2017 PRACTICE GUIDELINES
DIAGNOSIS AND TREATMENT OF LOW BACK PAIN

PURPOSE:
To provide guidance for clinicians in diagnosing and treating low back pain (LBP).

OVERVIEW:
The ultimate goal of diagnosing and treating low back pain is decreased pain, resumption of normal activities and reduced morbidity. This guideline should be used as a tool, to be adapted and implemented for individual situations.

PRACTICE GUIDELINE: Blue Cross & Blue Shield of Rhode Island (BCBSRI) adopts the *Clinical Guidelines for the Diagnosis and Treatment of Low Back Pain: A Joint Clinical Practice Guidelines from the American College of Physicians and the American Pain Society(2007).* The guideline, Noninvasive Treatments for Acute, Subacute, and Chronic Low Back Pain, was developed by the American College of Physicians and was endorsed in April 2017 by the American Academy of Family Physicians.
The full ACP/APS guideline is available on the Annals of Internal Medicine Web site at www.annals.org/cgi/reprint/147/7/478.pdf.
The additional updated guidance: http://annals.org/aim/article/2603228/noninvasive-treatments-acute-subacute-chronic-low-back-pain-clinical-practice.

This document is relevant to adults with acute and chronic low back pain not associated with major trauma. Children or adolescents with low back pain; pregnant women; and patients with low back pain from sources outside the back, including fibromyalgia or other myofascial pain syndromes, and thoracic or cervical back pain are not included.

KEY UPDATES TO THE 2017 RECOMMENDATIONS:

- Nonpharmacologic treatment, including superficial heat, massage, acupuncture, or spinal manipulation, should be used initially for most patients with acute or subacute low back pain, as they will improve over time regardless of treatment.
- When pharmacologic treatment is desired, nonsteroidal anti-inflammatory drugs (NSAIDs) or skeletal muscle relaxants should be used.
- Nonpharmacologic treatment, including exercise, multidisciplinary rehabilitation, acupuncture, mindfulness-based stress reduction, tai chi, yoga, motor control exercise, progressive relaxation, biofeedback, low-level laser therapy, cognitive behavioral therapy, or spinal manipulation, should be used initially for most patients who have chronic low back pain.
- For patients who have chronic low back pain and do not respond to nonpharmacologic therapy, NSAIDs should be used. Tramadol or duloxetine should be considered for those patients who do not respond to or do not tolerate NSAIDs. Opioids should only be

considered if other treatments are unsuccessful and when the potential benefits outweigh the risks for an individual patient. See full recommendation for further details.

HIGHLIGHTS OF RECOMMENDATIONS:

1. Clinicians should conduct a focused history and physical examination to help place patients with low back pain into 1 of 3 broad categories; nonspecific low back pain*, back pain potentially associated with radiculopathy or spinal stenosis, or back pain potentially associated with another spinal cause. The history should include assessment of psychosocial risk factors, which predict risk for chronic disabling back pain (strong recommendation, moderate-quality evidence). All patients should be evaluated for the presence of rapidly progressive or severe neurologic deficits, including motor deficits at more than 1 level, fecal incontinence, and bladder dysfunction. Please see Figure 1.

   **Pain occurring primarily in the back with no signs of a serious underlying condition (such as cancer, infection, or cauda equina syndrome), spinal stenosis or radiculopathy, or another spinal cause (such as vertebral compression fracture or ankylosing spondylitis). Degenerative changes on lumbar imaging are usually considered nonspecific, as they correlate poorly with symptoms.*

2. Clinicians should not routinely obtain imaging or other diagnostic tests in patients with nonspecific low back pain (strong recommendation, moderate-quality evidence). Please see Figure 1.

3. Clinicians should perform diagnostic imaging and testing for patients with low back pain when several or progressive neurologic deficits are present or when serious underlying conditions are suspected on the basis of history and physical examination (strong recommendation, moderate-quality evidence). Please see Figure 1.

4. Clinicians should evaluate patients with persistent low back pain and signs or symptoms of radiculopathy or spinal stenosis with magnetic resonance imaging (preferred) or computed tomography only if they are potential candidates for surgery or epidural steroid injection (for suspected radiculopathy) (strong recommendation, moderate-quality evidence). Please see Figure 1.

5. Clinical should provide patients with evidence-based information on low back pain with regard to their expected course, advise patients to remain active, and provide information about effective self-care options (strong recommendation, moderate-quality evidence).

6. For patients with low back pain, clinicians should consider the use of medications with proven benefits in conjunction with back care information and self-care. Clinicians should assess severity of baseline pain and functional deficits, potential benefits, risks, and relative lack of long-term efficacy and safety data before initiating therapy (strong recommendation, moderate-quality evidence). For most patients, first-line medication options are acetaminophen or nonsteroidal anti-inflammatory drugs.

7. For patients who do not improve with self-care options, clinicians should consider the addition of nonpharmacologic therapy with proven benefits – for acute low back pain, spinal manipulation; for chronic or subacute low back pain, intensive interdisciplinary rehabilitation, exercise therapy, acupuncture, massage therapy, spinal manipulation, yoga, cognitive

behavioral therapy, or progressive relation (weak recommendation, moderate quality evidence).

Figure 1: Diagnostic Work-up

Possible cause	Key features on history or physical examination	Imaging*	Additional studies*
Cancer	History of cancer with new onset of LBP	MRI	ESR
	Unexplained weight loss Failure to improve after 1 month Age >50 years	Lumbosacral plain radiography	
	Multiple risk factors present	Plain radiography or MRI	
Vertebral Infection	Fever Intravenous drug use Recent Infection	MRI	ESR and/or CRP
Cauda equina syndrome	Urinary retention Motor deficits at multiple levels Fecal Incontinence Saddle anesthesia	MRI	None
Vertebral compression fracture	History of osteoporosis Use of corticosteroids Older age	Lumbosacral plain radiography	None
Ankylosing spondylitiis	Morning stiffness - Improvement with exercise Alternating buttock pain Awakening due to back pain during the second part of the night Younger age	Anterior-posterior pelvis plain radiography	ESR and/or CRP, HLA-B27

Possible cause	Key features on history or physical examination	Imaging*	Additional studies*
Severe/ progressive neurologic deficits	Progressive motor weakness	MRI	Consider EMG/NCV

**Level of evidence for diagnostic evaluation is variable.*

IMPLEMENTATION CONSIDERATIONS:

- BCBSRI uses the HEDIS® measure *"Use of Imaging Studies for Low Back Pain"* as a method to measure the use of imaging studies for low back pain. This HEDIS measure documents the percentage of members 18-50 years of age with a primary diagnosis of low back pain who did not have an imaging study (plain X-ray, MRI, CT scan) within 28 days of the diagnosis. A higher value of the measure is preferable.

REFERENCES/SOURCES:

Clinical Guidelines for the Diagnosis and Treatment of Low Back Pain: A Joint Clinical Practice Guidelines from the American College of Physicians and the American Pain Society (2007). Roger Chou, MD; Amir Qaseem, MD, PhD, MHA; Vincenza Snow, MD; Donald Casey, MD, MPH, MBA; J. Thomas Cross, Jr, MD, MPH; Paul Shekelle, MD, PhD; Douglas K. Owens, MD, MS; for the Clinical Efficacy Assessment Subcommittee of the American College of Physicians and the American College of Physicians/American Pain Society Low Back Pain Guidelines Panel

Noninvasive Treatments for Acute, Subacute, and Chronic Low Back Pain: A Clinical Practice Guideline From the American College of Physicians (ACP). Annals of Internal Medicine (2017). Amir Qaseem, MD, PhD, MHA; Timothy J. Wilt, MD, MPH; Robert M. McLean, MD; Mary Ann Forciea, MD; for the Clinical Guidelines Committee of the American College of Physicians

REVIEWS AND APPROVALS:

Medical Peer Review Committee: Dates: 10/07/09, 9/21/11
Professional Advisory & Credentials Committee: Dates: 7/17/2013; 7/26/17