

Galway: GAPP - Galway Antimicrobial Prescribing Policy / Guidelines (GAPP): Orthopaedic and Trauma Surgery

Antibiotics for Orthopaedic and Trauma Surgery				
Type of Surgery	Procedure	1 st Line Antibiotic	Penicillin allergy: immediate or severe delayed reaction See penicillin hypersensitivity section for further information	Number & Timing of Doses
Prophylaxis in Orthopaedic and Trauma Surgery See Note Regarding Risk Factors for MRSA See Note Regarding Multi-drug Resistant Organisms (MDRO)	Closed clean orthopaedic procedures without implant of foreign material (e.g. arthroscopy)	Antimicrobial prophylaxis NOT required		
	Minor metalwork insertion (e.g. K-wires, screws, small orthopaedic plates)	CefUROXime IV 1.5g (one dose only)	Teicoplanin IV 10mg/kg* (Max 800mg) (one dose only)	One dose within 60 minutes before incision. Give antibiotic prophylaxis at least 15 minutes prior to tourniquet inflation.
	Orthopaedic implant surgery (total joint replacement or revision)	CefUROXime IV 1.5g every 8 hours for a total of 3 doses (24 hour cover)	Teicoplanin IV 10mg/kg* (Max 800mg) every 12 hours for a total of 2 doses (24 hour cover)	1 st dose within 60 minutes before incision & continued for 24 hours
	Open reduction with internal fixation of closed fractures	If risk factors for or colonised with MRSA Add Teicoplanin IV 10mg/kg * (Max 800mg) every 12 hours for a total of 2 doses (24 hour cover)	+ Gentamicin IV one dose only, dose per GAPP App calculator	Give antibiotic prophylaxis at least 15 minutes prior to tourniquet inflation.
	Spinal surgery (with or without implant).			
	Open fracture intervention +/- insertion of nail/screw (includes acute trauma with contaminated wounds)	CefUROXime IV 1.5g every 8 hours + Metronidazole IV 500mg every 8 hours See comment re duration	Teicoplanin IV 10mg/kg* (Max 800mg) every 12 hours for 3 doses, then every 24 hours + Gentamicin IV dose per GAPP App calculator every 24 hours + Metronidazole IV 500mg every 8 hours See comment re duration	1 st dose within 60 minutes before incision. Duration usually 3 to 5 days – maximum 24 hours post final wound closure. It is vital that any patient with an open fracture be closely observed for signs of sepsis. Please discuss with Microbiology or Infectious Diseases if necessary and if treatment with gentamicin is extended beyond 3 days
Debridement surgery/patients with chronic bone infection	Prophylactic antibiotic depends on infecting organism(s). Check results of previous cultures if available. Discuss with Microbiology or Infectious Diseases if necessary.			
* Discuss dosing in obese patients with Microbiology, Infectious Diseases or Pharmacy				