AUSTRALIAN COMMISSION
ON SAFETY AND QUALITY IN HEALTH CARE

Clinical Care Standards

FACT SHEET
for clinicians

Osteoarthritis of the Knee

Clinical Care Standard

The *Osteoarthritis of the Knee Clinical Care Standard* aims to improve timely assessment and optimal management for patients with knee osteoarthritis, and to enhance patients' symptom control, joint function, psychological wellbeing, quality of life and participation in usual activities, and lessen the disability caused by knee osteoarthritis.

Cultural safety and equity for Aboriginal and Torres Strait Islander peoples

Aboriginal and Torres Strait Islander peoples generally experience poorer health outcomes than the rest of the population, with systemic racism a root cause. The considerations for improving cultural safety and equity throughout this clinical care standard focus primarily on overcoming cultural power imbalances and improving outcomes for Aboriginal and Torres Strait Islander people through better access to health care.

When providing osteoarthritis care for Aboriginal and Torres Strait Islander peoples, particular consideration should be given to:

- Taking a collaborative approach to planning treatment and management of knee osteoarthritis to ensure that interventions are suitably tailored to the individual's personal needs and preferences for care
- Supporting people to self-report their Aboriginal and Torres Strait Islander status and ensure appropriate systems and processes are in place to promote self-identification
- Engaging interpreter services, cultural translators, Aboriginal and Torres Strait Islander Health Workers, and Aboriginal and Torres Strait Islander Health Practitioners when this will assist the patient
- Engaging Aboriginal and Torres Strait Islander Health Workers and Aboriginal and Torres Strait Islander Health Practitioners as part of a patient's multidisciplinary team
- Encouraging the inclusion of a carer, family member or friend in all aspects of care, including decision making and management planning
- Providing flexible service delivery to optimise attendance and help develop trust with individual Aboriginal and Torres Strait Islander people and communities.

1 Comprehensive assessment and diagnosis

A patient with suspected knee osteoarthritis receives a comprehensive, person-centred assessment which includes a detailed history of the presenting symptoms, comorbidities, a physical examination, and a psychosocial evaluation of factors affecting quality of life and participation in activities.
A diagnosis of knee osteoarthritis can be confidently made based on this assessment.

Conduct a comprehensive assessment to identify factors that may affect the patient's preferred treatment and their recovery. If the clinical signs, symptoms, and findings of a comprehensive assessment are typical of knee osteoarthritis, a diagnosis can be made without imaging or further investigations.

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Consider the person's context as part of a person-centred approach to making a holistic assessment. Ask how their symptoms affect their ability to carry out their usual daily activities and participate in paid and unpaid work, leisure, cultural and social activities. The assessment should include:

- **A detailed history** of the patient's symptoms, with particular attention to assessing pain, joint stiffness and movement, and a medical history to identify comorbidities, modifiable risk factors and response to treatment
- **Physical examination and functional assessment** of the affected knee(s) that includes assessing the patient's gait, range of motion, joint line tenderness, malalignment or deformities, bony enlargement, effusion, restricted movement, and crepitus
- **Identification of atypical features** that may indicate alternative or additional diagnoses, such as
  - a history of past trauma to the knee
  - malignancy
  - prolonged morning joint-related stiffness
  - rapidly worsening symptoms or the presence of a hot swollen joint
  - whether pain may be referred from hip or spine pathology
- **A psychosocial evaluation** to identify factors that may affect the patient's quality of life and their ability to carry out their usual activities, including their mental and emotional health, their social and economic situation, health literacy and beliefs and concerns, readiness to adopt self-management behaviours, and other emotional, social, cultural and environmental factors.

Identify and address with the patient any misconceptions and unhelpful beliefs about knee osteoarthritis, its management, trajectory, and treatments.

Consider using tools to aid the assessment and support monitoring of the patient's condition. Select tools tailored to the patient's individual needs and goals.

Assessment tools

Disease-specific:

- Knee injury and Osteoarthritis Outcome Score (KOOS)
- OsteoArthritis questionnaire (OA-Quest)
- Osteoarthritis knowledge scale (OAKS)

Function:

- Timed Up and Go
- 30-second chair test
- Patient-Specific Functional Scale (PSFS)

Pain:

- Visual Analogue Scale (VAS)
- Numerical rating scale (VNRS)

Depression and anxiety:

- Kessler (K10) Psychological Distress Test
- Depression, Anxiety and Stress Scale 21 (DASS 21)

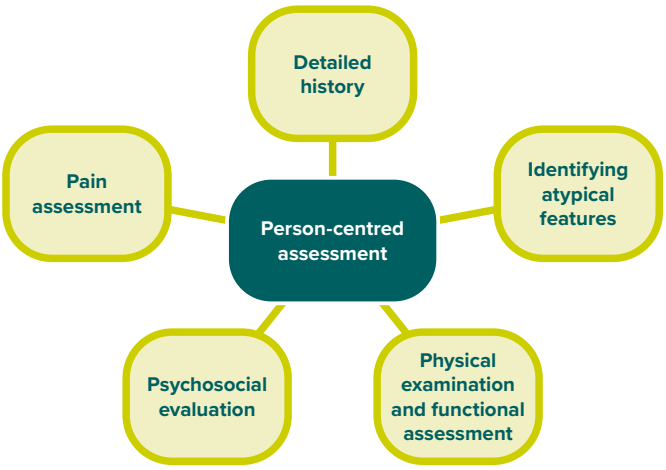
Work limitations:

- Workplace Activity Limitations Scale (WALS)

Quality of life:

- Assessment of Quality of Life (AQoL) instruments

Figure 1: Summary of the aspects of a holistic, comprehensive assessment for a patient with suspected knee osteoarthritis



2 Appropriate use of imaging

Imaging is not routinely used to diagnose knee osteoarthritis and is not offered to a patient with suspected knee osteoarthritis. When clinically warranted, X-ray is the first-line imaging. Magnetic resonance imaging (MRI), computerised tomography (CT) and ultrasound are not appropriate investigations to diagnose knee osteoarthritis. The limited value of imaging is discussed with the patient, including that imaging results are not required for effective non-surgical management.

Routine imaging is not required to confirm a diagnosis based on an appropriate clinical assessment. This is because degenerative meniscal tears are common in osteoarthritic knees, whether people have symptoms or not. Therefore, detection of meniscal tears does not provide useful additional information and may lead people to pursue inappropriate management such as arthroscopy.

Patients may experience substantial pain with only minor structural changes to joints identified on imaging, while minimal symptoms may accompany more notable (though modest) structural changes.

Imaging may be clinically warranted in some circumstances, such as if the patient presents with atypical features or signs and symptoms that increase suspicion of an alternative diagnosis. X-ray is the preferred first-line imaging modality in these cases.

If imaging is required to investigate alternate diagnoses, explain the reasons for this to the patient and document the reasons on the request form to enable relevant reporting. Imaging results should be interpreted together with clinical findings and functional assessment.

If a patient with suspected knee osteoarthritis requests diagnostic imaging, ask about their concerns and their expectations of imaging. Reassure them that having X-rays or other diagnostic imaging will not change initial treatment, which will be guided by their mobility and function.

Advise the patient that there is a poor correlation between radiological evidence of osteoarthritis and symptoms. Explain that people may have severe pain with only minimal findings on X-ray or MRI because the experience of pain is influenced by many factors. Some of these symptoms are modifiable by changes to activity levels, weight, sleep, or stress management.

For radiologists

Report imaging findings in line with the Royal Australian and New Zealand College of Radiologists (RANZCR) *Clinical Radiology Written Report Guidelines.* When reporting imaging studies requested for suspected knee osteoarthritis, include:

- A comment to the requesting clinician in response to the indication listed on the request, for example, 'suspected knee osteoarthritis'
- Key clinically relevant information to facilitate appropriate treatment planning
- A diagnosis based on the imaging, using the principles of a hierarchy of diagnosis.

Magnetic resonance imaging is not recommended for initial diagnosis. However, when knee osteoarthritis is observed on MRI, including thinning of the cartilage or degenerative meniscal changes including tears, a finding of 'knee osteoarthritis' should be included in the report. This is of greater clinical relevance than the presence of a meniscal tear.

3 Education and self-management

Information about knee osteoarthritis and treatment options is discussed with the patient. The patient participates in developing an individualised self-management plan that addresses their physical, functional, and psychosocial health needs.

Support the patient to self-manage their condition by:

- Providing clear, comprehensive, and current information about knee osteoarthritis and how it is managed, in a way they can understand; this includes in a format that the patient prefers, including verbal or written information, and that is culturally appropriate
- Involving the patient in developing a plan which is documented in their healthcare record
- Tailoring the plan to address their individual physical, functional, and psychosocial needs and goals by including
  - strategies to support increased physical activity participation such as pacing activities, management of painful episodes and flares, and pain management techniques
  - strategies for protecting the knee joints such as the use of walking aids
  - weight management and nutrition guidance

- Managing comorbidities and discussing their impact on managing knee osteoarthritis
- Discussing non-pharmacological pain management and maintaining participation in usual activities and life roles, and supports and services available including allied health services
- Referring the patient to other clinicians or recommending services and resources that may help them self-manage their condition, including providing links to reliable online resources and contact details of support groups
- Monitoring and adjusting the plan as the patient's condition and needs change
- Involving the patient's family, carers, or support people as appropriate, particularly for people who require additional support to self-manage their condition.

Cultural safety and equity for Aboriginal and Torres Strait Islander people

Have a tailored approach to health education that reflects the literacy, language, and cultural needs of the individual patient and builds understanding, engagement, and empowerment of Aboriginal and Torres Strait Islander patients. This can be done by establishing links with appropriate health services, community services and organisations, and having referral processes in place to allow Aboriginal and Torres Strait Islander peoples' access to a network of suitable service providers that support long-term management of their health.

4 Physical activity and exercise

A patient with knee osteoarthritis is advised that being active can help manage knee pain and improve function. The patient is offered advice on physical activity and exercise that is tailored to their priorities and preferences. The patient is encouraged to set exercise and physical activity goals and is recommended services or programs to help them achieve their goals.

Provide strategies to reach physical activity goals that are tailored to the patient's needs and will help them to manage knee pain and improve function. Changes in activity may reduce the need for medicines and avoid surgery, as well as help patients manage chronic comorbidities and improve their overall health.

Reassure the patient that exercise will not cause damage and is not a risky activity. Advise them that physical activity and exercise will help to manage their pain and improve their function.

Provide advice on exercise that is specific to the patient's needs, preferences, and clinical context. Tailor appropriate exercise goals and activities to a sufficient dosage and duration to improve fitness and strength and minimise pain.

Encourage patients to set realistic and achievable physical activity goals, such as gradually increasing participation in an activity they enjoy, including muscle strengthening activities, incidental activity, and sport. Tailor exercises to provide opportunities for the patient to have positive experiences or an experience of increasing function or mastery.

Regularly review and upgrade physical activity and exercise goals. Review factors such as the physical home environment, level of support, cultural activities, access to safe spaces to exercise, falls risk, and attitudes towards physical activity.

Provide the patient with clear, comprehensive, and current information on how to modify their usual physical activities to prevent symptoms worsening or aggravating any comorbidities. Encourage patients to use tools such as exercise logbooks and to include these interventions and goals in their self-management plan. Discuss the ways that the use of medicines can allow the patient to participate in physical activity as well as the role of pacing.

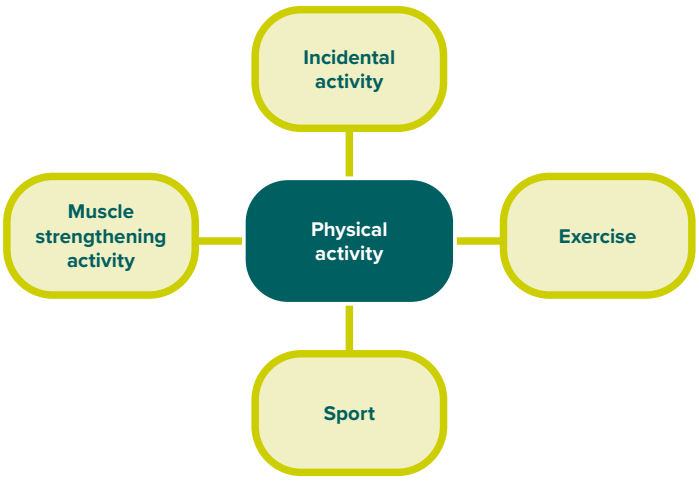
Refer the patient to other clinicians or recommended services, supports, and resources – if appropriate and available – that may help them to achieve their goals. This may include:

- Local community programs, groups, and activities
- Links to reliable online resources
- Clinicians such as physiotherapists, exercise physiologists, and sport and exercise physicians, and multidisciplinary services as appropriate.

Passive manual therapies, such as therapeutic ultrasound and electrotherapy, do not play a significant role in the treatment of knee osteoarthritis.

For patients who require surgery, being physically active can help to improve functional outcomes after the operation and optimise their recovery.

Figure 2: The forms of physical activity



Adapted from About physical activity and exercise, Department of Health and Aged Care.

5 Weight management and nutrition

A patient with knee osteoarthritis is advised of the impact of body weight on symptoms. The patient is offered support to manage their weight and optimise nutrition that is tailored to their priorities and preferences. The patient is encouraged to set weight management goals and is referred for any services required to help them achieve these goals.

Acknowledge to the patient the challenges of losing weight and any previous weight loss attempts. Communicate in a sensitive, empathetic, and non-judgemental way about how losing excess weight or maintaining weight will help them.

Loss of excess weight reduces knee pain and improves function for patients with knee osteoarthritis, and can improve other comorbidities. These changes may reduce the need for medicines or knee surgery.

If a patient living with excess weight is considering or seeking surgery, explain that weight loss can improve their eligibility for surgery, reduce risks, and improve outcomes.

Be aware of the complex factors that contribute to being above a healthy weight and encourage patients to set realistic and achievable weight goals based on their needs and preferences. If the patient is living with excess weight, advise them that a 5–10% or greater weight loss over a 20-week period is associated with reduced pain and improved quality of life.

Support patients to maintain a healthy, sustainable weight, and to optimise their nutrition by:

- Advising them on appropriate interventions such as dietary changes, access to healthy food, exercise, behavioural techniques, medicines or weight management services
- Referring them to specific services, if desired by the patient, such as an accredited practicing dietitian or for bariatric surgery.

Encourage patients to include these strategies and their goals in their self-management plan. Body mass index (BMI) may not always be an appropriate measure for indicating whether a patient is above a healthy weight; other measures may be used, including body composition measurements or waist circumference.

For patients who ultimately require surgery, preventing weight gain or losing weight if they are living with excess weight can help to reduce their anaesthetic risk, improve functional outcomes after the operation, and reduce the costs and treatment burden associated with recovery from knee replacement surgery.

6 Medicines used to manage pain and mobility

A patient with knee osteoarthritis is offered medicines to manage their pain and mobility in accordance with the current version of the *Therapeutic Guidelines* or locally endorsed evidence-based guidelines. A patient is not offered opioid analgesics for knee osteoarthritis because the risk of harm outweighs the benefits.

Explain to the patient that the goal of medicines is to reduce pain to support continuation of usual daily activities. Offer information on how medicines may be combined with physical activity and other self-management strategies to help the patient improve their function and mobility. Ensure they understand that medicines should not replace self-management strategies, including physical activity.

Use the current version of the *Therapeutic Guidelines* or an evidence-based, locally endorsed guideline when recommending or prescribing a medicine to manage knee osteoarthritis. Recommendations regarding use of medicines in knee osteoarthritis are described in **Table 1**.

Provide clear information to the patient about the recommended medicine, including the expected benefits, dose, duration, possible side effects, and when treatment should be reviewed. Review all other prescription, over-the-counter, and complementary medicines they may be using.

Do not offer opioid analgesics to patients with knee osteoarthritis. Opioids have significant risk of harm which outweigh potential benefits in pain management for knee osteoarthritis.

Opioid analgesics may have a role in very limited circumstances. For example, this may include short-term use in patients with severe persisting pain not relieved by first-line medicines and optimal non-surgical interventions, and who are awaiting non-general practitioner specialist review.

If a patient is already using an opioid analgesic to treat knee osteoarthritis, discuss changes in therapy with them and explain the risks and need to start tapering the dose with a view to stopping the medicine.

Do not offer platelet-rich plasma (PRP), hyaluronan, stem cell treatments, medicinal cannabis, gabapentin or pregabalin, as they are not recommended in knee osteoarthritis.

Table 1: Recommendations for use of medicines in knee osteoarthritis

Medicine	Recommendation
Topical analgesia	Trial a topical NSAID or capsaicin as an adjunct to other treatment strategies and as part of short-term self-management.
Non-steroidal anti-inflammatory drugs (NSAIDs)	First-line treatment after an assessment of risks. Preferred to paracetamol due to greater efficacy. Use the lowest effective dose for the shortest time possible.
Paracetamol	Less effective than NSAIDs. Consider for patients at risk of harm from NSAID use. For example, people with risk factors for gastrointestinal, kidney or cardiovascular toxicity.
Duloxetine	May be considered as an adjunct treatment to oral NSAIDs where recommended treatment strategies are ineffective. Use for knee osteoarthritis is off-label and supported by limited evidence.
Corticosteroid injections	Intra-articular injections are approved as an adjunctive, short-term treatment for pain relief. Long-term use is not supported by current evidence and repeat injections may cause cartilage damage, further joint deterioration and may reduce beneficial effects.
Opioid analgesics	Not recommended as the risks outweigh the benefits for most people.*
Medicinal cannabis, gabapentin, pregabalin	Not recommended due to potential for significant harm.
Intra-articular injections of platelet-rich plasma (PRP), hyaluronan, adipocyte cell suspensions or mesenchymal stem cells	Not recommended due to evidence that they provide no benefit and have a significant expense.
Complementary medicines including glucosamine, chondroitin, and fish oil	Not recommended due to evidence that they provide no benefit and have a cost to the consumer.

* Refer to the *Therapeutic Guidelines* for more information

Cultural safety and equity for Aboriginal and Torres Strait Islander people

Consider the variation in pharmacological pain management for Aboriginal patients, with studies showing Aboriginal patients are more than twice as likely to be prescribed opioids in primary care than non-Aboriginal patients.

7 Patient review

A patient with knee osteoarthritis receives planned clinical review at agreed intervals, and management is adjusted for any changing needs. A patient who has worsening symptoms and severe functional impairment that persists despite optimal non-surgical management is referred for assessment to a non-general practitioner (GP) specialist or multidisciplinary service.

Decide with the patient how regularly they need a review of their knee osteoarthritis.

Dedicate an appointment to each review that includes:

- Undertaking a repeat history, physical examination, and psychosocial assessment
- Monitoring symptoms and response to treatment, using the same tools as used at the initial assessment (such as PROMs)
- Reviewing all prescription, over-the-counter, and complementary medicines the patient may be using
- Evaluating any side effects from treatment
- Monitoring and evaluating healthcare goals included in the patient's self-management plan, such as physical activity and weight management goals with adjustments as necessary to optimise treatment outcomes
- Offering further education, coaching or behaviour change support for patients to help them maintain or change their management approaches
- Discussing other treatment options as necessary or as requested by the patient.

Refer a patient with worsening symptoms and severe persistent functional impairment despite optimal non-surgical management for:

- Weight-bearing X-ray imaging of the knee
- Non-general practitioner specialist assessment, such as a rheumatologist, orthopaedic surgeon, or sports and exercise physician. If referring to an orthopaedic surgeon for assessment, follow recommendations for referral in the RACGP ***Guideline for the management of knee and hip osteoarthritis***.

Cultural safety and equity for Aboriginal and Torres Strait Islander peoples

Be flexible in the way you deliver your service to optimise attendance and support the development of trust with individual Aboriginal and Torres Strait patients and communities. Include opportunities for patients to have a carer, family member or friend involved in all aspects of care delivery, including the decision-making and management planning process.

Provide care that is close to home wherever possible, with service environments that consider the specific needs of the population, including their age, mobility, and cultural needs.

Consider the use of telehealth or outreach models to support access to health care for people living in rural and remote communities.

8 Surgery

A patient with knee osteoarthritis who has severe functional impairment despite optimal non-surgical management is considered for timely joint replacement surgery or joint-conserving surgery. The patient receives comprehensive information about the procedure and potential outcomes to inform their decision. Arthroscopic procedures are not offered to treat uncomplicated knee osteoarthritis.

Assess whether the patient has undertaken optimal non-surgical management, such as 12 weeks of optimal physical activity and exercise.

Provide patients with clear and comprehensive information about suitable procedures for them, including the risks and benefits of those procedures, in a way that they can understand. This ensures they can be actively involved in making treatment decisions. Explain the expected:

- Level of sedation, such as regional or general anaesthetic
- Time for recovery and rehabilitation.

Use PROMs before and after all surgical interventions.

Do not offer arthroscopic procedures as treatment for uncomplicated knee osteoarthritis.

Arthroscopic procedures, including debridement and partial meniscectomy, provide little or no clinically significant benefit in pain or function and are not indicated as a primary treatment in the management of uncomplicated knee osteoarthritis.

Uncomplicated knee osteoarthritis is not accompanied by true mechanical locking, septic arthritis, or inflammatory arthropathy. Meniscal changes, such as tears identified by imaging, do not warrant arthroscopy. This is because patients with knee osteoarthritis often have changes to the meniscus of their knee as part of the condition. Arthroscopy may be indicated if the patient has an alternate diagnosis such as true mechanical locking, septic arthritis, or inflammatory arthropathy requiring synovectomy.

Cultural safety and equity for Aboriginal and Torres Strait Islander peoples

Consider the needs of a patient who has to travel away from home for surgery and ensure that they have access to adequate support and advocacy whilst in hospital.

Enable as many steps as possible in the surgical care pathway to take place ‘under one roof’. This can support Aboriginal and Torres Strait Islander people to use specialist services and prevent patients from falling through the transition gaps that exist within this care pathway.

Questions?

See the Commission’s **Osteoarthritis of the Knee Clinical Care Standard** webpage for more information and links to useful resources.