Research paper

Should there be a Quality and Outcomes Framework domain for osteoarthritis? A cross-sectional survey in general practice

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ABSTRACT

Background Despite being a chronic condition with a high prevalence and significant associated morbidity that is managed predominantly in primary care, osteoarthritis (OA) does not feature in the Quality and Outcomes Framework (QOF) component of the UK general practice contract. The aim of this study was to determine whether general practitioners (GPs) thought OA should be added as a QOF domain, and the potential items for inclusion.

Methods A cross-sectional postal survey of 2500 UK GPs randomly selected from Binley's database of currently practising GPs was conducted. The survey asked if OA should be added as a domain to QOF, how many points should be allocated to it and what indicators should be included.

Results Responses were received from 768 GPs, of whom 70.4% were male and 89.1% were partners in their practice. The majority (82.6%; *n* = 602) felt that OA should not be included as a QOF domain. Significant predictors of support for the addition of an OA domain to QOF included having a special interest in musculoskeletal disease (odds ratio [OR] 1.95, 95% confidence interval [CI] 1.26–3.03), a higher research degree (OR 3.98, 95% CI 1.31–12.10) and having read the National Institute for Health and Clinical Excellence (NICE) guidance on the management of OA (OR 1.62, 95% CI 1.04–2.54). Being a GP principal was the only negative association (OR 0.48, 95% CI 0.23–0.99). Preferred potential indicators for an OA QOF were analgesia review, exercise advice and patient education.

Conclusions The majority of respondents felt that OA should not be included as a QOF domain, although it is unclear whether this reflected views particular to OA, or on the addition of any new domain to QOF. Those supporting an OA QOF domain tended to prefer potential indicators that are in line with current published guidance, despite a significant proportion reporting that they had not read the NICE guidelines on the management of OA.

Keywords: chronic disease, osteoarthritis, primary care, quality of care

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How this fits in with quality in primary care

What do we know?
Osteoarthritis (OA) is a highly prevalent chronic condition, largely managed in primary care, and is associated with high morbidity and huge cost to the health economy. Evidence suggests that care provided is often suboptimal, but despite this, and its similarity with other chronic conditions, OA has not been included in the Quality and Outcomes Framework (QOF) component of the general practitioner (GP) contract.

What does this paper add?
To our knowledge, this is the first survey eliciting GPs' views on the addition of a new condition to QOF, what should be contained within any such domain, and how many points should be allocated to it. It also provides a valuable insight into the role of the National Institute for Health and Clinical Excellence guidance in the management of OA.

Introduction

The monitoring of chronic disease in the UK has traditionally been the role of the general practitioner (GP), and in 2004 this was formalised by the introduction of the Quality and Outcomes Framework (QOF) component of the general practice contract.[1] QOF is a voluntary incentive scheme for GP practices in the UK, rewarding them for the quality of care they provide to patients. It currently contains evidence-based indicator sets for 20 chronic conditions, against which GP practices earn points which equate to a financial payment system, by which provision of this high-quality care is incentivised.

Although the impact of QOF on patient outcomes has not been widely investigated, it has been suggested that the QOF encourages greater consistency of care,[2] and a modest reduction in health inequalities has been reported.[3] An association between QOF achievement and reduction in costs for hospital care and mortality outcomes has also been suggested for some conditions, e.g. stroke.[4] There is limited evidence of the cost-effectiveness of QOF in some clinical domains, e.g. diabetes and coronary heart disease,[5] although a recent systematic review suggested there is insufficient evidence to support or not support use of financial incentives (including QOF) to improve quality in primary health care.[6]

Osteoarthritis (OA) is a highly prevalent long-term condition affecting approximately eight million people in the UK.[7] The hand is thought to be the joint site with the highest prevalence (43.3%), followed by the knee (23.9%) and then the hip (10.9%).[8] Prevalence increases with age, with population-based studies in the USA suggesting prevalence rates for knee OA which are considered similar to European rates, rising from 1% for severe radiographic disease among people aged 25–34 years to 30% in those aged 75 years or above. Hand and knee diseases are reported more frequently in women than in men, although the female-to-male ratio varies between 1.5 and 4.0 among studies.[8,9] OA is associated with significant morbidity[10] and excess mortality.[11,12] There may be a number of reasons for this increased mortality, such as reduced physical activity relating to joint pain associated with OA, or additional cardiovascular or gastrointestinal risk as a side effect of some of the anti-inflammatory medications commonly used to treat OA. This is supported in the literature by recent studies identifying the highest risk of mortality from cardiovascular, gastrointestinal and dementia-related causes, and risk of death increasing with increasing severity of walking disability, comorbidity, increasing age and burden of OA disease.[11,12] Despite an estimated cost to the UK health economy of £5.2 billion,[13] there is evidence that care for patients with OA is often suboptimal.[14,15] Despite its similarity to other conditions included within the QOF, to date OA has not been included.

This study investigated GPs' views on adding OA to QOF, and potential components for inclusion in such a domain.

Methods

Participants

A random sample of 2500 GPs currently working in the UK was generated and obtained from Binley's database. Binley's is a for-profit organisation supplying health care professionals' contact details. The sample was sent an eight-page self-completion postal questionnaire, with a reminder postcard after two weeks and a further copy of the questionnaire two weeks later. No incentive or inducement was offered for completion of the survey.

Questionnaire components

These questions were included as part of a larger study (PROGnosis-RESearch III) investigating GPs' views on discussing prognosis with patients with OA. The section of the survey analysed in this paper contained items asking respondents whether OA should be added as a domain to QOF (yes/no), and the associated number of QOF points that should be allocated to OA. Respondents were given a list of potential indicators for an OA domain of QOF and were asked to identify all that they felt suitable for QOF inclusion.

Statistical analysis

Analysis was conducted using PASW Statistics 18 (release 18.0.0, 30 July 2009). Descriptive statistics were used, followed by a chi-squared test to determine significant associations. Binomial logistic regression was used to identify demographic factors from Section One of the questionnaire that were statistically significant predictors of a positive response to the question 'Should OA be added as a domain to QOF?' Results are presented as odds ratios (OR) and 95% confidence intervals (CI). A univariate model was constructed for each potential predictor, and finally multivariate models were constructed that included first all of the potential predictors from Section One of the questionnaire, and second, only those variables identified as significant associations in the univariate model. For all statistical tests, an association was considered to be significant if $p \leq 0.05$.

Respondents with some missing data were included in the analysis and complete data were reported for each individual question.

Free-text answers were reviewed and collected into broad themes.

Results

Of the 2500 questionnaires sent, 768 were returned (response rate 30.7%). Of the respondents, 70.4% were male and 89.1% were principals in their practices. Table 1 shows the characteristics of the survey respondents.

Table 1; Characteristics of survey respondents

Characteristics	Respondents to the survey (n)	Respondents to the survey (%)[a]
Gender		
Male	541	70.4
Female	223	29.0
Missing	4	0.5
Job title		
Principal	684	89.1
Salaried	29	3.8
Missing	55	7.2
Special interest in MSD	176	22.9
NICE guidance		
Had read NICE guidance	446	58.1
Had not read NICE guidance	310	40.4
Missing	12	1.6
Reading guideline had changed practice[b]	197	44.2
Reading guideline had not changed practice[b]	241	54.0
Missing[b]	8	1.8
Size of practice (number of registered patients)		
Small (< 4000)	183	23.8
Medium (4000–7999)	294	38.3
Large (> 8000)	291	37.9
Missing	0	0

[a] Total may not equal 100 due to rounding.
[b] Maximum eligible respondents 446 (those who answered yes they had read the NICE guidelines).
MSD, musculoskeletal disease.

The majority of respondents (82.6%; $n = 602$) felt that OA should not be added as a domain to QOF. Chi-squared testing revealed associations between being a GP principal ($\chi^2 = 7.835$; $p = 0.005$), having a special interest in musculoskeletal disease ($\chi^2 = 11.275$; $p = 0.001$), having a Diploma of the Royal College of Obstetrics and Gynaecology (DRCOG) ($\chi^2 = 4.516$; $p = 0.034$) or higher research degree (Master's or doctorate) ($\chi^2 = 12.069$; $p = 0.001$) and having read the National Institute for Health and Clinical Excellence (NICE) guidance on the management of OA ($\chi^2 = 8.043$; $p = 0.005$) and a positive response to the question 'Should OA be added as a domain to QOF?'

In the binomial logistic regression, models that included all the possible predictors, and only those that had shown a significant predictive value in the univariate analysis, yielded similar results. Having a special interest in musculoskeletal disease (odds ratio [OR] 1.95, 95% confidence interval [CI] 1.26–3.03), having a higher research degree (OR 3.98, 95% CI 1.31–12.10) and having read the NICE guidelines on the management of OA (OR 1.62, 95% CI 1.04–2.54) were statistically significant predictors of believing OA should be added to QOF, whilst being a being a GP principal was the only factor that made supporting the addition of OA to QOF less likely (OR 0.48, 95% CI 0.23–0.99).

The most popular indicators for inclusion in an OA domain of QOF were medication and analgesia review, having a practice register of OA patients, and giving exercise advice and patient education. The responses are summarised in Table 2.

Of those who favoured the addition of OA as a QOF domain ($n = 127$), 106 answered the question on how many points should be allocated to it. One third (33.0%; $n = 35$) favoured allocation of between 1 and 10 points, 25.5% ($n = 27$) answered don't know, 20.8% ($n = 22$) favoured 11–20 points, 12.3% ($n = 13$) favoured 21–30 points, 1.9% ($n = 2$) favoured 31–40 points, 5.7% ($n = 6$) favoured 41–50 points, and only 0.9% ($n = 1$) favoured allocation of more than 50 points.

Reasons for not wanting a QOF domain for OA were entered in free text. Key themes emerged, including unhappiness with the existing workload associated with QOF domains, concern about the reliability of monitoring based on fluctuation of symptoms, lack of evidence to improve patient outcomes, and reluctance to medicalise what is considered to be a 'normal' part of ageing, but since the total number of responses to this question was so few ($n = 44$), these results were not analysed further.

Discussion

Most GPs who participated in this survey did not favour the addition of OA as a domain to QOF. Given that OA is already the most prevalent chronic condition seen in general practice,[10] set to increase with an ageing population, associated with significant morbidity[10] and excess mortality,[11,12] and the evidence that despite huge costs to the health economy, care

Table 2 Potential indicators for inclusion in an OA domain of QOF

Potential indicator	n	%[a]
Medication review	113	89.0
Practice register	102	80.3
Analgesia review	101	79.5
Exercise advice	101	79.5
Patient education	98	77.2
Self-management plan	86	67.7
Measurement of level of disability	86	67.7
Measurement of pain intensity	76	59.8
Assessment of need	65	51.2
X-ray diagnosis	51	40.2
Indication of pain duration	50	39.4

[a] Maximum number of eligible respidents = 127 (those who answered 'yes' OA should be added as a domain to QOF).

currently provided to patients with OA is sub-optimal,[14,15] improvement in the way that care is provided to these patients would seem to be a priority. It is clear from this survey, however, that GPs do not feel that QOF is the appropriate medium through which to best address this need.

To our knowledge this survey is the first to elicit GPs' views on the addition of new domains or conditions to QOF, and for this reason it is difficult to know whether this reflects their views on OA or on the QOF itself.

GP principals were less likely to support the inclusion of OA in QOF, and as the holders of the primary care medical services contracts, and thus ultimate responsibility for gathering data required for QOF indicators, this may reflect concerns about the additional work which would be generated through proactive management of this common condition. Equally, it may reflect feelings that a condition such as OA does not lend itself to incentivised targets. It has been suggested that OA has previously been considered unsuitable for QOF due to diagnostic difficulties,[16] resulting in both over- and under-diagnosis. However, within the NICE guidance, it is suggested that a working diagnosis of OA can be satisfactorily assumed in patients aged 45 years or older who have persistent joint pain that is worse with use, and morning stiffness lasting no more than half an hour.[17] These three criteria are straightforward to elicit in primary care, and if adhered to could increase rates of diagnosis and recording of the condition. A further result of more confident diagnosis of OA and thus more accurate coding within general practice records of the presence of the condition, rather than recording a symptomatic code of, for example, knee pain, would be the opportunity for more accurate epidemiological investigation of the disease using general practice records. Further concerns may also reflect the fact that many of the recommendations for management of OA, such as exercise and weight loss, are outside the control of the GP, may be difficult to achieve, and thus may limit reward in comparison with the workload required to attain them.

The indicators favoured by respondents for inclusion in an OA domain of QOF, such as analgesia review and exercise advice, were in line with current best practice and published national and international guidance,[17–19] although, perhaps surprisingly, over 40% of respondents to this survey had not read the NICE guidelines on the management of OA, and of those who had, the majority reported that this had not changed their practice. Whether this supports previously reported under-utilisation of guidelines in primary care,[20] or whether it is related to OA specifically cannot be answered by this survey. Evidence on this subject is conflicting, with a large cross-sectional study demonstrating that of 13 chronic conditions,

OA was the condition in which previously established quality indicators were least adhered to, and were achieved in only 29% of cases,[21] but a recent small survey of GPs suggested that NICE guidance was the biggest influence on their management of OA.[22] However, it would support the suggestion that current methods of dissemination of clinical guidelines do not achieve significant changes in practice in primary care.[23] The proposal that future QOF indicators are to be based on NICE or Scottish Intercollegiate Guidelines Network (SIGN) guidance, representing accepted best practice, may go some way towards improving translation of national guidance into practice and thus quality of care.

The number of points respondents would allocate to an OA domain of QOF is smaller than that allocated to other conditions commonly affecting a similar age group, e.g. diabetes (100 points) and hypertension (81 points),[24] despite its higher prevalence. Perhaps this reflects a concern about the additional workload required to achieve these points, or simply that respondents did not consider OA a comparable priority for clinical care.

This survey had a low response rate, typical of surveys of physicians.[25] Although limited data about respondents were available, that which was obtained (GP principal or salaried employment status, gender) differed from what is known of the wider GP population in England:[26] 77% of GPs in England were GP principals, whereas 89% of survey respondents reported this, and 45% of GPs were female, compared with 29.0% of survey respondents. This under-representation of female and non-principal GPs may well be related because female GPs make up a minority (38.2%) of GP principals, although they constitute the majority (66.8%) of salaried GPs. However, to our knowledge there is no reason for the views of female GPs to differ significantly from those of their male counterparts on this topic. The under-representation of non-principal GPs was potentially predictable given the postal nature of the survey, because locum and sessional GPs are more likely to be a mobile population and more difficult to contact. Similarly, they typically have less continuity of care with patients and do not have the ultimate responsibility for collecting data required by QOF indicators that GP principals do. As such, they may have had different opinions that were not represented in these findings. However, the sample of over 760 GPs was large enough for these findings to provide an important insight.

With an ageing population, the clinical burden of OA is set to increase, and care provided must be optimised to reduce the costs to both the individual and the health economy. As the first survey of GPs' views on the addition of any new domain to QOF, the results demonstrate that the majority of respondents did not support the addition of a QOF domain for OA,

but further research is required to establish whether these views reflect GPs' attitudes to OA as a condition, or simply to the addition of any new domain to QOF. Those in support of the addition of OA to QOF would allocate such a domain a comparatively small number of points. They also favoured indicators based on NICE guidance, such as analgesia review, exercise advice and patient education, despite a significant proportion reporting that they had not read these guidelines, and, of those who had, the majority reporting that they had not changed their practice. The proposition to base future QOF indicators on NICE guidance will offer the opportunity to add conditions, such as OA, where clinical care is suboptimal, and highlights the role of QOF as a tool in quality improvement as well as cost-effectiveness.

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ETHICAL APPROVAL

The study was approved by the North Staffordshire Local Research Ethics Committee (09/H1204/65).

AUTHORS' CONTRIBUTIONS

BN, AB, JJE, RD and CDM were involved in the study design and co-ordination. LEC, BN and CDM were involved in data analysis and interpretation. LEC drafted the manuscript, which was reviewed and revised by BN, AB, JJE and CDM. All of the authors read and approved the final submitted manuscript.

PEER REVIEW

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CONFLICTS OF INTEREST

None.

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