

## High resistance rates among acute otitis media pathogens in children: study

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As middle ear infections increase during the winter months, researchers from Ben-Gurion University of the Negev (BGU) suggest that in many cases the most appropriate treatment is "watchful waiting" instead of using antibiotics immediately.

The review, published in the scientific journal *Expert Review of Anti-Infective Therapy*, does not suggest use of watchful waiting in all cases when the <u>infection</u>, also known as Acute Otitis Media (AOM), is suspected by a pediatrician, but notes that a large majority of cases can be treated this way with no long-term ill effects. Currently, watchful waiting is recommended for children over six months of age with mild to moderate symptoms or an uncertain AOM diagnosis.

The authors indicate that watchful waiting could substantially reduce the use of antibiotics in the treatment of AOM and play a major role in helping fight the development of treatment-resistant <u>bacteria</u>. (See table below for complete list of initial treatment recommendations).

"For years, antibiotic therapy was the norm for any child presenting with AOM symptoms," said Dr. Eugene Leibovitz, lead author of the review, who is a BGU professor and works in the Pediatric Infectious Diseases unit at Soroka University Medical Center. "However, we soon learned that there are problems with this strategy. While the antibiotics were killing off most of the AOM-causing bacteria, the few bacteria that managed to survive have developed resistance to that treatment."



The review notes that since the introduction of a polysaccharide conjugate vaccine to prevent infections from seven serotypes of the bacteria named <u>Streptococcus pneumoniae</u>, the number of AOM infections associated with these bacteria has decreased. However, AOM infections from bacteria not covered by the vaccine are on the rise. A new vaccine, one that prevents infections caused by 13 serotypes of S. pneumoniae, was recently introduced in routine use in many countries.

"Appropriate <u>antibiotic treatment</u> and vaccine-resistant bacteria remain a problem in managing children with AOM," said Leibovitz. "With selective guidelines-recommended use of antibiotic therapies and employing watchful waiting in non-critical cases, hopefully, we can discourage the emergence of other treatment-resistant bacterial strains."

**More information:** Leibovitz E, Broides A, Greenberg D, Newman N. Expert Rev Anti Infect Ther. 2010 Feb;8 (2):151-61.

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