Antibiotic Choices and Dosing

CONDITION AND DURATION	FIRST CHOICE THERAPY	ALTERNATIVE THERAPY
SKIN AND SOFT TISSUE INFECTIONS		
Cellulitis without abscess Duration: 5 days for non-severe infection	**Cephalexin** – 25 mg/kg/dose (max 500 mg/dose) PO BID Inpatient/needs IV therapy: ▪ **Cefazolin** – 25 mg/kg/dose (max 2000 mg/dose) IV Q8h	Penicillin allergy with higher risk for reaction: ▪ **Clindamycin** – 10 mg/kg/dose (max 600 mg/dose) PO TID Inpatient/needs IV therapy: ▪ **Clindamycin** – 10 mg/kg/dose (max 900 mg/dose) IV Q8h
Abscess of skin or soft tissue Duration: 5 days following source control for non-severe infection I&D is recommended for source control in addition to antibiotics.	**Cephalexin** – 25 mg/kg/dose (max 500 mg/dose) PO BID Inpatient/needs IV therapy: ▪ **Cefazolin** – 25 mg/kg/dose (max 2000 mg/dose) IV Q8h	▪ Penicillin or cephalosporin allergy with higher risk for reaction **OR** ▪ History or MRSA infection or carriage in last 6 months **OR** ▪ Trimethoprim-sulfamethoxazole susceptible MRSA **Trimethoprim-sulfamethoxazole (Bactrim/Septra)** – 5 mg/kg/dose (max 160 mg trimethoprim/dose) PO BID
Bite wound Duration: 3-5 days for prophylaxis of high-risk bites 7-10 days for treatment of established infection High-risk bite wounds for which antibiotic prophylaxis is recommended: ▪ Moderate or severe bites, especially with edema or crush injury ▪ Puncture wounds, especially if penetration of bone, tendon or joint ▪ Deep or surgically closed facial bites ▪ Hand or foot bite ▪ Genital area bites ▪ Bites in immunocompromised or asplenic patients ▪ Cat bites	**Amoxicillin-clavulanate (Augmentin)** – 22.5 mg amoxicillin/kg/dose (max 875 mg/dose) PO BID **OR** **Ampicillin-sulbactam (Unasyn)** – 50 mg/kg (max 2000 mg ampicillin/dose) IV Q6h	Penicillin or cephalosporin allergy with higher risk for reaction: ▪ **Trimethoprim-sulfamethoxazole (Bactrim/Septra)** – 5 mg/kg/dose (max 160 mg/trimethoprim/dose) PO BID **AND** ▪ **Clindamycin** – 10 mg/kg/dose (max 600 mg/dose) PO TID

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CONDITION AND DURATION	FIRST CHOICE THERAPY	ALTERNATIVE THERAPY
URINARY TRACT INFECTIONS		
Urinary tract infection 2 months to 12 years old Duration: 7 days Modify therapy based on culture and susceptibilities	**Cephalexin** – 25 mg/kg/dose (max 500 mg/dose) PO BID	Penicillin or cephalosporin allergy with higher risk for reaction or history of prior cefazolin-resistant UTI and trimethoprim-sulfamethoxazole susceptible organism: ▪ **Trimethoprim-sulfamethoxazole (Bactrim/Septra)** – 5 mg/kg/dose (max 160 mg/trimethoprim/dose) PO BID
Uncomplicated cystitis > 12 years old Duration: 3-5 days	**Nitrofurantoin (Macrobid)** – 100 mg/dose PO BID	**Cephalexin** – 25 mg/kg/dose (max 500 mg/dose) PO BID
Pyelonephritis Community onset > 6 months old Duration: 7 days for most patients	**Ceftriaxone** – 50 mg/kg/dose (max 1000 mg/dose) IV Q24h If candidate for oral therapy: ▪ **Cephalexin** – 25 mg/kg/dose (max 500 mg/dose) PO TID	Penicillin or cephalosporin allergy with higher risk for reaction: ▪ **Ciprofloxacin** – 10 mg/kg/dose (max 400 mg/dose) IV Q8hr If candidate for oral therapy: ▪ **Ciprofloxacin** – 15 mg/kg/dose (max 500 mg/dose) PO BID

Definition of allergic reaction risk

Higher risk for reaction

- Hives
- Angioedema
- Laryngeal edema
- Wheezing or dyspnea
- Hypotension
- Treatment with epinephrine
- Intubation
- Patient unable to give any history due to medical condition or caregiver unavailable to provide information

Lower risk for reaction

- Itching only
- Mild, delayed rash (not hives)
- EMR lists allergy but patient and/or caregiver do not recall any details about the reaction

In addition to the above higher-risk criteria, patients with the following allergy history should generally not receive antibiotics of the same class without further evaluation by an allergy or infectious disease specialist:

- Lesions or ulcers involving the mucous membranes or skin desquamation (suggests Stevens-Johnson Syndrome/TEN)
- Rash, fever and lymph node, liver or kidney involvement (suggests drug reaction with eosinophilia and systemic symptoms (DRESS) or drug-induced hypersensitivity syndrome
- Fever, urticarial rash, arthritis (suggests serum sickness)

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These are selected guidelines for empiric therapy for pediatric patients and are adapted for the emergency department setting. For a more comprehensive resource for pediatric empiric therapy, visit ucsfbenioffchildrens.org/empiric. The guidelines were developed by the Pediatric Antimicrobial Stewardship Programs at each campus to inform initial selection of empiric antimicrobial therapy for children at UCSF Benioff Children's Hospitals and affiliated outpatient sites. They were developed in collaboration with multiple clinical groups and represent a consensus based on evidence-based guidelines and local microbiology and susceptibility patterns.