

CONFERENCE ABSTRACT

Impact of a quality improvement initiative on reduce the overuse of treatments in infants with bronchiolitis

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Background and objective: Although evidence-based guidelines for acute bronchiolitis (AB) recommend primarily supportive care unnecessary treatments remain well documented. The objective of this study was to analyze a quality improvement (QI) initiative to reduce overuse of unnecessary treatments in infants with acute bronchiolitis in primary care (PC) settings.

Methods: To determine the number of unnecessary treatments we reviewed the charts corresponding to infants aged < 24 months of age diagnosed with AB in two PC areas during two bronchiolitis seasons [October-Mars of 2015-2016 (pre-intervention period) and 2016-2017 (post-intervention period)]. Between those seasons we distributed an evidence-based management protocol and developed interactive sessions with on-line data collection and feed-back. The interactive sessions mainly consisted in the review of the existing evidence on the treatment of AB and the discussion about the existing barriers to apply what is known about this disease. Outcomes were the rate of infants receiving salbutamol, steroids or antibiotics. The control measures to detect a possible negative effect due to the reduction of pharmacological treatments were the rate of ED visits and hospitalization due to AB in infants from the two PC areas included in the study. Treatment in ED does not change during the period of study and it was mainly based in supportive care.

Results: Thirty pediatricians in twenty outpatient clinics contributed with 1227 chart reviews (619 in the pre-intervention period and 658 in the post-intervention period). Globally the use of any medication decreased by 20.4% ($p < .01$): salbutamol 17.7% ($p < .01$), steroids 14.5% ($p < .01$) and antibiotics 6.5% ($p < .05$). The number of medications per patient decreased 25% ($p < .01$). No significant variations were noted related to ED visits and hospitalizations' rate.

Conclusions: We safely decreased the use of unnecessary treatments in infants with acute bronchiolitis. Although usage rates are now lower, performance gaps between average and top sites reveal that continued improvement is still possible. Collaboration between PC units and ED appears as an important context factor for successful improvement.

Keywords: bronchiolitis; quality improvement initiative; infants; primary care
