



8735 W. Higgins Road, Suite 300  
Chicago, IL 60631-2738  
847-375-4731 Phone  
info@painmed.org  
.....  
www.painmed.org

February 18, 2016

FOR IMMEDIATE RELEASE

Contact Information

Email: [info@painmed.org](mailto:info@painmed.org)

Attn: Director of Communications  
American Academy of Pain Medicine  
Phone: 847-375-4731

### **Study Shows Epidural Steroid Injections Associated With Lower Outpatient Costs in Low-Back Pain**

Feb. 18, 2016, PALM SPRINGS, Calif. – Epidural steroid injections (ESIs) may help lower health care spending in patients with low-back pain, with most of the savings coming in outpatient care, new research suggests. Patients who received ESIs showed a much sharper decline in health care spending compared to controls who did not, according to results presented today at the 32<sup>nd</sup> Annual Meeting of the American Academy of Pain Medicine.

The research question of how ESIs affect costs was driven by the perception that the commonly given injections may be overused in clinical practice, said Eric Sun, MD, PhD, lead author and an instructor in the Department of Anesthesiology, Perioperative and Pain Medicine at Stanford University, in Palo Alto, Calif. The aim was to address the policy of reimbursement as an important counterpart to studies that show some clinical benefit with the injections for select diagnoses, particularly in the short term (Buenaventura et al *Pain Physician* 2009;12:233-51, Roberts et al *PM R* 2009;1:657-68, Friedly et al *N Engl J Med* 2014;371:11-21).

“They do improve pain for certain conditions,” Dr. Sun said. “But when it comes time for insurance companies to cover something, they want to know if it saves money.”

Using de-identified patient data, the researchers performed a retrospective analysis of administrative claims data from Truven Health Analytics MarketScan<sup>®</sup> databases. The patients had been diagnosed with back pain between 2002 and 2011. Of the patients whose records were reviewed, 152,430 had radiculitis, 123,912 had sciatica and 1,506,390 had lumbago.

Overall, ESIs were associated with a 16.4 percent reduction in health care expenditures for patients with radiculitis over two years, with smaller decreases noted for patients with sciatica (-7.56 percent,  $p < 0.001$ ) and lumbago (-4.67 percent,  $p < 0.001$ ). The decreases were driven primarily by reductions in outpatient spending, analysis revealed, with decreases of 24.3 percent ( $p < 0.001$ ) for radiculitis patients, 12.7 percent ( $p < 0.001$ ) for sciatica patients, and 14.1 percent ( $p < 0.001$ ) for lumbago patients. By contrast, ESIs were not associated with any reductions in pharmacy or inpatient spending.

-More-

Dr. Sun said the researchers sought to eliminate as many confounders as possible, the primary one being that most people with low-back pain do get better on their own. “We tried to look at people who get better and those who don’t, before and after their diagnosis of pain, and before and after ESI,” he said, adding that the drop in health care spending was much steeper following ESI. “That drop is bigger than you would expect from Father Time alone.”

*Poster 187 – Do Epidural Steroid Injections Reduce Healthcare Spending for Patients with Low Back Pain? Evidence from the Marketscan<sup>®</sup> Database*  
*Funding: Dr. Sun received a Mentored Research Training Grant from the Foundation for Anesthesia Education and Research*

### **About AAPM**

The American Academy of Pain Medicine is the premier medical association for pain physicians and their treatment teams with some 2,400 members. Now in its 33rd year of service, the Academy’s mission is to optimize the health of patients in pain and eliminate pain as a major public health problem by advancing the practice and specialty of pain medicine through education, training, advocacy and research. Information is available on the Academy’s website at [www.painmed.org](http://www.painmed.org).

###