NICE National Institute for Health and Care Excellence

NICE quality standard

Type 1 diabetes in adults

Quality standard

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This standard replaces QS6.

This standard is based on NG17, NG19 and NG238.

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In 2023, this quality standard was updated, and statements prioritised in 2011 or 2016 were retained **[2011, updated 2016]**, updated **[2011, updated 2023]** or replaced **[new 2023]**. 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: Structured education programmes

Quality statement

Adults with type 1 diabetes are offered a structured education programme. **[2011, updated 2023]**

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, should be offered when appropriate.

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 age, ethnicity or indices of deprivation.

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: The National Diabetes Audit's care processes and treatment targets report collects and reports data on the number of adults with type 1 diabetes who have been offered structured education within 1 and 2 years of diagnosis and with no time limit from diagnosis. NHS Digital's Quality and Outcomes Framework indicator DM014 reports data on the percentage of patients newly diagnosed with diabetes who have a record of being referred to a structured education programme within 9 months of entry on to the diabetes register. While referral can be made at any time, for measurement purposes a time scale of 6 to 12 months following diagnosis can be used.

b) Proportion of adults with a new diagnosis of 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 a new diagnosis of type 1 diabetes.

Data source: The National Diabetes Audit's care processes and treatment targets report collects and reports data on the number of adults with type 1 diabetes who have attended structured education within 1 and 2 years of diagnosis and with no time limit from diagnosis.

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 confidence 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 surveys and confidence scaling.

What the quality statement means for different audiences

Service providers (such as GP practices, community healthcare providers and secondary care providers) ensure that systems are in place for adults with type 1 diabetes to be offered a structured education programme. 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, community healthcare providers, dietitians, consultant diabetologists and diabetes specialist nurses) ensure that they offer a structured education programme to adults with type 1 diabetes. Healthcare professionals ensure they highlight the importance of attending the structured education programme to encourage attendance. They should ensure adults with type 1 diabetes are given clear information on the structured education programme and help to access it.

Integrated care systems ensure that structured education programmes of proven benefit are available for adults with type 1 diabetes. They ensure that programmes are 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.

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

Adults with type 1 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 to develop 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. [Adapted from NICE's guideline on type 1 diabetes in adults: diagnosis and management, 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 and consider the characteristics of the target population,

including socioeconomic status and social context.

Structured education programmes should be adapted to ensure they are accessible to adults with type 1 diabetes and a learning disability, such as accommodating views of those with a learning disability, short sessions and the programme rolled out over longer periods in community settings.

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 given 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 or the equivalent standards for the devolved nations.

Quality statement 2: Continuous glucose monitoring

Quality statement

Adults with type 1 diabetes are offered a choice of real-time or intermittently scanned continuous glucose monitoring. **[2023]**

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 reduce the risk and burden of hypoglycaemia. Adults should be offered a choice of real-time CGM (rtCGM) or intermittently scanned CGM (isCGM, commonly known as 'flash'). This should be 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 age, ethnicity or indices of deprivation.

Process

a) 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.

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

Numerator – the number in the denominator who use rtCGM.

Denominator – the number of adults with type 1 diabetes using CGM.

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

Numerator – the number in the denominator who use isCGM.

Denominator – the number of adults with type 1 diabetes using CGM.

Data source: National data on isCGM use by adults with type 1 diabetes is collected in the National Diabetes Audit.

Outcome

HbA1c levels in adults with type 1 diabetes.

Data source: National data on HbA1c levels in adults with type 1 diabetes using CGM is collected in the National Diabetes Audit.

What the quality statement means for different audiences

Service providers (primary care networks, community providers and secondary care services) ensure that systems are in place to offer a choice of rtCGM or isCGM (commonly known as 'flash') 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 GPs, diabetes specialist nurses and consultant diabetologists) offer a choice of rtCGM or isCGM (commonly known as 'flash') 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.

Integrated care systems ensure that rtCGM and isCGM are available to services for adults with type 1 diabetes so that they can make a choice on the type of device 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 ensuring that they 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. They are also shown how to use their choice of CGM.

Source guidance

Type 1 diabetes in adults: diagnosis and management. NICE guideline NG17 (2015, updated 2022), recommendation 1.6.10

Definitions of terms used in this quality statement

Continuous glucose monitoring

A CGM is a device that measures blood glucose levels and sends the readings to a display device or smartphone. rtCGM and isCGM (commonly referred to as 'flash') automatically

measure glucose levels through a sensor applied under the skin and allow patterns of glucose levels to be seen. This can be used to plan insulin treatment. [NICE's guideline on type 1 diabetes in adults: diagnosis and management, terms used in this guideline and expert opinion]

Equality and diversity considerations

Providers and healthcare professionals should address inequalities in CGM access and uptake by monitoring who is using it, identifying groups who are eligible but have lower uptake and making plans to engage with and encourage these groups to consider CGM. For example, data suggests that adults with type 1 diabetes from lower socioeconomic groups are less likely to use CGM.

Adults with type 1 diabetes who are offered CGM should be given information about using the technology 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 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 or the equivalent standards for the devolved nations.

Quality statement 3: Statin therapy for primary prevention of cardiovascular disease

Quality statement

Adults with type 1 diabetes aged 40 and over are offered statins for the primary prevention of cardiovascular disease (CVD). **[2023]**

Rationale

Statin therapy for adults with type 1 diabetes aged 40 and over 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

Proportion of adults with type 1 diabetes aged 40 and over 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 aged 40 and over.

Data source:NHS Digital's Quality and Outcomes Framework indicator DM022 collects

data on patients with diabetes aged 40 years and over, with no history of CVD and without moderate or severe frailty, who are currently treated with a statin (excluding people with type 2 diabetes and a CVD risk score of less than 10% recorded in the preceding 3 years). The National Diabetes Audit collects national data on the number of adults with type 1 diabetes aged 40 to 80 having statins for primary prevention of CVD.

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 aged 40 and over to be identified and offered statins for the primary prevention of CVD.

Healthcare professionals (such as GPs, advanced nurse practitioners in primary care, consultant diabetologists and diabetes specialist nurses) identify adults with type 1 diabetes aged 40 and over and offer them statins for the primary prevention of CVD, explaining the benefits to them.

Integrated care systems ensure that services are available to provide statins for the primary prevention of CVD to adults with type 1 diabetes aged 40 and over.

Adults with type 1 diabetes aged 40 andover 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 NG238 (2023), recommendation 1.6.10

Definitions of terms used in this quality statement

Primary prevention of CVD

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

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, recommendation 1.6.12, and the National Diabetes Audit]

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 4: 9 key care processes

Quality statement

Adults with type 1 diabetes have 9 key care processes completed every 12 months. **[new 2023]**

Rationale

Regular testing and completion of the 9 key care processes to monitor and manage type 1 diabetes can help to reduce the risk of complications and identify any complications earlier.

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 age, ethnicity or indices of deprivation.

Process

a) Proportion of adults with type 1 diabetes who had a urine albumin to creatinine ratio (ACR) test in the previous 12 months.

Numerator – the number in the denominator who had a urine ACR test in the previous 12 months.

Denominator – the number of adults with type 1 diabetes.

Data source: The National Diabetes Audit collects and reports data on the number of adults with type 1 diabetes who had a urine albumin test in the audit year.

b) Proportion of adults with type 1 diabetes who had an HbA1c test in the previous

12 months.

Numerator – the number in the denominator who had an HbA1c test in the previous 12 months.

Denominator – the number of adults with type 1 diabetes.

Data source: The National Diabetes Audit collects and reports data on the number of adults with type 1 diabetes who had an HbA1c test in the audit year.

c) Proportion of adults with type 1 diabetes who had their blood pressure measured in the previous 12 months.

Numerator – the number in the denominator who had their blood pressure measured in the previous 12 months.

Denominator – the number of adults with type 1 diabetes.

Data source: The National Diabetes Audit collects and reports data on the number of adults with type 1 diabetes who had their blood pressure measured in the audit year.

d) Proportion of adults with type 1 diabetes who had foot surveillance and risk classification recorded in the previous 12 months.

Numerator – the number in the denominator who had foot surveillance and risk classification recorded in the previous 12 months.

Denominator – the number of adults with type 1 diabetes.

Data source: The National Diabetes Audit collects and reports data on the number of adults with type 1 diabetes who had foot surveillance in the audit year. NHS Digital's Quality and Outcomes Framework indicator DM012 reports data on the percentage of patients with diabetes who have a record of a foot examination and risk classification in the preceding 12 months.

e) Proportion of adults with type 1 diabetes who had a serum creatinine test in the previous 12 months.

Numerator – the number in the denominator who had a serum creatinine test in the previous 12 months.

Denominator – the number of adults with type 1 diabetes.

Data source: The National Diabetes Audit collects and reports data on the number of adults with type 1 diabetes who had a serum creatinine test in the audit year.

f) Proportion of adults with type 1 diabetes who had a serum cholesterol test in the previous 12 months.

Numerator – the number in the denominator who had a serum cholesterol test in the previous 12 months.

Denominator – the number of adults with type 1 diabetes.

Data source: The National Diabetes Audit collects and reports data on the number of adults with type 1 diabetes who had a serum cholesterol test in the audit year.

g) Proportion of adults with type 1 diabetes who had a record of their body mass index (BMI) in the previous 12 months.

Numerator – the number in the denominator who had a record of their BMI in the previous 12 months.

Denominator – the number of adults with type 1 diabetes.

Data source: The National Diabetes Audit collects and reports data on the number of adults with type 1 diabetes who had a record of their BMI in the audit year.

h) Proportion of adults with type 1 diabetes who had their smoking status recorded in the previous 12 months.

Numerator – the number in the denominator who had their smoking status recorded in the previous 12 months.

Denominator – the number of adults with type 1 diabetes.

Data source: The National Diabetes Audit collects and reports data on the number of adults with type 1 diabetes who had a record of their smoking status in the audit year.

i) Proportion of adults with type 1 diabetes who had retinal screening in the previous 12 months.

Numerator – the number in the denominator who had retinal screening in the previous 12 months.

Denominator – the number of adults with type 1 diabetes.

Data source: The National Diabetes Audit collects and reports data on the number of adults with type 1 diabetes who had a record of retinal screening in the audit year.

j) Proportion of adults with type 1 diabetes who had 9 key care processes performed in the previous 12 months.

Numerator – the number in the denominator who had 9 key care processes in the previous 12 months.

Denominator – the number of adults with type 1 diabetes.

Data source: The National Diabetes Audit collects and reports data on the number of adults with type 1 diabetes who received 8 care processes in the audit year. It does not include retinal screening. This data can be collected locally.

Outcome

Prevalence of cardiovascular complications, renal replacement therapy (end-stage kidney disease) or minor or major amputations in adults with type 1 diabetes.

Data source: The National Diabetes Audit report on complications and mortality includes data on the number of people with type 1 diabetes admitted to hospital with cardiovascular complications, renal replacement therapy (end-stage kidney disease) and minor or major amputations.

What the quality statement means for different

audiences

Service providers (such as primary care services, secondary care services, community health services, and foot protection services) ensure that systems are in place for adults with type 1 diabetes to have 9 key care processes to identify and monitor complications of type 1 diabetes completed every 12 months.

Healthcare professionals (such as GPs, practice nurses, consultant diabetologists, diabetes specialist nurses and members of the foot protection service) are aware of local protocols for 9 key care processes associated with type 1 diabetes and ensure that adults with type 1 diabetes have key care processes completed every 12 months. This should include measurement of urine ACR, HbA1c, blood pressure, serum creatinine, serum cholesterol and BMI, foot surveillance and smoking status. They refer adults to the local eye screening service when they are diagnosed with type 1 diabetes. They refer adults who are at moderate or high risk of developing a foot problem to the foot protection service and adults with an active diabetic foot problem to the multidisciplinary foot care service or foot protection service. They refer adults with a limb- or life-threatening active diabetic foot problem to acute services for assessment by the multidisciplinary foot care service.

Integrated care systems ensure that services are available in which adults with type 1 diabetes have 9 key care processes completed every 12 months to identify and monitor complications of type 1 diabetes. This includes laboratory provision for testing blood and urine tests, and access to a foot protection service, multidisciplinary foot care service and eye screening service.

Adults with type 1 diabetes have regular tests to check if they are at risk of developing, or have, complications of type 1 diabetes. They are referred to an appropriate service if any complications are identified.

Source guidance

- Type 1 diabetes in adults: diagnosis and management. NICE guideline NG17 (2015, updated 2022), recommendations 1.6.1 and 1.13.2
- Diabetic foot problems: prevention and management. NICE guideline NG19 (2015, updated 2019), recommendation 1.3.3

The 12-month timeframe for recording of serum creatinine, BMI and retinal screening is not derived from NICE guidance. It can be used as a practical timeframe to enable stakeholders to measure performance. The timeframe is used in the National Diabetes Audit.

Definitions of terms used in this quality statement

Key care processes

The care processes are:

- urine ACR measurement
- HbA1c measurement
- blood pressure measurement
- foot surveillance
- serum creatinine measurement
- serum cholesterol measurement
- BMI measurement
- smoking status
- retinal screening.

[National Diabetes Audit]

Equality and diversity considerations

Appointments for completion of 9 key care processes should be offered at times, and in locations, that meet the needs of adults with type 1 diabetes. Appointments should be accessible to adults who do not speak or read English, and 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 or the equivalent standards for the devolved nations.

Quality statement 5: Assessing the risk of diabetic foot problems on admission to hospital

Quality statement

Adults with type 1 diabetes admitted to hospital have an assessment of their risk of developing a diabetic foot problem. **[new 2023]**

Rationale

Assessing the risk of developing a diabetic foot problem and timely care during a hospital admission for any reason, by skilled healthcare professionals such as members of the foot care service, decreases the probability of developing diabetic foot problems for adults with type 1 diabetes.

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

a) Evidence of local systems to identify all adults with type 1 diabetes when they are admitted to hospital.

Data source: The National Diabetes Audit's inpatient safety audit includes data on the number of providers that have a robust system to identify all people with diabetes on admission to hospital.

b) Evidence of local arrangements to ensure that foot assessments for adults with type 1 diabetes are performed by appropriately trained healthcare professionals.

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 training records, competency assessment and records of continuous professional development.

Process

Proportion of adults with type 1 diabetes admitted to hospital who have an assessment of their risk of developing a diabetic foot problem.

Numerator – the number in the denominator who have an assessment of their risk of developing a diabetic foot problem.

Denominator – the number of adults with type 1 diabetes admitted to hospital.

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 diabetic foot ulcer identified on hospital admission 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.

b) Rate of diabetic foot ulcer in adults with type 1 diabetes during a hospital admission.

Data source: The National Diabetes Audit's inpatient safety audit includes data on the number, frequency and rate per 100,000 bed days of inpatient harms, including diabetic foot ulcer.

What the quality statement means for different audiences

Service providers (secondary care services) ensure that a foot care service is available within hospitals to provide foot assessments to adults with type 1 diabetes when they are admitted to hospital. They ensure that a multidisciplinary foot care team is available for management of any high-risk and active foot problems that are identified.

Healthcare professionals (members of the foot care service, nurses, doctors and podiatrists) are trained to provide foot assessments to adults with type 1 diabetes when they are admitted to hospital. They can refer to and work with the multidisciplinary foot protection service if any foot problems are identified on assessment.

Integrated care systems ensure that multidisciplinary foot care services and foot protection services are available to provide management of foot problems, including high-risk and active foot problems identified from foot assessments, for adults with type 1 diabetes when they are admitted to hospital.

Adults with type 1 diabeteswho are admitted to hospital have a check of their feet for any problems that may be related to their diabetes.

Source guidance

Diabetic foot problems: prevention and management. NICE guideline NG19 (2015, updated 2019), recommendation 1.3.3

Definitions of terms used in this quality statement

Assessment of their risk of developing a diabetic foot problem

Adults with type 1 diabetes should remove their shoes, socks, bandages and dressings for the assessment. Their feet should be examined for the following risk factors:

- neuropathy (using a 10 g monofilament as part of a foot sensory examination)
- limb ischaemia (palpation of foot pulses as part of a vascular assessment)

- ulceration
- callus
- infection or inflammation
- deformity
- gangrene
- Charcot arthropathy or an unexplained hot, swollen foot with or without pain
- ankle brachial pressure index.

The risk of developing a diabetic foot problem can be assessed using the following risk stratification:

- Low risk:
  - no risk factors present except callus alone.
- Moderate risk:
  - deformity or
  - neuropathy or
  - peripheral arterial disease.
- High risk:
  - previous ulceration or
  - previous amputation or
  - on renal replacement therapy or
  - neuropathy and peripheral arterial disease together or
  - neuropathy in combination with callus, deformity or both, or
  - peripheral arterial disease in combination with callus, deformity or both.
- Active diabetic foot problem:

- ulceration or
- infection or
- chronic limb-threatening ischaemia or
- gangrene or
- suspicion of an acute Charcot arthropathy, or an unexplained hot, swollen foot with a change in colour, with or without pain.

[Adapted from NICE's guideline on diabetic foot problems, recommendations 1.3.4 to 1.3.6 and expert opinion]

Quality statement 6: Support to self-manage diabetes during inpatient admissions

Quality statement

Adults with type 1 diabetes admitted to hospital are supported to self-manage their diabetes. **[2011, updated 2023]**

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. A specialist multidisciplinary team with expertise in diabetes can help the person and the team caring for them to adapt the management of their diabetes when in hospital. They should do this while still 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.

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

a) Evidence that organisations have a dedicated multidisciplinary team of specialist diabetes inpatient practitioners.

Data source: National data are collected in the National Diabetes Audit's inpatient safety

audit.

b) Evidence that organisations have and promote a self-management policy, which supports people who want to self-manage their type 1 diabetes to safely do so while in hospital, as clinically appropriate.

Data source: National data are collected in the National Diabetes Audit's inpatient safety audit.

Process

Proportion of hospital admissions for adults with type 1 diabetes in which they received support from a specialist multidisciplinary team with expertise in diabetes.

Numerator – the number in the denominator in which the person received support from a specialist multidisciplinary team with expertise in diabetes.

Denominator – the number of hospital admissions 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.

Outcome

Patient satisfaction that they were able to self-manage their diabetes 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.

What the quality statement means for different audiences

Service providers (inpatient secondary care providers) ensure that adults with type 1

diabetes in hospital are supported to self-manage their diabetes, including receiving advice from a specialist multidisciplinary team with expertise in diabetes. They ensure that 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 specialist multidisciplinary team with expertise in diabetes is made aware when inpatients with diabetes are admitted. They work with the multidisciplinary team to ensure they support 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.

Integrated care systems ensure that services are available in which adults with type 1 diabetes in hospital are supported to self-manage their diabetes, including receiving advice from a specialist multidisciplinary team with expertise in diabetes.

Adults with type 1 diabetes who are admitted to hospital receive advice and support 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), recommendation 1.14.7

Definitions of terms used in this quality statement

Support to self-manage diabetes

This includes the specialist multidisciplinary team with expertise in diabetes providing advice to the adult with type 1 diabetes, and the team caring for them, to manage their own diabetes and this advice being incorporated into routine ward-based blood glucose monitoring. It should also include support for adults with type 1 diabetes to make their own food choices based on their personal knowledge of their dietary needs, except when illness or medical or surgical intervention significantly disturbs those requirements.

[Adapted from NICE's guideline on type 1 diabetes in adults: diagnosis and management, recommendations 1.14.8 and 1.14.9]

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 7 (placeholder): Identification of eating disorders in adults with type 1 diabetes

What is a placeholder statement?

A placeholder statement is an area of care that has been prioritised by the quality standards advisory committee but for which no source guidance is currently available.

Rationale

Type 1 diabetes can be a predisposing factor to eating disorder behaviours, including insulin omission. Early identification may help to improve recovery rates for adults with type 1 diabetes who have eating disorders.

Update information

March 2023: 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 2023]** if the statement covers a new area for quality improvement
- **[2011, updated 2023]** 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

December 2023: Changes have been made to align this quality standard with the updated NICE guideline on cardiovascular disease. Links to source guidance have been updated for statement 3.

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, 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 NICE's guideline on type 1 diabetes in adults: diagnosis and management.

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.

- Foot In Diabetes UK
- Association of British Clinical Diabetologists
- Diabetes UK
- Royal College of Physicians (RCP)
- British Dietetic Association – Diabetes Specialist Group