

## ESSENTIAL ARTICLES OF PM&R

### MUSCULOSKELETAL / LOW BACK PAIN

#### Authors:

Frank Lorch, MD

Alex Moroz, MD

#### **Core outcome domains for clinical trials in non-specific low back pain.**

**Chiarotto A, et al. Eur Spine J Jun 2015;24(6):1127-42. doi: 10.1007/s00586-015-3892-3.** *With the aid of an international steering committee, 280 back pain researchers, clinicians and patients from multiple countries and fields established through an exhaustive, three-stage process, a "Core Outcome Set" - the minimum number of outcome domains that every single clinical trial on non-specific low back pain (NSLBP) should assess. Inconsistent reporting of outcomes in clinical trials of patients with NSLBP hinders comparison of findings and the reliability of systematic reviews. The outcome domains that reached overall consensus were: 'physical functioning', 'pain intensity' and 'health-related quality of life'. 'Number of deaths' was also added for consistency across international initiatives on outcome assessments.*

#### **Opioids compared to placebo or other treatments for chronic low-back pain.**

**Chaparro LE, et al. Cochrane Database Syst Rev Aug 2013;8:CD004959.**

**doi:10.1002/14651858.CD004959.pub4.** *The use of opioids in the long-term management of chronic low-back pain (CLBP) has increased dramatically. Despite this trend, the benefits and risks of these medications remain unclear. There is very low to moderate quality evidence for short-term efficacy (for both pain and function) of opioids to treat CLBP compared to placebo. The very few trials that compared opioids to non-steroidal anti-inflammatory drugs (NSAIDs) or antidepressants did not show any differences regarding pain and function. The initiation of a trial of opioids for long-term management should be done with extreme caution, especially after a comprehensive assessment of potential risks. There are no placebo-RCTs supporting the effectiveness and safety of long-term opioid therapy for treatment of CLBP.*

#### **Comparison of spinal fusion and non-operative treatment in patients with chronic low back pain: Long-term follow-up of three randomized controlled trials.**

**Spine J 2013 Nov;13(11):1438-48.** *This is one of the largest studies of RCT cohorts; it found that after an average of 11-years of follow-up, these three studies showed there was no difference in patient self-rated outcomes between fusion and non-operative treatment for chronic low back pain. As a result, they recommended against the routine use of spinal fusion surgery for chronic low back pain when patients have access to adequate spine care that includes exercise with a cognitive-behavioral therapy approach due to the lack of deterioration in nonoperative outcomes over time.*

#### **Surgical versus nonsurgical treatment for lumbar degenerative spondylolisthesis.**

**Weinstein JN, et al. NEJM 2007;356(22):2257-2270.**

**Persistent low back pain.**

Carragee EJ. NEJM 2005;352(18):1891-1898.

**Sciatica.**

Roper AH, Zafonte RD. N Engl J Med Mar 2015;372(13):1240-8.

**Effects of bracing in adolescents with idiopathic scoliosis.**

Weinstein SL, et al. N Engl J Med Oct 2013;369(16):1512-21. doi: 10.1056/NEJMoa1307337.

**Comparison of stratified primary care management for low back pain with current best practice (STarT Back) - a randomised controlled trial.**

Hill JC, et al. Lancet 2011;S0140-6736(11)60937-9.

**Long-term follow-up suggests spinal fusion is associated with increased adjacent segment disc degeneration but without influence on clinical outcome: Results of a combined follow-up from 4 randomized controlled trials.**

Mannion A, et al. Spine 2014;39(17):1373-83.

**The efficacy of manual therapy and exercise for different stages of non-specific low back pain: An update of systematic reviews.**

Hildago B et al. J Man Manip Ther May 2014;22(2):59-74.

**Long-term outcomes of lumbar spinal stenosis: Eight-year results of the Spine Patient Outcomes Research Trial (SPORT).**

Spine 2015 Jan 15;40(2):63-76.

**Conservative treatment of lumbar spondylolysis in childhood and adolescence: The radiologic signs which predict healing.**

Sairyo K, et al. J Bone Joint Surg 2009;91-B:206-9.

**Surgery versus physical therapy for a meniscal tear and osteoarthritis.**

Katz JN, et al. N Engl J Med May 2013;368(18):1675-1684.

**Prevalence of tibiofemoral osteoarthritis 15 Years after nonoperative treatment of anterior cruciate ligament injury: A prospective cohort study.**

Neuman P, et al. Am J Sports Med 2008;36:1717-1725.

**Gluteal Tendinopathy: A Review of Mechanisms, Assessment and Management**

Grimaldi A, et al. Sports Med Aug 2015;45(8):1107-19.