

Early physical therapy associated with less health care resource use for patients with acute lower back pain

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Early initiation of physical therapy (PT) for U.S. patients with acute lower back pain (LBP) was associated with less health care resource use in the first month and the first year after the initial onset of symptoms,

according to a new study by Johns Hopkins Medicine. These health care resources included advanced imaging, specialty appointments, epidural steroid injections and emergency room (ER) visits. Patients who began PT early were half as likely to visit the ER within 30 days of symptom onset than those who did not receive early PT, which the study defined as starting within two weeks of symptom onset.

The study was published by *BMC Health Services Research* in July 2022.

Lower back pain affects a sizeable portion of the U.S. population, ranging from 1.4% to 20%, and it accounts for substantial [health](#) care expenditures.

"Our goal was to determine if early PT for patients with lower back pain had an impact on their overall health care resource utilization," says Richard Skolasky Jr., Sc.D., M.A., the study's senior author and the director of the Johns Hopkins Spine Outcomes Research Center. "We were especially curious about the 30 days after initial symptom onset, as this is when patients are most likely to seek care."

Using Truven MarketScan, a group of U.S.-based administrative health care insurance claims databases, the researchers selected nearly 980,000 U.S. claims cases. The de-identified patients in these claims had an average age of 47 and initially presented with acute LBP from 2010 through 2014. Approximately 11% of the patients received early PT.

From the cases reviewed, the team assessed the use of [health care resources](#) and the cost of the LBP-related services that were coded with a musculoskeletal system diagnosis. The team then compared these results at 30 days and at one year after presentation between patients who received early PT and those who did not.

Compared with those who did not receive early PT, the early PT group had a significantly lower incidence of using health care resources, such

as ER visits, in the first month and the first year after presenting with acute LBP. The early PT group also spent less money on LBP-related services in the first 30 days after symptom onset.

"As the U.S. population ages, the prevalence of lower back pain is expected to increase, along with the associated costs of treating it," says Skolasky. "Furthermore, with advances in imaging and treatments, the cost of managing [lower back pain](#) has increased substantially. Our findings have important implications that may guide health care policy when examining downstream [health care costs](#) and resource utilization."

The research team believes that future research on the effects of early PT should incorporate measures of clinical outcomes to determine its impact on patient health.

More information: Majd Marrache et al, Initial presentation for acute low back pain: is early physical therapy associated with healthcare utilization and spending? A retrospective review of a National Database, *BMC Health Services Research* (2022). [DOI: 10.1186/s12913-022-08255-0](#)

Provided by Johns Hopkins University School of Medicine

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