Zuckerberg San Francisco General Hospital Open Fracture Antibiotic Protocol

Gustilo-Anderson Type I and II Fractures

Preferred: Cefazolin 2 g (3 g if > 120 kg) IV q8h[1]
Severe beta-lactam allergy: Clindamycin 900 mg IV q8h

Gustilo-Anderson Type III Fractures

Preferred: Ceftriaxone 2g IV q24h
Severe Beta-lactam allergy: Clindamycin 900 mg IV q8h + levofloxacin 500 mg IV q24h[1]

Exceptional Cases

- Soil or Fecal Contamination: Vancomycin 15mg/kg IV q8-24h[2] + piperacillin/tazobactam 3.375g q6h[1,3]
- Standing Water Contamination: Piperacillin/tazobactam (Zosyn) 4.5g IV q6h[1]
- Known MRSA colonization: Add vancomycin 15 mg/kg IV q8-24h[2]

Antibiotic Timing: Start ASAP, continue 24 hours after index debridement

[1] May require dose adjustment for renal impairment
[2]Vancomycin dose frequency based on creatinine clearance: Q8h if CrCl > 90, Q12h if CrCl 30-90, and Q24h if < 30; may require further dose adjustment based on trough levels if continued beyond 3 days
[3]May substitute ertapenem in patients who meet the following criteria:

- History of ESBL within the past year
- New admission to the ICU for sepsis

Gustilo Anderson Classification (most accurately graded during intraoperative examination):
Type I: wound ≤1 cm, minimal contamination or muscle damage
Type II: wound 1-10 cm, moderate soft tissue injury
Type IIIA: wound >10 cm, extensive soft-tissue damage, contaminated, adequate tissue for flap coverage
Type IIIB: extensive periosteal stripping, wound requires soft tissue coverage (rotational or free flap)
Type IIIC: vascular injury requiring vascular repair, regardless of degree of soft tissue injury

Accepted: September 13, 2024