

JUDICIOUS ANTIBIOTIC USE

*Otitis media with effusion
does not require antibiotic treatment.*

Otitis Media

Differentiating Acute Otitis Media (AOM) from Otitis Media with Effusion (OME):
A tool for promoting judicious antibiotic use

Always use pneumatic otoscopy or tympanometry
to confirm middle ear infection

No effusion
Not OME or AOM

Yes, effusion present

Signs or symptoms of AOM—including ear pain, fever and bulging yellow or red TM

Yes

No

AOM

Presence of effusion (always use pneumatic
otoscopy or tympanometry)

With

signs or symptoms of acute infection (ear pain,
fever, or bulging yellow or red TM)

Treatment

Choose narrow spectrum drugs first.
Amoxicillin remains highly effective and is
recommended as the first-line antibiotic by most
experts.^{1,2}

OME

Presence of effusion (including immobility of the
tympanic membrane)

Without

signs or symptoms of acute infection.
Nonspecific signs and symptoms (rhinitis, cough
and diarrhea) are often present.

Treatment

Antibiotics are not required for initial treatment.³
Meta-analysis of all known studies showed only
marginal short term benefit and no long term benefit
(>1 month) of antibiotic treatment.⁴

Only consider antibiotic prophylaxis for recurrent AOM as
defined by ≥ 3 distinct, well documented episodes in 6
months (or ≥ 4 in 12 months).

Residual effusion after AOM normally persists for up to 6
weeks – no evidence of benefit from treatment in these cases.

**Share this algorithm with patients. Explain when the risks
of using antibiotics outweigh the benefits.**

**Avoiding unnecessary treatment of OME would save up to
6–8 million courses of antibiotics each year.³**

References

1. McCracken GH. Considerations in selecting an antibiotic for treatment of acute otitis media. *Pediatr Infect Dis J* 1994;13:1054-1057.
2. Barnett ED, Klein JO. The problem of resistant bacteria for the management of acute otitis media. *Ped Clin N America* 1995;42:509-17.
3. Stool SE, Berg AO, Berman S, et al. Otitis media with effusion in young children. Clinical practice guideline. AHCPR Publication no 94-0622 1994.
4. Williams RL, Chalmers TC, Stange KC, Chalmers FT, Bowlin SJ. Use of antibiotics in preventing recurrent acute otitis media and in treating otitis media with effusion. A meta-analytic attempt to resolve the brouhaha. *JAMA* 1993;270:1344-51.



Save the Antibiotic. Don't Use It When You Don't Need It.