

Unnecessary Use of Antibiotics and Laboratory Testing in Bronchiolitis: A Study in ED Practice Variations

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The desire to provide evidence-based high-quality cost-effective care is never more evident than in the diagnosis and management of bronchiolitis in the United States, based on the number of studies we and other journals have published on this topic. Trying to reduce the administration of antibiotics, avoid unnecessary radiographs, and not obtain bacterial cultures if not indicated are all methods of achieving value-based care. How does our use of antibiotics and lab testing for bronchiolitis

compare to other countries? Zipursky et al ([10.1542/peds.2019-3684](#)) address this question by sharing with us results from the Pediatric Emergency Research Network (PERN), which includes data from 38 emergency departments in 8 countries located in North America, Europe, the United Kingdom, Australia, and New Zealand. The results are quite interesting. In one sense, there was great variation in the 2,359 children studied with bronchiolitis who were also treated with antibiotics with treatment rates ranging from 3.5% (UK/Ireland) to 11.1% (US). If a child had fever, apnea, or needed a chest radiograph, they were more apt to get antibiotics, and this was true in all eight countries studied. There was also variation noted in non-indicated lab testing with viral testing and chest radiographs obtained most frequently, despite their not being indicated based on clinical guidelines established in these countries for managing a child with bronchiolitis.

Can we learn from these variations? We certainly can, accordingly to an accompanying commentary from Dr. Joseph Zorc from Children's Hospital of Philadelphia ([10.1542/peds.2020-002311](#)) who shares the benefits of looking across countries and learning how to achieve best practice outcomes from the large number of patients enrolled in this research network. It should be noted that this study was done before the pandemic arrived, and the desire to avoid viral testing in children who are not being hospitalized with their respiratory symptoms suggestive of bronchiolitis may be changing due to the need to identify and trace contacts of children who are SARS-CoV-2 positive. Fortunately, according to the commentary by Dr. Zorc, the PERN network is already studying the yield of viral studies now being obtained with greater frequency and what the yield of doing not just coronavirus identification but testing for flu and other viruses might be,

given the importance of not letting a second wave of COVID-19 flare up. Check out this study and commentary and watch for further studies from PERN in the months ahead.

- [Monoclonal Antibody Treatment of RSV Bronchiolitis in Young Infants: A Randomized Trial](#)
- [International Variation in Asthma and Bronchiolitis Guidelines](#)
- [Interventions to Reduce Over-Utilized Tests and Treatments in Bronchiolitis](#)
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