EPPA
EXCELLENCE IN EMERGENCY MEDICINE

UR THE URGENCY ROOM

MANAGEMENT OF Acute Low Back Pain

This EPPA Clinical Guideline is intended to guide most, but not all, encounters involving acute low back pain and should not replace clinical judgment; deviate from or adapt this guideline to meet the individual patient's needs.

History Red Flags (a)

- Recent concerning trauma.
- History of cancer.
  - Nocturnal pain.
- Immunocompromised.
- IV drug use.
- Recent spinal procedure.
- Fever/chills.
- Bowel/bladder symptoms that would suggest retention.

Exam Red Flags (b)

- Urinary retention.
- Perineal/saddle anesthesia.
- Poor rectal tone.
- Persistent/increasing lower extremity weakness.

***Exam** Other Considerations*

- Uncoordinated/unsteady gait.
- Spinal nerve root sensory/DTR deficits.

Patient With Acute Low Back Pain (LBP)

↓

Red Flags? History *(a)* Exam *(b)*

— No → **Core Treatment Pain Management Appropriate Referral**

— Yes ↓

Consider Other Emergent Non-Spine Causes:

- Dissection.
- AAA.
- Pyelonephritis.
- Psoas abscess.

Consider Imaging

- **Trauma** CT / X-Ray
- **Cauda Equina Syndrome** MRI
- **Infection / Malignancy** MRI w/ Contrast

MANAGEMENT OF
Acute Low Back Pain

Key Points:

- Acute is defined as < 6 weeks, sub-acute is 6-12 weeks, chronic is > 12 weeks.
- Imaging is NOT generally needed to diagnose acute low back pain (LBP). Imaging tests can lead to expensive, unnecessary interventions. If there are no "red flags" (signs of serious pathology/injury), avoid imaging tests.
- Pain is not attributable to a specific pathology or neurological encroachment in about 85% of patients.

Causes of Low Back Pain on Initial Evaluation:

- The specific causes of low back pain are discovered on the initial evaluation as follows:
  - **Cancer:** 0.7%
  - **Compression Fx:** 4%
  - **Spinal Infection:** 0.01%
  - **Ankylosing Spondylitis:** 0.3% to 5%
  - **Spinal Stenosis:** 3%
  - **Symptomatic Herniated Disc:** 4%

Cauda Equina Syndrome:

- Cauda equina syndrome is rare with an estimated prevalence of 0.04% among patients with low back pain. The most frequent finding in the cauda equina syndrome is urinary retention (90% sensitivity / % specificity not stated). In patients without urinary retention, the probability of the cauda equina syndrome is approximately 1 in 10,000.

Core Treatment:

- If clinical suspicion is low and history/exam red flags are absent then imaging is likely not indicated and treatment can be started.
- The core treatment plan for acute LBP includes education and reassurance, avoidance of bed rest, the use of heat, and a short course of medications:
  - **Staying Active**
  - **Physical / Manipulative Therapy**
  - **Acetaminophen / NSAIDs** - 1st Line Meds
    - **Ibuprofen**: 600mg q 6hrs. prn #30
  - **Muscle Relaxants** - 2nd Line Meds
    - Consider side effect potential particularly in elderly.
    - **Cyclobenzaprine:** 5-10mg q 8hrs. prn #15
  - **Opioid Medication** - 3rd Line Meds
    - Hydrocodone/APAP: 5/325mg 1-2 tabs q 6hrs. prn #15
    - Opioids have been shown to have no better outcomes than NSAIDs in low back pain, additional side effects.
  - **Oral Steroids**
    - Often used, no quality research/recommendations.

Physical Therapy:

- Early physical therapy can decrease the likelihood of subsequent back surgery, injections, or frequent LBP-related physician visits. See below for resources.

Follow-up Resources:

- **Primary Care**
- **Allina System:** Courage Kenny Rehabilitation Institute (Click For Website) Click for form.
- **Fairview System:** Institute for Athletic Medicine (Click For Website) Order# 9050.066
  - ***Southdale On Call:*** Twin Cities Orthopedics Spine, Edina - 952-456-7000
  - ***Ridges On Call:*** Twin Cities Orthopedics Spine, Burnsville - 952-808-3000
  - ***Urgent Follow-Up Providers:***
    - Dr. Fred Harris (Fairview Spine and Brain Clinic) 952-836-3695
    - Dr. Stefano Sinicropi (Midwest Spine and Brain Institute) 651-430-3800
    - Dr. Frank Wei (Fairview PM&R) 952-926-8747
- **Park Nicollet System:** Low back pain discharge order set +/- chiropractic follow up.

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