NICE National Institute for Health and Care Excellence

NICE quality standard

Hypertension in pregnancy

Quality standard

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Contents

This standard is based on CG62 and CG107.

This standard should be read in conjunction with QS22, QS28, QS32, QS3, QS37, QS15, QS46, QS60, QS105 and QS135.

Introduction

This quality standard covers pre-pregnancy advice for women with pre-existing hypertension, as well as the antenatal, intrapartum and postnatal care of women at risk of or with hypertensive disorders of pregnancy. For more information, see the scope for this quality standard.

Why this quality standard is needed

Hypertension in pregnancy can occur for several reasons. Women might have pre-existing hypertension when they become pregnant. This includes women with hypertension at the booking appointment or before 20 weeks of pregnancy. New-onset hypertension (presenting after 20 weeks of pregnancy) is known as gestational hypertension. It can occur in isolation, or in association with proteinuria when it is known as pre-eclampsia. Pre-eclampsia is a multisystem disorder that can affect almost all maternal organ systems and the unborn baby. Women with either pre-existing hypertension or gestational hypertension are at increased risk of developing pre-eclampsia.

Hypertensive disorders in pregnancy carry risks for both the mother and the baby. They can result in substantial maternal morbidity and place women at an increased lifetime risk of cardiovascular disease. Reports on maternal and perinatal deaths show that 5% of stillbirths without congenital abnormality occurred in infants whose mothers had pre-eclampsia. Hypertension in pregnancy is associated with 8–10% of all preterm births and more than half of women with severe pre-eclampsia give birth preterm. Most children born of pregnancies affected by preterm pre-eclampsia will have restricted growth.

Pre-eclampsia becomes eclampsia when the mother develops seizures. In the UK over the last century, the rates of eclampsia appear to have fallen. Maternal deaths due to pre-eclampsia have also fallen, although hypertension in pregnancy remains one of the leading causes of maternal death in the UK. Effective and safe control of severe hypertension in pregnancy is an important aspect of critical care management.

An enquiry into maternal deaths found that the main failings in managing pre-eclampsia were lack of routine observations of blood pressure and failure to treat significantly elevated levels of blood pressure. There were a number of women with severe hypertension in pregnancy for whom junior obstetricians had failed to consult with senior staff, and there were delays in involving anaesthetic or critical care services sufficiently early.

Women with pre-existing hypertension, diabetes, chronic kidney disease or autoimmune disease, and women who had hypertension in a previous pregnancy, are at high risk of hypertension in their current pregnancy.

How this quality standard supports delivery of outcome frameworks

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. They draw on existing guidance, which provides an underpinning, comprehensive set of recommendations, and are designed to support the measurement of improvement. 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 2013/14
- Improving outcomes and supporting transparency: a public health outcomes framework for England 2013–2016, Part 1 and Part 1A.

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

Table 1 NHS Outcomes Framework 2013/14

Domain	Overarching indicators and improvement areas

1 Preventing people from dying prematurely	*Overarching indicator* 1a Potential years of life lost (PYLL) from causes considered amenable to healthcare *Improvement areas* **Reducing premature mortality from the major causes of death** 1.1 Under-75 mortality rate from cardiovascular disease* **Reducing deaths in babies and young children** 1.6i Infant mortality* 1.6ii Neonatal mortality and stillbirths
3 Helping people to recover from episodes of ill health or following injury	*Overarching indicator* 3a Emergency admissions for acute conditions that should not usually require hospital admission
4 Ensuring that people have a positive experience of care	*Overarching indicator* 4a.i Patient experience of GP services 4c Friends and family test (placeholder) *Improvement area* **Improving women and their families' experience of maternity services** 4.5 Women's experience of maternity services

5 Treating and caring for people in a safe environment and protecting them from avoidable harm	*Overarching indicators* 5a Patient safety incidents reported. 5b Safety incidents involving severe harm or death. *Improvement areas* **Reducing the incidence of avoidable harm** 5.4 Incidence of medication errors causing serious harm **Improving the safety of maternity services** 5.5 Admission of full-term babies to neonatal care
Alignment across the health and social care system * Indicator shared with Public Health Outcomes Framework (PHOF)	

Table 2 Public health outcomes framework for England, 2013-2016

Domain	Objectives and indicators
2 Health improvement	*Objective* People are helped to live healthy lifestyles, make healthy choices and reduce health inequalities *Indicator* *2.1 Low birth weight of term babies*
4 Healthcare public health and preventing premature mortality	**Objective** Reduced numbers of people living with preventable ill health and people dying prematurely, while reducing the gap between communities *Indicators* *4.1 Infant mortality** *4.3 Mortality from causes considered preventable*** *4.4 Mortality from all cardiovascular diseases (including heart disease and stroke)*

Alignment across the health and social care system

* Indicator shared with NHS Outcomes Framework

** Indicator complementary with NHS Outcomes Framework

Coordinated services

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

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 hypertension 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 practitioners involved in assessing, caring for and treating women at risk of or with hypertension in pregnancy should have sufficient and appropriate training and competencies to deliver the actions and interventions described in the quality standard.

List of quality statements

Quality statement 2 updates and replaces Quality statement 7: Risk assessment – pre-eclampsia in Antenatal care (NICE quality standard 22).

Statement 1. Women of childbearing potential with treated hypertension are given information annually about safe antihypertensive treatment during pregnancy.

Statement 2. Pregnant women at increased risk of pre-eclampsia at the booking appointment are offered a prescription of 75 mg of aspirin to take daily from 12 weeks until birth.

Statement 3. Women with hypertension in pregnancy have a blood pressure target set below 150/100 mmHg or, if they also have target organ damage, below 140/90 mmHg.

Statement 4. Pregnant women with severe hypertension are admitted for a full assessment, carried out by a healthcare professional trained in managing hypertension in pregnancy.

Statement 5. Women with a diagnosis of pre-eclampsia are admitted to hospital and monitored daily.

Statement 6. Women with pre-eclampsia have an agreed consultant obstetrician-led plan for the timing and mode of birth.

Statement 7. Women who have had hypertension in pregnancy have a plan for ongoing antihypertensive management included in their postnatal care plan, which is communicated to their GP when they are transferred to community care after the birth.

Statement 8. Women who have had gestational hypertension or pre-eclampsia discuss future pregnancy and lifetime cardiovascular risks during a medical review at their 6–8 week postnatal medical check.

Terms used in this quality standard

For the purposes of this quality standard, the following definitions apply:

- **Chronic hypertension** is hypertension that is present at the booking appointment or before 20 weeks of pregnancy. This could include women with pre-existing hypertension (**hypertension that is present before pregnancy**).
- **Gestational hypertension** is new hypertension presenting after 20 weeks of pregnancy without significant proteinuria (urinary protein:creatinine ratio greater than 30 mg/mmol or a validated 24-hour urine collection result greater than 300 mg protein).
- **Hypertension in pregnancy** includes chronic hypertension, gestational hypertension and pre-eclampsia.
- **Pre-eclampsia** is new hypertension presenting after 20 weeks of pregnancy with significant proteinuria (urinary protein:creatinine ratio greater than 30 mg/mmol or a validated 24-hour urine collection result greater than 300 mg protein).
- **Severe hypertension** is when the systolic blood pressure is 160 mmHg or greater, diastolic blood pressure is 110 mmHg or greater.
- **Severe pre-eclampsia** is pre-eclampsia with severe hypertension and/or with symptoms, and/or biochemical and/or haematological impairment.
- **Treated hypertension** is hypertension that is treated with 1 or more antihypertensive drugs.

Quality statement 1: Pre-pregnancy advice for women with treated hypertension

Quality statement

Women of childbearing potential with treated hypertension are given information annually about safe antihypertensive treatment during pregnancy.

Rationale

Information can be provided to women who may become pregnant about safe antihypertensive treatment during pregnancy as part of an annual review of hypertension care. Women should be informed about potential risks, including the risk of congenital abnormalities, linked to particular antihypertensive drugs. This should enable women to arrange a discussion with the healthcare professional responsible for managing their hypertension about alternative antihypertensive treatments if they are planning pregnancy or become pregnant.

Quality measures

Structure

Evidence of local arrangements to ensure that women of childbearing potential with treated hypertension are given information annually about safe antihypertensive treatment during pregnancy.

Data source: Local data collection.

Process

Proportion of women who have had treated hypertension for 12 months or longer who received information about safe antihypertensive treatment during pregnancy in the past 12 months.

Numerator – the number of women in the denominator who received information about safe antihypertensive treatment during pregnancy in the past 12 months.

Denominator – the number of women of childbearing potential who have had treated hypertension for 12 months or longer.

Data source: Local data collection.

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

Service providers ensure that systems are in place to give women of childbearing potential with treated hypertension information annually about safe antihypertensive treatment in pregnancy.

Healthcare practitioners give information annually to women of childbearing potential with treated hypertension about safe antihypertensive treatment in pregnancy.

Commissioners ensure they commission services that give information annually to women of childbearing potential with treated hypertension about safe antihypertensive treatment in pregnancy.

What the quality statement means for patients, service users and carers

Women who are having treatment for hypertension (high blood pressure) and who may become pregnant are given information annually about safe treatment for high blood pressure during pregnancy.

Source guidance

- Hypertension in pregnancy (NICE clinical guideline 107) recommendations 1.2.1.1 (key priority for implementation), 1.2.1.3 and 1.2.1.4.

Definitions of terms used in this quality statement

Safe antihypertensive treatment
NICE clinical guideline 107 recommends that:

- Women taking angiotensin-converting enzyme (ACE) inhibitors or angiotensin II receptor blockers (ARBs) should be provided with information to advise that there is an increased risk of congenital abnormalities if these drugs are taken during pregnancy, and discuss other antihypertensive treatment with the healthcare professional responsible for managing their hypertension, if they are planning pregnancy.
- Women taking chlorothiazide should be provided with information to advise that: there may be an increased risk of congenital abnormality and neonatal complications if these drugs are

taken during pregnancy, and to discuss other antihypertensive treatment with the healthcare professional responsible for managing their hypertension, if they are planning pregnancy.

- Women who take antihypertensive treatments other than ACE inhibitors, ARBs or chlorothiazide should be provided with information to advise that the limited evidence available has not shown an increased risk of congenital malformation with such treatments.

Treated hypertension is hypertension that is treated with 1 or more antihypertensive drug.

Equality and diversity considerations

'Childbearing potential' should be determined for women on an individual basis. Access to information about safe antihypertensive treatment during pregnancy should not be determined solely by age, because childbearing potential is also dependent on factors other than age.

Where information is provided, there must be equal access to information for all women, including those with additional needs, such as physical or learning disabilities, and those who do not speak or read English. Women receiving information should have access to an interpreter or advocate if needed.

Quality statement 2: Antenatal assessment of pre-eclampsia risk

This quality statement updates and replaces Quality statement 7: Risk assessment – pre-eclampsia in Antenatal care (NICE quality standard 22).

Quality statement

Pregnant women at increased risk of pre-eclampsia at the booking appointment are offered a prescription of 75 mg of aspirin to take daily from 12 weeks until birth.

Rationale

Aspirin prophylaxis, unless contraindicated, reduces the occurrence of pre-eclampsia, preterm birth and fetal and neonatal mortality in women at increased risk of developing the condition (if they have 1 high risk factor or more than 1 moderate risk factor for pre-eclampsia).

Quality measures

Structure

a) Evidence of local arrangements to ensure that pregnant women have their risk factors for pre-eclampsia identified and recorded at the booking appointment.

Data source: Local data collection.

b) Evidence of local arrangements to ensure that pregnant women at increased risk of pre-eclampsia at the booking appointment are offered a prescription of 75 mg of aspirin (unless contraindicated) to take daily from 12 weeks until birth.

Data source: Local data collection.

Process

a) Proportion of pregnant women who have their risk factors for pre-eclampsia identified and recorded at the booking appointment.

Numerator – the number of women in the denominator whose risk factors for pre-eclampsia are identified and recorded.

Denominator – the number of pregnant women attending a booking appointment.

Data source: The Maternity Services Secondary Uses Dataset collects data on the following risk factors at booking: hypertension, renal disease, diabetes, autoimmune disease (global number 17200350) and obstetric diagnoses from previous pregnancies including 'severe pre-eclampsia' requiring preterm birth', 'eclampsia' and 'gestational hypertension' (global number 17200720).

b) Proportion of pregnant women at increased risk of pre-eclampsia at the booking appointment who are offered a prescription of 75 mg of aspirin (unless contraindicated) to take daily from 12 weeks until birth.

Numerator – the number of women in the denominator offered a prescription of 75 mg of aspirin to take daily from 12 weeks until birth.

Denominator – the number of pregnant women at increased risk of pre-eclampsia and without contraindications to aspirin at the booking appointment.

Data source: Local data collection.

Outcome

Incidence of pre-eclampsia in women at increased risk of developing pre-eclampsia.

Data source: The Maternity Services Secondary Uses Dataset collects data on obstetric conditions diagnosed in the current pregnancy, including severe pre-eclampsia, severe pre-eclampsia requiring preterm birth and eclampsia (global number 17203940).

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

Service providers ensure that systems are in place to offer pregnant women at increased risk of pre-eclampsia at the booking appointment a prescription of 75 mg of aspirin (unless contraindicated) to take daily from 12 weeks until birth.

Healthcare practitioners offer pregnant women at increased risk of pre-eclampsia at the booking appointment a prescription of 75 mg of aspirin (unless contraindicated) to take daily from 12 weeks until birth.

Commissioners ensure they commission services that offer pregnant women at increased risk of pre-eclampsia at the booking appointment a prescription of 75 mg of aspirin (unless contraindicated) to take daily from 12 weeks until birth.

What the quality statement means for patients, service users and carers

Pregnant women who have a higher risk of developing pre-eclampsia (a pregnancy-related rise in blood pressure with protein in the urine that happens in some pregnancies) are offered a prescription of aspirin (unless this is unsuitable) to take every day from 12 weeks of pregnancy until their baby is born.

Source guidance

- Antenatal care (NICE clinical guideline 62) recommendation 1.9.2.2.
- Hypertension in pregnancy (NICE clinical guideline 107) recommendations 1.1.2.1 (key priority for implementation) and 1.1.2.2.

Definitions of terms used in this quality statement

The booking appointment is the appointment where the woman enters the maternity care pathway. See Antenatal appointments (schedule and content) in NICE clinical guideline 62.

Contraindications to taking aspirin include, but are not limited to: aspirin allergy; medical conditions precluding the use of aspirin; present use of another drug with the potential to interact with aspirin.

Note: aspirin did not have UK marketing authorisation for the indication in question at the time of publication of NICE clinical guideline 107 (August 2010). Informed consent should be obtained and documented.

Increased risk of pre-eclampsia Women are at an increased risk of pre-eclampsia if they have 1 high risk factor or more than 1 moderate risk factor for pre-eclampsia.

High risk factors include:

- hypertensive disease in a previous pregnancy
- chronic kidney disease

- autoimmune disease, such as systemic lupus erythematosus or antiphospholipid syndrome
- type 1 or type 2 diabetes
- chronic hypertension.

Moderate risk factors include:

- first pregnancy
- age 40 years or older
- pregnancy interval of more than 10 years
- body mass index (BMI) of 35 kg/m^2 or more at first visit
- family history of pre-eclampsia
- multiple pregnancy.

Pre-eclampsia New hypertension presenting after 20 weeks of pregnancy with significant proteinuria (urinary protein:creatinine ratio greater than 30 mg/mmol or a validated 24-hour urine collection result greater than 300 mg protein).

Quality statement 3: Antenatal blood pressure targets

Quality statement

Women with hypertension in pregnancy have a blood pressure target set below 150/100 mmHg or, if they also have target organ damage, below 140/90 mmHg.

Rationale

Antihypertensive treatment should aim to lower blood pressure from the moderate or severe range, while avoiding excessive reductions that may affect fetal growth. It is recommended that women with evidence of target organ damage from hypertension will need a lower target blood pressure.

Quality measures

Structure

a) Evidence of local arrangements to ensure that pregnant women who have hypertension without target organ damage have a blood pressure target of below 150/100 mmHg.

Data source: Local data collection.

b) Evidence of local arrangements to ensure that pregnant women who have hypertension and target organ damage have a blood pressure target of below 140/90 mmHg.

Data source: Local data collection.

Outcome

Rate of pregnant women with hypertension who maintain their target blood pressure throughout their pregnancy.

Data source: Local data collection.

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

Service providers ensure that there are local arrangements to set target blood pressures for pregnant women who have hypertension of below 150/100 mmHg, or below 140/90 mmHg if they have target organ damage, and to maintain blood pressures to these targets throughout pregnancy.

Healthcare practitioners set target blood pressures for pregnant women who have hypertension of below 150/100 mmHg, or below 140/90 mmHg if they have target organ damage, and ensure that these blood pressures are maintained throughout pregnancy.

Commissioners ensure they commission services that set target blood pressures for pregnant women who have hypertension of below 150/100 mmHg, or below 140/90 mmHg for women with target organ damage, and ensure that these blood pressures are maintained throughout pregnancy.

What the quality statement means for patients, service users and carers

Pregnant women with hypertension (high blood pressure) receive treatment aimed at keeping their blood pressure below 150/100 mmHg, or below 140/90 mmHg if their high blood pressure has led to problems with their eyes, heart or kidneys.

Source guidance

- Hypertension in pregnancy (NICE clinical guideline 107) recommendations 1.2.3.1 (key priority for implementation), 1.2.3.3, 1.4.1.3 (key priority for implementation) and 1.5.1.2 (key priority for implementation).

Definitions of terms used in this quality statement

Hypertension in pregnancy This definition includes chronic hypertension (present at the booking visit or before 20 weeks of pregnancy; this could include pre-existing hypertension), gestational hypertension (new hypertension presenting after 20 weeks without proteinuria) and pre-eclampsia (new hypertension presenting after 20 weeks with significant proteinuria [urinary protein:creatinine ratio greater than 30 mg/mmol or a validated 24-hour urine collection result greater than 300 mg protein]).

Target organ damage Left ventricular hypertrophy, chronic kidney disease and hypertensive retinopathy are examples of target organ damage. See NICE clinical guideline 127 recommendation 1.2.6.

Quality statement 4: Assessing women with severe hypertension in pregnancy

Quality statement

Pregnant women with severe hypertension are admitted for a full assessment, carried out by a healthcare professional trained in managing hypertension in pregnancy.

Rationale

Effective and safe control of severe hypertension is the most important aspect of critical care management, because the main causes of maternal death and severe maternal morbidity (including stroke) are the consequence of poorly controlled hypertension. Women with severe hypertension in pregnancy should be referred from primary care or emergency departments as soon as possible to receive assessment from healthcare professionals with expertise in managing hypertensive disorders. This is essential to ensure early identification of pre-eclampsia and the provision of critical care where it is needed.

Quality measures

Structure

Evidence of local arrangements for pregnant women with severe hypertension to be admitted for a full assessment, carried out by a healthcare professional trained in managing hypertensive disorders in pregnancy.

Data source: Local data collection.

Process

Proportion of women with severe hypertension who are admitted for a full assessment, carried out by a healthcare professional trained in managing hypertensive disorders in pregnancy.

Numerator – the number of women in the denominator who are admitted for a full assessment, carried out by a healthcare professional trained in managing hypertensive disorders in pregnancy.

Denominator – the number of pregnant women with severe hypertension.

Data source: Local data collection.

Outcome

Number of women with severe hypertension in pregnancy who have a stroke.

Data source: Local data collection.

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

Service providers ensure that there are local arrangements for pregnant women with severe hypertension to be admitted for a full assessment, carried out by a healthcare professional trained in managing hypertensive disorders in pregnancy.

Healthcare practitioners admit pregnant women with severe hypertension for a full assessment, carried out by a healthcare professional trained in managing hypertensive disorders in pregnancy.

Commissioners ensure they commission services that admit pregnant women with severe hypertension for a full assessment, carried out by a a healthcare professional trained in managing hypertensive disorders in pregnancy.

What the quality statement means for patients, service users and carers

Pregnant women with severe hypertension (high blood pressure) are admitted to hospital for a full assessment, carried out by a healthcare professional trained in managing high blood pressure and related conditions in pregnancy.

Source guidance

- Hypertension in pregnancy (NICE clinical guideline 107) recommendations 1.4.1.1 and 1.4.1.3 (key priority for implementation).

Definitions of terms used in this quality statement

Full assessment should include blood pressure measurements, proteinuria testing and blood tests in accordance with those set out for severe gestational hypertension and pre-eclampsia with severe hypertension in tables 1 and 2 of recommendations 1.4.1.3 and 1.5.1.2 respectively.

Hypertension in pregnancy This definition includes chronic hypertension (present at the booking visit or before 20 weeks of pregnancy; this could include pre-existing hypertension), gestational hypertension (new hypertension presenting after 20 weeks without proteinuria) and pre-eclampsia (new hypertension presenting after 20 weeks with significant proteinuria [urinary protein:creatinine ratio greater than 30 mg/mmol or a validated 24-hour urine collection result greater than 300 mg protein]).

Severe hypertension Systolic blood pressure is 160 mmHg or greater, diastolic blood pressure is 110 mmHg or greater.

Quality statement 5: Admission to hospital for women with pre-eclampsia

Quality statement

Women with a diagnosis of pre-eclampsia are admitted to hospital and monitored daily.

Rationale

Women with pre-eclampsia should be admitted to hospital to enable their condition to be fully assessed and its progress monitored. High-quality care should include an integrated package of care for women with pre-eclampsia that includes admission and daily monitoring. Some women may need to stay in hospital until after the birth of their baby. For other women, daily monitoring may be possible if pre-eclampsia is stable and if the woman has easy access to monitoring services, and can be readmitted to hospital if her clinical condition deteriorates.

Quality measures

Structure

a) Evidence of local arrangements to ensure that women with a diagnosis of pre-eclampsia are admitted to hospital.

Data source: Local data collection.

b) Evidence of local arrangements for women with pre-eclampsia to receive an integrated package of care that includes daily monitoring of their condition.

Data source: Local data collection.

Process

a) The proportion of women with a diagnosis of pre-eclampsia who are admitted to hospital.

Numerator – the number of women in the denominator who are admitted to hospital when pre-eclampsia is diagnosed.

Denominator – the number of women with pre-eclampsia.

Data source: Local data collection.

b) The proportion of women with pre-eclampsia who are monitored daily.

Numerator – the number of women in the denominator who are monitored daily.

Denominator – the number of women who have pre-eclampsia.

Data source: Local data collection.

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

Service providers ensure that local arrangements are in place for women with a diagnosis of pre-eclampsia to be admitted to hospital and for their condition to be monitored daily.

Healthcare practitioners admit women with a diagnosis of pre-eclampsia to hospital and monitor their condition daily.

Commissioners ensure they commission services that admit women with a diagnosis of pre-eclampsia to hospital and monitor their condition daily.

What the quality statement means for patients, service users and carers

Women with pre-eclampsia (a pregnancy-related rise in blood pressure with protein in the urine that happens in some pregnancies) are admitted to hospital and have their condition monitored every day (while in hospital and at home if they go home before their baby is born).

Source guidance

- Hypertension in pregnancy (NICE clinical guideline 107) recommendation 1.5.1.2 (key priority for implementation).

Definitions of terms used in this quality statement

Integrated package of careNICE clinical guideline 107 recommends admission to hospital for women with pre-eclampsia as part of an integrated package of care. This covers admission to hospital, treatment, measurement of blood pressure, testing for proteinuria and blood tests.

Pre-eclampsia New hypertension presenting after 20 weeks of pregnancy with significant proteinuria (urinary protein:creatinine ratio greater than 30 mg/mmol or a validated 24-hour urine collection result greater than 300 mg protein).

Quality statement 6: Planning mode and timing of birth for women with pre-eclampsia

Quality statement

Women with pre-eclampsia have an agreed consultant obstetrician-led plan for the timing and mode of birth.

Rationale

Some women who have pre-eclampsia with mild or moderate hypertension will progress to severe pre-eclampsia, which is associated with serious adverse outcomes. Because the progress of the condition differs between women, a consultant-led plan should be developed for each woman with pre-eclampsia including acceptable thresholds for intervention of all monitored thresholds (maternal and fetal) for early birth. This will be agreed with the pregnant woman, updated as needed, and will supersede any original birth plan.

Quality measures

Structure

Evidence of local arrangements to ensure that women with pre-eclampsia have an agreed consultant obstetrician-led plan for the timing and mode of birth.

Data source: Local data collection.

Process

Women with pre-eclampsia have an agreed consultant obstetrician-led plan for the timing and mode of birth documented in their notes.

Numerator – the number of women in the denominator who have an agreed consultant obstetrician-led plan for the timing and mode of birth documented in their notes.

Denominator – the number of women who have given birth who had pre-eclampsia.

Data source: The Maternity Services Secondary Uses Dataset collects data on the date a care plan has been created or changed. This covers antenatal, birth and postnatal care plans (global number

17201890). Data are also collected on the stage to which the plan applies (global number 17201900) and the professional category of the clinician with overall responsibility for care during the pregnancy (global number 17201920).

Outcome

a) Feedback from women who have had pre-eclampsia that they felt sufficiently involved in planning the timing and mode of the birth of their baby.

Data source: Local data collection.

b) Number of maternal deaths of women with pre-eclampsia.

Data source: Local data collection.

c) Number of fetal deaths for women with pre-eclampsia.

Data source: Local data collection.

d) Number of admissions of women with pre-eclampsia to intensive care units (ICU).

Data source: Local data collection.

e) Number of admissions of babies born to women with pre-eclampsia to neonatal intensive care units (NICU).

Data source: Local data collection.

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

Service providers ensure that there are local arrangements in place for women with pre-eclampsia to have an agreed consultant obstetrician-led plan for the timing and mode of birth.

Healthcare practitioners ensure that women with pre-eclampsia have an agreed consultant obstetrician-led plan for the timing and mode of birth.

Commissioners ensure they commission services that develop an agreed consultant obstetrician-led plan for the timing and mode of birth for women with pre-eclampsia.

What the quality statement means for patients, service users and carers

Women with pre-eclampsia (a pregnancy-related rise in blood pressure with protein in the urine that happens in some pregnancies) and their consultant obstetrician agree a plan for when and how they will give birth and that the plan is followed.

Source guidance

- Hypertension in pregnancy (NICE clinical guideline 107) recommendations 1.5.2.1, 1.5.2.2 (key priority for implementation), and 1.5.2.3–1.5.2.7.

Definitions of terms used in this quality statement

The **consultant obstetrician-led plan** should be agreed with both the pregnant woman and the multidisciplinary team providing the woman's care, including other specialists, in particular anaesthetists. This should be done as soon after admission as possible. The birth should be according to the most up-to-date version of the plan.

Pre-eclampsia New hypertension presenting after 20 weeks of pregnancy with significant proteinuria (urinary protein:creatinine ratio greater than 30 mg/mmol or a validated 24-hour urine collection result greater than 300 mg protein).

Timing and mode of birth For indications for timing and mode of birth, see NICE clinical guideline 107 recommendations 1.5.2.1–1.5.2.7.

Quality statement 7: Transfer of information about ongoing management

Quality statement

Women who have had hypertension in pregnancy have a plan for ongoing antihypertensive management included in their postnatal care plan, which is communicated to their GP when they are transferred to community care after the birth.

Rationale

There are particular risks to women who have had hypertension in pregnancy (such as the risk of stroke) in the immediate postnatal period. The development of an individualised care plan for women who have had hypertension in pregnancy before they are transferred to community care should support ongoing antihypertensive management and enable risks to be monitored and addressed, including variations in blood pressure.

Quality measures

Structure

Evidence of local arrangements to communicate a plan for ongoing antihypertensive management for women who had hypertension in pregnancy to their GP when they are transferred to community care after the birth.

Data source: Local data collection.

Process

The proportion of women with hypertension in pregnancy for whom a plan for ongoing antihypertensive management is communicated to their GP when they are transferred to community care after the birth.

Numerator – the number of women in the denominator for whom a plan for ongoing antihypertensive management is communicated to their GP when they are transferred to community care after the birth.

Denominator – the number of women who have given birth who had hypertension in pregnancy.

Data source: Local data collection.

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

Service providers ensure that local arrangements are in place to communicate a plan for ongoing antihypertensive management to GPs of women who had hypertension in pregnancy when they are transferred to community care after the birth.

Healthcare practitioners communicate a plan for ongoing antihypertensive management to GPs of women who had hypertension in pregnancy when they are transferred to community care after the birth.

Commissioners ensure they commission services that communicate a plan for ongoing antihypertensive management to GPs of women who had hypertension in pregnancy when they are transferred to community care after the birth.

What the quality statement means for patients, service users and carers

Women who had hypertension (high blood pressure) in pregnancy have a plan for continuing management of their blood pressure, which is communicated to their GP when they go home after their baby is born.

Source guidance

- Hypertension in pregnancy (NICE clinical guideline 107) recommendations 1.2.6.5, 1.4.3.5, 1.5.3.8 and 1.10.1.1.

Definitions of terms used in this quality statement

A **plan for ongoing antihypertensive management** should include information about postpartum management, including a plan for ongoing management. NICE clinical guideline 107 recommends that a care plan should be written for women with gestational hypertension or pre-eclampsia who have given birth and are being transferred to community care that includes all of the following:

- who will provide follow-up care, including medical review if needed
- frequency of blood pressure monitoring needed
- thresholds for reducing or stopping treatment

- indications for referral to primary care for blood pressure review.

The plan for women with pre-eclampsia should also include self-monitoring for symptoms.

Community care Transfer to the care of a community midwife or health visitor.

Hypertension in pregnancy This definition includes chronic hypertension (present at the booking visit or before 20 weeks of pregnancy; this could include pre-existing hypertension), gestational hypertension (new hypertension presenting after 20 weeks without proteinuria) and pre-eclampsia (new hypertension presenting after 20 weeks with significant proteinuria [urinary protein:creatinine ratio greater than 30 mg/mmol or a validated 24-hour urine collection result greater than 300 mg protein]).

Quality statement 8: Communicating information about future risks

Quality statement

Women who have had gestational hypertension or pre-eclampsia discuss future pregnancy and lifetime cardiovascular risks during a medical review at their 6–8 week postnatal medical check.

Rationale

The long-term risks for women who have had hypertension in pregnancy include developing high blood pressure and an increased lifetime cardiovascular risk. Increased awareness and surveillance may lead to earlier intervention, such as antihypertensive treatment, with likely benefits for the woman. Women should be made aware of risks in future pregnancies resulting from hypertension in a previous pregnancy.

Quality measures

Structure

Evidence of local arrangements for women who have had gestational hypertension or pre-eclampsia to have a discussion about future related risks during the medical review at their 6–8 week postnatal medical check.

Data source: Local data collection.

Process

The proportion of women who have had gestational hypertension or pre-eclampsia who have a discussion about future related risks during the medical review at their 6–8 week postnatal medical check.

Numerator – the number of women in the denominator who have a discussion about future related risks.

Denominator – the number of women who have had gestational hypertension or pre-eclampsia who have a medical review at their 6–8 week postnatal check.

Data source: Local data collection.

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

Service providers ensure that local arrangements are in place for women who have had gestational hypertension or pre-eclampsia to have a discussion about future related risks during the medical review at their 6–8 week postnatal medical check.

Healthcare practitioners discuss future related risks with women who have had gestational hypertension or pre-eclampsia during the medical review at their 6–8 week postnatal medical check.

Commissioners ensure that they commission services that discuss future related risks with women who have had gestational hypertension or pre-eclampsia during the medical review at their 6–8 week postnatal medical check.

What the quality statement means for patients, service users and carers

Women who have had gestational hypertension (new high blood pressure starting after 20 weeks of pregnancy) or pre-eclampsia (a pregnancy-related rise in blood pressure with protein in the urine that happens in some pregnancies) have an appointment with their doctor or midwife 6 to 8 weeks after they have had their baby, at which they discuss their risk of having problems with their blood pressure or pregnancies in the future.

Source guidance

- Hypertension in pregnancy (NICE clinical guideline 107) recommendations 1.4.3.7, 1.5.3.10 (key priority for implementation), 1.10.1.1, 1.10.4.1 and 1.10.4.2 (key priority for implementation).

Definitions of terms used in this quality statement

Future pregnancy and lifetime cardiovascular risk
NICE clinical guideline 107 recommends that women who have had gestational hypertension or pre-eclampsia should be told that these conditions are associated with an increased risk of developing high blood pressure and its complications in later life.

NICE clinical guideline 107 recommends that women who have had gestational hypertension should be told that their risk of developing:

- gestational hypertension in a future pregnancy ranges from about 1 in 6 (16%) pregnancies to about 1 in 2 (47%) pregnancies
- pre-eclampsia in a future pregnancy ranges from 1 in 50 (2%) to about 1 in 14 (7%) pregnancies.

Women who have had pre-eclampsia should be told that their risk of developing:

- gestational hypertension in a future pregnancy ranges from about 1 in 8 (13%) pregnancies to about 1 in 2 (53%) pregnancies
- pre-eclampsia in a future pregnancy is up to about 1 in 6 (16%) pregnancies
- pre-eclampsia in a future pregnancy is about 1 in 4 (25%) pregnancies if their pre-eclampsia was complicated by severe pre-eclampsia, HELLP syndrome or eclampsia and led to birth before 34 weeks, and about 1 in 2 (55%) pregnancies if it led to birth before 28 weeks.

Gestational hypertension New hypertension presenting after 20 weeks of pregnancy without significant proteinuria.

Medical review
NICE clinical guideline 107 recommends that women who have had gestational hypertension or pre-eclampsia should be offered a medical review at their postnatal check, which takes place 6–8 weeks after birth. (Topic expert group consensus was that this would be carried out by a GP or an appropriately trained midwife.)

Pre-eclampsia New hypertension presenting after 20 weeks of pregnancy with significant proteinuria (urinary protein:creatinine ratio greater than 30 mg/mmol or a validated 24-hour urine collection result greater than 300 mg protein).

Equality and diversity considerations

Where information is provided, there must be equal access to information for all women, including those with additional needs, such as physical or learning disabilities, and those who do not speak or read English. Women receiving information should have access to an interpreter or advocate if needed.

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 by commissioners, providers, health and social care practitioners, patients, service users and carers alongside the documents listed in Development sources.

Information for commissioners

NICE has produced support for commissioning that considers the commissioning implications and potential resource impact of this quality standard. This is available on the NICE website.

Information for the public

NICE has produced information for the public about this quality standard. Patients, service users and carers can use it to find out about the quality of care they should expect to receive; as a basis for asking questions about their care, and to help make choices between providers of social care services.

Diversity, equality and language

During the development of this quality standard, equality issues have been considered and equality assessments are available.

Good communication between healthcare practitioners and women with or at risk of hypertension in pregnancy 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. Women with or at risk of hypertension in pregnancy 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 on the NICE website.

Evidence sources

The documents below contain recommendations from NICE guidance or other NICE-accredited recommendations that were used by the Topic Expert Group to develop the quality standard statements and measures.

- Hypertension in pregnancy: the management of hypertensive disorders during pregnancy. NICE clinical guideline 107 (2010).
- Antenatal care: routine care for the healthy pregnant woman. NICE clinical guideline 62 (2008).

Policy context

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

- Department of Health (2012) Maternity services pathway payment system: a simple guide 2012–13.
- Department of Health (2010) Maternity and early years: making a good start to family life.
- Department of Health (2009) Delivering high quality midwifery care: the priorities, opportunities and challenges for midwives.
- Department of Health (2009) Healthy child programme: pregnancy and the first 5 years of life.
- Department of Health (2007) Maternity matters: choice, access and continuity of care in a safe service.

Definitions and data sources for the quality measures

- Postnatal care: routine postnatal care of women and their babies. NICE clinical guideline 37 (2006).
- Maternity Services Secondary Uses Dataset.

Related NICE quality standards

Published

- Postnatal care. NICE quality standard 37 (2013).
- Hypertension. NICE quality standard 28 (2013).
- Antenatal care. NICE quality standard 22 (2012).
- Patient experience in adult NHS services. NICE quality standard 15 (2012).
- VTE prevention. NICE quality standard 3 (2010).

In development

- Multiple pregnancy. NICE quality standard. Publication expected September 2013.

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:

- Diabetes in pregnancy.
- Intrapartum care.
- Premature labour.

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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 for hypertension in pregnancy and antenatal care.

Changes after publication

April 2015: Minor maintenance.

August 2013: Link added to NICE pathway for hypertension in pregnancy.

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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.

- Action on Pre-eclampsia
- British Cardiovascular Society
- British Hypertension Society
- Royal College of General Practitioners
- Royal College of Midwives
- Royal College of Nursing
- Royal College of Radiologists