Brief Resolved Unexplained Event (BRUE)

Evaluation and Lower-Risk Management

Associated Power Plans: BRUE Inpatient, EDP BRUE

Children's Mercy Evidence Kansas CITY

Evidence Based Practice

Inclusion criteria:

- Observer reports a sudden, brief, now resolved event including

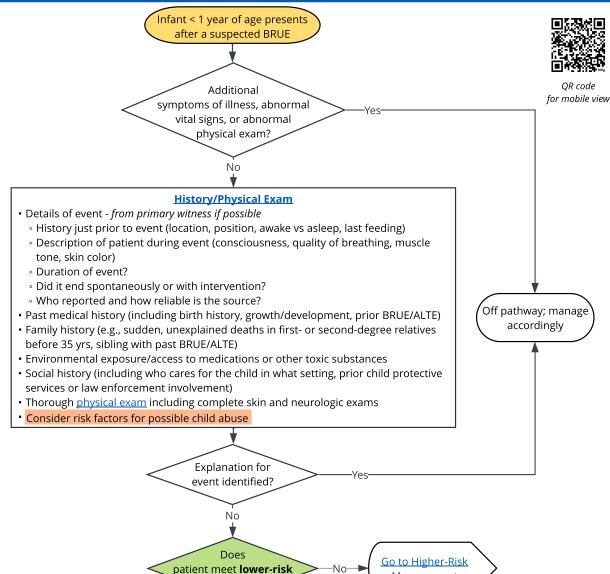
 1 of the following:
 - Cyanosis or pallor
 - Absent, decreased, or irregular breathing
 - Marked change in tone (hyper- or hypotonia)
 - Altered level of consciousness
- No known explanation for qualifying event

Considerations for possible child abuse:

- Multiple or changing versions of event history
- Event circumstances inconsistent with child's developmental stage
- Unexplained bruising
- Torn frenulum
- For additional considerations see <u>Child Physical Abuse</u> <u>Clinical Pathway</u>

Lower-Risk BRUE criteria:

- Age > 60 days
- Gestational age at birth ≥ 32 weeks AND corrected gestational age ≥ 45 weeks
- No history of BRUE
- Single event
- Duration of event < 1 minute
- No CPR required by trained medical provider
- No concerning historical features or physical exam findings (concerns found here)



Management

Lower-Risk BRUE Management

criteria?

Yes

Recommend:

- Provide BRUE/Safe Sleep education care card found in depart
- Provide resources for CPR training place order for "CPR education" in BRUE powerplan
- Use shared decision-making to guide disposition and follow-up

May consider:

- Brief observation period (1 4 hours) with continuous pulse oximetry and serial observations
- Pertussis PCR; consider treatment if high suspicion (i.e., known/suspected exposure, underimmunized, endemic region, or during outbreaks)
- 12-lead ECG

NOT recommended:

- CBC, BMP, blood culture, CSF fluid analysis or culture, respiratory pathogen testing, urinalysis, blood gases, echo, EEG, chest x-ray, or neuroimaging unless a specific indication is identified
- Empiric medications, including anti-epileptics or acid-suppression therapy
- Admitting patient soley for cardiorespiratory monitoring
- · Home cardiorespiratory monitoring

Discharge home Provide education as above PCP follow-up in 1-2 days

Abbreviations:
ALTE = apparent
life-threatening event
BRUE = brief resolved
unexplained event
ECG =
electrocardiogram
EEG =

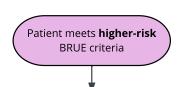
electroencephalogram

Associated Power Plans: BRUE Inpatient, EDP BRUE



Higher-Risk BRUE criteria:

- Age <u><</u> 60 days
- · Gestational age at birth
- < 32 weeks AND corrected gestational age < 45 weeks
- · Recurrent event or occurring in clusters
- Duration of event ≥ 1 minute
- · CPR required by trained medical provider
- Concerning historical features or physical exam findings (concerns found here)



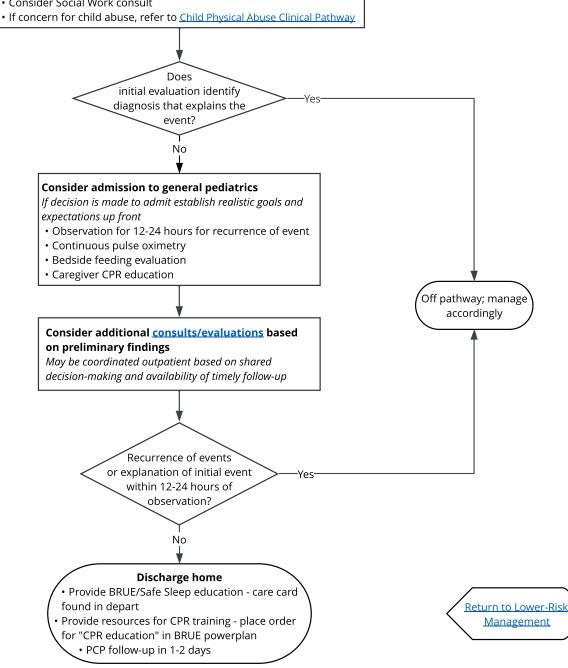


for mobile view

Higher-Risk BRUE Management

Initial evaluation based on clinical judgement may include:

- Review <u>Differential Diagnosis</u>
- Continuous pulse oximetry for at least 4 hours
- 12-lead ECG
- Respiratory panel PCR (includes pertussis)
- Blood glucose, bicarbonate or venous blood gas, lactate, hematocrit
- Bedside feeding evaluation, if possible in the care setting
- · Consider Social Work consult



Abbreviations: ALTE = apparent life-threatening event BRUE = brief resolved unexplained event ECG = electrocardiogram