Guidance on antibiotics for the treatment of infection in the diabetic foot

STOP and THINK before you give Antibiotic Therapy!

NHS York Teaching Hospital NHS Foundation Trust

NHS Harrogate and District NHS Foundation Trust

Symptoms: Refer to Podiatry MDT for urgent assessment | Refer urgently to Vascular for admission/inpatient review

MILD INFECTION	MODERATE INFECTION	SEVERE INFECTION
• Pus or two or more of : erythema, warmth, pain, tenderness, induration • Any cellulitis <2cm around the wound • No systemic infection	• Lymphatic spread, deep tissue infection involving subcutaneous tissues, tendon, fascia, bone or abscess, or • Cellulitis > 2cm	• Local infection accompanied by signs and symptoms of systemic infection • Presence of critical ischaemia
(Samples – prior to antibiotics if at all possible in all patients)		
• Tissue, exudate or swab from debrided base of lesion. • Aspirated pus if available	• Tissue, exudate, bone fragments, or swab from debrided base of lesion. • Aspirated pus if available	• Local samples as for moderate infection plus 2 sets of blood cultures
Treatment duration	**Treatment duration**	**Treatment duration**
• Initially 7 days with review at end of treatment to determine if further therapy required	• Initially 7 days with review at end of treatment to determine if further therapy required • IV therapy should be switched to oral as clinically indicated • If osteomyelitis is present suggest at least 6 weeks therapy and then review and stop or continue as clinically indicated	• Initially 10 days and then review and stop or continue as clinically indicated • IV therapy should be switched to oral as clinically indicated • If osteomyelitis is present suggest at least 6 weeks therapy and then review and stop or continue as clinically indicated

First line treatment

MILD INFECTION	MODERATE INFECTION	SEVERE INFECTION
First choice • Oral Flucloxacillin 1g qds ***Alternative*** • Oral Doxycycline 200mg po stat then 100mg daily (can be increased to 100mg bd)	***First choice*** • IV Flucloxacillin 2g qds (oral flucloxacillin 1g qds if treatment in community was inappropriate or inadequately dosed. Also as oral switch) Add oral Metronidazole if anaerobes suspected i.e. on the basis of limb ischaemia, gangrene, necrosis or offensive wound odour. ***Alternatives*** • IV Vancomycin **or** Oral Co-trimoxazole 960 mg bd **(see note 3 & 5)** Add oral Metronidazole if anaerobes suspected i.e. on the basis of limb ischaemia, gangrene, necrosis or offensive wound odour. ***Out-patient parenteral therapy (OPAT)*** • OPAT choice guided by Microbiologist	***First choice*** • IV Piperacillin/Tazobactam 4.5g tds **(See notes 1 & 2)** ***Alternative*** • IV/oral Levofloxacin 500mg bd **and** IV Metronidazole 500mg tds **(See notes 1 & 2)** **Initial oral therapy inappropriate.** Review results of cultures as they become available. Discuss oral switch with Clinical Microbiologist as patient improves. ***Out-patient parenteral therapy (OPAT)*** • OPAT choice guided by Microbiologist

Patients who have failed first line therapy

MILD INFECTION	MODERATE INFECTION	SEVERE INFECTION
First choice • Oral Doxycycline 200mg po stat then 100mg daily (can be increased to 100mg bd) **or** • Oral Clindamycin 300-450mg qds **(See note 2)**	***First choice*** • IV Co-trimoxazole 960 mg bd **(see note 5)** Add oral Metronidazole if anaerobes suspected i.e. on the basis of limb ischaemia, gangrene, necrosis or offensive wound odour. ***Oral first choice and oral switch*** • Co-trimoxazole 960mg bd +/- Metronidazole 400mg tds. ***Alternatives*** • Cefalexin 1g tds +/- Metronidazole 400mg tds. Review results of cultures as they become available and de-escalate as appropriate. ***Out-patient parenteral therapy (OPAT)*** • OPAT choice guided by Microbiologist	**If patients have failed the above severe infection regime please discuss with Clinical Microbiologist** ***Out-patient parenteral therapy (OPAT)*** • OPAT choice guided by Microbiologist

MRSA colonisation – consider **adding** cover to above regimes if MRSA suspected

MILD INFECTION	MODERATE INFECTION	SEVERE INFECTION
• Oral Doxycyline 200mg po stat then 100mg daily (can be increased to 100mg bd) may be considered under close supervision Escalate therapy to Moderate Infection category if poor response or deterioration	• IV Vancomycin **(See note 3)** **Oral switch** – discuss with Clinical Microbiologist ***Out-patient parenteral therapy (OPAT)*** • IV Teicoplanin (dosing based on weight & renal function) ***MRSA Osteomyelitis*** Discuss adding second MRSA agent with Microbiologist, either: • Oral Rifampicin 600mg bd **or** • Oral Sodium fusidate 500mg tds - never use as monotherapy **(See note 4)**	• IV Vancomycin **(See note 3)** **Oral switch** – discuss with Clinical Microbiologist ***Out-patient parenteral therapy (OPAT)*** • IV Teicoplanin (dosing based on weight & renal function) ***MRSA Osteomyelitis*** Discuss adding second MRSA agent with Microbiologist, either: • Oral Rifampicin 600mg bd **or** • Oral Sodium fusidate 500mg tds - never use as monotherapy **(See note 4)**

Notes:

1. Consider adding IV Vancomycin to the IV regimes above if MRSA infection is suspected
2. Piperacillin/Tazobactam, Levofloxacin and Clindamycin containing regimes have a high risk of Clostridium difficile infection
3. Vancomycin – dose as per IV guide and monitor pre dose levels
4. Only add when Vancomycin levels therapeutic. Baseline LFTs are required before starting Rifampicin/Sodium fusidate and should be monitored regularly during treatment
5. Baseline FBC is required before starting Co-trimoxazole and should be monitored regularly during treatment. Avoid in severe renal impairment or if there is a history of severe allergy/stevens-johnsons syndrome
6. Some doses may need adjusted in renal impairment. Discuss with pharmacy team

York Hospital Contacts (prefix 772 before extension when ringing from Scarborough)	Consultant Microbiologist: 5131 or via switchboard Speciality Registrars: 6699 Vascular on-call: via switchboard	Principal Pharmacist Antimicrobials: 6377 Antimicrobial Pharmacist: 1394 Antimicrobial Technician: 1395	Podiatry: 6761 or 5781 In patient podiatry: 01904 726510
Scarborough Hospital Contacts (prefix 771 before extension when ringing from York)	Consultant Microbiologist: 2334 or via switchboard Vascular on-call: via switchboard	Antimicrobial Pharmacist: 2244 Antimicrobial Technician: 6235	Podiatry: 01423 542972 Mobile: 07920073785
Harrogate District Hospital Contacts	01423 885959	Duty Microbiologist: via switchboard Antimicrobial Pharmacist: 5715	

Please consult CCG referral pathway for the diabetic foot

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