Antibiotic Trauma  

(Updated 26-09-2018)

Signs and Symptoms:

1. Open wounds with obvious surface contamination including:
   a. open fractures;
   b. penetrating torso injuries with suspected hollow viscous perforation; and
   c. penetrating eye injury

Contraindications:

Allergy to an indicated medication.

Management:

1. Where tactically possible cleanse area with copious irrigation and apply dry sterile dressing.
2. Initiate antibiotic therapy as per Figure 1 – Antibiotic Trauma Flowchart.
   a. Antibiotics should be administered ASAP and ideally within 60 min for eye trauma.
3. IV administration is preferred; IO administration is also acceptable. IM administration, when required, should be into a large muscle mass.
4. Treat pain per SOMT Pain Protocol as required.

Figure 1 – Antibiotic Trauma Flowchart

Disposition:

1. Acute trauma patients require Priority evacuation.
Notes:

1. **Ertapenem – Reconstitution, Administration and Storage**

   **IV Administration (Preferred)**
   
   Reconstitute the contents of a 1 g vial w/ 10 mL either:
   - Water for Injection;
   - 0.9% NaCl for Injection; or
   - Bacteriostatic Water for Injection.
   
   To yield a reconstituted solution of approximately 100 mg/ml (Shake well to form solution).

   - Adult (13 years +)
     - To withdraw a 1 gm dose, immediately withdraw 10mL of the reconstituted vial; then transfer to a 50 mL 0.9% NaCl (Inj) minibag.

   - Child (3 months to 12 years)
     - Immediately withdraw a volume equal to 15 mg/kg of body weight (not to exceed 500 mg per dose) and transfer to a 50 mL 0.9% NaCl (Inj) minibag.

   (BID dosing not to exceed 1 gm/day)

   Infuse over 30min

   **IV Route Notes**
   1. The reconstituted IV solution must be used within 6hr after preparation if stored at room temperature (25°C). It may be stored for 24 hours under refrigeration (5°C) as long as it is used within 4 hours after removal.
   2. Treatment may be continued until evacuation to a maximum of 7 days.

   (From: RxTx CPhA Ertapenem Monograph & Merck IVANZ™ product monograph – Nov ‘17)

2. **Clindamycin Administration** (from the Ottawa Hospital Parenteral Drug Therapy Manual)

   - Intermittent IV infusion: Dilute to a concentration not exceeding 18mg/ml or use a premixed bag and administer at a rate not exceeding 30mg/min. (May be diluted w/ Sodium Chloride Inj 0.9%)
   - Recommended concentration and minimum administration time from the manufacturer:

<table>
<thead>
<tr>
<th>Dose</th>
<th>Diluent</th>
<th>Infusion Time</th>
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</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>Adult</td>
</tr>
<tr>
<td>300mg</td>
<td>50mL</td>
<td>10min</td>
</tr>
<tr>
<td>600mg</td>
<td>50mL</td>
<td>20min</td>
</tr>
<tr>
<td>900mg</td>
<td>100mL (if premixed bag – 50mL)</td>
<td>30min</td>
</tr>
</tbody>
</table>

   - Administration of more than 1200 mg in a single hour is not recommended.

   * From the IWK Pediatric Parenteral Manual (May 2018)