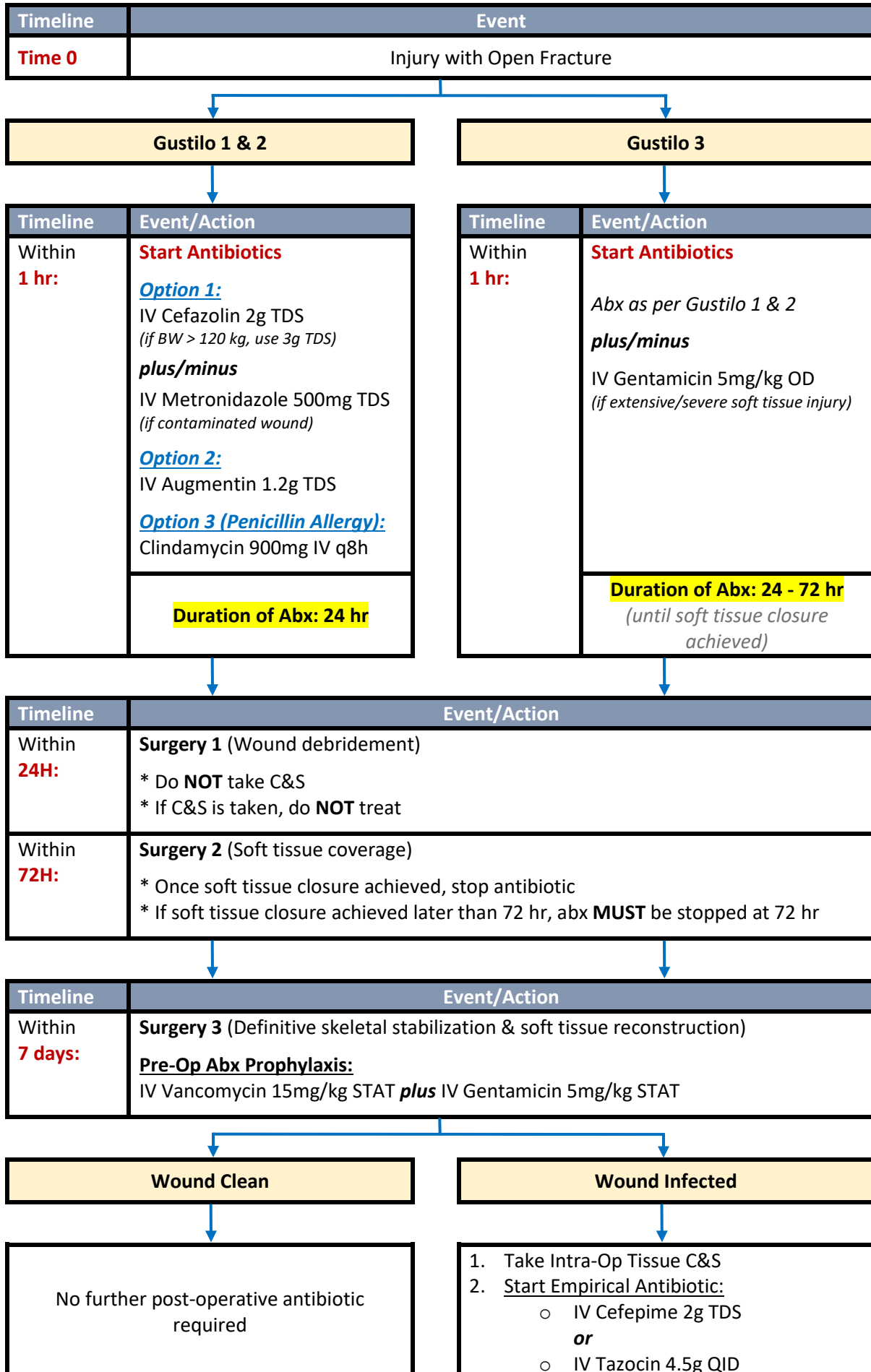


# Combined Open fracture Risk Elevation (CORE) Protocol

## Algorithm Proposal (Revised April 2022)



## Appendix 1: Vancomycin & Gentamicin Dose

| Body Weight (Actual BW) | Vancomycin (15 mg/kg STAT) | Gentamicin (5 mg/kg STAT)               |
|-------------------------|----------------------------|---|
|                         | Recommended dose           | Recommended dose (based on adjusted BW) |
| 40 - 45 kg              | 750 mg                     | 200 mg                                  |
| 46 - 50 kg              |                            | 240 mg                                  |
| 51 - 55 kg              |                            | 280 mg                                  |
| 56 - 60 kg              | 1000 mg                    | 320 mg                                  |
| 61 - 75 kg              |                            | 360 mg                                  |
| 76 - 85 kg              | 1250 mg                    | 360 mg                                  |
| 86 - 90 kg              |                            |   |
| 91 - 100 kg             |                            |   |
| >100 kg                 | 1500 mg                    | To calculate based on adjusted BW       |

## Appendix 2: Redosing Interval from Initiation of Pre-operative Dose

| Antibiotic                                    | Recommended Redosing Interval (from Initiation of Pre-Operative Dose, Hour) | Dose to be given for redosing |
|---|---|-------------------------------|
| Amoxicillin/ Clavulanate ( <i>Augmentin</i> ) | 3   | 1.2 g                         |
| Cefazolin                                     | 4   | 2 g (3g if > 120 kg)          |
| Cefepime                                      | 4   | 2g                            |
| Gentamicin                                    | 16 (since the last given dose)  | Same dose as in Appendix 1    |
| Metronidazole ( <i>Flagyl</i> )               | No need to re-dose  | NA                            |
| Piperacillin / Tazobactam ( <i>Tazocin</i> )  | 2   | 4.5 g                         |
| Vancomycin                                    | No need to re-dose  | NA                            |

## Appendix 3: Renal Dose Adjustment

| Antibiotic                                    | Usual Dose   | CrCl       | Renal Adjusted Dose  |
|---|--|------------|--|
| Amoxicillin/ Clavulanate ( <i>Augmentin</i> ) | <b>Usual dose (IV):</b> <ul style="list-style-type: none"> <li>1,200 mg IV q8h</li> </ul>  | 30-50      | 1200 mg IV q8h   |
|   |  | 10-29      | 1200 mg IV q12h  |
|   |  | < 10 or HD | 1200 mg IV q24h<br>[Administer dose after HD on dialysis day]              |
| Cefazolin                                     | <b>Usual Dose:</b> <ul style="list-style-type: none"> <li>2 gm IV q8h</li> </ul> <b>BW &gt; 120kg:</b> <ul style="list-style-type: none"> <li>3 gm IV q8h</li> </ul> | 10-50      | 1-2 gm IV q12h   |
|   |  | < 10       | 1 gm IV q24h   |
|   |  | HD         | 2 gm stat, then 1 gm IV q24h<br>[Administer dose after HD on dialysis day] |
| Cefepime                                      | <b>Usual Dose:</b> <ul style="list-style-type: none"> <li>2 gm IV q8h</li> </ul>   | 30-60      | 1 gm IV q8h <b>or</b> 2 gm IV q12h   |
|   |  | 10-29      | 1 gm IV q12h <b>or</b> 2 gm IV q24h  |
|   |  | < 10 or HD | 1 gm q24h<br>[Administer dose after HD on dialysis day]                    |
| Gentamicin                                    | <b>Single Daily Dosing (SDD):</b> <ul style="list-style-type: none"> <li>5 mg/kg IV q24h</li> </ul> <i>(refer to dosing chart above)</i>                             | 60-80      | 4 mg/kg IV q24h  |
|   |  | 40-60      | 3.5 mg/kg IV q24h  |
|   |  | 30-40      | 2.5 mg/kg IV q24h  |
|   |  | < 30       | <b>Consult ID physician or Pharmacist</b>                                  |
| Metronidazole ( <i>Flagyl</i> )               | <b>Usual dose:</b> <ul style="list-style-type: none"> <li>500 mg IV q8h</li> </ul>   | N/A        | No dosage adjustment required  |
| Piperacillin / Tazobactam ( <i>Tazocin</i> )  | <b>Usual Dose:</b> <ul style="list-style-type: none"> <li>4.5 gm IV q6-8h</li> </ul>   | 20-40      | 4.5 gm IV q8h  |
|   |  | <20        | 4.5 gm IV q12h or 2.25 gm IV q6h   |
|   |  | HD         | 2.25 gm IV q8h   |

### References:

- BAPRAS & BOA Standards for the Management of Open Fractures September 2020.  
<https://oxfordmedicine.com/view/10.1093/med/9780198849360.001.0001/med-9780198849360>
- Bratzler DW, Dellinger EP, Olsen KM et al. Clinical practice guidelines for antimicrobial prophylaxis in surgery. *Am J Health-Syst Pharm.* 2013; 70:195-283