

# Narrow-spectrum antibiotics best for children with acute RTIs

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(HealthDay)—For children with acute respiratory tract infections, broad-

spectrum antibiotics are not associated with better clinical or patient-centered outcomes compared with narrow-spectrum antibiotics, according to a study published in the Dec. 19 issue of the *Journal of the American Medical Association*.

Jeffrey S. Gerber, M.D., Ph.D., from the Children's Hospital of Philadelphia, and colleagues compared the effectiveness of broad-spectrum and narrow-spectrum antibiotic treatment in a [retrospective cohort study](#) assessing clinical outcomes (30,159 children) and a [prospective cohort study](#) (2,472 children). The studies assessed patient-centered outcomes for children aged 6 months to 12 years diagnosed with acute [respiratory tract infection](#) and prescribed an oral antibiotic.

The researchers found that 14 percent of the children in the retrospective cohort study were prescribed broad-spectrum antibiotics. The rate of treatment failure was not lower for broad-spectrum treatment (3.4 percent, versus 3.1 percent for narrow-spectrum antibiotics; risk difference, 0.3 percent [95 percent confidence interval, -0.4 to 0.9 percent]). Thirty-five percent of the children in the prospective cohort were prescribed broad-spectrum antibiotics, which correlated with slightly worse quality of life (score, 90.2 for [broad-spectrum antibiotics](#) versus 91.5 for narrow-spectrum antibiotics; score difference, -1.4 percent [95 percent confidence interval, -2.4 to -0.4 percent]); no correlation was seen with other patient-centered outcomes. Increased risk of adverse events documented by the clinician and reported by the patients were seen with broad-spectrum treatment.

"These data support the use of narrow-spectrum [antibiotics](#) for most children with acute respiratory tract infections," the authors write.

Two authors disclosed financial ties to the biopharmaceutical industry.

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