Louth: Antimicrobial Guidelines - Louth Hospitals: Antimicrobial Guidelines: Summary Poster - Surgical Antibiotic Prophylaxis Guideline

Surgical antibiotic prophylaxis should be fully administered within 60 minutes before incision

ANTIBIOTIC	ADULT DOSE	PAEDIATRIC DOSE
Cef-UR-oxime	1.5g IV bolus	50mg/kg IV bolus (max 1.5g)
Metronidazole	500mg IV infusion over 20 mins	15mg/kg IV infusion over 20 mins (max 500mg)
Gentamicin	5mg/kg IV bolus (max 480mg) Renal Dose: 3mg/kg IV bolus Obesity: If BMI ≥ 30kg/m², use gentamicin calculator to calculate obesity-adjusted dose	7mg/kg IV bolus (max 480mg) Renal Dose: 2 – 5 mg/kg IV bolus Obesity: If BMI ≥ 30kg/m², use ideal body weight to calculate dose
Teicoplanin	12mg/kg IV bolus (rounded to the nearest 200mg) To reconstitute, use 23G needle and diluent provided. DO NOT SHAKE vial. Roll gently. If foaming occurs, allow to stand for 15 mins.	Child 1 – 2 months: 16mg/kg IV bolus Child > 2 months: 10mg/kg IV bolus
Clindamycin	900mg IV infusion over 30 mins	-

Timing	Surgical antibiotic prophylaxis should be fully administered within 60 minutes before the first incision. Tourniquet: a 15 minute period is required between the end of antibiotic administration and tourniquet application.
Repeat Doses	A **single pre-operative dose** is recommended for surgical prophylaxis except for orthopaedic procedures where up to 24 hours' prophylaxis may be indicated. A repeat dose is indicated **intra-operatively** if 4 hours has elapsed since the previous dose or if there is significant blood loss of more than 1,500mL for adults or 25mL/kg for paediatrics (except do **not** re-dose gentamicin or teicoplanin/vancomycin, which have a prolonged action).
Surgery Performed in the Setting of Infection	Antibiotic **treatment** should be started upon diagnosis of suspected infection. On proceeding to theatre, **antibiotic prophylaxis for surgical site infection (SSI) prevention is still indicated** (except do **not** re-dose gentamicin or teicoplanin/vancomycin, which have a prolonged action).
Administration Issues	Surgical prophylaxis is to be administered in Theatre by the Anaesthetist except in the following situations: • EMERGENCY C-sections: Start surgical antibiotic prophylaxis in Labour Ward once decision made to proceed. • ELECTIVE C-sections, clindamycin and gentamicin required: Start in ward as soon as Theatre staff phone to say they are ready for patient transfer. Infuse simultaneously over 30 minutes using Y-site connector. • GYNAECOLOGICAL PROCEDURES, clindamycin and gentamicin required: As for ELECTIVE C-sections above.

Type of Surgical Procedure		First Line Prophylaxis	NON-Immediate Penicillin Hypersensitivity	IMMEDIATE-onset or SEVERE Penicillin Hypersensitivity
General	Gastrointestinal: Oesophageal, stomach and duodenal, small intestine, colorectal	Cef-UR-oxime **AND** Metronidazole **MRSA: ADD** Teicoplanin	Cef-UR-oxime **AND** Metronidazole **MRSA: ADD** Teicoplanin	Teicoplanin **AND** Gentamicin **AND** Metronidazole
	Hepatobiliary: Bile duct, pancreatic, liver, gallbladder (open or laparoscopic)			
	Hernia repair: With and without mesh insertion	Cef-UR-oxime **MRSA: ADD** Teicoplanin	Cef-UR-oxime **MRSA: ADD** Teicoplanin	Teicoplanin **AND** Gentamicin
Obs & Gynae	Caesarean section	Cef-UR-oxime **MRSA: ADD** Teicoplanin	Cef-UR-oxime **MRSA: ADD** Teicoplanin	Clindamycin **AND** Gentamicin **MRSA: ADD** Teicoplanin
	Laparotomy without entry into bowel or vagina			
	Hysterectomy (TAH / TLH / VH)	Cef-UR-oxime **AND** Metronidazole **MRSA: ADD** Teicoplanin	Cef-UR-oxime **AND** Metronidazole **MRSA: ADD** Teicoplanin	Clindamycin **AND** Gentamicin **MRSA: ADD** Teicoplanin
	Manual removal of placenta			
	Third or fourth degree perineal tear			
	Laparoscopy and chromotubation ('lap and dye')	**Not recommended**. Procedure not recommended if patient has active pelvic infection. If procedure demonstrates dilated fallopian tubes: Doxycycline 100mg BD PO for 5 days post-op.		
	Hysteroscopy (operative or diagnostic) Laparoscopy (operative or diagnostic) without entry into bowel or vagina D&C for early miscarriage or non-pregnancy indications Intrauterine device insertion Gynae ablation Cervical tissue excision procedures (e.g. LLETZ, biopsy, endocervical curettage) Cervical cerclage Endometrial biopsy	**SURGICAL ANTIBIOTIC PROPHYLAXIS NOT RECOMMENDED**		
	If ureteric stenting is required during obs/ gynae procedure: Gentamicin 5mg/kg IV (renal dose 3mg/kg IV) at time of stenting			
Ortho	Arthroplasty, Hemiarthroplasty, ORIF	Cef-UR-oxime **MRSA: ADD** Teicoplanin	Cef-UR-oxime **MRSA: ADD** Teicoplanin	Teicoplanin
	Open Fractures	Cef-UR-oxime **AND** Metronidazole **MRSA: ADD** Teicoplanin	Cef-UR-oxime **AND** Metronidazole **MRSA: ADD** Teicoplanin	Teicoplanin **AND** Metronidazole If type III fracture with extensive soft tissue injury: Gentamicin
Urogenital	Endoscopic Ureteric Stone Shock Wave Lithotripsy Transurethral resection of the prostate Transurethral resection of the bladder tumour Ureteric stenting	Gentamicin 5mg/kg IV (renal dose 3mg/kg IV)	Gentamicin 5mg/kg IV (renal dose 3mg/kg IV)	Gentamicin 5mg/kg IV (renal dose 3mg/kg IV)
	Change of urinary catheter Simple cystoscopy Urodynamic studies	Not usually indicated unless patient at high risk of endocarditis and/or immunocompromised: In this case, send urine for C&S within 5 days prior to procedure. Surgical prophylaxis as per C&S results or if culture not available, empiric Gentamicin.		

Developed by LH Antimicrobial Stewardship Committee. Approved by LH Drugs & Therapeutics Committee. July 2024