

Following watchful waiting guidelines for children with AOM cost-effective

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The appropriate use of watchful waiting for children with acute otitis media (AOM) could reduce costs and improve health outcomes, a new study shows.

Watchful waiting involves observing children with uncomplicated AOM for 48 to 72 hours to allow for spontaneous recovery without antibiotics. The 2004 AAP [clinical practice guideline](#) on diagnosis and management of AOM offered it as an option for children based on age, diagnostic certainty, illness severity and likelihood of follow-up. The 2013 guidelines also recommend watchful waiting.

“While reducing the rate of antibiotic prescriptions may save on prescription costs and antibiotic side effects, this must be balanced against costs to the parents, such as time lost from work, cost of additional analgesic, and repeat office visits or phone calls.

With these added costs, it is unclear if the WW (watchful waiting) approach would be cost-effective to society, according to the authors of the study “Cost-Effectiveness of Watchful Waiting in Acute Otitis Media” (Sun D, et al. *Pediatrics*. March 3, 2017, <https://doi.org/10.1542/peds.2016-3086>).

To determine how AOM is currently managed, researchers reviewed electronic health record (EHR) data for 247 randomly selected patients diagnosed with AOM at a children’s hospital emergency department from April 2014 to January 2015. They looked at discharge instructions to see if patients received antibiotics or were instructed on watchful waiting. They also identified how many patients qualified for watchful waiting based on AAP guidelines.

Data from the EHR, Medicaid and hospital costs then were used to create a decision-analytic model of a hypothetical cohort of 1,000 children with AOM. The model included direct and indirect costs (i.e., antibiotics, analgesics, missed work days, office visits, hospital stays) as well as disability-adjusted life years (DALYs).

Costs and DALYs were calculated for current practice and compared to costs and DALYs if all patients who met the criteria for watchful waiting received such care.

Results showed 231 (93.5%) patients received an antibiotic prescription, even though 143 patients (57.9%) qualified for watchful waiting.

Using the decision-analytic model, the authors determined that costs would be lower and there would be fewer DALYs if watchful waiting had been used for all who qualified compared to current practice. For every 1,000 patients with AOM, there would be 514 fewer immediate antibiotic prescriptions and 205 fewer

antibiotic courses overall. In addition, about 14 DALYs would have been avoided and \$5,573 would have been saved.

“This study demonstrates that implementing WW for AOM management when consistent with the AAP guidelines is cost-effective from a societal perspective,” the authors concluded. “This suggests that, though the WW approach requires additional patient follow-up, and increasing utilization of this option would likely require additional provider and parental education, appropriate use of this strategy could simultaneously reduce health expenditures, improve health outcomes, and be cost-saving to society.”

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