



2014-17

NDFA
NATIONAL DIABETES
FOOT CARE AUDIT

**SUMMARY
REPORT**

DiABETES UK
KNOW DIABETES. FIGHT DIABETES.

National Diabetes Foot Care Audit:
are services providing good quality
foot care?

A summary report of the National Diabetes Foot Care
Audit for England and Wales 2014-17

nda
NATIONAL DIABETES AUDIT

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**Note: All results in
this document are of
respondents to the
2014–17 audit**

Report at a glance 2014–2017

The [National Diabetes Foot Care Audit](#) measures the quality of specialist foot care provided to people with diabetes. The information in the audit is collected and submitted by foot care services in England and Wales.

This report includes information on over

22,000 
CASES OF FOOT ULCERS IN PEOPLE WITH DIABETES

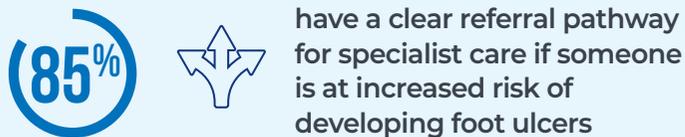
The results (of respondents to the 2014–2017 audits)

ENCOURAGING

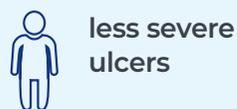
COMMISSIONERS RESPONDING TO SURVEY



REFERRAL PATHWAY



REFERRAL TIME TO SPECIALIST FOOT CARE SERVICES



less severe ulcers

SELF-REFERRAL



more severe ulcers

HEALTH PROFESSIONAL REFERRAL

IMPROVEMENT NEEDED

COMMISSIONERS PROVIDING TRAINING



DELAY IN FIRST EXPERT ASSESSMENT



ULCER FREE AFTER 24 WEEKS



WE SAY

-  The longer someone has to wait for an assessment, the more severe the ulcer will be. So all people with diabetes who develop foot ulcers must be referred quickly for an assessment.
-  There are big differences in outcomes between services. Finding out why will be an important part of improving foot care for people with diabetes.

Background

In March 2018, NHS Digital published the [National Diabetes Foot Care Audit 2014-17 report](#). This summary report has been prepared by [Diabetes UK](#) and summarises the information in the report in a way that is more accessible for people with diabetes. This report is also for anyone else interested in the quality of foot care for people with diabetes.

The aim of the audit is to provide a picture of the care provided to people with diabetes who are treated for foot ulcers. We try to answer the following questions:

- Are the NICE recommended foot care services in place for people with diabetes?
- Do people with active foot disease receive the care and treatment recommended in guidelines?
- Do people with active foot disease achieve the best possible outcomes?

This report is based on over 22,000 cases of foot ulcers in people with diabetes. As well as the national level report, we have also published findings for each service that took part. This means that staff from each service can look at the quality of care they provide, what they are doing well and what they need to improve on.

About this report

This report summarises the key findings from the 2014–17 audit report and in the report we explain:

- What the national guidelines say about good quality foot care for people with diabetes
- The main findings from the 2014–17 audit report
- Recommendations for improvements to foot care for people with diabetes

Before writing this summary report, we talked to people with diabetes to find out what information they wanted to see and how to present the findings.

At the back of the report we explain what the audit is and why it is important to look at foot care for people with diabetes. There is also a glossary and details of where to find more information.

What is a foot ulcer?

A foot ulcer is a non-healing wound, typically lasting for six weeks or more. A foot ulcer often starts as a small break in the skin, which does not heal as quickly as expected.

It can start from something as small as a blister that forms because you didn't feel your shoe rubbing, a small cut or wound from standing on a sharp object. You may not have felt the pain because you have lost sensation in your feet.

Looking after your feet – what care to expect

It is very important to take good care of your feet because having diabetes puts you at risk of foot problems. Although foot ulcers can be very serious, they usually respond well to treatment. Poor circulation and severe infection may delay or prevent healing. The [NICE guidelines](#) should be followed by all healthcare professionals. They are summarised below:

ANNUAL FOOT CHECK



Everyone with diabetes should have their feet checked by a qualified healthcare professional once a year. During the foot check appointment, your healthcare professional should explain how to look after your feet and talk with you about your risk of developing foot problems in the future. If you are found to be at increased risk you should be referred to a specialist to be assessed.

Diabetes UK provides a useful leaflet about [what to expect at your annual foot check](#).

TREATMENT FOR FOOT ULCERS



FOOT ULCERS If you have a foot ulcer it is important to be seen by a foot care specialist as soon as possible. Your healthcare professional should check the size and depth of the ulcer and look for signs of infection or other problems. The treatment will depend on how severe the ulcer is, where it is and what you would prefer. The treatment will almost always include dressing and pressure relief to reduce the pressure put through the foot.

FOOT INFECTION If your healthcare professional thinks you have a foot infection and you have a wound on your foot, a small sample may be sent for testing. You should be offered antibiotics.

CHARCOT ARTHROPATHY Charcot arthropathy occurs in some people who lose feeling in their feet. The bones in the foot can become weak and lead to dislocations, fractures and changes in the shape of the foot or ankle. The treatment for Charcot foot usually involves having a plaster cast fitted to reduce the pressure put through the foot.

REFERRAL



If any doctor or nurse thinks you may have an active foot problem, they should refer you to a specialist foot care service within one working day. The specialist foot care service should triage the referral within another working day. Triage the process of deciding on the urgency and type of treatment that a patient needs, based on their symptoms and the severity of their condition. If the ulcer is very severe and there is a high risk of amputation, there may need to be an emergency referral to hospital.

Early referral and treatment is really important as it can prevent foot problems becoming worse.

The results

Structures – what services are in place for people with foot ulcers?

Are the NICE recommended foot care services for people with diabetes in place?

Since the first audit in 2015, we have found that the basic framework for effective prevention and management of foot disease often seems to be missing.

The [NICE guidelines](#) say that the following three foot care services should be in place for people with diabetes:

-  Training for healthcare staff to carry out routine foot examinations
-  A clear pathway for assessment if someone has new, worsening or reoccurring foot ulcers (within 24 hours if needed)
-  A clear pathway for referral into a specialist foot protection service if someone is assessed as being at increased risk of developing foot ulcers

Less than half (47%) of all participating commissioners provide all three recommended foot care services. This means that there are a great number of people with diabetes who develop foot ulcers who do not get the level of care they should.

Looking at structures is important because if these foot care services are in place they provide improved outcomes for people with foot ulcers. If staff are trained to provide routine foot examinations they are better able to identify people at risk of foot ulcers. If there is a clear pathway for rapid assessment people develop less severe foot ulcers.

WE SAY

A clear pathway for referral into a specialist foot protection service means better treatment and improved healing. Commissioners need to have a clearer understanding of what good quality foot care structures are needed in their local area.

The results

Processes – what care and treatment is provided to people with foot ulcers?

When ulcers are assessed by a healthcare professional they use a scoring system called SINBAD to assess how severe the ulcer is.

Site – whether the ulcer is on the front or rear of the foot

Ischaemia – problems with blood circulation due to damaged blood vessels.

This can make the skin more fragile

Neuropathy – damage to the nerves that results in a loss of sensation

Bacterial infection – whether or not there is an infection in the ulcer

Area – the size and shape of the ulcer

Depth – how deep the wound is

In the SINBAD system an ulcer can be scored between 0 (least severe) and 6 (most severe). A less severe ulcer is one that is scored less than 3. A severe ulcer is one that is scored 3 or more.

Does waiting longer for a first expert assessment mean that foot ulcers are more severe?

If a doctor or nurse thinks a person with diabetes may have a foot ulcer, they should refer them to a specialist foot care service within 1 working day. In this audit we found that almost 2 in 5 cases (39%), people with a foot ulcer waited 2 weeks or longer for their first expert assessment.

People waiting more than 2 months for their first expert assessment were more likely to have a severe ulcer than those who waited 2 months or less.

Nearly 6 in 10 people (56%) waiting over 2 months for their assessment had severe foot ulcers. For people who self-refer to specialist foot services, just over 1 in 3 people (35%) had severe foot ulcers.

Since the audit began in 2014 we have established that there is a strong relationship between the time to first expert assessment and ulcer severity. All people with diabetes who develop foot ulcers should be referred promptly for early specialist assessment.

Does waiting longer for a first expert assessment mean that foot ulcers heal less quickly?

People waiting more than 2 months for their first expert assessment were less likely than those waiting a shorter time to be free from foot ulcers at their 12 week and 24 week follow-up foot checks.

Since the first audit in 2014 we have established that there is a strong relationship between the time to first expert assessment and rates of healing. All people with diabetes who develop foot ulcers should be referred promptly for early specialist assessment.

WE SAY

It is vital that all people with diabetes who have a foot ulcer or are at increased risk of developing a foot ulcer are seen quickly. Early referral means that ulcers are less severe and less severe ulcers are associated with better outcomes.

The results

Outcomes – what happens to people with foot ulcers?

What percentage of people were ulcer-free at 12 weeks after the first expert assessment by the specialist foot care team?

12 weeks after the first expert assessment, foot care services record whether:

-  The person is alive
-  The ulcer is healed
-  The person does not have new foot ulcers

Being free from active foot ulcer includes those people who have had surgery to treat their foot ulcer, if those wounds have healed. Information at 12 weeks is missing for almost 2,000 of the 22,653 cases of foot ulcer included in this audit. The following results relate only to those cases of foot ulcer where the outcome is known.

Less than half of all ulcers (48%) are healed at 12 weeks. Only 1 in 3 severe ulcers (34%) are healed at 12 weeks but almost 3 in 5 less severe ulcers (60%) are healed at 12 weeks.

1 in 40 cases of foot ulcers (2.5%) are followed by death within 12 weeks.

What percentage of people were ulcer-free at 24 weeks after the first expert assessment by the specialist foot care team?

Where the foot ulcer was still active at 12 weeks, foot care services also record the same information 24 weeks after the first expert assessment.

Only 2 in 3 ulcers (66%) are healed at 24 weeks. Just over half (56%) of severe ulcers are healed at 24 weeks but nearly 3 in 4 less severe ulcers (74%) are healed at 24 weeks.

More than 1 in 25 cases of foot ulcers (4%) are followed by death within 24 weeks.

The rate at which people are found to be alive and ulcer-free has not changed since the first audit. However we have found that there are very big differences in outcome rates across different services in England and Wales. Healing rates at some providers are 40% lower than in other service providers. Finding out why there are such big differences will be an important part of improving services so we see a higher rate of ulcer healing.

WE SAY

There are big differences in rates of healing across the country and more needs to be done to understanding why this is. There are many opportunities to reduce variations and improve diabetes foot care. Foot care services should try to record all new instances of foot ulcers so we can develop a more complete picture of outcomes for people with diabetes.

Our recommendations



For people with diabetes

- ✓ Seek **professional advice** as soon as you notice any problems with your feet
- ✓ Make sure you get all the **annual checks** you need
- ✓ If you have had a foot problem ask your local team for **regular check-ups**
- ✓ If you have **poor circulation** or **loss of feeling** in your feet seek professional advice about how to prevent a foot ulcer
- ✓ If your annual foot check shows you are at **increased risk of foot problems** ask your local team for regular check-ups
- ✓ Keep blood **glucose levels** on target
- ✓ Don't smoke
- ✓ Keep **blood pressure** and **cholesterol** on target

People with diabetes can find out more about the guidelines for foot care on the [NICE](#) website.

More information about looking after your feet can be found on the [Diabetes UK](#) website.



For healthcare professionals

Primary care, including GPs and practice nurses:

- ✓ **Be aware of the roles of specialist foot care services** including the foot protection service and the multidisciplinary foot care service
- ✓ Refer any person with diabetes with an **increased risk of ulceration** to the foot protection service
- ✓ Promptly refer any person with diabetes with a **new or deteriorating foot ulcer** to a specialist multidisciplinary foot care service

Specialist services, including podiatrists, diabetes specialist nurses and diabetes consultants:

- ✓ Create **simple and rapid referral pathways**
- ✓ **Take part in the audit** to collaborate in this nationwide drive to improve the outcomes for diabetic foot disease
- ✓ Review the findings of the audit see where **improvements need to be made** and examples of good practice that are improving outcomes

Recommendations



For commissioners

- ✓ Ensure your local services have an **easily accessible diabetes specialist foot care team**
- ✓ Ensure that **training is available** for all healthcare professionals undertaking routine foot screening
- ✓ Create a clear pathway for **treatment for those at risk of developing a foot ulcer**
- ✓ Create a clear pathway for **rapid expert assessment for people with new or deteriorating foot ulcers**
- ✓ Encourage your **local services** to take part in the **audit**
- ✓ Appoint a **diabetes foot disease lead**

Further information

What is the National Diabetes Foot Care Audit?

The audit is a project that looks at the care of people with diabetes who develop a foot ulcer. The audit began in 2014 and has collected information continually since then about foot care for people with diabetes. Specifically, the audit looks at:

-  How severe ulcers are when people are first seen by the specialist foot care team
-  What factors have the biggest effects on healing and recovery

Why do we audit foot care for people with diabetes?

The [National Institute for Health and Care Excellence](#) (NICE) produces the guidelines for the treatment of people with diabetes who develop foot problems. All diabetes foot care services should follow these guidelines when making a decision on the treatment of foot ulcers. In the audit we check whether people with diabetes who develop foot ulcers get the care and treatment recommended in the NICE guidelines.

The findings from the audit shows foot care services how they compare to other foot care services. The information collected helps highlight areas where care for patients is good and where there is a need for improvement and changes that will help foot care services raise their overall standards.

The audit findings are publically available, so you can see the results for your local foot care services. You can find this on the [NHS Digital website](#).

Where to go for more information

The National Diabetes Foot Care Audit

Information about the audit and a copy of the full report are available on the NHS Digital website <https://digital.nhs.uk/footcare>

Diabetes UK

For more information about diabetes, including living with diabetes, go to www.diabetes.org.uk/guide-to-diabetes or call Diabetes UK's Helpline on 0345 123 2399 for advice and support.

For information about getting involved in making a difference to diabetes treatment and care, go to www.diabetes.org.uk/get_involved/campaigning/diabetes-voices

To find out more about Diabetes UK's activities in your area, go to www.diabetes.org.uk/in_your_area

National Institute for Health and Care Excellence (NICE) guidelines

For information about how NICE develops guidelines, go to www.nice.org.uk. Guidelines about foot care for people with diabetes can be found here [Diabetic Foot Problems: Prevention and management \(NG19\)](#)

Healthcare Quality Improvement Partnership (HQIP)

To find out more about clinical audits – and patient involvement in national clinical audits – you can visit the HQIP website at www.hqip.org.uk/involving-patients

Patient Advice and Liaison Service (PALS)

If you have a question about local health services or an enquiry about health matters, you can contact PALS. Find more information or your local PALS at www.nhs.uk

Community Health Councils (CHC) in Wales

If you need help and advice about NHS Services in Wales, you can contact CHC. Find out more at www.wales.nhs.uk

NHS Choices (England)

NHS Choices provides information about your health, including finding and using NHS Services in England. Find out more at www.nhs.uk/pages/home.aspx

NHS Wales

NHS Wales provides information about your health, including finding and using NHS Services in Wales. Find out more at www.wales.nhs.uk

Explanation of words used in this booklet

Audit

A way of gathering information and measuring local NHS organisations' performance and quality of care against national guidelines, from which come recommendations for improvements.

Blood glucose

The main sugar the body makes from the food we eat. Glucose travels in the bloodstream, providing energy to all the body's living cells. However, the cells cannot use glucose without the help of insulin.

Diabetes

Diabetes is the shortened name for the health condition called diabetes mellitus. Diabetes happens when the body cannot use blood glucose as energy because of having too little insulin or being unable to use insulin. See also Type 1 diabetes and Type 2 diabetes.

HbA1c test

The HbA1c test uses a blood sample to measure a person's average blood glucose level over the previous 2 to 3 months. The result is given in mmol/mol or as a percentage.

NICE

The National Institute for Health and Care Excellence (NICE) is the independent regulatory body providing national guidance to the NHS on new and existing medicines, treatments, and procedures.

Further information

Self-referral

Those people who self-refer are likely to be people who have already had a foot ulcer and have been encouraged to contact the clinic if they have further problems. People who have previous experience of the service are likely to contact the clinic relatively quickly.

SINBAD

SINBAD is the name given to a system for measuring how severe an ulcer is. SINBAD stands for Site, Ischaemia, Neuropathy, Bacterial Infections, Area and Depth. See p4 for further information.

Triage

Triage is the process of deciding on the urgency and type of treatment that a patient needs, based on their symptoms and the severity of their conditions.

Type 1 diabetes

Type 1 diabetes develops when the body permanently destroys its own insulin-producing cells. When this happens a person needs regular insulin, given either by injection or an insulin pump.

Type 2 diabetes

A condition in which the body either makes too little insulin, or cannot use the insulin it produces to turn blood glucose into energy. Diet and exercise is often enough to control a Type 2 diabetes condition, but some people also need diabetes medication or insulin.

Ulcer

An ulcer is a term for a break in the skin which does not heal as rapidly as expected.

Ulcer-free

All ulcers present at the start of the ulcer episode have fully healed and no other ulcers remain unhealed. Being ulcer-free includes those patients who have had surgery (including major and minor amputation).

NDA PUBLICATIONS

NDA: National Diabetes Audit

Care processes and treatment targets

Complications and mortality

Insulin pump

Learning disability

Severe mental illness

Transition

NPID: National Pregnancy in Diabetes Audit

NDFA: National Diabetes Foot Care Audit

NaDIA: National Diabetes Inpatient Audit

We welcome
your views on how
we can improve
this report

Please contact:

Alex Berry

Diabetes UK

Wells Lawrence House

126 Back Church Lane

London E1 1FH

T: 020 7424 1013

E: alex.berry@diabetes.org.uk



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The NDA is managed by NHS Digital, formerly known as the Health and Social Care Information Centre (HSCIC), in partnership with Diabetes UK and is supported by the National Cardiovascular Intelligence Network (NCVIN), Public Health England.

The NDA receives invaluable support from people with diabetes, clinical staff and other health professionals across England and Wales.

