

Diabetes in adults

Quality standard

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This standard is based on PH38, NG28, NG17 and NG19.

This standard should be read in conjunction with QS15, QS52, QS100, QS109, QS125, QS127, QS5, QS9, QS28, QS111, QS120, QS134, QS175 and QS196.

Quality statements

Statement 1 Adults at high risk of type 2 diabetes are offered a referral to an intensive lifestyle-change programme. [new 2016]

Statement 2 Adults with type 2 diabetes are offered a structured education programme at diagnosis. [2011, updated 2016]

Statement 3 Adults with type 1 diabetes are offered a structured education programme 6 to 12 months after diagnosis. [2011, updated 2016]

Statement 4 Adults with type 2 diabetes whose HbA1c level is 58 mmol/mol (7.5%) or above after 6 months with single-drug treatment are offered dual therapy. [new 2016]

Statement 5 Adults at moderate or high risk of developing a diabetic foot problem are referred to the foot protection service. [2011, updated 2016]

Statement 6 Adults with a limb-threatening or life-threatening diabetic foot problem are referred immediately for specialist assessment and treatment. [2011, updated 2016]

Statement 7 Adults with type 1 diabetes in hospital receive advice from a multidisciplinary team with expertise in diabetes. [2011, updated 2016]

In 2016, this quality standard was updated, and statements prioritised in 2011 were updated (2011, updated 2016) or replaced (new 2016). For more information, see [update information](#).

The [previous version of the quality standard for diabetes in adults](#) is available as a pdf.

Quality statement 1: Preventing type 2 diabetes

Quality statement

Adults at high risk of type 2 diabetes are offered a referral to an intensive lifestyle-change programme. [new 2016]

Rationale

Many cases of type 2 diabetes are preventable through changes to a person's diet and physical activity levels. Evidence-based intensive lifestyle-change programmes can significantly reduce the risk of developing the condition for those at high risk.

Quality measures

The following measures can be used to assess the quality of care or service provision specified in the statement. They are examples of how the statement can be measured and can be adapted and used flexibly.

Structure

Evidence of local arrangements to ensure that adults at high risk of type 2 diabetes are offered a referral to an intensive lifestyle-change programme.

Data source: No routinely collected national data for this measure has been identified. Data can be collected from information recorded locally by healthcare professionals and provider organisations, for example, from referral pathways or protocols.

Process

a) Proportion of adults at high risk of type 2 diabetes who are referred to an intensive lifestyle-change programme.

Numerator – the number in the denominator who are referred to an intensive lifestyle-change programme.

Denominator – the number of adults at high risk of type 2 diabetes.

Data source: National data are collected in the [Diabetes Prevention Programme](#) (part of the National Diabetes Audit), reporting on the number of people who are identified as having non-diabetic hyperglycaemia offered diabetic behavioural change courses, as recorded in GP practices in England, reported at GP practice and clinical commissioning group levels. The number of people who decline to attend is also recorded.

b) Proportion of adults at high risk of type 2 diabetes who attend an intensive lifestyle-change programme after a referral.

Numerator – the number in the denominator who attend an intensive lifestyle-change programme.

Denominator – the number of adults at high risk of type 2 diabetes who are referred to an intensive lifestyle-change programme.

Data source: National data are collected in the [Diabetes Prevention Programme](#) (part of the National Diabetes Audit), reporting on the number of people who are identified as having non-diabetic hyperglycaemia offered diabetic behavioural change courses, as recorded in GP practices in England, reported at GP practice and clinical commissioning group levels. The number of people who decline to attend is also recorded.

Outcome

a) Weight loss of participants in intensive lifestyle-change programmes.

Data source: No routinely collected national data for this measure has been identified. Data can be collected from information recorded locally by healthcare professionals and provider organisations, for example, from patient records.

b) Incidence of type 2 diabetes in adults.

Data source: No routinely collected national data for this measure has been identified. Data can be collected from information recorded locally by healthcare professionals and provider organisations, for example, from patient records.

What the quality statement means for different audiences

Service providers (such as local authorities who provide the NHS Health Check programme) ensure

that systems are in place for adults at high risk of type 2 diabetes to be offered a referral to an intensive lifestyle-change programme.

Health and public health practitioners (such as those carrying out diabetes risk assessments and other health checks, GPs and pharmacists) ensure that they offer adults at high risk of type 2 diabetes a referral to an intensive lifestyle-change programme.

Commissioners (such as local authorities and NHS England) ensure that they commission services in which adults at high risk of type 2 diabetes are offered a referral to an intensive lifestyle-change programme.

Adults who have been told they are at high risk of getting type 2 diabetes are offered a referral to a programme that will help them change their lifestyle (for example, by becoming more physically active and improving their diet) and so reduce their risk.

Source guidance

Type 2 diabetes: prevention in people at high risk. NICE guideline PH38 (2012, updated 2017), recommendation 1.5.4

Definitions of terms used in this quality statement

High risk of type 2 diabetes

A fasting plasma glucose level of 5.5 to 6.9 mmol/litre or an HbA1c level of 42 to 47 mmol/mol (6.0 to 6.4%) indicates that a person is at high risk of type 2 diabetes.

Fasting plasma glucose or HbA1c tests should be offered to adults with high risk scores from a validated computer-based risk-assessment tool or a validated self-assessment questionnaire. A blood test should also be considered for those aged 25 and over of South Asian or Chinese descent whose body mass index is greater than 23 kg/m². [Adapted from NICE's guideline on type 2 diabetes: prevention in people at high risk, recommendations 1.3.1 and 1.4.1]

Intensive lifestyle-change programme

A structured and coordinated range of interventions provided in different venues for people identified as being at high risk of developing type 2 diabetes. It should be local, evidence-based and quality assured. The aim is to help people to become more physically active and improve their diet. If the person is overweight or obese, the programme should result in weight loss. Programmes may

be delivered to individuals or groups (or involve a mix of both) depending on the resources available. They can be provided by primary care teams and public, private or community organisations with expertise in dietary advice, weight management and physical activity. An example is the [NHS Diabetes Prevention Programme](#). [Adapted from [NICE's guideline on type 2 diabetes: prevention in people at high risk](#), recommendation 1.5.4 and glossary]

Equality and diversity considerations

Information should be provided in an accessible format (particularly for people with physical, sensory or learning disabilities and those who do not speak or read English) and educational materials should be translated if needed.

For people with additional needs related to a disability, impairment or sensory loss, information should be provided as set out in [NHS England's Accessible Information Standard](#) or the equivalent standards for the devolved nations.

Programmes should be offered at times, and in locations, that meet the needs of groups such as older people, people from minority ethnic backgrounds and vulnerable or socially disadvantaged people. Provision should also be made for people who may have difficulty accessing services in conventional healthcare venues.

Quality statement 2: Structured education programmes for adults with type 2 diabetes

Quality statement

Adults with type 2 diabetes are offered a structured education programme at diagnosis. [2011, updated 2016]

Rationale

Type 2 diabetes is a progressive long-term medical condition that the person predominantly self-manages. Managing type 2 diabetes involves lifestyle changes, and treatment can be complex. Structured education programmes can help adults with type 2 diabetes to improve their knowledge and skills and also help to motivate them to take control of their condition and self-manage it effectively.

Quality measures

The following measures can be used to assess the quality of care or service provision specified in the statement. They are examples of how the statement can be measured and can be adapted and used flexibly.

Structure

Evidence of local arrangements to ensure that adults with type 2 diabetes are referred to a structured education programme at diagnosis.

Data source: No routinely collected national data for this measure has been identified. Data can be collected from information recorded locally by healthcare professionals and provider organisations, for example, from referral pathways or protocols.

Process

a) Proportion of adults with type 2 diabetes who are referred to a structured education programme at diagnosis.

Numerator – the number in the denominator who are referred to a structured education programme at diagnosis.

Denominator – the number of adults newly diagnosed with type 2 diabetes.

Data source: National data are collected in the [Quality and Outcomes Framework as indicator DM014](#) and the [National Diabetes Audit](#).

b) Proportion of adults with type 2 diabetes who attend a structured education programme after a referral.

Numerator – the number in the denominator who attend a structured education programme.

Denominator – the number of adults with type 2 diabetes who are referred to a structured education programme at diagnosis.

Data source: National data are collected in the [National Diabetes Audit](#).

c) Proportion of adults with type 2 diabetes who complete a structured education programme.

Numerator – the number in the denominator who complete a structured education programme.

Denominator – the number of adults with type 2 diabetes who attend a structured education programme.

Data source: No routinely collected national data for this measure has been identified. Data can be collected from information recorded locally by healthcare professionals and provider organisations, for example, from patient records.

Outcome

Patient satisfaction with ability to self-manage their type 2 diabetes after attending a structured education programme.

Data source: No routinely collected national data for this measure has been identified. Data can be collected locally by healthcare professionals and provider organisations, for example, from patient surveys.

What the quality statement means for different audiences

Service providers (such as GPs and community healthcare providers) ensure that systems are in place for adults with type 2 diabetes to be offered a structured education programme at diagnosis.

Healthcare professionals (such as GPs, practice nurses and community healthcare providers) ensure that they offer a structured education programme to adults with type 2 diabetes at diagnosis.

Commissioners (clinical commissioning groups, integrated care systems and NHS England) ensure that they commission structured education programmes for adults with type 2 diabetes.

Adults with type 2 diabetes are offered a course to help them improve their understanding of type 2 diabetes and how to manage it in their everyday life. This course should be offered at the time of diagnosis.

Source guidance

Type 2 diabetes in adults: management. NICE guideline NG28 (2015, updated 2022), recommendation 1.2.1

Definitions of terms used in this quality statement

Structured education programme

Should include the following components:

- It is evidence-based, and suits the needs of the person.
- It has specific aims and learning objectives, and supports the person and their family members and carers in developing attitudes, beliefs, knowledge and skills to self-manage diabetes.
- It has a structured curriculum that is theory-driven, evidence-based and resource-effective, has supporting materials, and is written down.
- It is delivered by trained educators who have an understanding of educational theory appropriate to the age and needs of the person, and who are trained and competent to deliver the principles and content of the programme.

- It is quality assured, and reviewed by trained, competent, independent assessors who measure it against criteria that ensure consistency.
- The outcomes are audited regularly.

[Adapted from the [Department of Health's Structured patient education in diabetes: report from the Patient Education Working Group](#). This document provides further information on these components]

Information given to adults with type 2 diabetes should cover aspects of lifestyle modification that may be necessary, such as dietary advice, and weight loss for adults who are overweight. [Adapted from [NICE's guideline on type 2 diabetes in adults: management](#), recommendations 1.2.2, 1.3.2, 1.3.4, and expert opinion]

Equality and diversity considerations

Structured education programmes should meet the cultural, linguistic, cognitive and literacy needs in the local area. Information should be provided in an accessible format (particularly for people with physical, sensory or learning disabilities and those who do not speak or read English) and educational materials should be translated if needed.

Alternative programmes of equal standard should be made available for people unable to participate in group education.

For people with additional needs related to a disability, impairment or sensory loss, information should be provided as set out in [NHS England's Accessible Information Standard](#) or the equivalent standards for the devolved nations.

Quality statement 3: Structured education programmes for adults with type 1 diabetes

Quality statement

Adults with type 1 diabetes are offered a structured education programme 6 to 12 months after diagnosis. [2011, updated 2016]

Rationale

Adults with type 1 diabetes need to acquire a large range of new skills and knowledge, such as how to manage their insulin therapy. Patient education enables self-management, which is important in diabetes management. It allows adults with type 1 diabetes to adapt their diabetes management to changes in their daily lives and to maintain a good quality of life. The first few months after diagnosis involve considerable adjustment, so although information should be given from diagnosis, a more intensive structured education programme will be more beneficial 6 to 12 months after diagnosis.

Quality measures

The following measures can be used to assess the quality of care or service provision specified in the statement. They are examples of how the statement can be measured and can be adapted and used flexibly.

Structure

Evidence of local arrangements to ensure that adults with type 1 diabetes are referred for a structured education programme 6 to 12 months after diagnosis.

Data source: No routinely collected national data for this measure has been identified. Data can be collected from information recorded locally by healthcare professionals and provider organisations, for example, from referrals pathways or protocols.

Process

a) Proportion of adults with type 1 diabetes who are referred to a structured education programme

6 to 12 months after diagnosis.

Numerator – the number in the denominator who are referred to a structured education programme 6 to 12 months after diagnosis.

Denominator – the number of adults diagnosed with type 1 diabetes in the last 12 months.

Data source: National data are collected in the [Quality and Outcomes Framework indicator DM014](#) and the [National Diabetes Audit](#).

b) Proportion of adults with type 1 diabetes who attend a structured education programme after a referral.

Numerator – the number in the denominator who attend a structured education programme.

Denominator – the number of adults with type 1 diabetes who are referred for a structured education programme.

Data source: National data are collected in the [National Diabetes Audit](#).

c) Proportion of adults with type 1 diabetes who complete a structured education programme.

Numerator – the number in the denominator who complete a structured education programme.

Denominator – the number of adults with type 1 diabetes who attend a structured education programme.

Data source: No routinely collected national data for this measure has been identified. Data can be collected from information recorded locally by healthcare professionals and provider organisations, for example, from patient records.

Outcome

Patient satisfaction with ability to self-manage their type 1 diabetes after attending a structured education programme.

Data source: No routinely collected national data for this measure has been identified. Data can be collected from information recorded locally by healthcare professionals and provider

organisations, for example, from patient records.

What the quality statement means for different audiences

Service providers (such as GPs and secondary care providers) ensure that systems are in place for adults with type 1 diabetes to be offered a structured education programme 6 to 12 months after diagnosis.

Healthcare professionals (such as GPs, diabetologists and diabetes specialist nurses) ensure that they offer a structured education programme to adults with type 1 diabetes 6 to 12 months after diagnosis.

Commissioners (clinical commissioning groups and integrated care systems) ensure that they commission structured education programmes for adults with type 1 diabetes.

Adults with type 1 diabetes are offered a course to help them improve their understanding of type 1 diabetes and how to manage it in their everyday life. This should cover checking their blood glucose levels, using insulin and advice about having a healthy lifestyle. The course should be offered between 6 months and a year after they are diagnosed.

Source guidance

Type 1 diabetes in adults: diagnosis and management. NICE guideline NG17 (2015, updated 2022), recommendations 1.3.1 and 1.3.2

Definitions of terms used in this quality statement

Structured education programme

Should include the following components:

- It is evidence-based, and suits the needs of the person.
- It has specific aims and learning objectives, and supports the person and their family members and carers in developing attitudes, beliefs, knowledge and skills to self-manage diabetes.
- It has a structured curriculum that is theory-driven, evidence-based and resource-effective, has supporting materials, and is written down.

- It is delivered by trained educators who have an understanding of educational theory appropriate to the age and needs of the person, and who are trained and competent to deliver the principles and content of the programme.
- It is quality assured, and reviewed by trained, competent, independent assessors who measure it against criteria that ensure consistency.
- The outcomes are audited regularly.

[Adapted from the [Department of Health's Structured patient education in diabetes: report from the Patient Education Working Group](#). This document provides further information on these components]

An example is the [Dose Adjustment for Normal Eating \(DAFNE\) programme](#). [Adapted from [NICE's guideline on type 1 diabetes in adults: diagnosis and management](#), recommendations 1.3.1, 1.3.2 and 1.3.4]

Equality and diversity considerations

Structured education programmes should meet the cultural, linguistic, cognitive and literacy needs in the local area. Information should be provided in an accessible format (particularly for people with physical, sensory or learning disabilities and those who do not speak or read English) and educational materials should be translated if needed.

For people with additional needs related to a disability, impairment or sensory loss, information should be provided as set out in [NHS England's Accessible Information Standard](#) or the equivalent standards for the devolved nations.

Alternative programmes of equal standard should be made available for people unable to participate in group education.

Quality statement 4: Dual therapy for blood glucose control in type 2 diabetes

Quality statement

Adults with type 2 diabetes whose HbA1c level is 58 mmol/mol (7.5%) or above after 6 months with single-drug treatment are offered dual therapy. [new 2016]

Rationale

Good blood glucose control in people with type 2 diabetes is important for mitigating the risk of microvascular and macrovascular complications associated with hyperglycaemia, such as damage to the eyes, kidneys and nerves. If HbA1c levels are not well controlled with single-drug treatment, it is important to offer intensification of drug treatment, as well as reinforcing advice about diet, lifestyle and adherence to drug treatment and supporting the person to aim for an HbA1c level of 53 mmol/mol (7.0%). A timescale of 6 months allows time to improve diet, lifestyle and adherence to drug treatment, while also ensuring that dual therapy is not unnecessarily delayed. Timely dual therapy can delay the need for further interventions, which may involve insulin therapy.

Quality measures

The following measures can be used to assess the quality of care or service provision specified in the statement. They are examples of how the statement can be measured and can be adapted and used flexibly.

Structure

Evidence of local arrangements to ensure that adults with type 2 diabetes are offered dual therapy if their HbA1c level is 58 mmol/mol (7.5%) or above after 6 months with single-drug treatment.

Data source: No routinely collected national data for this measure has been identified. Data can be collected from information recorded locally by healthcare professionals and provider organisations, for example, from clinical protocols or patient records.

Process

Proportion of adults with type 2 diabetes who are started on dual therapy when their HbA1c level is 58 mmol/mol (7.5%) or above after 6 months with single-drug treatment.

Numerator – the number in the denominator who are started on dual therapy.

Denominator – the number of adults with type 2 diabetes whose HbA1c level is 58 mmol/mol (7.5%) or above after 6 months with single-drug treatment.

Data source: No routinely collected national data for this measure has been identified. Data can be collected from information recorded locally by healthcare professionals and provider organisations, for example, from patient records.

Outcome

a) Adults with type 2 diabetes feel supported to aim for an HbA1c level of 53 mmol/mol (7.0%) or less.

Data source: No routinely collected national data for this measure has been identified. Data can be collected from information recorded locally by healthcare professionals and provider organisations, for example, from patient surveys.

b) Incidence of diabetes-related complications.

Data source: National data are collected in the [National Diabetes Audit](#), reporting data on diabetes-related complications.

What the quality statement means for different audiences

Service providers (such as GPs and community healthcare providers) ensure that processes are in place so that adults with type 2 diabetes whose HbA1c level is 58 mmol/mol (7.5%) or above after 6 months with single-drug treatment are offered dual therapy.

Healthcare professionals (such as GPs, practice nurses and community healthcare providers) ensure that they offer dual therapy to adults with type 2 diabetes whose HbA1c level is 58 mmol/mol (7.5%) or above after 6 months with single-drug treatment. They also reinforce advice about

diet, lifestyle and adherence to treatment.

Commissioners (clinical commissioning groups, integrated care systems and NHS England) ensure that they commission services in which adults with type 2 diabetes whose HbA1c level is 58 mmol/mol (7.5%) or above after 6 months with a single-drug treatment are offered dual therapy.

Adults with type 2 diabetes who need medication to control their blood glucose levels usually start off by taking a single medicine. If after 6 months this first medicine does not help or their diabetes gets worse over time, despite advice about diet, lifestyle and taking the medicine properly, they are offered another type of medicine as well as the one they already take.

Source guidance

Type 2 diabetes in adults: management. NICE guideline NG28 (2015, updated 2022), recommendation 1.6.8

The 6-month timeframe is derived from expert consensus. It is considered a practical timeframe to enable stakeholders to measure performance. It is not derived from the NICE guideline on type 2 diabetes.

Definitions of terms used in this quality statement

Dual therapy

This term refers to treatment with 2 non-insulin based blood glucose lowering therapies in combination.

A cardiovascular risk assessment can result in dual therapy being started as a first line drug treatment.

If monotherapy has not continued to control HbA1c to below the person's individually agreed threshold for further intervention, consider adding:

- a DPP-4 inhibitor or
- pioglitazone or
- a sulfonylurea or

- an SGLT2 inhibitor for people who meet the criteria in [NICE's technology appraisal guidance on canagliflozin in combination therapy, ertugliflozin as monotherapy or with metformin, or dapagliflozin or empagliflozin in combination therapy](#).

Introduce drugs used in combination therapy in a stepwise manner, checking for tolerability and effectiveness of each drug. [[NICE's guideline on type 2 diabetes in adults: management, recommendations 1.7.17 and 1.7.18 and NICE's 2015 full guideline on type 2 diabetes in adults: management, table 43](#)]

Equality and diversity considerations

An individualised approach to diabetes care should be taken that is tailored to the needs and circumstances of each adult with type 2 diabetes. The target HbA1c level may need to be relaxed on a case-by-case basis. Examples include adults who have a reduced life expectancy, adults for whom tight blood glucose control poses a high risk of the consequences of hypoglycaemia and adults with significant comorbidities for whom intensive management would not be appropriate. Particular consideration should be given for people who are older or frail.

Quality statement 5: Referral for adults at moderate or high risk of diabetic foot problems

Quality statement

Adults at moderate or high risk of developing a diabetic foot problem are referred to the foot protection service. [2011, updated 2016]

Rationale

Referring people at moderate or high risk of developing a diabetic foot problem to the foot protection service allows their feet to be assessed at an early stage and then reassessed at regular intervals. This can reduce the likelihood of them getting foot ulcers or other foot problems.

Quality measures

The following measures can be used to assess the quality of care or service provision specified in the statement. They are examples of how the statement can be measured and can be adapted and used flexibly.

Structure

Evidence of local arrangements to ensure that adults at moderate or high risk of developing a diabetic foot problem are referred to the foot protection service.

Data source: No routinely collected national data for this measure has been identified. Data can be collected from information recorded locally by provider organisations, for example, from service pathways or protocols.

Process

Proportion of adults at moderate or high risk of developing a diabetic foot problem who are referred to the foot protection service.

Numerator – the number in the denominator who are referred to the foot protection service.

Denominator – the number of adults at moderate or high risk of developing a diabetic foot problem.

Data source: No routinely collected national data for this measure has been identified. Data can be collected from information recorded locally by healthcare professionals and provider organisations, for example, from patient records.

Outcome

Incidence of foot and lower limb amputations in people with diabetes.

Data source: National data are collected in the [National Diabetes Audit](#), reporting information on minor and major amputations in people with diabetes.

What the quality statement means for different audiences

Service providers (such as GPs and community services) ensure that adults at moderate or high risk of developing a diabetic foot problem are referred to the foot protection service.

Healthcare professionals (such as podiatrists, GPs, practice nurses and district nurses) ensure that they refer adults at moderate or high risk of developing a diabetic foot problem to the foot protection service.

Commissioners (clinical commissioning groups, integrated care systems and NHS England) ensure that they commission services in which adults at moderate or high risk of developing a diabetic foot problem are referred to the foot protection service.

Adults with diabetes have regular foot checks, and if a check shows that they have a moderate or high risk of having a foot problem related to their diabetes, they are referred to see another healthcare professional in the foot protection service.

Source guidance

[Diabetic foot problems: prevention and management. NICE guideline NG19](#) (2015, updated 2019), recommendation 1.3.8

Definitions of terms used in this quality statement

Moderate or high risk of developing a diabetic foot problem

Assess the person's current risk of developing a diabetic foot problem or needing an amputation using the following risk stratification:

- Moderate risk:
 - deformity or
 - neuropathy or
 - non-critical limb ischaemia.
- High risk:
 - previous ulceration or
 - previous amputation or
 - on renal replacement therapy or
 - neuropathy and non-critical limb ischaemia together or
 - neuropathy in combination with callus and/or deformity or
 - non-critical limb ischaemia in combination with callus and/or deformity.

[Adapted from [NICE's guideline on diabetic foot problems: prevention and management](#), recommendation 1.3.6]

Foot protection service

A service for preventing diabetic foot problems, and for treating and managing them in the community. It should be led by a podiatrist with specialist training in diabetic foot problems and have access to healthcare professionals with skills in:

- diabetology
- biomechanics and orthoses
- wound care.

[Adapted from [NICE's guideline on diabetic foot problems: prevention and management](#), recommendations 1.2.1 and 1.2.2]

Quality statement 6: Referral for urgent diabetic foot problems

Quality statement

Adults with a limb-threatening or life-threatening diabetic foot problem are referred immediately for specialist assessment and treatment. [2011, updated 2016]

Rationale

Rapid referral to specialist services for adults with a limb-threatening or life-threatening diabetic foot problem, so that they can be assessed and an individualised treatment plan put in place, can reduce the risk of amputation and death.

Quality measures

The following measures can be used to assess the quality of care or service provision specified in the statement. They are examples of how the statement can be measured and can be adapted and used flexibly.

Structure

Evidence of local arrangements to ensure that adults with a limb-threatening or life-threatening diabetic foot problem are referred immediately for specialist assessment and treatment.

Data source: No routinely collected national data for this measure has been identified. Data can be collected from information recorded locally by healthcare professionals and provider organisations, for example, from referral pathways.

Process

a) Proportion of presentations of limb-threatening or life-threatening diabetic foot problems that are referred immediately for specialist assessment and treatment.

Numerator – the number in the denominator that are referred immediately for specialist assessment and treatment.

Denominator – the number of presentations of limb-threatening or life-threatening diabetic foot problems.

Data source: No routinely collected national data for this measure has been identified. Data can be collected from information recorded locally by healthcare professionals and provider organisations, for example, from patient records.

b) Proportion of presentations of limb-threatening or life-threatening diabetic foot problems in which the multidisciplinary foot care service is informed.

Numerator – the number in the denominator in which the multidisciplinary foot care service is informed.

Denominator – the number of presentations of limb-threatening or life-threatening diabetic foot problems.

Data source: No routinely collected national data for this measure has been identified. Data can be collected from information recorded locally by healthcare professionals and provider organisations, for example, from patient records.

Outcome

Incidence of foot and lower limb amputations in people with diabetes.

Data source: National data are collected in the [National Diabetes Audit](#), reporting information on minor and major amputations in people with diabetes.

What the quality statement means for different audiences

Service providers (such as foot protection services, GPs and community services) ensure that systems are in place so that adults with a limb-threatening or life-threatening diabetic foot problem are referred immediately for specialist assessment and treatment, and the multidisciplinary foot care service is informed.

Healthcare professionals (such as podiatrists, GPs, practice nurses and district nurses) ensure that they refer adults with a limb-threatening or life-threatening diabetic foot problem immediately for specialist assessment and treatment, and inform the multidisciplinary foot care service.

Commissioners (clinical commissioning groups, integrated care systems and NHS England) ensure that they commission services in which adults with a limb-threatening or life-threatening diabetic foot problem are referred immediately for specialist assessment and treatment, and that the multidisciplinary foot care service is informed.

Adults with diabetes who have a serious foot problem are sent to hospital immediately, so that they can be assessed and treated straight away. Serious foot problems are those that might result in amputation or even death, and include a diabetic foot ulcer with a fever or any other symptoms of blood poisoning (the medical name for this is sepsis), a problem with the blood supply to the foot, gangrene, or a severe foot or bone infection.

Source guidance

Diabetic foot problems: prevention and management. NICE guideline NG19 (2015, updated 2019), recommendation 1.4.1

Definitions of terms used in this quality statement

Limb-threatening or life-threatening diabetic foot problem

Limb-threatening and life-threatening diabetic foot problems include:

- ulceration with fever or any signs of sepsis
- ulceration with limb ischaemia (see [NICE's guideline on peripheral arterial disease: diagnosis and management](#))
- clinical concern that there is a deep-seated soft tissue or bone infection (with or without ulceration)
- gangrene (with or without ulceration).

[Adapted from [NICE's guideline on diabetic foot problems: prevention and management](#), recommendation 1.4.1]

Specialist assessment and treatment

The specialist service should be the multidisciplinary foot care service wherever possible. However, if the multidisciplinary foot care service is not available (for example, if the person presents out of hours) then, in order to avoid any delay in treatment, the person should be referred immediately to

acute services and the multidisciplinary foot care service informed.

The multidisciplinary foot care service should be led by a named healthcare professional, and consist of specialists with skills in the following areas:

- diabetology
- podiatry
- diabetes specialist nursing
- vascular surgery
- microbiology
- orthopaedic surgery
- biomechanics and orthoses
- interventional radiology
- casting
- wound care.

The multidisciplinary foot care service should have access to rehabilitation services, plastic surgery, psychological services and nutritional services. [Adapted from [NICE's guideline on diabetic foot problems: prevention and management](#), recommendations 1.2.3 and 1.2.4, and expert opinion]

Quality statement 7: Inpatient care for adults with type 1 diabetes

Quality statement

Adults with type 1 diabetes in hospital receive advice from a multidisciplinary team with expertise in diabetes. [2011, updated 2016]

Rationale

Adults with type 1 diabetes may be admitted to hospital for diabetes-related or unrelated conditions. This can disturb normal routines, affecting carbohydrate intake and insulin therapy, and special regimens may be needed in response to procedures that affect the usual management of diabetes. The person's expertise in managing their own diabetes should be respected, and the specialist multidisciplinary team has the knowledge to help the person understand how best to adapt management when in hospital. The person should be supported to continue to self-manage their diabetes and administer their own insulin if they are willing and able and it is safe for them to do so. Input from a multidisciplinary specialist team can reduce the length of hospital stay for adults with type 1 diabetes and improve their experience of hospital.

Quality measures

The following measures can be used to assess the quality of care or service provision specified in the statement. They are examples of how the statement can be measured and can be adapted and used flexibly.

Structure

Evidence of local arrangements to ensure that adults with type 1 diabetes in hospital receive advice from a multidisciplinary team with expertise in diabetes.

Data source: No routinely collected national data for this measure has been identified. Data can be collected from information recorded locally by healthcare professionals and provider organisations, for example, from service protocols.

Process

Proportion of hospital admissions for adults with type 1 diabetes in which they receive advice from a multidisciplinary team with expertise in diabetes.

Numerator – the number in the denominator in which the person receives advice from a multidisciplinary team with expertise in diabetes.

Denominator – the number of hospital admissions for adults with type 1 diabetes.

Data source: National data are collected in the [National Diabetes Inpatient Audit](#), reporting data on the percentage of inpatients seen by the diabetes team.

Outcome

a) Length of hospital stay.

Data source: No routinely collected national data for this measure has been identified. Data can be collected from information recorded locally by healthcare professionals and provider organisations, for example, from patient records.

b) Patient satisfaction that staff met their diabetes needs while in hospital.

Data source: National data are collected in the [National Diabetes Inpatient Audit](#).

What the quality statement means for different audiences

Service providers (hospitals) ensure that adults with type 1 diabetes in hospital receive advice from a multidisciplinary team with expertise in diabetes.

Healthcare professionals (members of the multidisciplinary team) ensure that they provide advice to adults with type 1 diabetes who are in hospital, and enable them to continue to administer their own insulin if they are willing and able and it is safe for them to do so.

Commissioners (clinical commissioning groups and integrated care systems) ensure that they commission services in which adults with type 1 diabetes in hospital receive advice from a multidisciplinary team with expertise in diabetes.

Adults with type 1 diabetes who go into hospital if they are ill or need an operation get advice from

a team of specialists in diabetes, who will respect their expertise in managing their own diabetes. They are supported to carry on injecting their own insulin if they want to and can do so safely, although sometimes intravenous insulin will be needed instead (for example, if they cannot eat or are having an operation that affects blood glucose levels).

Source guidance

Type 1 diabetes in adults: diagnosis and management. NICE guideline NG17 (2015, updated 2022), recommendations 1.14.6 to 1.14.8

Definitions of terms used in this quality statement

Multidisciplinary team with expertise in diabetes

The basic structure of a specialist inpatient diabetes team should comprise:

- for every 300 beds, at least 1 diabetes inpatient specialist nurse whose focus is predominantly on inpatient care
- a consultant specialist in diabetes management.

There should also be access to a diabetes specialist:

- podiatrist
- dietitian.

[Adapted from Commissioning specialist diabetes services for adults with diabetes: a Diabetes UK task and finish group report (2010)]

Update information

August 2016: This quality standard was updated and statements prioritised in 2011 were replaced.

Statements are marked as [new 2016] or [2011, updated 2016]:

- [new 2016] if the statement covers a new area for quality improvement
- [2011, updated 2016] if the statement covers an area for quality improvement included in the 2011 quality standard and has been updated.

The [previous version of the quality standard for diabetes in adults](#) is available as a pdf.

Minor changes since publication

March 2022: Changes have been made to align this quality standard with the updated [NICE guideline on type 1 diabetes in adults](#) and the updated [NICE guideline on type 2 diabetes in adults](#). Definitions have been updated for statement 4 and data sources have been updated throughout.

February 2022: Changes have been made to align this quality standard with the updated [NICE guideline on type 2 diabetes in adults](#). Definitions, source guidance references and links have been updated for statements 2 and 4.

July 2021: This quality standard has been updated to ensure alignment with the [NICE guideline on type 1 diabetes in adults](#). Source guidance references have been updated for statements 3 and 7. Data sources and references have been updated throughout. Information about the source of the timeframe in statement 4 has been added.

About this quality standard

NICE quality standards describe high-priority areas for quality improvement in a defined care or service area. Each standard consists of a prioritised set of specific, concise and measurable statements. NICE quality standards draw on existing NICE or NICE-accredited guidance that provides an underpinning, comprehensive set of recommendations, and are designed to support the measurement of improvement.

Expected levels of achievement for quality measures are not specified. Quality standards are intended to drive up the quality of care, and so achievement levels of 100% should be aspired to (or 0% if the quality statement states that something should not be done). However, this may not always be appropriate in practice. Taking account of safety, shared decision-making, choice and professional judgement, desired levels of achievement should be defined locally.

Information about [how NICE quality standards are developed](#) is available from the NICE website.

See our [webpage on quality standards advisory committees](#) for details about our standing committees. Information about the topic experts invited to join the standing members is available from the [webpage for this quality standard](#).

NICE has produced a [quality standard service improvement template](#) to help providers make an initial assessment of their service compared with a selection of quality statements. This tool is updated monthly to include new quality standards.

NICE guidance and quality standards apply in England and Wales. Decisions on how they apply in Scotland and Northern Ireland are made by the Scottish government and Northern Ireland Executive. NICE quality standards may include references to organisations or people responsible for commissioning or providing care that may be relevant only to England.

Resource impact

NICE quality standards should be achievable by local services. The potential resource impact is considered by the quality standards advisory committee, drawing on resource impact work for the source guidance. Organisations are encouraged to use the resource impact products for the source guidance to help estimate local costs:

- [resource impact statement for NICE's guideline on type 1 diabetes in adults](#)

- [resource impact reports and templates for NICE's guideline on type 2 diabetes in adults](#).

Diversity, equality and language

Equality issues were considered during development and [equality assessments for this quality standard](#) are available. Any specific issues identified during development of the quality statements are highlighted in each statement.

Commissioners and providers should aim to achieve the quality standard in their local context, in light of their duties to have due regard to the need to eliminate unlawful discrimination, advance equality of opportunity and foster good relations. Nothing in this quality standard should be interpreted in a way that would be inconsistent with compliance with those duties.

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Endorsing organisation

This quality standard has been endorsed by NHS England, as required by the Health and Social Care Act (2012)

Supporting organisations

Many organisations share NICE's commitment to quality improvement using evidence-based guidance. The following supporting organisations have recognised the benefit of the quality standard in improving care for patients, carers, service users and members of the public. They have agreed to work with NICE to ensure that those commissioning or providing services are made aware of and encouraged to use the quality standard.

- [Royal College of Pathologists](#)
- [Royal College of Physicians \(RCP\)](#)
- [Dose Adjustment for Normal Eating \(DAFNE\)](#)
- [Diabetes UK](#)
- [Association of British Clinical Diabetologists](#)
- [College of General Dentistry](#)
- [British Association of Prosthetists and Orthotists](#)