10 ml / kg

Dextrose 10%
2 ml / kg IV / IO
If Glucose < 45 prn

EFFECTIVE VENTILATIONS NEONATAL AIRWAY PROTOCOL

Reassess Heart Rate

HR 80 - 100

IV / IO / PROCEDURE

Reassess Heart Rate

Monitor and Reassess

HR > 100

OXYGEN Blow - By

IV / IO / PROCEDURE

TRANSPORT to appropriate facility
CONTACT receiving facility
CONSULT Medical Control where indicated
APPROPRIATE transfer of care

EMT Intervention

AEMT Intervention

PARAMEDIC Intervention

Online Medical Control

NEONATAL RESUSCITATION

HISTORY	SIGNS AND SYMPTOMS	DIFFERENTIAL DIAGNOSIS
<ul style="list-style-type: none"> • Due date and gestational age • Multiple gestation (twins etc.) • Meconium • Delivery difficulties • Congenital disease • Medications (maternal) • Maternal risk factors substance abuse smoking 	<ul style="list-style-type: none"> • Respiratory distress • Peripheral cyanosis or mottling (normal) • Central cyanosis (abnormal) • Altered level of responsiveness • Bradycardia 	<ul style="list-style-type: none"> • Airway failure • Secretions • Respiratory drive • Infection • Maternal medication effect • Hypovolemia • Hypoglycemia • Congenital heart disease • Hypothermia

KEY POINTS
<ul style="list-style-type: none"> • Exam: Mental Status, Skin, HEENT, Neck, Chest, Heart, Abdomen, Extremities, Neuro • Newborn arrest is not a cardiac arrest, it is a respiratory arrest. • Effective ventilation is key to successful resuscitation. • Effective ventilation can be determined by; Chest rise, Bilateral breath sounds, and Increasing heart rate. • Term baby resuscitation should begin with room air. • If preterm baby, resuscitate with oxygen, but reservoir removed from BVM. • Hypothermia is a common complication of home and field deliveries. Keep the baby warm and dry. • Consider hypoglycemia in infant. If the BGL is less than 45 mg / dl then administer Dextrose 10%. • Document 1 and 5-minute APGAR scores, but do not use it to guide your resuscitation steps. • If the patient is in distress, consider causes such as; hypovolemia. Administer a 10 ml / kg fluid bolus of normal saline. • If drying and suction has not provided enough stimulation, try rubbing the infant's back or flicking their feet. If the infant still has poor respiratory effort, poor tone, or central cyanosis, consider them to be distressed, most distressed infants will respond quickly to BVM. • Use caution not to allow newborns to slip from grasp. • Gestation less than 20 weeks are not viable and considered stillbirth. Fundus at the umbilicus or greater. Greater than 20 weeks and deceased are corners cases. • After delivery, drying, and stimulation place baby on mother skin to skin to prevent hypothermia if the newborn does not require resuscitation. Prevent hypothermia in all cases.

APGAR SCORING

SIGN	0	1	2
COLOR	Blue / Pale	Pink Body, Blue Extremities	Completely Pink
HEART RATE	Absent	Below 100	Above 100
IRRITABILITY (Response to Stimulation)	No Response	Grimace	Cries
MUSCLE TONE	Limp	Flexion of Extremities	Active Motion
RESPIRATORY EFFORT	Absent	Slow and Regular	Strong Cry