

Guidelines Issued for Management of Low Back Pain CME/CE

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Credits Available

Physicians - maximum of 0.25 *AMA PRA Category 1 Credit(s)*TM for physicians;

Family Physicians - up to 0.25 AAFP Prescribed credit(s) for physicians;

Nurses - 0.25 nursing contact hours (None of these credits is in the area of pharmacology)

All other healthcare professionals completing continuing education credit for this activity will be issued a certificate of participation.

Physicians should only claim credit commensurate with the extent of their participation in the activity.

October 2, 2007 — The American College of Physicians (ACP) and the American Pain Society (APS) have issued a comprehensive joint clinical practice guideline for the diagnosis and treatment of low back pain, which is published in the October 2 issue of the *Annals of Internal Medicine*. These guidelines offer recommendations concerning how to categorize patients, when to perform imaging studies, educational information for patients, self-care, when to prescribe medications and what types, and nonpharmacologic therapy. An important caveat is that clinicians should not routinely order imaging and other diagnostic tests.

"There are many options for evaluation and treatment of low back pain," second study author Amir Qaseem, MD, PhD, MHA, senior medical associate in the ACP Department of Clinical Programs and Quality of Care in Philadelphia, Pennsylvania, said in a news release. "We wanted to review all the evidence and develop guidance for clinicians and to give our patients a realistic sense of what they can expect when they visit a clinician for low back pain. It is important to tell patients about their expected course based on evidence-based information and advise them to remain active."

In the United States, several studies suggest that approximately 25% of adults report having had low back pain in the past 3 months, whereas 7.6% report at least 1 episode of severe acute low back pain within the previous year. Clinical evidence suggests that regardless of treatment, most low back pain improves within 1 month. Available treatment options range from watchful waiting to conservative treatment with pharmacologic and nonpharmacologic modalities to invasive procedures such as spinal surgery. The impetus for the creation of these guidelines was a meeting of a multidisciplinary panel of experts convened in 2006 by ACP and APS. Their mission was to develop questions and the scope of an evidence report on low back pain, to review the available evidence in this field, and to generate recommendations assisting primary care clinicians in diagnosing and treating low back pain.

The joint ACP-APS guidelines target primary care physicians and other clinicians, rather than anesthesiologists, interventional radiologists, orthopaedists, or neurosurgeons. Although these guidelines do not address invasive therapies performed by specialists, the APS plans to publish a separate guideline in 2008 that will describe the use of invasive procedures for low back pain.

The current joint ACP-APS recommendations provide an algorithm to facilitate collection and interpretation of data during the first patient visit and to categorize patients into 1 of 3 general subgroups: (1) nonspecific low back pain (accounts for 85% of patients); (2) back pain potentially associated with spinal conditions, such as spinal stenosis, sciatica, and vertebral compression fracture; and (3) back pain potentially associated with another specific cause, such as cancer.

For patients with nonspecific low back pain, clinicians should not routinely order imaging studies, including radiographs, computerized tomography (CT) scans, magnetic resonance imaging (MRI), or other

diagnostic tests. These tests should be used to evaluate only those patients who have severe or progressive neurologic deficits or who are suspected to have cancer, infection, or other underlying condition as the cause of their low back pain.

The guidelines are accompanied by 2 background articles reviewing the evidence underlying the recommendations for pharmacologic and nonpharmacologic treatment options for acute and chronic low back pain.

"Almost all medications reviewed had some benefits, but they have risks," said lead study author Roger Chou, MD, head of the APS Clinical Practice Guidelines Program. "Acetaminophen, for example, is very safe but might not be effective. NSAIDs [nonsteroidal anti-inflammatory drugs] have gastrointestinal and cardiovascular risks."

Specific recommendations in the guidelines are as follows:

- Focused history and physical examination should help categorize patients into 1 of 3 broad groups: nonspecific low back pain, back pain potentially associated with radiculopathy or spinal stenosis, or back pain potentially associated with another specific spinal cause. Evaluation of psychosocial risk factors is essential during history taking because these predict the risk for chronic disabling low back pain (strong recommendation; moderate-quality evidence).
- For patients with nonspecific low back pain, clinicians should not routinely perform imaging studies, including radiographs, CT scans, and MRI, or other diagnostic tests (strong recommendation; moderate-quality evidence).
- Patients with severe or progressive neurologic deficits, or in whom history and physical examination suggest cancer, infection, or other underlying condition as the cause of their low back pain, should undergo imaging studies and other appropriate diagnostic tests (strong recommendation; moderate-quality evidence).
- Patients with persistent low back pain and signs or symptoms of radiculopathy or spinal stenosis should undergo MRI or CT only if positive results would potentially lead to surgery or epidural steroid injection for suspected radiculopathy. In choosing an imaging procedure, MRI is preferred to CT (strong recommendation; moderate-quality evidence).
- Patient education by clinicians should include provision of evidence-based information on low back pain. Topics that should be covered include expected course and effective self-care options. Clinicians should also counsel their patients to stay physically active (strong recommendation; moderate-quality evidence).
- When pharmacotherapy is considered, drugs of choice should be those with proven benefits, and they should be used together with self-care and back care education. Before starting a patient on pharmacotherapy, clinicians should evaluate pain and functional deficits at baseline. They should also review the risk-benefit ratio of specific medications before prescribing them and should consider the relative lack of long-term efficacy and safety data (strong recommendation; moderate-quality evidence). Acetaminophen or NSAIDs are preferred first-line drugs for most patients.
- When self-care options do not result in improvement, clinicians should consider adding nonpharmacologic modalities shown to be of benefit. For acute low back pain, the only modality in this category is spinal manipulation. For chronic or subacute low back pain, modalities shown to be of benefit are intensive interdisciplinary rehabilitation, exercise therapy, acupuncture, massage therapy, spinal manipulation, yoga, cognitive-behavioral therapy, or progressive relaxation (weak recommendation; moderate-quality evidence).

"Opioids and muscle relaxers can provide relief for those with severe pain, but their potential benefits and risks should be weighed carefully," Dr. Chou said. "Patients who prefer not to take medication can benefit from non-drug treatments, such as acupuncture, spinal manipulations, and massage therapy. None, however, are proven to be more effective than others to warrant recommendation as first-line therapy." Dr. Chou has disclosed receiving an honorarium from Bayer Healthcare Pharmaceuticals. One of the authors has disclosed financial relationships with Agency for Healthcare Research and Quality, Centers for Disease Control and Prevention, Novo Nordisk, Pfizer, Merck, Bristol-Myers Squibb, Atlantic Philanthropics, and Sanofi-Pasteur.
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Learning Objectives for This Educational Activity

Upon completion of this activity, participants will be able to:

1. Describe a few of the recommendations regarding evaluation of patients with back pain.
2. Describe a few of the recommendations regarding treatment of patients with back pain.

Clinical Context

Low back pain is a widespread and often chronic and debilitating problem, with about 25% of US adults reporting having had low back pain in the past 3 months, whereas 7.6% report at least 1 episode of severe acute low back pain within the previous year. Because most low back pain improves within 1 month even without treatment, it is important for clinicians to have a rational basis for recommending diagnostic tests and for prescribing various treatment options.

A multidisciplinary panel of experts convened in 2006 by the ACP and APS has issued a comprehensive, evidence-based joint clinical practice guideline for diagnosis and treatment of low back pain. These guidelines target primary care clinicians and address only conservative pharmacologic treatment options. Future guidelines being planned by the APS will address use of invasive procedures for low back pain.

Study Highlights

- Target populations for these guidelines are adults (including pregnant women), children, and adolescents with chronic or acute low back, cervical, or thoracic pain not related to major trauma, including patients with nonspinal pain and myofascial pain syndromes.
- Specific recommendations in the guidelines are as follows:
 - Focused history and physical examination should help categorize patients into 1 of 3 broad groups: nonspecific low back pain; back pain potentially associated with radiculopathy or spinal stenosis; or back pain potentially associated with another specific spinal cause, such as cancer or infection.
 - Evaluation of psychosocial risk factors is essential during history taking because these predict the risk for chronic, disabling back pain (strong recommendation; moderate-quality evidence). History should also include location, duration, quality and frequency of pain, as well as previous response to treatment. History and examination should look for evidence of cancer, infection, or other systemic cause of pain, as well as evidence of neurologic deficit suggesting radiculopathy or cauda equina syndrome.
 - Nonspecific low back pain should not routinely be evaluated with imaging studies, such as radiographs, CT scans, and MRI, or other diagnostic tests (strong recommendation; moderate-quality evidence).
 - Imaging studies and other appropriate diagnostic tests are indicated for patients with severe or progressive neurologic deficits, or in whom a history and physical examination suggest cancer, infection, or other underlying condition as the cause of the back pain (strong recommendation; moderate-quality evidence).
 - Patients with persistent back pain and signs or symptoms of radiculopathy or spinal stenosis should undergo MRI or CT only if surgery or epidural steroid injection for suspected radiculopathy is being considered. MRI is preferred to CT (strong recommendation; moderate-quality evidence).

- Clinicians should educate patients by providing evidence-based information on the expected course of low back pain and effective self-care options. Clinicians should also recommend that their patients be physically active (strong recommendation; moderate-quality evidence).
- When pharmacotherapy is considered, drugs of choice should be those with proven benefits, and they should be used together with self-care and back care education. Before starting pharmacotherapy, clinicians should evaluate baseline pain and functional deficits, as well as the risks and benefits of specific medications. Clinicians should be aware of the relative lack of long-term efficacy and safety data (strong recommendation; moderate-quality evidence). For most patients, acetaminophen or NSAIDs are preferred first-line drugs.
- For acute pain, superficial heat, muscle relaxants, benzodiazepines, or opioids may be considered. For chronic pain, opioids or antidepressants may be indicated.
- For patients who do not improve with self-care, clinicians should consider adding nonpharmacologic modalities of demonstrated benefit. For acute low back pain, the only such modality is spinal manipulation. For chronic or subacute low back pain, modalities shown to be of benefit are intensive interdisciplinary rehabilitation, exercise therapy, acupuncture, massage therapy, spinal manipulation, yoga, cognitive-behavioral therapy, or progressive relaxation (weak recommendation; moderate-quality evidence).

Pearls for Practice

- Focused history and physical examination should help categorize patients into 1 of 3 broad groups: nonspecific low back pain, back pain potentially associated with radiculopathy or spinal stenosis, or back pain potentially associated with another specific spinal cause. Evaluation of psychosocial risk factors is essential to predict the risk for chronic, disabling low back pain.
- Clinicians should provide patients with evidence-based information on the expected course of low back pain and effective self-care options and should also recommend that their patients be physically active.