

### **TUH Open Fracture Management Protocol**

- Identify open fracture on primary assessment
- Time until antibiotics in the setting of open long bone fractures has been shown to have more of an impact on outcomes and post operative complications than washout in the operating room
- Administer antibiotics immediately, **within 1 hour of injury**, but no later than 3 hours
- Open fractures can often be diagnosed clinically, and antibiotics can be given empirically, if unclear recommend calling x-ray for expedited plain films
- Assign Gustilo Anderson Classification to long bone fractures (including ballistic fractures)
- Does not apply to open fractures of hand, foot, skull, facial bones, or torso
- Administer Tetanus toxoid if immunization status is unclear or absent

#### **Initial Management after Antibiotics:**

- Immediate irrigation at bedside with normal saline
  - 3-9 L of normal saline
  - Low pressure with gravity for all cases
- Application of saline soaked gauze and splint
- Operative irrigation and debridement within 24 hours of initial injury

### **TUH Open Fracture Antibiotic Management Protocol for Long Bones**

<b>Gustilo Anderson Classification</b>	<b>Description</b>	<b>Antibiotic Choice</b>	<b>If Severe Penicillin Allergy</b>
Type I	minimal soft tissue damage, not soiled or contaminated, wound <1cm	Cefazolin 2g IV now and q8 x 3	Clindamycin 900mg IV now and q8 x 3
Type II	wound 1-10cm, moderate soft tissue damage, moderate contamination	Cefazolin 2g IV now and q8 x 3	Clindamycin 900mg IV now and q8 x 3
Type III	usually >10cm, extensive soft tissue damage, severe contamination, periosteal stripping	Ceftriaxone 2g IV now and q24 until 24 hrs AND Vancomycin 1g IV now and q12 x 2 or until 24 hrs after wound closure	Aztreonam 2g IV now and q8 x 3 total doses AND Vancomycin 1 g IV now and q12 x 2 total doses or until 24 hours after wound closure