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LifeBridge Physician Network Care Path

Acute Low Back Pain

June 26, 2015

LBPN Care Path Aim: *To develop and implement standard protocols, based on the best evidence, that provide a consistent clinical experience for LifeBridge Health patients and allow us to quantitatively demonstrate to payers the high-value care we provide.*

Key Points:

- ✓ **Document physical exam and history** on initial visit, including rule-out of red flags
- ✓ **Classify pain as acute, sub-acute, or chronic**
- ✓ **Appropriate use of imaging**
- ✓ **Avoid narcotics** as first-line treatment
- ✓ **Patient education**
  - Discourage bed rest for more than 2 days if necessary
  - Advise about proper use of heating pads
  - Encourage smoking cessation, weight control
  - Maintain normal activity
- ✓ **Track key measures:**
  - Overuse of imaging studies for low back pain
  - Tobacco screening and cessation

WHY? Rationale for Acute Low Back Pain Focus

- Low back pain is the 3rd leading cause of disability in the workplace and 6th most costly condition.[i]
- Spinal disorders are the 4th most common primary diagnosis for office visits in the US.
- Low back pain is common, can lead to substantial disability, and can become chronic.
- High level of treatment variability, uncertainty about optimal treatment.
- Overutilization of diagnostics and some treatment modalities. Evidence shows that many patients diagnosed with low back pain receive excessive imaging which can lead to unnecessary worry and unneeded surgery for these patients.

Focus:

- Acute low back pain (≤6 weeks)
- Primary care setting
- Elements 1-22 of Chou 2007 treatment protocol (see Appendix):

  Chou R. Diagnosis and treatment of low back pain: a joint clinical practice guideline from the American College of Physicians and the American Pain Society. Annals of Internal Medicine. 2007;147(7)

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WHAT? Evidence-Based Recommendations[ii]

I. Comprehensive Patient Assessment:

- **History and physical examination** should aim to place the patient into 1 of 3 categories: nonspecific low back pain, back pain potentially associated with radiculopathy or spinal stenosis, or back pain potentially associated with another specific systemic or spinal cause.
- Clinical evaluation of patients with low back pain should **focus on identification of features** that indicate a potential serious underlying condition, radiculopathy, and psychosocial factors associated with development of chronicity.
- **Psychosocial distress is more common** in patients with chronic low back pain, and attention to this distress may be beneficial to recovery. Clinicians should evaluate patients for psychiatric comorbid conditions, somatization, or maladaptive coping strategies, all of which are associated with poor outcomes in patients with low back pain.
- **Smoking has been associated with low back pain**.

II. Diagnosis:

- Clinicians should **classify low back pain as acute, sub-acute, or chronic** because the trajectory for improvement varies and treatment options can differ with duration. Most patients with acute symptoms will not require imaging tests, which should be reserved for patients with a high pretest probability of serious underlying systemic illness, fracture, cord compression, or spinal stenosis or for whom surgery is being considered.

III. Treatment:

- **Most acute nonspecific pain will resolve over days or weeks**, even without medical intervention.
- Clinicians should **discourage bed rest** for more than two days, if it's necessary, and encourage all patients to **maintain normal activity** to the extent possible.
- **When analgesia is necessary, acetaminophen or NSAIDs should be used as first-line therapy in the absence of relative contraindications**. Short courses of muscle relaxants or opioids should be used cautiously, and antidepressants may be helpful in some patients with chronic symptoms.
- **Psychosocial factors are strong predictors of low back pain outcomes**. Psychosocial distress is more common in patients with chronic low back pain, and attention to this distress may be beneficial to recovery. Clinicians should evaluate patients for psychiatric

comorbid conditions, somatization, or maladaptive coping strategies, all of which are associated with poor outcomes in patients with low back pain.

- **Urgent surgical referral is indicated when** infection, cancer, acute nerve compression, or the cauda equina syndrome is suspected. **Spine specialist referral** may be appropriate for patients with persistent back pain and/or leg pain.

IV. Patient Education:

- **Patient education** about low back pain should inform patients that back pain is common, that the **spontaneous recovery rate is more than 50%–75% at 4 weeks and more than 90% at 6 months**, and that most people do not need surgery even if they have herniated disks. Clinicians should **advise patients to maintain normal activity, to avoid bed rest for more than two days, about proper use of heating pads** (i.e., don't sleep with one or use one without an automatic shut-off), **and counsel patients about quitting smoking, weight control, and the role of psychosocial distress**.

Key Measures of Performance (aligned with CMS ACO/PQRS/Meaningful Use CQM measures)

1. **Use of Imaging Studies for Low Back Pain** (NQF #52; PQRS #312)

   Domain: Efficient Use of Healthcare Resources
   Cerner PowerChart Ambulatory documentation workflow: Orders placed for Xray, MRI, or CT of lower spine.
   Numerator: Patients without an imaging study (plain Xray, MRI, CT scan) conducted on the date of the outpatient or emergency department visit in the 28 days following the outpatient or emergency department visit.
   Denominator: Patients 18-50 years of age with a diagnosis of low back pain during an outpatient or emergency visit.

2. **Tobacco Use: Screening and Cessation Intervention** (ACO # 17; NQF #28; PQRS #226)

   Smoking is associated with low back pain. There is good evidence that tobacco screening and brief cessation intervention (including counseling and/or pharmacotherapy) is successful in helping tobacco users quit.
   Domain: Population/Public Health
   Cerner PowerChart Ambulatory documentation workflow: Document Social History; tobacco cessation counseling-yes; charge orders.
   Numerator: Patients who were screened for tobacco use at least once within 24 months AND who received tobacco cessation counseling intervention if identified as a tobacco user.
   Denominator: All patients aged 18 years and older.

Provider Tools and Resources

- Diagnostic Work-Up Checklist (https://www.anthem.com/provider/noapplication/f1/s0/t0/pw_b156428.pdf?refer=provider)
- Evidence-based Interventions Table – first-line and second-line therapies

(https://www.anthem.com/provider/noapplication/f1/s0/t0/pw_b156429.pdf?refer=provider)

- Patient/Caregiver education materials (e.g., UpToDate Patient information: Low back pain in adults (The Basics) http://www.uptodate.com/contents/low-back-pain-in-adults-the-basics?source=see_link)
- NCQA Back Pain Recognition Program guidelines, 2007 http://www.ncqa.org/Portals/0/Programs/Recognition/RPtraining/BPRP_Training.pdf
- LBPN Provider-to-Provider video on treatment for Low Back Pain (***to be developed***)

LBPN Contributing Experts/Team

- Dr. Scott Brown, Chief, Physical Medicine and Rehabilitation, Sinai Hospital
- Dr. Elvira Pasmanik
- LBPN Quality Committee

Questions?

If you have questions about this Care Path or would like to connect with a specialist to discuss further, please contact either Dr. Charles Albrecht at 410-601-6340, or David Baker at 410-601-6666.

References

Chou R. In the Clinic: Low Back Pain. *Ann Intern Med*. 2014;160(11):ITC6-1. American College of Physicians. http://annals.org/article.aspx?articleid=1877039

Chou R. Diagnosis and treatment of low back pain: a joint clinical practice guideline from the American College of Physicians and the American Pain Society. *Annals of Internal Medicine*. 2007;147(7)

Choosing Wisely - North American Spine Society Releases List of Common Spine Tests and Treatments to Question http://www.choosingwisely.org/back-pain-make-sure-you-and-your-spine-specialist-are-choosing-wisely-north-american-spine-society-releases-list-of-common-spine-tests-and-treatments-to-question/

Deyo Richard A, Jarvik Jeffrey G, Chou Roger. Low back pain in primary care. *BMJ* 2014; 349 :g4266

NCQA Back Pain Recognition Program, 2007. http://www.ncqa.org/Portals/0/Programs/Recognition/RPtraining/BPRP_Training.pdf

UpToDate. Approach to the diagnosis and evaluation of low back pain in adults. http://www.uptodate.com/contents/approach-to-the-diagnosis-and-evaluation-of-low-back-pain-in-adults

UpToDate. Patient information: Low back pain in adults (The Basics). http://www.uptodate.com/contents/low-back-pain-in-adults-the-basics?source=see_link)

[i] Dagenais, S; Caro, J; Haldeman, S. A systematic review of low back pain cost of illness studies in the United States and internationally. The Spine Journal 2008, 8:8–20.

[ii] Chou R. In the Clinic: Low Back Pain. *Ann Intern Med*. 2014;160(11):ITC6-1. American College of Physicians.

APPENDIX

Note: The focus of this LBPN Care Path pertains to the *acute* low back pain elements of the following guideline.

From: Chou R. Diagnosis and treatment of low back pain: a joint clinical practice guideline from the American College of Physicians and the American Pain Society. Annals of Internal Medicine. 2007;147(7)

Diagnosis and Treatment of Low Back Pain: A Joint Clinical Practice Guideline from the American College of Physicians and the American Pain Society

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; and 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*

Recommendation 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 specific spinal cause. The history should include assessment of psychosocial risk factors, which predict risk for chronic disabling back pain (strong recommendation, moderate-quality evidence).

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

Recommendation 3: Clinicians should perform diagnostic imaging and testing for patients with low back pain when severe 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).

Recommendation 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).

Recommendation 5: Clinicians 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).

Recommendation 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.

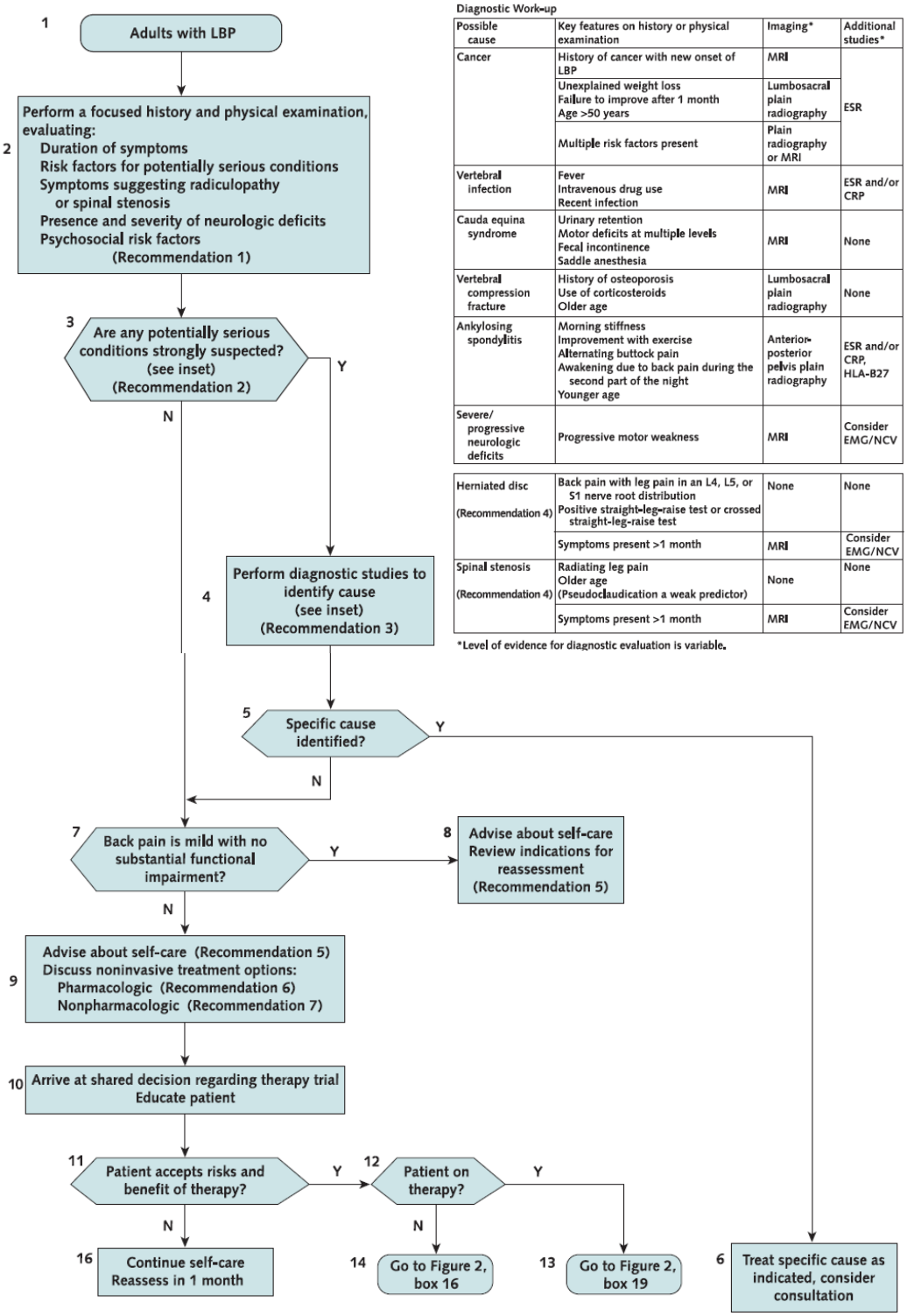
Recommendation 7: For patients who do not improve with self-care options, clinicians should consider the addition of nonpharmacologic therapy with proven benefits—for acute low back pain, spinal manipulation; for chronic or subacute low back pain, intensive interdisciplinary rehabilitation, exercise therapy, acupuncture, massage therapy, spinal manipulation, yoga, cognitive-behavioral therapy, or progressive relaxation (weak recommendation, moderate-quality evidence).

Ann Intern Med. 2007;147:478-491. www.annals.org
For author affiliations, see end of text.

See below items 1-22 in the decision tree for initial evaluation and management of acute low back pain

Initial evaluation of acute low back pain (LBP)

Source: Chou R. Diagnosis and treatment of low back pain: a joint clinical practice guideline from the American College of Physicians and the American Pain Society. Annals of Internal Medicine. 2007;147(7)



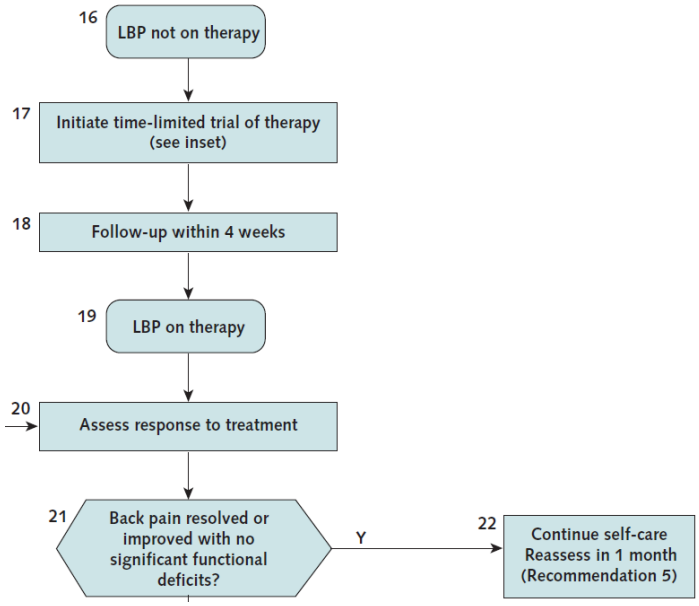
Diagnostic Work-up

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 spondylitis	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
Severe/ progressive neurologic deficits	Progressive motor weakness	MRI	Consider EMG/NCV
Herniated disc (Recommendation 4)	Back pain with leg pain in an L4, L5, or S1 nerve root distribution Positive straight-leg-raise test or crossed straight-leg-raise test	None	None
	Symptoms present >1 month	MRI	Consider EMG/NCV
Spinal stenosis (Recommendation 4)	Radiating leg pain Older age (Pseudoclaudication a weak predictor)	None	None
	Symptoms present >1 month	MRI	Consider EMG/NCV

*Level of evidence for diagnostic evaluation is variable.

Management of acute low back pain (LBP)

Source: Chou R. Diagnosis and treatment of low back pain: a joint clinical practice guideline from the American College of Physicians and the American Pain Society. Annals of Internal Medicine. 2007;147(7)



Interventions (Recommendations 5, 6, 7)

	Low Back Pain Duration	Acute < 4 Weeks
Self-care	Advice to remain active	•
	Books, handout	•
	Application of superficial heat	•
Pharmacologic therapy	Acetaminophen	•
	NSAIDs	•
	Skeletal muscle relaxants	•
	Antidepressants (TCA)	
	Benzodiazepines	•
	Tramadol, opioids	•
Nonpharmacologic therapy	Spinal manipulation	•