New Swimmer's Ear Guidelines Call for Use of Antimicrobial Drops, Pain Tx First

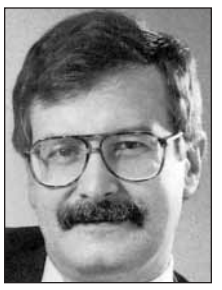
BY JOHN R. BELL
Associate Editor

The American Academy of Otolaryngology's first-ever guidelines for the diagnosis and treatment of acute otitis externa—commonly known as swimmer's ear—include a recommendation to treat pain and to use antimicrobial drops, rather than oral antibiotics, as first-line treatment.

The clinical practice guidelines were derived from a metaanalysis of nearly 3,000 published reports and were written by a panel of otolaryngologists from various subspecialties.

The document notes that starting treatment of acute otitis externa (AOE) with drops can help prevent bacterial resistance—even though many drops contain antibiotics themselves.

"It's a concentration issue," explained Dr. Richard Rosenfeld, who led the AAO guidelines writing committee. "You can achieve a concentration with a topical drop that's about 1,000 times higher [at the infection site] than with a systemic drug. Topical [medication] is so incredibly potent that it overwhelms any ability of resistance. … Dead bugs don't mutate—especially if you wipe them all out with a Scud missile of a drop."



Drops don't cause systemic side effects, and you help keep down bacterial resistance.

DR. EAVEY

But drops don't have to even contain antibiotics to be effective, he noted.

"We tested many types of topical therapy out there—antiseptics, various types of antibiotics, and also steroid-containing preparations. And they all seemed to have very comparable efficacy. We saw only minor, clinically irrelevant differences in efficacy.

"That doesn't mean that it's at all irrelevant what you use—for example, quinolone drops are perhaps most suitable for severe infections, because they're the most potent—but that's only anecdotal," added Dr. Rosenfeld, director of pediatric otolaryngology at Long Island College Hospital in New York.

As to prevention of swimmer's ear, Dr. Rosenfeld said that although there's no specific policy statement, in his opinion, the key is to avoid the things that trigger AOE.

Those include trauma or scratching of the ear canal and allowing excess water to build up in the ear canal and get trapped there. Trauma can be caused by cotton swabs or other objects inserted to remove wax or to scratch, or even by inserting foam ear plugs for swimming. Such earplugs are fine for preventing noise exposure because there is no water involved, he said. "But for swimming, just stuffing [foam] earplugs into your ears just does not work" and can lead to trauma, he said.

When water does get in the ear, Dr. Rosenfeld recommended eliminating it with a hair dryer on a low setting.

Administering a few drops of isopropyl alcohol also works, and it is considerably less expensive than over-the-counter swimmer's ear drops.

Alternatively, a few drops of white vinegar and rubbing alcohol combined in a 50/50 ratio also can prevent swimmer's ear if applied after swimming or bathing. This combination is similar to some of the commercially available preparations. Vinegar is 5% acetic acid, and mixing it with the alcohol gets it down to 2.5% acetic acid. The alcohol helps kill bacteria and is a drying agent.

"It's a poor man's version of some of the rather expensive prescription drops. I wouldn't recommend it as a mainstay of treatment, but for people who are prone to AOE, it should help prevent it," he said.

"It's a lot simpler to use drops," commented Dr. Roland Eavey, professor of otology and laryngology at Harvard University, Boston.

"Drops don't cause systemic side effects, such as diarrhea—and by using drops, you help keep down bacterial resistance."

Dr. Eavey, who also is director of pediatric otolaryngology at Massachusetts Eye and Ear Infirmary in Boston, and who served on the AAO's guidelines panel for acute otitis media, agreed with the strong recommendation in favor of assessing and treating pain.

"Otitis externa can be very painful. On the assessment, when a child comes in with really bad external otitis externa, they first of all need pain relief," Dr. Eavey said.

He also shared the AAO's recommendation regarding differential diagnosis. "For example, although rare in childhood, malignant external otitis is a serious bone infection which mimics acute external otitis and can occur in insulin-dependent diabetics," he said.

He added his own specific recommendation: "You need to differentiate between a child with acute otitis and one with acute mastoiditis if there is swelling behind the ear. In that case, you need a clinical view of the eardrum and possibly a CT scan to make sure it's not mastoiditis.

But for garden-variety otitis externa, go with the ear drops, and the patient should get better—if they're not much improved in 2-3 days, the patient should be reassessed.

Dr. Eavey also shared a treatment pearl. "My recommendation is also to have Mom or Dad warm up the drops in their hand or carry them in their pocket, because drops are often colder than the ear canal—and so to a child, it can feel like having ice water poured into their ear." He echoed a tip advocated in the guidelines that putting a wick in a severely swollen ear can help deliver the drops into the canal.

Dr. Seth Pransky, a pediatric otolaryngologist at Children's Hospital in San Diego, observed that although the guidelines are new, their advice is familiar to many physicians.

"Perhaps this might be considered new for primary care physicians, but the vast majority of otolaryngologists understand that this is a disease treated with topical rather than oral antibiotics," Dr. Pransky said.

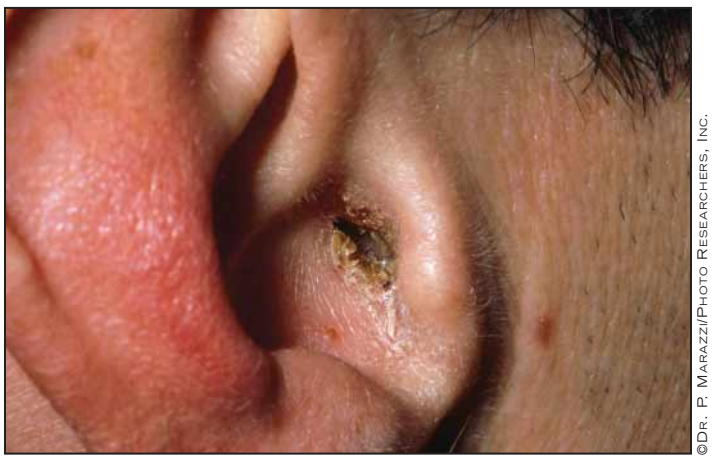
"There are cases where orals are necessary, and the guidelines point that out—but they're a lot less common than garden variety, run-of-the-mill swimmer's ear, which is very painful."

Dr. Michael Pichichero, professor of microbiology and immunology at the University of Rochester (N.Y.) Medical Center, also approved of the recommendations. "I think the guidelines are very well written and comprehensive and appear to be evidence based—on as much evidence as we do have," he said in an interview.

In particular Dr. Pichichero noted that distinguishing between patients who have an intact eardrum and those who don't has a sizeable impact on the antibiotic choice—because if the eardrum is not intact, "we really should move to preference for the chloroquinolone antibiotic preparations, which are not ototoxic."

The document gave various treatment recommendations for specific AOE etiologies and advised against the use of alternative therapies such as ear candles. ■

The guidelines, which were published as a supplement to the journal Otolaryngology–Head and Neck Surgery, will be available free of charge at www.entnet.org.



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The outer ear of a patient with otitis externa is inflamed, and the inner ear is filled with crusted pus.