

Title: ANTIBIOTICS FOR OPEN FRACTURES

Summary

To provide expeditious and appropriate antibiotics to all patients sustaining open fractures who present to the emergency department.

General Policy

To administer antibiotics to all patients sustaining open fractures within 1 hour of arrival in the ED. The target time is within 1 hour of arrival in the ED. In addition to this, once the Trauma Center or ED accepts a transfer patient with an open fracture from another facility, providers must ensure the referring facility has provided the patient with appropriate antibiotic coverage prior to transfer.

Procedure

Once an open fracture has been identified, administer antibiotics as outlined below:

- **Grade I & 2 Open Fracture:** Continue antibiotics for 24 hours after wound closure
 - Preferred
 - No gross contamination
 - Cefazolin weight-based dosing
 - <120 kg: 2 g IV Q8H x 3 doses
 - ≥120 kg: 3 g IV Q8H x 3 doses
 - Organic contamination with soil or fecal matter (e.g., farm matter)
 - Cefazolin weight-based dosing
 - <120 kg: 2 g IV Q8H x 3 doses
 - ≥120 kg: 3 g IV Q8H x 3 doses
 - Metronidazole 500 mg IV Q8H x 3 doses
 - Alternative for Beta-Lactam Allergy (e.g., Anaphylaxis)
 - Clindamycin 900 mg IV Q8H x 3 doses
- **Grade III Open Fracture** (i.e., wound >10 cm, high level of contamination, severe soft tissue crush injury, or severe loss of coverage, comminuted fracture, segmental fracture or poor bone coverage): Continue antibiotics for 72 hours subsequent to injury or not >24 hours after soft tissue coverage is achieved.
 - NO gross contamination
 - Preferred
 - Ceftriaxone 2000 mg IV Q24H
 - Alternative for Beta-Lactam Allergy (e.g., Anaphylaxis)
 - Levofloxacin 750 mg IV Q24H
 - Organic contamination with soil or fecal matter (e.g., farm matter)
 - Preferred
 - Ceftriaxone 2000 mg IV Q24H
 - Metronidazole 500 mg IV Q8H
 - Alternative for Beta-Lactam Allergy (e.g., Anaphylaxis)
 - Levofloxacin 750 mg IV Q24H
 - Metronidazole 500 mg IV Q8H

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