NHS
Greater Glasgow and Clyde

CLINICAL GUIDELINE

Antibiotic Prophylaxis for Kidney Transplant in adults

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.

Version Number:	2
Does this version include changes to clinical advice:	Yes
Date Approved:	21st November 2023
Date of Next Review:	30th November 2026
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Approval Group:	Antimicrobial Utilisation Committee

Important Note:

The Intranet 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.

NHS Greater Glasgow and Clyde recommendations for antibiotic prophylaxis in Kidney Transplant

Single dose, IV prophylaxis **≤ 60mins** prior to skin incision/ intervention**.**
For advice on repeat dosing of antibiotics for operations lasting longer than 4 hours or > 1500 ml blood loss see Principles of Surgical Prophylaxis (1039) | Right Decisions (scot.nhs.uk)

Amikacin specific advice

- See Appendix 1 for dosing
- If **>1.5L blood loss:** replace fluid and repeat Amikacin dose intra-operatively -amikacin should be re-dosed at half prophylaxis dose.
- If **surgery prolonged >8hrs post first antibiotic dose and** if eGFR > 60mls/min/ 1.73m^2 repeat **amikacin** (full prophylactic dose).

MRSA: decolonise prior to procedure as per NHS GGC infection control guidelines and discuss with microbiology re antibiotic choice.

CPE carriers: For those patients who have been identified as CPE (carbapenemase producing enterobacteriaceae) carriers, contact microbiology.

Teicoplanin#

- Give 400mg **teicoplanin** by slow intravenous injection over 3-5 minutes
- **Teicoplanin** and **amikacin** are incompatible when mixed directly and must not be mixed before injection.

Weight >100Kg
Increase the dose of co-amoxiclav as below:

Antibiotic	
Co-amoxiclav	**> 100 Kg** add 1g IV **amoxicillin** to 1.2g IV **co-amoxiclav**

Procedure	Recommended antibiotic regimen	Comments
Renal Transplant	**IV Co-amoxiclav 1.2g** or *If true penicillin/ beta-lactam allergy or MRSA risk:* **IV Teicoplanin# 400mg** Plus **IV Amikacin** (see Appendix 1 below)	Review recent microbiology and MSU results and discuss with microbiology. Amikacin can be given as a slow IV bolus over 2-3 minutes. Amikacin has a low pH and may cause venous irritation and tissue damage in cases of extravasation.
Nephrectomy – Transplant Not infected Early or Late Explant	**IV Flucloxacillin 1g** *Or If true penicillin/ beta-lactam allergy or MRSA risk:* **IV Teicoplanin# 400 mg**	
Nephrectomy – Transplant Infected	Peri-operative antibiotics should be determined on an individual patient basis. Discuss with microbiology prior to surgery	
Donor Nephrectomy for Transplant	**IV Flucloxacillin 1g** *Or If true penicillin/ beta-lactam allergy or MRSA risk:* **IV Teicoplanin# 400mg**	

Appendix 1 Amikacin Weight based Dosing

Amikacin dosing regimens for renal transplant surgical prophylaxis in adult male and female patients.
Based on amikacin dosing guidelines for renal Transplant from Guys and St Thomas Hospital, 7mg/kg ideal body weight/ dosing weight, capped at 500mg.

Height \ Weight	30 – 39.9 kg	40 – 49.9 kg	50 – 59.9 kg	60 – 69.9 kg	70 – 79.9 kg	80 – 89.9 kg	≥90 kg
142 – 149 cm	250 mg	375 mg	375 mg	375 mg	375 mg	375mg	500 mg
150 – 154 cm	250 mg	375 mg	375 mg	375 mg	375 mg	500 mg	500 mg
155 – 162 cm	250 mg	375 mg	375 mg	375 mg	500 mg	500 mg	500 mg
163 – 184 cm		375 mg	375 mg	500 mg	500 mg	500 mg	500 mg
185 – 194 cm			375 mg	500 mg	500 mg	500 mg	500 mg
≥195 cm				500 mg	500 mg	500 mg	500 mg

- Use the patient's actual body weight and height to calculate the amikacin dose using table above. For dosage preparation use amikacin 500mg/ 2ml vials.
- Give amikacin by slow IV injection over 2-3 minutes.
- Monitor for signs of extravasation or infiltration e.g. swelling, redness, coolness or blanching at the cannula insertion site.