Better Access

Diabetic Foot Check Policy

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Diabetic Foot Check Policy

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1 Introduction

1.1 Policy statement

The purpose of this policy is to provide guidance and direction to appropriately trained clinical staff at Heartbeat CIC in relation to diabetic foot checks for those patients living with diabetes.

The guidelines and recommendations are based on evidence for best practice and are in line with current national advice and NHS guidelines.

1.2 Status

This document and any procedures contained within it are non-contractual and may be modified or withdrawn at any time. For the avoidance of doubt, it does not form part of your contract of employment.

1.3 Training and support

The organisation will provide guidance and support to help those to whom it applies to understand their rights and responsibilities under this policy. Additional support will be provided to managers and supervisors to enable them to deal more effectively with matters arising from this policy. All staff will have completed Foot Screening Training and be assessed to be deemed competent.

2 Scope

2.1 Who it applies to

This document applies to all employees of the organisation and other individuals performing functions in relation to the organisation such as agency workers, locums and contractors. Furthermore, it also applies to clinicians who may or may not be employed by the organisation but who are working under the Additional Roles Reimbursement Scheme (ARRS).[1]

2.2 Why and how it applies to them

This policy will be of interest to all healthcare professionals involved in the care of people with diabetes.

[1] Network Contract Directed Enhanced Service (DES) Contract specification 2020/21

Managing the growing incidences of diabetes in England is set to be one of the major clinical challenges of the 21st century. Estimates suggest that the number of people with diabetes is expected to rise to 4.2 million by 2030, affecting almost 9% of the population.[2]

3 Definition of terms

3.1 Diabetes

A metabolic disorder of multiple aetiology characterised by chronic hyperglycaemia with disturbances of carbohydrate, fat and protein metabolism resulting from defects in insulin secretion, insulin action, or both[3]

3.2 Type 1 diabetes

Type 1 diabetes is an autoimmune disease that causes the insulin producing beta cells in the pancreas to be destroyed, preventing the body from being able to produce enough insulin to adequately regulate blood glucose levels.[4]

3.3 Type 2 diabetes

Type 2 diabetes is a condition in which the body can no longer control the amount of glucose in the blood. The body does not respond to insulin properly or may not produce enough. This causes blood glucose levels to become too high (hyperglycaemia).[5]

3.4 Peripheral neuropathy

Peripheral neuropathy develops when nerves in the body's extremities, such as the hands, feet and arms, are damaged. The symptoms depend on which nerves are affected.[6]

3.5 Corns

Corns are localised thickening of the skin due to pressure and often occur on the top of the toes as a result of pressure from footwear. Corns can also occur on the sole of the foot and in between toes.[7]

[2] Diabetes treatment and care programme, NHS
[3] WHO Diagnosis and Classification of Diabetes Mellitus
[4] Diabetes.co.uk
[5] BUPA Type 2 diabetes
[6] NHS Peripheral neuropathy
[7] The Podiatry Centre – Corns & Calluses

3.6 Calluses

Calluses are the thickening of the skin due to hyperkeratosis and occur over bony prominences, on the ball or the heel of the foot. Calluses are yellow or dark brown areas of skin. They are painful when pressure is applied.[7]

3.7 Acute limb ischaemia

A sudden decrease in limb perfusion that threatens limb viability. In acute limb ischaemia, decreased perfusion and symptoms and signs develop over less than two weeks.[8]

3.8 Critical limb ischaemia

When circulation is so severely impaired that there is an imminent risk of limb loss[8]

3.9 Peripheral arterial disease

Peripheral arterial disease (PAD) is a term used to describe a narrowing or occlusion of the peripheral arteries affecting the blood supply to the lower limbs. It is also known as peripheral vascular disease (PVD).[8]

3.10 Gangrene

Gangrene is tissue death caused by a loss of blood supply and a lack of oxygen. It is most common in the hands and feet.[9]

3.11 Charcot arthropathy

A progressive, degenerative condition causing the weakening of the bones in the feet

3.12 Ankle brachial pressure index

Ankle brachial pressure index (ABPI) provides an index of vessel competency by measuring the ratio of systolic blood pressure at the ankle to that in the arm, with a value of one being normal.[10]

[8] NICE Peripheral arterial disease
[9] NHS Gangrene
[10] NICE Ankle brachial pressure index

4 Diabetic foot problems: prevention and management

4.1 Frequency of diabetic foot assessments[11]

The frequency of diabetic foot assessments for a patient depends on their risk factors. Children under 12 with diabetes and their families need to be provided with basic foot care advice.

Young people aged 12-17 years with diabetes should have an annual foot assessment as part of their paediatric or transitional care team annual assessment. Information about ongoing foot care should be provided. If a diabetic foot problem is found then referral to an appropriate specialist is to be initiated.

Adults with diabetes should have their risk of developing diabetic foot problems assessed:

- At the time of diagnosing their diabetes and annually thereafter
- If any foot problems arise
- On admission to hospital and if there is any change in their condition whilst in hospital.

All patients must be advised to seek advice should they have any concerns.

4.2 Diabetic foot advice/preventing complications

It is especially important for patients with diabetes to look after their feet. Diabetes can reduce the blood supply to a patient's feet and cause peripheral neuropathy. Sufferers can often develop sores or injuries that go unnoticed for some time and, if injuries do occur, they often do not heal well or without expert advice and intervention.

Basic diabetic foot health advice for patients should include the following:

Inspecting the feet
On a daily basis, patients should check for cuts, blisters, redness, swelling or nail problems. The use of a magnifying hand mirror to look at the soles of the feet is to be encouraged.

Bathing feet
Patients are to bathe their feet in lukewarm (never hot) water daily thereby ensuring they keep their feet clean.

[11] NICE: Diabetic foot problems: prevention and management

Being gentle when bathing feet
Advise patients to wash their feet using a soft washcloth or sponge. Dry by blotting or patting and carefully drying between the toes.

Moisturising
Encourage the use of a daily moisturiser to keep dry skin from itching or cracking. Patients should not moisturise between the toes as that could encourage a fungal infection.

Cutting nails carefully
Cut nails straight across and file the edges. Do not cut nails too short as this could lead to ingrown toenails.

Wearing shoes that fit well and do not squeeze or rub
Ill-fitting shoes can cause corns and calluses, ulcers and nail problems.

Treating corns or calluses
Patients are to be advised to visit a podiatrist for appropriate treatment and not to treat corns or calluses themselves.

Inspecting shoes before wearing them
Patients may not be able to feel a pebble or other foreign object so they must always inspect their shoes (inside and out) before putting them on.

Wearing clean, dry socks
Patients are to wear, clean, dry socks, changing them on a daily basis.

Never walking barefoot
No matter where they are, patients are to be advised to never walk barefoot, not even at home. They should always wear shoes or slippers. This will prevent their feet becoming cut or scratched.

Self-help
The risk of complications can be greatly reduced if patients focus on maintaining control of their blood sugar levels.

Stopping smoking
Patients are to be advised of the adverse effects that smoking has, such as impairing blood circulation, thereby significantly worsening foot and leg problems.

4.3 Performing a foot check

Annual foot checks can ensure the risk of developing any foot complications is identified early. A foot check shouldl be performed as part of a patient's annual diabetes check at Heartbeat CIC.

Assist the patient into a comfortable lying or sitting (If they prefer) position on the examination bed. The patient should be asked to remove their shoes and socks/tights. Any dressings or bandages will also need to be removed if present.

The foot check should include:[12]

History:

Ask the patient:

- Have you had any foot problems since the last assessment?
- Are you experiencing any pain or discomfort?
- How often do you check your feet at home?
- Do you feel comfortable looking after your feet?

Visual inspection

A thorough visual inspection of the lower legs and feet is essential. Check for:

- Dry, cracking skin and fissures
- Wounds/cuts
- Blisters
- Corns/calluses
- Skin health – changes in colour and texture, look for signs of infection or inflammation
- Nail health – length, colour, thickness, debris, odour, separation from the nail bed and pain
- Deformity, such as Charcot foot, that may predispose the foot to ulceration
- Check the skin temperature using the back of the hand. Normally, the leg is warmer at the tibia and cooler at the toes. Patients with neuropathy have no change in temperature due to the dilation of the capillaries in the toes.

[12] Nursing Times – Assessing the foot in patients with diabetes

- Check for the presence of varicose veins, haemosiderosis, oedema and scarring from previous ulceration.

Vascular examination

- Palpate for the dorsalis pedis and posterior tibial pulses on both feet. If unable to palpate, use a doppler scanner to ascertain either the presence or absence of the pulse.
- Check the capillary refill by pressing the distal pulp of a toe until it blanches and then release. Normal reperfusion takes 0-5 seconds. Delayed refill is an indicator of arterial ischaemia.

Neuropathy

- Check for numbness or changes in sensation (also known as neuropathy) using a 10g monofilament. Apply the filament to patients hand or forearm so they are aware of the sensation they are supposed to feel. Ask the patient to close their eyes.
- Test 7 sites on both feet:

  Dorsum of foot, plantar Surface of 1st, 3rd, 5th toes, 1st and 5th Metatarsalpharyngeal heads and the heal. If callous present avoid these areas and test sites free of callous.
- The monofilament should be applied for 1- 2 seconds pressing the monofilament until it bends halfway and then releasing. If not felt repeat once.
- If the patient is unable to feel the filament at one or more sites, peripheral neuropathy may be diagnosed.

Circulation

- Check for ulceration, spreading infection, critical limb ischaemia or gangrene.

Final questions

- How far can you walk? What stops you? Do you have any cramp-like pains when walking? Are they relieved by stopping walking?
- How well are you managing your diabetes?

4.4 Foot check results[13]

A person's current risk of developing a diabetic foot problem can be assessed using the following risk stratification:

[13] NICE: Assessing the risk of developing a diabetic foot problem

Low risk

- No risk factors present except callus alone

Moderate risk

- Deformity
- Neuropathy
- Non-critical limb ischaemia

High risk

- Previous ulceration
- Previous amputation
- On renal replacement therapy
- Neuropathy and non-critical ischaemia together
- Neuropathy in combination with callus and/or deformity
- Non-critical limb ischaemia in combination with callus and/or deformity

Active diabetic foot problem

- Ulceration
- Spreading infection
- Critical limb ischaemia
- Gangrene
- Suspicion of an an acute Charcot arthropathy or an unexplained hot, red, swollen foot with or without pain

Following assessment, it is essential that the patient is managed appropriately.

4.5 Management

The management of patients is as follows:

Low risk

- Patients deemed to be low risk are to be reviewed on an annual basis, emphasising the importance of foot care.

Moderate or high risk

- Patients deemed to be of moderate or high risk are to be referred to Community Podiatry team, Bedale Health Clinic (See Appendix 1)

- A task should be sent to the patient's own practice advising a referral has been made.
- The referral process is located on System 1 in the Ardens referral documents.

Patients for referral[13]

If a patient has a limb or life-threatening diabetic foot problem, they must be immediately referred to the emergency department and the multidisciplinary foot team via the pathway (Appendix 2) For all referrals Email: hdft.podiatryreferrals@nhs.net State priority in subject heading.

The following are examples of limb and life-threatening diabetic foot problems (this list is not exhaustive):

- Ulceration with fever or any signs of sepsis
- Ulceration with limb ischaemia
- Clinical concern that there is a deep-seated soft tissue or bone infection (with or without ulceration)
- Gangrene (with or without ulceration)

For non-urgent, active diabetic foot problems, refer the patient High Risk community Podiatry Department, Bedale Health Clinic within one working day for triage by the team within one further working day (See Appendix 1)

A task should be sent to the patient's own practice advising a referral has been made.

Additional considerations[13]

If a patient presents with a diabetic foot problem, clinical staff are to take into account that the patient may have an undiagnosed, increased risk of cardiovascular disease (CVD) that may require further investigation and subsequent treatment. For guidance on the primary prevention of CVD, see this NICE guidance.

4.6 Diabetic foot ulcers[13]

Assessment

If a patient presents with a diabetic foot ulcer at Better Access, the clinician is to assess and document the size, depth and position of the ulcer. Template on System 1 to be completed and documentation must be clear and concise. If Diabetic Foot Ulcer is discovered during annual Foot checks by the HCA's they must seek advice from Diabetes Specialist Nurse (DSN) or Practice Nurse's.

Must have an urgent assessment by Clinician for antibiotics and urgent referral (See Appendix 1,2)

Treatment

The following are considered standard care in the treatment of diabetic foot ulcers:

- Offloading
- Control of foot infection
- Control of ischaemia
- Wound debridement
- Wound dressing(s)

Clinicians are to adhere to the NICE guideline on pressure ulcers and use pressure-redistributing devices to minimise the risk of pressure ulcers developing.

When considering wound dressings and offloading for the treatment of diabetic foot ulcers, staff must take into account the clinical assessment of the wound and the patient's preference and use dressings appropriate to the clinical circumstances.

Clinicians must take into account the patient's overall heath, how healing has progressed and any deterioration when deciding the follow-up frequency as part of the patient's treatment plan.

4.7 Diabetic foot infection[13]

If, on examination, a diabetic foot infection is suspected and a wound present, the clinician must take a swab and send it to the laboratory at South Tees Trust. This may provide useful information in terms of the choice of antibiotics.

Treatment

In all cases of suspected diabetic foot infections, patients are to be prescribed antibiotics. (See Appendix 2) When determining the specific antibiotic, consider the following:

- The severity of the infection (mild, moderate or severe)
- The risk of developing complications
- Previous microbiological results
- Previous antibiotic use
- Patient preference

5 Summary

Ensuring all diabetic patients receive foot checks at Better Access is essential in the effective continued management of this patient cohort. All staff who carry out foot checks must ensure they adhere to the guidance contained in this policy, including the

referenced guidance. Should clinicians have any doubt or concerns, they should discuss this with their peers or seek guidance from the multidisciplinary foot clinic team at Hambleton and Richmondshire Podiatry services.

Appendix 1

Referral to Diabetes Care Foot Clinic and Podiatry Clinic, South Tees Hospitals

Appendix 2

Referral Pathways for the Diabetic Foot and antibiotic prescribing – Hambleton & Richmondshire

Podiatry Department
Hambleton & Richmondshire Locality

The Podiatry Department accepts both AQP and Non AQP referrals

Podiatry Department Bedale Health Clinic, Sussex Street, Bedale, DL8 2AH
Phone: 01423 542455 Email referrals to: hdft.podiatryreferrals@nhs.net

Patient Details Surname : Forenames: Address: Postcode: Contact number:	Title: Date of Birth: NHS No: Registered GP: Practice (stamp):
Referrers Name:	Contact No.
Reason for Podiatry Referral Is the patient housebound Yes / No	
Please list any medical conditions and relevant history. If diabetic – please indicate foot risk status	
Current medication	
Other relevant information	
Signature	Date 27 Jul 2022

ADMIN USE ONLY					
Date Received	**Urgent Soon Routine**	**AQP Non AQP**	**Clinic**	**Checked by Podiatrist (name)**	**Date**

Referral Pathways for the Diabetic Foot – Hambleton & Richmondshire

Harrogate and District NHS
NHS Foundation Trust

Foot examination:
1. Foot: Deformity or callus
2. Arteries: Palpate dorsalis pedis and posterior tibial pulses
3. Neuropathy: 10g monofilament
4. Active foot disease

All of the following:	One of the following:	One of the following:	One of the following:	One of the following:
1. No neuropathy 2. At least one palpable foot pulse 3. No foot deformity 4. Not on dialysis	1. Neuropathy 2. No palpable foot pulses 3. Foot deformity	1. Neuropathy AND no palpable foot pulses 2. Neuropathy OR absent foot pulses AND callus OR deformity 3. Previous foot ulcer OR amputation 4. Dialysis	1. New foot ulcer 2. Spreading infection 3. Critical ischaemia 4. Gangrene 5. Hot, red, swollen foot (possible Charcot foot)	1. Foot ulcer with fever or any signs of sepsis 2. Clinical concern that there is a deep-seated soft tissue or bone infection
LOW RISK 1. Annual foot screening in primary care 2. Advise importance of good foot care 3. Advise possible progression of foot risk	**MODERATE RISK** Refer to community podiatry : Podiatry Department Bedale Health Clinic Sussex Street Bedale. D18 2AH Email	**HIGH RISK** Refer to high risk community podiatry : Podiatry Department Bedale Health Clinic Sussex Street Bedale. D18 2AH Email	**ACTIVE FOOT DISEASE*** In all cases advise MINIMAL weight-bearing on affected foot Urgent same day referral Email and phone 01423 542455	**LIFE-/LIMB THREATENING DIABETIC FOOT DISEASE** Refer directly to Acute Medicine JCUH stees.JCUH-diabetesfoot@nhs.net AND Inform diabetes foot MDT by Email

For all referrals Email: HDFT.podiatryreferrals@nhs.net State priority in subject heading.

*If foot is ulcerated and clinically infected prescribe co-amoxiclav 625mg TDS (severe penicillin allergy or previous MRSA: doxycycline 100mg bd AND trimethoprim 200mg bd)

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