

Antibiotic Treatment and Prophylaxis for Traumatic Soft Tissue Injuries and Open Fractures in Adults within Emergency Department

All recommendations are for non-pregnant ADULTS. Assume normal renal and hepatic function.



	IV Therapy	Oral	Duration / Comments	Management of blood borne virus (BBV) and tetanus risk in patients. <ul style="list-style-type: none"> ▪ Tetanus immunisation All patients with penetrating injuries must have their tetanus immunisation status checked and treated according to the Green book. ▪ Hepatitis B vaccination If patient considered at risk of Hep B, contact ID for advice. ▪ HIV Post Exposure Prophylaxis HIV PEP is usually not required in these patients. Click here for more information.
Soft tissue Injury with significant contamination +/- Foreign body (FB) in situ	Flucloxacillin 1g IV qds + Metronidazole 500mg IV tds <i>If Penicillin allergy:</i> Vancomycin IV + Metronidazole 500mg IV tds	Flucloxacillin 1g qds + Metronidazole 400mg tds <i>If Penicillin allergy:</i> Doxycycline 100mg bd + Metronidazole 400mg tds	Seek ID/micro advice regarding initiation of treatment IV antibiotics until first surgical debridement/washout and removal of projectile FB. If no FB: Continue oral therapy for 3 days (total IV/PO) If FB remains: Continue oral therapy for 7 days (total IV/PO)	
Open Fractures OR Through and through fractures OR Intra-articular injuries	Cefuroxime 1.5g IV tds + Metronidazole 500mg IV tds <i>If Penicillin allergy:</i> Co-trimoxazole 960mg IV bd + Metronidazole 500mg IV tds	If patient requires oral antibiotic cover (e.g. until reviewed by Plastics/Ortho team) Co-trimoxazole 960mg bd + Metronidazole 400mg tds	Continue IV antibiotics until wound closure OR for a maximum of 72 hours. Discuss with ID/micro about need for post op antibiotics	
Penetrating CNS Injury + /- FB in situ (or multiple penetrating injuries including CNS)	Ceftriaxone 2g IV bd + Metronidazole 500mg IV tds <i>If Penicillin allergy:</i> Vancomycin IV + Metronidazole 500mg IV tds	Once patient able to swallow switch to oral Metronidazole 400mg tds BUT continue IV Ceftriaxone	If FB removed or not in situ: Continue therapy for 2 weeks If FB retained : Continue therapy for up to 6 weeks	
Open skull fracture from penetrating trauma	Ceftriaxone 2g IV bd	Seek specialist advice	Continue IV therapy until closure then consider oral therapy for total 6 weeks duration. Seek specialist advice	
CSF leak post skull fracture	No antibiotics indicated		Give Pneumovax if sinus/auditory canal breached	
Penetrating Eye Injuries	Co-amoxiclav 1.2g IV tds. Seek specialist advice from Ophthalmology IV route only if patient NBM or unable to swallow	Co-amoxiclav 625mg tds + topical chloramphenicol	Continue for 2 weeks after removal of FB. If FB remains then seek specialist advice from Ophthalmology	
Internal Ear injury	Keep clean and dry and refer to ENT for specialist advice. See ENT guidance for more information			
Penetrating abdominal/thoracic trauma	Cefuroxime 1.5g IV tds + Metronidazole 500mg IV tds <i>If Penicillin allergy:</i> Co-trimoxazole 960mg IV bd + Metronidazole 500mg IV tds	Co-trimoxazole 960mg bd + Metronidazole 400mg tds	Continue IV therapy for minimum 24 hours then review suitability for IVOST Total IV/PO duration 7 days	

References: Antimicrobial Prophylaxis Guidance for Bomb Blast Victims PHE 2017
 Management of BBV risk in Bomb Blast Victims PHE 2017
 GGC Antibiotic Management in Bomb Blast Injuries May 2019
 Manchester Guidance 2020

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