Selected Empiric Antibiotics for Pediatric Patients Admitted to UNC Children's Hospital

Condition	First-Line	Second-Line
Systemic Conditions		
Sepsis	Refer to UNC Pediatric Sepsis Pathway	
Young Febrile Infant	Refer to UNC Children's Febrile Neonate/Infant Clinical Pathway	
Suspected bacterial meningitis (age >60 days)	Ceftriaxone (meningitic dose) + vancomycin	Consult ID
Head and Neck		
Periorbital/preseptal cellulitis; mastoiditis; cervical lymphadenitis; peritonsillar, retropharyngeal, or parapharyngeal abscess	Ampicillin-sulbactam	PCN allergy: Ceftriaxone + clindamycin
Orbital cellulitis (without intracranial infection by imaging)	Ampicillin-sulbactam. Add vancomycin if severe.	PCN allergy: Ceftriaxone + clindamycin
Sinusitis with intracranial extension; Pott's puffy tumor	Vancomycin + ceftriaxone (meningitic) + metronidazole	N/A; consult ID if needed
Acute otitis media	Amoxicillin (or amox-clav if recent amox)	PCN allergy: Ceftriaxone
Lemierre's Syndrome	Vancomycin + ceftriaxone + metronidazole	Consult ID
Odontogenic infection/dental abscess	Ampicillin-sulbactam	PCN allergy: Clindamycin
Lower respiratory tract		
CAP, influenza, COVID-19	Refer to Pediatric CAP Guidelines or Children's COVID-19 Guidelines	
Intra-abdominal infection		
Acute appendicitis	Ceftriaxone plus metronidazole	Allergy: Ciprofloxacin + metronidazole
Genitourinary and STI		
Complicated UTI/pyelonephritis	Ceftriaxone (review prior cultures if present)	Per prior cultures
Cystitis	Cephalexin (review prior cultures if present)	Per prior cultures
Gonorrhea (adolescent)	Ceftriaxone 500 mg x1 (if >150 kg: 1000 mg). Treat chlamydia if not ruled out.	Allergy: Gentamicin plus azithromycin
Chlamydia (adolescent)	Doxycycline x 7d. Treat gonorrhea if not ruled out.	Azithromycin 1g x1 (less preferred)
Pelvic Inflammatory Disease	Cefoxitin + doxycycline	Ceftriaxone + doxy + metronidazole
Skin and Soft Tissue		
Cellulitis without abscess (Grp A Strep most common)	Cefazolin	Allergy or severe infection: Vancomycin
Cutaneous abscess including phlegmon (likely *S. aureus*)	**PO** TMP-SMX (if significant cellulitis, may add cefazolin)	Allergy or severe infection: Vancomycin
Mammal bite	Ampicillin-sulbactam	May add vancomycin if severe infection
SSTI with fresh- or salt-water contamination	Piperacillin-tazobactam + doxycycline or levofloxacin	Allergy: Meropenem + doxy or levofloxacin
Significant trauma with soil contamination	Piperacillin-tazobactam	Allergy: Vanc + cefepime + metronidazole
Staphylococcal scalded skin syndrome	Cefazolin	Allergy or severe: Vancomycin
Necrotizing fasciitis	Linezolid + piperacillin-tazobactam	Renal injury: Linezolid + meropenem
Musculoskeletal		
Osteomyelitis, septic arthritis, pyomyositis	Refer to UNC Children's Pediatric Musculoskeletal Infection Clinical Practice Guideline	

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UNC Children's & Carolina Antimicrobial Stewardship Program JOINT GUIDELINE

How to use this Guidance

Background: This team identified a need to provide empiric antibiotic selection guidance for children presenting to UNC Children's with common community-acquired infectious conditions. We used literature, local experience, and local antibiogram data to formulate these recommendations.

Scope: This guidance is for use at UNC Children's Hospital. Only the conditions specifically addressed are included. This document is intended for use in children admitted to the hospital. For dosing recommendations, we recommend using Lexi-Comp or consulting with Pharmacy or Pediatric Infectious Diseases as necessary.

Intended Use: This guidance is intended to be used to assist with empiric antibiotic selection in generally healthy (see below) pediatric patients who are admitted to the hospital and diagnosed with or suspected to have one of the infectious conditions listed in the Tables. This document provides guidance only, and as such this document should not supersede clinical judgment. For example, if a child is known to be recently colonized with MRSA and is being treated for skin and soft-tissue infection, MRSA coverage should be included. Likewise, patients who failed treatment with the recommended (or similar) agent may need alternative therapy.

Wherever possible, empiric therapy should be refined based on evolving diagnostic information, microbiologic data, and patient status.

Excluded patients: Excluded patients include:

- Infants under 60 days of age
- Recent hospitalization within 30 days
- Those with a suspected infection that developed during hospitalization, whether at UNC or a referring hospital
- Recent surgery or implanted device associated with the site of suspected infection
- Major chronic conditions, including but not limited to: chronic kidney disease, chronic liver disease, immunocompromised status, significant cardiac disease, significant pulmonary disease (not including well-controlled asthma), significant neurologic disease or developmental conditions
- Suspected recurrence of infection (for example, UTI recurrence <30 days after recent treatment)
- Any other case in which the treating team believes that the specific patient scenario alters the likely causative pathogen or antimicrobial resistance pattern

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