

Comprehensive Medical and Dental Program Authorization Guideline

Subject: Myringotomy and Tympanostomy Tube Insertion

Unit: Health Services

Purpose:

This guideline is used in the prior authorization and decision-making process regarding requests for myringotomy and placement of tympanostomy tubes.

This guideline does not represent a standard of care, nor is it intended to dictate an exclusive course of management. Since medical research, physician practice patterns, and health care technology are continuously evolving, please note that the information contained in this guideline may be updated.

Definition:

Myringotomy – incision of the tympanic membrane to allow ventilation of the middle ear, drainage of middle ear fluid, or to obtain cultures from an infected middle ear.

Tympanostomy Tubes – tubes which are placed within an incision made during myringotomy into the eardrum in order to keep the middle ear aerated for a prolonged period of time, and to prevent the accumulation of mucus in the middle ear.

Otitis media with effusion (OME) - presence of a middle ear effusion (MEE) without signs or symptoms of infection. This was previously called serous or secretory otitis media (SOM). OME that persists beyond 3 months often is called chronic otitis media or chronic otitis media with effusion.

Acute otitis media (AOM) – an infection of the middle ear with acute onset, presence of MEE and signs of middle ear inflammation. Treatment-failure of AOM is a lack of improvement in signs and symptoms within 48 to 72 hours after initiation of antibiotic therapy.

Recurrent AOM – three (3) or more AOM episodes occurring in the previous 6 months or four or more AOM episodes in the preceding 12 months.

Chronic suppurative otitis media (CSOM) – purulent otorrhea which is associated with a chronic perforation of the eardrum and active bacterial infection within the middle ear space which lasts for 6 weeks or more, despite appropriate treatment for AOM. ^{1,2}

Initiated: 10/2008

Reviewed: 11/2008; 03/2009; 9/2009; 9/30/10; 3/27/13; 5/22/14; 1/23/15; 7/11/16; 7/7/17

Myringotomy and Tympanostomy Tube Insertion

Page 1 of 4

Comprehensive Medical and Dental Program Authorization Guideline

Subject: Myringotomy and Tympanostomy Tube Insertion

Unit: Health Services

Clinical Considerations for OME:

- The AAP policy on OME recommends watchful waiting for 3 months after diagnosis because the harm of a persistent OME is slight when compared with possible harm from treatment (antibiotic overuse and resistance). The child might experience a temporary hearing deficit while the effusion persists, but a short-lived effusion should have minimal effect on a child's language development.
- Children with persistent OME should be re-examined at 3 to 6 month intervals until the effusion is no longer present, significant hearing loss is identified, or structural abnormalities of the eardrum or middle ear are suspected.
- When OME persists beyond 3 months or there is moderate to severe hearing deficit, language delay, or developmental delays, the child's hearing should be evaluated. Children who are **not** identified by developmental surveillance or screening as being at risk are not likely to experience significant language delays from persistent OME. Short-term hearing loss and language delays may result from persistent effusions, but these conditions are likely to resolve without additional management in most children.
- As long as a low-risk child experiences minimal symptoms and shows no signs of hearing loss, OME can be observed without intervention. In ongoing studies, children with early tympanostomy tube placement (vs. delayed insertion) have not demonstrated any significant effect on developmental progress.⁵
- The current AAP guideline on OME, based on strong research evidence, suggests that children at risk for (or experiencing) developmental delays, experiencing symptoms secondary to the OME (otalgia, vestibular disturbance, hearing loss), or living in a non-enriching environment may benefit from intervention for a persistent OME.
- Candidates for surgery include children with OME lasting 4 months or longer with persistent hearing loss or structural damage to the tympanic membrane or middle ear.
- Adenoidectomy should not be performed unless a distinct indication exists (nasal obstruction, chronic adenoiditis).
- Repeat surgery should consist of adenoidectomy plus myringotomy, with or without tube insertion.
- Tonsillectomy alone or myringotomy alone should not be used to treat OME.

Initiated: 10/2008

Reviewed: 11/2008; 03/2009; 9/2009; 9/30/10; 3/27/13; 5/22/14; 1/23/15; 7/11/16; 7/7/17

Myringotomy and Tympanostomy Tube Insertion

Page 2 of 4

Comprehensive Medical and Dental Program Authorization Guideline

Subject: Myringotomy and Tympanostomy Tube Insertion

Unit: Health Services

Criteria to Substantiate Medical Necessity for Myringotomy and Tympanostomy Tube Placement:

- Recurrent acute otitis media (AOM) – 3 distinct episodes of acute otitis media within 6 months or 4 or more distinct episodes within 1 year.
 - Documented evaluation and appropriate treatment
 - Appropriate treatment is defined as use of first or second line antimicrobial agents (Amoxicillin, high-dose Amoxicillin, Amoxicillin/clavulanic acid, Cefdinir) for an appropriate length of time (7 -10 days).
- Documented otitis media with effusion (OME) lasting 3 months or longer with:
 - Documented hearing loss, or
 - Physical abnormality of the tympanic membrane or middle ear structures, or
 - Recurrent or persistent AOM (as defined above) of the same ear, or
 - Significant otalgia requiring multiple PCP or ED visits.
- Other Considerations:
 - Complications of otitis media
 - Meningitis
 - Facial nerve palsy
 - Mastoiditis
 - Brain abscess
 - Retraction pockets
 - Previous history of Myringotomy tube placement
 - Cholesteatoma

References:

1. American Academy of Pediatrics. Diagnosis and Management of Acute Otitis Media. *Pediatrics*, 131, e964-e999. Retrieved May 28, 2014, from <http://pediatrics.aapublications.org/content/131/3/e964.full.pdf+html>
2. Gould JM, Matz PS. Otitis Media. *Peds in Review*. 2010; 31(3):102-115
3. Rosenfeld RM, Kay D. Natural history of untreated otitis media. In: Rosenfeld RM, Bluestone CD, eds. Evidence-based Otitis Media. 2nd ed. Hamilton, Ontario, Canada: BC Decker Inc; 2003: 180–198

Initiated: 10/2008

Reviewed: 11/2008; 03/2009; 9/2009; 9/30/10; 3/27/13; 5/22/14; 1/23/15; 7/11/16; 7/7/17
Myringotomy and Tympanostomy Tube Insertion

Page 3 of 4

**Comprehensive Medical and Dental Program
Authorization Guideline**

Subject: Myringotomy and Tympanostomy Tube Insertion

Unit: Health Services

4. Sade J, Russo E, Fuchs C, et al. Is secretory otitis media a single disease entity? *Ann Otol Rhinol Laryngol.* 2003;112:342–347
5. Paradise JL, Feldman HM, Campbell TF, et al. Tympanostomy tubes and developmental outcomes at 9 to 11 years of age. *N Engl J Med.* 2007;356:248–261
6. When Do You Refer a Child With Otitis Media to an Otolaryngologist? *Medscape Article* 2001
7. Tympanostomy Tubes: *Clinical Practice Primer*, Richard H. Schwartz, MD, and Craig S. Derkay, MD, December 2002
8. Cummings: Otolaryngology: Head and Neck Surgery, 4th Ed. (2005), Chapter 200 Acute OM and OME, section--Recurrent Acute OM, sub-section--Surgical Prophylaxis.
9. American Academy of Pediatrics. Subcommittee on Management of Acute Otitis Media. Diagnosis and management of acute otitis media. *Pediatrics.* 2004;113(5):1451–1465

Signature on file

Medical Director

7/7/2017

Date

Initiated: 10/2008

Reviewed: 11/2008; 03/2009; 9/2009; 9/30/10; 3/27/13; 5/22/14; 1/23/15; 7/11/16; 7/7/17

Myringotomy and Tympanostomy Tube Insertion

Page 4 of 4