

Antibiotics for surgical site infection prevention

Prevention of a [wound infection](#) depends on adequate primary surgical treatment of a [wound](#). Treatment is aimed at suppressing the development of [infection](#) through administration of [antibiotics](#) and other antimicrobial preparations and at strengthening the defensive mechanisms of the afflicted individual; an adequate [diet](#), transfusions of blood and protein preparations, and the administration of specific serums, toxoids, autovaccines, and gamma globulin serve the latter purpose.

see [Antibiotic prophylaxis](#).

The selection of antibiotics for [surgical site infection prevention](#) is based on the specific procedure, the potential pathogens involved, and local resistance patterns. Commonly used antibiotics for neurosurgical prophylaxis may include [cefazolin](#) or [vancomycin](#), depending on the patient's risk factors and the institution's [guidelines](#).

Avoid cephalosporins, clindamycin, quinolones, and co-amoxiclav wherever possible

Use narrow-spectrum agents when possible e.g. avoid carbapenems, piperacillin/tazobactam

Take into account local resistance patterns e.g. >95% of MRSA isolated in Tayside are sensitive to gentamicin

Provision of alternatives for beta-lactam allergy

De-colonisation therapy before surgery when MRSA is positive when recommended in Infection Control Policies

Complex individual prophylaxis issues should be discussed with Microbiology or Infectious Diseases pre-operatively and recorded in medical records

Compliance with local policy is required. Any deviation from policy must be recorded in the appropriate medical records.

[Cefuroxime](#) 1.5 g Bolus over 3-5 minutes Redose 1.5g after 4 hours 1.5g

[Flucloxacillin](#) 2g Bolus over 3-5 minutes Repeat 2g dose after 4 hours 2g

[Teicoplanin](#) 800mg (400mg if <40kg) Bolus over 3-5 minutes Not required Give half the original dose if 1500ml or more blood loss within the first hour of operation

[Metronidazole](#) 500mg Infusion over 20 minutes Redose 500mg after 8 hours 500mg

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