

Identifying Patients with Low Back Pain Who Are Likely To Benefit from Spinal Manipulation

Summaries for Patients are a service provided by *Annals* to help patients better understand the complicated and often mystifying language of modern medicine.

The full report is titled “A Clinical Prediction Rule To Identify Patients with Low Back Pain Most Likely To Benefit from Spinal Manipulation: A Validation Study.” It is in the 21 December 2004 issue of *Annals of Internal Medicine* (volume 141, pages 920-928). The authors are J.D. Childs, J.M. Fritz, T.W. Flynn, J.J. Irrgang, K.K. Johnson, G.R. Majkowski, and A. Delitto.

What is the problem and what is known about it so far?

Low back pain is a common problem. Traditional treatments that are helpful for some patients with low back pain include drugs (pain killers, anti-inflammatory drugs, and muscle relaxants), physical therapy, and back exercises. Treatments that are not helpful include traction, bed rest, corsets, topical gels, heat therapy, and certain types of massage. Spinal manipulation is an alternative treatment for low back pain. For spinal manipulation, a specially trained person (chiropractor, physician, or physical therapist) uses his or her hands to move the bones in the spine. Experts disagree about the role of spinal manipulation in treating low back pain. Spinal manipulation may be more likely to help certain types of patients with back pain than others. A previous study developed a rule based on 5 characteristics of patients with low back pain who achieved benefit from spinal manipulation. In that study, patients who met at least 4 of the 5 characteristics were most likely to benefit from spinal manipulation. However, this rule has not been tested in other patients.

Why did the researchers do this particular study?

To see whether the rule identified patients whose back pain improved with spinal manipulation.

Who was studied?

Adults with low back pain referred for physical therapy. Patients who were pregnant, had previous back surgery, or had signs of nerve damage or a serious problem (such as tumor or infection) were not included.

How was the study done?

The researchers assigned patients to receive physical therapy with back exercises alone or physical therapy with 2 sessions of spinal manipulation and back exercises. They then evaluated patients' symptoms at 1 week, 4 weeks, and 6 months after treatment. The researchers also determined whether each patient met at least 4 of the 5 factors in the rule. The 5 factors were duration of current episode of low back pain less than 16 days, having no symptoms below the knees, having a score less than 19 on a questionnaire about beliefs about pain, having at least 1 abnormally moving segment of the spine on physical examination, and having adequate motion in 1 hip or both hips.

What did the researchers find?

Patients who received physical therapy with 2 sessions of spinal manipulation and back exercises improved more than patients who received back exercises alone at 1 week, 4 weeks, and 6 months. Among the 70 patients who received spinal manipulation, the 23 patients who met the rule were more than twice as likely as the 47 patients who did not meet the rule to show improvement.

What were the limitations of the study?

Of the 131 patients enrolled in the study, 39 did not complete the 6-month follow-up. This study does not test the feasibility of doctors' applying the rule in their own offices.

What are the implications of the study?

Doctors can use this rule to identify patients with low back pain who are likely to benefit from spinal manipulation.

Summaries for Patients are presented for informational purposes only. These summaries are not a substitute for advice from your own medical provider. If you have questions about this material, or need medical advice about your own health or situation, please contact your physician. The summaries may be reproduced for not-for-profit educational purposes only. Any other uses must be approved by the American College of Physicians.