



Effective Health Care

Treatment of Otitis Media

Nomination Summary Document

Results of Topic Selection Process & Next Steps

- Treatment of otitis media with effusion will go forward for refinement as a systematic review. The scope of this topic, including populations, interventions, comparators, and outcomes, will be further developed in the refinement phase.
- When key questions have been drafted, they will be posted on the AHRQ Web site and open for public comment. To sign up for notification when this and other Effective Health Care (EHC) Program topics are posted for public comment, please go to <http://effectivehealthcare.ahrq.gov/index.cfm/join-the-email-list1/>.
- Treatment of acute otitis media was found to be addressed by a 2010 AHRQ review, *Management of Acute Otitis Media: Update*. Given that the existing report covers this aspect of nomination, no further activity will be undertaken on this topic.
 - Shekelle PG, Takata G, Newberry SJ, Coker T, Limbos M, Chan LS, Timmer M, Suttorp M, Carter J, Motala A, Valentine D, Johnsen B, Shanman R. Management of Acute Otitis Media: Update. Evidence Report/Technology Assessment No. 198. (Prepared by the Southern California Evidence-Based Practice Center under Contract No. 290 2007 10056 I). Rockville, MD: Agency for Healthcare Research and Quality. November 2010. Available at: <http://www.ahrq.gov/downloads/pub/evidence/pdf/otitis/otitisup.pdf>.

Topic Description

Nominator: Individual

Nomination Summary: The nominator questions the comparative effectiveness of tympanostomy tubes and medications for the treatment of otitis media.

Staff-Generated PICO for original nomination

Population(s): Children and adults with otitis media infections

Intervention(s): Surgical interventions for otitis media treatment

Comparator(s): Other surgical interventions and medical treatments

Outcome(s): Reduced morbidity for otitis media infection, fewer recurrences of infection

Staff-Generated PICO for revised scope

Population(s): Children and adults with otitis media with effusion

Intervention(s): Medical and surgical treatments for otitis media

Comparator(s): No intervention/watchful waiting/placebo or comparative effectiveness of other medical/surgical treatments

Outcome(s): Resolution of symptoms, duration of effusion, hearing loss, reductions of complications of OME, reduced need for surgical treatment, and/or medication side effects/complications

Key Questions from Nominator: 1. For all ages, is tube insertion the most effective for treating and preventing inner ear infections versus prescription drugs?

Considerations

- The topic meets all EHC Program selection criteria. (For more information, see <http://effectivehealthcare.ahrq.gov/index.cfm/submit-a-suggestion-for-research/how-are-research-topics-chosen/>.)
- This topic has two main areas:
 1. Treatment for otitis media with effusion
 2. Treatment of acute otitis media.
- Otitis media with effusion, sometimes described as serous/secretory otitis media or “glue ear”, accounts for about one-quarter of otitis media cases. Children usually present with a hearing impairment and speech problems with no acute ear pain, fever, or malaise. Some studies indicate that otitis media with effusion may occur in over half of children at some point before the age of 4. There are currently no recent systematic reviews to inform the treatment of patients with otitis media with effusion.
- Treatment of acute otitis media was found to be addressed by a 2010 AHRQ review titled *Management of Acute Otitis Media: Update*. Key questions from this report include:
 1. Diagnosis of AOM: What are the operating characteristics (sensitivity, specificity, and likelihood ratios) of clinical symptoms and otoscopic findings (such as bulging tympanic membrane), both individual and composite, to diagnose uncomplicated AOM and to distinguish it from otitis media with effusion (OME)?
 2. What has been the impact of the Pneumococcal Heptavalent Immunization (PCV7) on AOM microbial epidemiology (including acute mastoiditis and suppurative complications), with respect to both the organisms associated with AOM and the patterns of antimicrobial resistance?
 3. What is the comparative effectiveness of different treatment options for treating uncomplicated AOM in average risk children?
 4. What is the comparative effectiveness of different management options for recurrent otitis media (uncomplicated) and persistent otitis media or relapse of AOM?
 5. Do treatment outcomes in Key Question3 (KQ3) and KQ4 differ by characteristics of the condition (AOM), patient, environment, and/or health care delivery system, including but not limited to the following:
 - A. Laterality, i.e., unilateral vs. bilateral
 - B. Otorrhea or perforation

- C. AOM severity, i.e., as defined as defined by the AAFP/AAP AOM Guideline (2004)
 - D. Comorbidities, e.g., asthma
 - E. Age groups, e.g., <4 weeks, 4weeks to <6 months, 6mos-<2 years, 2-5 years
 - F. Race
 - G. Ethnicity
 - H. Day care attendance?
6. What adverse effects have been observed for the treatments whose outcomes are addressed in KQ III and KQ IV?