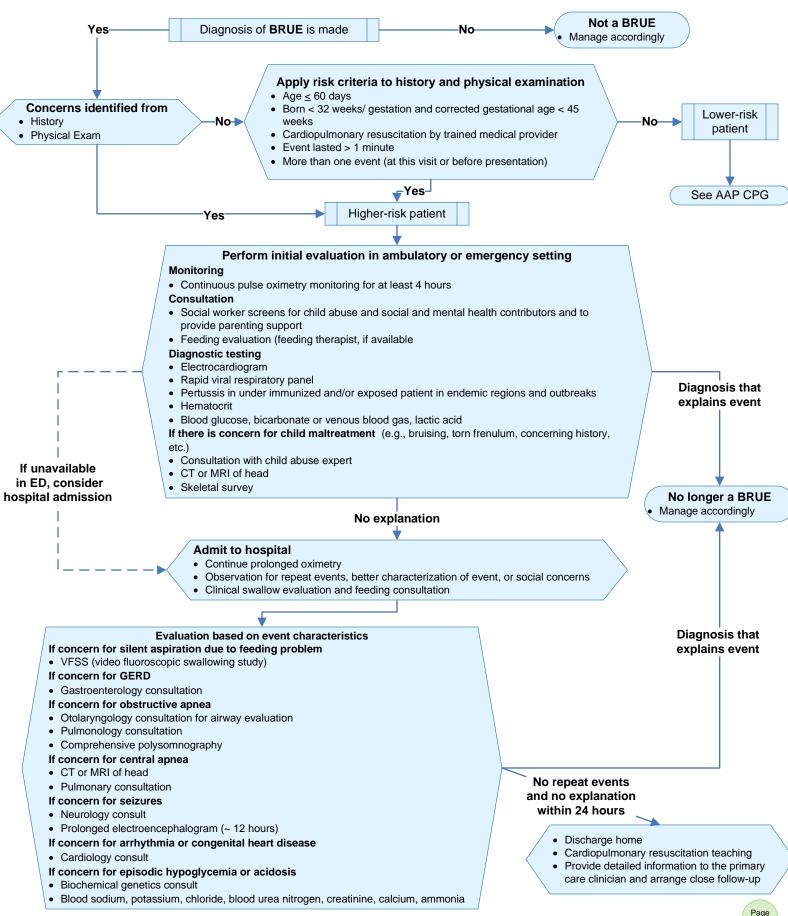
# **Evaluation of the Higher-Risk Infant After a Brief Resolved Unexplained Event**





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Systematic approach is helpful for evaluation of BRUE given that it is a problem that can involve a multitude of organ systems. The most common etiologies of subsequent diagnosis after high risk include gastro-esophageal reflux, seizure, and lower respiratory tract infection [1]. Upon admission review possible differential diagnoses to optimize choices for consultation, testing, and patient education. Above all, for high-risk BRUE the objective should be to limit medical interventions unless there is concern for a serious underlying condition such as:

### **Gastrointestinal**

- Nearly every infant has some degree of reflux, though common GI abnormalities in higher-risk infants include laryngospasm, aspiration, dysphagia, GERD of GI tract anatomic abnormalities
- Review feeding history for symptoms of choking, gaging, color change with feeds, and requiring >30 minutes to feed
- Consider feeding team evaluation

### **Neurologic**

- Seizure, structural brain abnormalities (hydrocephalus, AVM), infantile spasms
- Review associated movements with events with focus on those that are paroxysmal, sustained, recurrent or stereotyped
- Consider EEG or Neurology consult

## Respiratory

- Obstructive vs central apnea, airway infection, apnea of prematurity
- Consider CXR and RVP testing (RSV and pertussis are more likely especially in <60 days of life)

## Cardiology

- Cardiac arrhythmias, congenital heart disease
- Strong review of family history for first degree relatives with sudden, unexplained death, before age 35, long QT syndrome, or arrhythmia
- Consider EKG

#### Metabolic

- In born errors of metabolism have been reported in up to 5% of BRUE/ALTE [1]
- Urea cycle disorders, fatty acid oxidation disorders, organic anemias, lactic acidemia
- Consider glucose, bicarbonate, and lactic acid levels in high-risk infants

#### Infectious

• In any infant with GA <36weeks, prior antibiotics, and complicated neonatal course if <60 days has a higher risk of infection [2]

#### Maltreatment

- Abusive head trauma, suffocation
- Consider skeletal survey and SCAN consult

If all these diagnoses have been considered and the clinical presentation does not align, and the child has been monitored for 24 hrs with NO repeat event

#### Education

- CRP teaching prior to discharge
- o Information on safe sleep
- Strong communication with primary care doctor and scheduled follow up

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