# NATIONAL INSTITUTE FOR HEALTH AND CLINICAL EXCELLENCE

# Draft quality standard for hypertension

## 1 Introduction

Hypertension (high blood pressure) is one of the most important preventable causes of premature morbidity and mortality in the UK and worldwide. It is a major risk factor for stroke (ischaemic and haemorrhagic), myocardial infarction, heart failure, chronic kidney disease, cognitive decline and premature death. Raised blood pressure is one of the three main modifiable risk factors for cardiovascular disease, which account for 80% of all cases of premature coronary heart disease (CHD). Untreated hypertension is associated with a progressive rise in blood pressure. The vascular and renal damage that this may cause can culminate in a treatment-resistant state.

This quality standard covers the management of primary hypertension in adults, including diagnosis, monitoring of treatment efficacy and adherence, and specialist referral. For more information see the scope for this quality standard.

This draft quality standard describes markers of high-quality, cost-effective care that, when delivered collectively, should contribute to improving the effectiveness, safety and experience of care for people with hypertension in the following ways:

- Preventing people from dying prematurely.
- Enhancing quality of life for people with long-term conditions.
- Ensuring that people have a positive experience of care.
- Treating and caring for people in a safe environment and protecting them from avoidable harm.

The quality standard is also expected to contribute to the following overarching outcome(s) from the Public Health Outcomes Framework 2013–2016:

- Improving the wider determinants of health.
- Health improvement.
- Health protection.
- Healthcare public health and preventing premature mortality.

# 2 Draft quality standard for hypertension

## *Overview*

The draft quality standard for hypertension requires that services should be commissioned from and coordinated across all relevant agencies encompassing the whole hypertension care pathway. An integrated approach to provision of services is fundamental to the delivery of high-quality care to adults with hypertension.

| No. | Draft quality statements |
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| 1 | People with suspected hypertension are offered ambulatory blood pressure monitoring (ABPM) to confirm a diagnosis of hypertension. |
| 2 | People with suspected hypertension are offered investigations for target organ damage while awaiting a confirmation of diagnosis. |
| 3 | People with newly diagnosed hypertension and a 10-year cardiovascular disease risk of 20% or higher are offered statin therapy. |
| 4 | People with treated hypertension are targeted to a clinic blood pressure below 140/90 mmHg if aged under 80 years, or below 150/90 mmHg if aged 80 years and over. |
| 5 | People with hypertension are offered a review of care at least annually, which includes a review of risk factors for cardiovascular disease. |
| 6 | People with resistant hypertension who have received 4 antihypertensive drugs and whose blood pressure remains uncontrolled are referred for specialist assessment. |

In addition, quality standards that should also be considered when commissioning and providing a high-quality hypertension service are listed in section 7.

## General questions for consultation:

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| Question 1 | Can you suggest any appropriate healthcare outcomes for each individual quality statement? |
| Question 2 | What important areas of care, if any, are not covered by the quality standard? |
| Question 3 | What, in your opinion, are the most important quality statements and why? |
| Question 4 | Are any of the proposed quality measures inappropriate and, if so, can you identify suitable alternatives? |
| Please refer to Quality standards in development for additional general points for consideration. | |
| **Statement-specific questions for consultation:** | |
| Question 5 | For draft quality statement 2: The intent of this statement is that people with suspected hypertension would receive investigations for target organ damage before a diagnosis of hypertension is confirmed through ABPM. Do stakeholders think that there is potential for this to lead to a delay in confirmation of diagnosis through ABPM? |
| Question 6 | For draft quality statement 3: The statement currently intends to measure statin prescribing for people with newly diagnosed hypertension who have a 20% or greater 10-year cardiovascular disease risk. Stakeholders are asked to consider whether this statement should include prescribing of a statin:<br>a) at the point of diagnosis **or**<br>b) within a certain timescale following diagnosis (please suggest a timescale, e.g. within 3 months of diagnosis) **or**<br>c) at any point in the care process. |
| Question 7 | Draft quality statement 5: Do stakeholders think an annual review of care including a review of cardiovascular disease risk factors is already part of current practice and is sufficiently addressed elsewhere (for example through the QOF)? |

# Draft quality statement 1: Diagnosis – ambulatory blood pressure monitoring

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| Draft quality statement | People with suspected hypertension are offered ambulatory blood pressure monitoring (ABPM) to confirm a diagnosis of hypertension. |
| Draft quality measure | **Structure:** Evidence of local arrangements to ensure people with suspected hypertension receive ABPM to confirm a diagnosis of hypertension.<br>**Process:** Proportion of people with suspected hypertension who receive ABPM to confirm a diagnosis of hypertension.<br>Numerator – the number of people in the denominator who received ABPM to confirm a diagnosis of hypertension.<br>Denominator – the number of people with suspected hypertension. |
| Description of what the quality statement means for each audience | **Service providers** ensure systems are in place for use of ABPM to confirm diagnosis of hypertension.<br>**Healthcare professionals** ensure they offer ABPM to confirm diagnosis of hypertension.<br>**Commissioners** ensure they commission services that offer ABPM to confirm diagnosis of hypertension.<br>**People with suspected hypertension (high blood pressure)** are offered ambulatory blood pressure monitoring (which involves wearing a blood pressure monitor during their normal waking hours) to confirm whether or not they have hypertension. |
| Source clinical guideline references | NICE clinical guideline 127 recommendation 1.2.3 (key priority for implementation). |
| Data source | **Structure:** Local data collection.<br>**Process:** Local data collection. Contained within NICE clinical guideline 127 clinical audit tool: diagnosing hypertension, criterion 1. |
| Definitions | **Ambulatory blood pressure (ABPM)**<br>CG127 Hypertension: full guideline: 'Ambulatory blood pressure monitoring (ABPM) involves a cuff and bladder connected to electronic sensors which detect changes in cuff pressure and allow blood pressure to be measured oscillometrically. Systolic and diastolic pressure readings are deduced from the shape of oscillometric pressure changes using an algorithm built into the measuring device. A patient's blood pressure can be automatically measured at repeated intervals throughout the day and night, while they continue routine activities. Systolic and |

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| | diastolic pressure can be plotted over time, with most devices providing average day, night and 24-hour pressures'.<br><br>**Suspected hypertension**<br><br>NICE clinical guideline 127 recommendation 1.2.3: Suspected hypertension refers to a clinic blood pressure of 140/90 mmHg or higher without a confirmed diagnosis of hypertension. |
| Equality and diversity considerations | ABPM may not be suitable for everyone, for example people with particular learning or physical disabilities. Some people may be unable to tolerate ABPM and some people may decline it, for example people who do not wish to wear a cuff overnight.<br><br>Home blood pressure monitoring should be offered as an alternative to ABPM in such cases, in line with NICE clinical guideline 127 recommendation 1.2.4: 'If a person is unable to tolerate ABPM, home blood pressure monitoring (HBPM) is a suitable alternative to confirm the diagnosis of hypertension'. |

# Draft quality statement 2: Investigations for target organ damage

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| Draft quality statement | People with suspected hypertension are offered investigations for target organ damage while awaiting a confirmation of diagnosis. |
| Draft quality measure | **Structure:** Evidence of local arrangements for people with suspected hypertension to receive investigations for target organ damage while awaiting a confirmation of diagnosis.<br><br>**Process:** Proportion of people with suspected hypertension who receive investigations for target organ damage while awaiting a confirmation of diagnosis.<br><br>Numerator – the number of people in the denominator who receive investigations for target organ damage while awaiting a confirmation of diagnosis.<br><br>Denominator – the number of people with suspected hypertension. |
| Description of what the quality statement means for each audience | **Service providers** ensure systems are in place for people with suspected hypertension to receive investigations for target organ damage while awaiting a confirmation of diagnosis.<br><br>**Healthcare professionals** ensure they offer investigations for target organ damage to people with suspected hypertension while awaiting a confirmation of diagnosis.<br><br>**Commissioners** ensure they commission services that offer investigations for target organ damage to people with suspected hypertension while awaiting a confirmation of diagnosis.<br><br>**People with suspected hypertension (high blood pressure)** are offered tests before they are diagnosed to check for any damage to organs such as their eyes, heart or kidneys. |
| Source clinical guideline references | NICE clinical guideline 127 recommendation 1.2.6. |
| Data source | **Process:** Local data collection. Contained within NICE clinical guideline 127 clinical audit tool: diagnosing hypertension, criterion 3. |
| Definitions | **Investigations for target organ damage**<br><br>NICE clinical guideline 127 recommendation 1.3.3 states that for all people with hypertension, healthcare professionals should offer to:<br><br>• test for the presence of protein in the urine by sending a urine sample for estimation of the albumin:creatinine ratio and test for haematuria using a reagent strip |

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| | • take a blood sample to measure plasma glucose, electrolytes, creatinine, estimated glomerular filtration rate, serum total cholesterol and HDL cholesterol<br>• examine the fundi for the presence of hypertensive retinopathy<br>• arrange for a 12-lead electrocardiograph to be performed.<br>**Suspected hypertension**<br>NICE clinical guideline 127 recommendation 1.2.3: Suspected hypertension refers to a clinic blood pressure of 140/90 mmHg or higher without a confirmed diagnosis of hypertension.<br>**Target organ damage**<br>NICE clinical guideline 127 recommendation 1.2.6 lists left ventricular hypertrophy, chronic kidney disease and hypertensive retinopathy as examples of target organ damage. |
| Specific questions for consultation | For draft quality statement 2: The intent of this statement is that people with suspected hypertension would receive investigations for target organ damage before a diagnosis of hypertension is confirmed through ABPM. Do stakeholders think that there is potential for this to lead to a delay in confirmation of diagnosis through ABPM? |

# Draft quality statement 3: Statin therapy

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| Draft quality statement | People with newly diagnosed hypertension and a 10-year cardiovascular disease risk of 20% or higher are offered statin therapy. |
| Draft quality measure | **Structure:** Evidence of local arrangements to prescribe statin therapy for people with newly diagnosed hypertension and a 10-year cardiovascular disease risk of 20% or higher.<br><br>**Process:** Proportion of people with newly diagnosed hypertension and a 10-year cardiovascular disease risk of 20% or higher that receive statin therapy.<br><br>Numerator – the number of people in the denominator who receive statin therapy.<br><br>Denominator – the number of people with newly diagnosed hypertension and a 10-year cardiovascular disease risk of 20% or higher. |
| Description of what the quality statement means for each audience | **Service providers** ensure systems are in place to offer statin therapy to people with newly diagnosed hypertension and a 10-year cardiovascular disease risk of 20% or higher.<br><br>**Healthcare professionals** ensure they offer statin therapy to people with newly diagnosed hypertension and a 10-year cardiovascular disease risk of 20% or higher.<br><br>**Commissioners** ensure they commission services that offer statin therapy to people with newly diagnosed hypertension and a 10-year cardiovascular disease risk of 20% or higher.<br><br>**People with newly diagnosed hypertension (high blood pressure) and a 20% (1-in-5) or higher chance of developing cardiovascular disease in the next 10 years** are offered a type of drug called a statin. |
| Source clinical guideline references | NICE clinical guideline 127 recommendation 1.5.1 (key priority for implementation).<br><br>NICE clinical guideline 67 recommendation 1.4.3 (key priority for implementation). |
| Data source | **Process:** Local data collection. Contained within NICE clinical guideline 127 clinical audit tool: drug treatment, criterion 1.<br><br>Local data collection. Contained within NICE clinical guideline 67 audit tool, criterion 3. |
| Equality and diversity considerations | Younger people are unlikely to have a 10-year cardiovascular disease risk of 20% or higher because risk assessment is strongly influenced by age. Statement 5 considers an annual (informal) review of cardiovascular disease risk factors. |
| Specific questions for | For draft quality statement 3: The statement currently intends to measure statin prescribing for people with newly diagnosed |

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| consultation | hypertension who have a 20% or greater 10-year cardiovascular disease risk. Stakeholders are asked to consider whether this statement should include prescribing of a statin:<br>a) at the point of diagnosis **or**<br>b) within a certain timescale following diagnosis (please suggest a timescale, e.g. within 3 months of diagnosis) **or**<br>c) at any point in the care process. |

# Draft quality statement 4: Monitoring treatment and efficacy – Blood pressure targets

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| Draft quality statement | People with treated hypertension are targeted to a clinic blood pressure below 140/90 mmHg if aged under 80 years, or below 150/90 mmHg if aged 80 years and over. |
| Draft quality measure | **Structure:**<br>a) Evidence of local arrangements to ensure people aged under 80 years with treated hypertension are targeted to a clinic blood pressure below 140/90 mmHg.<br>b) Evidence of local arrangements to ensure people aged 80 years and over with treated hypertension are targeted to a clinic blood pressure below 150/90 mmHg.<br>**Outcome:** Achievement of blood pressure target. |
| Description of what the quality statement means for each audience | **Service providers** ensure systems are in place for people aged under 80 years with treated hypertension to be targeted to a clinic blood pressure below 140/90 mmHg, and for people aged 80 years and over with treated hypertension to be targeted to a clinic blood pressure below 150/90 mmHg.<br>**Healthcare professionals** ensure that people aged under 80 years with treated hypertension are targeted to a clinic blood pressure below 140/90 mmHg, and people aged 80 years and over with treated hypertension are targeted to a clinic blood pressure below 150/90 mmHg.<br>**Commissioners** ensure they commission services that have arrangements for people aged under 80 years with treated hypertension to be targeted to a clinic blood pressure below 140/90 mmHg, and for people aged 80 years and over with treated hypertension to be targeted to a clinic blood pressure below 150/90 mmHg.<br>**People who are receiving treatment for hypertension (high blood pressure)** have a target clinic blood pressure (blood pressure measured in their GP practice or clinic) below 140/90 mmHg if they are aged under 80 years, or a clinic blood pressure below 150/90 mmHg if they are aged 80 years or over. |
| Source clinical guideline references | NICE clinical guideline 127 recommendation 1.5.5.<br>NICE clinical guideline 127 recommendation 1.5.6. |
| Data source | **Structure:** Local data collection.<br>**Outcome:** Quality and Outcomes Framework (QOF) indicator BP05 – The percentage of patients with hypertension in whom the last blood pressure (measured in the previous 9 months) is 150/90 or less. |

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| Equality and diversity considerations | Targets are based on evidence of safe practice. A person aged 80 years or over with treated hypertension would not have a target clinic blood pressure of 150/90 mmHg if their blood pressure was already treated to below this threshold. |

# Draft quality statement 5: Monitoring treatment and efficacy – annual review

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| Draft quality statement | People with hypertension are offered a review of care at least annually, which includes a review of risk factors for cardiovascular disease. |
| Draft quality measure | **Structure:** Evidence of local arrangements for people with hypertension to receive a review of care at least annually, which includes a review of risk factors for cardiovascular disease.<br><br>**Process:** Proportion of people with hypertension who receive a review of care at least annually, which includes a review of risk factors for cardiovascular disease.<br><br>Numerator – the number of people in the denominator whose most recent review of care took place within the last 12 months and was no later than 12 months after the previous review.<br><br>Denominator – the number of people receiving treatment who have had hypertension for over 1 year. |
| Description of what the quality statement means for each audience | **Service providers** ensure systems are in place to offer people with hypertension a review of care at least annually, which includes a review of cardiovascular disease risk factors.<br><br>**Healthcare professionals** ensure they offer people with hypertension a review of care at least annually, which includes a review of cardiovascular disease risk factors.<br><br>**Commissioners** ensure they commission services that offer people with hypertension a review of care at least annually, which includes a review of cardiovascular disease risk factors.<br><br>**People with hypertension (high blood pressure)** are offered a review of their care at least once a year, which includes a review of their risk of developing cardiovascular disease. |
| Source clinical guideline references | NICE clinical guideline 127 recommendation 1.7.3. |
| Data source | **Process:** Quality and Outcomes Framework (QOF) indicator PP 2 – The percentage of people diagnosed with hypertension after 1 April 2009 who are given lifestyle advice in the last 15 months for: increasing physical activity, smoking cessation, safe alcohol consumption and healthy diet.<br><br>QOF indicator SMOKING 6 – The percentage of patients with any or any combination of the following conditions: CHD [chronic heart disease], PAD [peripheral arterial disease], stroke or TIA [transient ischaemic attack], hypertension, diabetes, COPD [chronic obstructive pulmonary disease], CKD [chronic kidney disease], asthma, schizophrenia, bipolar affective disorder or other psychoses, who smoke whose notes contain a record of an |

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| | offer of support and treatment within the previous 15 months.<br><br>QOF indicator BP 4 – The percentage of patients with hypertension in whom there is a record of the blood pressure in the previous 9 months. |
| Definitions | **Annual review of care**<br><br>NICE clinical guideline 127 recommendation 1.7.3 recommends that an annual review of care should be provided to: monitor blood pressure, provide people with support and discuss their lifestyle, symptoms and medication.<br><br>**Assessment of risk factors for cardiovascular disease**<br><br>Assessment of risk factors for cardiovascular disease should include:<br>• smoking status<br>• alcohol consumption<br>• blood pressure<br>• body mass index or other measure of obesity<br>• total cholesterol, LDL cholesterol, HDL cholesterol and triglycerides<br>• blood glucose<br>• renal function<br>• liver function (transaminases) if receiving statins. |
| Specific questions for consultation | Draft quality statement 5: Do stakeholders think an annual review of care including a review of cardiovascular disease risk factors is already part of current practice and is sufficiently addressed elsewhere (for example through the QOF)? |

# Draft quality statement 6: Referral to a specialist for people with resistant hypertension

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| Draft quality statement | People with resistant hypertension who have received 4 antihypertensive drugs and whose blood pressure remains uncontrolled are referred for specialist assessment. |
| Draft quality measure | **Structure:** Evidence of arrangements for people with resistant hypertension who have received 4 antihypertensive drugs and whose blood pressure remains uncontrolled to be referred for specialist assessment.<br><br>**Process:** Proportion of people with resistant hypertension who have received 4 antihypertensive drugs and whose blood pressure remains uncontrolled who are referred for specialist assessment.<br><br>Numerator – the number of people in the denominator who are referred for specialist assessment.<br><br>Denominator – the number of people with resistant hypertension who have received 4 antihypertensive drugs and whose blood pressure remains uncontrolled. |
| Description of what the quality statement means for each audience | **Service providers** ensure local arrangements are in place for people with resistant hypertension who have received 4 antihypertensive drugs and whose blood pressure remains uncontrolled to be referred for specialist assessment.<br><br>**Health care professionals** ensure they refer people with resistant hypertension who have received 4 antihypertensive drugs and whose blood pressure remains uncontrolled for specialist assessment.<br><br>**Commissioners** ensure they commission services that refer people with resistant hypertension who have received 4 antihypertensive drugs and whose blood pressure remains uncontrolled for specialist assessment.<br><br>**People with resistant hypertension (high blood pressure that is difficult to control) who have received 4 antihypertensive drugs (drugs to treat high blood pressure) and whose blood pressure is still high** are referred for a specialist assessment. |
| Source clinical guideline references | NICE clinical guideline 127 recommendation 1.6.18.<br><br>NICE clinical guideline 127 recommendation 1.6.22. |
| Data source | **Structure:** Local data collection.<br><br>**Process:** Local data collection. |
| Definitions | **Resistant hypertension**<br><br>NICE clinical guideline 127 defined the term 'resistant hypertension' as clinic blood pressure that remains higher than |

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| | 140/90 mmHg despite optimal or best tolerated doses of third-line treatment. For this quality statement, this definition will apply for people aged under 80 years. People aged 80 and over will be considered to have resistant hypertension if their clinic blood pressure remains higher than 150/90 mmHg despite optimal or best tolerated doses of third-line treatment. |

# 3 Status of this quality standard

This is the draft quality standard released for consultation from 5 October 2012 until 2 November 2012. This document is not NICE's final quality standard on hypertension. The statements and measures presented in this document are provisional and may change after consultation with stakeholders.

Comments on the content of the draft standard must be submitted by 5pm on 2 November 2012. All eligible comments received during consultation will be reviewed by the Topic Expert Group and the quality statements and measures will be refined in line with the Topic Expert Group considerations. The final quality standard will then be available on the NICE website from March 2013.

# 4 Using the quality standard

It is important that the quality standard is considered alongside current policy and guidance documents listed in the evidence sources section.

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

Expected levels of achievement for quality measures are not specified. As quality standards are intended to drive up the quality of care, achievement levels of 100% should be aspired to (or 0% if the quality statement states that something should not be done). However, we recognise that this may not always be appropriate in practice when taking account of patient safety, patient choice and clinical judgement, and therefore desired levels of achievement should be defined locally.

We have indicated where national indicators currently exist and measure the quality statement. National indicators include those developed by the Health and Social Care Information Centre through their Indicators for Quality Improvement Programme. For statements for which national quality indicators

do not exist, the quality measures should form the basis for audit criteria developed and used locally to improve the quality of health care.

For further information, including guidance on using quality measures, please see What makes up a NICE quality standard.

# 5 Diversity, equality and language

During the development of this quality standard, equality issues have been considered and equality assessments will be published on the NICE website with the final version of the quality standard.

Good communication between healthcare professionals and people with hypertension is essential. Treatment and care, 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. People with hypertension should have access to an interpreter or advocate if needed.

# 6 How this quality standard was developed

The evidence sources used to develop this quality standard are listed in appendix 1, along with relevant policy context, definitions and data sources. Further explanation of the methodology used can be found in the 'Quality Standards Programme interim process guide'.

# 7 Related NICE quality standards

**Published quality standards**

Patient experience in adult NHS services. NICE quality standard (2012)

Diabetes in adults. NICE quality standard (2011)

Chronic kidney disease. NICE quality standard (2011).

### Quality standards in development

Hypertension in pregnancy. NICE quality standard. Publication expected July 2013.

### Quality standards referred to the NICE library for future development

Medicines adherence.

# Appendix 1: Development sources

## *Evidence sources*

The documents below contain clinical guideline recommendations or other recommendations that were used by the Topic Expert Group to develop the quality standard statements and measures.

Hypertension: clinical management of primary hypertension in adults. NICE clinical guideline 127 (2011).

Lipid modification: cardiovascular risk assessment and the modification of blood lipids for the primary and secondary prevention of cardiovascular disease. NICE clinical guideline 67 (2008).

## *Policy context and background documents*

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

Percutaneous transluminal radiofrequency sympathetic denervation of the renal artery for resistant hypertension. NICE interventional procedure guidance 418 (2012).

Clinical Knowledge Summaries (2009) Hypertension in people who do not have diabetes mellitus - management.

Royal College of Physicians (2007) Pharmacological management of hypertension.

UK National Screening Committee (2006) The UK NSC policy on hypertension screening in adults.

QResearch (2005) Report to the National Audit Office - quality of care for stroke and TIA in general practice using the new GMS contract indicators.

National Kidney Foundation (2004) Clinical practice guidelines on hypertension and antihypertensive agents in chronic kidney disease.

National Heart, Lung and Blood Institute (2003) The seventh report of the Joint National Committee on prevention, detection, evaluation, and treatment of high blood pressure.

### *Definitions, and data sources for the quality measures*

References included in the definitions and data sources sections:

National Clinical Guideline Centre (2011) Hypertension: the clinical management of primary hypertension in adults.

NHS Information Centre (2012) Indicators for quality improvement.

NHS Information Centre (2011) QOF England level data tables 2010/11 – clinical domain.