BRIEF RESOLVED UNEXPLAINED EVENT (BRUE)

Notes/Definitions

- Brief Resolved Unexplained Event (BRUE) is a clinical presentation in infants under one year old characterized by a sudden, brief, and now-resolved episode involving:
  - Breathing change (absent, decreased, or irregular)
  - Color change (central cyanosis or pallor)
  - Marked change in muscle tone (hypo or hypertonia)
  - Altered level of responsiveness
  - Unexplained choking or gagging

Base Hospital Contact Required

BLS Interventions

- Refer to OCEMS General BLS Standing Orders SO-BLS.
- Ensure proper positioning for adequate ventilation and suction as needed.

ALS Interventions

- Assess Pediatric Assessment Triangle (PAT)
  - General appearance: tone, interactiveness, consolability, look/gaze, speech/cry
  - Work of breathing: retractions, nasal flaring, abnormal airway sounds, positioning
  - Circulation to skin: pallor, mottling, cyanosis
- Apply capnography (EtCO2) if applicable and as tolerated.
  - Maintain EtCO2 between 35 and 45 mmHg
  - If EtCO2 > 50: ensure proper positioning for adequate ventilation and suction as needed.
  - If no improvement, initiate BVM.
- Obtain the patient's estimated weight utilizing an appropriate length-based resuscitation tape or age-based system.
- Initiate cardiac monitor. Interpret, monitor, and document rhythm.
- Assess GCS. Use pediatric GCS for patients aged ≤ 2 years (refer to B-002).
- Obtain IV / IO access if applicable.
- If hypotensive (refer to Vital Sign table below), administer:
  - ► **Normal Saline 20 mL / kg IV / IO** (maximum dose 250 mL)
    - For continued hypotension, may repeat the same dose twice for total of three boluses.
- If blood glucose < 60, administer one of the following:
  - ► **Breastfeed,** if tolerated and airway reflexes are intact
  - ► **Oral glucose**, if tolerated and airway reflexes are intact

► **Glucagon 0.5 mg IM** - once

► **10% Dextrose 5 mL / kg IV / IO** (maximum dose 250 mL)

Transport Considerations

- **Base Hospital Contact** required (CCERC preferred).
- ALS escort to nearest open CCERC (or as directed by Base Hospital).

Additional Considerations

- Consider and follow appropriate Standing Order / Treatment Guideline for the following conditions associated with BRUE symptoms if applicable:
  - Cardiac arrythmias
  - Congenital vascular anomalies
  - Seizure disorders
  - Non-accidental trauma / child abuse
  - RSV or respiratory tract infections / obstructions
  - Metabolic disorders
  - Breath holding spells
  - Infections
  - GERD

Pediatric Vital Signs by Age

Age	Pulse	Systolic Blood Pressure	Respiratory Rate
Neonate (0-30 days)	100-180	> 60	30-60
Infant (31 days - < 1 yr)	100-160	> 60	30-60
Toddler (1 yr - < 3 yrs)	90-150	> 70	24-40
Pre-school (3 yrs - < 5 yrs)	80-140	> 75	22-34
School Aged (5 yrs - < 10 yrs)	70-120	> 80	18-30
Teen (≥ 10 yrs)	60-100	> 90	12-16

Base Hospital Considerations

- High risk criteria if parent considers AMA:
  - Less than 2 months of age
  - History of prematurity (less than or equal to 32 weeks gestation)
  - More than one BRUE, now or in the past
  - Event duration greater than 1 minute
  - CPR or resuscitation by caregivers or trained rescuers

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Cross References:

SO-BLS General BLS Standing Orders
BLS Procedure B-001 (Pediatric Assessment Triangle)
BLS Procedure B-002 (Glasgow Coma Scale Score)
I-20 Pediatric Medication Volume Dose by Weight
P-065 Altered Mental Status - Pediatric
SO-P-080 Shock (Symptomatic Hypotension) - Pediatric