



Effective Health Care

Diagnosis and Treatment of Low Back Pain

Nomination Summary Document

Results of Topic Selection Process & Next Steps

- The topic, *Diagnosis and Treatment of Low Back Pain*, will go forward for refinement as a systematic review. The scope of this topic, including populations, interventions, comparators, and outcomes, will be further developed in the refinement phase.
- When key questions have been drafted, they will be posted on the AHRQ Web site and open for public comment. To sign up for notification when this and other Effective Health Care (EHC) Program topics are posted for public comment, please go to <http://effectivehealthcare.ahrq.gov/index.cfm/join-the-email-list/>.

Topic Description

Nominator(s): Health care professional association

Nomination Summary: The nominator is interested in the comparative effectiveness of different strategies used to diagnose and treat low back pain. Strategies include testing (e.g., imaging tests), decision tools, identifying risk factors for chronicity, routine imaging, self-care, education, pharmacological therapies, non-pharmacological therapies, surgery, interventions for secondary prevention or prevention of flares of low back pain, and combination therapies. The nominator is also interested in the harms and benefits of the treatment options.

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Population(s): Patients with low back pain

Intervention(s): Procedures to diagnose and treat low back pain, including: testing (e.g., imaging tests), identification of risk factors for chronicity, decision tools, routine imaging, self-care, education, pharmacological therapies (e.g., NSAIDs, acetaminophen, opioids, antiseizure medications, antidepressants, corticosteroids), non-pharmacological therapies (e.g., exercise, spinal manipulation, acupuncture, massage), injections (e.g., local injections, epidural steroid injections, facet joint steroid injection, intradiscal ozone, intradiscal methylene blue, IDET/PIRFT), surgery (e.g., spinal fusion, disc replacement), interventions for secondary prevention or prevention of flares of low back pain, and combination therapy.

Comparator(s): All other treatment options

Outcome(s): Increases in short- and long-term benefits in patients with low back pain, including reduction or elimination of low back pain, improvements in functioning and quality of life; decreases in short- and long-term harms in patients with low back pain, including treatment side effects.

**Key Questions
from Nominator:**

1. In patients with low back pain, what are the benefits and harms of identifying risk factors for chronicity and targeting treatment based on assessed risk?
2. In patients with low back pain without signs or symptoms suggesting a specific or serious underlying diagnosis, what are the benefits and harms of routine imaging versus no routine imaging?
3. What are the comparative benefits and harms of self-care advice, education, or other self-care interventions?
4. What are the comparative benefits and harms of different pharmacological therapies for radicular low back pain, non-radicular low back pain, or spinal stenosis? (Including NSAIDs, acetaminophen, opioids, antiseizure medications, antidepressants, corticosteroids)
5. What are the comparative benefits and harms of different non-pharmacological, non-invasive therapies for radicular low back pain, non-radicular low back pain, or spinal stenosis? (Including interdisciplinary rehabilitation, exercise and related therapies, spinal manipulation, acupuncture and related therapies, massage, and various psychological therapies)
6. What is the accuracy and clinical effectiveness of decision tools or other methods for predicting which patients with low back pain are more likely to respond to specific therapies?
7. What are the comparative benefits and harms of various interventional procedures for non-radicular low back pain, radicular low back pain, or spinal stenosis? (Including local injections, epidural steroid injections, facet joint steroid injection, intradiscal methylene blue, intradiscal ozone, injections involving anti-TNF drugs, radiofrequency denervation, IDET/PIRFT)
8. What are the comparative benefits and harms of surgery (and different surgical interventions) vs. non-surgical management for non-radicular low back pain, radicular low back pain, or spinal stenosis?
9. What are the comparative benefits and harms of combinations of therapies (versus single therapies or versus different combinations) for low back pain?
10. What are the comparative benefits and harms of different methods of integrating or coordinating low back pain care?
11. What are the benefits and harms of interventions for secondary prevention of low back pain, or for prevention of flares of low back pain in patients with chronic low back pain?

Considerations

- The topic meets all EHC Program selection criteria. (For more information, see <http://effectivehealthcare.ahrq.gov/index.cfm/submit-a-suggestion-for-research/how-are-research-topics-chosen/>.)
- Low back pain (LBP) affects nearly 31 million Americans at any given time, and can cost at least \$50 billion each year, making it one of the most serious and costly health concerns in the United States.
- Common diagnostic procedures can include: X-ray imaging, discography, computerized tomography (CT), magnetic resonance imaging (MRI), electrodiagnostic procedures, bone scans and ultrasound imaging.

- Common treatment options can include: ice and heat, bed rest, exercise, medications, spinal manipulation, acupuncture, biofeedback, transcutaneous electrical nerve stimulation (TENS), ultrasound and surgical procedures (e.g., discectomy, spinal fusion).
- Although a number of systematic reviews were identified that address the diagnosis and management of low back pain; a comprehensive systematic review that compares the effectiveness of the most common management strategies and delineates the benefits and harms of the different approaches, is needed to in order to help providers and patients make more informed decisions.