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# Outpatient Antibiotic Handbook

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# Contents



Please, see full list of Blank Children's Hospital's Clinical Practice Guidelines at:
https://www.unitypoint.org/blankchildrens/pathways.aspx

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# Strep Throat (Group A Streptococcal Pharyngitis)[1,2]

EXCLUSION CRITERIA:

Bacterial lymphadenitis (edematous, tender node with overlying erythema & warmth—see Cervical Lymphadenitis guideline)

Retropharyngeal abscess (limited neck extension or other decreased movement due to pain)

Peritonsillar abscess (trismus, uvular edema/deviation, muffled voice, drooling)

Ludwig's angina (infection at floor of mouth)

**Notes:**
- Strep throat uncommon and rheumatic fever rare in children < 3 years of age
- Only test children < 3 years of age who have symptoms & exam findings of Strep throat **AND** a household contact with active/recent confirmed Strep throat. Likely asymptomatic carriers if test positive without meeting above criteria.
- Fever in absence of sore throat —> Strep throat very unlikely

**Viral symptoms:**
- Conjunctivitis
- Rhinorrhea/nasal congestion
- Cough
- Diarrhea
- Hoarseness
- Oral ulcers
- Viral rash

**Exam findings consistent with streptococcal pharyngitis:**
- Tonsillopharyngeal erythema with or without exudates
- Tender, enlarged anterior cervical nodes
- Scarlitiniform rash
- Palatal petechiae
- Red and swollen uvula

Acute sore throat **AND** ≥ 3 years old

Is the patient without viral symptoms?

No → Likely viral etiology. No testing indicated. Supportive cares.

Yes

≥ 1 exam findings consistent with Strep throat?

No → No testing indicated. Supportive cares.

Yes

Obtain Rapid Antigen Detection Test (Point of Care Rapid Strep)

Positive

**First Line Options**:
- Amoxicillin 50 mg/kg PO once daily x 10 days (max 1000 mg/day)
- Penicillin G benzathine IM shot:
  - < 27 kg: 600,000 units x 1
  - ≥ 27 kg: 1.2 million units x 1
- Oral penicillin VK:
  - < 27 kg: 250 mg PO BID x 10 days
  - ≥ 27 kg: 500 mg PO BID x 10 days

**Non-severe penicillin allergy (e.g., hives):**
- Consider referral to allergy for antibiotic challenge
- Cephalexin 40 mg/kg/day PO div BID x 10 days (max 1000 mg/day)

**Severe penicillin allergy (e.g., anaphylaxis):**
- Clindamycin 30 mg/kg/day div TID x 10 days (max 900 mg/day)

Negative

Supportive cares.
Do NOT start antibiotics.
Await throat culture results.

Culture positive for Group A streptococcus?

Yes → (First Line Options)

No → No antibiotics indicated

**Do NOT Use**:
- Azithromycin—high rates of Group A streptococcal resistance
- 2nd (cefuroxime) or 3rd generation (cefdinir, cefixime, cefpodoxime, ceftriaxone) cephalosporins . All are unnecessarily broad. 100% of Group A streptococcus covered by amoxicillin/penicillin and 1st generation cephalosporins (cephalexin).
- Amoxicillin-clavulanate—Group A streptococcus is universally susceptible to amoxicillin, so addition of clavulanate provides no additional Group A streptococcal coverage
- Trimethoprim-sulfamethoxazole, doxycycline, fluoroquinolones
- Aspirin or corticosteroids

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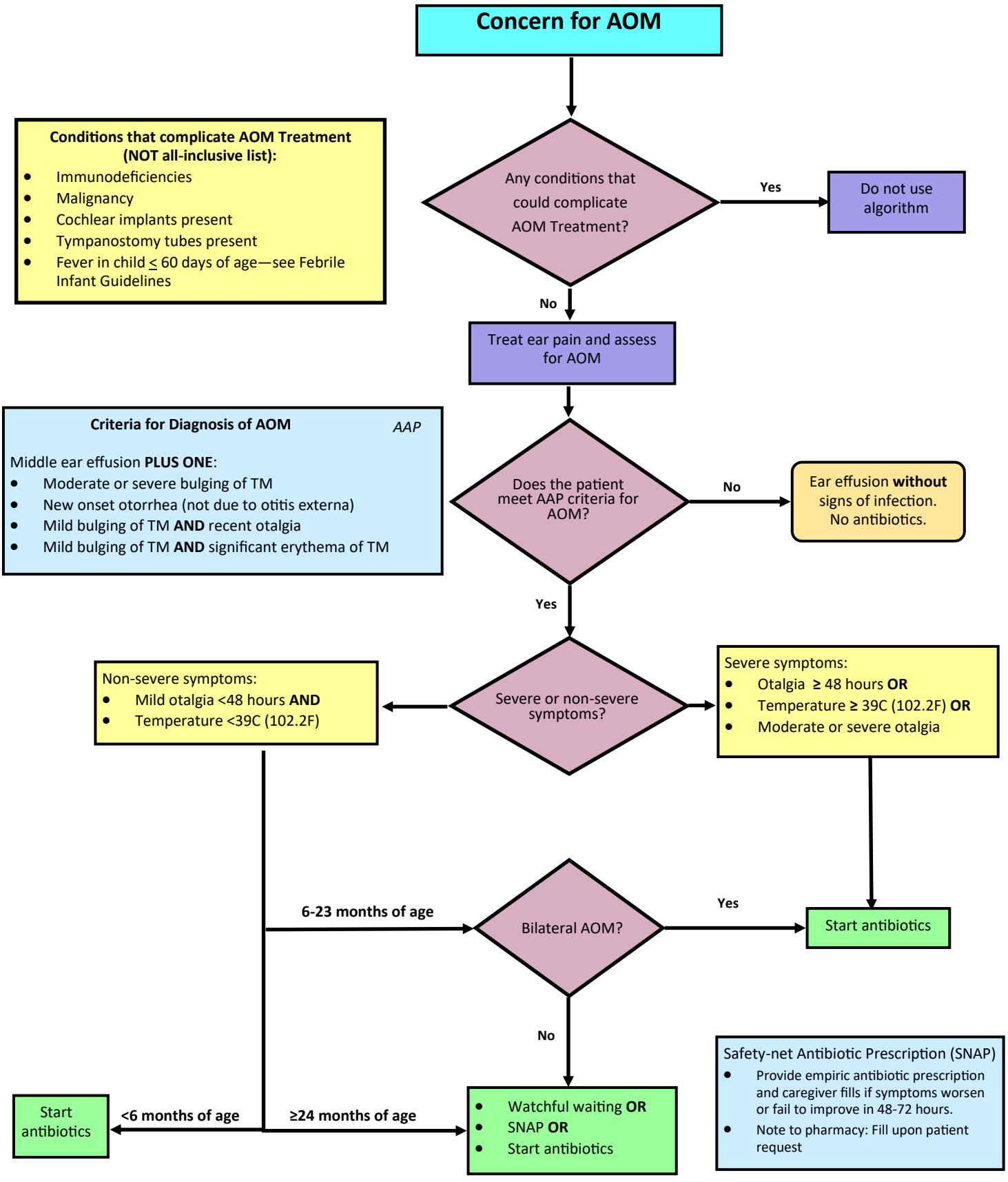
# Acute Otitis Media (AOM)[2-6]




**Conditions that complicate AOM Treatment (NOT all-inclusive list):**

- Immunodeficiencies
- Malignancy
- Cochlear implants present
- Tympanostomy tubes present
- Fever in child ≤ 60 days of age—see Febrile Infant Guidelines

**Criteria for Diagnosis of AOM** *AAP*

Middle ear effusion **PLUS ONE**:

- Moderate or severe bulging of TM
- New onset otorrhea (not due to otitis externa)
- Mild bulging of TM **AND** recent otalgia
- Mild bulging of TM **AND** significant erythema of TM

Safety-net Antibiotic Prescription (SNAP)

- Provide empiric antibiotic prescription and caregiver fills if symptoms worsen or fail to improve in 48-72 hours.
- Note to pharmacy: Fill upon patient request

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# Acute Otitis Media (AOM) Treatment

- Oral cephalosporins are alternative options for first line treatment in children who cannot receive amoxicillin.
- However, these oral cephalosporins have inferior coverage for *Streptococcus pneumoniae* due to nonoptimal pharmacokinetic/pharmacodynamic properties (e.g., short half-lives, low bioavailability).
- Therefore, amoxicillin-clavulanate failure should **NOT** be treated with oral cephalosporin monotherapy (see below)
- Do **NOT** use azithromycin for AOM due to high rates of pneumococcal resistance.
- For amoxicillin-clavulanate, consider using ES formulation: 600 mg-42.9mg/5mL to decrease diarrhea.

## First Line Treatment

**No penicillin allergy:**

- No concurrent purulent conjunctivitis or amoxicillin in last 30 days:
  - Amoxicillin 80-90 mg/kg/day PO divided BID (max 875 mg/dose)
- Concurrent purulent conjunctivitis present or amoxicillin in last 30 days:
  - Amoxicillin-clavulanate 80-90 mg/kg/day PO divided BID (max 875 mg amoxicillin component/dose)

**Mild/moderate penicillin allergy (e.g., hives)**:

- Consider outpatient referral to allergy for antibiotic challenge
- Cefdinir 14 mg/kg/day PO divided **BID** (max 300 mg/dose) (once daily dosing suboptimal for many pneumococcal and non-pneumococcal isolates) **OR**
- Cefuroxime 30 mg/kg/day PO divided BID (max 500 mg/dose) - only available in tablet form **OR**
- Cefpodoxime 10 mg/kg/day PO divided BID (max 200 mg/dose) - cost & availability may be restrictive **OR**
- Ceftriaxone 50 mg/kg/dose IM or IV x 1 dose (max 1000 mg/dose)

**Severe penicillin allergy (e.g., anaphylaxis)**

- No concurrent purulent conjunctivitis: Clindamycin 30 mg/kg/day PO divided TID (max 450 mg/dose)
- Concurrent purulent conjunctivitis present: Discuss with pediatric infectious diseases

## Antibiotic Selection After Treatment Failure

**(Treatment Failure = No Clinical Improvement After 48-72 Hours)**

**Failed amoxicillin:**

- Amoxicillin-clavulanate 80-90 mg/kg/day PO divided BID (max 875 mg amoxicillin component/dose)

**Failed amoxicillin-clavulanate:**

- Ceftriaxone 50 mg/kg IM or IV once daily (max 1000 mg/dose) x 3 days **OR**
- Clindamycin 30 mg/kg/day PO divided TID (max 450 mg/dose) **PLUS**
  - Cefdinir **OR** cefuroxime **OR** cefpodoxime (see doses above)

**Failed oral cephalosporin OR IM ceftriaxone x 1 dose:**

- Ceftriaxone 50 mg/kg IM or IV once daily (max 1000 mg/dose) x 3 days **OR**
- Clindamycin 30 mg/kg/day PO divided TID (max 450 mg/dose) - only use if no purulent conjunctivitis present

## Duration

- 10 days if: < 2 years old **OR** severe AOM **OR** recurrent AOM **OR** perforation of TM
- 7 days if: 2-5 years old **AND** non-severe symptoms
- 5-7 days if: > 6 years **AND** non-severe symptoms

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# Uncomplicated Community-Acquired Pneumonia (CAP) ≥ 4 Months of Age[7-10]

- Clinical findings: Fever ≥100.4F, lower respiratory symptoms, & focal findings on auscultation (exclude wheezing)
- Chest x-ray not typically needed among immunocompetent children ≥ 4 months if well-appearing and not requiring hospitalization
- Uncomplicated CAP: No significant pleural effusion, empyema, necrotizing pneumonia, lung abscess, sepsis, shock, current or impending respiratory failure
- Do **NOT** use algorithm if: < 4 months of age, immunocompromised, receiving home mechanical ventilation, tracheostomy dependent, hospitalized within past 7 days, acute asthma exacerbation, cystic fibrosis, clinical concern for aspiration pneumonia

## Treatment

**First Line**:

- Amoxicillin 90 mg/kg/day PO divided BID (max 1000 mg/dose)

**Mild/Moderate penicillin allergy (e.g., hives):**

- Consider outpatient referral to allergy for antibiotic challenge
- Clindamycin 30 mg/kg/day PO divided TID (max 600 mg/dose)
    - Often best option among children who cannot swallow pills due to limited availability and cost of liquid cefpodoxime and cefprozil
- Cefuroxime 30 mg/kg/day PO divided BID (max 500 mg/dose) (only available in tablet form)
- Cefpodoxime 10 mg/kg/day PO divided BID (max 200 mg/dose) (cost & availability may be restrictive)
- Cefprozil 30 mg/kg/day PO divided BID (max 500 mg/dose) (cost & availability may be restrictive)

**Severe penicillin allergy (e.g., anaphylaxis) or cephalosporin allergy:**

- Clindamycin 30 mg/kg/day PO divided TID (max 600 mg/dose)

**Severe penicillin allergy (e.g., anaphylaxis) or cephalosporin allergy AND inability to tolerate clindamycin:**

- Levofloxacin
    - 6 months—4 years of age: 10 mg/kg/dose PO BID (max 750 mg/day)
    - ≥ 5 years of age: 10 mg/kg PO once daily (max 750mg/day)

**Atypical pneumonia:**

- Azithromycin 10mg/kg PO once daily on day 1 (max 500 mg/dose), then 5 mg/kg (max 250 mg/dose) once daily on days 2-5

## Duration

- Typical/Lobar CAP: 5 days
    - 5 days of therapy has similar clinical response to 10 days of therapy with decreased antibiotic exposure and resistance development
- Atypical CAP: 5 days

## Notes

- **Do NOT use cefdinir** for CAP, as it does not achieve therapeutic concentrations in lungs to treat pneumococcus
- All oral cephalosporins are inferior to high dose amoxicillin for pneumococcus
- Nearly half of pneumococcal isolates are resistant to azithromycin among children in central Iowa, so do **NOT** use azithromycin for typical/lobar CAP

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# Uncomplicated Urinary Tract Infection (Cystitis)
# Children ≥ 2 years of age[2,11]

- To be uncomplicated, child must be well-appearing **AND** without fever, vomiting, or flank pain
- Obtain urinalysis with micro and urine culture
- If patient has history of UTI, empiric antibiotic therapy should be based on previous cultures if available

## Treatment

**First Line:**

- Cephalexin 50 mg/kg/day PO divided TID (max 500 mg/dose)

**Alternative Options:**

- Cefpodoxime 10 mg/kg/day PO divided BID (max 100 mg/dose) (cost & availability may be restrictive)
- Cefixime 8 mg/kg PO once daily (max 400 mg/dose) (cost & availability may be restrictive)
- Amoxicillin-clavulanate
  - < 12 years of age: 40 mg/kg/day PO divided TID (Max 500 mg amoxicillin component/dose)
  - ≥ 12 years of age: 500 mg/dose PO BID

**Cephalosporin allergy or severe penicillin allergy (e.g. anaphylaxis):**

- Consider outpatient referral to allergy for antibiotic challenge
- TMP-SMX 6-12 mg/kg/day PO divided BID (Max 160 mg TMP component/dose)
  - ~25% of *E. Coli* isolates resistant to TMP-SMX among children in central Iowa
- Nitrofurantoin 5-7 mg/kg/day PO divided every 6 hours (max 100mg/dose)

## Duration

- 5-7 days for younger children & adolescent males
- 5-7 days if using nitrofurantoin regardless of age
- 3-5 days for adolescent females NOT receiving nitrofurantoin

## Do NOT use

- **Cefdinir** for UTI due to poor urine concentration among children compared to adults

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# Febrile Urinary Tract Infection (Pyelonephritis)
## Children ≥ 2 months of age[2,11]

- Pyelonephritis = UTI in a child with fever, vomiting, flank pain, and/or is ill-appearing
- Evaluate the need for hospitalization:
  - Possible indications: age < 2 months, ill-appearing, sepsis, vomiting, inability to tolerate oral medication, immunocompromised, failure to respond to outpatient therapy, difficulty in ensuring timely outpatient follow-up
- Obtain urinalysis with micro and urine culture
- If patient has history of UTI, empiric antibiotic therapy should be based on previous cultures if available

### Treatment

**First Line:**

- Cephalexin 75 mg/kg/day PO divided TID (max 1000 mg/dose)

**Alternative Options:**

- Cefpodoxime 10 mg/kg/day PO divided BID (max 200 mg/dose) (cost & availability may be restrictive)
- Cefixime 8 mg/kg/day PO divided BID (max 200 mg/dose or 400mg/day) (cost & availability may be restrictive)
- Amoxicillin-clavulanate
  - < 12 years of age: 40 mg/kg/day PO divided TID (max 500 mg amoxicillin component/dose)
  - ≥ 12 years of age: 875 mg/dose PO BID

**Cephalosporin allergy or severe penicillin allergy (e.g. anaphylaxis):**

- Consider outpatient referral to allergy for antibiotic challenge
- TMP-SMX 6-12mg/kg/day PO divided BID (Max 160 mg TMP component/dose)
  - ~25% of *E. Coli* isolates resistant to TMP-SMX among children in central Iowa
- Ciprofloxacin 20 mg/kg/day PO divided BID (Max 750 mg/dose)

### Duration

- 7-10 days (7 days typically adequate)

### Do NOT use

- **Cefdinir** due to poor urine concentration among children compared to adults
- **Nitrofurantoin** for pyelonephritis—concentrates well in urine but not kidneys

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# Skin and Soft Tissue Infections (SSTIs) > 60 Days of Age[12]

- Do **NOT** use this guideline if: immunocompromised, ≤ 60 days of age, concern for deeper or necrotizing infection, post-surgical site infection, human/animal bite infection (see Human/Animal Bite Wounds Guideline), and/or meets criteria for hospitalization
- Hospitalization criteria (NOT all-inclusive list): Sepsis/SIRS, failing outpatient treatment, inability to tolerate oral medications, difficulty ensuring timely outpatient follow-up, altered mental status
- *Staphylococcus aureus* and *group A Streptococcus* are most common pathogens
- MRSA risk factors: personal or family history of MRSA
- If patient has history of MRSA abscesses, empiric antibiotic therapy should be based on previous cultures if available

## Treatment

**Impetigo**

- Mild cases with only a few lesions
  - Topical mupirocin BID x 5 days
- Numerous lesions, perioral lesions, or outbreak affecting several people
  - First line: cephalexin 50 mg/kg/day PO divided TID (max 500 mg/dose)
  - If personal or family history of MRSA OR severe penicillin/cephalosporin allergy
    - Consider outpatient referral to allergy for antibiotic challenge if allergy present
    - Clindamycin 30 mg/kg/day PO divided TID (max 450 mg/dose) **OR**
    - TMP-SMX 8-12 mg/kg/day PO divided BID (max 160 mg TMP component/dose)
      - May not cover group A *Streptococcus*
  - Duration: 5-7 days

**Nonpurulent Cellulitis or Erysipelas**

- First line: cephalexin 50 mg/kg/day PO divided TID (max 500 mg/dose)
- If personal or family history of MRSA OR severe penicillin/cephalosporin allergy
  - Consider outpatient referral to allergy for antibiotic challenge if allergy present
  - Clindamycin 30 mg/kg/day PO divided TID (max 450 mg/dose) **OR**
  - TMP-SMX 8-12 mg/kg/day PO divided BID (max 160 mg TMP component/dose)
    - May not cover group A *Streptococcus*
- Duration: 5-7 days

**Abscess**

- I & D with stab or crisscross incision; attempt to place loop drain if able. **SEND CULTURE**.
- First line:
  - Clindamycin 30 mg/kg/day PO divided TID (max 450 mg/dose) **OR**
  - TMP-SMX 8-12 mg/kg/day PO divided BID (max 160 mg TMP component/dose)
  - Consider narrowing antibiotic choice if culture results MSSA or group A *Streptococcus* (GAS), as rates of MSSA and GAS resistance to clindamycin are increasing among children in central Iowa
    - For MSSA—cephalexin 50 mg/kg/day PO divided TID (max 500 mg/dose)
    - For GAS—amoxicillin 45 mg/kg/day PO divided BID (max 875 mg amoxicillin/dose)
- Duration: 5-7 days

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# Acute Bacterial Sinusitis[2,13]

## Diagnosis

- Exclusion criteria: immunocompromised, cystic fibrosis, ciliary dyskinesia, < 1 year of age, previous sinus surgery, sinusitis complications present
- Sinusitis complications: subperiosteal abscess, orbital cellulitis or abscess, subdural/epidural empyema, brain abscess, meningitis, cavernous or sagittal sinus thrombosis, Pott puffy tumor (frontal bone osteomyelitis)
- Diagnosis: 3 ways to make presumptive diagnosis of acute bacterial sinusitis in children:
    1. Persistent illness—nasal discharge and/or daytime cough lasting > 10 days **WITHOUT** improvement
    2. Worsening course—worsening or new onset nasal discharge, daytime cough, or fever after initial improvement
    3. Severe onset– concurrent fever (≥ 39°C/102.2°F) & purulent nasal discharge for ≥ 3 consecutive days

## Treatment

**Non-severe disease AND no antibiotics within previous 30 days AND does not attend child care AND ≥ 2 years old:**

- No penicillin allergy: amoxicillin 80-90 mg/kg/day PO divided BID (max 875 mg/dose)
- Mild penicillin allergy (e.g., hives):
    - Consider outpatient referral to allergy for antibiotic challenge
    - Cefpodoxime 10 mg/kg/day PO div BID (max 200 mg/dose) (cost/availability may be restrictive)
    - Cefuroxime 30 mg/kg/day PO divided BID (max 500 mg/dose) (only available in tablet form)
    - Cefixime 8 mg/kg/day PO divided BID (max 200 mg/dose) PLUS clindamycin 30 mg/kg/day PO divided TID (max 450 mg/dose)
        - Cefixime cost/availability may be restrictive
- Severe penicillin allergy (e.g., anaphylaxis): Levofloxacin 10 mg/kg/dose PO BID if < 5 years of age **OR** 10 mg/kg/dose PO once daily if ≥ 5 years of age (max 500 mg/day for all ages)

**Severe disease OR mild-moderate disease with ANY of the following: received antibiotics within previous 30 days, attends child care, or < 2 years of age**:

- Amoxicillin-clavulanate 80-90 mg/kg/day PO divided BID (max 875 mg amoxicillin/dose)
    - Consider ES formulation: 600 mg-42.9mg/5mL to decrease clavulanate-associated diarrhea

## Duration

- 10-14 days (10 days typically adequate)

## Notes

- Bacterial sinusitis is uncommon in kids < 2 years old
- Do **NOT** use:
    - **Cefdinir**—does not achieve therapeutic concentrations in sinuses to treat pneumococcus
    - **Azithromycin**—high rates of pneumococcal resistance

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## Human/Animal Bite Wounds[2,12]

- Evaluate need for Tetanus and/or Rabies prophylaxis
- Copious irrigation/cleaning for all bite wounds
- If no signs of infection after bite, provide antibiotic prophylaxis for those with any of the following:
    - Moderate or severe bite wounds, especially if edema or crush injury present
    - All face, hand, foot, or genital area bite wounds
    - Puncture wounds
    - Wounds in immunocompromised, asplenic, or advanced liver disease patients
    - Cat bite wounds
- Antibiotic prophylaxis NOT needed for mild injuries where skin is abraded—cleansing of wounds is sufficient
- If signs of infection after bite:
    - Aerobic and anaerobic culture of purulent material if present
    - Start antibiotic therapy

## Antibiotic Selection

**First Line:**

- Amoxicillin-clavulanate 45 mg/kg/day PO divided BID (max 875 mg amoxicillin component/dose)

**Penicillin Allergy:**

- Consider outpatient referral to allergy for antibiotic challenge
- Clindamycin 30 mg/kg/day PO divided TID (max 450 mg/dose) **PLUS**
    - TMP-SMX 8-12 mg/kg/day PO divided BID (max 160 mg TMP component/dose) **OR**
    - Doxycycline 4.4 mg/kg/day PO divided BID (max 100 mg/dose)

## Duration

- Prophylaxis: 3 days
- Treatment: 5-10 days

## Notes

- Primary wound closure **NOT** recommended except:
    - Wounds to face—needs copious irrigation & cautious debridement prior to primary closure
- Consider loosely approximating larger bite wounds
- **DO NOT** use tissue adhesive/skin glue on any bite wounds

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# Dental Abscess[14]

- Uncomplicated dental abscess—has limited, localized inflammation of surrounding tissues
- Complicated dental abscess—has diffuse facial edema and/or facial cellulitis
- Significant complications— periorbital or orbital cellulitis, sinusitis, Ludwig angina, deep neck space infection, osteomyelitis of the jaw, and rarely meningitis
- Consider hospitalization if ill-appearing/sepsis, inability to tolerate oral antibiotic, significant complication (see above), etc.
- If child is immunocompromised, discuss with pediatric infectious diseases

**Treatment**

**Abscess with limited, localized inflammation**

- First line = amoxicillin 50 mg/kg/day PO divided TID (max 500 mg/dose)
    - If treatment failure after 2-3 days of amoxicillin
        - Amoxicillin-clavulanate 50 mg/kg/day PO divided TID (max 500 mg amoxicillin component/dose)
- Penicillin allergy or severe cephalosporin allergy (e.g., anaphylaxis)
    - Consider outpatient referral to allergy for antibiotic challenge
    - Clindamycin 30 mg/kg/day PO divided TID (max 450 mg/dose)

**Abscess with diffuse facial edema and/or facial cellulitis <u>WITHOUT</u> significant complication**

- First line = amoxicillin-clavulanate 50 mg/kg/day PO divided TID (max 500 mg amoxicillin component/dose)
- Penicillin allergy or severe cephalosporin allergy (e.g., anaphylaxis)
    - Consider outpatient referral to allergy for antibiotic challenge
    - Clindamycin 30 mg/kg/day PO divided TID (max 450 mg/dose)

**Dental referral**

- All children with dental abscess require an urgent dental referral

**Duration**

- 7 days

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## Cervical Lymphadenitis[2]

- Bacterial lymphadenitis is typically unilateral, tender, and often with overlying erythema and warmth of skin.
    - Treat with antibiotic therapy
    - *Staphylococcus aureus* and group A *Streptococcus* are most common pathogens
    - Consider anaerobic organisms if poor dental hygiene, periodontal disease/abscess present
    - Young infants (< 90 days of age) can suffer cellulitis-adenitis syndrome from group B *Streptococcus* (GBS). Many will have bacteremia and/or meningitis, and all require admission for evaluation and treatment.
- Bilateral lymphadenitis is typically viral and can be observed without antibiotic therapy
- *Bartonella henselae* typically causes subacute/chronic unilateral lymphadenitis—often kitten/cat scratch
    - Overlying skin typically not erythematous or warm but can suppurate
- Nontuberculous *Mycobacterium* (NTM) causes subacute/chronic unilateral lymphadenitis in children 1-5 years
    - Overlying skin often becomes dark red/purple in color

### Treatment

**First Line in children <u>WITHOUT</u> poor dental hygiene, periodontal disease/abscess:**

- Cephalexin 50-75 mg/kg/day PO divided TID (max 1000 mg/dose)

**First Line in children <u>WITH</u> poor dental hygiene, periodontal disease/abscess:**

- Amoxicillin-clavulanate 45 mg/kg/day PO divided BID (max 875 mg amoxicillin component/dose)

**Cephalosporin allergy**

- Consider outpatient referral to allergy for antibiotic challenge
- Clindamycin 30 mg/kg/day PO divided TID (max 450 mg/dose)

**MRSA concern (personal or family history of MRSA)**

- Clindamycin 30 mg/kg/day PO divided TID (max 450 mg/dose)

**Concern for Bartonella (subacute/chronic presentation and cat scratch)**

- Send Bartonella antibodies
- Azithromycin 10mg/kg PO once daily on day 1 (max 500 mg/dose), then 5 mg/kg (max 250 mg/dose) once daily on days 2-5

**Concern for Nontuberculous *Mycobacterium* (NTM)**

- Referral to pediatric ENT and pediatric infectious diseases

### Duration

- Duration: 5-7 days
- Can adjust course based on response

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## Antibiogram (Blank) January 1, 2021 - June 30, 2022

| Gram-Negative Organisms | NO. of Isolates | Ampicillin | Ampicillin/ Sulbactam | Amoxicillin/ Clavulanate | Aztreonam | Cefazolin | Cefepime | Cefixime | Cefuroxime | Ceftazidime | Ceftriaxone | Ciprofloxacin | Gentamicin | Levofloxacin | Nitrofurantoin | Piperacillin/ Tazobactam | Tetracycline | Tobramycin | Trimethoprim/ Sulfamethoxazole |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| *Enterobacter cloacae* | 18† | 0 | 11 | 0 | | 0 | 100 | | 0 | 94 | | | | 100 | 50 | 94 | 100 | 100 | 94 |
| *Escherichia coli* | 307 | 54 | 60 | 88 | | 84 | 100 | | 97 | 99 | 99 | | | | 99 | 100 | 81 | 96 | 80 |
| *Klebsiella pneumoniae* | 35 | 0 | 82 | 100 | | 80 | 97 | | 97 | 97 | 97 | | | | 60 | 100 | 83 | 100 | 100 |
| *Klebsiella oxytoca* | 20† | 0 | 40 | 95 | | 20 | | | 94 | 100 | 94 | | | | | 88 | 95 | 100 | 100 |
| *Pseudomonas aeruginosa* | 68 | | | | 87 | | 94 | | | 96 | | | 96 | 82 | | 96 | | 97 | |
| *Proteus Mirabilis* | 20† | 95 | 100 | 95 | | 10 | | | 94 | | 94 | | | | 0 | | 0 | 100 | 95 |
| *Serratia marcescens* | 30 | 0 | 0 | 0 | | 0 | 100 | | 0 | 100 | 97 | | | | | 100 | 0 | 85 | |

| Gram-Positive Organisms | NO. of Isolates | Ampicillin | Ceftriaxone | Clindamycin | Doxycycline | Erythromycin | Linezolid | Nitrofurantoin | Oxacillin | Penicillin | Tetracycline | Trimethoprim/ Sulfamethoxazole | Vancomycin |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| *Enterococcus faecalis* | 78 | 100 | | | | | 100 | 100 | | 100 | 37 | | 100 |
| *Staphylococcus aureus-* MSSA | 149 | | | 77 | 99 | 62 | | | 100 | 0 | 88 | 95 | 100 |
| *Staphylococcus aureus - CA-MRSA* | 41 | | | 92 | 100 | 23 | | | 0 | 0 | 90 | 96 | 100 |
| *Staphylococcus aureus - HA-MRSA* | 13† | | | 83 | 100 | 17 | | | 0 | 0 | 100 | 100 | 100 |
| *Staphylococcus epidermidis* | 88 | | | 50 | 88 | 15 | | | 33 | 0 | 83 | | 100 |
| *Streptococcus pneumoniae††* | 28† | | 100 | | | 67 | | | | 100 | | | |

† Please note that a minimum of 30 isolates is necessary to obtain statistical significance.

†† Please note inability to calculate ceftriaxone susceptibility percentages for Pneumococcal CNS disease due to low number of isolates.