

NATIONAL INSTITUTE FOR HEALTH AND CARE EXCELLENCE

QUALITY AND OUTCOMES FRAMEWORK (QOF) INDICATOR DEVELOPMENT PROGRAMME

Cost impact statement: Stroke and TIA

QOF indicator area: Stroke and TIA

Date: July 2013

Indicator

NM69: The percentage of patients aged 79 or under with stroke or TIA in whom the last blood pressure reading (measured in the preceding 12 months) is 140/90 mmHg or less.

Introduction

This report covers 1 new indicator relating to stroke and transient ischaemic attack (TIA). The indicator is part of the NICE menu of potential Quality and Outcomes Framework (QOF) indicators for 2014/15, following the recommendations of the independent QOF advisory committee in June 2013. The indicator has been piloted as part of the NICE QOF indicator development process.

This report considers the likely cost impact of incentivising the interventions associated with the proposed indicator in terms of the number of additional interventions provided and the cost of each intervention. Costs to NHS commissioners are outlined where relevant, along with the cost of additional activity at general practices.

The QOF already has a blood pressure target indicator for people with stroke or TIA of all ages:

STIA003: 'The percentage of patients with a history of stroke or TIA in whom the last blood pressure reading (measured in the preceding 12 months) is 150/90 mmHg or less.'

The rationale for the current indicator, STIA003, is to promote the secondary prevention of cardiovascular disease through satisfactory blood pressure control. This intermediate outcome can be achieved through lifestyle advice and the use of drug therapy. People with cardiovascular disease and stage one hypertension are recommended drug therapy for hypertension.

The intent of the new indicator is to align the current QOF STIA003 indicator with the updated [NICE clinical guideline on hypertension](#), which recommends a target clinic blood pressure below 140/90 mmHg in patients aged 79 or under with treated hypertension, and a clinic blood pressure below 150/90 mmHg in patients aged 80 and over with treated hypertension.

Cost implication

Number of people affected

The British Heart Foundation (2006) estimates that 1.0% of people aged 16-74 have experienced a stroke.

The [costing template](#) for NICE clinical guideline 68: stroke estimates incidence rates of TIA approximates 5 times lower than that for stroke. Whilst incidence rates cannot be translated directly into prevalence rates, especially given the correlation between TIA and stroke, for simplicity we have assumed that the incidence rate of TIA is 0.2% (i.e. 5 times lower than that for stroke). This gives a prevalence rate of stroke or TIA in people aged over 16 and under 75 of 1.2%.

Assuming this rate is the same for people aged under 80 and that 76.5% of the population are aged between 16 and suggests that 0.92% of the overall population are under 80 and have experienced stroke or TIA.

Current QOF indicator STROKE006 (reworded as STIA003 in 2013/14) has an underlying achievement of 88.6% for patients with a history of stroke or QOF cost impact statement: Stroke and TIA (July 2013)

TIA in whom the last blood pressure reading (measured in the preceding 15 months) is 150/90 mmHg or less.

The Health Survey for England 2011 indicates that the prevalence of high blood pressure (defined as blood pressure above 140/90) for those who have experienced stroke or TIA in 2011 was 60% among men and 45% among women, which is significantly higher than the prevalence for those without cardiovascular disease. The survey identifies the proportion of adults with untreated hypertension as 7% for men and 8% for women.

Current care

The current QOF indicator STIA003 incentivises blood pressure management for **all** people with stroke or TIA, and has a target blood pressure of 150/90 mmHg or less. The latest published QOF achievement data (2011/12) show that across all GP practices in England the level of achievement for STROKE 6 (the predecessor indicator of STIA003) was 88.6%.

The proposed new indicator would change the target blood pressure level for people aged 79 and under to 140/90 mmHg or less. The target for people aged 80 and over would remain the same.

Proposed care

Proposed care to achieve lower blood pressure for people aged 79 and under may include lifestyle modifications (based on advice) and antihypertensive prescriptions, with GP (and other healthcare professional) consultations. Proposed care for people aged 80 and over would remain unchanged.

Table 1 estimates cost of implementing the indicator and uses the assumptions discussed in number of people affected. We also assume that the impact of the indicator is to reduce untreated blood pressure over 140/90 mmHg to 5% of the population. We assume that an increase in treatment is a GP consultation and medication. The annual cost is calculated at £0.21 million for this element.

There is also a potential for additional cost associated with smoking cessation interventions. We have assumed that of the additional people who will be treated 20% will be smokers and will have active support to stop smoking including behavioral support and nicotine products. The annual cost for this element is £0.98 million.

Table 1 Estimated cost of implementing indicator NM69

| | Men | Women | Total |
|---|------------|------------|-------------------|
| Number of people aged between 18 and 79 | 20,816,128 | 20,686,932 | 41,503,060 |
| % who have experienced stroke or TIA | 1.2% | 1.2% | 1.2% |
| Number of people who have experienced stroke or TIA | 249,794 | 248,243 | 498,037 |
| % with blood pressure under 150/90 mmHg | 88.6% | 88.6% | 88.6% |
| Number of people with blood pressure under 150/90 mmHg | 221,317 | 219,943 | 441,261 |
| % with blood pressure over 140/90 mmHg and under 150/90 mmHg | 60% | 45% | 52.5% |
| Number of people with blood pressure over 140/90 mmHg and under 150/90 mmHg | 132,790 | 98,975 | 231,765 |
| % untreated | 7% | 8% | 7.5% |
| Number of people with blood pressure over 140/90 mmHg and under 150/90 mmHg who are untreated | 9,295 | 7,918 | 17,213 |
| Assumed 5% remain untreated | | | 5% |
| Number of people remaining untreated | | | 11,588 |
| Additional number of people to be treated | | | 5,625 |
| Estimated cost of antihypertensive drugs per year after diagnosis | | | £8.61 |
| Estimated cost of monitoring appointment with GP | | | £28 |
| Total cost of antihypertensive drugs and monitoring | | | £205,933 |
| % of additional people to be treated who smoke and choose smoking cessation support | | | 20% |
| Number of additional people to be treated who smoke and choose smoking cessation support | | | 1,125 |
| Estimated cost of smoking cessation support per annum (first year) | | | £870 |
| Total cost of smoking cessation | | | £978,757 |
| Total Cost | | | £1,184,690 |

Pharmaceutical treatment to lower blood pressure in people who have experienced stroke or TIA is highly cost effective because of the low cost antihypertensive drugs and the high cost of health outcomes that they can avert. Based on the cost of an emergency admission for cardiac arrest (£1,955), if 606 cardiac arrests are avoided the cost impact of this indicator is

neutral. The figure of 606 cardiac arrests is 10.8% of the additional people treated.

Table 2 Reduction in cardiac arrest for indicator to be cost neutral

| | |
|--|-------------------|
| Number of cardiac arrests avoided | 606 |
| Cost of emergency admission for cardiac arrest | £1,955 |
| Total costs avoided | £1,184,690 |

The cost impact does not take into account QOF indicator HYP003, the percentage of patients aged 79 or under with hypertension in whom the last blood pressure reading (measured in the preceding 9 months) is 140/90 mmHg or less. The cost impact of HYP003 is likely to include some of the identified population above so this will further reduce the cost impact of the indicator.

Resource impact

The resource impact of the implementation of indicator NM69 is estimated to be £1.18 million. However a decrease in future high-cost outcome events for the additional population being treated is likely to reduce the cost impact. The total resource impact does not take account of HYP003, which will include some of the identified population above and therefore further reduce the cost impact.

Sensitivity analysis

If the percentage of people with stroke/TIA with untreated hypertension is varied between 2.5% and 6%, the estimated costs vary from £2.41 million to £0.70 million.

If the percentage of the additional people to be treated who smoke and choose smoking cessation support is varied between 10% and 50%, the estimated costs vary from £0.70 million to £2.65 million.

Conclusions

The estimated initial cost impact of indicator NM69 is £1.18 million. It is anticipated this cost impact will be reduced by a decrease in high cost QOF cost impact statement: Stroke and TIA (July 2013)

outcome events for this population and that some of the eligible population above will already be identified in the cost impact of HYP003.

Related QOF indicators

| Current QOF indicator | Numerator | Denominator | Underlying achievement (2011/12) |
|--|-----------------------|-----------------------|----------------------------------|
| STROKE 6 (reworded as STIA003 in 2013/14): The percentage of patients with a history of stroke or TIA in whom the last blood pressure reading (measured in the preceding 15 months) is 150/90 mmHg or less | 818,729 | 923,930 | 88.6% |
| STIA003: The percentage of patients with a history of stroke or TIA in whom the last blood pressure reading (measured in the preceding 12 months) is 150/90 mmHg or less | Not in QOF in 2011/12 | Not in QOF in 2011/12 | Not in QOF in 2011/12 |
| BP5 (replaced by HYP002 in 2013/14): The percentage of patients with hypertension in whom the last blood pressure reading (measured in the preceding 9 months) is 150/90 or less | 5,803,370 | 7,285,735 | 79.7% |
| HYP002: The percentage of patients with hypertension in whom the last blood pressure reading (measured in the preceding 9 months) is 150/90 mmHg or less | Not in QOF in 2011/12 | Not in QOF in 2011/12 | Not in QOF in 2011/12 |
| HYP003: The percentage of patients aged 79 or under with hypertension in whom the last blood pressure reading (measured in the preceding 9 months) is 140/90 mmHg or less | Not in QOF in 2011/12 | Not in QOF in 2011/12 | Not in QOF in 2011/12 |

References

Health and Social Care Information Centre (2012) [QOF 2011/12 data](#) [online].

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Health Survey for England 2011 – [Chapter 3 Hypertension](#)
The Health and Social Care Information Centre