

Multisite QI collaborative increases appropriate pediatric antibiotic use

April 29 2024, by Elana Gotkine



A multisite collaborative increases appropriate antibiotic use for pediatric community-acquired pneumonia, skin and soft tissue infections, and urinary tract infections, according to a study published online April 29 in *Pediatrics*.

Russell J. McCulloh, M.D., from the University of Nebraska Medical Center in Omaha, and colleagues conducted a quality improvement initiative across 118 hospitals with an aim of increasing the proportion of children older than 60 days of age receiving appropriate empirical, definitive, and duration of antibiotic therapy for community-acquired pneumonia, skin and [soft tissue infections](#), and [urinary tract infections](#) to ≥85 percent by Jan. 1, 2022.

The authors reviewed 43,916 encounters: 30,799 preintervention and 13,117 postintervention. Monthly audits with feedback, educational webinars, peer coaching, order sets, and a [mobile app](#) with site-specific, antibiogram-based treatment recommendations comprised the interventions.

The researchers found that at baseline, the median adherence to empirical, definitive, and duration of antibiotic therapy was 67, 74, and 61 percent, respectively, and increased to 72, 79, and 71 percent, respectively, during the [intervention](#) period. There was a 13 percent intercept change observed at intervention for empirical therapy in an interrupted time series analysis and a 1.1 percent monthly increase in adherence for antibiotic duration above baseline rates. No increase was seen in balancing measures of care escalation and revisit or readmission.

"Although no metric achieved the goal of 85 percent adherence, our observed rates during the intervention period exceeded those reported in previous studies," the authors write.

More information: Russell J. McCulloh et al, A National Quality Improvement Collaborative to Improve Antibiotic Use in Pediatric Infections, *Pediatrics* (2024). [DOI: 10.1542/peds.2023-062246](https://doi.org/10.1542/peds.2023-062246)

Margaret S. Ridge et al, We Need It All in Quality Improvement: Local Change, Collaboration, and an Equity Lens, *Pediatrics* (2024). [DOI:](#)

[10.1542/peds.2024-065653](https://doi.org/10.1542/peds.2024-065653)

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