

Dear Editor,

The publication by Chou and colleagues (1) raises significant concerns among physicians treating patients suffering from radicular pain and associated functional impairment. Fourteen medical societies formulated a consensus response to the Agency for Healthcare Quality and Research's technology assessment, the basis of the current publication, addressing the flawed methodology and resulting aberrant conclusions. (2)

The authors assert the nihilistic position, without evidence, that back and leg pain are un-attributable to a specific cause and, therefore, include studies with patient selection by symptoms, not diagnosis. Current literature demonstrates that radicular and somatic back pain can be specifically diagnosed with systematic application of diagnostic blocks or provocative procedures, synthesized with clinical examination, advanced imaging and electrophysiology. (3) Their position has led to inclusion of heterogeneous study populations; in 29 studies of "epidural steroid injection" versus placebo, radicular pain alone was specified in 22, a mixture of radicular and back pain in six, and back pain alone in one. Correlative imaging findings were required in only 11 studies, leaving the nature of the compressive lesions and degree of compression unknown. With literature demonstrating these factors influence the natural history and efficacy of epidural steroid injections, it is inappropriate to draw conclusions from these heterogeneous studies.

The review is a corruption of evidence-based medicine -- omitting the *best available* evidence: high quality outcome studies of homogenous patients with contrast confirmation of injectate delivery to the target. Rather, it includes decades-old trials of unguided epidural injections by several routes. Only 7 of the 29 placebo-controlled trials utilized image guidance. Reliance on flawed RCTs leads the authors to conclude there is no evidence supporting the use of image guidance, placing it in conflict with the FDA Safe Use Initiative, which mandates image guidance.

The authors' conclusions are based on invalid statistical analyses, primarily changes in mean pain scores, which are insufficient for drawing conclusions about effectiveness. A National Institutes of Health task force recommended the utilization of categorical outcomes for studying low back pain. (4)

When inappropriate statistics are applied to review heterogeneous populations given heterogeneous treatments, with equal weight given to outdated procedural techniques, results should be viewed with skepticism. A comprehensive examination of the literature, including high quality contemporary outcomes studies of homogenous patient populations, reveals that in carefully selected patients, epidural steroid injections performed to exacting procedural standards provide pain relief and functional improvement in patients suffering from radicular pain. (5)

Sincerely,

American Association of Neurological Surgeons
American Academy of Pain Medicine
American Academy of Physical Medicine and Rehabilitation
American College of Radiology
American Pain Society
American Society of Anesthesiologists
American Society of Neuroradiology
American Society of Regional Anesthesia and Pain Medicine
American Society of Spine Radiology
Congress of Neurological Surgeons
Spine Intervention Society
North American Neuromodulation Society
North American Spine Society
Society of Interventional Radiology

1. Chou R, Hashimoto R, Friedly J, Fu R, Bougatsos C, Dana T, Sullivan SD, Jarvik J. [Epidural corticosteroid injections for radiculopathy and spinal stenosis: a systematic review and meta-analysis](#). Ann Intern Med 2015;163(5):373-381.
2. Multisociety Pain Work Group Letter to Dr. Elise Berliner, AHRQ; July 29, 2015. <http://1515docs.org/pdfs/MPW Letter to AHRQ 7-29-2015.pdf>
3. DePalma MJ. Diagnostic nihilism toward low back pain: what once was accepted, should no longer be. Pain Med 2015;16(8):1453-4.
4. Deyo RA, Dworkin SF, Amtmann D, Andersson G, Borenstein D, Carragee E, Carrino J, Chou R, Cook K, DeLitto A, Goertz C, Khalsa P, Loeser J, Mackey S, Panagis J, Rainville J, Tosteson T, Turk D, Korff MV, Weiner DK. Report of the NIH Task Force on research standards for chronic low back pain. Pain Med 2014;15(8):1249-67.
5. MacVicar J, King W, Landers MH, Bogduk N. The effectiveness of lumbar transforaminal injection of steroids: a comprehensive review with systematic analysis of the published data. Pain Med 2013;14(1):14-28.