

BNSSG Mild Diabetic Foot Infection Guidelines

Mild Diabetic Foot Infection¹ – Local infection involving only the skin / sub-cutaneous tissue; if erythema, must be <2cm , NO systemic inflammatory response & no previous antibiotic treatment (in the last three months.) Please take a swab of the ulcer from the clean base not from a scab or slough, if there are features of infection such as purulent discharge.

If patients have received antibiotics in the recent 3months or grown resistant organisms or polymicrobial flora, then recommend discussion with microbiologist at the respective organisation- NBT or UHBW².

First line

Flucloxacillin 500mg – 1g* (off-label use)
QDS PO

*1g to be used in those with a BMI ≥ 30

If Penicillin allergic or Flucloxacillin not suitable

First Line: Clindamycin 300mg QDS PO

Or

Erythromycin (In pregnancy) 500mg QDS PO

MRSA present

Doxycycline 100mg BD PO

Or

Cotrimoxazole 960mg BD PO

Duration: 7-14 days.

Review with cultures and sensitivities.

A longer course (up to a further 7 days) may be needed based on clinical assessment. However, skin does take some time to return to normal, and full resolution of symptoms at 7 days is not expected.

On Review

If no improvement / deterioration, move to Moderate Diabetic Foot infection guidelines or discuss with Microbiologist.

Microbiology

- Therapy should be guided by microbiology results when available.
- If no recent swab or deep tissue sample has been collected, then this should be done as close to starting antibiotic therapy as possible.
- Once results are available, optimise therapy according to results and clinical response, using narrow-spectrum antibiotic if appropriate; consider discussion with Microbiologist if concerned at any stage.

Useful Information

Microbiology NBT

Tel: 0117 414 6222 Press option 2 for “NBT/Weston bacteriology”- Then choose option 1 for clinical bacteriology advise.

E-mail: microbiology@nbt.nhs.uk

Microbiology UHBW

Tel: 0117 4146222 Press option 1 “UHB bacteriology” –Then choose option 1 for UHB Clinical bacteriology advise

E-mail: microbiology@UHBW.nhs.uk

Diabetes Foot Pathway

[Diabetes Foot Care \(Remedy BNSSG ICB\)](#)

References:

¹[IWGDF/IDSA Infection guideline \(2023 update\) - IWGDF Guidelines](#)

²[Diabetic foot infections, antibacterial therapy | Treatment summaries |](#)

[BNF](#) | [NICE](#)

April 2024. Review April 2027.

Advice to Patient

- Discuss possible common adverse reactions to the antibiotics e.g. allergic reactions, rash or diarrhoea/vomiting.
- **Safety netting:** If symptoms get worse or do not improve in 2-3 days or develop systemic symptoms (Fever/rigors or unwell) , seek urgent medical review
- Verbal advice on how to use antimicrobials including:
 - How they should be given
 - How to dispose of them
 - Do not share them
- Ensure good glycaemic control

BNSSG Moderate Diabetic Foot Infection Guidelines

Moderate Diabetic Foot Infection¹ — Local infection with erythema more than 2cm around the ulcer or involving structures deeper than skin / sub-cutaneous tissues (such as abscess, osteomyelitis, septic arthritis or fasciitis), and no systemic inflammatory response signs. Consider hospitalisation if moderate DFI is associated with key relevant co-morbidities.

If patients have received antibiotics in the recent **3 months or grown resistant organisms/Pseudomonas or polymicrobial flora**, recommend discussion with microbiologist at the respective organisation- NBT or UHBW².

<p>First line</p> <p>Co-Amoxiclav 500mg/125mg TDS PO</p>	<p>If Penicillin allergic or MRSA colonised</p> <p>Co-trimoxazole 960 mg BD PO (Off label use) + Metronidazole 400mg TDS PO</p>	<p>Pseudomonas aeruginosa grown from cultures:</p> <p>Ciprofloxacin³ 750mg BD PO + Clindamycin 300mg QDS PO</p>
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- Duration**
- Reassess after 2-7 days (sooner if deterioration).
 - Give oral antibiotics first line if the person can take oral medicines, and the severity of their condition does not require intravenous antibiotics. (See Severe Diabetic Foot Infection Guidelines)
 - Course length is based on clinical assessment: minimum of 7 days and up to 6 weeks for osteomyelitis (use oral antibiotics for prolonged treatment).
 - Skin takes some time to return to normal, and full resolution of symptoms after a course of antibiotics is not expected. Review the need for continued antibiotics regularly.

On Review	Investigations	Useful Information	Advice to Patient
<p>Reassess the patient with a suspected diabetic foot infection if symptoms worsen rapidly or significantly at any time or the patient becomes systemically unwell or has severe pain out of proportion to the infection and seek urgent review at secondary care (Diabetic Foot Clinic, SDEC or ED). Patients who do not show an improvement within 2 to 3 days, please review the culture results and discuss with microbiologist, if required.</p> <p>After 6 weeks – if not improved / worsening</p> <ul style="list-style-type: none"> • Reassess need for surgery • Check compliance; consider consultation with Microbiologist • Review Microbiology results and change therapy accordingly • Consider repeat cultures of optimal specimens 	<ul style="list-style-type: none"> ➤ NEWS2 – observations if clinically unwell ➤ Blood tests (CRP, PCT, UE, LFT FBC) ➤ To aid diagnosis of Osteomyelitis carry out the following: <ul style="list-style-type: none"> • Probe-to-bone test • Plain X-rays • If not confirmed on initial x-ray, perform MRI 	<p>Microbiology NBT</p> <p>Tel: 0117 414 6222</p> <p>E-mail: microbiology@nbt.nhs.uk</p> <hr/> <p>Microbiology UHBW</p> <p>Tel: 0117 3429270</p> <p>E-mail: microbiology@UHBW.nhs.uk</p>	<ul style="list-style-type: none"> • Discuss possible adverse reactions to the antibiotics • Safety netting: If symptoms get worse or do not improve in 2-3 days, or develop systemic symptoms, seek medical review • Verbal advice on how to use antimicrobials including: <ul style="list-style-type: none"> ➤ How they should be given ➤ How to dispose of them ➤ Do not share them • Ensure good glycaemic control

- Microbiology**
- If no recent swab or deep tissue sample has been collected, this should be done as close to starting antibiotic therapy as possible.
 - Therapy should be guided by microbiology results when available.
 - Review choice of antibiotic according to results, use narrow-spectrum antibiotic if appropriate. Consider discussion with microbiologist, if concerned at any stage.

References:

¹[IWGDF/IDSA Infection guideline \(2023 update\) - IWGDF Guidelines](#)

²[Diabetic foot infections, antibacterial therapy | Treatment summaries | BNF | NICE](#)

³[MHRA alert on fluoroquinolones](#)

[MHRA patient information leaflet](#)

Moderate foot infection or querying Osteomyelitis refer to Multidisciplinary Diabetes Foot Team as per pathway.

Diabetes Foot Care (Remedy BNSSG ICB)

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BNSSG Severe Diabetic Foot Infection Guidelines

Severe Diabetic Foot Infection¹ — Any foot infection with associated systemic manifestations or sepsis².

All persons with severe diabetic foot infection should be assessed in a secondary care with an input from specialist with an expertise in the management of DFI³.

If patients have received antibiotics in the recent **3 months or grown resistant organisms/Pseudomonas or polymicrobial flora**, recommend discussion with microbiologist at the respective organisation- NBT or UHBW.

First line Piperacillin/Tazobactam 4.5gm QDS	h/o Penicillin allergy (non-severe or not an anaphylaxis) or MRSA colonised Ceftazidime 2gm IV TDS + IV vancomycin (as per local Trust policy) + Metronidazole 500mg TDS IV	h/o Penicillin allergy (severe or anaphylaxis) IV Gentamicin (as per local Trust policy) + IV Clindamycin 600mg QDS
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Antimicrobial therapy course:

- Reassess after 2-3 days (sooner if deterioration) with culture results.
- Discuss all patients with moderate/severe DFI in the Microbiology-Vascular MDT on Thursday 11:00 to 12:00.
- Switch to oral antibiotics if there is sufficient improvement on clinical assessment, the person can take oral medicines and microbiology results are available.
- Minimum of 7 days of therapy for a skin/soft tissue infection.
- Therapy may need to be extended up to 6 weeks for osteomyelitis (use oral antibiotics for prolonged treatment).
- Skin takes some time to return to normal, and full resolution of symptoms after a course of antibiotics is not expected. Review the need for continued antibiotics regularly.

On Review	Investigations	Useful Information	Advice to Patient
<p>Reassess the patient with a suspected diabetic foot infection and sepsis on a regular basis (at least daily) to exclude any other cause for sepsis i.e. UTI or pneumonia. Please collect multiple tissues / deep samples (clean & dirty ends) if patient undergoes surgery. Patients who do not show an improvement within 2 to 3 days, please review the culture results and discuss with microbiologist, if required. Please discuss all severe cases / hospitalised patients with DFI in the weekly MDT (Thursday am) After 6 weeks – if not improved / worsening</p> <ul style="list-style-type: none"> • Reassess the need for surgery /revascularisation and check compliance with antibiotics. • Review Microbiology results and change therapy after consultation with Microbiologist • Consider repeat cultures of optimal specimens (deep tissue samples / biopsy) 	<ul style="list-style-type: none"> ➤ NEWS2 – regular observations ➤ Full septic screen including 2 sets of blood cultures ➤ Blood tests (CRP, PCT, UE, LFT FBC) ➤ To exclude Osteomyelitis, perform <ul style="list-style-type: none"> • Probe-to-bone test • Plain X-rays • If high suspicion & not confirmed on initial x-ray, consider MRI 	<p>Microbiology NBT Tel: 0117 414 6222 E-mail: microbiology@nbt.nhs.uk</p> <p>Microbiology UHBW Tel: 0117 3429270 E-mail: microbiology@UHBW.nhs.uk</p> <p>Severe foot infection or querying Osteomyelitis refer to Multidisciplinary Diabetes Foot Team as per pathway.</p> <p>Diabetes Foot Care (Remedy BNSSG ICB)</p>	<ul style="list-style-type: none"> • Discuss possible surgical options, especially amputations if planned. • Discuss high possibility of recurrences in the future and need for on-going management of diabetes & foot care • Discuss possible adverse reactions to the antibiotics • Verbal advice on how to use antimicrobials including: <ul style="list-style-type: none"> ➤ How they should be given ➤ How to dispose of them ➤ Do not share them • Ensure good glycaemic control
<h2>Microbiology</h2> <ul style="list-style-type: none"> • Please perform full septic screen including 2 sets of blood cultures. • If no recent swab or deep tissue sample has been collected , this should be done ASAP before starting antibiotic therapy. • Please collect multiple tissue samples from infected area (clean and dirty ends). • Therapy should be reviewed daily & guided by microbiology results. Use narrow-spectrum antibiotic if appropriate. D/W with microbiologist, if concerned at any stage. 	<p>References: ¹IWGDF/IDSA Infection guideline (2023 update) - IWGDF Guidelines ²Sepsis: recognition, diagnosis and early management. NICE guideline [NG51] ³Diabetic foot infections, antibacterial therapy Treatment summaries BNF NICE ⁴MHRA alert on fluoroquinolones MHRA patient information leaflet April 2024. Review April 2027.</p>		