



AAO12: Tympanostomy Tubes: Topical Ear Drop Monotherapy for Acute Otorrhea

High Priority Status: Yes / Appropriate Use

CBE Number: N/A

Measure Description:

Percentage of patients aged 6 months to 12 years of age at the time of the visit with a current diagnosis of an uncomplicated acute tympanostomy tube otorrhea (TTO) who were prescribed or recommended to use topical antibiotic eardrops and NOT prescribed systemic (IV or PO) antibiotics for acute TTO

Instructions:

This measure is to be submitted a minimum of **once per performance period** for patients diagnosed with uncomplicated acute otorrhea after tympanostomy tube insertion. This measure may be submitted by clinicians based on the measure-specific denominator coding.

Denominator:

All patients aged 6 months through 12 years of age at the time of the visit with a current diagnosis of an uncomplicated* acute** TTO

* Uncomplicated refers to TTO that is not accompanied by high fever (38.5°C, 101.3°F), concurrent illness requiring systemic antibiotics (e.g., streptococcal pharyngitis, bacterial sinusitis), or cellulitis extending beyond the external ear canal to involve the pinna or adjacent skin

** Acute refers to less than four weeks' duration

Denominator Note:

To meet the denominator criteria, a patient must have had tympanostomy tube insertion and an office visit for uncomplicated acute otorrhea within the performance period.

Denominator Exclusions:

None

Denominator Criteria:

Patients aged 6 months to 12 years

AND

Procedure: [Tympanostomy Tube](#)

AND

Diagnosis: [Otorrhea](#)

AND

Patient Visit: [Encounter Visit](#)

AND NOT

Conditions: [Complicated TTO](#)

OR

[Bacterial Infectious Agents](#)

[For a list of codes that qualify as denominator eligible visits, reference Addendum attached.](#)

Numerator:

Patients who were prescribed or recommended to use topical antibiotic eardrops and NOT prescribed systemic (IV or PO) antibiotics for acute TTO

Numerator Note:

To meet the intent of the measure, the numerator quality action must be performed at the encounter in which the active diagnosis of uncomplicated acute otorrhea is documented.

Empowering otolaryngologist-head and neck surgeons to deliver the best patient care

Definition:

- Prescribed – prescription given to the patient (guardian) for topical antibiotic eardrops at time of diagnosis.
- Not prescribed - prescription not provided to the patient (guardian) for systemic (IV or PO) antibiotics at time of diagnosis of otorrhea, or within 10 days of diagnosis if otorrhea is not resolved after use of topical antibiotic eardrops.

Denominator Exceptions:

Medical reason(s) for not prescribing/recommending topical antibiotic monotherapy or for prescribing oral antibiotics include:

- Patients with high fever;
- Patients with cellulitis of the ear or adjacent skin;
- Patients who are immunocompromised;
- Patients with oral antibiotic given for other concurrent condition including but not limited to streptococcal pharyngitis, bacterial sinusitis, pneumonia, pharyngitis, osteitis abscess, or other concurrent acute infection beyond the confines of the ear canal;
- Patients who failed topical antibiotic therapy;
- Patients with a cochlear implant;
- Patients with concurrent diabetes.
- Patients who were prescribed oral antibiotics by another clinician; concurrent diagnosis of acute suppurative otitis media with effusion with intact eardrum; acute TTO persists, or worsens, despite topical antibiotic therapy.

Patient reason(s) for not prescribing/recommending topical antibiotics or prescribing oral antibiotics include:

- Administration of eardrops is not possible because of local discomfort;
- Lack of tolerance

Measure Classifications:

Submission Pathway: Traditional MIPS

Measure Type: Process

High Priority Type: Appropriate Use

Meaningful Measures Area: Appropriate Use of Healthcare

Care Setting(s): Ambulatory Care: Clinician Office/Clinic

Includes Telehealth: Yes

Number of Performance Rates: 1

Inverse measure: No

Continuous measure: No

Proportional measure: Yes

Ratio measure: No

Risk Adjusted measure: No

Clinical Recommendation Statement:

Clinicians should prescribe topical antibiotic eardrops only, without oral antibiotics, for children with uncomplicated acute tympanostomy tube otorrhea.

Rosenfeld RM, Schwartz SR, Pynnonen MA, et al. Clinical practice guideline: Tympanostomy tubes in children. *Otolaryngology Head Neck Surg.* 2013;149(1 Suppl):S1-S35. doi:10.1177/0194599813487302

Rationale:

Otorrhea is the most common sequela of tympanostomy tubes; most otorrhea is sporadic, brief, and relatively painless, with recurrent otorrhea affecting only about 7% of patients and chronic otorrhea occurring in about 4%. Topical ear drops resolved the ear drainage (OME) 3 to 5 days faster and resulted in more clinical cures overall -85 percent for those taking the drops vs 59 percent for those on oral administration of antibiotics

UT Southwestern Medical Center. Antibiotic Ear Drops Favored Over Popular Oral Antibiotics for Ear Infections. *ScienceDaily.* 2006. Available at: www.sciencedaily.com/releases/2006/12/061213104143.htm

Supporting Clinical Practice Guideline (CPG):

For more details, reference the [Clinical Practice Guideline: Tympanostomy Tubes in Children \(Update\)](#) [2022]

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Addendum

Bacterial Infectious Agents			
Measure Element	Code Type	Code	Code Description
Denominator – Bacterial Infectious Agents	ICD10CM	B95.0	Streptococcus, group A, as the cause of diseases classified elsewhere
Denominator – Bacterial Infectious Agents	ICD10CM	B95.1	Streptococcus, group B, as the cause of diseases classified elsewhere
Denominator – Bacterial Infectious Agents	ICD10CM	B95.2	Enterococcus as the cause of diseases classified elsewhere
Denominator – Bacterial Infectious Agents	ICD10CM	B95.3	Streptococcus pneumoniae as the cause of diseases classified elsewhere
Denominator – Bacterial Infectious Agents	ICD10CM	B95.4	Other streptococcus as the cause of diseases classified elsewhere
Denominator – Bacterial Infectious Agents	ICD10CM	B95.5	Unspecified streptococcus as the cause of diseases classified elsewhere
Denominator – Bacterial Infectious Agents	ICD10CM	B95.61	Methicillin susceptible Staphylococcus aureus infection as the cause of diseases classified elsewhere
Denominator – Bacterial Infectious Agents	ICD10CM	B95.62	Methicillin resistant Staphylococcus aureus infection as the cause of diseases classified elsewhere
Denominator – Bacterial Infectious Agents	ICD10CM	B95.7	Other staphylococcus as the cause of diseases classified elsewhere
Denominator – Bacterial Infectious Agents	ICD10CM	B95.8	Unspecified staphylococcus as the cause of diseases classified elsewhere
Denominator – Bacterial Infectious Agents	ICD10CM	B96.0	Mycoplasma pneumoniae [M. pneumoniae] as the cause of diseases classified elsewhere
Denominator – Bacterial Infectious Agents	ICD10CM	B96.1	Klebsiella pneumoniae [K. pneumoniae] as the cause of diseases classified elsewhere
Denominator – Bacterial Infectious Agents	ICD10CM	B96.21	Shiga toxin-producing Escherichia coli [E. coli] (STEC) O157 as the cause of diseases classified elsewhere

Denominator – Bacterial Infectious Agents	ICD10CM	B96.22	Other specified Shiga toxin-producing Escherichia coli [E. coli] (STEC) as the cause of diseases classified elsewhere
Denominator – Bacterial Infectious Agents	ICD10CM	B96.23	Unspecified Shiga toxin-producing Escherichia coli [E. coli] (STEC) as the cause of diseases classified elsewhere
Denominator – Bacterial Infectious Agents	ICD10CM	B96.29	Other Escherichia coli [E. coli] as the cause of diseases classified elsewhere
Denominator – Bacterial Infectious Agents	ICD10CM	B96.3	Hemophilus influenzae [H. influenzae] as the cause of diseases classified elsewhere
Denominator – Bacterial Infectious Agents	ICD10CM	B96.4	Proteus (mirabilis) (morganii) as the cause of diseases classified elsewhere
Denominator – Bacterial Infectious Agents	ICD10CM	B96.5	Pseudomonas (aeruginosa) (mallei) (pseudomallei) as the cause of diseases classified elsewhere
Denominator – Bacterial Infectious Agents	ICD10CM	B96.6	Bacteroides fragilis [B. fragilis] as the cause of diseases classified elsewhere
Denominator – Bacterial Infectious Agents	ICD10CM	B96.7	Clostridium perfringens [C. perfringens] as the cause of diseases classified elsewhere
Denominator – Bacterial Infectious Agents	ICD10CM	B96.81	Helicobacter pylori [H. pylori] as the cause of diseases classified elsewhere
Denominator – Bacterial Infectious Agents	ICD10CM	B96.82	Vibrio vulnificus as the cause of diseases classified elsewhere
Denominator – Bacterial Sinusitis	ICD10CM	J01.10	Acute frontal sinusitis, unspecified
Denominator – Bacterial Sinusitis	ICD10CM	J01.11	Acute recurrent frontal sinusitis
Denominator – Bacterial Sinusitis	ICD10CM	J01.20	Acute ethmoidal sinusitis, unspecified
Denominator – Bacterial Sinusitis	ICD10CM	J01.30	Acute sphenoidal sinusitis, unspecified
Denominator – Bacterial Sinusitis	ICD10CM	J01.90	Acute sinusitis, unspecified
Denominator – Bacterial Sinusitis	ICD10CM	J01.91	Acute recurrent sinusitis, unspecified

Denominator – Bacterial Sinusitis	ICD10CM	J32.1	Chronic frontal sinusitis
Denominator – Bacterial Sinusitis	ICD10CM	J32.3	Chronic sphenoidal sinusitis
Denominator – Streptococcal Pharyngitis	ICD10CM	A49.1	Streptococcal infection, unspecified site
Denominator – Streptococcal Pharyngitis	ICD10CM	J02.0	Streptococcal pharyngitis

Complicated TTO

Denominator – Body Temperature	LOINC	76011-6	Ear temperature
Denominator – Body Temperature	LOINC	8310-5	Body temperature
Denominator – Body Temperature	LOINC	8328-7	Axillary temperature
Denominator – Body Temperature	LOINC	8329-5	Body temperature - Core
Denominator – Body Temperature	LOINC	8331-1	Oral temperature
Denominator – Body Temperature	LOINC	8332-9	Rectal temperature
Denominator – Body Temperature	LOINC	8333-7	Tympanic membrane temperature
Denominator – Cellulitis of Ear or Adjacent Skin	ICD10CM	C44.209	Unspecified malignant neoplasm of skin of left ear and external auricular canal
Denominator – Cellulitis of Ear or Adjacent Skin	ICD10CM	C44.211	Basal cell carcinoma of skin of unspecified ear and external auricular canal
Denominator – Cellulitis of Ear or Adjacent Skin	ICD10CM	C44.221	Squamous cell carcinoma of skin of unspecified ear and external auricular canal
Denominator – Cellulitis of Ear or Adjacent Skin	ICD10CM	C44.291	Other specified malignant neoplasm of skin of unspecified ear and external auricular canal

Denominator – Cellulitis of Ear or Adjacent Skin	ICD10CM	H60.10	Cellulitis of external ear, unspecified ear
Denominator – Cellulitis of Ear or Adjacent Skin	ICD10CM	H60.11	Cellulitis of right external ear
Denominator – Cellulitis of Ear or Adjacent Skin	ICD10CM	H60.12	Cellulitis of left external ear
Denominator – Cellulitis of Ear or Adjacent Skin	ICD10CM	H60.13	Cellulitis of external ear, bilateral
Denominator – Cellulitis of Ear or Adjacent Skin	ICD10CM	H61.301	Acquired stenosis of right external ear canal, unspecified
Denominator – Cellulitis of Ear or Adjacent Skin	ICD10CM	H61.819	Exostosis of external canal, unspecified ear
Denominator – Cellulitis of Ear or Adjacent Skin	ICD10CM	H95.812	Postprocedural stenosis of left external ear canal

Encounter Visit

Denominator – Discharge Services	CPT	99217	Observation care
Denominator – Discharge Services	CPT	99238	Hospital inpatient or observation discharge
Denominator – Discharge Services	CPT	99239	Hospital inpatient or observation discharge
Denominator – Home Visit	CPT	99341	Home visit for the evaluation and management of a new patient
Denominator – Home Visit	CPT	99342	Home visit for the evaluation and management of a new patient
Denominator – Home Visit	CPT	99343	Home visit for the evaluation and management of a new patient
Denominator – Home Visit	CPT	99344	Home visit for the evaluation and management of a new patient
Denominator – Home Visit	CPT	99345	Home visit for the evaluation and management of a new patient

Denominator – Home Visit	CPT	99347	Home visit for the evaluation and management of a new patient
Denominator – Home Visit	CPT	99348	Home visit for the evaluation and management of a new patient
Denominator – Home Visit	CPT	99349	Home visit for the evaluation and management of a new patient
Denominator – Home Visit	CPT	99350	Home visit for the evaluation and management of a new patient
Denominator – Initial Hospital Observation	CPT	99218	Initial observation care
Denominator – Initial Hospital Observation	CPT	99219	Initial observation care
Denominator – Initial Hospital Observation	CPT	99220	Initial observation care
Denominator – Office Consultation	CPT	99242	Office or other outpatient consultation
Denominator – Office Consultation	CPT	99243	Office or other outpatient consultation
Denominator – Office Consultation	CPT	99244	Office or other outpatient consultation
Denominator – Office Consultation	CPT	99245	Office or other outpatient consultation
Denominator – Office Visit	CPT	99202	Office or other outpatient visit
Denominator – Office Visit	CPT	99203	Office or other outpatient visit
Denominator – Office Visit	CPT	99204	Office or other outpatient visit
Denominator – Office Visit	CPT	99205	Office or other outpatient visit
Denominator – Office Visit	CPT	99211	Office or other outpatient visit

Denominator – Office Visit	CPT	99212	Office or other outpatient visit
Denominator – Office Visit	CPT	99213	Office or other outpatient visit
Denominator – Office Visit	CPT	99214	Office or other outpatient visit
Denominator – Office Visit	CPT	99215	Office or other outpatient visit

Otorrhea

Denominator - Otorrhea	SNOMEDCT	1084321000119105	Otorrhea of bilateral ears (disorder)
Denominator - Otorrhea	SNOMEDCT	1089391000119108	Otorrhea of left ear (disorder)
Denominator - Otorrhea	SNOMEDCT	1092001000119106	Otorrhea of right ear (disorder)
Denominator - Otorrhea	ICD9CM-DX	388.6	Otorrhea
Denominator - Otorrhea	ICD9CM-Dx	388.60	Otorrhea, unspecified
Denominator - Otorrhea	ICD9CM-DX	388.69	Other otorrhea
Denominator - Otorrhea	ICD10CM	H92.1	Otorrhea
Denominator - Otorrhea	ICD10CM	H92.10	Otorrhea, unspecified ear
Denominator - Otorrhea	ICD10CM	H92.11	Otorrhea, right ear
Denominator - Otorrhea	ICD10CM	H92.12	Otorrhea, left ear
Denominator - Otorrhea	ICD10CM	H92.13	Otorrhea, bilateral

Tympanostomy Tube

Denominator - Tympanostomy	CPT	0583T	Tympanostomy (requiring insertion of ventilating tube), using an automated tube delivery system, iontophoresis local anesthesia
Denominator - Tympanostomy	ICD10PCS	092HX0Z	Change Drainage Device in Right Ear, External Approach
Denominator - Tympanostomy	ICD10PCS	092JX0Z	Change Drainage Device in Left Ear, External Approach
Denominator - Tympanostomy	ICD10PCS	099000Z	Drainage of Right External Ear with Drainage Device, Open Approach
Denominator - Tympanostomy	ICD10PCS	099030Z	Drainage of Right External Ear with Drainage Device, Percutaneous Approach
Denominator - Tympanostomy	ICD10PCS	099040Z	Drainage of Right External Ear with Drainage Device, Percutaneous Endoscopic Approach
Denominator - Tympanostomy	ICD10PCS	0990X0Z	Drainage of Right External Ear with Drainage Device, External Approach
Denominator - Tympanostomy	ICD10PCS	099100Z	Drainage of Left External Ear with Drainage Device, Open Approach
Denominator - Tympanostomy	ICD10PCS	099130Z	Drainage of Left External Ear with Drainage Device, Percutaneous Approach
Denominator - Tympanostomy	ICD10PCS	099140Z	Drainage of Left External Ear with Drainage Device, Percutaneous Endoscopic Approach
Denominator - Tympanostomy	ICD10PCS	0991X0Z	Drainage of Left External Ear with Drainage Device, External Approach
Denominator - Tympanostomy	ICD10PCS	099500Z	Drainage of Right Middle Ear with Drainage Device, Open Approach
Denominator - Tympanostomy	ICD10PCS	099570Z	Drainage of Right Middle Ear with Drainage Device, Via Natural or Artificial Opening
Denominator - Tympanostomy	ICD10PCS	099580Z	Drainage of Right Middle Ear with Drainage Device, Via Natural or Artificial Opening Endoscopic

Denominator - Tympanostomy	ICD10PCS	099600Z	Drainage of Left Middle Ear with Drainage Device, Open Approach
Denominator - Tympanostomy	ICD10PCS	099670Z	Drainage of Left Middle Ear with Drainage Device, Via Natural or Artificial Opening
Denominator - Tympanostomy	ICD10PCS	099680Z	Drainage of Left Middle Ear with Drainage Device, Via Natural or Artificial Opening Endoscopic
Denominator - Tympanostomy	ICD10PCS	099D00Z	Drainage of Right Inner Ear with Drainage Device, Open Approach
Denominator - Tympanostomy	ICD10PCS	099D70Z	Drainage of Right Inner Ear with Drainage Device, Via Natural or Artificial Opening
Denominator - Tympanostomy	ICD10PCS	099D80Z	Drainage of Right Inner Ear with Drainage Device, Via Natural or Artificial Opening Endoscopic
Denominator - Tympanostomy	ICD10PCS	099E00Z	Drainage of Left Inner Ear with Drainage Device, Open Approach
Denominator - Tympanostomy	ICD10PCS	099E70Z	Drainage of Left Inner Ear with Drainage Device, Via Natural or Artificial Opening
Denominator - Tympanostomy	ICD10PCS	099E80Z	Drainage of Left Inner Ear with Drainage Device, Via Natural or Artificial Opening Endoscopic
Denominator - Tympanostomy	ICD10PCS	09WH00Z	Revision of Drainage Device in Right Ear, Open Approach
Denominator - Tympanostomy	ICD10PCS	09WH30Z	Revision of Drainage Device in Right Ear, Percutaneous Approach
Denominator - Tympanostomy	ICD10PCS	09WH40Z	Revision of Drainage Device in Right Ear, Percutaneous Endoscopic Approach
Denominator - Tympanostomy	ICD10PCS	09WH70Z	Revision of Drainage Device in Right Ear, Via Natural or Artificial Opening
Denominator - Tympanostomy	ICD10PCS	09WH80Z	Revision of Drainage Device in Right Ear, Via Natural or Artificial Opening Endoscopic
Denominator - Tympanostomy	ICD10PCS	09WHX0Z	Revision of Drainage Device in Right Ear, External Approach
Denominator - Tympanostomy	ICD10PCS	09WJ00Z	Revision of Drainage Device in Left Ear, Open Approach

Denominator - Tympanostomy	ICD10PCS	09WJ30Z	Revision of Drainage Device in Left Ear, Percutaneous Approach
Denominator - Tympanostomy	ICD10PCS	09WJ40Z	Revision of Drainage Device in Left Ear, Percutaneous Endoscopic Approach
Denominator - Tympanostomy	ICD10PCS	09WJ70Z	Revision of Drainage Device in Left Ear, Via Natural or Artificial Opening
Denominator - Tympanostomy	ICD10PCS	09WJ80Z	Revision of Drainage Device in Left Ear, Via Natural or Artificial Opening Endoscopic
Denominator - Tympanostomy	ICD10PCS	09WJX0Z	Revision of Drainage Device in Left Ear, External Approach
Denominator - Tympanostomy	ICD10PCS	0H92X0Z	Drainage of Right Ear Skin with Drainage Device, External Approach
Denominator - Tympanostomy	ICD10PCS	0H93X0Z	Drainage of Left Ear Skin with Drainage Device, External Approach
Denominator - Tympanostomy	SNOMEDCT	247253001	Ventilation tube in tympanic membrane (finding)
Denominator - Tympanostomy	SNOMEDCT	284532000	Myringotomy and insertion of tympanic ventilation tube (procedure)
Denominator - Tympanostomy	SNOMEDCT	397862008	Tympanostomy (procedure)
Denominator - Tympanostomy	SNOMEDCT	416735007	Tympanic ventilation tube (Physical object)
Denominator - Tympanostomy	SNOMEDCT	429440003	Insertion of tympanic ventilation tube in tympanic membrane (procedure)
Denominator - Tympanostomy	SNOMEDCT	466109003	Tympanostomy tube, semi-permeable membrane (Physical Object)
Denominator - Tympanostomy	CPT	69433	Tympanostomy (requiring insertion of ventilating tube), local or topical anesthesia
Denominator - Tympanostomy	CPT	69433	Tympanostomy (requiring insertion of ventilating tube), local or topical anesthesia
Denominator - Tympanostomy	CPT	69436	Tympanostomy (requiring insertion of ventilating tube), general anesthesia

Denominator - Tympanostomy	CPT	69436	Tympanostomy (requiring insertion of ventilating tube), general anesthesia
Denominator - Tympanostomy	SNOMEDCT	69534008	Tympanostomy with general anesthesia (procedure)