# Recommendations for Selected Empiric Antibiotic Use Among Outpatient Pediatric Patients

**Division of Pediatric Infectious Diseases, Aug 2023**

These are the agents generally preferred for first-line empiric therapy at Harbor-UCLA Medical Center Pediatric outpatient clinics and in the emergency department for children >60 days of age. Circumstances of individual cases (e.g., recent hospitalization or surgery, chronic medical condition, recurrence of infection) may dictate different antibiotic choices; decisions should be made on a case-by-case basis. Recommendations for adults are available on the Harbor-UCLA Infection Prevention and Control site In Antimicrobial Stewardship section.

| Diagnosis | Drug and Dose | Duration | Comments |
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| **Respiratory Tract Infection** | | | |
| Community-acquired Pneumonia | Amoxicillin 20-25 mg/kg/DOSE PO BID (max: 2 g/DOSE)<br><br>Consider high dose amoxicillin 45 mg/kg/DOSE PO BID if <2 years, in daycare, received antibiotics within the last month, had recent hospitalization, under immunized<br><br>Severe penicillin allergy: Clindamycin 13 mg/kg/DOSE PO TID (max: 600 mg/DOSE)<br><br>For children ≥5 years with features of atypical pneumonia: Consider azithromycin PO 10 mg/kg once on day 1 (max: 500 mg), followed by 5 mg/kg once daily x4 days (max: 250 mg/day) | 5-7 days | The **majority** of cases of community acquired pneumonia in children, especially those < 5 years is due to viral infection. Consider supportive care only.<br><br>Consider antivirals if symptoms or testing suggest influenza or COVID-19.<br><br>**For high dose amox/clav use 600mg/5mL formulation.** |
| **ENT Infections** | | | |
| Acute Otitis Media | Amoxicillin 20-25 mg/kg/DOSE PO BID (max: 2 g/DOSE) | <2 years or severe or recurrent disease: 10 days<br>≥2 years: 5-7 days | Cefdinir if non-severe penicillin allergy. |

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| | Consider high dose amoxicillin 45 mg/kg/DOSE PO BID if <2 years, in daycare, received antibiotics within the last month, had recent hospitalization, under immunized<br><br>Use **amoxicillin/clavulanate** if recent beta-lactam antibiotics, concurrent purulent conjunctivitis, or recurrent AOM | | Clindamycin if credible history of immediate or serious penicillin hypersensitivity reaction.<br><br>Children ≥24 months without severe symptoms can be offered observation and pain management if close follow up can be assured.<br><br>**For high dose amox/clav use 600mg/5mL formulation.** |
| Otitis Externa | Ciprofloxacin/dexamethasone otic 4 drops in ear BID | 7 days | Can use neomycin-polymyxin B-hydrocortisone but **only if intact tympanic membrane.** |
| Acute Sinusitis | Amoxicillin/clavulanate 20-25 mg/kg/DOSE PO BID (max: 2 g/DOSE)<br><br>Consider high dose Amox/Clav 90 mg/kg/day if <2 years, in daycare, antibiotics within the last month, recent hospitalization, underimmunized. | 5-7 days | Diagnosis requires the presence of either: (1) persistent nasal discharge or daytime cough without evidence of clinical improvement for ≥10 days; **consider watchful waiting in this scenario** OR (2) worsening or new onset of nasal discharge, daytime cough, or fever after initial improvement OR (3) temperature ≥39°C with either purulent nasal discharge and/or facial pain for at least 3 consecutive days.<br><br>**For high dose amox/clav use 600mg/5mL formulation.** |
| Acute Unilateral Cervical Lymphadenitis | Cephalexin 100 mg/kg/DAY divided q8 hours (max: 1 g/DOSE) | 7-10 days | Consider MRSA coverage only if risk factors such as prior history |

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| | If periodontal disease or poor dental hygiene use amoxicillin/clavulanate 45 mg/kg/day divided q12 hours | | of MRSA or recurrent skin and soft tissue infections in patient or close contacts.<br>If fluctuant, drainage will greatly facilitate resolution.<br><br>Clindamycin or TMP/SMX if credible history of immediate or serious penicillin hypersensitivity reaction. |
| Group A Streptococcal Pharyngitis | Penicillin VK<br><27 kg - 250 mg BID-TID<br>≥27 kg - 500 mg BID<br>**Or**<br>Amoxicillin 50 mg/kg/dose (maximum 1200 mg) once daily<br>**Or**<br>Benzathine PCN G (last choice if shortage)<br>27 kg - 0.6 million units IM X 1 dose<br>≥ 27 kg - 1.2 million units IM X 1 dose | 10 days (for oral only. If using azithromycin then treatment is for 5 days) | Do not treat unless there are clinical findings of pharyngitis **and** testing confirms the presence of group A Streptococcus.<br><br>If credible history of PCN allergy can use cephalexin (if non-severe reaction) or clindamycin or macrolide (if severe reaction). |
| Preseptal Cellulitis<br>(If presumed sinus-related) | Amoxicillin/clavulanate 20-25 mg/kg/DOSE PO BID (max: 2 g/DOSE)<br><br>High dose Amox/Clav 90 mg/kg/day if <2 years, in daycare, antibiotics within the last month, recent hospitalization, underimmunized. | 7-10 days | If concern for MRSA can add trimethoprim-sulfa.<br><br>If trauma related treat as with cellulitis.<br><br>**For high dose amox/clav use 600mg/5mL formulation.** |
| Skin and Soft Tissue Infection | | | |
| Minor Skin Infection (e.g. impetigo, folliculitis, infected eczema) | Mupirocin 2% topical ointment applied BID<br>**Or** | 5 days | Topical preferred but systemic should be used if more widespread lesions |

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| | Cephalexin 25 mg/kg/DOSE PO TID (max: 1 g/DOSE) | | If MRSA coverage needed use TMP-SMX- 6 mg of TMP/kg/DOSE PO BID (max: 320 mg TMP/DOSE) |
| Non-purulent Cellulitis | Cephalexin 25 mg/kg/DOSE PO TID (max: 1 g/DOSE)<br><br>If MRSA coverage needed use TMP-SMX- 6 mg of TMP/kg/DOSE PO BID (max: 320 mg TMP/DOSE) | 5 days | May extend therapy up to 7- 10 days if lack of symptom resolution at 5 days. |
| Purulent Cellulitis/Abscess | TMP-SMX- 6 mg of TMP/kg/DOSE PO BID (max: 320 mg TMP/DOSE) | 5 days | For abscess, drainage will greatly enhance resolution.<br>Cephalexin and Clindamycin can also be considered. |
| Genitourinary Infections | | | |
| Cystitis | School aged children >5 years with **cystitis** only: Nitrofurantoin (Macrobid) 100 mg/DOSE PO BID (not weight based)<br><br>OR<br><br>Cephalexin 25 mg/kg/DOSE PO TID (max: 1 g/DOSE) | 3-5 days | For patients with a credible history of immediate or serious penicillin hypersensitivity reaction consider TMP/SMX (5 mg TMP/kg/DOSE PO BID max: 160 mg/DOSE) or ciprofloxacin (10 mg/kg/DOSE PO BID max: 500 mg/DOSE) as alternatives.<br><br>Consider any recent antibiotics and positive urine cultures when choosing therapy. |
| Pyelonephritis | Cephalexin 25 mg/kg/DOSE PO TID (max: 1 g/DOSE)<br><br>If ≥12 years: Ciprofloxacin 20-40 mg/kg/DAY PO divided q12h, max dose 500 mg | 7-10 days | Can consider one dose of ceftriaxone followed by cephalexin if patient having vomiting. |

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| Urethritis/Cervicitis in symptomatic high-risk adolescent | Concern for GC/CT:<br>Ceftriaxone 500 mg IM (if < 150 kg, 1 gram if ≥ 150 kg) and Doxycycline monohydrate 100 mg PO BID | Ceftriaxone- 1 dose<br>Doxycycline- 7 days | Testing is necessary. If testing is back before treatment is started, then OK to only treat for the known infection if any.<br><br>Screen for HIV and syphilis. |