

## Harbor-UCLA Clinical Care Guideline

### *Perioperative Antibiotic Prophylaxis and Tetanus Immunization Management for Open Fractures in Pediatric Patients*

Gustilo-Anderson Grade Open Fracture Type	Recommended Antibiotic	Length
<u>Type I:</u> Open fracture with a clean wound smaller than 1 cm, minimal soft tissue damage and a clean wound bed.	Cefazolin (100 mg/kg/day divided every 8 hours)	24 hours post repair
<u>Type II:</u> Open fracture with a laceration >1 cm in length with moderate soft tissue damage, but without flaps, or avulsions.		
<u>Type III:</u> Open segmental fracture with >10 cm wound with extensive soft tissue injury or a traumatic amputation and/or significant wound contamination.	Cefazolin	24-48 hours post repair

**Table Notes:**

- 1) For patients with severe allergic reaction to penicillin or cephalosporin could substitute **clindamycin** or vancomycin.
- 2) For heavily contaminated wounds consider adding **gentamicin** (5 to 7.5 mg/kg/day q24 hours) to cefazolin or using ceftriaxone 100 mg/kg/day divided q12 hours.
- 3) **Metronidazole** should be added in the presence of fecal or potential clostridial contamination (e.g., farm-related injuries).
- 4) Add a **fluoroquinolone** if a water-related injury plus add **doxycycline** if seawater exposure.

Consider a Pediatric Infectious Diseases consultation for patients with allergies, unusual exposures or underlying immune compromising conditions, or for **treatment of infection** if deemed present.

**Check tetanus vaccination status and immunize if appropriate as per Table (From AAP Red Book):**

Tetanus Vaccine History	Clean, Minor Wounds		All Other Wounds	
	DTaP, Tdap, or Td	TIG	DTaP, Tdap, or Td	TIG
<b>Unknown or &lt; 3 doses</b>	Yes	No	Yes	Yes
<b>≥ 3 doses</b>	No if <10 y since last tetanus-containing vaccine dose Yes if ≥10 y since last tetanus-containing vaccine dose	No	No if <5 y since last tetanus-containing vaccine dose Yes if ≥5 y since last tetanus-containing vaccine dose	No

DTaP is used for children <8 years of age. Tdap is preferred over Td for underimmunized children ≥7 years of age who have not received Tdap previously. People with human immunodeficiency virus infection or severe immunodeficiency with contaminated wounds should also receive TIG regardless of their immunization history.