



Michigan Quality Improvement Consortium Guideline

Management of Acute Low Back Pain in Adults

The following guideline recommends assessment, diagnosis and management of acute low back pain in adults (low back pain of ≤ 4 weeks duration).¹

Eligible Population	Key Components	Recommendation and Level of Evidence
Adults with low back pain or back-related leg symptoms for ≤ 4 weeks' duration	<p>Patients with low risk of serious pathology, i.e., no red flags</p> <p>Red flags Unexplained weight loss Fever History of cancer Sudden bowel or bladder dysfunction Progressive and/or severe lower extremity neurologic deficits Abnormal spinal or perineal reflexes Perineal hypoesthesia</p>	<p>Reassure: 90% of episodes resolve within 6 weeks regardless of treatment. [C] Advise that flare-ups may occur in the subsequent year.</p> <p>Testing/Assessment: Detailed history and physical exam, with attention to red flags, recent falls, strength, reflexes, spine percussion, segmental mobility. Assess pain and function (activities of daily living; ability to work, exercise, and perform household tasks). Diagnostic tests or imaging usually not required for acute non-traumatic back pain. [B] Depression screening recommended [B] (PHQ-9), since concurrent coincident depression worsens prognosis. (see MQIC depression guideline)</p> <p>Therapy: Stay active and continue ordinary activity within the limits permitted by pain. Avoid bed rest. [A] Early return to work is associated with less disability. Injury prevention (e.g., use of proper body mechanics, safe back exercises). Heat for painful areas may reduce pain due to muscle spasm [B]; stretching exercises [D] and spinal manual therapy [B] may be recommended. Spinal stabilization exercises are comparable to manual therapy and superior to general exercise in reducing pain and improving function in low back pain. [A] Modalities such as traction, ultrasound, paraspinal injections or TENS are not effective.</p> <p>Referral: If pain and/or disability persists beyond 2 weeks, consider referral for physical therapy to improve strength and flexibility. If pain and/or disability persists beyond 4 weeks, consider referral to a multidisciplinary back pain program, especially if psychosocial risks to return to work exist.</p> <p>Medication Strategies: Prescribe medications on a time-contingent basis, not pain-contingent basis. No single drug category has been proven to be more effective than another in pain control. Consider side-effect profiles. NSAIDs are often a good first choice. Non-benzodiazepine muscle relaxants may be added but are sedating and may limit mobility. Opioids and benzodiazepines are generally not indicated as first-line treatment, and early opioid use is associated with longer disability. If prescribed, limit to short-term (i.e., one week or less), and only after assessing for risk of addiction or misuse. Avoid co-prescribing opioids with benzodiazepines, muscle relaxants or hypnotics due to high risk of respiratory depression and death. See MQIC opioid prescribing in adults guideline for more information.</p> <p>Work: Return to work recommendations should be individualized, based on occupation.</p>
	<p>Identification and management of suspected serious pathology (high index of suspicion based on red flags)</p>	<p>Cauda Equina Syndrome: (severe and/or progressive neurologic deficit, recent bowel or bladder dysfunction, perineal hypoesthesia) <u>Management:</u> Transfer to hospital emergency department for emergent studies and definitive care. [C]</p> <p>Cancer: history of cancer or cancer risks (age > 50; insidious onset of pain; smoking; no relief at bedtime or worsening when supine; constitutional symptoms, e.g., fever, unexplained weight loss) <u>Management:</u> CBC, urinalysis, C-reactive protein ± ESR. [C] Consider MRI (without and with contrast) - negative lumbosacral X-rays do not rule out cancer.</p> <p>Infection: e.g., epidural abscess, discitis, osteomyelitis (risks: steroid therapy; diabetes; immunosuppression; hemodialysis) history of UTI, TB, HIV, endocarditis or other infection; no relief of pain at bedtime or worsening when supine; recent surgery or spinal instrumentation (e.g., spine injection or myelogram); insidious onset; history of IV drug use; severe or progressive neurologic deficit) <u>Management:</u> CBC, urinalysis, C-reactive protein ± ESR. [C] Consider MRI (without and with contrast) - negative lumbosacral X-rays do not rule out infection.</p> <p>Spinal Fracture: (risks: older age group [esp. women age > 50]; recent injury or cumulative trauma; prolonged steroid therapy, cancer, osteoporosis or ankylosing spondylitis) <u>Management:</u> lumbosacral X-rays. [B] After 10 days, if fracture still suspected or multiple sites of pain, consider MRI or referral. [D]</p> <p>Epidural Hemorrhage: (risks: anticoagulation, recent spinal instrumentation or catheter, lumbar puncture) <u>Management:</u> Transfer to hospital emergency department for emergent studies and definitive care; reversal of anticoagulation as needed.</p>

¹ [Acute Low Back Pain | Acute Pain \(cdc.gov\)](#)

Levels of Evidence for the most significant recommendations: A = randomized controlled trials; B = controlled trials, no randomization; C = observational studies; D = opinion of expert panel

This guideline lists core management steps. It is based on several sources, including North American Spine Society (NASS). Diagnosis and treatment of low back pain. 2020. [Diagnosis and Treatment of Low Back Pain - Clinical Guideline \(spine.org\)](#) Qaseem A, Wilt TJ, McLean RM, Forciea MA., Noninvasive Treatments for Acute, Subacute, and Chronic Low Back Pain: A Clinical Practice Guideline from the American College of Physicians. Ann Intern Med. 2017;166:514–530. doi: 10.7326/M16-2367. Individual patient considerations and advances in medical science may supersede or modify these recommendations.