

## **Chiropractic vs. Medicine for Acute LBP: No Contest**

***Acute low back pain patients demonstrate significantly greater improvement with chiropractic than "usual care."***

By Editorial Staff

With the publication of the Chiropractic Hospital-based Interventions Research Outcomes (CHIRO) Study in *The Spine Journal*, one of the most frequently cited spine research journals in the world,<sup>2</sup> the health care community at large may finally appreciate what the chiropractic profession has known for more than a century: Patients with acute mechanical low back pain enjoy significant improvement with chiropractic care, but little to no improvement with the usual care they receive from a family physician.

Published in the December 2010 edition of *The Spine Journal*, the study found that after 16 weeks of care, patients referred to medical doctors saw almost no improvement in their disability scores, were likely to still be taking pain drugs and saw no benefit with added physical therapy - and yet were unlikely to be referred to a doctor of chiropractic.

The study is "the first reported randomized controlled trial comparing full CPG [clinical practice guidelines]-based treatment, including spinal manipulative therapy administered by chiropractors, to family physician-directed UC [usual care] in the treatment of patients with AM-LBP (acute mechanical low back pain)." (Evidence-based clinical practice guidelines have been established for acute mechanical low back pain in many countries around the world, but sadly, most primary care medical doctors don't follow these guidelines.) Researchers found that "treatment including CSMT [chiropractic spinal manipulative therapy] is associated with significantly greater improvement in condition-specific functioning" than usual care provided by a family physician.

### **Study Parameters**



The Chiropractic Hospital-based Interventions Research Outcome (CHIRO) initiative was "designed to evaluate the outcomes of spinal pain patient management strategies that involve a component of chiropractic assessment and/or spinal manipulative therapy, administered in a hospital-based spine program outpatient clinic." The study utilized the CHIRO framework "to examine the effectiveness of current evidence-based CPG-recommended treatments for patients with AM-LBP pain."

CPG "study care" (SC) was compared with the usual care (UC) provided by family physicians. Patients were first seen by a spine physician and then randomly assigned to either the SC group or the UC group.

Patients in the SC group received acetaminophen, a "progressive walking program" and up to four weeks of lumbar chiropractic spinal manipulative therapy. The manipulative therapy was provided "using conventional side-posture, high-velocity, low-amplitude techniques" to the lumbar region only, and only by a chiropractor.

Patients assigned to the UC group were referred back to their family physician, who was "simply advised to treat at their own discretion." Patients in this group received treatment from "a variety of professionals including family physicians, massage therapists, kinesiologists, and/or physiotherapists."

All care was provided at a hospital-based spine program outpatient clinic. The primary outcome measure was the Roland-Morris Disability Questionnaire (RDQ), administered at the beginning of care and at 16 weeks, when acute low back pain is considered to become chronic. The RDQ was also administered at eight and 24 weeks.

## Other Important Findings

After 16 weeks, "78% of patients in the UC group were still taking narcotic analgesic medications on either a daily or as needed basis." (Only 6 percent of this group received chiropractic care.)

Condition-specific improvement after 16 weeks "clearly favored the SC group, with mean RDQ improvement scores of 2.7 in the SC group compared with only 0.1 in the UC group ( $p=.003$ )."

While the difference in improvement "was not quite significant at 8 weeks," it was found to be "clearly significant at 24 weeks of follow-up (0.004)."

Both groups showed improvement in bodily pain and physical functioning, but "patients in the UC group uniquely showed no improvement whatsoever in back-specific functioning (RDQ scores) throughout the entire study period."

The inclusion of NSAIDs and manipulation/mobilization performed by physical therapists were no more effective in treating patients than family doctors who offered patients advice and acetaminophen. The study found: "[T]he addition of NSAIDs and a form of spinal manipulative therapy or mobilization *administered by a physiotherapist* to the lumbar spine, thoracic spine, sacroiliac joint, pelvis, and hip (compared with a detuned ultrasound as placebo manipulative therapy), to family physician 'advice' and acetaminophen were shown to have *no clinically worthwhile benefit* when compared with advice and acetaminophen alone."

[Italics ours]

The study criticizes a 2007 report that had derided the efficacy of spinal manipulation by pointing out that the older report based its conclusions on the outcomes of therapies performed by non-chiropractors. The 2007 study concluded that patients "do not recover more quickly with the addition of diclofenac or spinal manipulative therapy."<sup>3</sup> By contrast, the CHIRO study noted: "Although spinal-manipulative therapy is currently administered by many different healthcare professionals, including: chiropractors, osteopaths, orthopedic surgeons, family physicians, kinesiologists, naturopaths, and physiotherapists, the levels of training and clinical acumen vary widely. The study design used by Hancock, et al., therefore, differs from our study because [their study] did not use chiropractic spinal manipulation, and *current guideline based care does not endorse any forms of spinal manipulation administered by any other practitioners.*" [Italics ours]

## References

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  3. Hancock MJ, Maher CG, Latimer J, McLachlan AJ, Cooper CW, Day RO, Spindler MF, McAuley JH. Assessment of diclofenac or spinal manipulative therapy, or both, in addition to recommended first-line treatment for acute low back pain: a randomised controlled trial. *Lancet*, 2007 Nov 10;370(9599):1638-43. [www.ncbi.nlm.nih.gov/pubmed/17993364](http://www.ncbi.nlm.nih.gov/pubmed/17993364)
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This is the first of four studies in the works based on data gathered via the CHIRO initiative.



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