



Physical Therapy for Whiplash Improving Outcomes - Reducing Societal Costs

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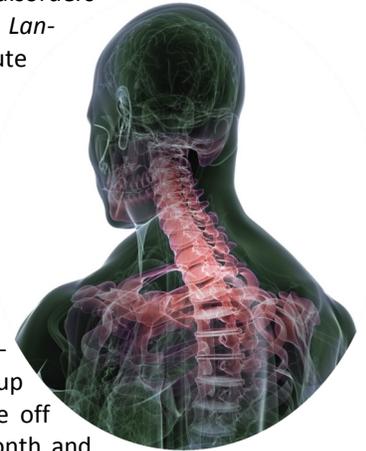
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More than 50% of patients injured in a motor vehicle accident receive a whiplash diagnosis. Studies have found that patients with acute neck pain develop chronic symptoms in 15% to 48% of cases.^{1,2} Given this less-than-stellar track record with such a common disorder, the health care community is still searching for methods to improve outcomes and reduce societal costs related to whiplash associated disorders

(WAD). To this end, Sarah Lamb and colleagues published a large study in the *Lancet* this past February.³ The controlled trial randomizes 3,851 patients with acute WAD diagnoses into four treatment arms.

In the second phase of the trial, patients were randomized into an advice group or a physical therapy package group. The advice group received one, 40-minute teaching session with a physical therapist. The physical therapy package group received six physical therapy sessions spread over four to ten weeks. According to PT assessment and individual need, the physical therapy visits consisted of exercise, manual therapy (largely Maitland and Snags & Nags), and cognitive remodeling (i.e. encouragement to have the most productive attitudes toward pain and recovery). The physical therapy package group achieves faster gains at four months, a 41% comparative reduction in time off work, and a greater change from baseline neck disability scores at eight-month and twelve-month follow-up. At 12-month follow-up, improvement in the unadjusted Neck Disability Index is 20% greater with the physical therapy package group.



The authors also performed a cost analysis finding that per-patient healthcare spending in the physical therapy group was \$162 higher than in the advice group. However, the authors note that the majority of the difference in spending occurred before the physical therapy intervention - suggesting that the physical therapy sessions paid for themselves in terms of reduced healthcare spending elsewhere. More importantly, the cost analysis did not take into account the societal cost of time off work. The authors note that, from a societal perspective, the 41% reduction in time off work would make the investment in physical therapy a net gain.

Even though Lamb et al. observed positive outcomes from their physical therapy package, their outcomes are not as encouraging as those observed by Sammy Suissa and colleagues in 2006.⁴ Sammy Suissa used the Quebec health system to compare a physical therapy intervention for WAD to usual care in a much larger, population-based, multi-center trial. In the Quebec study, patients receiving usual care cost 220% more than patients receiving physical therapy, and at one year, physical therapy patients were 50% more likely to have file closure.

There are two main differences between the interventions in the Quebec trial and the current trial. One, Sarah Lamb and colleagues took a three-week, wait-and-see approach before referring to physical therapy while Sammy Suissa et al. emphasized early treatment with assessment during the acute phase. Rosenfeld and colleagues have demonstrated that best results are achieved when active physical therapy treatment for WAD begins within 96 hours of the injury.⁵⁻⁷

Secondly, the Quebec trial gave patients nine physical therapy visits within the first three weeks and up to 20 more over the next four weeks as needed. The current trial's rationing of physical therapy down to six visits spread over a median of six weeks is sparse by most standards. Despite the fact that late referrals and service-rationing probably limited the efficacy of the physical therapy intervention, the large trial recently published in the *Lancet* adds to the body of evidence demonstrating that physical therapy interventions can accelerate recovery and reduce societal costs for whiplash associated disorders.

References

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