NATIONAL INSTITUTE FOR HEALTH AND CLINICAL EXCELLENCE

QUALITY AND OUTCOMES FRAMEWORK (QOF) INDICATOR DEVELOPMENT PROGRAMME

Briefing paper

QOF indicator area: Rheumatoid arthritis

Potential output: Recommendations for indicator development

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Introduction

The indicator area is rheumatoid arthritis (RA) and this briefing paper presents an assessment of the suitability of NICE clinical guideline recommendations relevant to primary care. The recommendations and underlying evidence are taken from the following guideline:

- Rheumatoid arthritis: the management of rheumatoid arthritis in adults. NICE clinical guideline 79 (2009).

Stakeholder topic suggestion

The topic presented in this briefing paper was identified following a QOF stakeholder workshop on musculoskeletal conditions hosted by the NICE QOF programme team on 3 March 2011. The workshop was attended by GP academics and experts on these conditions, including representatives from Arthritis Research UK, the Primary Care Rheumatology Society and the Arthritis Research UK Primary Care Centre based at Keele University. The objective of this workshop was to identify and scope suitable musculoskeletal topics for potential QOF indicator development.

The group discussed the key areas that primary care would be likely to be involved in and agreed that it would not be possible to incentivise case finding and diagnosis of RA within QOF because of definition issues and relatively low incidence of RA. However, the group identified key areas for quality improvement for RA in primary care and it considered that the primary care management of confirmed RA merited further consideration. This briefing paper focuses on the primary care management of 'confirmed' RA only and the components of disease monitoring and annual review. People with 'suspected' RA are therefore outside the scope of this topic suggestion.

Overview of rheumatoid arthritis

Epidemiological summary

Definition

Rheumatoid arthritis (RA) is a chronic and progressive disabling condition characterised by inflammation of the synovial tissue of the joints. It causes

tenderness and stiffness of joints with their progressive destruction, and other symptoms such as pain and fatigue. Rheumatoid arthritis typically affects the small joints of the hands and the feet, and usually both sides equally and symmetrically, although any synovial joint can be affected. It is a systemic disease and so can affect the whole body, including the heart, lungs and eyes.

Incidence, prevalence and evidence of variation by age, sex and ethnicity

The National Audit Office provides an estimated adult prevalence (ages 15 and older) of 1.4% for England, which equates to an estimated 580,000 people with RA (National Audit Office 2009). RA affects 3 times as many women as men and has a peak age of onset of 40–70 years. Ethnic differences in prevalence have not been consistently reported. Incidence is relatively low, at around 26,000 new cases per year for England (National Audit Office 2009) equating to around 6 people in a practice population of 10,000.

Morbidity and mortality

Rheumatoid arthritis is a severe disease causing persistent pain and stiffness, progressive joint destruction, functional decline and premature mortality. Damage to joints results in progressive deformity and disability.

Ongoing inflammation and loss of mobility can lead to a range of comorbidities, including increased risk of cardiovascular disease, infection and osteoporosis. In addition, people with RA often experience feelings of isolation and depression. Life expectancy in patients with RA is reduced: a 50-year-old woman with RA is expected to die 4 years earlier than a 50-year-old woman without RA.

Impact on health services

Primary care

Musculoskeletal conditions are the most common reason for recurring GP visits, and make up 30% of primary care consultations. The National Audit Office estimated that approximately 580,000 adults in England currently have RA, which equates to a prevalence of 1.2%. The incidence of RA is relatively

low. This briefing focuses on the management and review of those with a confirmed diagnosis.

Secondary care

Under current models of care, it is estimated that about 25–50% of people with RA present themselves to a GP within 3 months of symptom onset, and about 50–80% of those are referred to a specialist within this period ((National Audit Office 2009). Between 1997/98 and 2007/08, hospital episodes for RA increased by 50% in England (Hospital Episode Statistics).

Current management in primary care

GPs play an important role in the management of RA. They are responsible for recognising signs, symptoms and the impact of recent-onset RA so prompt referral to specialist care and appropriate blood tests can be requested.

People with confirmed RA need regular monitoring to determine disease status, assess severity, and the efficacy and toxicity of drug therapy, and to promptly identify any comorbidities or complications associated with RA. People with satisfactorily controlled established RA need review appointments for ongoing drug monitoring, additional visits for disease flares and rapid access to specialist care.

The primary care team is involved in the ongoing care of people with established RA and long term monitoring. GPs may screen and check for related chronic comorbidities, including cardiovascular disease, osteoporosis and depression, on a regular basis or as part of a process of annual review.

The course of RA is heterogeneous and variable. However, several factors have been identified as being associated with poor prognosis. These include the presence of rheumatoid factor or anti-cyclic citrullinated peptide (CCP) antibodies, high erythrocyte sedimentation rate (ESR) or C-reactive protein (CRP) levels, early radiographic evidence of erosions and the presence of swollen and tender joints.

Treatment aims to control pain and inflammation, and to reduce joint damage, disability and loss of function, thereby improving quality of life. It involves a combination of pharmacological and non-pharmacological interventions.

Conventional drug therapy relies on various combinations of non-steroidal anti-inflammatory drugs (NSAIDs), analgesics, corticosteroids and disease-modifying anti-rheumatic drugs (DMARDs).

NHS priorities and timeliness of guidance

The NICE QOF team examined national clinical guidelines, policy documents and national strategies across the UK to assess timeliness of indicators in this topic area. The following were found to be relevant to rheumatoid arthritis.

- Management of early rheumatoid arthritis. Scottish Intercollegiate Guidelines Network (2011)
- Managing people with long-term conditions. Chapter on arthritis: King's Fund (2010)
- The 10 key standards of care. National Rheumatoid Arthritis Society (2010)
- The musculoskeletal map of England: evidence of local variation in the quality of NHS musculoskeletal services. Arthritis and Musculoskeletal Alliance (2010)
- Rheumatoid arthritis: the management of rheumatoid arthritis in adults. NICE clinical guideline 79 (2009)
- British Society for Rheumatology and British Health Professionals in Rheumatology guideline for the management of rheumatoid arthritis (after the first 2 years). British Society for Rheumatology (2009)
- Joint working? An audit of the implementation of the Department of Health's musculoskeletal services framework. Arthritis and Musculoskeletal Alliance (2009)
- Clinical audit of care in rheumatoid arthritis (CARA). NHS Quality Improvement Scotland (2008)
- Designed for people with chronic conditions – service development and commissioning directives: arthritis and chronic musculoskeletal conditions. Welsh Assembly Government (2007)

- NRAS annual survey 'I want to work'. Employment and rheumatoid arthritis. A national picture. National Rheumatoid Arthritis Society (2007)
- The Musculoskeletal Services Framework. Department of Health (2006)
- BSR guidelines on standards of care for persons with rheumatoid arthritis. British Society for Rheumatology (2005)

Review of recommendations

Summary of NICE guideline recommendations

Two recommendations from NICE clinical guideline 79 have been identified as being potentially suitable for QOF indicator development.

Monitoring rheumatoid arthritis

NICE recommendation 1.5.1.1

Measure CRP and key components of disease activity (using a composite score such as DAS28) regularly in people with RA to inform decision-making about:

- increasing treatment to control disease
- cautiously decreasing treatment when disease is controlled.

NICE recommendation 1.5.1.4

Offer people with RA an annual review to:

- assess disease activity and damage, and measure functional ability (using, for example, the Health Assessment Questionnaire [HAQ])
- check for the development of comorbidities, such as hypertension, ischaemic heart disease, osteoporosis and depression
- assess symptoms that suggest complications, such as vasculitis and disease of the cervical spine, lung or eyes
- organise appropriate cross referral within the multidisciplinary team
- assess the need for referral for surgery (see section 1.6)
- assess the effect the disease is having on a person's life.

Evidence summary

This is a summary of the evidence supporting the proposed recommendations presented above. This section relates to the evidence summary table in appendix A of this briefing paper.

Clinical effectiveness

Monitoring

The NICE Guideline Development Group noted that monitoring of disease activity in RA has traditionally been performed subjectively, based on information (signs and symptoms) about the inflammation shared between the patient and healthcare professional. This can be made more objective by laboratory tests of inflammatory activity such as the C-reactive protein (CRP) and erythrocyte sedimentation rate (ESR).

The GDG considered studies (pooled analysis of RCTs, RCTs and case-series) that assessed methods of measuring ongoing RA disease activity (established and recent onset disease) and appropriate response to this information[1]. The evidence reviewed showed high correlations between indices of disease activity, and changes in disease activity correlated with changes in function. Indices that amalgamated several measures of disease activity showed greater validity than single measures of disease activity.

The GDG noted that whilst there was no single measure nor composite measure which was better than any other it seemed logical to recommend both a laboratory measure of disease activity such as CRP and a well validated composite score of disease activity such as DAS 28[2] (recommendation 1.5.1.1).

[1] High disease activity suggests disease control is inadequate and demands an appropriate response. Sustained low disease activity or remission may enable a cautious reduction in medication.

[2] The disease activity score (DAS) is scoring system developed in Europe. It is calculated using a formula that includes counts for tender and swollen joints (53 and 44 joints respectively), an evaluation of general health by the patient (on a scale of 0 to 100), and a measure of circulating inflammatory markers. DAS28 is similar to DAS above but uses only 28 joints for assessment. A DAS28 score greater than 5.1 is considered to be indicative of high disease activity, between 5.1 and 3.2 of moderate disease activity and less than 3.2 of low disease activity. Measurements of DAS28 are mandatory for initiating and monitoring anti-TNF therapy according to current NICE technology appraisal guidance.

The NICE clinical guideline does not specify the setting in which CRP monitoring and the DAS28 score should be carried out. Although CRP is commonly requested in primary care and could form part of an annual review, there is an absence of evidence to show that the DAS28 score is widely used by GPs. The DAS28 score is generally used in secondary care to aid the choice of appropriate DMARDs.

Annual review

The GDG noted that RA is a chronic and unpredictable disease with fluctuations in activity but acknowledged a lack of consistency in the evidence relating to frequency of review, place of review and assessment of aggressive treatment.

The GDG acknowledged that, in the absence of evidence, an annual review of the disease (with objective measures of activity, damage and function and including a review of complications and comorbidities) was reasonable and that the content of the review should include assessing disease status, primary prevention of ischaemic heart disease, osteoporosis, depression, stability of the cervical spine, and checking for other organ involvement.

Cost effectiveness

No health economic evidence was presented for the recommendations in NICE clinical guideline 79.

Assessment of recommendations against current practice

Current practice

A study by the King's Fund investigated the quality of general practice in England for 6 key disease areas, including research into the current practice of arthritis care (Goodwin et al. 2010).

The study concluded that the current quality of care to people with both osteoarthritis and rheumatoid arthritis is difficult to determine because of the lack of objective quality measures. The evidence suggests that quality of care is currently highly variable and could be significantly improved through better

understanding of the condition and a more proactive approach to management among primary care professionals.

There is limited information to inform precise estimates of current practice in UK primary care relating to ongoing disease monitoring and annual review for people with established RA.

In a survey of GPs[3] about the diagnosis and management of RA, commissioned by the National Audit Office (Medix 2009), many GPs responded that they do monitor comorbidities of RA. The most common comorbidities that the respondents stated they monitored were anaemia (82%), depression (72%), osteoporosis (69%) and cardiovascular disease (63%).

All respondents stated they would **initiate** NSAIDs/paracetemol, around a half stated they would initiate steroids (oral and injection) and 7% stated they would initiate 'commonly-used' DMARDs. Respondents stated that they were prepared to **repeat** prescriptions for commonly-used DMARDs (92%), oral steroids (88%) and other DMARDs (76%). As would be expected, hardly any respondents were prepared to initiate anti-TNF drugs, but 12% of respondents were prepared to repeat them.

Health inequalities

RA is more prevalent in women and older people and the condition can affect people's ability to remain in employment (National Audit Office 2009). However, there is no evidence presented in the guideline that directly shows that the recommendations outlined in this briefing paper can reduce health inequalities. [Relevance to health inequalities: medium.]

Will implementation of these recommendations lead to cost-effective improvements in the delivery of primary care?

RA can result in a wide range of complications for people with the disease; it is costly to the UK economy and to individuals.

[3] The study was conducted in late 2008/early 2009, surveying 481 GPs based in England; 549 GPs started the survey and 481 completed it.

Initial feasibility assessment

A register of people with established RA could be considered for the purposes of indicator development. The components of an annual review applicable to primary care would need to be defined based on recommendations presented in this briefing paper. The NICE clinical guideline does not provide specific monitoring intervals for people with established RA.

Key considerations

The following key considerations summarise the main points made in the briefing paper. The Committee is asked to consider these in its discussions:

- Musculoskeletal conditions are the most common reason for recurring GP visits, and make up 30% of primary care consultations. The National Audit Office estimates that approximately 580,000 adults in England currently have RA, which equates to a prevalence of 1.2%.
- RA is a chronic and debilitating condition. Once it has been identified, ongoing monitoring and support can minimise the damage of this disease.
- There is a need for regular monitoring and prompt identification of any comorbidities or complications associated with RA. Survey data indicate that many GPs are already involved in monitoring comorbidities of RA.
- The NICE GDG noted that patients and healthcare professionals are often unaware that there is an increased cardiovascular risk with RA. Greater awareness of the comorbidities of ischaemic heart disease, depression and osteoporosis is needed. However, there is limited information to inform the precise level of current practice in UK primary care relating to ongoing disease monitoring and annual review for people with established RA. Current practice would suggest that much of the ongoing care for rheumatoid arthritis is still located in hospitals

Assessment against NICE's prioritisation criteria

The condition is considered to have population prevalence that is high, and partly meets the criteria for diagnosis, treatment and monitoring in primary care (by GPs or directly employed practice staff).

The recommendation for **regular measurement of CRP and key components of disease activity** has feasibility issues that need to be considered as part of indicator development. The evidence of clinical effectiveness has been assessed as moderate. The expected change in practice is considered to be moderate.

The recommendation for **annual review** has feasibility issues that need to be considered as part of indicator development. The evidence of clinical effectiveness has been assessed as low and is based on GDG consensus. The expected change in practice is considered to be moderate.

References

Arthritis and Musculoskeletal Alliance (2009) Joint working? An audit of the implementation of the Department of Health's musculoskeletal services framework.

Department of Health (2006) The Musculoskeletal Services Framework. London: Department of Health.

Goodwin N, Curry N, Naylor C et al. (2010) Managing people with long-term conditions: An inquiry into the quality of general practice in England. London: the King's Fund.

Medix (2009) Survey of general practitioners about the diagnosis and management of rheumatoid arthritis – prepared for the National Audit Office. London: National Audit Office.

National Audit Office (2009) Services for people with rheumatoid arthritis. London: National Audit Office.

National Rheumatoid Arthritis Society (2006) ARMA standards of care: patients' experiences. London: National Rheumatoid Arthritis Society.

The King's Fund (2009) Perceptions of patients and professionals on rheumatoid arthritis care. A consultancy report by The King's Fund for the Rheumatology Futures Group. London: King's Fund.

Appendix A: Evidence summary

Selected recommendations from NICE clinical guideline 79

	Recommendation	Level of evidence	Key outcomes considered (for interventions)	Specific considerations highlighted by guideline developers	Cost-effectiveness evidence
Monitoring rheumatoid arthritis					
NICE clinical guideline 79, recommendation 1.5.1.1	Measure CRP and key components of disease activity (using a composite score such as DAS28) regularly in people with RA to inform decision-making about: • increasing treatment to control disease • cautiously decreasing treatment when disease is controlled.	1 cluster RCT, 1 pooled analysis of 3 RCTs, and 4 case-series	Measures of disease activity, remission, function and radiological progression	• In recent-onset RA, time-integrated CRP predicts radiological progression and mean CRP correlates with articular index. • In 2 studies of recent-onset RA, intensive treatment strategies with the aim of keeping the disease activity score low resulted in substantially better outcomes compared with usual care for most measures of disease activity, remission, function and radiological progression. A similar approach in established disease also resulted in improved disease control. • In established disease, studies show high correlations between indices of disease activity. • In established disease, changes in disease activity correlate with changes in function and indices that amalgamate several measures of disease activity show greater validity than single measures. • In established disease, that disease	None presented.

	Recommendation	Level of evidence	Key outcomes considered (for interventions)	Specific considerations highlighted by guideline developers	Cost-effectiveness evidence
				activity index performs better than the Riel index and Mallya index for correlations with clinical status and joint damage, and the ability to differentiate between low and high disease activity.	
NICE clinical guideline 79, recommendation 1.5.1.4	Offer people with RA an annual review to: • assess disease activity and damage, and measure functional ability (using, for example, the Health Assessment Questionnaire [HAQ]) • check for the development of comorbidities, such as hypertension, ischaemic heart disease, osteoporosis and depression • assess symptoms that suggest complications, such as vasculitis and disease of the cervical spine, lung or eyes • organise appropriate cross referral within the multidisciplinary team • assess the need for	GDG consensus	n/a	The GDG noted the lack of consistency in the evidence relating to frequency of review, place of review and assessment of aggressive treatment. It noted that no one approach would be suitable for everybody; regular review may be suitable for some, and patient-initiated review may be more suitable for others. The GDG also noted that it was essential that if patient-initiated follow-up was deemed appropriate, routine drug monitoring must still take place because these people might otherwise only receive a routine annual review. The GDG acknowledged that an annual review of the disease, complications and comorbidities, was reasonable and that the content of the review should include assessing disease status, osteoporosis and depression; primary prevention of ischaemic heart disease; ensuring the cervical spine is stable; and checking for other possible organ	None presented.

	Recommendation	Level of evidence	Key outcomes considered (for interventions)	Specific considerations highlighted by guideline developers	Cost-effectiveness evidence
	referral for surgery (see section 1.6) • assess the effect the disease is having on a person's life.			involvement (such as eye, lung or vasculitis). The GDG felt that there was a need to raise awareness of RA and comorbid risks. All practitioners need to be aware that management of RA is not just about managing the RA disease but also being much more aware of the comorbidities of ischaemic heart disease, depression and osteoporosis.	

Appendix B: Related QOF indicators

Related existing QOF indicators from 2011/12 indicator set

Rheumatoid arthritis does not relate to an existing QOF clinical domain as defined in the 2011/12 GMS Contract guidance.

Related indicators from the NICE menu of indicators

There are no musculoskeletal related indicators on the NICE menu of indicators, which is available from www.nice.org.uk/aboutnice/qof/indicators.jsp

Related indicators under consideration by the Advisory Committee

None.

Appendix C: Assessment of topic and recommendations against prioritisation checklist criteria status

The overall topic and recommendations produced by the QOF programme team have been assessed by comparing information in this briefing paper with the revised prioritisation checklist as agreed at the July 2009 Advisory Committee meeting.

Topic status

This topic meets the prioritisation criteria for prevalence, primary care management and disease severity as outlined in 1A, 1B and 1C below.

1A Population	
The condition is considered to have population prevalence that is high	☒
The condition is considered to have population prevalence that is medium	☐
The condition is considered to have population prevalence that is low	☐

1B Management				
		Fully meets criteria	**Partly meets criteria**	**Doesn't meet criteria**
	Score:	**[3]**	**[2]**	**[1]**
The condition is diagnosed in primary care*		☐	☒	☐
The condition is treated in primary care*		☐	☒	☐
The condition is monitored in primary care*		☐	☒	☐
** by GPs or directly employed practice staff*				

1C Disease severity		
Score	Scoring criteria	
1	Minor quality-of-life impact, no disability, limited morbidity impact	☐
2	Definite quality-of-life impact, no disability, limited morbidity impact	☐
3	Definite quality-of-life impact, some disability and/or intermediate morbidity impact	☐
4	Definite quality-of-life impact, significant disability and/or significant morbidity impact	☒

Recommendation status

The individual recommendations are assessed on feasibility, strength of clinical and cost-effectiveness evidence and expected change in practice.

Feasibility of each recommendation for NICE clinical guideline 79	
Monitoring rheumatoid arthritis	
1.5.1.1	Amber
1.5.1.3	Amber

Scores for each recommendation for NICE clinical guideline 79			
	Evidence of clinical effectiveness	**Evidence of cost effectiveness**	**Expected change in practice**
Monitoring rheumatoid arthritis			
1.5.1.1	Moderate	No data available	Moderate
1.5.1.3	Low	No data available	Moderate