



2015–18

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 2015–18

nda
NATIONAL DIABETES AUDIT

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**Note: All results in
 this document are of
 respondents to the
 2015–18 audit**

Report at a glance 2015–2018

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

33,000 
CASES OF FOOT ULCERS IN PEOPLE WITH DIABETES

Audit results (of respondents to the 2015–2018 audits)

KEY RESULTS

REFERRAL PATHWAY



of providers do not have an urgent referral pathway

SERVICE STRUCTURES



providers have a foot protection service

HEALING



severe ulcers were healed at 12 weeks

1 YEAR LATER



10%



10% die within 1 year of first expert assessment

1ST ASSESSMENT

1 YEAR

WAITS FOR 1ST ASSESSMENT



SHORTER WAITS

BETTER OUTCOMES

Shorter waits for first assessment are linked to less severe ulcers and better outcomes

WE SAY

Providers must have all foot care structures in place. The results of the audit show the longer someone has to wait for an assessment, the more severe the ulcer will be. This highlights the need for all people with diabetes who develop foot ulcers to be referred quickly for an assessment.

Background

In May 2019, NHS Digital published the [National Diabetes Foot Care Audit 2015–18 report](#). This 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 structures 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 33,000 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 2015-18 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 2015-18 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 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. It could also start with a small cut or a wound from standing on a sharp object. You may not have felt the pain because you have lost sensation in your feet.

When ulcers are assessed by a healthcare professional they use a scoring system called SINBAD to assess how severe the ulcer 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 more than 3.

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

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 CARE 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 1 working day. The specialist foot care service should triage the referral within another working day. 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 condition.

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

The results

Structures

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

Since the first audit in 2014, we have found that the basic framework for effective prevention and management of foot disease often seems to be missing. Looking at structures is important because if these 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.

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

In addition foot care services should provide:

-  Step-down between the multi-disciplinary foot team (MDFT) and the foot protection service
-  Urgent vascular assessment within 24 hours
-  Dedicated time with vascular services to discuss patients

The audit shows that there are associations between having these care structures and

-  Shorter waits for assessment
-  Improved rates of healing

We asked the service providers – NHS Trusts (England), Local Health Boards (Wales) and independent healthcare providers – about whether they have the recommended services in place.

-  **Less than 1 in 3 participating service providers reported that all 6 care structures were in place. Almost half of service providers said that they did not have a pathway in place to see urgent referrals within 24 hours.**
-  **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.**

WE SAY

These six services are important for people with diabetes who develop a foot ulcer. A clear and timely referral into a specialist foot protection service means better treatment and improved healing.

The results

Outcomes

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

Less than half of all ulcers (49%) are healed at 12 weeks.

People waiting more than 2 weeks for their first expert assessment were less likely to be healed at 12 weeks than those waiting a shorter time.

What percentage of people have a major amputation within 6 months of their first expert assessment?

Amputation (surgical removal) of part of the foot or leg may be required when a foot ulcer cannot otherwise be successfully treated.

This may be a minor amputation (below the ankle) in which toes or part of the foot are removed in an attempt to save the leg. When this is not possible, major amputation (above the ankle) may be required.

Amputation is a life-changing event, with significant physical and psychological effects. Long hospital stays and periods of rehabilitation can result.

-  Over 1 in 60 people with diabetes who develop a foot ulcer will have a major amputation within 6 months. Severe ulcers are four times more likely to lead to major amputation than less severe ulcers.

How likely is it that a person with a foot ulcer will have died within 1 year?

In people with diabetes who develop a foot ulcer:

-  1 in 28 will die within 12 weeks of first expert assessment
-  1 in 10 will die within 1 year of first expert assessment

People with severe ulcers are almost twice as likely to die within 1 year as those with less severe ulcers

WE SAY

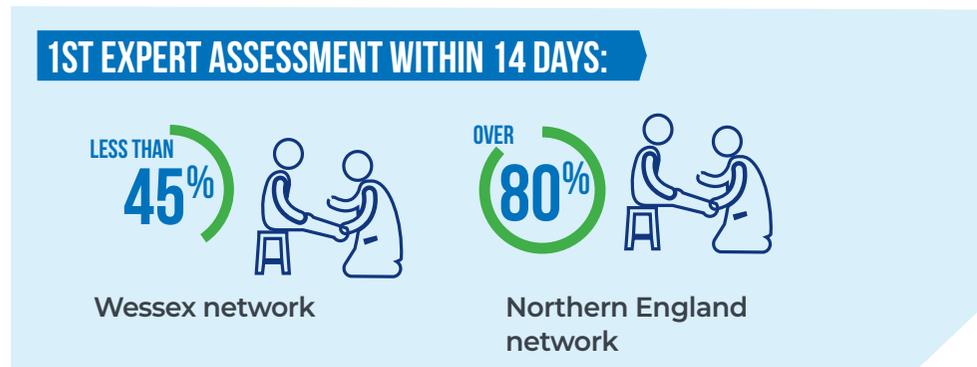
The audit has consistently found that having a severe ulcer is strongly linked to worse outcomes for people with diabetes. This includes lower rates of healing, higher rates of major amputations and higher risk of death. It is vital that all people with diabetes who have a foot ulcer or are at increased risk of developing a foot ulcer are seen quickly. Early referral means that ulcers are less severe. This leads to better outcomes.

The results

Variation

Across different regions and services in England and Wales there is a big variation in the percentage of people who are seen for first expert assessment within 14 days.

Less than 45% of ulcer episodes in the Wessex network are seen within 14 days compared to over 80% in the Northern England network.



To find out more about how the audit results for your local service please click [here](#).

WE SAY

Being seen in less than 2 weeks is associated with a big reduction in ulcer severity and better outcomes for people with diabetes. So it is very concerning that there are such big differences between services. Every effort should be made to increase the percentage of people seen in less than 2 weeks across all services in England and Wales. This will improve equality of access and lead to better outcomes for people with diabetes.

Factors for a successful foot care service

The 2015–2018 NDFA report showed a large percentage point variation between foot care services in rates of being alive and ulcer free 12 weeks after initial presentations with a severe ulcer.

We asked foot care services achieving a high proportion of people presenting to their service with new severe diabetic foot ulcer, who are alive and ulcer free 12 weeks later, to identify factors that they believed contributed to their success.

Responses were received from all of these foot care services. They identified a number of themes that they believe contribute to their success.

ALL SERVICES REPORTED:

- Direct access to Multidisciplinary Foot-care Team (MDFT)
- Good Community podiatry/MDFT integration
- A well-functioning MDFT

100%

AT LEAST 80% OF SERVICES REPORTED:

- Fuss free referrals accepted from any HCP or patient
- Next working day appointments
- Prompt access to vascular service

AT LEAST 80%

It would be good to reduce the wide disparities between services. We hope that this feedback may be helpful to all foot care services.

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 first audit took place in 2014 and has collected information annually 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?

Foot ulcers in people with diabetes have social and economic costs. In 2014–15 the estimated cost of diabetic foot disease to the NHS in England was around £1 billion. This is approximately 1% of the total NHS budget. Foot ulcers also have very real human costs in terms of reduced mobility, impacts on work and social life and possible amputation.

The [National Institute for Health and Care Excellence](http://www.nice.org.uk) (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 publicly available, so you can see the results for your local foot care services. You can find this on the [NHS Digital website](http://www.nhs.uk).

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 files.digital.nhs.uk/50/8E75BA/NDA%20AR%20-%20Main%20Report%20v1.0.pdf

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 Diabetes in adults quality standard (QS6)

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

Further information

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](https://www.nice.org.uk)) is the independent regulatory body providing national guidance to the NHS on new and existing medicines, treatments, and procedures.

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. Foot ulcers have serious potential consequences such as infection and amputation and should be assessed urgently

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) provided all wounds have healed

NDA PUBLICATIONS

NDA: National Diabetes Audit
Care processes and treatment targets
Complications and mortality
Insulin pump
Transition

NPID: National Pregnancy in Diabetes Audit
NDFA: National Diabetes Foot Care Audit
NaDIA: National Diabetes Inpatient Audit
NDPP: National Diabetes Prevention Programme Audit

We welcome
your views on how
we can improve
this report

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