

Diabetes in pregnancy

Quality standard

Published: 19 January 2016

[nice.org.uk/guidance/qs109](https://www.nice.org.uk/guidance/qs109)

Contents

Introduction	5
Why this quality standard is needed	5
How this quality standard supports delivery of outcome frameworks	6
Patient experience and safety issues	9
Coordinated services.....	10
List of quality statements.....	11
Quality statement 1: High-dose folic acid	12
Quality statement.....	12
Rationale	12
Quality measures	12
What the quality statement means for service providers, healthcare professionals and commissioners ..	13
What the quality statement means for patients.....	13
Source guidance.....	14
Quality statement 2: First contact with joint diabetes and antenatal care team.....	15
Quality statement.....	15
Rationale	15
Quality measures	15
What the quality statement means for service providers, healthcare professionals and commissioners ..	16
What the quality statement means for patients.....	17
Source guidance.....	17
Definitions of terms used in this quality statement	17
Quality statement 3: Measuring HbA1c levels at booking appointment	18
Quality statement.....	18
Rationale	18
Quality measures	18
What the quality statement means for service providers, healthcare professionals and commissioners ..	19
What the quality statement means for patients.....	19

Source guidance.....	19
Definitions of terms used in this quality statement	20
Equality and diversity considerations.....	20
Quality statement 4: Referral for retinal assessment	21
Quality statement.....	21
Rationale	21
Quality measures	21
What the quality statement means for service providers, healthcare professionals and commissioners ..	22
What the quality statement means for patients.....	23
Source guidance.....	23
Definitions of terms used in this quality statement	23
Equality and diversity considerations.....	23
Quality statement 5: Review after a diagnosis of gestational diabetes	24
Quality statement.....	24
Rationale	24
Quality measures	24
What the quality statement means for service providers, healthcare professionals and commissioners ..	25
What the quality statement means for patients.....	26
Source guidance.....	26
Definitions of terms used in this quality statement	26
Quality statement 6: Self-monitoring of blood glucose levels during pregnancy	27
Quality statement.....	27
Rationale	27
Quality measures	27
What the quality statement means for service providers, healthcare professionals and commissioners ..	29
What the quality statement means for patients.....	29
Source guidance.....	29
Definitions.....	29

Equality and diversity considerations	30
Quality statement 7: Annual HbA1c testing after gestational diabetes.....	31
Quality statement.....	31
Rationale	31
Quality measures	31
What the quality statement means for service providers, healthcare professionals and commissioners ..	32
What the quality statement means for patients.....	32
Source guidance.....	32
Using the quality standard.....	33
Quality measures	33
Levels of achievement	33
Using other national guidance and policy documents.....	33
Diversity, equality and language	34
Development sources.....	35
Evidence sources.....	35
Policy context	35
Definitions and data sources for the quality measures	35
Related NICE quality standards	36
Published	36
In development	36
Future quality standards.....	36
Quality Standards Advisory Committee and NICE project team	37
Quality Standards Advisory Committee.....	37
NICE project team	39
About this quality standard.....	40

This standard is based on NG3 and NG17.

This standard should be read in conjunction with QS105, QS37, QS22, QS15, QS6, QS125 and QS135.

Introduction

This quality standard covers managing diabetes and its complications in women (all females of childbearing potential) who are planning a pregnancy and women who are already pregnant. It also covers areas in which additional or different care should be offered to women with diabetes and their newborn babies. For more information see the [diabetes in pregnancy topic overview](#).

This quality standard should be considered alongside [quality statement 7](#) in the NICE quality standard on diabetes in adults (QS6).

Why this quality standard is needed

Approximately 700,000 women give birth in England and Wales each year, and up to 5% of these women have either pre-existing diabetes or gestational diabetes. Of women who have diabetes during pregnancy, it is estimated that approximately 87.5% have gestational diabetes (which may or may not resolve after pregnancy), 7.5% have type 1 diabetes and the remaining 5% have type 2 diabetes. The incidence of gestational diabetes is also increasing as a result of higher rates of obesity in the general population and more pregnancies in older women.

Diabetes in pregnancy is associated with risks to the woman and to the developing fetus. Miscarriage, pre-eclampsia and preterm labour are more common in women with pre-existing diabetes. In addition, diabetic retinopathy can worsen rapidly during pregnancy. Stillbirth, congenital malformations, macrosomia, birth injury, perinatal mortality and postnatal adaptation problems (such as hypoglycaemia) are more common in babies born to women with pre-existing diabetes.

Diabetes in pregnant women is managed primarily in secondary care by joint diabetes and antenatal services. Most costs associated with treating diabetes in pregnancy are likely to be incurred in secondary care, in services commissioned by clinical commissioning groups (CCGs). Some aspects of care, such as referring for preconception care, prescribing blood glucose testing strips and organising postnatal care, take place within primary care, and there are points along the pathway when community care services are also involved.

In women diagnosed with gestational diabetes, hyperglycaemia usually resolves after pregnancy, but a proportion of these women will have type 2 diabetes after the birth.

Pre-existing diabetes in women will be managed in general adult diabetes services after the birth.

The quality standard is expected to contribute to improvements in the following outcomes:

- miscarriage rates
- fetal anomalies
- rates of preterm births
- perinatal mortality
- babies who are large for gestational age
- rates of instrumental births and caesarean sections
- retinopathy
- maternal diabetic complications
- early detection of type 2 diabetes
- maternal satisfaction.

How this quality standard supports delivery of outcome frameworks

NICE quality standards are a concise set of prioritised statements designed to drive measurable improvements in the 3 dimensions of quality – patient safety, patient experience and clinical effectiveness – for a particular area of health or care. They are derived from high-quality guidance, such as that from NICE or other sources accredited by NICE. This quality standard, in conjunction with the guidance on which it is based, should contribute to the improvements outlined in the following 2 outcomes frameworks published by the Department of Health:

- [NHS Outcomes Framework 2015–16](#)
- [Public Health Outcomes Framework 2013–16](#).

Tables 1 and 2 show the outcomes, overarching indicators and improvement areas from the frameworks that the quality standard could contribute to achieving.

Table 1 NHS Outcomes Framework 2015–16

Domain	Overarching indicators and improvement areas
1 Preventing people from dying prematurely	<p>Overarching indicators</p> <p>1a Potential Years of Life Lost (PYLL) from causes considered amenable to healthcare</p> <p>i Adults ii Children and young people</p> <p>1c Neonatal mortality and stillbirths</p> <p>Improvement areas</p> <p>Reducing mortality in children</p> <p>1.6 i Infant mortality*</p>
2 Enhancing quality of life for people with long-term conditions	<p>Overarching indicator</p> <p>2 Health-related quality of life for people with long-term conditions**</p> <p>Improvement areas</p> <p>Ensuring people feel supported to manage their condition</p> <p>2.1 Proportion of people feeling supported to manage their condition</p> <p>Reducing time spent in hospital by people with long-term conditions</p> <p>2.3 ii Unplanned hospitalisation for asthma, diabetes and epilepsy in under 19s</p>

<p>4 Ensuring that people have a positive experience of care</p>	<p>Overarching indicators</p> <p>4a Patient experience of primary care</p> <p>i GP services</p> <p>ii GP Out-of-hours services</p> <p>4b Patient experience of hospital care</p> <p>4c <i>Friends and family test</i></p> <p>4d <i>Patient experience characterised as poor or worse</i></p> <p><i>I Primary care</i></p> <p><i>ii Hospital care</i></p> <p>Improvement areas</p> <p>Improving people's experience of outpatient care</p> <p>4.1 Patient experience of outpatient services</p> <p>Improving access to primary care services</p> <p>4.4 Access to i GP services</p> <p>Improving women and their families' experience of maternity services</p> <p>4.5 Women's experience of maternity services</p>
<p>5 Treating and caring for people in a safe environment and protecting them from avoidable harm</p>	<p>Improving the safety of maternity services</p> <p>5.5 Admission of full-term babies to neonatal care</p> <p>Improving the culture of safety reporting</p> <p>5.6 Patient safety incidents reported</p>
<p>Alignment with Public Health Outcomes Framework</p> <p>* Indicator is shared</p> <p>** Indicator is complementary</p> <p>Indicators in italics in development</p>	

Table 2 Public health outcomes framework for England, 2013–16

Domain	Objectives and indicators
2 Health improvement	<p>Objective</p> <p>People are helped to live healthy lifestyles, make healthy choices and reduce health inequalities</p> <p>Indicators</p> <p>2.1 Low birth weight of term babies</p> <p>2.2 Breastfeeding</p> <p>2.3 Smoking status at time of delivery</p> <p>2.11 Diet</p> <p>2.12 Excess weight in adults</p> <p>2.17 Recorded diabetes</p>
4 Healthcare public health and preventing premature mortality	<p>Objective</p> <p>Reduced numbers of people living with preventable ill health and people dying prematurely, whilst reducing the gap between communities</p> <p>Indicators</p> <p>4.1 Infant mortality*</p>
<p>Alignment with NHS Outcomes Framework</p> <p>* Indicator is shared</p>	

Patient experience and safety issues

Ensuring that care is safe and that people have a positive experience of care is vital in a high-quality service. It is important to consider these factors when planning and delivering services relevant to diabetes in pregnancy.

NICE has developed guidance and an associated quality standard on patient experience in adult NHS services (see the NICE pathway on [patient experience in adult NHS services](#)), which should be considered alongside this quality standard. They specify that people receiving care should be treated with dignity, have opportunities to discuss their preferences, and be supported to understand their options and make fully informed decisions. They also cover the provision of information to patients and service users. Quality statements on these aspects of patient

experience are not usually included in topic-specific quality standards. However, recommendations in the development sources for quality standards that affect patient experience and are specific to the topic are considered during quality statement development.

Coordinated services

The quality standard for diabetes in pregnancy specifies that services should be commissioned from and coordinated across all relevant agencies encompassing the whole diabetes in pregnancy care pathway. A person-centred, integrated approach to providing services is fundamental to delivering high-quality care to pregnant women with diabetes and their newborn babies.

The Health and Social Care Act 2012 sets out a clear expectation that the care system should consider NICE quality standards in planning and delivering services, as part of a general duty to secure continuous improvement in quality. Commissioners and providers of health and social care should refer to the library of NICE quality standards when designing high-quality services. Other quality standards that should also be considered when choosing, commissioning or providing a high-quality diabetes in pregnancy service are listed in [related quality standards](#).

Training and competencies

The quality standard should be read in the context of national and local guidelines on training and competencies. All healthcare professionals involved in assessing, caring for and treating pregnant women with diabetes and their newborn babies should have sufficient and appropriate training and competencies to deliver the actions and interventions described in the quality standard. Quality statements on staff training and competency are not usually included in quality standards. However, recommendations in the development source(s) on specific types of training for the topic that exceed standard professional training are considered during quality statement development.

Role of families and carers

Quality standards recognise the important role families and carers have in supporting pregnant women with diabetes. If appropriate, healthcare professionals should ensure that family members and carers are involved in the decision-making process about investigations, treatment and care.

List of quality statements

Statement 1. Women with diabetes planning a pregnancy are prescribed 5 mg/day folic acid from at least 3 months before conception.

Statement 2. Women with pre-existing diabetes are seen by members of the joint diabetes and antenatal care team within 1 week of their pregnancy being confirmed.

Statement 3. Pregnant women with pre-existing diabetes have their HbA1c levels measured at their booking appointment.

Statement 4. Pregnant women with pre-existing diabetes are referred at their booking appointment for retinal assessment.

Statement 5. Women diagnosed with gestational diabetes are seen by members of the joint diabetes and antenatal care team within 1 week of diagnosis.

Statement 6. Pregnant women with diabetes are supported to self-monitor their blood glucose levels.

Statement 7. Women who have had gestational diabetes have an annual HbA1c test.

Quality statement 1: High-dose folic acid

Quality statement

Women with diabetes planning a pregnancy are prescribed 5 mg/day folic acid from at least 3 months before conception.

Rationale

High-dose folic acid supplements (5 mg/day) should be prescribed for women with diabetes who are planning a pregnancy from at least 3 months before conception until 12 weeks of gestation. This is because these women are at greater risk of having a baby with a neural tube defect. The benefits of high-dose folic acid supplementation should be discussed with the woman during preconception counselling as part of her preparation for pregnancy.

Quality measures

Structure

Evidence of local arrangements and written clinical protocols to ensure that women with diabetes planning a pregnancy are prescribed 5 mg/day folic acid from at least 3 months before conception.

Data source: [National Pregnancy in Diabetes Audit](#) and local data collection.

Process

a) Proportion of pregnant women with type 1 diabetes prescribed 5 mg/day folic acid from at least 3 months before conception.

Numerator – the number in the denominator prescribed 5 mg/day folic acid from at least 3 months before conception.

Denominator – the number of pregnant women with type 1 diabetes.

Data source: [National Pregnancy in Diabetes Audit](#) and local data collection.

b) Proportion of pregnant women with type 2 diabetes prescribed 5 mg/day folic acid from at least 3 months before conception.

Numerator – the number in the denominator prescribed 5 mg/day folic acid from at least 3 months before conception.

Denominator – the number of pregnant women with type 2 diabetes.

Data source: National Pregnancy in Diabetes Audit and local data collection.

Outcome

Neural tube defects.

Data source: National Pregnancy in Diabetes Audit and local data collection.

What the quality statement means for service providers, healthcare professionals and commissioners

Service providers (in primary and secondary care) ensure that they have systems and processes in place so that women with diabetes who are planning a pregnancy are prescribed 5 mg/day folic acid from at least 3 months before conception.

Healthcare professionals (GPs, community midwives and healthcare professionals in joint diabetes and antenatal care teams) ensure that they prescribe 5 mg/day folic acid for women with diabetes who are planning a pregnancy, from at least 3 months before conception. Healthcare professionals also ensure that they advise women with diabetes who are planning a pregnancy about the benefits of taking high-dose folic acid as part of preconception counselling.

Commissioners (NHS England area teams and clinical commissioning groups) ensure that they commission pre-pregnancy services in which 5 mg/day folic acid is prescribed for women with diabetes who are planning a pregnancy, from at least 3 months before conception.

What the quality statement means for patients

Women with diabetes who are planning a pregnancy are given a prescription for high-dose folic acid (one 5 mg tablet a day) for at least 3 months before they get pregnant and for the first 12 weeks of pregnancy. This helps to lower the chances of the baby having a condition called a neural tube defect (for example, spina bifida).

Source guidance

- [Diabetes in pregnancy: management from preconception to the postnatal period \(2015\) NICE guideline NG3, recommendation 1.1.11](#)

Quality statement 2: First contact with joint diabetes and antenatal care team

Quality statement

Women with pre-existing diabetes are seen by members of the joint diabetes and antenatal care team within 1 week of their pregnancy being confirmed.

Rationale

Women with diabetes who become pregnant need extra care in addition to routine antenatal care. Members of the joint diabetes and antenatal care team are able to ensure that specialist care is delivered to minimise adverse pregnancy outcomes. Immediate access to the joint diabetes and antenatal care team within 1 week of her pregnancy being confirmed will help to ensure that a woman's diabetes is controlled during early pregnancy, when there is an increased risk of fetal loss and anomalies. It will also help to ensure that the woman's care is planned appropriately throughout her pregnancy.

Quality measures

Structure

a) Evidence of local arrangements to provide a joint diabetes and antenatal care team.

Data source: Local data collection.

b) Evidence of local arrangements to ensure that women with pre-existing diabetes are seen by members of the joint diabetes and antenatal care team within 1 week of their pregnancy being confirmed.

Data source: Local data collection.

Process

Proportion of women with pre-existing diabetes who are seen by members of the joint diabetes and antenatal care team within 1 week of their pregnancy being confirmed.

Numerator – the number in the denominator who are seen by members of the joint diabetes and antenatal care team within 1 week of their pregnancy being confirmed.

Denominator – the number of pregnant women with pre-existing diabetes.

Data source: National Pregnancy in Diabetes Audit.

Outcome

a) Maternal satisfaction.

Data source: Local data collection.

b) Perinatal morbidity.

Data source: Local data collection.

c) Perinatal mortality.

Data source: Local data collection.

d) Maternal adverse outcomes.

Data source: Local data collection.

What the quality statement means for service providers, healthcare professionals and commissioners

Service providers (in secondary care) ensure that referral pathways are in place so that pregnant women with pre-existing diabetes are seen by members of the joint diabetes and antenatal care team within 1 week of the pregnancy being confirmed.

Healthcare professionals (in joint diabetes and antenatal care teams) ensure that they see pregnant women with pre-existing diabetes within 1 week of the pregnancy being confirmed.

Commissioners (NHS England area teams and clinical commissioning groups) ensure that they commission joint diabetes and antenatal care teams that see pregnant women with pre-existing diabetes within 1 week of the pregnancy being confirmed.

What the quality statement means for patients

Pregnant women who had diabetes before they became pregnant have an appointment with a joint diabetes and antenatal care team within 1 week of telling a doctor, nurse or midwife that they are pregnant.

Source guidance

- [Diabetes in pregnancy: management from preconception to the postnatal period \(2015\) NICE guideline NG3, recommendation 1.3.34](#)

Definitions of terms used in this quality statement

Joint diabetes and antenatal care team

A clinic with a multidisciplinary team consisting of an obstetrician, a diabetes physician, a diabetes specialist nurse, a midwife and a dietitian.

[[National service framework for diabetes](#)]

Pregnancy confirmed

The notification of a positive pregnancy test to a healthcare professional. This may be a GP, practice nurse, midwife or member of the secondary care diabetes team.

[Expert opinion]

Quality statement 3: Measuring HbA1c levels at booking appointment

Quality statement

Pregnant women with pre-existing diabetes have their HbA1c levels measured at their booking appointment.

Rationale

Measuring a woman's HbA1c levels can be used to determine the level of risk for her pregnancy. Women who had diabetes before they became pregnant should have their HbA1c levels measured during early pregnancy to identify the risk of potential adverse pregnancy outcomes and to ensure that any identified risks are managed.

Quality measures

Structure

Evidence of local arrangements and written clinical protocols to ensure that pregnant women with pre-existing diabetes have their HbA1c levels measured at their booking appointment.

Data source: [National Pregnancy in Diabetes Audit](#) and local data collection.

Process

Proportion of pregnant women with pre-existing diabetes who have their HbA1c levels measured at their booking appointment.

Numerator – the number in the denominator who have their HbA1c levels measured at their booking appointment.

Denominator – the number of pregnant women with pre-existing diabetes.

Data source: [National Pregnancy in Diabetes Audit](#) and local data collection.

Outcome

a) Mode of birth.

Data source: National Pregnancy in Diabetes Audit and local data collection.

b) Adverse fetal outcomes.

Data source: National Pregnancy in Diabetes Audit and local data collection.

c) Maternal diabetic complications.

Data source: National Pregnancy in Diabetes Audit and local data collection.

What the quality statement means for service providers, healthcare professionals and commissioners

Service providers (in secondary care) ensure that systems are in place so that pregnant women with pre-existing diabetes have their HbA1c levels measured at their booking appointment.

Healthcare professionals (in antenatal care and in joint diabetes and antenatal care teams) ensure that they measure the HbA1c levels of pregnant women with pre-existing diabetes at the booking appointment.

Commissioners (clinical commissioning groups) ensure that they commission services in which pregnant women with pre-existing diabetes have their HbA1c levels measured at their booking appointment.

What the quality statement means for patients

Pregnant women who had diabetes before they became pregnant have their HbA1c levels measured at their booking appointment (their first official antenatal appointment).

Source guidance

- Diabetes in pregnancy: management from preconception to the postnatal period (2015) NICE guideline NG3, recommendations 1.3.7 and 1.3.36 (key priority for implementation)

Definitions of terms used in this quality statement

Booking appointment

A woman with diabetes will usually have a booking appointment with the joint diabetes and antenatal care team by 10 weeks of pregnancy. In some cases this appointment may take place earlier in the pregnancy.

[[Diabetes in pregnancy](#) (NICE guideline NG3) and expert opinion]

Equality and diversity considerations

Pregnant women with diabetes and complex social needs may be less likely to access or maintain contact with antenatal care services, and may present to a service later than 10 weeks. Services should give special consideration to these groups of women and ensure that they have their HbA1c levels measured at the earliest opportunity.

Quality statement 4: Referral for retinal assessment

Quality statement

Pregnant women with pre-existing diabetes are referred at their booking appointment for retinal assessment.

Rationale

Pregnant women with pre-existing diabetes can have an increased risk of progression of diabetic retinopathy. Women should therefore be screened for diabetic retinopathy regularly during pregnancy. Early assessment ensures that treatment can start as soon as possible, and can act as a baseline to observe any further deterioration. A referral for retinal assessment should be offered at the booking appointment unless the woman has had an assessment in the last 3 months.

Quality measures

Structure

Evidence of local arrangements and written clinical protocols to ensure that pregnant women with pre-existing diabetes are referred at their booking appointment for retinal assessment.

Data source: Local data collection.

Process

a) Proportion of pregnant women with pre-existing diabetes who are referred at their booking appointment for retinal assessment.

Numerator – the number in the denominator who are referred at their booking appointment for retinal assessment.

Denominator – the number of pregnant women with pre-existing diabetes attending a booking appointment who have not had retinal assessment in the last 3 months.

Data source: Local data collection.

b) Proportion of pregnant women with pre-existing diabetes who have a retinal assessment in the first 3 months of pregnancy.

Numerator – the number in the denominator who have a retinal assessment in the first 3 months of pregnancy.

Denominator – the number of pregnant women with pre-existing diabetes referred at their booking appointment for a retinal assessment.

Data source: National Pregnancy in Diabetes Audit and local data collection.

Outcome

a) Rates of diabetic retinopathy during pregnancy.

Data source: Local data collection.

b) Diabetic retinopathy progression during pregnancy.

Data source: Local data collection.

What the quality statement means for service providers, healthcare professionals and commissioners

Service providers (in primary and secondary care) ensure that pregnant women with pre-existing diabetes are referred at their booking appointment for a retinal assessment if they have not had a retinal assessment in the last 3 months.

Healthcare professionals (in joint diabetes and antenatal care teams) ensure that they refer pregnant women with pre-existing diabetes at their booking appointment for a retinal assessment, unless the woman has had a retinal assessment in the last 3 months.

Commissioners (clinical commissioning groups) ensure that they commission services in which pregnant women with pre-existing diabetes are referred at their booking appointment for a retinal assessment if they have not had a retinal assessment in the last 3 months. Commissioners also ensure that services communicate the results of retinal assessments to the joint diabetes and antenatal care team.

What the quality statement means for patients

Pregnant women who had diabetes before they became pregnant are referred at their booking appointment for a screening check for eye damage (retinopathy) if they have not had this type of check in the last 3 months.

Source guidance

- [Diabetes in pregnancy: management from preconception to the postnatal period \(2015\) NICE guideline NG3](#), recommendation 1.3.24

Definitions of terms used in this quality statement

Retinal assessment

A retinal assessment should be done by digital imaging with mydriasis (dilation of the pupils) using tropicamide, in accordance with the National Screening Committee's diabetic retinopathy screening programme.

[[Diabetes in pregnancy](#) (NICE guideline NG3) recommendation 1.3.24]

Booking appointment

A woman with diabetes will usually have a booking appointment with the joint diabetes and antenatal care team by 10 weeks of pregnancy. In some cases this appointment may take place earlier in the pregnancy.

[[Diabetes in pregnancy](#) (NICE guideline NG3) and expert opinion]

Equality and diversity considerations

Pregnant women with diabetes and complex social needs may be less likely to access or maintain contact with antenatal care services, and may present to a service later than 10 weeks. Services should give special consideration to these groups of women and ensure that they are referred for a retinal assessment at the earliest opportunity.

Quality statement 5: Review after a diagnosis of gestational diabetes

Quality statement

Women diagnosed with gestational diabetes are seen by members of the joint diabetes and antenatal care team within 1 week of diagnosis.

Rationale

Women diagnosed with gestational diabetes should have specialist advice and treatment in a timely manner, and should be reviewed by members of the joint diabetes and antenatal care team within 1 week of being diagnosed. The joint team should provide the woman with advice, including why gestational diabetes occurs, potential risks and complications, and treatments aimed at reducing those risks.

Quality measures

Structure

a) Evidence of local arrangements to provide a joint diabetes and antenatal care team.

Data source: Local data collection.

b) Evidence of local arrangements and written clinical protocols to ensure that women diagnosed with gestational diabetes are seen by members of the joint diabetes and antenatal care team within 1 week of diagnosis.

Data source: Local data collection.

Process

Proportion of women diagnosed with gestational diabetes who are seen by members of the joint diabetes and antenatal care team within 1 week of diagnosis.

Numerator – the number in the denominator who are seen by members of the joint diabetes and antenatal care team within 1 week of diagnosis.

Denominator – the number of women diagnosed with gestational diabetes.

Data source: Local data collection.

Outcome

a) Maternal satisfaction.

Data source: Local data collection.

b) Perinatal morbidity.

Data source: Local data collection.

c) Perinatal mortality.

Data source: Local data collection.

d) Maternal adverse outcomes.

Data source: Local data collection.

What the quality statement means for service providers, healthcare professionals and commissioners

Service providers (in secondary and community care) ensure that referral pathways are in place so that women diagnosed with gestational diabetes are seen by members of the joint diabetes and antenatal care team within 1 week of diagnosis.

Healthcare professionals (in joint diabetes and antenatal care teams) ensure that they see women diagnosed with gestational diabetes within 1 week of diagnosis.

Commissioners (NHS England area teams and clinical commissioning groups) ensure that they commission services in which women diagnosed with gestational diabetes are seen by members of the joint diabetes and antenatal care team within 1 week of diagnosis.

What the quality statement means for patients

Pregnant women who are diagnosed with gestational diabetes (that is, diabetes that develops during pregnancy) have an appointment with a joint diabetes and antenatal care team within 1 week of their diagnosis.

Source guidance

- [Diabetes in pregnancy: management from preconception to the postnatal period \(2015\) NICE guideline NG3](#), recommendation 1.2.9

Definitions of terms used in this quality statement

Joint diabetes and antenatal care team

A clinic with a multidisciplinary team consisting of an obstetrician, a diabetes physician, a diabetes specialist nurse, a midwife and a dietitian.

[[National service framework for diabetes](#)]

Diagnosis of gestational diabetes

Diagnose gestational diabetes (using a 75 g 2-hour oral glucose tolerance test) if the woman has either:

- a fasting plasma glucose level of 5.6 mmol/litre or above or
- a 2-hour plasma glucose level of 7.8 mmol/litre or above.

[Adapted from [Diabetes in pregnancy](#) (NICE guideline NG3) recommendations 1.2.6 and 1.2.8]

Quality statement 6: Self-monitoring of blood glucose levels during pregnancy

Quality statement

Pregnant women with diabetes are supported to self-monitor their blood glucose levels.

Rationale

Women with diabetes need to be able to self-monitor their blood glucose during pregnancy. Some women with type 2 diabetes and all women with gestational diabetes will not have been monitoring their blood glucose levels at all before pregnancy and will start doing so. For women with type 1 diabetes, and some women with type 2 diabetes, frequency of monitoring will increase from 4 times a day to up to 10 times per day. More frequent monitoring will help women to maintain good blood glucose control throughout pregnancy. This in turn will reduce the risk of adverse outcomes, such as a baby that is large for gestational age, trauma during birth, neonatal hypoglycaemia and perinatal death. The likelihood of induction of labour and caesarean section should also be lower. Support should be provided to ensure that women have access to appropriate blood glucose meters and are prescribed enough testing strips, and know how to use them.

Quality measures

Structure

a) Evidence of local arrangements and written clinical protocols to ensure that pregnant women with diabetes are supported to self-monitor their blood glucose levels.

Data source: Local data collection.

b) Evidence of local arrangements to ensure that pregnant women with diabetes have access to appropriate blood glucose meters and are prescribed enough testing strips.

Data source: Local data collection.

Process

a) Proportion of pregnant women with diabetes who feel supported to self-monitor their blood glucose levels.

Numerator – the number in the denominator who feel supported to self-monitor their blood glucose levels.

Denominator – the number of pregnant women with diabetes.

Data source: Local data collection.

b) Proportion of pregnant women with diabetes who have an appropriate blood glucose meter.

Numerator – the number in the denominator who have an appropriate blood glucose meter.

Denominator – the number of pregnant women with diabetes.

Data source: Local data collection.

c) Proportion of pregnant women with diabetes who are prescribed enough blood glucose testing strips.

Numerator – the number in the denominator who are prescribed enough blood glucose testing strips.

Denominator – the number of pregnant women with diabetes.

Data source: Local data collection.

Outcome

a) Adverse fetal outcomes.

Data source: Local data collection.

b) Maternal diabetic complications.

Data source: Local data collection.

What the quality statement means for service providers, healthcare professionals and commissioners

Service providers (in primary and secondary care) ensure that pregnant women with diabetes have an appropriate blood glucose meter and are prescribed enough testing strips, and so are supported to self-monitor their blood glucose levels during pregnancy.

Healthcare professionals (GPs, community midwives and healthcare professionals in joint diabetes and antenatal care teams) support pregnant women with diabetes to self-monitor their blood glucose levels during pregnancy, including ensuring that the woman has an appropriate blood glucose meter and is prescribed enough testing strips.

Commissioners (NHS England area teams and clinical commissioning groups) commission services that ensure that pregnant women with diabetes have an appropriate blood glucose meter and are prescribed enough testing strips, and so are supported to self-monitor their blood glucose levels.

What the quality statement means for patients

Pregnant women with diabetes are supported to monitor their own blood glucose levels during pregnancy. They are given a blood glucose meter that suits them, and are prescribed enough testing strips for their needs.

Source guidance

- [Diabetes in pregnancy: management from preconception to the postnatal period](#) (2015) NICE guideline NG3, recommendations 1.1.13, 1.2.12 and 1.3.1–1.3.3
- [Type 1 diabetes in adults: diagnosis and management](#) (2015) NICE guideline NG17, recommendations 1.6.11 and 1.6.17

Definitions

Appropriate blood glucose meter

Ensure that blood glucose meters meet current ISO standards and take the needs of the woman with diabetes into account.

[Adapted from [Type 1 diabetes](#) (NICE guideline NG17) recommendation 1.6.17]

Equality and diversity considerations

When advising women to start or increase the frequency of blood glucose monitoring, take into account that some women may be anxious and feel pressure to adjust and overly regulate their blood glucose levels.

Quality statement 7: Annual HbA1c testing after gestational diabetes

Quality statement

Women who have had gestational diabetes have an annual HbA1c test.

Rationale

Women who have had gestational diabetes are at increased risk of getting it again in future pregnancies. They are also at higher risk of type 2 diabetes: if they are not diagnosed with type 2 diabetes in the immediate postnatal period, they are still at high risk of developing it in the future. Early detection of type 2 diabetes by annual HbA1c testing in primary care can delay disease progression and reduce the risk of complications. Annual testing can also reduce the risk of uncontrolled or undetected diabetes in future pregnancies.

Quality measures

Structure

Evidence of local arrangements and written clinical protocols to ensure that women who have had gestational diabetes have an annual HbA1c test.

Data source: Local data collection.

Process

Proportion of women who have had gestational diabetes who have an annual HbA1c test.

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

Denominator – the number of women who have had gestational diabetes and whose baby was born at least 12 months ago.

Data source: GP Patient Survey and local data collection.

Outcome

Earlier detection of type 2 diabetes.

Data source: Local data collection.

What the quality statement means for service providers, healthcare professionals and commissioners

Service providers (in primary care) ensure that systems are in place so that women who have had gestational diabetes have an annual HbA1c test.

Healthcare professionals (in primary care) ensure that they test HbA1c levels annually for women who have had gestational diabetes.

Commissioners (NHS England area teams and clinical commissioning groups) ensure that they commission services that provide annual HbA1c testing for women who have had gestational diabetes.

What the quality statement means for patients

Women who have had gestational diabetes have the HbA1c levels in their blood measured once a year. This is to check whether they have type 2 diabetes, or are at risk of getting it.

Source guidance

- [Diabetes in pregnancy: management from preconception to the postnatal period \(2015\) NICE guideline NG3, recommendation 1.6.14](#)

Using the quality standard

Quality measures

The quality measures accompanying the quality statements aim to improve the structure, process and outcomes of care in areas identified as needing quality improvement. They are not a new set of targets or mandatory indicators for performance management.

We have indicated if current national indicators exist that could be used to measure the quality statements. These include indicators developed by the Health and Social Care Information Centre through its [Indicators for Quality Improvement Programme](#). If there is no national indicator that could be used to measure a quality statement, the quality measure should form the basis for audit criteria developed and used locally.

See NICE's [what makes up a NICE quality standard?](#) for further information, including advice on using quality measures.

Levels of achievement

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, NICE recognises that this may not always be appropriate in practice, taking account of safety, choice and professional judgement, and therefore desired levels of achievement should be defined locally.

Using other national guidance and policy documents

Other national guidance and current policy documents have been referenced during the development of this quality standard. It is important that the quality standard is considered alongside the documents listed in [development sources](#).

Diversity, equality and language

During the development of this quality standard, equality issues have been considered and [equality assessments](#) are available.

Good communication between health, public health and social care practitioners and pregnant women with diabetes is essential. Treatment, care and support, and the information given about it, should be culturally appropriate. It should also be accessible to people with additional needs such as physical, sensory or learning disabilities, and to people who do not speak or read English. Pregnant women with diabetes should have access to an interpreter or advocate if needed.

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.

Development sources

Further explanation of the methodology used can be found in the quality standards [process guide](#).

Evidence sources

The documents below contain recommendations from NICE guidance or other NICE-accredited recommendations that were used by the Quality Standards Advisory Committee to develop the quality standard statements and measures.

- [Diabetes in pregnancy \(2015\) NICE guidance NG3](#)
- [Type 1 diabetes in adults \(2015\) NICE guideline NG17](#)

Policy context

It is important that the quality standard is considered alongside current policy documents, including:

- Department of Health (2003) [National Service Framework for diabetes: delivery strategy](#)

Definitions and data sources for the quality measures

- Health & Social Care Information Centre (2014) [National pregnancy in diabetes audit report 2013](#)
- The Health and Social Care Information Centre [Maternity services data set](#)

Related NICE quality standards

Published

- [Intrapartum care](#) (2015) NICE quality standard 105
- [Postnatal care](#) (2013) NICE quality standard 37
- [Antenatal care](#) (2012) NICE quality standard 22
- [Patient experience in adult NHS services](#) (2012) NICE quality standard 15
- [Diabetes in adults](#) (2011) NICE quality standard 6 [[scheduled for update 2016](#)]

In development

- [Diabetes in children and young people](#). Publication expected June 2016
- [Antenatal and postnatal mental health](#). Publication date to be confirmed

Future quality standards

This quality standard has been developed in the context of all quality standards referred to NICE, including the following topics scheduled for future development:

- Contraceptive services

The full list of quality standard topics referred to NICE is available from the [quality standards topic library](#) on the NICE website.

Quality Standards Advisory Committee and NICE project team

Quality Standards Advisory Committee

This quality standard has been developed by Quality Standards Advisory Committee 1. Membership of this committee is as follows:

Dr Ivan Benett

Clinical Director, Central Manchester Clinical Commissioning Group

Dr Gita Bhutani

Associate Director for Psychological Professions, Lancashire Care NHS Foundation Trust

Mrs Jennifer Bostock

Lay member

Dr Helen Bromley

Consultant in Public Health, Cheshire West and Chester Council

Ms Amanda de la Motte

Service Manager/Lead Nurse Hospital Avoidance Team, Central Nottinghamshire Clinical Services

Mr Phillip Dick

Psychiatric Liaison Team Manager, West London Mental Health Trust

Ms Phyllis Dunn

Clinical Lead Nurse, University Hospital of North Staffordshire

Dr Steve Hajioff

Director of Public Health, London Borough of Hillingdon

Dr Ian Manifold

Head of Measures Development, National Peer Review Programme, NHS England

Mr Gavin Maxwell

Lay member

Ms Teresa Middleton

Deputy Director of Quality, NHS Gloucestershire Clinical Commissioning Group

Mrs Juliette Millard

UK Nursing and Health Professions Adviser, Leonard Cheshire Disability

Miss Sally Oliver

Retired NHS Acute Care Manager

Hazel Trender

Senior Vascular Nurse Specialist, Sheffield Teaching Hospital Trust

Dr Hugo van Woerden

Director of Public Health, NHS Highland

Dr Bee Wee (Chair)

Consultant and Senior Clinical Lecturer in Palliative Medicine, Oxford University Hospitals NHS Trust and Oxford University

Ms Karen Whitehead

Strategic Lead Health, Families and Partnerships, Bury Council

Ms Alyson Whitmarsh

Programme Head for Clinical Audit, Health and Social Care Information Centre

Ms Jane Worsley

Chief Operating Officer, Options Group, Alcester Heath, Warwickshire

Dr Arnold Zermansky

GP, Leeds

The following specialist members joined the committee to develop this quality standard:

Dr Michael Maresh

Consultant Obstetrician, Central Manchester University Hospitals NHS Foundation Trust

Dr Eleanor Scott

Senior Lecturer in Medicine, Consultant in Diabetes and Endocrinology, University of Leeds and Leeds Teaching Hospitals NHS Trust

Mrs Susan Stockley

Specialist Nurse, Surrey & Sussex NHS Healthcare Trust

Ms Diane Todd

Specialist Midwife for Diabetes, University Hospitals of Leicester NHS Trust

Mrs Stacia Smales Hill

Lay member

NICE project team

Nick Baillie

Associate Director

Esther Clifford

Programme Manager

Stephanie Birtles

Technical Adviser

Alison Tariq

Senior Technical Analyst

Jenny Mills

Project Manager

Julia Sus

Coordinator

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.

The methods and processes for developing NICE quality standards are described in the [quality standards process guide](#).

This quality standard has been incorporated into the NICE pathways on [diabetes in pregnancy](#) and [type 1 diabetes in adults](#).

NICE produces guidance, standards and information on commissioning and providing high-quality healthcare, social care, and public health services. We have agreements to provide certain NICE services to Wales, Scotland and Northern Ireland. Decisions on how NICE guidance and other products apply in those countries are made by ministers in the Welsh government, Scottish government, and Northern Ireland Executive. NICE guidance or other products may include references to organisations or people responsible for commissioning or providing care that may be relevant only to England.

Copyright

© National Institute for Health and Care Excellence 2016. All rights reserved. NICE copyright material can be downloaded for private research and study, and may be reproduced for educational and not-for-profit purposes. No reproduction by or for commercial organisations, or for commercial purposes, is allowed without the written permission of NICE.

ISBN: 978-1-4731-1623-8

Endorsing organisation

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

Supporting organisations

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

- [Royal College of Nursing](#)
- [Royal College of Pathologists](#)
- [Royal College of General Practitioners](#)
- [Royal College of Obstetricians and Gynaecologists](#)