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## Low Back Pain, a Comprehensive Review: Pathophysiology, Diagnosis, and Treatment (poster)

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## Purpose of Review

Low back pain encompasses three distinct sources: axial lumbosacral, radicular, and referred pain. Annually, the prevalence of low back pain in the general U.S. adult population is 10-30%, and the lifetime prevalence among U.S. adults is as high as 65-80%.

**Recent Findings:** Patient history, physical exam, and diagnostic testing are important components to accurate diagnosis and identification of patient pathophysiology. Etiologies of low back pain include myofascial pain, facet joint pain, sacroiliac joint pain, discogenic pain, spinal stenosis, and failed back surgery. In chronic back pain patients, a multidisciplinary, logical approach to treatment is most effective and can include multimodal medical, psychological, physical, and interventional approaches.

**Summary:** Low back pain is a difficult condition to effectively treat and continues to affect millions of Americans every year. In the current investigation, we present a comprehensive review of low back pain and discuss associated pathophysiology, diagnosis, and treatment.

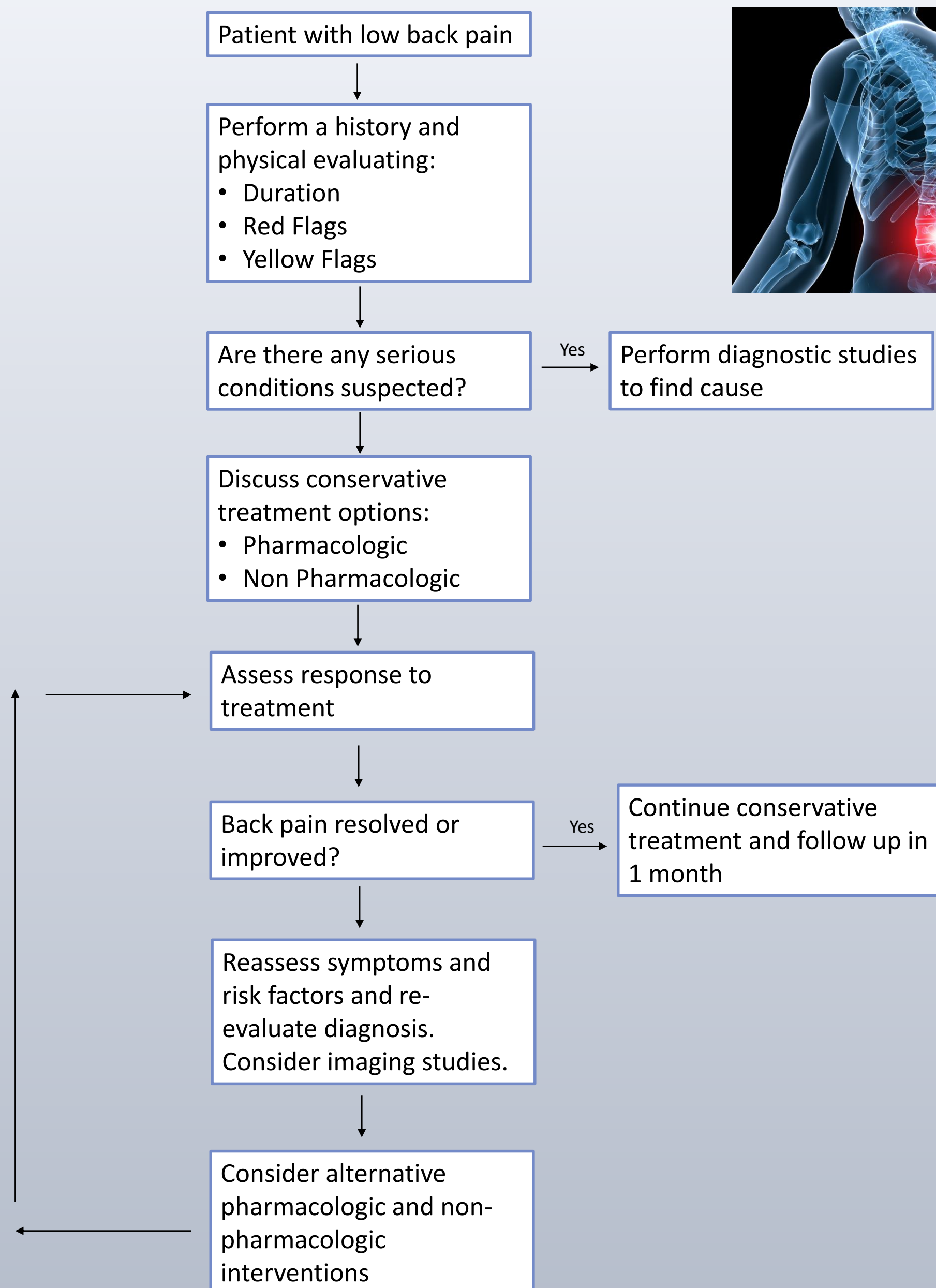
## Overview of Low Back Pain

Low back pain encompasses three distinct sources: axial lumbosacral, radicular, and referred pain

- Axial lumbosacral back pain refers to pain in the lumbar, or L1-5 vertebral region, and sacral spine, or S1 to sacrococcygeal junction region.
- Radicular leg pain travels into an extremity along a dermatomal distribution secondary to nerve or dorsal root ganglion irritation.
- Referred pain spreads to a region remote from its source but along a non-dermatomal trajectory.

**Chronicity:** acute (<6 weeks), subacute (6-12 weeks), and chronic (>12 weeks) low back pain

## Diagnostic and Therapeutic Approach to the Patient with Low Back Pain



## Conclusions

### Multidisciplinary approach to treatment:

- Lower back pain management varies from person to person, as not all patients respond to the same treatment approach, and no single intervention is generally completely effective for all patients.
- Consequently, limited trials of one or more interventions guided by evidence and effectiveness are utilized to manage the pain, while aiming to decrease overall costs.
- Pertinent courses of care include pharmacological treatments, psychological treatments, physical and rehabilitation treatments, complementary and alternative medicine approaches, and minimally invasive percutaneous approaches.

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