Complete Summary

GUIDELINE TITLE

Osteoarthritis. The care and management of osteoarthritis in adults.

BIBLIOGRAPHIC SOURCE(S)

National Collaborating Centre for Chronic Conditions. Osteoarthritis. The care and management of osteoarthritis in adults. London (UK): National Institute for Health and Clinical Excellence (NICE); 2008 Feb. 22 p. (Clinical guideline; no. 59).

GUIDELINE STATUS

This is the current release of the guideline.

COMPLETE SUMMARY CONTENT

SCOPE
METHODOLOGY - including Rating Scheme and Cost Analysis
RECOMMENDATIONS
EVIDENCE SUPPORTING THE RECOMMENDATIONS
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SCOPE

DISEASE/CONDITION(S)

Osteoarthritis

GUIDELINE CATEGORY

Counseling
Evaluation
Management
Risk Assessment
Treatment

CLINICAL SPECIALTY

Family Practice
Geriatrics
Internal Medicine
Orthopedic Surgery
Physical Medicine and Rehabilitation
Rheumatology

INTENDED USERS

Advanced Practice Nurses
Allied Health Personnel
Health Care Providers
Health Plans
Hospitals
Managed Care Organizations
Nurses
Occupational Therapists
Patients
Physical Therapists
Physician Assistants
Physicians

GUIDELINE OBJECTIVE(S)

To offer best practice advice on the care of adults with osteoarthritis

TARGET POPULATION

Adults with osteoarthritis

INTERVENTIONS AND PRACTICES CONSIDERED

1. Holistic assessment
2. Tailored periodic review
3. Formulation of management plan, including consideration of comorbidities
4. Advice on the following core treatments:
    - Access to appropriate information
    - Activity and exercise
    - Interventions to achieve weight loss if person is overweight or obese
5. Communication of risks and benefits
6. Education and self-management
    - Patient information
    - Patient self-management interventions
    - Local heat or cold
7. Non-pharmacological management
    - Exercise and manual therapy
    - Weight loss
    - Transcutaneous electrical nerve stimulation
    - Electro-acupuncture (not recommended)
    - Aids and devices, including appropriate footwear, bracing/joint supports/insoles, and assistive devices
    - Glucosamine/chondroitin (not recommended)

    - Referral for arthroscopic lavage and debridement (not recommended for routine use)
8. Pharmacological management
    - Oral medications (paracetamol, non-steroidal anti-inflammatory drugs [NSAIDs], cyclo-oxygenase 2 [COX-2] inhibitors, opioids)
    - Topical medications (NSAIDs, capsaicin)
    - Proton pump inhibitor in combination with oral NSAIDS/COX-2 inhibitors
    - Intra-articular corticosteroid injections
9. Referral for joint replacement surgery

Note: Rubefacients and intra-articular hyaluronan injections were considered but not recommended.

MAJOR OUTCOMES CONSIDERED

- Incidence and prevalence of osteoarthritis
- Pain
- Stiffness
- Joint function
- Muscle strength
- Range of motion
- Balance
- Health status
- Patient function
- Disability
- Quality of life

METHODOLOGY

METHODS USED TO COLLECT/SELECT EVIDENCE

Searches of Electronic Databases
Searches of Unpublished Data

DESCRIPTION OF METHODS USED TO COLLECT/SELECT THE EVIDENCE

Note from the National Guideline Clearinghouse (NGC): This guideline was developed by the National Collaborating Centre for Chronic Conditions (NCCCC) on behalf of the National Institute for Health and Clinical Excellence (NICE). See the "Availability of Companion Documents" field for the full version of this guidance.

Developing Evidence-Based Questions

The technical team drafted a series of clinical questions that covered the guideline scope. The Guideline Development Group (GDG) and Project Executive refine and approve these questions, which are shown in Appendix A in the full version of the guideline available online at the Royal College of Physicians Web site.

Searching for the Evidence

The information scientist developed a search strategy for each question. Key words for the search were identified by the GDG. In addition, the health economist searched for additional papers providing economic evidence or to inform detailed health economic work (for example, modelling). Papers that were published or accepted for publication in peer-reviewed journals were considered as evidence by the GDG. Conference paper abstracts and non-English language papers were excluded from the searches.

Each clinical question dictated the appropriate study design that was prioritised in the search strategy, but the strategy was not limited solely to these study types. The research fellow or health economist identified titles and abstracts from the search results that appeared to be relevant to the question. Exclusion lists were generated for each question together with the rationale for the exclusion. The exclusion lists were presented to the GDG. Full papers were obtained where relevant. See Appendix A in the full version of the guideline for literature search details; available online at the Royal College of Physicians Web site.

Health Economic Evidence

Areas for health economic modelling were agreed by the GDG after the formation of the clinical questions. The Health Economist reviewed the clinical questions to consider the potential application of health economic modelling, and these priorities were agreed with the GDG. In this guideline, a broad cost-consequence comparison was performed. Details are given in Appendix C in the full version of the guideline available online at the Royal College of Physicians Web site. An in-depth economic model was created to compare non-steroidal anti-inflammatory drugs (NSAIDs), including the selective cyclo-oxygenase 2 (COX-2) inhibitors, and this is described in section 8.3 of the full version of the guideline with details in Appendix D of the full version of the guideline, available online at the Royal College of Physicians Web site.

The health economist performed supplemental literature searches to obtain additional data for modelling. Assumptions and designs of the models were explained to and agreed by the GDG members during meetings, and they commented on subsequent revisions.

NUMBER OF SOURCE DOCUMENTS

Not stated

METHODS USED TO ASSESS THE QUALITY AND STRENGTH OF THE EVIDENCE

Weighting According to a Rating Scheme (Scheme Given)

RATING SCHEME FOR THE STRENGTH OF THE EVIDENCE

Grading the Evidence Statements

1++ High quality meta-analysis (MA), systematic reviews (SR) of randomised controlled trials (RCTs), or RCTs with a very low risk of bias

1+ Well conducted MA, SR or RCTs, or RCTs with a low risk of bias

1- MA, SR of RCTs, or RCTs with a high risk of bias

2++ High quality SR of case-control or cohort studies.
High quality case-control or cohort studies with a very low risk of confounding, bias, or chance and a high probability that the relationship is causal

2+ Well conducted case-control or cohort studies with a low risk of confounding, bias, or chance and a moderate probability that the relationship is causal

2- Case-control or cohort studies with a high risk of confounding, bias, or chance and a significant risk that the relationship is not causal

3 Non-analytic studies (for example, case reports, case series)

4 Expert opinion, formal consensus

METHODS USED TO ANALYZE THE EVIDENCE

Review of Published Meta-Analyses
Systematic Review with Evidence Tables

DESCRIPTION OF THE METHODS USED TO ANALYZE THE EVIDENCE

Note from the National Guideline Clearinghouse (NGC): This guideline was developed by the National Collaborating Centre for Chronic Conditions (NCCCC) on behalf of the National Institute for Health and Clinical Excellence (NICE). See the "Availability of Companion Documents" field for the full version of this guidance.

Appraising the Evidence

The research fellow or health economist, as appropriate, critically appraised the full papers. In general, no formal contact was made with authors; however, there were ad hoc occasions when this was required in order to clarify specific details. Critical appraisal checklists were compiled for each full paper. One research fellow undertook the critical appraisal and data extraction. The evidence was considered carefully by the Guideline Development Group (GDG) for accuracy and completeness.

All procedures are fully compliant with the:

- NICE methodology as detailed in the 'Guideline development methods – information for national collaborating centres and guideline developers manual' (National Institute for Health and Clinical Excellence 2006)
- NCC-CC quality assurance document and systematic review chart

Distilling and Synthesising the Evidence and Developing Recommendations

The evidence from each full paper was distilled into an evidence table and synthesised into evidence statements before being presented to the GDG. This evidence was then reviewed by the GDG and used as a basis upon which to formulate recommendations. The criteria for grading evidence are shown in Table 2.2 in the full version of the original guideline document and in the "Rating Scheme for the Strength of the Evidence" field, above.

Evidence tables are available online at available online at the Royal College of Physicians Web site.

METHODS USED TO FORMULATE THE RECOMMENDATIONS

Expert Consensus

DESCRIPTION OF METHODS USED TO FORMULATE THE RECOMMENDATIONS

Note from the National Guideline Clearinghouse (NGC): This guideline was developed by the National Collaborating Centre for Chronic Conditions (NCCCC) on behalf of the National Institute for Health and Clinical Excellence (NICE). See the "Availability of Companion Documents" field for the full version of this guidance.

Background

The development of this evidence-based clinical guideline draws upon the methods described by NICE's 'Guidelines manual' (National Institute for Health and Clinical Excellence 2006) and the online methodology pack (National Collaborating Centre for Chronic Conditions 2006) specifically developed by the NCC-CC for each chronic condition guideline. The developers' role and remit are summarised in Table 2.1 in the original guideline document.

Developing Evidence-based Questions

The technical team drafted a series of clinical questions that covered the guideline scope. The guideline development group (GDG) and Project Executive refine and approve these questions, which are shown in Appendix A in the full version of this guideline, available online at the Royal College of Physicians Web site.

Agreeing the Recommendations

The Guideline Development Group (GDG) employed formal consensus techniques to:

- Ensure that the recommendations reflected the evidence base
- Approve recommendations based on lesser evidence or extrapolations from other situations
- Reach consensus recommendations where the evidence was inadequate
- Debate areas of disagreement and finalise recommendations

The GDG also reached agreement on the following:

- Five to ten recommendations as key priorities for implementation
- Five key research recommendations
- Algorithms

In prioritising key recommendations for implementation, the GDG took into account the following criteria:

- High clinical impact
- High impact on reducing variation
- more efficient use of National Health Service (NHS) resources
- Allowing the patient to reach critical points in the care pathway more quickly

Audit criteria will be produced for NICE by Clinical Accountability Service Planning and Evaluation (CASPE). Research following publication in order to provide suggestions of areas for audit in line with the key recommendations for implementation.

RATING SCHEME FOR THE STRENGTH OF THE RECOMMENDATIONS

Not applicable

COST ANALYSIS

This costing report looks at the resource impact of implementing the National Institute for Health and Clinical Excellence (NICE) guideline 'Osteoarthritis: the care and management of osteoarthritis in adults' in England.

The costing method adopted is outlined in appendix A of the Costing Report (see "Availability of Companion Documents" field); it uses the most accurate data available, was produced in conjunction with key clinicians, and was reviewed by clinical and financial professionals.

METHOD OF GUIDELINE VALIDATION

External Peer Review
Internal Peer Review

DESCRIPTION OF METHOD OF GUIDELINE VALIDATION

The guideline was validated through two consultations.

1. The first draft of the guideline (The full guideline, National Institute for Clinical Excellence (NICE) guideline and Quick Reference Guide) were consulted with Stakeholders and comments were considered by the Guideline Development Group (GDG)
2. The final consultation draft of the Full guideline, the NICE guideline and the Information for the Public were submitted to stakeholders for final comments.

The final draft was submitted to the Guideline Review Panel for review prior to publication.

RECOMMENDATIONS

MAJOR RECOMMENDATIONS

Note from the National Guideline Clearinghouse (NGC): This guideline was developed by the National Collaborating Centre for Chronic Conditions (NCCCC) on behalf of the National Institute for Health and Clinical Excellence (NICE). See the "Availability of Companion Documents" field for the full version of this guidance.

Holistic Approach to Osteoarthritis Assessment and Management

- Healthcare professionals should assess the effect of osteoarthritis on the individual's function, quality of life, occupation, mood, relationships, and leisure activities. Figure 1 in the original guideline document should be used as an aid to prompt questions that should be asked as part of the holistic assessment of a person with osteoarthritis.

Figure 1 in the original guideline document is intended as an aide memoir to provide a breakdown of key topics that are of common concern when assessing people with osteoarthritis. Within each topic are a few suggested specific points worth assessing. Not every topic will be of concern for everyone with osteoarthritis, and there are other specifics which may warrant consideration for particular people.

- People with symptomatic osteoarthritis should have periodic review tailored to their individual needs.
- Healthcare professionals should formulate a management plan in partnership with the person with osteoarthritis.
- Comorbidities that compound the effect of osteoarthritis should be taken into consideration in the management plan.
- Healthcare professionals should offer all people with clinically symptomatic osteoarthritis advice on the following core treatments:
    - Access to appropriate information (see "Patient Information" section below).
    - Activity and exercise (see "Exercise and Manual Therapy" section below).
    - Interventions to achieve weight loss if person is overweight or obese (see "Weight Loss" section below and the National Guideline Clearinghouse (NGC) summary of the National Institute for Health and Clinical Excellence (NICE) guideline Obesity: the prevention, identification, assessment and management of overweight and obesity in adults and children).
- The risks and benefits of treatment options, taking into account comorbidities, should be communicated to the patient in ways that can be understood.

Refer to Figure 2 in the original guideline document for a summary of treatments in the remaining recommendations.

Education and Self-Management

Patient Information

- Healthcare professionals should offer accurate verbal and written information to all people with osteoarthritis to enhance understanding of the condition and its management, and to counter misconceptions, such as that it inevitably progresses and cannot be treated. Information sharing should be an ongoing, integral part of the management plan rather than a single event at time of presentation.

Patient Self-Management Interventions

- Individualised self-management strategies should be agreed between healthcare professionals and the person with osteoarthritis. Positive behavioural changes, such as exercise, weight loss, use of suitable footwear and pacing, should be appropriately targeted.
- Self-management programmes, either individually or in groups, should emphasise the recommended core treatments (see "Holistic Approach to Osteoarthritis Assessment and Management" section above) for people with osteoarthritis, especially exercise.

Thermotherapy

- The use of local heat or cold should be considered as an adjunct to core treatment.

<u>Non-Pharmacological Management of Osteoarthritis</u>

Exercise and Manual Therapy

- Exercise should be a core treatment (see "Holistic Approach to Osteoarthritis Assessment and Management" section above) for people with osteoarthritis, irrespective of age, comorbidity, pain severity or disability. Exercise should include:
    - Local muscle strengthening
    - General aerobic fitness

  It has not been specified whether exercise should be provided by the NHS or whether the healthcare professional should provide advice and encouragement to the patient to obtain and carry out the intervention themselves. Exercise has been found to be beneficial but the clinician needs to make a judgement in each case on how to effectively ensure patient participation. This will depend upon the patient's individual needs, circumstances, self-motivation and the availability of local facilities.

- Manipulation and stretching should be considered as an adjunct to core treatment, particularly for osteoarthritis of the hip.

Weight Loss

- Interventions to achieve weight loss* should be a core treatment (see "Holistic Approach to Osteoarthritis Assessment and Management" section above) for people who are obese or overweight.

*__Note__: See the NGC summary of the NICE guideline Obesity: the prevention, identification, assessment and management of overweight and obesity in adults and children.

Electrotherapy

- Healthcare professionals should consider the use of transcutaneous electrical nerve stimulation (TENS)* as an adjunct to core treatment for pain relief.

**__Note__: TENS machines are generally loaned to the patient by the NHS for a short period, and if effective the patient is advised where they can purchase their own.

Acupuncture

- Electro-acupuncture should not be used to treat people with osteoarthritis.***

***__Note__: There is not enough consistent evidence of clinical or cost effectiveness to allow a firm recommendation on the use of acupuncture for the treatment of osteoarthritis.

Aids and Devices

- Healthcare professionals should offer advice on appropriate footwear (including shock-absorbing properties) as part of core treatment (see "Holistic Approach to Osteoarthritis Assessment and Management" section above) for people with lower limb osteoarthritis.
- People with osteoarthritis who have biomechanical joint pain or instability should be considered for assessment for bracing/joint supports/insoles as an adjunct to their core treatment.
- Assistive devices (for example, walking sticks and tap turners) should be considered as adjuncts to core treatment for people with osteoarthritis who have specific problems with activities of daily living. Healthcare professionals may need to seek expert advice in this context (for example, from occupational therapists or Disability Equipment Assessment Centres).

Nutraceuticals

- The use of glucosamine or chondroitin products is not recommended for the treatment of osteoarthritis.

Invasive Treatments for Knee Osteoarthritis

- Referral for arthroscopic lavage and debridement* should not be offered as part of treatment for osteoarthritis, unless the person has knee osteoarthritis with a clear history of mechanical locking (not gelling, 'giving way' or X-ray evidence of loose bodies).

*__Note__: This recommendation is a refinement of the indication in 'Arthroscopic knee washout, with or without debridement, for the treatment of osteoarthritis' (NICE interventional procedure guidance 230). This guideline has reviewed the clinical and cost-effectiveness evidence, which has led to this more specific recommendation on the indication for which arthroscopic lavage and debridement is judged to be clinically and cost effective.

Pharmacological Management of Osteoarthritis

Oral Analgesics

- Healthcare professionals should consider offering paracetamol for pain relief in addition to core treatment (see figure 2 in the original guideline document); regular dosing may be required. Paracetamol and/or topical non-steroidal anti-inflammatory drugs (NSAIDs) should be considered ahead of oral NSAIDs, cyclo-oxygenase 2 (COX-2) inhibitors or opioids.
- If paracetamol or topical NSAIDs are insufficient for pain relief for people with osteoarthritis, then the addition of opioid analgesics should be considered. Risks and benefits should be considered, particularly in elderly people.

Topical Treatments

- Healthcare professionals should consider offering topical NSAIDs for pain relief in addition to core treatment (see figure 2 in the original guideline document) for people with knee or hand osteoarthritis. Topical NSAIDs and/or paracetamol should be considered ahead of oral NSAIDs, COX-2 inhibitors, or opioids.
- Topical capsaicin should be considered as an adjunct to core treatment for knee or hand osteoarthritis.
- Rubefacients are not recommended for the treatment of osteoarthritis.

NSAIDs and Highly Selective COX-2 Inhibitors

Although NSAIDs and COX-2 inhibitors may be regarded as a single drug class of 'NSAIDs', these recommendations continue to use the two terms for clarity, and because of the differences in side-effect profile. The recommendations in this section are derived from extensive health-economic modelling, which included December 2007 NHS drug tariff costs. This guideline replaces the osteoarthritis aspects only of NICE technology appraisal guidance 27. The guideline recommendations are based on up-to-date evidence on efficacy and adverse events, current costs and an expanded health-economic analysis of cost effectiveness. This has led to an increased role for COX-2 inhibitors, an increased awareness of all potential adverse events (gastrointestinal, liver and cardio-renal) and a recommendation to co-prescribe a proton pump inhibitor (PPI).

- Where paracetamol or topical NSAIDs are ineffective for pain relief for people with osteoarthritis, then substitution with an oral NSAID/COX-2 inhibitor should be considered.
- Where paracetamol or topical NSAIDs provide insufficient pain relief for people with osteoarthritis, then the addition of an oral NSAID/COX-2 inhibitor to paracetamol should be considered.
- Oral NSAIDs/COX-2 inhibitors should be used at the lowest effective dose for the shortest possible period of time.
- When offering treatment with an oral NSAID/COX-2 inhibitor, the first choice should be either a standard NSAID or a COX-2 inhibitor (other than etoricoxib 60 mg). In either case, these should be co-prescribed with a PPI, choosing the one with the lowest acquisition cost.
- All oral NSAIDs/COX-2 inhibitors have analgesic effects of a similar magnitude but vary in their potential gastrointestinal, liver and cardio-renal toxicity; therefore, when choosing the agent and dose, healthcare professionals should take into account individual patient risk factors, including age. When

prescribing these drugs, consideration should be given to appropriate assessment and/or ongoing monitoring of these risk factors.
- If a person with osteoarthritis needs to take low-dose aspirin, healthcare professionals should consider other analgesics before substituting or adding an NSAID or COX-2 inhibitor (with a PPI) if pain relief is ineffective or insufficient.

Intra-Articular Injections

- Intra-articular corticosteroid injections should be considered as an adjunct to core treatment for the relief of moderate to severe pain in people with osteoarthritis.
- Intra-articular hyaluronan injections are not recommended for the treatment of osteoarthritis.

Referral for Specialist Services

Referral Criteria for Surgery

- Clinicians with responsibility for referring a person with osteoarthritis for consideration of joint surgery should ensure that the person has been offered at least the core (non-surgical) treatment options (see "Holistic Approach to Osteoarthritis Assessment and Management" section above and figure 2 in the original guideline document).
- Referral for joint replacement surgery should be considered for people with osteoarthritis who experience joint symptoms (pain, stiffness and reduced function) that have a substantial impact on their quality of life and are refractory to non-surgical treatment. Referral should be made before there is prolonged and established functional limitation and severe pain.
- Patient-specific factors (including age, gender, smoking, obesity, and comorbidities) should not be barriers to referral for joint replacement surgery.
- Decisions on referral thresholds should be based on discussions between patient representatives, referring clinicians, and surgeons, rather than using current scoring tools for prioritisation.

CLINICAL ALGORITHM(S)

The following algorithms are included in the original guideline document:

- Holistic assessment of person with osteoarthritis (OA)
- Targeting treatment: a summary of the treatments recommended

EVIDENCE SUPPORTING THE RECOMMENDATIONS

TYPE OF EVIDENCE SUPPORTING THE RECOMMENDATIONS

The type of evidence supporting the recommendations is not specifically stated for each recommendation.

BENEFITS/HARMS OF IMPLEMENTING THE GUIDELINE RECOMMENDATIONS

POTENTIAL BENEFITS

- Effective care and management of osteoarthritis
- Decreased morbidity in patients with osteoarthritis
- Improved outcomes (physical, emotional, quality of life) in patients with osteoarthritis

POTENTIAL HARMS

Oral non-steroidal anti-inflammatory drugs (NSAIDs) and cyclo-oxygenase 2 (COX-2) inhibitors have the potential for gastrointestinal, liver, and cardio-renal toxicity.

QUALIFYING STATEMENTS

QUALIFYING STATEMENTS

- This guidance represents the view of the Institute, which was arrived at after careful consideration of the evidence available. Healthcare professionals are expected to take it fully into account when exercising their clinical judgement. The guidance does not, however, override the individual responsibility of healthcare professionals to make decisions appropriate to the circumstances of the individual patient, in consultation with the patient and/or guardian or carer and informed by the summary of product characteristics of any drugs they are considering.
- The guideline will assume that prescribers will use a drug's summary of product characteristics to inform their decisions for individual patients.
- Guideline limitations comprise those listed below.
    - National Institute for Health and Clinical Excellence (NICE) clinical guidelines usually do not cover issues of service delivery, organisation or provision (unless specified in the remit from the Department of Health).
    - NICE is primarily concerned with health services and so recommendations are not provided for social services and the voluntary sector. However, the guideline may address important issues in how NHS clinicians interface with these other sectors.
    - Generally, the guideline does not cover rare, complex, complicated or unusual conditions.
    - Where a meta-analysis has been used to look at a particular outcome such as pain, the individual component papers were considered to ensure that studies were not excluded that contained outcome measures relevant to function and quality of life.
    - It is not possible in the development of a clinical guideline to complete extensive systematic literature review of all pharmacological toxicity, although NICE expect their guidelines to be read alongside the summaries of product characteristics.

IMPLEMENTATION OF THE GUIDELINE

DESCRIPTION OF IMPLEMENTATION STRATEGY

Implementation

The Healthcare Commission assesses the performance of National Health Service (NHS) organisations in meeting core and developmental standards set by the Department of Health in 'Standards for better health', issued in July 2004. Implementation of clinical guidelines forms part of the developmental standard D2. Core standard C5 says that national agreed guidance should be taken into account when NHS organisations are planning and delivering care.

National Institute for Health and Clinical Excellence (NICE) has developed tools to help organisations implement this guidance (listed below). These are available on the NICE website (http://guidance.nice.org.uk/CG59; see also the "Availability of Companion Documents" field).

- Slides highlighting key messages for local discussion
- Costing tools
    - Costing report to estimate the national savings and costs associated with implementation
    - Costing template to estimate the local costs and savings involved
- Audit support for monitoring local practice

Key Priorities for Implementation

- Exercise* should be a core treatment (see "Holistic Approach to Osteoarthritis Assessment and Management" section in the "Major Recommendations" field) for people with osteoarthritis, irrespective of age, comorbidity, pain severity or disability. Exercise should include:
    - Local muscle strengthening
    - General aerobic fitness
- Referral for arthroscopic lavage and debridement** should not be offered as part of treatment for osteoarthritis, unless the person has knee osteoarthritis with a clear history of mechanical locking (not gelling, 'giving way' or X-ray evidence of loose bodies).
- Healthcare professionals should consider offering paracetamol for pain relief in addition to core treatment (see figure 2 in the original guideline document); regular dosing may be required. Paracetamol and/or topical non-steroidal anti-inflammatory drugs (NSAIDs) should be considered ahead of oral NSAIDs, cyclo-oxygenase 2 (COX-2) inhibitors or opioids.
- Healthcare professionals should consider offering topical NSAIDs for pain relief in addition to core treatment (see figure 2 in the original guideline document) for people with knee or hand osteoarthritis. Topical NSAIDs and/or paracetamol should be considered ahead of oral NSAIDs, COX-2 inhibitors or opioids.
- When offering treatment with an oral NSAID/COX-2 inhibitor, the first choice should be either a standard NSAID or a COX-2 inhibitor (other than etoricoxib 60 mg). In either case, these should be co-prescribed with a proton pump inhibitor (PPI), choosing the one with the lowest acquisition cost.

- Referral for joint replacement surgery should be considered for people with osteoarthritis who experience joint symptoms (pain, stiffness and reduced function) that have a substantial impact on their quality of life and are refractory to non-surgical treatment. Referral should be made before there is prolonged and established functional limitation and severe pain.

* It has not been specified whether exercise should be provided by the NHS or whether the healthcare professional should provide advice and encouragement to the patient to obtain and carry out the intervention themselves. Exercise has been found to be beneficial but the clinician needs to make a judgement in each case on how to effectively ensure patient participation. This will depend upon the patient's individual needs, circumstances, self-motivation and the availability of local facilities.

**This recommendation is a refinement of the indication in 'Arthroscopic knee washout, with or without debridement, for the treatment of osteoarthritis' (NICE interventional procedure guidance 230). This guideline has reviewed the clinical and cost-effectiveness evidence, which has led to this more specific recommendation on the indication for which arthroscopic lavage and debridement is judged to be clinically and cost effective.

IMPLEMENTATION TOOLS

Audit Criteria/Indicators
Clinical Algorithm
Patient Resources
Quick Reference Guides/Physician Guides
Resources
Slide Presentation

For information about availability, see the "Availability of Companion Documents" and "Patient Resources" fields below.

INSTITUTE OF MEDICINE (IOM) NATIONAL HEALTHCARE QUALITY REPORT CATEGORIES

IOM CARE NEED

Living with Illness

IOM DOMAIN

Effectiveness
Patient-centeredness
Safety

IDENTIFYING INFORMATION AND AVAILABILITY

BIBLIOGRAPHIC SOURCE(S)

National Collaborating Centre for Chronic Conditions. Osteoarthritis. The care and management of osteoarthritis in adults. London (UK): National Institute for Health and Clinical Excellence (NICE); 2008 Feb. 22 p. (Clinical guideline; no. 59).

ADAPTATION

Not applicable: The guideline was not adapted from another source.

DATE RELEASED

2008 Feb

GUIDELINE DEVELOPER(S)

National Collaborating Centre for Chronic Conditions - National Government Agency [Non-U.S.]

SOURCE(S) OF FUNDING

National Institute for Health and Clinical Excellence (NICE)

GUIDELINE COMMITTEE

Guideline Development Group

COMPOSITION OF GROUP THAT AUTHORED THE GUIDELINE

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FINANCIAL DISCLOSURES/CONFLICTS OF INTEREST

Not stated

GUIDELINE STATUS

This is the current release of the guideline.

GUIDELINE AVAILABILITY

Electronic copies: Available in Portable Document Format (PDF) format from the National Institute for Health and Clinical Excellence (NICE) Web site.

AVAILABILITY OF COMPANION DOCUMENTS

The following are available:

- Osteoarthritis. National clinical guideline for care and management in adults. Full guideline. London: Royal College of Physicians; 2008. 316 p. Electronic copies: Available in Portable Document Format (PDF) from the National Institute for Health and Clinical Excellence (NICE) Web site.
- Osteoarthritis. The care and management of osteoarthritis in adults. Quick reference guide. London (UK): National Institute for Health and Clinical Excellence; 2008 Feb. 2 p. (Clinical guideline; no. 59). Electronic copies: Available in Portable Document Format (PDF) from the NICE Web site.
- Osteoarthritis. Costing report. Implementing NICE guidance. London (UK): National Institute for Health and Clinical Excellence; 2008 Feb. 24 p. (Clinical guideline; no. 59). Electronic copies: Available in Portable Document Format (PDF) from the NICE Web site.
- Osteoarthritis. Costing template. London (UK): National Institute for Health and Clinical Excellence; 2008 Feb. Various p. (Clinical guideline; no. 59). Electronic copies: Available in Portable Document Format (PDF) from the NICE Web site.
- Osteoarthritis. Audit support. London (UK): National Institute for Health and Clinical Excellence; 2008. 7 p. (Clinical guideline; no. 59). Electronic copies: Available in Portable Document Format (PDF) from the NICE Web site.
- Osteoarthritis. Slide set. London (UK): National Institute for Health and Clinical Excellence; 2008. 14 p. (Clinical guideline; no. 59). Electronic copies: Available in Portable Document Format (PDF) from the NICE Web site.
- The guidelines manual 2007. London (UK): National Institute for Health and Clinical Excellence (NICE); 2007 April. Electronic copies: Available in Portable Document Format (PDF) from the NICE Web site.

Print copies: Available from the National Health Service (NHS) Response Line 0870 1555 455. ref: N1459. 11 Strand, London, WC2N 5HR.

PATIENT RESOURCES

The following is available:

- Osteoarthritis. Understanding NICE guidance - Information for people who use NHS services. London (UK): National Institute for Health and Clinical Excellence; 2008 Feb. 8 p. (Clinical guideline; no. 59). Electronic copies:

Available in Portable Document Format (PDF) from the National Institute for Health and Clinical Excellence (NICE) Web site.

Print copies: Available from the National Health Service (NHS) Response Line 0870 1555 455. ref: N1460. 11 Strand, London, WC2N 5HR.

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