NHS
Greater Glasgow and Clyde

CLINICAL GUIDELINE

Plastics and Burns Unit Guideline for Prophylactic Antibiotic use on Wards

A guideline is intended to assist healthcare professionals in the choice of disease-specific treatments.

Clinical judgement should be exercised on the applicability of any guideline, influenced by individual patient characteristics. Clinicians should be mindful of the potential for harmful polypharmacy and increased susceptibility to adverse drug reactions in patients with multiple morbidities or frailty.

If, after discussion with the patient or carer, there are good reasons for not following a guideline, it is good practice to record these and communicate them to others involved in the care of the patient.

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Important Note:

The online version of this document is the only version that is maintained.
Any printed copies should therefore be viewed as 'Uncontrolled' and as such, may not necessarily contain the latest updates and amendments.

Plastics and Burns Unit Guideline for **Prophylactic Antibiotic use on Wards**

Plastics and Burns (Canniesburn) Unit and
Antimicrobial Utilisation Committee May 2025
Review Date May 2028

Introduction

Prudent use of antimicrobials is essential with limitation of antimicrobials to those where there are clear symptoms or suspicion of infection. Prudent antimicrobial use is also important in surgical prophylaxis where post-operative antibiotics should only be given to treat active/ongoing infection unless specifically recommended against the surgical procedure. This guideline aims to provide antibiotic use recommendations for the Plastics and Burns (Canniesburn) Unit clinical teams.
Please also be aware of additional guidelines for:

- Plastics and Burns Unit Guideline for Pre-operative Prophylactic Antibiotic use (Theatres)
- Plastics and Burns Unit Guideline for Empirical Antibiotics in treatment of infections

Please contact the authors of this guideline if there are sections that you think could be improved or updated in view of new evidence. We welcome your thoughts and comments to: scott.gillen@ggc.scot.nhs.uk Telephone: 0141 201 3246.

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SPARED: Good antibiotic prescribing practice

Samples	• Send samples for culture, sampling pre-antibiotics whenever possible. • **A minimum of 2 blood culture sets (4 bottles in total) and ensuring that each bottle is filled with 10ml of blood should be obtained in any patient with suspected blood stream infection and preferably before starting antibiotics.** • Check the culture results & review therapy when you have them. Can you NARROW THE SPECTRUM?
Policy	• Comply with local policies (see Clinical Guidelines Platform & GGC Medicines App) for antibiotic CHOICE, ROUTE & DURATION. • Check for drug interactions & cautions (e.g. clarithromycin, rifampicin). • Complete Protected Antibiotic Forms. • Discuss complex or difficult cases with microbiology/ID.
Allergies	• Check & document the patient's allergy status before prescribing. • Document & consider the nature of any 'allergies'. • A blank allergy status DOES NOT = NKDA.
Reason	• Record the indication when starting any antibiotic. • Document other reasoning, for example: ▪ Rationale for any policy deviation ▪ Details of any microbiology/ID discussion
End date	• Document the intended duration and specify duration on HEPMA prescription • Check the GGC Empirical Infection Management Guideline and IVOST policy via Clinical Guidelines Platform for recommended durations.
Daily review	• Monitor & document patient response. • Check culture results & narrow the spectrum if possible. • Review the need for IV therapy DAILY (refer to GGC IVOST guideline). Document a formal review of IV within 72 hours with the outcome (e.g. stop, IVOST, continue IV with reason). • Observe indicated duration & stop if an alternative non-infectious diagnosis is made. • Avoid prolonged (>4 days) gentamicin courses.

Antibiotic prophylaxis in Plastic surgery (for Wards)

- Post-op antibiotics should only be given to treat active/ongoing infection unless specifically recommended in the section below
- If tetanus prone wound refer to A&E tetanus protocol
- Record antibiotic duration on HEPMA

Indication	Recommended antibiotic	Penicillin allergy
Open fractures (lower/upper limb) 1. At presentation Antibiotics ideally within 1 hour of injury. Continue antibiotics until first debridement (excision). *See Plastics and Burns Unit Guideline for Surgical Pre-operative Prophylactic Antibiotic use for surgical prophylaxis and ongoing post-op management*	IV Co-amoxiclav 1.2 g 8 hourly **If high risk of MRSA** add IV Teicoplanin 800mg Single intra-operative dose, followed by IV vancomycin on the ward[#]. [#]Vancomycin loading dose should be given 6-12 hours post intra-operative teicoplanin, use the vancomycin calculator and prescribe vancomycin on GGC prescription chart	IV Clindamycin 600 mg 6 hourly **If high risk of MRSA** add IV Teicoplanin 800mg Single intra-operative dose, followed by IV vancomycin on the ward[#]. **If Gustilo grade III fracture** add IV gentamicin single dose (See Principles of Surgical Prophylaxis guideline for prophylactic gentamicin dosing) If the patient is already prescribed gentamicin for treatment of an infection prior to surgery contact antimicrobial pharmacist
Hand trauma Clean	Not recommended	Not recommended
Dirty/open fractures (see Page 6 for definitions[◊]) Antibiotics should be given as soon as possible after the injury Discuss with Microbiology if injury/infection involving Flexor Sheath	IV Co-amoxiclav 1.2 g 8 hourly	IV Clindamycin 600 mg 6 hourly if grossly contaminated add IV Gentamicin (dose as per **treatment** guidelines – dosing info here)
	Duration: continue antibiotics until soft tissue closure	

Indication	Recommended antibiotic	Penicillin allergy
Contaminated/dirty lacerations Antibiotics should be given as soon as possible after the injury	IV Co-amoxiclav 1.2 g 8 hrly	IV Clindamycin 600 mg 6 hrly if grossly contaminated, add IV Gentamicin (dose as per **treatment** guidelines – dosing info here)
	Duration: continue antibiotics until soft tissue closure or for a maximum of 72 hrs, whichever is sooner	
Major malignant bone resection requiring reconstruction with flaps **Excision of soft tissue sarcoma requiring reconstruction with flaps**	Post op IV Co-amoxiclav 1.2 g 8 hrly (for 2 doses only) then switch to Oral Co-amoxiclav 625 mg 8 hrly	Post op IV Clindamycin 600 mg 6 hrly (for 2 doses only) then switch to oral Clindamycin 600 mg 8 hrly + oral Ciprofloxacin▪* 500mg 12 hrly
	Post Operation Duration: up to 24 hours (the surgeon may wish to extend duration based on surgical patient risk factors. If prophylaxis is extended, please record rationale and intended duration)	
Use of leeches	Oral Ciprofloxacin▪* 500 mg 12hrly *If ciprofloxacin ▪ not appropriate for patient:* Oral co-trimoxazole 960mg 12hrly **Duration** continue 24 hours after leeches removed	

Indication	Recommended antibiotic	Penicillin allergy
Human or animal bite prophylaxis If no signs of infection, only give antibiotic prophylaxis in the following situations: • Immunosupressed (including asplenia, liver disease, diabetes, rheumatoid arthritis) • Patients with prosthetic joints, heart valves • Post mastectomy • Wound in areas of underlying venous and/or lymphatic compromise • Wound on the hand, wrist, foot, face, genitalia or close to a joint • Crush wound with devitalised tissue • Previously sutured wounds • Full thickness wounds involving tendons, ligaments and joints • Delayed presentation, >6 hours (antibiotics not required if wound is >2 days old and no sign of local or systemic infection) • Pre-existent or resultant oedema of the affected area • Moderate to severe bite (clear full thickness skin puncture or tissue loss) • Cat bites Consider rabies risk (especially bat bite)	Co-amoxiclav oral 625 mg 8 hrly	Doxycycline* oral 100mg 12 hrly + Metronidazole oral 400mg 8 hrly
	Antibiotics should be given as soon as possible after the injury **Duration** 3 days	

▪Ciprofloxacin: risk of serious drug interactions and may prolong the QTc interval. Avoid if other QTc risk factors. See BNF (appendix 1) or seek advice from pharmacy.

*Doxycycline/Ciprofloxacin: absorption reduced with oral iron, calcium, magnesium and some nutritional supplements. See BNF (appendix 1) or seek advice from pharmacy.

◊ Clean hand injuries: No antibiotics recommended.

- Injuries from uncontaminated glass
- Injuries from clean kitchen knives including deliberate self-harm
- Injuries from kitchen knives that have only been used on fruit/vegetables
- Injuries from non-rusted construction equipment that are not frankly contaminated
- Non-organic foreign bodies e.g. glass or metal splinters
- Closed crush injuries
- Closed fractures

Dirty hand injuries

- Frank contamination e.g. gravel, sawdust, organic material
- Injuries from an unknown item
- Injuries with a delayed presentation of 1 or more days
- Injuries from kitchen knives if cutting meat
- Injuries involving rubbish
- Injuries from knives or construction equipment if visibly dirty or rusted
- Organic foreign bodies e.g. wood splinters and flower thorns
- Nailbed injuries with underlying fracture of distal phalanx
- Patients with poor personal hygiene/concerns of self-neglect