



THE CONTINUING PROFESSIONAL DEVELOPMENT PROGRAMME



This module is suitable for use by pharmacists as part of their continuing professional development. After reading this module, complete the learning scenarios and post-test at www.pharmacymag.co.uk and include in your learning portfolio. Previous modules in the Pharmacy Magazine CPD Programme are available to download from the website

MODULE 195

Welcome to the one hundred and ninety fifth module in the *Pharmacy Magazine* Continuing Professional Development Programme, which looks at the management of arthritis. It is valid until December 2014.

Continuing professional development (CPD) is a mandatory requirement for pharmacists. Journal-based educational programmes are an important means of keeping up-to-date with clinical and professional developments and form a significant element of your CPD. Completion of this module will contribute to the nine pieces of CPD that must be recorded a year.

Before reading this module, test your existing understanding of the topic by completing the pre-test at www.pharmacymag.co.uk. Then after studying the module in the magazine, work through the six learning scenarios and post-test on the website. Record your learning and how you applied it in practice either using the CPD report form online or on pvi.

Self-assess your learning needs:

- Can you describe the different types of arthritis and their therapeutic management?
- What are the early signs and symptoms of osteoarthritis?
- How do osteo- and rheumatoid arthritis differ?
- What self-help measures can be recommended?

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CURRENT THINKING ON...

THE MANAGEMENT OF ARTHRITIS

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Introduction

Arthritis means inflammation of the joints. Around 10 million people in the UK have arthritis and most will experience pain and difficulty regarding mobility. There are over 200 kinds of rheumatic diseases but the two commonest forms of arthritis are osteoarthritis (OA) and rheumatoid arthritis (RA).

Arthritis and other types of musculoskeletal pain are common, worldwide problems. They can affect people regardless of age, sex or race. Around nine million people in the UK will seek help from their family doctor each year. Of these:

- More than two million will have OA
- More than 350,000 will have RA
- About 15,000 children and adolescents will suffer from juvenile forms of arthritis.

It is not clear what causes arthritis and there is no cure at present. However there is plenty

people with arthritis can do to manage their condition and lead a full and active life. That said, arthritis can be life changing. Simple daily tasks can become difficult and painful, while managing family life and juggling work can be exhausting. Adjusting isn't always easy but there are many people, services, products and support schemes that can help.

Symptoms of musculoskeletal problems tend to vary. Many problems, such as sprains, will get better by themselves. Backaches or painful flare-ups of RA are often short-lived, even though the underlying cause hasn't changed. Other conditions, including gout, can often be controlled by treatment.

Many types of arthritis, including RA and OA, are long-term conditions where the disease can't be cured. Symptoms tend to vary over time – they may go away for a long period, but there may be

FOR THIS MODULE

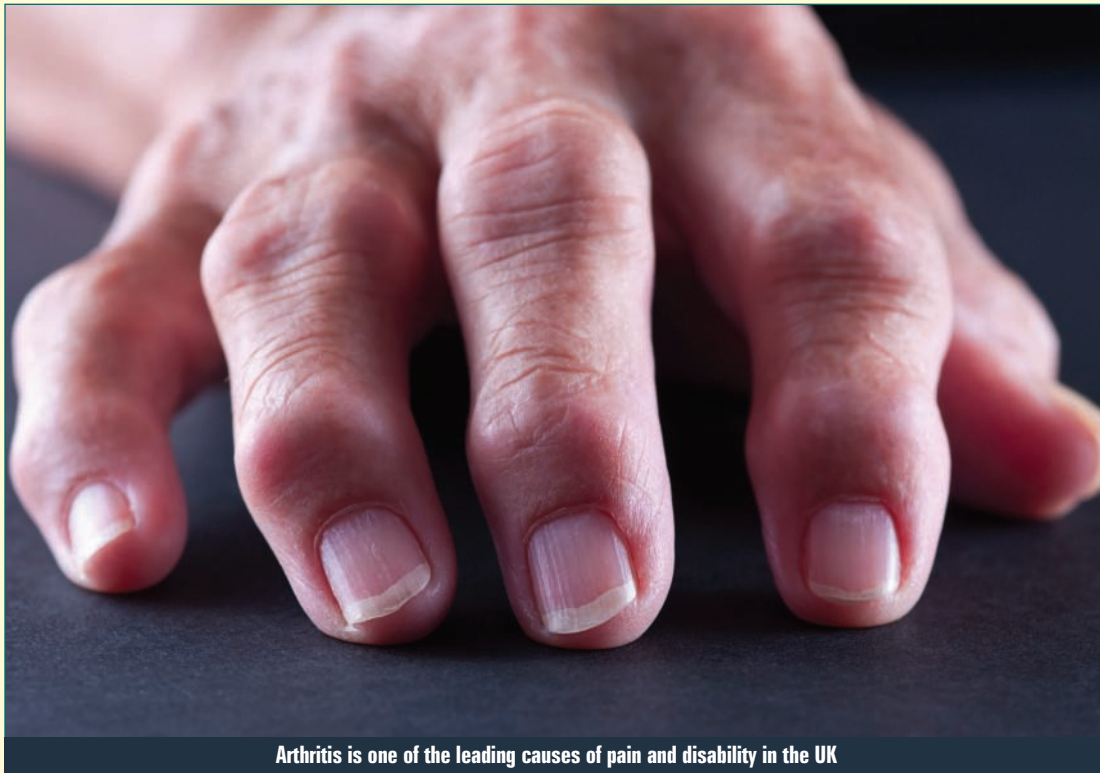
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FIRST IN PROFESSIONAL & BUSINESS DEVELOPMENT

GOAL: To provide an overview of arthritis management in primary care.

OBJECTIVES: After completing the module, you should be able to:

- Discuss the management of osteoarthritis as recommended by NICE
- Explain the difference between osteoarthritis and rheumatoid arthritis
- Give appropriate pharmaceutical and lifestyle advice to patients with osteoarthritis.





Arthritis is one of the leading causes of pain and disability in the UK

periods when they become worse. These flare-ups could be related to something like a viral infection, but they can also happen for no apparent reason. The aim of treatment is to keep sufferers of arthritis well enough to live life as normally as possible and to minimise any progression of the condition.

Since arthritis can affect people in different ways, it is sometimes difficult to predict a clear outcome. However, most people with arthritis don't have major mobility problems. Even in more severe cases, effective treatment will help reduce the risk of disability or joint damage.

Osteoarthritis

Osteoarthritis (OA) refers to a clinical syndrome of joint pain accompanied by varying degrees of functional limitation and reduced quality of life. It is the commonest form of arthritis and one of the leading causes of pain and disability worldwide. Knees, hips and small hand joints are most commonly affected.

Although pain, reduced function and participation restriction can be important consequences of OA, structural changes often occur

without accompanying symptoms. Contrary to popular belief, OA is not caused by ageing and does not necessarily deteriorate. There are a number of treatment options that can be used to manage this condition.

OA is a metabolically active repair process that takes place in all joint tissues and involves localised loss of cartilage and remodelling of adjacent bone. A variety of joint traumas may trigger the need to repair. OA is a slow but efficient repair process that often compensates for the initial trauma, resulting in a structurally altered but symptom-free joint. In some people, either because of overwhelming trauma or compromised repair potential, the process cannot compensate, resulting in continuing tissue damage and eventual presentation with symptomatic OA or 'joint failure'. This explains the extreme variability in clinical presentation and outcomes that can be observed between people and also at different joints in the same person.

Reflection exercise 1

- Have you read the NICE guideline on osteoarthritis and rheumatoid arthritis?
- Do you know what lifestyle advice is recommended for patients with osteoarthritis in particular?

Rheumatoid arthritis

Rheumatoid arthritis (RA) is an inflammatory disease largely affecting synovial joints, which are lined with a specialised tissue called synovium. RA typically affects the small joints of the hands and 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.²

Causes of osteoarthritis

Specific causes of OA are hard to pin down but several factors may be implicated in the increased risk of it developing:

Age

OA usually develops in people over 50 years of age but it can develop in young people. While it isn't clear exactly why older people tend to develop OA, it is probably due to bodily changes which come with old age, such as the muscles becoming weaker, putting on weight and the body becoming less able to heal itself.

Gender

OA is commoner and often more severe in women, especially in the knees and hands. It often starts after the menopause.

Obesity

The effects of obesity on OA are well documented. Carrying extra weight puts pressure on weight-bearing joints, especially the hips, knees and spine. It also increases the chances of OA worsening once it has developed.

Joint injury

A major injury or operation on a joint may lead to OA at that site later in life. Normal activity and exercise are good for the joints and do not cause OA. However very hard, repetitive activity may injure joints.

Exercising before an injury has had time to heal properly may also lead to OA in that joint later on. Patients should therefore be advised to check with the doctor, physiotherapist or nurse when it is safe to exercise an injury.

Heredity

One common form of OA – nodal osteoarthritis – runs strongly in families and particularly affects the hands of middle-aged women. In other common forms of OA, heredity plays a small part compared with obesity, ageing and joint injury. There are some very rare forms of OA that start at a young age and run in families, and these are linked with single genes that affect collagen.

The standard explanation for OA is that it is a result of wear and tear. Studies of people who have led very similar lives show some will have almost perfect joints, while others have quite severe OA. Therefore it seems there must be an inbuilt susceptibility to, or protection against, OA.

Other types of joint disease

OA is sometimes caused by injury and damage from a different kind of joint disease. For example, people with RA can develop OA in the joints that were most affected by the RA.

Myths

Osteoarthritis does have other causes but there is not enough known at the moment to identify exactly what these are. However there is enough evidence available to correct some myths.

Although there is nothing to support the claim that weather makes arthritis worse, many people find that their joints often *feel* worse when the atmospheric pressure is falling e.g. just before it rains. While the weather may temporarily affect symptoms, it does not affect the arthritis itself.

Warmer regions in the world do not have lower incidences of arthritis than colder regions.

In other words, osteoarthritis occurs in all types of climate.

While some types of arthritis (e.g. gout) are directly affected by diet, there is no evidence that a particular diet will eliminate the condition. However some people maintain certain foods make their pain or inflammation worse. It is very important that arthritis sufferers keep their weight as close as possible to the ideal for their height and age. Excess weight compounds the problem by putting extra strain on damaged joints. Eating a balanced diet will nourish muscles, cartilage and bone, reducing the risk of OA.

Which joints are affected?

Osteoarthritis causes joint pain in around 8.5 million people in the UK.

■ Primary OA develops in previously healthy joints. Most cases develop in people over 50 years of age. By the age of 65, at least half of people have some OA in some joint(s). It is mild in many cases, but about one in 10 people will have a major disability due to OA (mainly in one or both hips or knees)

■ Secondary OA develops in joints previously abnormal for a variety of reasons. For example, it may develop in injured or deformed joints. This can occur in younger people.³

OA affects different joints in different ways, but is most commonly found in the knees, hips, hands and spine. Pain can be so mild that many people don't even notice it, or so severe that mobility and quality of life is affected.

The spine and weight-bearing joints such as the knees, ankles and hips are most frequently affected by OA, making mobility difficult. The

disease in the fingers, thumbs and wrists reduces grip strength and the ability to perform everyday tasks such as writing, opening jars, picking small things up and doing up buttons. Shoulder and elbow joints are also susceptible to arthritis although this is much rarer. Some people may experience a grinding feeling in the shoulder and a reduced range of movement. Elbows are very sensitive to injury, so very mild arthritis here can lead to quite a significant loss of mobility.

Early signs and symptoms

The early signs of OA are so mild that they are often easy to miss. The main symptoms are stiff and painful joints, with the pain tending to be worse while exercising the joint and at the end of the day.

Stiffness usually wears off after resting and the joint may not move as freely or as far as normal and could creak or crack when moved. Muscle-strengthening exercises can prevent the joint giving way.

Symptoms can vary and patients may have bad patches of a few weeks or months followed by better periods. This may depend on how much physical activity is undertaken. Joints may appear swollen. In more advanced cases, there may be constant pain, meaning everyday tasks and movement may become difficult.

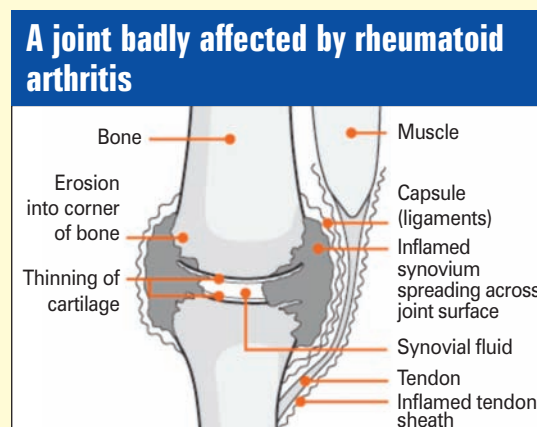
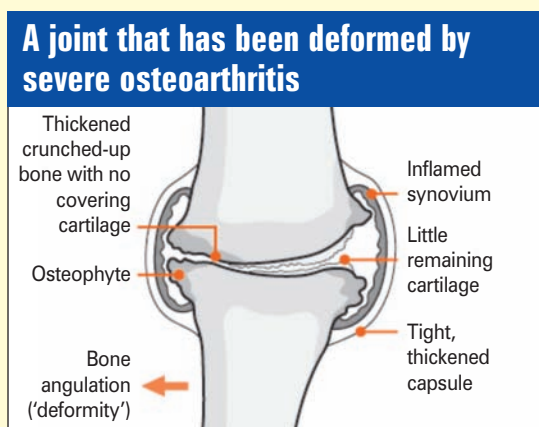
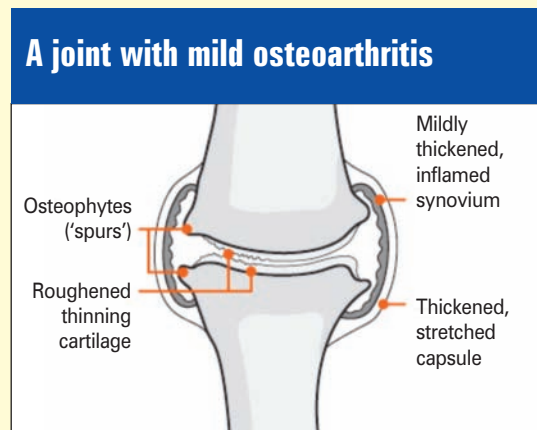
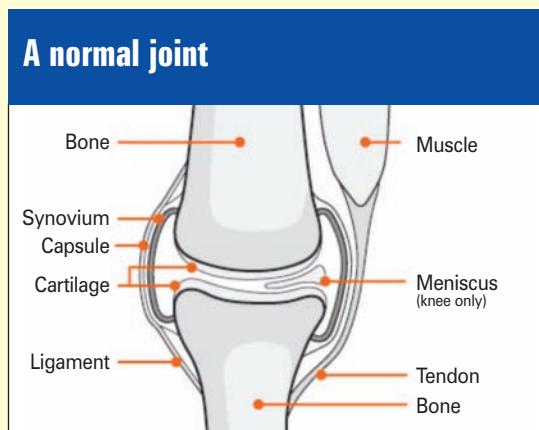
Symptoms shouldn't be ignored because early diagnosis might prevent unnecessary damage.

What are the symptoms of OA?

■ Pain, stiffness and limitation in full movement of the joint are typical. The stiffness tends to be worse first thing in the morning, then loosens up after half an hour or so

■ Swelling and inflammation of an affected joint can sometimes occur. (N.B. Affected joints are not usually very swollen, red or warm. The patient should tell his/her doctor if a joint suddenly swells up or becomes red or hot as this is a symptom that more commonly occurs with other types of arthritis.)

■ An affected joint tends to look a little larger than normal. This is due to overgrowth of the bone next to damaged cartilage



Reflection exercise 2

- Can you describe and recognise the difference between osteoarthritis and rheumatoid arthritis?
- How can you improve your learning in this area?

■ Deformities of joints due to OA are uncommon, but can sometimes develop

■ OA may cause poor mobility and problems walking if a knee or hip is badly affected. This may increase the likelihood of a fall

■ If someone has bad OA that affects the hip, there may be difficulty in putting on shoes and socks, and getting in and out of a car. In women, restricted movement of the hip can make having sex difficult and painful

■ No symptoms may occur. Quite a number of people have X-ray changes that indicate some degree of OA but have no, or only very mild, symptoms. The opposite can also be true (i.e. people may have quite severe symptoms but with only minor changes seen on the X-ray).

Some people with OA may develop other problems because of their symptoms. For example, pain can affect sleep for some people; mobility problems may affect the ability to work and carry out family duties; while some people may become depressed because of their pain and other symptoms.⁵

What happens in osteoarthritis?

Healthy cartilage (the protective layer that covers the bone end in the joint) is very smooth, strong and flexible. It absorbs the stresses put on a joint

and protects the bones from damage. In OA, this becomes pitted, brittle and thin. Over time, the cartilage can wear out completely. When it deteriorates, the bone underneath thickens and broadens out.

As the cartilage becomes thinner, the bones of the joint rub together, causing pain, inflammation and the gradual build-up of bony outgrowths (osteophytes), which make the joint look knobbly. At the same time, the joint capsule becomes thicker and the amount of synovial (lubricating) fluid can increase, often causing the joint to swell. It may also become stiff and painful to move. Summing up:

- The cartilage becomes rough and thin
- The bone at the edge of the joint grows outwards, forming bony spurs called osteophytes
- The synovium may swell and produce extra fluid, causing the joint to swell
- The capsule and ligaments slowly thicken and contract.

Rheumatoid arthritis causes inflammation in the synovium. The redness is caused by the flow of blood increasing. As result, the inflamed joint may feel warmer than usual. The inflammation is caused by a build-up of fluid and cells in the synovium. The joint hurts for two reasons:

- Nerve endings are irritated by the chemicals produced by the inflammation
- The capsule is stretched by the swelling in the joint.

When the inflammation goes down, the capsule stays stretched and can't hold the joint

in its proper position. This can make the joint unstable, and it can move into unusual or deformed positions.

Targeting treatment

Starting at the centre and working outward, the treatments in Figure 1 are arranged in the order in which they should be considered for people with OA, given that individual needs, risk factors and preferences will modulate this approach. In accordance with the recommendations in the NICE guideline¹, there are three core treatments that should be considered for every person with OA – these are given in the central circle. Some of these may not be relevant, depending on the person.

Where further treatment is required, consideration should be given to the second ring, which contains relatively safe pharmaceutical options. Again, these should be considered in light of the person's individual needs and preferences.

A third outer circle gives adjunctive treatments. These treatments all meet at least one of the following criteria: less well-proven efficacy, less symptom relief or increased risk to the patient. The outer circle is further divided into four groups: pharmaceutical options; self-management techniques; surgery; and other non-pharmaceutical treatments.

Patient information

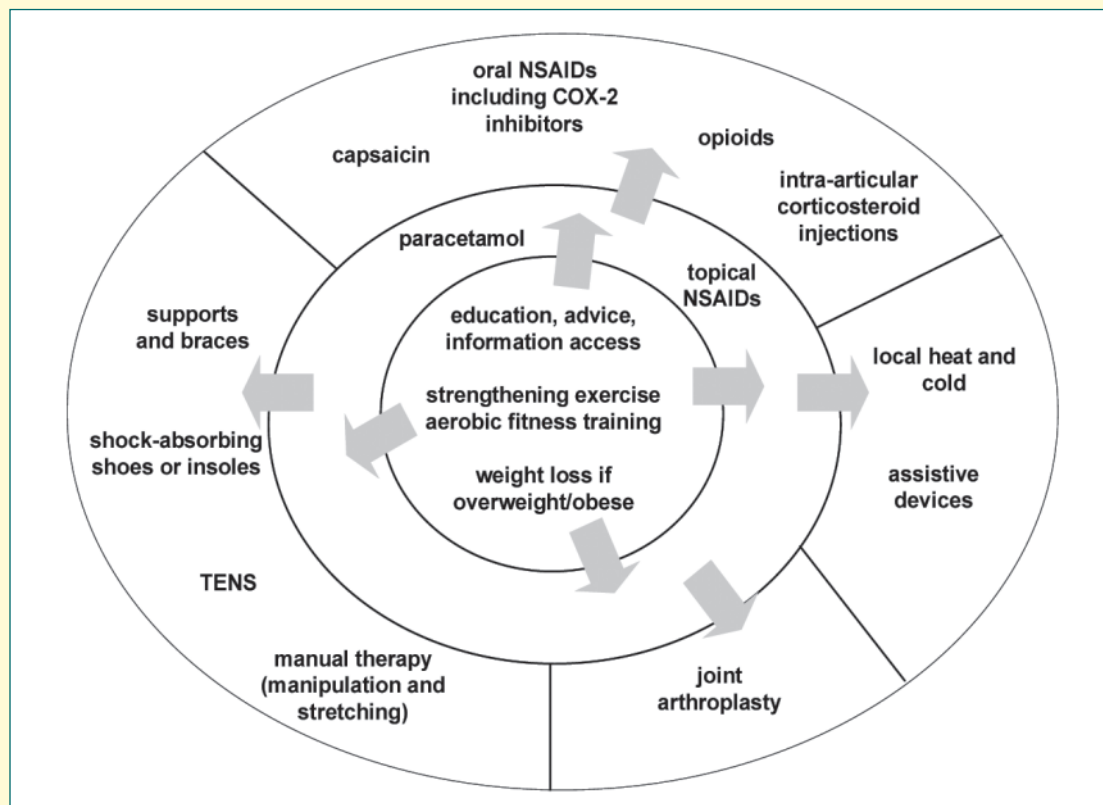
Healthcare professionals should offer accurate verbal and written information to all people with osteoarthritis to:

- Enhance understanding of the condition and its management
- 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 the time of presentation.

Treatment of arthritis

Different types of arthritis are treated with different drugs to improve the symptoms and, where



Reflection exercise 3

- Are you confident in recommending appropriate treatment targets for patients with osteoarthritis?
- Are you aware of the potential side-effects of NSAIDs?

Figure 1 – Targeting treatment: a summary of the treatments recommended for osteoarthritis¹

possible, to slow or halt the progress of the disease. There are four main groups of drugs used to treat arthritis:

■ Painkillers (analgesics): These are used to reduce pain for many different types of arthritis and are often used together with other drugs

■ Non-steroidal anti-inflammatory drugs (NSAIDs): These reduce inflammation of the joint as well as pain. They are used for many different types of arthritis, often with other drugs

■ Disease-modifying antirheumatic drugs (DMARDs): This group of drugs is used mainly in the treatment of RA but also in some other rheumatic diseases. DMARDs reduce pain, swelling and stiffness

■ Corticosteroids ('steroids'): These drugs are very effective in controlling inflammation.

Figure 2 shows the types of drugs that control the symptoms of the disease and the drugs that can modify the disease itself.

Pharmacological management of osteoarthritis

Oral analgesics

■ Paracetamol should be offered for pain relief in addition to core treatment; regular dosing may be required. Paracetamol and/or topical NSAIDs should be considered ahead of oral NSAIDs, cyclo-oxygenase 2 (COX-2) inhibitors or opioids. If paracetamol or topical NSAIDs offer insufficient pain relief, the addition of opioid analgesics

should be considered. Risks and benefits should be weighed up carefully, particularly in elderly people.

Topical treatments

■ NSAIDs should be offered for pain relief in addition to core treatment for people with knee or hand OA. 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 OA

■ Rubefaciants are not recommended for the treatment of OA.

NSAIDs and highly selective COX-2 inhibitors

■ Where paracetamol or topical NSAIDs offer ineffective pain relief for people with OA, substitution with an oral NSAID/COX-2 inhibitor should be considered

■ Where paracetamol or topical NSAIDs provide insufficient pain relief for people with OA, the addition of an oral NSAID/COX-2 inhibitor to paracetamol should be considered

■ Oral NSAID/COX-2 inhibitors should be used at the lowest effective dose for the shortest possible period of time

■ All oral NSAID/COX-2 inhibitors have analgesic effects of a similar magnitude but vary in their potential gastrointestinal (GI), liver and

cardio-renal toxicity. When choosing the agent and dose, healthcare professionals should therefore take into account individual patient risk factors, including age. Consideration should also be given to appropriate assessment and/or ongoing monitoring of these risk factors

■ All NSAIDs carry the risk of side-effects, which can be serious and life-threatening. Although the risks may vary between individual NSAIDs, important side-effects include GI complications (e.g. perforation, ulcer, bleeding) and cardiovascular (CV) complications (e.g. stroke, myocardial infarction)⁶.

Cardiovascular risk

■ COX-2 inhibitors (also called 'coxibs'), as a class, are associated with a small excess risk of thrombotic events compared with no treatment (about three per 1,000 users treated for one year), and are contraindicated in patients with established CV disease

■ Traditional NSAIDs may also be associated with an increased risk of thrombotic events. Diclofenac 150mg/day appears to be associated with a similar excess risk to that of coxibs, whereas low-dose ibuprofen ($\leq 1,200$ mg/day) and naproxen 1,000mg/day appear to be associated with a lower risk.

Gastrointestinal risk

■ COX-2 inhibitors, as a class, are associated with a lower GI risk than traditional NSAIDs. However, their GI-safety advantage is diminished when co-administered with aspirin

■ Of the traditional NSAIDs, low-dose ibuprofen is associated with a lower GI risk than diclofenac and naproxen

■ Use of a proton pump inhibitor (PPI) with any NSAID significantly reduces the risk of GI side-effects

■ Benefits from gastroprotection largely depend on the individual patient's baseline risk of GI complications. There is, as yet, no good evidence that adding a PPI to a coxib is more beneficial, equivalent or a worse option than adding a PPI to a traditional NSAID.

Figure 2: Examples of drugs used to treat arthritis⁴

Drugs that control symptoms of the disease (used for most types of arthritis, including osteoarthritis)		
Type of drug	Examples	
Painkillers (analgesics)	Dihydrocodeine Paracetamol	Paracetamol and codeine combined, e.g. co-codamol
Non-steroidal anti-inflammatory drugs (NSAIDs) – standard types	Aspirin Diclofenac Ibuprofen	Indometacin Naproxen
COX-2-specific NSAIDs ('coxibs')	Celecoxib	Etoricoxib
Drugs that can affect the disease itself		
Type of arthritis	Examples of drugs	
Rheumatoid arthritis	Anti-TNF drugs • Adalimumab • Etanercept • Infliximab Azathioprine Ciclosporin	Gold Hydroxychloroquine Leflunomide Methotrexate Rituximab Sulfasalazine
Septic arthritis	Antibiotics	
Gout (treatment for acute attack)	Colchicine	NSAIDs
Gout (treatment to prevent further attacks)	Allopurinol	Sulfapyrazone



What does this mean in practice?

■ Where NSAIDs are required, prescribing should be based on the safety profiles of individual NSAIDs and on individual patient risk factors. All NSAIDs should generally be used at the lowest effective dose and for the shortest period of time necessary to control symptoms

■ The ideal anti-inflammatory prescribing choice will vary from patient to patient, depending on individual risk factors, therapeutic response, patient preference and the patient's attitude to the risk of adverse events

■ Low-dose ibuprofen ($\leq 1,200$ mg per day) is an appropriate first choice NSAID in view of its low risk of GI and CV side-effects

■ Low-dose ibuprofen or naproxen 1,000mg per day would appear more appropriate than other NSAIDs for patients in whom CV risk is a significant consideration in decision-making

■ Consider prescribing a PPI with any NSAID to reduce the risk of adverse GI effects, particularly in those who are at high GI risk (includes anyone aged 65 years or older) and long-term NSAID users

■ Although coxibs are associated with a lower risk of GI side-effects than traditional NSAIDs, there is no good evidence to support the use of coxibs alone ahead of traditional NSAIDs co-prescribed with a PPI. Coxibs also have a higher CV risk than ibuprofen $\leq 1,200$ mg a day or naproxen 1,000mg a day.

If a person with OA needs to take low-dose aspirin, healthcare professionals should consider other analgesics before substituting or adding a NSAID or COX-2 inhibitor (except etoricoxib 60mg) with a PPI if pain relief is ineffective or insufficient.

In recent trials, a fixed-dose combination of naproxen and esomeprazole (Vimovo) had comparable upper GI tolerability to celecoxib in people with OA of the knee. However, there are no data to suggest that this fixed-dose combination offers any efficacy or safety advantages over the separate prescribing of naproxen 1,000mg daily plus a low-cost PPI, such as generic omeprazole. Separate prescribing allows for dose adjustment of individual components and is less expensive⁷.

Referral for joint replacement surgery should be considered for people with OA 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.

Other treatments

Capsaicin cream

A preparation containing capsaicin 0.025% can be used as an adjunct in hand or knee OA.⁹

■ Capsaicin cream is only available on prescription and needs to be applied three times a day

■ Most people feel a warming or burning sensation when they first use it, but this generally wears off after several days

■ The pain relief starts after a few days and patients should try it for at least two weeks before deciding if it has helped.

Glucosamine for osteoarthritis

Many people with OA try glucosamine, sometimes combined with chondroitin. Joint cartilage normally contains glucosamine and chondroitin compounds, and it's thought that taking supplements of these natural ingredients may help to improve the health of damaged cartilage.

Research suggests that glucosamine sulphate is more likely to be beneficial than glucosamine hydrochloride. There doesn't seem to be much extra benefit in taking glucosamine combined with chondroitin.

Possible side-effects of glucosamine

■ There is some evidence that glucosamine may increase blood sugar levels

■ Warfarin control may be affected, so patients should be advised about having their INR levels monitored more regularly when they first start taking glucosamine⁸

Reflection exercise 4

- What information access, education or advice can you provide to patients who have osteoarthritis?
- Where do you signpost patients with osteoarthritis?
- Do you stock mobility aids in your pharmacy?

■ Glucosamine is often made from shellfish. Check if patients are allergic to shellfish and ensure you recommend a vegetarian or shellfish-free variety if they are⁸.

NICE guidance recommends that glucosamine or chondroitin products should not be prescribed for the treatment of OA. However, if patients want to trial OTC glucosamine, they should be advised that the only potential benefits so far identified relate just to a reduction in pain (in some people, and to only a mild or modest degree) with glucosamine sulphate 1,500mg/day. Patients should be advised on how to perform their own trial of therapy (i.e. to evaluate their pain before starting glucosamine and ensure they review the benefits of glucosamine after three months).

Applying warmth or cold

Applying warmth or cold to the affected joint can relieve pain and stiffness.

Steroid injections

These are sometimes given directly into a particularly painful joint.

■ The injections can start working within a day or so and may improve pain for several weeks or months, especially in a knee or thumb

■ They are mainly used for very painful OA; for sudden attacks caused by shedding calcium crystals; and to help people through important events (such as a family wedding).

TENS

Transcutaneous electrical nerve stimulation (TENS) can be used for pain relief, although research evidence suggests that it doesn't work for everyone.

Surgery

Surgery, including joint replacement, may be recommended if a patient has severe pain or mobility problems.

■ Joint replacements can give substantial pain relief in cases where other treatments haven't provided sufficient benefit

■ If a patient's knee locks, an arthroscopic lavage operation to wash out loose fragments of

bone and other tissue from the joint can be undertaken.

Self-help and daily living

Weight management

Being overweight increases the strain on joints, especially the knees. It also increases the risk of developing OA and makes it more likely that the arthritis will get worse over time.

There's no special diet that helps with OA, but a well-balanced, reduced-calorie diet and regular exercise will help with weight loss if needed.

Exercise

It's important to keep the joints moving. Patients need to find the right balance between rest and exercise – little and often is usually the best approach. Two types of exercise are necessary:

Strengthening exercises

- Improve the strength and tone of the muscles that control the affected joints
- Help to stabilise and protect the joint and reduce pain
- Are particularly important for the thigh muscles (quadriceps) if there is OA of the knee. They can stop the knee giving way and reduce the tendency to fall.

Aerobic exercises

- Increase the pulse rate
- Improve sleep pattern, are good for general health, and can reduce pain.

Swimming is very good for people with OA because the water supports the weight, reducing the strain on their joints. Exercises in a warm-water hydrotherapy pool can help get muscles and joints working, and can be very relaxing.

Other advice

Other advice that can be given to patients who have OA to reduce the strain on their joints includes:

CPD competences
This module supports the following community pharmacy competences:

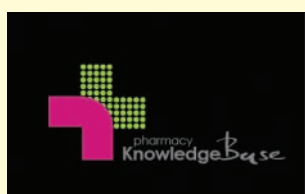
Competence	Where this module supports competence development
G1a Using expert knowledge and skills to benefit patients	The module explains the importance of being able to support patients with arthritis who have been prescribed medicines for the treatment and/or management of osteoarthritis
G1f Using clinical and pharmaceutical knowledge to optimise the balance among effectiveness, safety and cost of medicines	The need to ensure cost-effective prescribing is emphasised
G1q Promoting health and healthy lifestyles	The module explains how healthy lifestyle advice can be incorporated into the consultation process and how it will benefit the patient
C1c Reviewing medication with patients to identify difficulties and potential risk (e.g. concordance issues, adverse effects, changing medication needs)	Current recommendations for prescribing and reviewing medication for osteoarthritis is discussed
C3e Providing pharmaceutical care to people with chronic conditions	This module explains how pharmacists can provide care to people with a chronic condition, such as arthritis

- Pace your activities. Don't tackle all the physical jobs at once. Break the harder jobs up into chunks and do something gentler in between
- Wear low-heeled shoes with thick, soft soles (trainers are ideal). Thicker soles will act as shock absorbers for your feet, knees, hips and back. High heels will alter the angle of the hip, knee and big toe joints and put additional strain on them
- Use a walking stick. This will reduce the weight and stress on a painful hip or knee
- Use the handrail for support when climbing stairs; this is particularly important for OA of the knee
- Keep your joints moving. In particular, don't keep an osteoarthritic knee still in a bent position for too long as this will eventually affect the muscle
- Modifications. Think about how you can modify your home, car or workplace
- Relaxation. Learn to relax your muscles and get the tension out of your body. A physiotherapist or occupational therapist can advise you on relaxation techniques.

- Sex. Try different sexual positions if sex is painful.

References and useful support groups

1. NICE clinical guideline 59 – Osteoarthritis: the care and management of osteoarthritis in adults
www.nice.org.uk/nicemedia/live/11926/39557/39557.pdf
2. NICE clinical guideline 79 – Rheumatoid arthritis: the management of rheumatoid arthritis in adults
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8. MeRec Monthly No. 33 Dec 2010
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9. BNF 62 <http://bnf.org/bnf>



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ASSESSMENT QUESTIONS

ARTHRITIS MANAGEMENT

1. What is the difference between OA and RA?

- a. RA is a more severe form of OA
- b. Younger people get RA and older people get OA
- c. OA is erosion of the cartilage; RA is inflammation of the synovial fluid
- d. OA is due to calcium deficiency; RA is due to an infection

2. What lifestyle advice is NOT going to benefit an OA patient?

- a. Smoking cessation
- b. Reducing alcohol intake
- c. Changing to a healthy diet and increasing exercise
- d. Taking calcium supplements

3. A 50-year-old man has been diagnosed with OA. What is the first course of action? He should be:

- a. Prescribed a NSAID (e.g. diclofenac) with a PPI
- b. Advised to buy OTC paracetamol
- c. Advised on NICE's three core treatments
- d. Prescribed a topical NSAID

4. What lifestyle change makes the biggest difference in hip and knee OA?

- a. Smoking cessation
- b. Weight loss (if needed), aerobic fitness and strengthening exercise in conjunction with a healthy diet
- c. Swimming
- d. Walking

5. What should be an integral part of the management plan for people with OA?

- a. Ongoing information-sharing
- b. The prescribing of NSAIDs
- c. An exercise programme
- d. Dietary advice

6. Which drug is recommended for an acute attack of gout?

- a. Aspirin
- b. Allopurinol
- c. Colchicine
- d. Etanercept

7. An oral NSAID or COX-2 inhibitor is normally added at step 3 of the treatment target for OA. What choice of drug should normally be recommended?

- a. Low-dose ibuprofen up to a maximum of 1,200mg or naproxen 1,000mg per day
- b. Diclofenac 100mg daily
- c. Etoricoxib 60mg daily
- d. Diclofenac 50mg three times a day

8. A 70-year-old man is prescribed ibuprofen 400mg three times a day for OA of the hip but his PMR shows he is taking aspirin 75mg once daily. What do you advise the GP to prescribe?

- a. Paracetamol on a regular basis
- b. Capsaicin cream
- c. A topical NSAID
- d. Regular paracetamol. Also educate the patient about the increased risk of gastric bleeding with an oral NSAID and aspirin

PHARMACY MAGAZINE CPD RECORD – JANUARY 2012

USE THIS FORM TO RECORD YOUR LEARNING AND ACTION POINTS FROM THIS MODULE ON THE MANAGEMENT OF ARTHRITIS OR DOWNLOAD FROM WWW.PHARMACYMAG.CO.UK AFTER COMPLETING THE ONLINE LEARNING SCENARIOS

Activity completed. (Describe what you did to increase your learning. Be specific) (Act)

Name/date:

Time taken to complete activity:

What did I learn that was new in terms of developing my skills, knowledge and behaviours? Have my learning objectives been met?* (Evaluate)

How have I put this into practice? (Give an example of how you applied your learning. Why did it benefit your practice? How did your learning affect outcomes?) (Evaluate)

Do I need to learn anything else in this area? (List your learning action points. How do you intend to meet these action points?) (Reflect)

* If as a result of completing your evaluation you have identified another new learning objective, start a new cycle – this will enable you to start at **Reflect** and then go on to **Plan, Act** and **Evaluate**. This form can be photocopied to avoid having to cut this page out of the module. Complete the learning scenarios at www.pharmacymag.co.uk

MODULE 195 ANSWER SHEET

ENTER YOUR ANSWERS HERE Please mark your answers on the sheet below by placing a cross in the box next to the correct answer. Only mark one box for each question. Once you have completed the answer sheet in ink, return it to the address below together with your payment of £3.75. Clear photocopies are acceptable. You may need to consult other information sources to answer the questions.

- | | | | | | | | | | | | | | | | |
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| 1. | a. <input type="checkbox"/> | 2. | a. <input type="checkbox"/> | 3. | a. <input type="checkbox"/> | 4. | a. <input type="checkbox"/> | 5. | a. <input type="checkbox"/> | 6. | a. <input type="checkbox"/> | 7. | a. <input type="checkbox"/> | 8. | a. <input type="checkbox"/> |
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Processing of answers
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