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[15 July 2008 - Volume 33 - Issue 16 - pp 1800-1805](#)

doi: 10.1097/BRS.obo13e31817bd853

Health Services Research

## **Physical Therapy for Acute Low Back Pain: Associations With Subsequent Healthcare Costs**

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### **Abstract**

Study Design. Case-control.

Objective. To examine the association between adherence to the evidence-based recommendation for active physical therapy care and clinical outcomes along with subsequent healthcare utilization and charges for 1 year after completion of physical therapy.

Summary of Background Data. Low back pain (LBP) is a common condition associated with high costs. Many patients with acute LBP receive physical therapy. The type of physical therapy care provided may impact subsequent healthcare costs.

Methods. A retrospective review was undertaken of patients age 18–60 with acute (<90 days) LBP receiving physical therapy covered by 1 insurance provider. Adherence to the recommendation for active care was determined from billing records. Disability (Oswestry) and pain (numerical pain rating) were assessed at the beginning and completion of physical therapy. Subsequent healthcare utilization for LBP and charges were recorded from insurer's databases.

Results. Four hundred and seventy-one patients were included (mean age 41.2 years [SD = 11.0], 54% female), 28.0% received adherent care. Patients receiving adherent care had fewer physical therapy visits (mean difference 1.3 visits,  $P < 0.05$ ) with lower charges (nontransformed mean difference \$167,  $P < 0.05$ ), greater improvement in pain (mean difference 12.3%, 95% confidence interval [CI]: 3.2–21.3) and disability (mean difference

17.6%, 95% CI: 11.1–24.1). During the year after discharge, receiving adherent care was associated with a lower likelihood of receiving prescription medication (46.2% *vs.* 57.2%,  $P < 0.05$ ), magnetic resonance imaging (MRI) (8.3% *vs.* 15.9%,  $P < 0.05$ ), or epidural injections (5.3% *vs.* 12.1%,  $P < 0.05$ ).

**Conclusion.** Adherence to the recommendation for active care was associated with better clinical outcomes and decreased subsequent use of prescription medication, MRI, and injections. Improving adherence to this recommendation may present an opportunity to improve the cost-effectiveness of care for acute LBP.

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