NATIONAL INSTITUTE FOR HEALTH AND CARE EXCELLENCE

Type 1 diabetes in adults

NICE quality standard

Draft for consultation

20 September 2022

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| **This quality standard covers** care and treatment for adults with type 1 diabetes. It describes high-quality care in priority areas for improvement. It does not cover diabetes in children and young people, diabetes in pregnancy or other types of diabetes in adults. These are covered by other quality standards. This quality standard will update and replace the existing [quality standard on diabetes in adults](https://www.nice.org.uk/Guidance/QS6) (published March 2011, updated 2016). The topic was identified for update following a review of quality standards. The review identified: * changes in the priority areas for improvement
* new and updated guidance on type 1 diabetes in adults
* that the quality standard on diabetes in adults should be split into separate quality standards on type 1 diabetes in adults and type 2 diabetes in adults.

For more information see [update information](http://www.nice.org.uk/guidance/qsXXX/chapter/Update-information).This is the draft quality standard for consultation (from 14 September to 12 October 2022). The final quality standard is expected to publish by February 2023.  |

# Quality statements

[Statement 1](#_Quality_statement_1:) Adults with type 1 diabetes are offered a structured education programme 6 to 12 months after diagnosis. **[2011, updated 2016]**

[Statement 2](#_Quality_statement_2:) Adults with type 1 diabetes in hospital are offered advice from a multidisciplinary team with expertise in diabetes. **[2011, updated 2016]**

[Statement 3](#_Quality_statement_3:) Adults with type 1 diabetes are offered a choice of real-time continuous glucose monitoring (rtCGM) or intermittently scanned continuous glucose monitoring (isCGM). **[new 2022]**

[Statement 4](#_Quality_statement_4:) Adults with type 1 diabetes who are over 40 or who have had type 1 diabetes for more than 10 years are offered statins for the primary prevention of cardiovascular disease (CVD). **[new 2022]**

[Statement 5](#_Quality_statement_5:) Adults with type 1 diabetes who have a limb-threatening or life-threatening diabetic foot problem are referred immediately for specialist assessment and treatment. **[2011, updated 2022]**

[Statement 6](#_Quality_statement_6:) Adults with type 1 diabetes are referred to specialist services if mental health problems interfere significantly with their wellbeing or diabetes self‑management. **[new 2022]**

In 2022 this quality standard was updated and statements prioritised in 2011 or 2016 were retained (2011, updated 2016), updated (2011, updated 2022) or replaced (new 2022). For more information, see [update information](#_Update_information_2).

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| Questions for consultation Questions about the quality standard**Question 1** Does this draft quality standard accurately reflect the key areas for quality improvement? Should annual health checks for adults with type 1 diabetes be added as a new quality improvement area, either replacing one of the existing statements or as an additional statement?**Question 2** Are local systems and structures in place to collect data for the proposed quality measures? If not, how feasible would it be for these to be put in place?**Question 3** Do you think each of the statements in this draft quality standard would be achievable by local services given the net resources needed to deliver them? Please describe any resource requirements that you think would be necessary for any statement. Please describe any potential cost savings or opportunities for disinvestment.Local practice case studies**Question 4** Do you have an example from practice of implementing the NICE guideline that underpins this quality standard? If so, please provide details on the comments form. |

# Quality statement 1: Structured education programmes

## 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 and diet. Structured 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, of proven benefit, 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.

### Process

a) Proportion of adults with type 1 diabetes who are offered a structured education programme 6 to 12 months after diagnosis.

Numerator – the number in the denominator who are offered 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](https://digital.nhs.uk/data-and-information/data-tools-and-services/data-services/general-practice-data-hub/quality-outcomes-framework-qof) and the [National Diabetes Audit](https://digital.nhs.uk/data-and-information/clinical-audits-and-registries/national-diabetes-audit/core).

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

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

Denominator – the number of adults with type 1 diabetes.

**Data source:** National data are collected in the [National Diabetes Audit](https://digital.nhs.uk/data-and-information/clinical-audits-and-registries/national-diabetes-audit/core).

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 their 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 GP practices 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. The services providing the education programme should ensure that it is available in a format suitable for the person, such as in-person or online, and at times suitable for them, including outside standard working hours.

**Healthcare professionals** (such as GPs, practice nurses, dieticians, 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. Healthcare professionals ensure they highlight the importance of attending the structured education programme to encourage attendance.

**Commissioners** (such as integrated care systems and NHS England) ensure that they commission structured education programmes of proven benefit for adults with type 1 diabetes. They should commission programmes that are made available in a format suitable for the person, such as in-person or online, and at times suitable for them, including outside standard working hours.

**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 glucose levels, using insulin and choosing a healthy lifestyle. The course should be offered between 6 and 12 months after they are diagnosed.

## Source guidance

[Type 1 diabetes in adults: diagnosis and management. NICE guideline NG17](https://www.nice.org.uk/guidance/ng17) (2015, updated 2022), recommendation 1.3.1 and 1.3.2

## Definitions of terms used in this quality statement

### Structured education programme

Adults with type 2 diabetes should be offered group education programmes as the preferred option. Any structured education programme for adults with type 1 diabetes should:

* be evidence-based, of proven benefit, and suit the needs of the person
* have specific aims and learning objectives, and should support the person and their family members and carers in developing attitudes, beliefs, knowledge and skills to self-manage diabetes
* have a structured curriculum that is theory-driven, evidence-based and resource-effective, has supporting materials, and is written down
* have outcomes that are audited regularly
* be quality assured, and reviewed by trained, competent, independent assessors who measure it against criteria that ensure consistency
* be delivered by trained educators who:
	+ understand educational theory appropriate to the age and needs of the person
	+ are trained and competent to deliver the principles and content of the programme.

An example of a structured education programme of proven benefit is the [Dose Adjustment for Normal Eating (DAFNE) programme](https://dafne.nhs.uk/).

[Adapted from [NICE's guideline on type 1 diabetes in adults: diagnosis and management](https://www.nice.org.uk/guidance/ng17), recommendations 1.3.1, 1.3.3 and 1.3.4]

## Equality and diversity considerations

Structured education programmes should meet the cultural, linguistic, cognitive and literacy needs in the local area. Recommendation 1.3.3 in [NICE's guideline on type 1 diabetes in adults: diagnosis and management](https://www.nice.org.uk/guidance/ng17) states group education programmes are the preferred option, but an alternative of equal standard should be provided for adults who are unable or prefer not to take part in group education. Adults with type 1 diabetes should be provided with information that they can easily read and understand themselves, or with support, so they can communicate effectively with educators. Information should be in a format that suits their needs and preferences. It should be accessible to adults who do not speak or read English, and it should be culturally appropriate and age appropriate. Adults should have access to an interpreter or advocate if needed.

For adults 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](https://www.england.nhs.uk/ourwork/accessibleinfo/) or the equivalent standards for the devolved nations.

# Quality statement 2: Inpatient care

## Quality statement

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

## Rationale

Adults with type 1 diabetes may be admitted to hospital for conditions related or unrelated to diabetes. This can disturb daily routines, affecting carbohydrate intake and insulin therapy, and special regimens may be needed in preparation and response to procedures that affect the usual management of diabetes. The specialist multidisciplinary team has the knowledge to help the person understand how best to adapt management when in hospital, while respecting the person's expertise in managing their own diabetes. The specialist multidisciplinary team should support the person 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.

## 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.

### 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 received advice from a multidisciplinary team with expertise in diabetes.

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

**Data source:** Data can be collected from information recorded locally by healthcare professionals and provider organisations, for example from patient records. National data are collected in the [National Diabetes Inpatient Safety Audit](https://digital.nhs.uk/data-and-information/clinical-audits-and-registries/national-diabetes-inpatient-safety-audit), reporting data on the percentage of inpatients seen by the diabetes team.

### Outcome

a) Length of hospital stay for adults with type 1 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 patient records.

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

**Data source:** Data can be collected from information recorded locally by healthcare professionals and provider organisations, for example from patient surveys. National data on a number of areas, such as staff knowledge of diabetes, overall care for diabetes and ward staff respecting wishes around diabetes care are collected in the [National Diabetes Inpatient Safety Audit](https://digital.nhs.uk/data-and-information/clinical-audits-and-registries/national-diabetes-inpatient-safety-audit).

## What the quality statement means for different audiences

**Service providers** (inpatient secondary care providers) ensure that adults with type 1 diabetes in hospital receive advice from a multidisciplinary team with expertise in diabetes. This includes ensuring a multidisciplinary team with expertise in diabetes is available and that members of ward staff know how to make them aware when adults with diabetes are admitted.

**Healthcare professionals** (such as ward staff and members of the multidisciplinary team with expertise in diabetes) ensure that the multidisciplinary team with expertise in diabetes is made aware when inpatients with diabetes are admitted. The multidisciplinary team ensures that it provides 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** (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 are admitted to hospital** receive 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](https://www.nice.org.uk/guidance/ng17) (2015, updated 2022), recommendation 1.14.7

## Definitions of terms used in this quality statement

**Multidisciplinary team with expertise in diabetes**

Inpatient specialist diabetes teams coordinate diabetes care in hospitals. Diabetes teams usually consist of diabetes consultants, diabetes specialist (inpatient) nurses, podiatrists and dietitians. They will also work with other specialists who might also form part of the team (for example, pharmacists and clinical psychologists).

[Adapted from the [National Diabetes Inpatient Safety Audit](https://digital.nhs.uk/data-and-information/clinical-audits-and-registries/national-diabetes-inpatient-safety-audit)].

## Equality and diversity considerations

Adults with type 1 diabetes with communication difficulties may find it hard to express their needs to ward staff or to explain that they are able to self-care for their diabetes needs. Ward staff should ensure that adults with communication difficulties are helped and supported to express and communicate their preferences and needs.

Adults with type 1 diabetes should also have access to an interpreter or advocate if needed so that they can communicate with the multidisciplinary team.

Adults with type 1 diabetes who have a physical, mental health or learning disability may need extra assistance in maintaining management of their blood glucose while they are an inpatient. Ward staff and the multidisciplinary team should ensure that they offer additional assistance to these people.

# Quality statement 3: Continuous glucose monitoring

## Quality statement

Adults with type 1 diabetes are offered a choice of real-time continuous glucose monitoring (rtCGM) or intermittently scanned continuous glucose monitoring (isCGM). **[2022]**

## Rationale

Continuous glucose monitoring (CGM) helps adults with type 1 diabetes to respond more quickly to changes in blood glucose levels throughout the day. It also leads to a decrease in HbA1c and an increase in time spent within the target range. The monitor can be connected to a phone or device so they can easily track the data and share it with their healthcare professionals when needed. For adults with frequent severe hypoglycaemia, particularly those who have difficulty recognising or reporting it, CGM can help to improve their control of blood glucose and HbA1c levels. Adults should be offered a choice of rtCGM or isCGM based on their individual preferences, needs, characteristics, and the functionality of the devices available.

## 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. Services may want to use these measures to focus on dimensions of health inequality, for example by reporting data grouped by ethnicity or indices of deprivation.

### Process

a) Proportion of adults with type 1 diabetes who were offered a choice of rtCGM or isCGM.

Numerator – the number in the denominator who were offered a choice of rtCGM or isCGM.

Denominator – the number of adults with type 1 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 patient records.

b) Proportion of adults with type 1 diabetes who use CGM.

Numerator – the number in the denominator who use CGM.

Denominator – the number of adults with type 1 diabetes.

**Data source:** National data on CGM use by adults with type 1 diabetes are collected in the [National Diabetes Audit](https://digital.nhs.uk/data-and-information/clinical-audits-and-registries/national-diabetes-audit/core).

### Outcome

a) Proportion of adults with type 1 diabetes who met their recommended HbA1c treatment target.

Numerator – the number in the denominator who met their recommended HbA1c treatment target.

Denominator – the number of adults with type 1 diabetes.

**Data source:** Data can be collected from information recorded locally by healthcare professionals and provider organisations, for example, from patient records. National data is collected in the [National Diabetes Audit](https://digital.nhs.uk/data-and-information/clinical-audits-and-registries/national-diabetes-audit/core).

b) Time spent in target glucose range in adults with type 1 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 patient records.

c) Health-related quality of life of adults with type 1 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 patient satisfaction surveys.

## What the quality statement means for different audiences

**Service providers** (secondary care providers) ensure that systems are in place to offer a choice of rtCGM or isCGM to adults with type 1 diabetes. They should ensure education is provided alongside CGM to support adults with type 1 diabetes to use it. They should also address inequalities in CGM access and uptake by monitoring who is using CGM, identifying groups who are eligible but who have a lower uptake and making plans to engage with these groups to encourage them to consider CGM.

**Healthcare professionals** (such as consultants and diabetes specialist nurses) offer a choice of rtCGM or isCGM to adults with type 1 diabetes, based on their individual preferences, needs, characteristics, and the functionality of the devices available. They also provide education to support them to use the CGM device. In addition, they should help to address inequalities in CGM access and uptake by monitoring who is using CGM, identifying groups who are eligible but who have a lower uptake and making plans to engage with these groups to encourage them to consider CGM.

**Commissioners** (such as integrated care systems and NHS England) ensure that they commission services in which adults with type 1 diabetes are offered a choice of rtCGM or isCGM, based on their individual preferences, needs, characteristics, and the functionality of the devices available. They should also address inequalities in CGM access and uptake by commissioning services that monitor who is using CGM, identify groups who are eligible but who have a lower uptake and make plans to engage with these groups to encourage them to consider CGM.

**Adults with type 1 diabetes** are offered a choice of isCGM (commonly known as ‘flash’) or rtCGM based on their individual preferences, needs, characteristics, and the functionality of the devices available to help manage their diabetes.

## Source guidance

[Type 1 diabetes in adults: diagnosis and management. NICE guideline NG17](https://www.nice.org.uk/guidance/ng17) (2015, updated 2022), recommendation 1.6.10

## Definitions of terms used in this quality statement

### Continuous glucose monitoring

This covers both rtCGM and isCGM (commonly referred to as 'flash').

A continuous glucose monitor is a device that measures blood glucose levels and sends the readings to a display device or smartphone. [[NICE’s guideline on type 1 diabetes in adults: diagnosis and management](https://www.nice.org.uk/guidance/ng17), terms used in this guideline]

## Equality and diversity considerations

Adults with type 1 diabetes living in deprived areas are less likely to use CGM. This is also the case for adults from Black and Asian family backgrounds. It is therefore important for the services to work closely with these groups to ensure that they are aware of the benefits of CGM and that they can access it and any additional equipment if they want to use it.

Certain groups such as older adults, people with frailty and people with a physical disability, a mental health related or learning disability may need assistance from district nurses or a carer and therefore may need support to use their CGM device.

Adults from lower socioeconomic groups may experience difficulties in accessing healthcare. They may also have difficulties using CGM if their device needs access to higher cost technologies.

Commissioners, providers and healthcare professionals should address inequalities in CGM access and uptake by:

* monitoring who is using CGM
* identifying groups who are eligible but who have a lower uptake
* making plans to engage with these groups to encourage them to consider CGM.

[[NICE’s guideline on type 1 diabetes in adults: diagnosis and management](https://www.nice.org.uk/guidance/ng17), recommendation 1.6.18]

In addition, adults with type 1 diabetes should be given information about CGM that they can easily read and understand themselves, or with support, so they can communicate effectively with health and social care services. Information should be in a format that suits their needs and preferences. It should be accessible to people who do not speak or read English, and it should be culturally appropriate and age appropriate. People should have access to an interpreter or advocate if needed.

For people with type 1 diabetes and additional needs related to a disability, impairment or sensory loss, information should be provided as set out in [NHS England's Accessible Information Standard](https://www.england.nhs.uk/ourwork/accessibleinfo/) or the equivalent standards for the devolved nations.

# Quality statement 4: Statin therapy

## Quality statement

Adults with type 1 diabetes who are over 40 or who have had type 1 diabetes for more than 10 years are offered statins for the primary prevention of cardiovascular disease (CVD). **[2022]**

## Rationale

Statin therapy for adults with type 1 diabetes aims to reduce cardiovascular risk and prevent future cardiovascular events. It helps to lower the concentration of low-density lipoprotein cholesterol in the blood and is associated with a reduction in myocardial infarction, coronary heart disease and stroke.

## 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.

### Process

a) Proportion of adults with type 1 diabetes who are over 40 who are prescribed statins for the primary prevention of CVD.

Numerator – the number in the denominator who are prescribed statins for the primary prevention of CVD.

Denominator – the number of adults with type 1 diabetes who are over 40.

**Data source:** Data can be collected from information recorded locally by healthcare professionals and provider organisations, for example from patient records. National data are collected in the [Quality and Outcomes Framework indicator DM022](https://digital.nhs.uk/data-and-information/data-tools-and-services/data-services/general-practice-data-hub/quality-outcomes-framework-qof) and the [National Diabetes Audit](https://digital.nhs.uk/data-and-information/clinical-audits-and-registries/national-diabetes-audit/core).

b) Proportion of adults with type 1 diabetes who have had type 1 diabetes for more than 10 years who are prescribed statins for the primary prevention of CVD.

Numerator – the number in the denominator who are prescribed statins for the primary prevention of CVD.

Denominator – the number of adults with type 1 diabetes who have had type 1 diabetes for more than 10 years.

**Data source:** Data can be collected from information recorded locally by healthcare professionals and provider organisations, for example from patient records. National data on the number of adults aged 40 to 80 who are receiving statins for primary prevention of CVD are collected in the [National Diabetes Audit](https://digital.nhs.uk/data-and-information/clinical-audits-and-registries/national-diabetes-audit/core).

### Outcome

Proportion of adults with T1 diabetes who have a cholesterol level of less than 5mmol/L.

Numerator – the number in the denominator who have a cholesterol level of less than 5mmol/L.

Denominator – the number of adults with type 1 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 patient records. National data are collected in the [National Diabetes Audit](https://digital.nhs.uk/data-and-information/clinical-audits-and-registries/national-diabetes-audit/core).

## What the quality statement means for different audiences

**Service providers** (GP practices and secondary care providers) ensure that systems are in place for adults with type 1 diabetes who are over 40, or who have had type 1 diabetes for more than 10 years, to be identified and offered statins for the primary prevention of cardiovascular disease.

**Healthcare professionals** (such as GPs, advanced nurse practitioners in primary care, secondary care consultants and diabetes specialist nurses) identify adults with type 1 diabetes who are over 40, or who have had type 1 diabetes for more than 10 years, and offer them statins for the primary prevention of CVD, explaining the benefits to them.

**Commissioners** (integrated care systems) ensure that they commission services in which adults with type 1 diabetes who are over 40, or who have had type 1 diabetes for more than 10 years, are offered statins for the primary prevention of CVD.

**Adults with type 1 diabetes** who are over 40, or who have had type 1 diabetes for more than 10 years, are offered statins to help prevent them having a heart attack, heart disease or a stroke.

## Source guidance

[Cardiovascular disease: risk assessment and reduction, including lipid modification. NICE guideline CG181](https://www.nice.org.uk/guidance/cg181) (2014, updated 2016), recommendation 1.3.24

## Definitions of terms used in this quality statement

### Primary prevention of cardiovascular disease (CVD)

The prescription of statins for people with diabetes with no history of heart disease to reduce the risk of cardiovascular disease.

Adults with type 1 diabetes can be started on atorvastatin 20 mg.

[NICE’s guideline on [cardiovascular disease: risk assessment and reduction, including lipid modification](https://www.nice.org.uk/guidance/cg181), recommendation 1.3.25 and the [National Diabetes Audit](https://digital.nhs.uk/data-and-information/clinical-audits-and-registries/national-diabetes-audit/core)]

## Equality and diversity considerations

Statins are contraindicated in women able to have children and not using reliable contraception, pregnant women and women who are breastfeeding. They should be stopped 3 months before trying to conceive. Healthcare professionals should ensure that they take this into account when considering whether to offer statins and explain this to women who are offered statins.

# Quality statement 5: Referral for urgent diabetic foot problems

## Quality statement

Adults with type 1 diabetes who have a limb-threatening or life-threatening diabetic foot problem are referred immediately for specialist assessment and treatment. **[2011, updated 2022]**

## Rationale

Adults with type 1 diabetes who have a limb-threatening or life-threatening diabetic foot problem and are urgently referred to specialist multidisciplinary diabetic foot services to be assessed and admitted if appropriate. An individualised treatment plan can also be put in place, which 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.

### 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

a) Incidence of foot and lower limb amputations in adults with diabetes.

**Data source:** Data can be collected from information recorded locally by healthcare professionals and provider organisations, for example from patient records. National data are collected in the [National Diabetes Foot Care Audit](https://digital.nhs.uk/data-and-information/clinical-audits-and-registries/national-diabetes-foot-care-audit), reporting information on minor and major amputations in adults with diabetes.

b) Mortality of adults with type 1 diabetes due to foot problems.

**Data source:** 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 foot protection services, GP practices and community services) ensure that systems are in place so that adults with type 1 diabetes who have 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 type 1 diabetes who have a limb-threatening or life-threatening diabetic foot problem immediately for specialist assessment and treatment, and inform the multidisciplinary foot care service. This will ensure they can be assessed, admitted if appropriate, and an individualised treatment plan put in place.

**Commissioners** (integrated care systems) ensure that they commission services in which adults with type 1 diabetes who have a limb-threatening or life-threatening diabetic foot problem are referred immediately for specialist assessment and treatment within secondary care, and that the multidisciplinary foot care service is informed.

**Adults with type 1 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](https://www.nice.org.uk/guidance/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](https://www.nice.org.uk/guidance/cg147))
* clinical concern that there is a deep-seated soft tissue or bone infection (with or without ulceration)
* gangrene (with or without ulceration).

[[NICE’s guideline on diabetic foot problems: prevention and management](https://www.nice.org.uk/guidance/ng19), 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, to avoid any delay in treatment, the person should be referred immediately to acute services and the multidisciplinary foot care service should be 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](https://www.nice.org.uk/guidance/ng19), recommendations 1.2.3 and 1.2.4, and expert opinion]

## Equality and diversity considerations

Adults with type 1 diabetes living in deprived areas are less likely to access foot protection and primary care services. This is also the case for some adults with Black and Asian family backgrounds. It is therefore important for the services to work closely with these groups to ensure that they are aware of the need to access foot protection or multidisciplinary diabetes foot services to maintain their foot health and if they develop a foot problem.

Adults with type 1 diabetes and a physical disability or a mental health related or learning disability, may need assistance in accessing foot protection or multidisciplinary diabetes foot services in a timely manner and should be given assistance and their access issues identified and monitored.

# Quality statement 6: Referral for mental health problems

## Quality statement

Adults with type 1 diabetes are referred to specialist services if mental health problems interfere significantly with their wellbeing or diabetes self‑management. **[2022]**

## Rationale

Some adults with type 1 diabetes may experience distress, depression and anxiety. In addition, adults with type 1 diabetes are at an increased risk of eating disorder behaviours including omitting or under-dosing insulin. Referral to a specialist service if mental health problems interfere significantly with their wellbeing or diabetes self-management will ensure adults with type 1 diabetes are supported to manage these issues.

## 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.

### Process

Proportion of adults with type 1 diabetes who are referred to specialist services if mental health problems interfere significantly with their wellbeing or diabetes self‑management.

Numerator – the number in the denominator who are referred to specialist services.

Denominator – the number of adults with type 1 diabetes who have mental health problems that interfere significantly with their wellbeing or diabetes self‑management.

**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

Mental wellbeing of adults with type 1 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 patient records and patient questionnaires.

## What the quality statement means for different audiences

**Service providers** (such as GP practices and secondary care providers) ensure that systems are in place for adults with type 1 diabetes to be referred to specialist services if mental health problems interfere significantly with their wellbeing or diabetes self‑management.

**Healthcare professionals** (such as GPs, practice nurses, diabetologists and diabetes specialist nurses) are aware of local referral pathways for people with type 1 diabetes to specialists in mental health services. They ensure that they are alert to the possibility that adults with type 1 diabetes may experience mental health problems that interfere significantly with their wellbeing or diabetes self‑management. For example, they may have signs of a suspected eating disorder or significant depression. If they identify that an adult with type 1 diabetes is experiencing mental health problems that interfere significantly with their wellbeing or diabetes self‑management, they refer them to specialists using the local referral pathways.

**Commissioners** (such as integrated care systems and NHS England) ensure that they commission services in which adults with type 1 diabetes are referred to specialist services if mental health problems interfere significantly with their wellbeing or diabetes self‑management.

**Adults with type 1 diabetes** who experience mental health problems that interfere significantly with their wellbeing or diabetes self‑management, for example if they have severe depression or may have an eating disorder, are referred to a specialist service for support. This will be a mental health professional who has experience of working with adults with type 1 diabetes.

## Source guidance

[Type 1 diabetes in adults: diagnosis and management. NICE guideline NG17](https://www.nice.org.uk/guidance/ng17) (2015, updated 2022), recommendations 1.15.41 and 1.15.43.

## Definitions of terms used in this quality statement

### Specialist referral

Adults with type 1 diabetes should be referred to the mental health specialist service most suited to the problems they are experiencing. These mental health professionals should have experience in treating adults with type 1 diabetes. [Expert opinion]

### Significant interference with wellbeing or diabetes self-management

This includes, but is not limited to:

* suspected eating disorder, disordered eating or insulin-omission
* severe anxiety
* depression
* post-traumatic stress disorder.

[Adapted from [NICE’s guideline on type 1 diabetes in adults: diagnosis and management](https://www.nice.org.uk/guidance/ng17), recommendations 1.15.41, 1.15.42 and expert opinion]

# Update information

**September 2022:** This quality standard was updated and statements prioritised in 2011 and 2016 were replaced. The topic was identified for update following a review of quality standards. The review identified:

* changes in the priority areas for improvement
* new and updated guidance on type 1 diabetes in adults
* that the quality standard on diabetes in adults should be split into separate quality standards on type 1 diabetes in adults and type 2 diabetes in adults.

Statements are marked as:

* **[2011]** or **[2011, updated 2016]** if the statement remains unchanged
* **[new 2022]** if the statement covers a new area for quality improvement
* **[2011, updated 2022]** if the statement covers an area for quality improvement included in the 2011 quality standard and has been updated.

# 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](https://www.nice.org.uk/standards-and-indicators/timeline-developing-quality-standards) is available from the NICE website.

See our [webpage on quality standards advisory committees](http://www.nice.org.uk/Get-Involved/Meetings-in-public/Quality-Standards-Advisory-Committee) 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](https://www.nice.org.uk/guidance/indevelopment/gid-qs10163).

NICE has produced a [quality standard service improvement template](https://www.nice.org.uk/about/what-we-do/into-practice/measuring-the-uptake-of-nice-guidance) 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 [NICE’s guideline on type 1 diabetes in adults: diagnosis and management](https://www.nice.org.uk/guidance/ng17/resources).

## Diversity, equality and language

Equality issues were considered during development and [equality assessments for this quality standard](https://www.nice.org.uk/guidance/indevelopment/gid-qs10163/documents) 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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