

Using heat therapy for the management of musculoskeletal pain

Summary guidance for pharmacists

2024

Musculoskeletal pain is a prevalent condition that affects millions of people worldwide, leading to decreased quality of life and increased healthcare costs. It is a frequent reason for consultation in community pharmacies, where pharmacists are often the first point of contact for patients seeking relief from symptoms. Given the key role community pharmacists play in healthcare delivery, there is a need to enhance their ability to effectively manage musculoskeletal pain.

This FIP guidance aims to support community pharmacists to conduct a thorough patient assessment, gathering information about signs, symptoms, medical history, and potential red flags that may require referral to a physician.

Information gathering and patient assessment

Information on the patient's symptoms

Pharmacists should gather information on the patient's symptoms, which can include:

1. Location of the pain
2. Duration of the pain (when it started and how long it has lasted)
3. Pain intensity (mild, moderate, severe)
4. How the pain started (e.g., after increased exertion, lifting, or injury)
5. Characteristics of the pain (e.g., sharp, dull, burning, throbbing)
6. Pain course (whether the pain is improving, worsening, or stable over time)
7. Temporal aspect (whether the pain is intermittent, continuous, or occurs at specific times, such as at night)
8. Sensitivity to changes in temperature or clothing

Information on the patient's history

Pharmacists should gather information on the patient's history, which can include:

1. Age
2. Allergies
3. Pregnancy and lactation status
4. Underlying or co-existing medical conditions, including pre-diagnosed arthritis, cardiovascular disease, and diabetes
5. Family history of rheumatological and/or autoimmune conditions such as rheumatoid arthritis and osteoporosis
6. Recent and long-term medication history (including prescription medicines, non-prescription medicines, vitamins and supplements)

Physical examinations

Recommendations on physical examinations (if appropriate):

1. When feasible and acceptable to the patient, the pharmacist should assess the patient by observing visible signs such as redness, swelling, or injury in the area of pain and evaluating the patient's range of movements.
2. Where accessible, pharmacists should preferably conduct the assessment in a consulting room.
3. Pharmacists need to consider a patient's religion and beliefs, as these factors may affect their comfort level in discussing or revealing areas of their body where they experience pain.

Red-flag (warning) signs

Refer the patient to a medical practitioner without starting any treatment plan if:

1. The patient reports inadequate response to the initial treatment from a medical practitioner
2. The patient has severe, persistent, or worsening pain
3. The patient has a history of cancer, osteoporosis, or inflammatory arthritis
4. The patient presents with signs and symptoms indicating serious pathology, such as prolonged morning stiffness of more than an hour (suggestive of inflammatory arthritis), or night pain
5. The patient presents with severe and progressive neurological signs and symptoms, including pins and needles, numbness, and cauda equina syndrome
6. The patient presents with other non-musculoskeletal systemic signs and symptoms, such as fever, malaise, and unexplained weight loss, indicating serious pathology
7. The patient requests opioid treatment
8. The patient is opioid-tolerant or in recovery from opioid use disorder

Management and treatment plan

Non-specific low back pain

Recommendations for non-specific low back pain

1. Reassurance, education and advice on physical activity, exercise and continuing normal activities are the first-line interventions for non-specific low back pain.
2. Heat therapy can be indicated for non-specific low back pain alongside regular physical activity.
3. Heat therapy can be considered alone or in combination with other therapies, such as topicals and oral non-steroidal anti-inflammatory drugs.
4. There is a lack of evidence that paracetamol is effective for acute and chronic low back pain.

Non-specific neck pain

Recommendations for non-specific neck pain

1. Reassurance, education, and advice on physical activity, exercise and continuing normal activities are the first-line interventions for non-specific neck pain.
2. Heat therapy can be considered alone or in combination with other therapies for neck pain, such as topical and oral NSAIDs or paracetamol.

Hip, knee, and/or hand osteoarthritis

Recommendations for hip, knee, and/or hand osteoarthritis

1. Exercise, weight management and education are first-line interventions for osteoarthritis.
2. Heat therapy can be considered alone or in combination with therapies for chronic pain and stiffness in patients with osteoarthritis.
3. Heat therapy should NOT be used during acute episodes of joint swelling and redness.
4. Cold therapy can be considered for acute joint swelling.

Counselling on using heat or cold therapy, and non-prescription medicines

Recommendations on how to safely use heat or cold therapy and non-prescription medicines

1. Mechanism of actions:
 - a. **Heat therapy** causes vasodilation, increases blood flow, increases metabolism, and increases extensibility. This can be particularly beneficial for chronic pain conditions.
 - b. **Cold therapy** reduces blood flow, reduces inflammation, reduces muscle spasms, and reduces metabolism. This can be particularly beneficial for acute inflammatory pain conditions.
2. Application technique:
 - a. **Heat therapy:** Heat packs should not be excessively hot. Sessions should be limited to 15-30 minutes per application, and always advise the use of a cloth or towel as a protective barrier to prevent burns or skin irritation from excessive heat. Pay special attention to diabetics and patients with skin problems.
 - b. **Cold therapy:** Use of a cloth or similar barrier when applying cold packs to prevent frostbite and superficial nerve damage or injury. Apply cold therapy for 15-20 minutes at a time, allowing the skin to return to normal temperature between applications.
3. If a topical medicine is recommended alongside heat or cold therapy, advise patients to apply the medicine to the affected area two to four times a day. Avoid using topicals and heat or cold therapy at the same time.

Managing side effects, safety precautions, and general preventive advice

Recommendations on side effects and safety precautions

1. Educate and advise patients on side effects and safety precautions:
 - a. The use of **heat therapy**, especially at high temperatures, may carry the risk of burns or skin ulceration.
 - b. The inappropriate use of **cold therapy** may carry the risk of local cold-induced injuries, such as frostbite and superficial nerve damage or injury.
2. If topical treatment containing NSAIDs is recommended alongside heat or cold therapy, inform patients about the common side effects of the topical treatment. Advise them to discontinue use or consult a pharmacist or physician if they experience severe, persistent irritation, redness, or allergic reactions.
3. While following the treatment plan, advise patients to consult a pharmacist or a general practitioner if they wish to take other medicines, supplements, vitamins, or herbal medicines.

Seeking further treatment

Recommendations on when to seek further treatment

1. Advise patients to follow the treatment plan for three to seven days. Actively follow up with patients to monitor treatment safety and effectiveness. If there is no improvement or if the treatment seems inadequate, refer the patient to a medical practitioner.
2. Advise patients to stop the treatment and seek immediate medical attention if they experience worsening or unexpected adverse events.

Management flowchart



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For the complete guidance and supporting
references, please use the link or QR-code below:

<https://www.fip.org/file/6080>



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