1E – NEONATAL RESUSCITATION PEDIATRIC

TREATMENT PRIORITIES

1. Preserve patient warmth/avoid hypothermia
2. Assessment:
   - ➢Primary Survey
   - ➢Secondary Survey (when appropriate)
3. Primary Survey Care:
   - ➢Initiate cardiopulmonary resuscitation if indicated
   - ➢Open airway
   - ➢Support oxygenation/ventilation
   - ➢Support circulation
4. Minimize scene time in critical case unless working cardiac arrest
5. Enroute Care:
   - ➢Reassess all primary care
   - ➢Support oxygenation/ventilation
   - ➢Secondary Survey (if able)
6. Hospital per destination protocol..

In general, approach the resuscitation of the newborn or infant within the first 30 days of life focusing on basic life support interventions. Invasive, advanced procedures are rarely warranted and are rarely more effective than simple, yet important basic interventions.

Warmth (Body Temperature Conservation): Due to high surface to body weight ratios, the neonate rapidly loses body heat which can lead to respiratory and circulatory distress. Keep the neonate warm and minimize skin exposures unless absolutely warranted during care events.

Airway: Evaluate the patency and mechanics of the airway. Is the patient able to oxygenate and ventilate? Simple positioning intervention may be required during the assessment phase if airway patency and protection is compromised.

Breathing: Briefly expose the chest as required to accurately assess the mechanics of respiration. Note the rate, depth, and pattern of respirations and if any degree of respiratory distress or effort. Auscultate breath sounds bilaterally in the axilla to avoid confusing breath sounds from the other side of the chest. Gentle tactile stimulation (e.g. rubbing of the back, flicking the soles of the feet) may be required early in the assessment and often proves very effective in improving breathing activity.

Liberally obtain pulse oximetry readings and in patients with respiratory difficulties, waveform capnography readings (if equipped with neonatal sized equipment, **Mandatory use if the patient is intubated).

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Circulation: The adequacy of a neonate's circulation is best assessed first by evaluating their level of activity and general body warmth. Next assess the rate and character of the brachial pulse. Pulse rates less than 100/minute are abnormal and a cause for concern of impending cardiovascular collapse. Pulse rates less than 60/minute indicate cardiovascular collapse and chest compressions should be initiated.

Cardiac Arrest is an exception to the above order. Aggressively initiate chest compressions, while still conserving warmth and initiating supplemental oxygenation and ventilation.

After addressing the Warmth-A-B-C order in most neonates, including evaluating and addressing any life-threatening conditions, minimize scene time and initiate timely transport to an appropriate emergency department.

Reassess patients frequently, typically at least every 5 minutes, and more often if critical illness is discovered and being treated. Assess and treat per symptom or illness specific protocols.

Neonatal Assessment Comments:

1. Respiratory distress may or may not look just like adult respiratory distress, presenting with:

slowing or increasing respirations	cyanosis
accessory muscle use	pallor
nasal flaring	lethargy/listlessness
retractions – intercostal or subcostal	grunting
tachypnea	mottling

2. Vital signs vary with age. In general, the younger the patient, the faster the respiratory rate, the faster the heart rate, and the lower the blood pressure. In most neonates, blood pressure is difficult to measure and often unreliable in attempts to do so in the field. Rather than focus extended time on blood pressure measurements, evaluate perfusion by overall activity level, skin temperature/color, capillary refill (normally < 3 seconds), and muscular tone.

3. Use APGAR scoring at 1 and 5 minutes post-birth, continue every 5 mins if APGAR < 7:

APGAR SCORING (SIGN)	0	1	2
APPEARANCE	BLUE OR PALE	BODY PINK, EXTREMITIES BLUE	COMPLETELY PINK
HEART RATE (BPM)	ABSENT	≤100	>100
GRIMACE (REACTION TO CATHETER IN NARES)	NO RESPONSE	GRIMACE	COUGH OR SNEEZE
MUSCLE TONE	LIMP	SOME FLEXION	ACTIVE MOTION
RESPIRATORY RATE	ABSENT	SLOW/IRREGULAR	GOOD, CRYING