Wound infection post amputation – Full Clinical Guideline

Reference no.: CG-ANTI/2017/042

Amputations can be classified as follows:

Clean - Amputations where the limb is ischaemic, or where dry gangrene is present. There is no need to continue antibiotics post op if there is no residual osteomyelitis.

Contaminated – Amputations through or adjacent to an area of acute inflammation (without pus or ulceration). If all infected tissue has been removed by amputation and there is no wound infection or osteomyelitis then antibiotics should be continued for a maximum of 48hrs post-op.

Dirty – Amputations adjacent to or through necrotic ulcers and/or purulent areas. If all infected tissue has been removed by amputation and there is no wound infection or osteomyelitis then antibiotics should be continued for a maximum of 48hrs post op.

What samples to send?

Send samples from amputation site for culture & sensitivity.
NB; Samples should be sent from the resection margin (bone/tissue) at surgery and not the amputated parts.

If there is osteomyelitis or wound infection remaining and microbiology culture results are available from the site prior to amputation, then antibiotics may be started based on the results until culture and sensitivity results are available from the amputation site.

Empirical treatment if no previous results are available

No penicillin allergy and MRSA negative	**Penicillin allergy – non immediate reaction without systemic involvement and MRSA negative**	**Penicillin allergy immediate, rapidly evolving reaction, or non immediate reaction with systemic involvement OR MRSA positive**
Co-amoxiclav IV 1.2g 8 hourly **or** co-amoxiclav PO 625mg 8 hourly	Cefuroxime IV 750mg-1.5g 8 hourly **plus** metronidazole IV 500mg 8 hourly For oral options, discuss with a consultant microbiologist.	IV Vancomycin or IV teicoplanin dosed according to guideline **plus** ciprofloxacin 400mg 12 hourly IV or 500mg PO 12 hourly **plus** metronidazole IV 500mg 8 hourly **or** 400mg PO 8 hourly. In patients unsuitable for ciprofloxacin, instead use aztreonam IV IG tds (with vancomycin or teicoplanin, and metronidazole). For oral options, discuss with a consultant microbiologist.

Fluoroquinolones such as ciprofloxacin can very rarely cause long-lasting, disabling, and potentially irreversible side effects. sometimes affecting multiple systems, organ classes,

and senses. Patients should be advised of these risks and the actions to take. The MHRA patient information leaflet can be found here.

The MHRA and CHM have released important safety information regarding the use of fluoroquinolones. See the BNF for further information (click here)

Review culture and sensitivity results at 48hr and adjust treatment accordingly

Duration

- Superficial infections: 5-7 days
- Deep or organ/space infections: 10 - 14 days or longer if osteomyelitis (please refer to the osteomyelitis guideline)

Document control

Development of Guidelines	Antimicrobial Stewardship Group
Consultation With	Consultant Microbiologists Antimicrobial Pharmacist
Changes from previous version	Ciprofloxacin or aztreonam instead of gentamicin in severe penicillin allergy. Removal of cefaclor as an oral option Inclusion of warnings regarding ciprofloxacin adverse effects.
Approval date	Approved by antimicrobial group 24/6/2021 Surgical divisional Governance [date]
Review Date	June 2024
Key contact	Dr Deborah Gnanarajah Consultant Microbiologist Julia Lacey Antimicrobial Pharmacist

Note that these guidelines assume normal renal and hepatic function. The doses of many antibiotics s should be reduced in renal or hepatic impairment. They may also not be suitable for use in pregnancy. Please discuss this with a pharmacist