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## **Rates of Physical Abuse Screening and Detection in Infants with Brief Resolved Unexplained Events (BRUEs)**

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## INTRODUCTION

- Apparent Life-Threatening Events (ALTEs) are associated with child physical abuse (CPA).
- It is unknown if there is a similar association between brief resolved unexplained events (BRUEs) and CPA.

## OBJECTIVES

- To determine the rate of CPA identified in infants presenting with a BRUE until 1 year of age.
- To examine differences between infants with and without CPA.
- To examine rates of diagnostic testing used to detect CPA at initial BRUE presentation.

## METHODS

- This is a secondary analysis of the BRUE Research and Quality Improvement Network.
- Infants were followed from initial BRUE presentation to 1 year of life for recurrent BRUEs or revisits to same health system.

# Rates of Physical Abuse Screening and Detection in Infants with Brief Resolved Unexplained Events (BRUEs)

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**The rate of child physical abuse in infants presenting with a BRUE is lower (<0.1%) than in infants presenting with ALTE (0.4-3.7%).<sup>1-5</sup>**

**However, diagnostic testing rates were also low in accordance with BRUE clinical guidelines.**



## RESULTS

- Seven (7) (0.3%) out of 2036 infants with BRUE were diagnosed with CPA.
- Only 1 (<0.1%) infant was diagnosed with CPA at initial BRUE presentation.
- Only 1 infant was diagnosed with CPA within 3 days of initial BRUE presentation.
- Five (5) infants were diagnosed > 30 days after initial BRUE presentation.
- Infants diagnosed with CPA were more likely to exhibit color change (100% vs. 51.1%,  $p=0.01$ ) and have findings concerning for trauma (14.3% vs. 0.3%,  $p<0.001$ ) at initial BRUE presentation.
- There was no difference in CPA diagnosis by BRUE risk stratification.
- Of all infants, only 7.0% underwent skeletal survey and 6.2% head imaging.

## DISCUSSION

- Protocol development and standardization of workup for occult physical abuse in BRUE cases are warranted.