Queensland Health

Queensland Community Pharmacy Scope of Practice Pilot

Mild, Acute Musculoskeletal Pain - Clinical Practice Guideline

Guideline Overview

Pilot and professional obligations

- Initial patient eligibility and suitability for management within the scope of the pilot
- Patient informed consent
  - Pilot participation
  - Financial
  - Pharmacist communication with other health practitioners
- Professional standards
- Privacy
- Documentation and record keeping
- Interprofessional communication

Gather information and assess patient's needs

- Patient history
- Pain history and assessment
- Examination

Management and treatment plan

- Non-pharmacological and lifestyle measures
- Pharmacological
  - Paracetamol
  - Oral and topical NSAIDS

Confirm management is appropriate

- Contraindications and precautions
- Drug interactions
- Pregnancy and lactation

Communicate agreed treatment plan

- How to use
- Adverse effects
- When to seek further care/ treatment
- General and preventive advice
- Communication with other health practitioners

Refer when

Refer to a medical practitioner if:

- The patient has 'red flag' warning signs
- Pain cannot be attributed to acute mechanical MSK pain (chronic pain or inflammatory pain)
- The patient is aged under 18 years
- The patient has a history of chronic inflammatory MSK pain or complex underlying rheumatological conditions (including acute flares of these conditions)
- The patient presents with swelling, redness, tenderness and warmth around a joint or within a muscle or other alerting signs that may indicate a serious pathology
- The patient presents with non-musculoskeletal systemic symptoms that may indicate underlying pathology such as fever, malaise or weight loss
- The patient is at high risk of acute rheumatic fever
- The patient rates their pain as moderate to severe, or has significant functional limitations due to pain
- The patient is unable to accurately rate their pain due to cognitive impairment or other special needs
- There is inadequate response to optimal treatment or pain/other symptoms worsen
- Pain management is inadequate
- The patient requests treatment with an opioid
- The patient is opioid-tolerant or recovering from an opioid use disorder

‘Red flag’ warning signs at patient presentation that necessitate referral to a medical practitioner:

- Acute swelling, erythema and significant reduction in range of motion of a joint
- Headache and acute onset of visual or auditory disturbances
- Digital ischaemia
- Suspected nerve damage or mononeuropathy e.g., loss of feeling, weakness, pain or burning and/or paraesthesia (‘pins and needles’)
- Neurological signs including altered bladder or bowel function
- Other non-musculoskeletal systemic symptoms suggestive of serious pathology including fever, malaise, weight loss, nausea and vomiting.

Key points

- Acute musculoskeletal (MSK) pain is generally mechanical, caused by damage to tissue or structural changes to joints, vertebrae and muscles/soft tissue, often as a result of trauma (jerking movements, vehicle accidents, falls, fractures, sprains, dislocations, and direct blows to the muscle), postural strain, overuse or prolonged immobilisation [1].
- While mechanical pain can lead to inflammation, it is different to inflammatory pain caused by an underlying chronic inflammatory disease such as arthritis, that results in chronic pain and is treated differently [2].
- Acute mechanical MSK pain is a symptom complex, as opposed to a condition, which is expected to be self-limiting (last less than 3 months), with a return to usual function as the underlying injury resolves [3].
- Non-pharmacological therapies and lifestyle measures (where there is a proven benefit) and pharmacotherapy (paracetamol and non-steroidal anti-inflammatory drugs (NSAIDs)) should be considered in the overall management plan for acute, mild MSK pain [4, 5].
- Opioids are not required for the management of mild MSK pain and cannot be prescribed for mild MSK pain in the Pilot [5].

When applying the information contained within this clinical practice guideline, pharmacists are advised to exercise professional discretion and judgement. The clinical practice guideline does not override the responsibility of the pharmacist to make decisions appropriate to the circumstances of the individual, in consultation with the patient and/or their carer.

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Gather information and assess patient's needs

A patient history, pain history and assessment, and examination that is tailored to the patient's presentation is required to inform the management approach, including appropriate referral [5, 6].

Patient history

Sufficient information should be obtained from the patient to assess the safety and appropriateness of any recommendations and medicines provided.

The patient history should consider:

- age
- pregnancy and lactation status (if applicable)
- underlying or co-existing medical conditions, including rheumatological and autoimmune conditions such as inflammatory arthritis and psoriasis
- family history of inflammatory pain, rheumatological and/or autoimmune conditions e.g., ankylosing spondylitis or inflammatory arthritis
- non-musculoskeletal symptoms that may indicate serious pathology, including weight-loss or gain, fever, malaise, nausea, vomiting and sweating
- risk factors for developing acute rheumatic fever as per the Therapeutic Guidelines: Acute rheumatic fever

- alerting symptoms and features as per the Therapeutic Guidelines: Clinically assessing peripheral musculoskeletal symptoms in adults [7]
- response to any previous treatments
- impacts on quality of life including sleep, ability to self-care, mobility, work, leisure, emotional health and relationships
- precipitating, aggravating and relieving/alleviating factors
- current, recently commenced or recently ceased medication (including prescribed medicines, vitamins, herbs, other supplements and over-the-counter medicines)
- weight, dietary patterns, levels of exercise/physical activity
- allergies/adverse drug reactions
- alcohol, tobacco and other drug history/status
- other psychosocial factors.

Pain history and assessment

Where appropriate, conduct assessment of vital signs.

Pain history and assessment should be conducted in accordance with the Therapeutic Guidelines: General principles of acute pain management and Assessing a patient with pain [3, 8].

Pain severity is subjective and should be interpreted in the context of the patient's presentation as well as additional information gained through the pain history [9].

The Therapeutic Guidelines: General principles of acute pain management includes information to assist with determining pain severity [3].

If the patient's self-reported pain severity is not consistent with other assessment findings e.g., physical function or examination findings, the patient should be referred to a medical practitioner for comprehensive assessment including socio-psycho-biomedical factors [9].

Examination

The area of pain should be examined in accordance with the Therapeutic Guidelines: Rheumatology (Clinically assessing peripheral musculoskeletal symptoms in adults) [7].

To determine appropriate management or referral, it is important to identify the aetiology of the pain (nociceptive, neuropathic, nociplastic, or combination (mixed pain)) and to distinguish pain associated with inflammation from mechanical pain.

MSK pain is predominantly nociceptive, with a superficial or deep origin and localisation of pain from the bone, joint or muscles (somatic) [9].

Acute pain is defined by a duration of less than 3 months, usually with a nociceptive pain component arising from actual or threatened tissue damage [3, 9].

Table 1. Clinical features/characteristics of mechanical versus inflammatory pain [2,11]

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Inflammatory pain	**Mechanical pain (musculoskeletal)**
• improves with exercise/movement • does not improve with rest • lasts more than 3 months • patient may experience morning stiffness (for greater than 30 minutes) • pain waking patient during second half of the night with improvement on getting up.	• may worsen with movement/exercise • often improves with rest • most cases have acute onset lasting less than 3 months • precipitating physical injury may be identifiable.

Investigations

Referral to a medical practitioner for management, including investigations, may be required for acute pain that does not respond to treatment, or if indicated by patient history and/or pain history e.g., patients presenting with traumatic injuries that may require radiological examination.

Management and treatment plan

Pharmacist management of acute mild MSK pain involves:

- **non-pharmacological and lifestyle measures:**
    - Advice regarding non-pharmacological pain management strategies for all patients in accordance with the Therapeutic Guidelines: Non-pharmacological management of acute pain [11].
- **pharmacotherapy:**
    - In accordance with the Therapeutic Guidelines: Pharmacological management of acute pain [4] and Therapeutic Guidelines: Principles of analgesic and anti-inflammatory drug use for musculoskeletal conditions in adults[1] [5].

NB1: Oral NSAID selection should be based on patient factors, including contraindications, and balance the risks and benefits. Refer to the *Choice of NSAID and approach to NSAID use in patients at increased risk of specific adverse effects* section in the Therapeutic Guidelines: Rheumatology (Principles of analgesic and anti-inflammatory drug use for musculoskeletal conditions in adults).

Confirm management is appropriate

Pharmacists must consult the Therapeutic Guidelines, Australian Medicines Handbook and other relevant references to confirm the management is appropriate, including for:

- contraindications and precautions
- drug interactions
- pregnancy and lactation.

Communicate agreed management plan

Comprehensive advice and counselling (including supporting written information when required) as per the Therapeutic Guidelines, Australian Medicines Handbook and other relevant references should be provided to the patient regarding:

- the possible diagnosis, management options and expectations for resolution
- product and medication use including dosing and treatment regimens with paracetamol and NSAIDS and application instructions for topical NSAIDs
- how to manage adverse effects
- when to seek further care and/or treatment.

It is the pharmacist's responsibility to ensure the suitability and accuracy of any resources and information provided to patients (and parents/caregivers if applicable), and to ensure compliance with all copyright conditions.

The agreed management plan should be shared with members of the patient's multidisciplinary healthcare team, with the patient's consent.

General advice

General advice to be provided to the patient regarding strategies to manage acute MSK pain include:

- Physical interventions that may provide adequate pain relief on their own e.g., hot and cold therapy.
- Other interventions based on the reported injury e.g., ice, immobilisation and compression therapy [5, 6, 11].
- The use of fish oil as per the Therapeutic Guidelines: Principles of analgesic and anti-inflammatory drug use for musculoskeletal conditions in adults.
- Evidence for the use of complementary medicines and possible adverse effects and interactions with conventional medicines.

The patient should be advised to see their usual medical practitioner if:

- the pain relief provided is not adequate; or
- symptoms do not start to improve within 5 days; or
- their pain or other symptoms worsen; or
- they experience new pain or symptoms.

Clinical review

Clinical review with the pharmacist is generally not required. If the condition does not improve or resolve, the patient should be advised to see a medical practitioner for further investigation.

Pharmacist resources

- Therapeutic Guidelines: Rheumatology
  - Assessing peripheral musculoskeletal symptoms in adults
  - Principles of analgesic and anti-inflammatory drug use for musculoskeletal conditions in adults
- Therapeutic Guidelines: Pain and analgesia
  - Understanding pain
  - Assessing a patient with pain
  - General principles of acute pain management
  - Non-pharmacological management of acute pain
  - Pharmacological management of acute pain
  - Assessing peripheral musculoskeletal symptoms in adults
- Australian Medicines Handbook
  - Drugs for pain relief
  - NSAIDs
- Queensland Ambulance Service - Pain assessment.
- National Centre for Complementary and Integrative Health:
  - Pain information for Health Professionals
  - Herbs at a glance

References

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