

INCLUSION CRITERIA

Patients ≥ 3 months of age presenting with ear pain, otorrhea, or tugging at ears who meet AOM criteria.

EXCLUSION CRITERIA

- Cochlear implants
- Craniofacial abnormality
- Immunocompromised
- Tympanostomy tubes

MEASURES

- Percent of patients treated with first-line amoxicillin
- Number of prescribed antibiotic days

DEFINITIONS

Acute Otitis Media (AOM) Diagnostic Criteria (with and without fever)

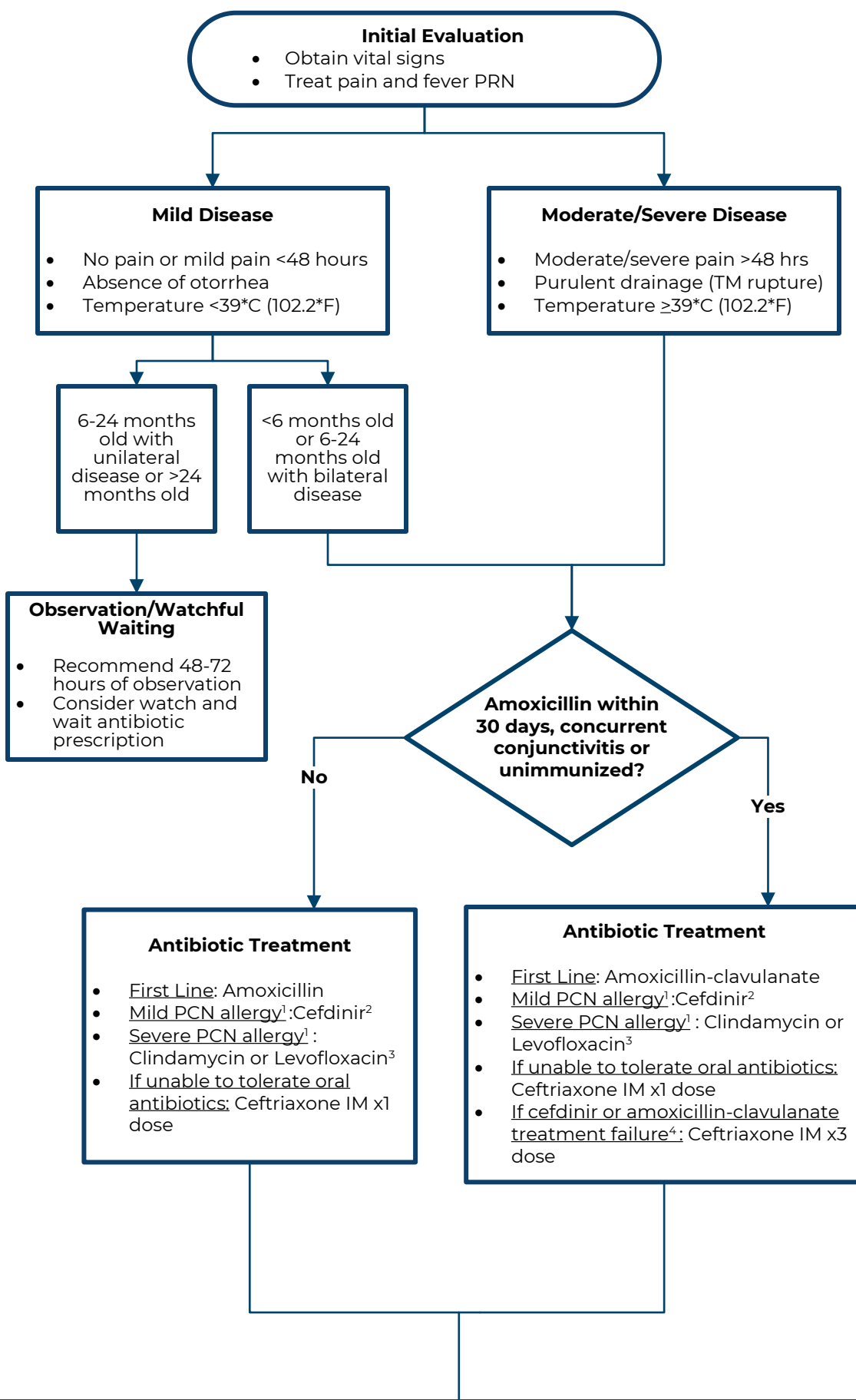
- Moderate to severe bulging of tympanic membrane OR
- New onset otorrhea OR
- Intense tympanic membrane erythema OR
- Mild bulging of tympanic membrane and <48 hour onset of pain

Recurrent AOM

- New symptoms and AOM within 30 days of completion of a course of therapy

Treatment Failure⁴

- Failure to improve after 48-72 hours of therapy. Implies another disease, concomitant viral infection, or resistance to chosen antibiotic. If changing antibiotics, age based duration should still be used.



PENICILLIN ALLERGY¹ DEFINITIONS

- **Mild PCN allergy type IV:** Delayed maculopapular rash without urticaria, blistering, desquamation, mucosal involvement, systemic symptoms
- **Severe PCN allergy (type 1/IgE mediated):** Allergist-confirmed history of urticaria, angioedema, wheezing, respiratory distress or anaphylaxis

ANTIBIOTIC CONSIDERATIONS

- **Cefdinir Consideration²**
Cefdinir is suboptimal to Amoxicillin and should be reserved for a mild PCN allergy
- **Special Consideration³**
Levofloxacin suspension may require prior authorization, consider tablets in children ≥ 25 kg

ADDITIONAL INFORMATION

- **ENT Referral Criteria⁵**
3 episodes of AOM in 6 months or 4 episodes in 1 year with 1 episode in the preceding 6 months

DISCHARGE PATIENT

- Provide *Middle Ear Infection: How to Care for Your Child* with review of pain management at home
- Provide guidance to return for worsening pain or fever or no clinical improvement in 48-72 hours
- If receiving IM ceftriaxone x3 doses, give first dose in ED and refer to PCP for nurse visit or urgent care for subsequent doses
- Refer to ENT⁵ when appropriate

Antibiotic Duration

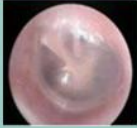
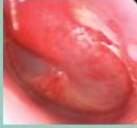
(NOT applicable to Ceftriaxone)

Age	Initial Infection Duration	Recurrent Infection Duration
<2 years OR any age with Perforated TM	10 days	10 days
2 - <6 years	5-7 days	5-10 days
≥ 6 years	5 days	5-10 days

Antibiotic Dosing

Medication	Route	Dosage	Max per Dose
Amoxicillin	PO	45 mg/kg/dose BID	1000 mg
Amoxicillin-clavulanate (Augmentin)	PO	ES Suspension (amoxicillin 600 mg/clavulanate 42.9 mg/5 mL) 45 mg/kg/dose of amoxicillin BID	900 mg
	PO	Tablet (amoxicillin 875 mg/clavulanate 125 mg per tablet) for weight ≥ 40 kg 875 mg of amoxicillin BID	875 mg
	PO	Chewable Tablet (amoxicillin 400 mg/clavulanate 57 mg per tablet) for weight ≥ 40 kg 800 mg of amoxicillin BID	800 mg
Cefdinir	PO	7 mg/kg/dose BID	300 mg
Ceftriaxone	IM	50 mg/kg/dose Q24H	1000 mg
Clindamycin	PO	10 mg/kg/dose TID	600 mg
Levofloxacin	PO	≥ 6 months to < 5 years 10 mg/kg/dose BID	375 mg
	PO	> 5 years 10 mg/kg/dose Q24H	750 mg

For patients < 12 years of age, consider the use of amoxicillin-clavulanate suspension to achieve higher doses of amoxicillin.

Tympanic Membrane Appearance	
Visual	Description
	Normal tympanic membrane
	Tympanic membrane with mild bulging
	Tympanic membrane with moderate bulging
	Tympanic membrane with severe bulging
	Tympanic membrane with intense erythema

Abbreviations			
Abbreviation	Terminology	Abbreviation	Terminology
AOM	Acute otitis media	mg	Milligram
BID	Twice a day	PC	Primary Care
C	Celsius	PCN	Penicillin
ED	Emergency department	PCP	Primary care physician
ENT	Ear, nose and throat	PO	By mouth
F	Fahrenheit	PRN	As needed
IM	Intramuscular	TID	Three times a day
IV	Intravenous	TM	Tympanic membrane
kg	Kilogram	UC	Urgent Care

Disclaimer: The clinical pathways are based upon publicly available medical evidence and/or a consensus of medical practitioners at Nemours Children's Health ("Nemours") and are current at the time of publication. These clinical pathways are intended to be a guide for practitioners and may need to be adapted for each specific patient based on the practitioner's professional judgment, consideration of any unique circumstances, the needs of each patient and their family, and/or the availability of various resources at the health care institution where the patient is located.

VERSION MANAGEMENT

- Version 1.0 (10/23/2023): Go Live.
- Version 2.0 (6/16/2026): Look back review completed - reorganization of some content, no treatment changes.

Questions about this pathway should be directed to **clinicalpathways@nemours.org**.

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