Maryland Pediatric Newly Born Reference

BLS Stabilization Priorities (STABLE)

S	**Sugar & Safe Care** • Check glucose early • Treat hypoglycemia
T	**Temperature** • Goal 36.5–37.5°C (97.7–99.5°F) • Prevent heat loss and hypothermia
A	**Airway** • Maintain airway patency • Suction if needed
B	**Blood Pressure/ Circulation** • Assess perfusion • NS or LR bolus if poor perfusion
L	**Lab Work** • Glucose • Blood gas • CBC & cultures as indicated
E	**Emotional Support** • Communicate with family • Explain plan and next steps

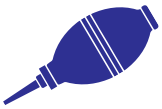
MR SOPA (NRP) Neonatal Resuscitation

M	**Mask Adjustment** Ensure good mask seal, reposition mask and head, consider 2-person technique. Goal: visible chest rise.
R	**Reposition Airway** Sniffing position, avoid over-extension. Suction mouth and nose if needed.
S	**Suction Mouth and Nose** Suction only if secretions present. Use bulb syringe or catheter as appropriate.
O	**Open Mouth** Open mouth to assess obstruction. Remove visible obstruction.
P	**Pressure Increase** Increase PIP gradually. Re-assess after each increase.
A	**Alternative Airway** Consider LMA or endotracheal intubation. Confirm placement and continue ventilation.

Universal Algorithm for the Newly Born

Delay cord clamping for 30–60 seconds in vigorous infants to maximize placental transfusion.

DRY  **WARM**  **POSITION AIRWAY**  **STIMULATE** 



AIRWAY CLEARANCE

Suction if non-vigorous or airway obstructed.

Suction mouth first, and then nose.

ASSESS RESPIRATIONS AND APPEARANCE

IF APNEA, GASPING, OR CENTRAL CYANOSIS

- Ventilate with BVM at 40–60 breaths/minute using room air for the first minute

IF VIGOROUS WITH SPONTANEOUS RESPIRATIONS

- Maintain room air
- Monitor pre-ductal SpO_2
- Evaluate APGAR scores at 1 and 5 minutes

ASSESS HEART RATE

HEART RATE LESS THAN 60

- Attach oxygen to BVM
- Begin CPR *(3:1 compressions to ventilations)*
- Obtain IV/IO access
- Epinephrine per Protocol
- Repeat every 4 minutes as needed
- LR or NS 10 mL/kg IV/IO if poor perfusion
- Consider advanced airway/intubation

HEART RATE 60–100

- Continue BVM at 40–60 BPM for 30 more seconds
- Reassess HR and respirations
- Add oxygen if no improvement
- Consider LR or NS 10 mL/kg IV/IO for poor perfusion

HEART RATE GREATER THAN 100

- Supportive care
- Reassess frequently

Continue supportive care and reassess frequently. Adjust interventions based on clinical response. DO NOT administer naloxone.

Ventilation

- Use appropriately sized mask
- Provide PEEP if available
- Rate: 40–60 breaths/minute
- Ensure visible chest rise
- Reassess HR every 30 seconds

Oxygen Use

- Start with room air (21%)
- Titrate oxygen based on SpO_2 targets
- Attach oxygen to BVM if HR < 60 or poor response to PPV

Pre-Ductal & Post-Ductal SpO_2

PRE-DUCTAL
Right Upper Extremity (preferred)

POST-DUCTAL
Either Foot

- Pre-ductal reflects oxygenation to the brain and heart
- Post-ductal reflects systemic oxygenation after cardiac output

APGAR Chart

	Sign	0	1	2
A	**Color (Appearance)**	Blue, Pale	Pink body, Blue extremities	Pink
P	**Pulse**	Absent	< 100/min	≥ 100/min
G	**Reflex Irritability* (Grimace)**	No response	Grimace	Cough, Cry, Sneeze
A	**Muscle Tone (Activity)**	Limp	Some flexion	Active movement
R	**Respirations**	Absent	Slow/Irregular, Ineffective	Crying, Rhythmic, Effective

***Nasal or Oral Catheter Stimulus**

Normal Pre-Ductal SpO_2 Targets

Time After Birth	Target SpO_2
1 minute	60–65%
2 minutes	65–70%
3 minutes	70–75%
4 minutes	75–80%
5 minutes	80–85%
≥ 10 minutes	85–95%

- Post-ductal may be 5–10% lower than pre-ductal in the first 10 minutes of life.
- Use trends, not single numbers.
- Use right upper extremity to assess.

Glucose Guidelines

Age	Target Glucose
0–4 hours	≥ 40 mg/dL
4–24 hours	≥ 45 mg/dL
> 24 hours	≥ 50 mg/dL

Treatment if Hypoglycemic

- IV D10W 2 mL/kg bolus, then 5–8 mg/kg/min infusion
- Adjust per medical control
- Recheck glucose after treatment

Neonatal Size Guide

Category	Preemie (< 3.5 kg)	Newly Born (3.5 kg)
Estimated Weight	< 3 kg	3.5 kg
Oral Airway	0	0
NP Airway	Not recommended under 1 year of age	Not recommended under 1 year of age
BVM	Infant	Infant
ETT Blade	0	0–1
ETT Size (mm)	2.5–3.0	3.0–3.5
Suction Catheter	6 F	6 F
Gastric Tube	5 F	5–8 F

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