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TOP

TOP - Required Topics in Pediatrics

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In May 2016 a guideline was published in the journal *Pediatrics* by the American Academy of *Pediatrics* that proposes a new nomenclature and approach for infants under one year of age with ALTE (Apparent Life-Threatening Events).

Brief Resolved Unexplained Event (BRUE) is indicated - a sudden and brief event that occurs in children under one year of age, with resolution in less than 1 minute, with no apparent cause. It must be accompanied by at least one of the following:

- Discoloration - central cyanosis or paleness of the face or trunk;
- Respiratory pattern alteration - apnea (obstructive, central or mixed), bradypnea or dyspnoea, in the absence of previous respiratory symptomatology;
- Muscle tone change - hypertonia or hypotonia;
- Change in responsiveness - loss of consciousness, lethargy, somnolence, and altered mental status, post ictal state.

BRUE can only be diagnosed after a complete medical history and physical examination that excludes underlying causes. It is a more specific term than ALTE, based on the objective clinical characterization made by the attending physician. It delimits the age group and includes respiratory symptoms of bradypnea and dyspnea. Excludes flushing, changes in color, and choking and asphyxia due to obstruction.

The new guideline stratifies patients according to the risk of recurrence of the event and describes a detailed step-by-step approach to managing low-risk patients.

It is an evidence-based approach that reduces the number of unnecessary medical interventions and procedures, resulting in improved care with reduced costs. By providing a more precise definition, it brings more safety to the clinician to establish subsequent behaviors. It allows management based on the risk of recurrence of the event and the probability of being a manifestation secondary to a basic disease. Most of the presented symptoms are benign and expected for the age group (variations of normality). They are rarely manifestations of a more serious disease.

For all the reasons described, it removes the label of life-threatening event, reflecting better the transient nature and indefinite cause.

The proposed guideline aims to simplify the risk classification of patients and facilitate the medical approach in the first aid, according to the suggested algorithm.

It details the risk and benefit of each complementary diagnostic examination, in order to elucidate the need for each intervention. It covers only low-risk patients, emphasizing that no hospitalization is required for research and/or monitoring. More studies are needed to define the behavior of high-risk individuals.

The risk stratification is done as follows:

High Risk Patients

- less than 60 days
- premature younger than 32 weeks
- more than 1 event
- need for resuscitation maneuvers

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Low Risk Patients:

- premature older than 32 weeks and corrected age above 45 weeks
- first episode
- duration less than 1 minute
- no need for resuscitation maneuvers
- clinical history without pathological history
- normal physical examination for age

In conclusion, the creation of this new term and the new guidelines reinforces that, despite the broad spectrum of diseases that may present as ALTE, most are of very low risk and with a low probability of recurrence. Therefore, we recommend to all pediatricians reading the guideline available at the link:

http://pediatrics.aappublications.org/content/pediatrics/early/2016/04/21/peds.2016-0590.full.pdf