NICE National Institute for Health and Care Excellence

Management of osteoarthritis

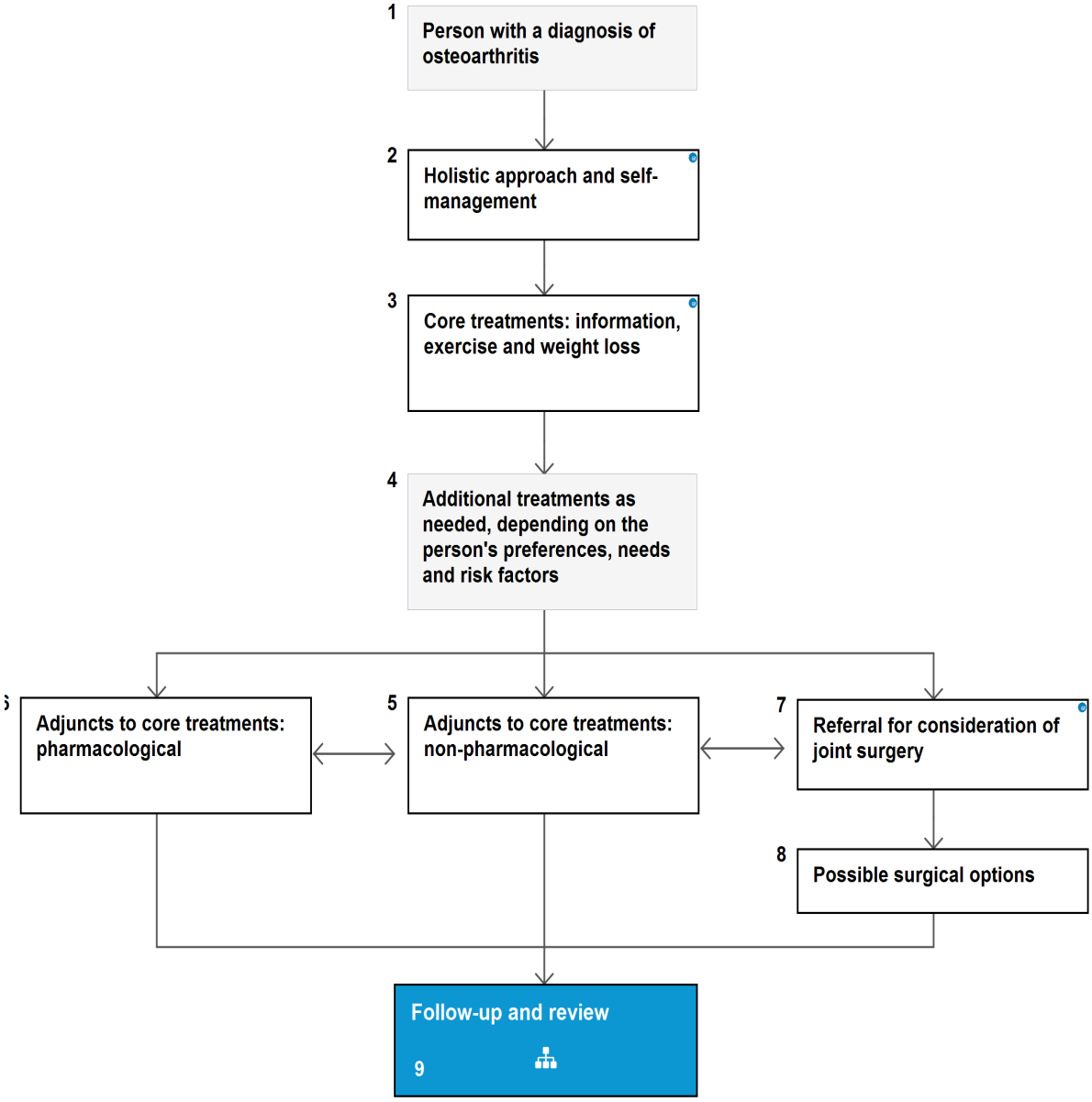
A NICE pathway brings together all NICE guidance, quality standards and materials to support implementation on a specific topic area. The pathways are interactive and designed to be used online. This pdf version gives you a single pathway diagram and uses numbering to link the boxes in the diagram to the associated recommendations.

To view the online version of this pathway visit:

http://pathways.nice.org.uk/pathways/osteoarthritis

Pathway last updated: 21 July 2015. To see details of any updates to this pathway since its launch, visit: About this Pathway. For information on the NICE guidance used to create this path, see: Sources.

NICE *Pathways*



1 Person with a diagnosis of osteoarthritis

No additional information

2 Holistic approach and self-management

Holistic approach to osteoarthritis assessment and management

Assess the effect of osteoarthritis on the person's function, quality of life, occupation, mood, relationships and leisure activities. Use figure 1 in the NICE guideline as an aid to prompt questions that should be asked as part of the holistic assessment of a person with osteoarthritis.

Agree a plan with the person (and their family members or carers as appropriate) for managing their osteoarthritis. Apply the principles in the patient experience in adult NHS services pathway in relation to shared decision-making.

Take into account comorbidities that compound the effect of osteoarthritis when formulating the management plan.

Discuss the risks and benefits of treatment options with the person, taking into account comorbidities. Ensure that the information provided can be understood.

Self-management

Agree individualised self-management strategies with the person with osteoarthritis. Ensure that positive behavioural changes, such as exercise, weight loss, use of suitable footwear and pacing, are appropriately targeted.

Ensure that self-management programmes for people with osteoarthritis, either individually or in groups, emphasise the recommended core treatments (see core treatments [See page 4] in this path), especially exercise.

See also adjuncts to core treatments: non-pharmacological [See page 5] in this path for self-management options.

Quality standards

The following quality statements are relevant to this part of the pathway.

2. Assessment at diagnosis

3. Self-management

3 Core treatments: information, exercise and weight loss

Offer advice on the following core treatments to all people with clinical osteoarthritis.

- Access to appropriate information.
- Activity and exercise.
- Interventions to achieve weight loss if the person is overweight or obese (see also the obesity pathway).

Patient information

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. Ensure that information sharing is an ongoing, integral part of the management plan rather than a single event at time of presentation.

Offer advice on appropriate footwear (including shock-absorbing properties) as part of core treatments for people with lower limb osteoarthritis.

NICE has written information for the public explaining the guidance on osteoarthritis.

Exercise

Advise people with osteoarthritis to exercise as a core treatment, irrespective of age, comorbidity, pain severity or disability. Exercise should include:

- local muscle strengthening **and**
- 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 person 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 participation. This will depend upon the person's individual needs, circumstances and self-motivation, and the availability of local facilities.

Weight loss

Offer interventions to achieve weight loss as a core treatment for people who are obese or overweight. (see the obesity pathway for more details).

Quality standards

The following quality statements are relevant to this part of the pathway.

3. Self-management
4. Exercise
5. Weight loss
7. Core treatments before referral for consideration of joint surgery

4 Additional treatments as needed, depending on the person's preferences, needs and risk factors

No additional information

5 Adjuncts to core treatments: non-pharmacological

Thermotherapy

The use of local heat or cold should be considered as an adjunct to core treatments (see core treatments [See page 4] in this path).

Electrotherapy

Healthcare professionals should consider the use of TENS as an adjunct to core treatments (see core treatments [See page 4] in this path) for pain relief. (TENS machines are generally loaned to the person by the NHS for a short period, and if effective the person is advised where they can purchase their own.)

Aids and devices

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 treatments (see core treatments [See page 4] in this path).

Assistive devices (for example, walking sticks and tap turners) should be considered as adjuncts to core treatments (see core treatments [See page 4] in this path) for people with osteoarthritis who have specific problems with activities of daily living. If needed, seek expert advice in this context (for example, from occupational therapists or Disability Equipment Assessment Centres).

Manual therapy

Manipulation and stretching should be considered as an adjunct to core treatments (see core treatments [See page 4] in this path), particularly for osteoarthritis of the hip.

Interventions that should not be offered

Nutraceuticals

Do not offer glucosamine or chondroitin products for the management of osteoarthritis.

Acupuncture

Do not offer acupuncture for the management of osteoarthritis.

6 Adjuncts to core treatments: pharmacological

Note: NICE intends to undertake a full review of evidence on the pharmacological management of osteoarthritis. This will start after a review by the MHRA of the safety of over-the-counter analgesics is completed. For more information, see the NICE guideline on osteoarthritis.

In the meantime, the recommendations below remain current advice. However, the GDG would like to draw attention to the findings of the evidence review on the effectiveness of paracetamol that was presented in the consultation version of the osteoarthritis guideline. That review identified reduced effectiveness of paracetamol in the management of osteoarthritis compared with what was previously thought. The GDG believes that this information should be taken into account in routine prescribing practice until the planned full review of evidence on the

pharmacological management of osteoarthritis is published (see the NICE website for further details).

Oral analgesics

Healthcare professionals should consider offering paracetamol for pain relief in addition to core treatments (see core treatments [See page 4] in this path); regular dosing may be required. Paracetamol and/or topical NSAIDs should be considered ahead of oral NSAIDs, 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 older people.

Topical treatments

Consider topical NSAIDs for pain relief in addition to core treatments (see core treatments [See page 4] in this path) for people with knee or hand osteoarthritis. Consider topical NSAIDs and/or paracetamol ahead of oral NSAIDs, COX-2 inhibitors or opioids.

Topical capsaicin should be considered as an adjunct to core treatments (see core treatments [See page 4] in this path) for knee or hand osteoarthritis.

Do not offer rubefacients for treating 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 use the two terms for clarity and because of the differences in side-effect profile.

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.

Use oral NSAIDs/COX-2 inhibitors 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, co-prescribe 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, 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 treatments (see core treatments [See page 4] in this path) for the relief of moderate to severe pain in people with osteoarthritis.

Do not offer intra-articular hyaluronan injections for the management of osteoarthritis.

7 Referral for consideration of joint 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 core treatments [See page 4] in this path).

Base decisions on referral thresholds on discussions between patient representatives, referring clinicians and surgeons, rather than using scoring tools for prioritisation.

Consider referral for joint surgery 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.

Refer for consideration of joint surgery before there is prolonged and established functional limitation and severe pain.

Patient-specific factors (including age, sex, smoking, obesity and comorbidities) should not be barriers to referral for joint surgery.

When discussing the possibility of joint surgery, check that the person has been offered at least the core treatments (see core treatments [See page 4] in this path) for osteoarthritis, and give them information about:

- the benefits and risks of surgery and the potential consequences of not having surgery
- recovery and rehabilitation after surgery
- how having a prosthesis might affect them
- how care pathways are organised in their local area.

Quality standards

The following quality statements are relevant to this part of the pathway.

7. Core treatments before referral for consideration of joint surgery

8. Referral for consideration of joint surgery

8 Possible surgical options

Invasive treatments for knee osteoarthritis

Do not refer for arthroscopic lavage and debridement as part of treatment for osteoarthritis, unless the person has knee osteoarthritis with a clear history of mechanical locking (as opposed to morning joint stiffness, 'giving way' or X-ray evidence of loose bodies).

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

Total hip replacement and resurfacing arthroplasty for end-stage arthritis of the hip

The following recommendation is from NICE technology appraisal guidance on total hip replacement and resurfacing arthroplasty for end-stage arthritis of the hip.

Prostheses for total hip replacement and resurfacing arthroplasty are recommended as treatment options for people with end-stage arthritis of the hip only if the prostheses have rates (or projected rates) of revision of 5% or less at 10 years.

NICE has written information for the public explaining the guidance on prostheses for end-stage hip arthritis.

Interventional procedures

NICE has published guidance on the use of the following procedures with **normal arrangements** for consent, audit and clinical governance:

- total prosthetic replacement of the temporomandibular joint
- minimally invasive total hip replacement
- shoulder resurfacing arthroplasty
- mini-incision surgery for total knee replacement
- metatarsophalangeal joint replacement of the hallux
- artificial trapeziometacarpal joint replacement for end-stage osteoarthritis
- artificial metacarpophalangeal and interphalangeal joint replacement for end-stage arthritis.

NICE has published guidance on the use of the following procedures with **special arrangements** for consent, audit and clinical governance:

- platelet-rich plasma injections for osteoarthritis of the knee
- total wrist replacement.

NICE has published guidance that the following procedures should be used **only in the context of research**:

- joint distraction for knee osteoarthritis without alignment correction
- implantation of a shock or load absorber for mild to moderate symptomatic medial knee osteoarthritis
- individually magnetic resonance imaging-designed unicompartmental interpositional implant insertion for osteoarthritis of the knee.

Resources

The following implementation tool is relevant to this part of the pathway.

Total hip replacement and resurfacing arthroplasty for end stage arthritis of the hip (review of technology appraisal guidance 2 and 44): costing statement

9 Follow-up and review

See Osteoarthritis / Osteoarthritis overview / Follow-up and review

Glossary

COX-2

Cyclo-oxygenase 2

GDG

Guideline Development Group

MHRA

Medicines and Healthcare Products Regulatory Agency

NSAID

Non-steroidal anti-inflammatory drug

PPI

Proton pump inhibitor

TENS

Transcutaneous electrical nerve stimulation

Sources

Osteoarthritis (2014) NICE clinical guideline 177

Total hip replacement and resurfacing arthroplasty for end stage arthritis of the hip (review of technology appraisal guidance 2 and 44) (2014) NICE technology appraisal guidance 304

Joint distraction for knee osteoarthritis without alignment correction (2015) NICE interventional procedure guidance 529

Implantation of a shock or load absorber for mild to moderate symptomatic medial knee osteoarthritis (2015) NICE interventional procedure guidance 512

Total prosthetic replacement of the temporomandibular joint (2014) NICE interventional procedure guidance 500

Platelet-rich plasma injections for osteoarthritis of the knee (2014) NICE interventional procedure guidance 491

Minimally invasive total hip replacement (2010) NICE interventional procedure guidance 363

Shoulder resurfacing arthroplasty (2010) NICE interventional procedure guidance 354

Mini-incision surgery for total knee replacement (2010) NICE interventional procedure guidance 345

Individually magnetic resonance imaging-designed unicompartmental interpositional implant insertion for osteoarthritis of the knee (2009) NICE interventional procedure guidance 317

Total wrist replacement (2008) NICE interventional procedure guidance 271

Arthroscopic knee washout, with or without debridement, for the treatment of osteoarthritis (2007) NICE interventional procedure guidance 230

Metatarsophalangeal joint replacement of the hallux (2005) NICE interventional procedure guidance 140

Artificial trapeziometacarpal joint replacement for end-stage osteoarthritis (2005) NICE interventional procedure guidance 111

Artificial metacarpophalangeal and interphalangeal joint replacement for end-stage arthritis (2005) NICE interventional procedure guidance 110

Your responsibility

The guidance in this pathway represents the view of NICE, which was arrived at after careful consideration of the evidence available. Those working in the NHS, local authorities, the wider public, voluntary and community sectors and the private sector should take it into account when carrying out their professional, managerial or voluntary duties. Implementation of this guidance is the responsibility of local commissioners and/or providers. Commissioners and providers are reminded that it is their responsibility to implement the guidance, in their local context, in light of their duties to avoid unlawful discrimination and to have regard to promoting equality of

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