

# STEPPING HILL PERIOPERATIVE ANTIBIOTIC GUIDELINES

## ADULT TRAUMA & ORTHOPAEDIC SURGERY

		First line antibiotic	Penicillin allergy/MRSA colonised / eGFR <= 45	Comments
Primary arthroplasty (hip, knee, ankle, shoulder, elbow) + spinal fixation (but not Wallis ligament)	Antibiotic prophylaxis mandatory + Antibiotic-loaded cement highly recommended	Flucloxacillin 2g and gentamicin 3mg/kg iv  Then one further dose flucloxacillin 1g iv Prescribed at 4 hours after initial dose	Teicoplanin 600mg and gentamicin 3mg/kg iv  Then no further doses required	With previous history of infection seek guidance from microbiology
Revision arthroplasty – aseptic cause or where suspected sepsis with organism <u>unknown</u>	Antibiotic prophylaxis mandatory + Antibiotic-loaded cement highly recommended	Teicoplanin 600mg and gentamicin 3mg/kg iv  Then teicoplanin 600mg iv at 12 and 24 hours, thereafter once a day until 48 hour cultures available	Teicoplanin 600mg and gentamicin 3mg/kg iv  Then teicoplanin 600mg iv at 12 and 24 hours, thereafter once a day until 48 hour cultures available	Antibiotics AFTER microbiology samples taken BUT 15 minutes before tourniquet inflation if used; but if sepsis very unlikely consider timing as primary
Revision arthroplasty – septic with organism <u>known</u>	Antibiotic prophylaxis mandatory + Antibiotic-loaded cement highly recommended	Antibiotics to be decided in consultation with microbiology	Antibiotics to be decided in consultation with microbiology	Antibiotics AFTER microbiology samples taken BUT 15 minutes before tourniquet inflation if used
Closed trauma (incl hip fracture) / elective surgery with retained implant (incl finger replacements) <u>or</u> spinal surgery (Wallis ligament or without retained implant)	Antibiotic prophylaxis mandatory + Antibiotic-loaded cement highly recommended if used	Flucloxacillin 2g and gentamicin 3mg/kg iv  Then no further doses required	Teicoplanin 600mg and gentamicin 3mg/kg iv  Then no further doses required	
Trauma or elective surgery <u>without</u> retained implant (incl K wires) except spinal surgery	Antibiotic prophylaxis is not recommended			
Open fracture and/or dislocation	Antibiotic prophylaxis mandatory	Co-amoxiclav 1.2g iv 8 hourly  Then co-amoxiclav 1.2g and gentamicin 3mg/kg iv at time of first debridement and repeat at time of definitive fixation and/or wound closure if performed at another time  Continue co-amoxiclav until soft tissue closure or max 72 hours whichever is soonest	Teicoplanin 600mg iv then 600mg iv at 12 and 24 hours, thereafter once a day and metronidazole 500mg iv 8 hourly  Then teicoplanin 600mg, metronidazole 500mg and gentamicin 3mg/kg iv at time of first debridement and repeat at time of definitive fixation and/or wound closure if performed at another time  Continue teicoplanin and metronidazole until soft tissue closure or max 72 hours whichever is soonest	First dose should be given in ED  For non long bone fractures in penicillin allergic patients consider clindamycin 600mg iv qds instead of teicoplanin in patients with low risk of having <i>C. difficile</i> infection.  Due to variable nature of injuries, guidance can vary on disc with surgeon/micro
Lower limb amputation	Antibiotic prophylaxis is mandatory	Benzylpenicillin 1.2g, metronidazole 500mg and gentamicin 3mg/kg iv  Then no further doses required	Teicoplanin 600mg, metronidazole 500mg and gentamicin 3mg/kg iv  Then no further doses required	Consider use in upper limb amputation especially if co-morbidities present (eg diabetes)

### Other Considerations

- Where non guideline antibiotics and/or dosage/timings are prescribed the responsible clinician MUST record the reason for deviation from the protocol in the theatre record
- Intravenous prophylactic antibiotics should be given ≤60 minutes before the skin is incised, but >15 minutes before the tourniquet is inflated if used
- In the event of major intra-operative blood loss in adults (>1,500ml) additional dosage of prophylactic antibiotic should be considered after fluid replacement
- The operating surgeon is responsible for prescribing the post operative doses of antibiotics and VTE prophylaxis (including instructions for early mobilisation) where applicable

Guidance based on discussion with Microbiology department (accounting for local organism sensitivities and need to prevent of CDiff/resistance), along with 2009 BOA/BAPRAS guide on Open lower limb fractures and BNF.