UNIVERSITY OF BIRMINGHAM AND

UNIVERSITY OF YORK HEALTH ECONOMICS CONSORTIUM

(NICE EXTERNAL CONTRACTOR)

Development feedback report on piloted indicator

QOF indicator area:	Coronary Heart Disease – BP control
Pilot period:	1st October 2012 – 31st March 2013
Potential Output:	Recommendations for NICE menu

Contents

Background

As part of the NICE-managed Quality and Outcomes Framework (QOF) process, all clinical and health improvement indicators are piloted, using agreed methodology, in a representative sample of GP practices across England, Scotland, Wales and Northern Ireland.

The aim of piloting is to test whether indicators work in practice, have any unintended consequences and are fit for purpose.

Piloted indicators

1. The percentage of patients aged 80 years and over with coronary heart disease in whom the last blood pressure reading (measured in the preceding 15 months) is 150/90 or less.
2. The percentage of patients under 80 years old with coronary heart disease in whom the last blood pressure reading (measured in the preceding 15 months) is 140/90 or less.

Number of practices participating in the pilot:	37
Number of practices withdrawing from the pilot:	5
Number of practices where staff were interviewed:	32

(29 GPs, 6 Practice Nurses, 19 Practice Managers = 54 primary care staff most involved in the QOF pilot)

Assessment of clarity, reliability, feasibility, acceptability and implementation

Clarity

- Indicator wording as stated, rated as clear and unambiguous by the experts and frontline GPs.
- The HSCIC has confirmed that they have been able to write Business Rules (and/or an Extraction Specification).

Reliability[1] and feasibility

Indicator	Feasibility	Reliability	Implementation
1	**1**	**1**	**1**
2	**1**	**1**	**1**
GPES conversion			**3**

Acceptability

General comments

Almost two-thirds of practices felt that these indicators, when considered together, should be considered for inclusion in QOF. A fifth of practices did not think this indicator set should be included in QOF and a small number were ambivalent.

Where practices were supportive of this indicator set this was because they viewed both targets as acceptable, reflective of current evidence and were supportive of different targets for different age groups. Where practices were not supportive of these indicators being included in QOF this was due to concerns about then being difficult to achieve, issues of poly-pharmacy and the potential risks of over-treatment. Concern was also expressed about patient compliance being poor. However, one practice undertook a review of compliance as part of their pilot process and identified patients who needed extra support e.g. dosette boxes in order to manage their medication.

"... when we've discussed this is that erm we've found compliance issues erm with the older ones, sometimes it's compliance and also the number of tablets, there's confusion. So we have actually put some people on sort of like doset boxes and things like that. Erm so it's just looking at it more

[1] HSCIC provide guidance on whether the piloted indicators are, from a business rule perspective, suitable to become 'live' indicators. A notional 'scoring' system is used:

1. No problems to implement in live with other indicators
2. Minor re-work before it can go live with other indicators
3. Major re-work but do-able without recourse to anyone outside of the process
4. Major considerations to be made before the indicator can go live - possibly need to speak to CFH / suppliers
5. Not feasible

searchingly rather than assuming that they are taking all the tablets, because you think they're taking them, and sometimes they think they're taking them, but you find that they're not actually taking them." (PM:ID7)

Acceptability indicator 1(patients aged 80 years and over)

Twenty-one practices (57%) were supportive of this indicator going into QOF, eight practices (22%) were not supportive of it going into QOF and three (8%) were ambivalent.

Where practices were supportive of this indicator being considered for inclusion in QOF this was generally because they viewed both targets as acceptable and reflective of current evidence.

"… I think any good clinician would want to achieve those anyway…" (GP:ID7)

Practices were also generally supportive of different BP targets for the different age groups, although some expressed concern that this could be viewed as discriminating against those aged over 80 years and that target setting should be tailored to the individual.

"Er, I think the age is irrelevant actually, er, I've always treated patients the same whether they're under or over 80, the issue is their comorbidity and - and you know their patient expectations and all the other individual factors and the age is irrelevant." (GP:ID4)

Practices that did not support this indicator being considered for QOF expressed concerns that it would be difficult to achieve and risked over-treatment in this age group.

"… obviously the more poly pharmacy you have and the older patients get the more issues you end up with…" (GP:ID8)

Acceptability indicator 2(patients aged under 80 years old)

Twenty-three practices (62%) were supportive of this indicator going into QOF, seven practices (19%) did not support it going into QOF and two (5%) were ambivalent.

As with indicator 1, where practices were supportive of this indicator going into QOF this was because it was viewed as reflective of current evidence. Sixteen practices (43%) reported that they

were already working to this target so it did not represent a significant additional workload. One practice noted that the current targets may result in a proportion of people being under-treated.

"… we tend to be aiming to get to those levels anyway based on you know current guidance and trying to tighten up blood pressure control" (GP:ID11)

"… we probably are under treating a proportion of people with the current targets we've got especially the under 80s and I think the new targets are probably more sensible." (GP:ID26)

Where practices were not supportive of this indicator going into QOF this was due to concerns about it being difficult to achieve, risks of postural hypotension and that the current QOF targets were good enough. Concern was also expressed about a possible increase in exception reporting due to patients being on maximal tolerated therapy.

"And, you know, I think as we tighten those targets we're going to end up with more problems and more damage. You know, more side effects. And probably the damage will outweigh the benefit." (GP:ID5)

"I think for this age group it's, well it can be quite difficult to get it as tight as possible and I think that – I think the – the previous targets were – were good enough." (GP:ID1)

<u>Acceptability recommendation indicator 1(patients aged 80 years and over)</u>

- There are barriers/ risks/ issues/ uncertainties identified from the pilot *in terms of acceptability* that in themselves may not be sufficient to prevent an indicator being recommended by the AC, but require the particular attention of the AC.

<u>Acceptability recommendation indicator 2(patients aged under 80 years old)</u>

- There are barriers/ risks/ issues/ uncertainties identified from the pilot *in terms of acceptability* that in themselves may not be sufficient to prevent an indicator being recommended by the AC, but require the particular attention of the AC.

Implementation

Assessment of piloting achievement

1. The percentage of patients aged 80 years and over with coronary heart disease in whom the last blood pressure reading (measured in the preceding 15 months) is 150/90 or less.

CHD INDICATOR P701	Baseline	Final
Number of Practices Uploading	**24**	**24**
Practice Population	**157,833**	**156,719**
CHD Register	**4,498**	**4,500**
Excluded regardless		
Patient aged 79 or under	3,130	3,133
Excluded if they do not meet Numerator criteria		
Blood Pressure Exclusion in last 12 months	0	3
Registered in last 9 months	9	12
CHD Exclusion in last 12 months	20	39
IHD Date in last 9 months	7	9
HTMAX Date in last 12 months	8	17
Total Exclusions	3,174	3,213
CHD Denominator	**1,324**	**1,287**
CHD Numerator	**1,146**	**921**
Numerator as % of Denominator	**86.56%**	**71.56%**

HTMAX = maximal tolerated dose of antihypertensive therapy.

Baseline data was extracted over a 12 month period whereas final data was extracted for the 6 months of the pilot only.

2. The percentage of patients under 80 years old with coronary heart disease in whom the last blood pressure reading (measured in the preceding 15 months) is 140/90 or less.

CHD INDICATOR P702	Baseline	Final
Number of Practices Uploading	**24**	**24**
Practice Population	**157,833**	**156,719**
CHD Register	**4,498**	**4,500**
Excluded regardless		
Patient aged 80 or over	1,368	1,367
Excluded if they do not meet Numerator criteria		
Blood Pressure Exclusion in last 12 months	0	1
Registered in last 9 months	26	27
CHD Exclusion in last 12 months	31	43
IHD Date in last 9 months	43	67
HTMAX Date in last 12 months	9	27
Total Exclusions	1,477	1,532
CHD Denominator	**3,021**	**2,968**
CHD Numerator	**2,324**	**1,841**
Numerator as % of Denominator	**76.93%**	**62.03%**

HTMAX = maximal tolerated dose of antihypertensive therapy.

Baseline data was extracted over a 12 month period whereas final data was extracted for the 6 months of the pilot only.

Changes in practice organisation

General comments

No changes were needed to practice organisation.

Specific comments indicator 1(patients aged 80 years and over)

No specific comments.

Specific comments indicator 2(patients aged under 80 years old)

No specific comments.

Resource utilisation and costs

General comments

A small number of practices expressed concern that these indicators would impact upon prescribing costs.

Assessment of workload varied across practices. Twelve practices felt that these indicators would have little impact on their workload, whilst sixteen practices noted that workload would increase.

Specific comments indicator 1(patients aged 80 years and over)

No specific comments.

Specific comments indicator 2(patients aged under 80 years old)

A small number of practices noted a potentially significant increase in workload associated with this indicator.

Barriers to implementation

General comments

Six practices (16%) expressed the view that threshold setting would be important for the acceptability of these indicators. Thresholds for the current CHD002[2] are 53-93%. Thresholds for the current HYP003[3] are 40-90%.

Specific comments indicator 1(patients aged 80 years and over)

Indicator achievement during the six months of the pilot was 71.56%. The distribution of practice achievement at the final data upload was 50-95%.

Specific comments indicator 2(patients aged under 80 years old)

Indicator achievement during the six months of the pilot was 62.03%. The distribution of practice achievement was 40-70%.

Assessment of exception reporting

General comments

A small number of practices expressed concern that there would be an increase in exception reporting against both of these indicators due to patients being on maximal tolerated doses of anti-hypertensive therapies.

Specific comments indicator 1(patients aged 80 years and over)

Exception reporting for this indicator was 3.2% at baseline and 5.9% during the pilot period. Exception reporting for maximal tolerated dose rose from 0.6% at baseline to 1.2% during the pilot period.

Specific comments indicator 2(patients aged under 80 years old)

Exception reporting for this indicator was 3.5% at baseline and 5.3% during the pilot period. Exception reporting for maximal tolerated dose rose from 0.3% at baseline to 0.9% during the pilot period.

[2] CHD002: The percentage of patients with coronary heart disease in whom the last blood pressure reading (measured in the preceding 12 months) is 150/90 mmHg or less.

[3] HYP003: The percentage of patients aged 79 years or under with hypertension in whom the last blood pressure reading (measured in the preceding 9 months) is 140/90mmHg or less.

Assessment of potential unintended consequences

General comments

No general or specific comments.

Implementation recommendation

Implementation recommendation indicator 1(patients aged 80 years and over)

- There are barriers/risks/issues/uncertainties identified from the pilot in terms of implementation that in themselves may not be sufficient to prevent an indicator being recommended by the AC, but require the particular attention of the AC.

Implementation recommendation indicator 2(patients aged under 80 years old)

- There are barriers/risks/issues/uncertainties identified from the pilot in terms of implementation that in themselves may not be sufficient to prevent an indicator being recommended by the AC, but require the particular attention of the AC.

Assessment of overlap with existing QOF indicators and potential changes to existing QOF indicators

CHD002. The percentage of patients with coronary heart disease in whom the last blood pressure reading (measured in the preceding 12 months) is 150/90 mmHg or less.

It is proposed that the two piloted indicators replace this current indicator.

Overall recommendation

Overall recommendation indicator 1 (patients aged 80 years and over)

There are barriers/risks/issues/uncertainties identified from the pilot that in themselves may not be sufficient to prevent an indicator being recommended by the AC, but require the particular attention of the AC.

Overall recommendation indicator 2 (patients aged under 80 years old)

There are barriers/risks/issues/uncertainties identified from the pilot that in themselves may not be sufficient to prevent an indicator being recommended by the AC, but require the particular attention of the AC.

Suggested amendments to indicator 1

The percentage of patients with coronary heart disease in whom the last blood pressure reading (measured in the preceding **12** months) is 150/90 **mmHg** or less.

Suggested amendments to indicator 2

The percentage of patients **79 years and under** with coronary heart disease in whom the last blood pressure reading (measured in the preceding **12** months) is 140/90 **mmHg** or less.

Appendix A: Indicator details

During a teleconference on 21st June 2012 the NICE QOF team advised the NEC that they would like the NEC to develop and pilot staged blood pressure control indicators for patients with CHD, peripheral arterial disease or a history of a stroke/ TIA.

Relevant NICE and other guidance was identified and target blood pressure thresholds extracted. From these the following questions were developed for discussion with the NICE identified clinical experts, Dr Melvyn Jones, Prof Jonathon Mant, Prof Richard McManus, Dr Kathryn Griffith and Prof Kamlesh Khunti.

Stepped BP indicators for people with HYPERTENSION AND ALSO CHD, Stroke, PAD or Diabetes Guidance Table

Clinical condition	Current QOF target	Guideline	Year	Target BP	Target group
Angina	CHD6: 150/90	CG126: Management of stable angina	2011	Recommendation 1.3.8: 'offer treatment for high blood pressure in line with 'Hypertension' (CG34)' (predates CG127, assume therefore that CG127 now applies)	Patients with stable angina and hypertension – drug treatment for secondary prevention of CVD
Secondary prevention of CVD post MI	CHD6: 150/90	CG48: MI: secondary prevention	2007	Recommendation 8.1.1.1 (in full guideline): hypertension should be treated to the currently recommended target of 140/90 or lower given in 'Hypertension' (CG34) (again assume that CG127 now applies). Patients with co-morbidities, for example diabetes or renal disease, should be treated to a lower blood pressure target. CG48 does not detail these lower targets.	Patients with a previous MI and hypertension
Stroke	STROKE6: 150/90	Royal College of Physicians	2008	Recommendation 5.4.1 A: 130/80 in	Patients post stroke

		National Clinical Guideline for Stroke: third edition.		patients with established cardiovascular disease. For patients with bilateral severe (>70%) internal carotid artery stenosis a slightly higher target of 150 systolic may be appropriate.	
Stroke	STROKE6: 150/90	SIGN 108: Management of patients with stroke or TIA: assessment, investigation, immediate management and secondary prevention	2008	Patients with hypertension should be treated to <140/85. Patients who have had a stroke and who also have diabetes should be treated a blood pressure of <130/80.	Patients with hypertension post stroke
Stroke	STROKE6: 150/90	CG68:Diagnosis and initial management of acute stroke and transient ischaemic attack (TIA)	2008	None given – guidance relates to diagnosis and **initial management** of stroke/ TIA.	
Peripheral arterial disease	PAD3: 150/90	SIGN	2006	Hypertensive patients with peripheral arterial disease should be treated to reduce their blood pressure (Grade A recommendation). No target given but 140/90 noted as a desirable upper limit. Refers to 2004 British Hypertensive Society Guidelines recommendations which have now been superseded by CG127. We piloted 140/90 in QOF pilot 2 but the	

				June 2011 QOF AC moved this to 150/90 stating "The Committee also noted that the blood pressure target for indicator 5 is inconsistent with the other relevant QOF BP indicators (CHD6, STROKE6, BP5, DM30), and should therefore be changed to be brought in line with these." The changes at the last AC in June 2012 should however mean that 140/90 is now seen as appropriate by the Committee.	
Peripheral arterial disease	PAD3: 150/90	NICE Guideline due October 2012			
Hypertension	BP5: 150/90 but 2 new indicators piloted and recommended for 2013: • 140/90 in patients aged under 80 years • 150/90 in patients over 80 years	CG127: Hypertension	2011	140/90 in patients aged <80 years 150/90 in patients aged ≥80 years	Patients with hypertension

Questions

<u>CHD</u>

1. Should we keep the target BP at 150/90 for people aged over 80 years and reduce to 140/90 for people under 80 who have had an MI?
2. Should we construct an indicator for people with stable angina under 80 with a BP of 140/90? There may be some definitional issues and current QOF terminology talks about CHD rather than stable angina.
3. What is the evidence base for keeping at 150/90 in the over 80s? CG127 (page 171) states that most people in trials were well with fewer comorbidities so to apply clinical judgement.

<u>Stroke/ TIA</u>

1. Should we keep to a target BP of 150/90 for people aged over 80 years and reduce to 140/90 in people less than 80 years?
2. Should we drop to 140/85 for all patients in line with SIGN or 130/80 in line with the RCP Guidelines?
3. Do these lower targets apply to patients who have had a TIA as well?

PAD

1. Should we keep to a target BP of 150/90 for people aged over 80 years and reduce to 140/90 in people less than 80 years?
2. Should the BP target be 140/90? We last looked at this in 2010 in the context of QOF. Has more evidence been published since then?

Diabetes

1. Should we lower the target BP to 130/80 if the patient has comorbid diabetes, hypertension and stroke? This would probably sit in the Diabetes domain. Current diabetes BP targets are DM30: 150/90 and DM31: 140/80. In the pilot we can see how such an indicator which takes into account multiple co morbidities might work in practice.
2. Should we keep the target BP at 150/90 for people aged over 80 years?

Summary of expert responses

Discussions took place via email and teleconferences between 29th June 2012 and 6th July 2012.

CHD

There was support for different blood pressure targets based upon patient age. A separate indicator for patients with stable angina was not supported for definitional issues and difficulties arising from small denominators. Therefore indicators were developed for a target group of all people with CHD. It was proposed that these indicators should be aligned to annual reviews rather than limiting the incentive for treatment to the last nine months of the QOF year. There was support for ensuring consistency of targets across disease areas where possible.

Stroke/TIA

Prof Mant expressed an initial preference for a BP target of 130/80 for all ages noting that there was no evidence base for different BP targets based upon age in these patients. However, he also noted the advantages of consistency across disease areas in QOF and therefore agreed to a BP target of 140/90.

He was not supportive of a proposed indicator for patients with comorbid diabetes and questioned the aim of this.

PAD

Dr Jones confirmed that whilst there is evidence for treating raised blood pressure in patients with PAD there was little evidence confirming a specific BP target. Acknowledged that 140/90 represents the best available evidence.

Diabetes

A tighter BP target of 130/80 was preferred for patients with microvascular complications i.e. retinopathy, neuropathy and micro-albuminurea. The advantages of a single BP target were acknowledged.

Based upon these discussions two indicators relating to BP control in patients with CHD, stroke/TIA and PAD were taken forward for discussion with a focus group of frontline GPs. A potential indicator relating to comorbid diabetes and stroke was not progressed at this stage.

Focus group discussion with frontline GPs

A focus group was held on 10th July 2012 with 8 front line GPs recruited via the West Midlands Faculty of the Royal College of General Practitioners. They participated on a voluntary basis. The group included an equal number of men and women of whom 50% described their ethnicity as white British and included two QOF Assessors. There were also two representatives from the Health and Social Care Information Centre at the meeting and a representative from NICE.

Prior to the meeting the GPs were provided with written detail of the proposed indicators and the underpinning NICE recommendation/ quality standard. This included details of specific issues which we wanted them to discuss in relation to each indicator. The purpose of this meeting was to consider the clarity, feasibility and validity of the indicators, to suggest improvements where possible and to highlight specific issues that would need to be explored during piloting. The following indicators were discussed in turn.

Stroke indicators

Recommendations	**Potential indicators**	**Questions/ issues for discussion**
Royal College of Physicians National Clinical Guideline for Stroke: third edition. - Recommendation 5.4.1 A: 130/80 in patients with established cardiovascular disease. SIGN 108: Management of patients	The percentage of patients with a history of stroke or TIA AND hypertension in whom the last blood pressure reading (measured in the preceding 15 months) is 130/80 or less.	No specific issues

with stroke or TIA: assessment, investigation, immediate management and secondary prevention. - Patients with hypertension should be treated to <140/85.	The percentage of patients with a history of stroke or TIA AND hypertension in whom the last blood pressure reading (measured in the preceding 15 months) is 140/85 or less.	

PAD indicators

Recommendations	Potential indicators	Questions/ issues for discussion
SIGN 89: Hypertensive patients with peripheral arterial disease should be treated to reduce their blood pressure (Grade A recommendation) No target blood pressure is given but a target of 140/90 is noted as desirable.	The percentage of patients with a history of PAD AND hypertension whose last recorded blood pressure reading (measured in the preceding 15 months) was 14/90.	No specific issues

CHD indicators

Recommendations	Potential indicators	Questions/ issues for discussion
CG48: MI: secondary prevention Recommendation 8.1.1.1 (in full guideline): 'hypertension should be treated to the currently recommended target of 140/90 or lower given in 'Hypertension' (CG34). Patients with co-morbidities, for example diabetes or renal disease, should be treated to a lower blood pressure target.' CG126: Management of stable angina Recommendation 1.3.8: 'offer treatment for high blood pressure in line with 'Hypertension' (CG34)'. CG34 has now been superseded by CG127: Hypertension.	The percentage of patients aged under 80 years old with coronary heart disease AND hypertension in whom the last blood pressure reading (measured in the preceding 15 months) is 140/90 or less. The percentage of patients aged under 80 years with a history of myocardial infarction AND hypertension in whom the last blood pressure reading (measured in the preceding 15 months) is 140/90 or less.	No specific issues

Note: It is proposed that 'CHD6: the percentage of patients with coronary heart disease in whom the last blood pressure reading (measured in the preceding 15 months) is 150/90 of less' is retained alongside any indicator with a lower target BP.

Summary of discussion

- Immediate reaction to the BP target of 130/80 was that it was not manageable, and that 130/85 was the more pragmatic option.
- GPs were quick to raise the issue of co-morbidities, the lack of tolerance of anti-hypertensives & the side-effects of falls etc. A number of GPs stated that they would put the patient first & work to lower the BP based on their clinical judgement of the patient. Thus, it was raised, there may be a high exception rate for the tighter target.
- Two specific issues were raised that required further consideration from NICE (via Dan): differentiated targets for people aged under/over 80 years old; and whether these indicators related to people with the various conditions AND explicitly diagnosed hypertension.
- From this latter point, one person questioned why there were three sets of numbers, why they're not all treated the same due to there being one underlying condition, that of vascular disease.
- An added complication was raised regarding patients diagnosed with hypertension in secondary care, the accuracy of that diagnosis with another condition (e.g. angina/MI) and what then becomes the priority to treat, how frequently they should be checked etc.
- The general consensus was that the 'and hypertension' could be eliminated from the indicators because it would be justifiable to treat patients with the stated conditions to a tighter BP regardless of if they were specifically diagnosed with hypertension or not (on the basis that "it's not an illness", "it's a risk factor"). The difficulty, however, is then which NICE guidance to state as a reference for these indicators, specifically relating to the co-morbidities. Overall, it was felt that 'and hypertension' should be removed & that CG127 would be the reference point for the tighter BP targets for Stroke & CHD.
- There was greater resistance to tighter BP targets with regards to PAD, but it was agreed that it made sense to also tighten BP targets for this condition.

Indicators for piloting post focus group

Stroke/ TIA

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 140/85 [or 140/90?] or less.

PAD

The percentage of patients 80 and over with peripheral arterial disease in whom the last blood pressure reading (measured in the preceding 15 months) is 150/90 or less.

The percentage of patients under 80 with a history of PAD whose last recorded blood pressure reading (measured in the preceding 15 months) was 140/90.

CHD

The percentage of patients 80 and over with coronary heart disease in whom the last blood pressure reading (measured in the preceding 15 months) is 150/90 or less.

The percentage of patients under 80 with coronary heart disease in whom the last blood pressure reading (measured in the preceding 15 months) is 140/90 or less.

Final indicators for piloting

Stroke/ TIA

- The percentage of patients 80 and over with a history of stroke or TIA in whom the last blood pressure reading (measured in the preceding 15 months) is 150/90 or less.
- The percentage of patients under 80 with a history of stroke or TIA in whom the last blood pressure reading (measured in the preceding 15 months) is 140/90 or less.

PAD

- The percentage of patients 80 and over with peripheral arterial disease in whom the last blood pressure reading (measured in the preceding 15 months) is 150/90 or less
- The percentage of patients under 80 with a history of PAD whose last recorded blood pressure reading (measured in the preceding 15 months) was 140/90.

CHD

- The percentage of patients 80 and over with coronary heart disease in whom the last blood pressure reading (measured in the preceding 15 months) is 150/90 or less.
- The percentage of patients under 80 with coronary heart disease in whom the last blood pressure reading (measured in the preceding 15 months) is 140/90 or less.