

Letter to the Editor Re: Oakley PA, Cuttler JM, Harrison DE. X-Ray Imaging Is Essential for Contemporary Chiropractic and Manual Therapy Spinal Rehabilitation: Radiography Increases Benefits and Reduces Risks. *Dose Response*. 2018 Jun 19;16(2)

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Having read the commentary by Oakley, Cuttler, and Harrison (X-Ray Imaging is Essential for Contemporary Chiropractic and Manual Therapy Spinal Rehabilitation: Radiography Increases Benefits and Reduces Risks. *Dose Response*. 2018 Jun 19;16[2]), we write to express our collective concern and alarm about the authors' key messages.

Timely imaging in musculoskeletal health care is indicated by many clinical practice guidelines when clinical findings indicate suspected pathology (eg, fracture) or when surgery is being considered.¹⁻⁴ What is not supported by any evidence-based clinical guideline is the contrary view presented by the authors to "encourage routine use of radiography in manual spine therapy" and their assertion that "Radiographic imaging is necessary to deliver acceptable patient care in the practice of contemporary manual therapy of the spine." We emphatically refute this perspective as unsupported by evidence and careless. Specifically, we offer the following counterpoints.

At the present time, we know of no reputable clinical practice guideline that suggests radiological imaging is a routine requirement for effective treatment of back pain. In fact, the opposite is often the case; when imaging is performed, there is evidence that it does not improve patient outcomes but can result in undesirable and unintended effects.⁵⁻⁸ While guidelines may not include more recent evidence due to a lag in time for their creation, we also know of no high-quality clinical trials that would contradict current guideline recommendations about imaging. Similarly, we do not know of high-quality evidence to suggest that regular imaging is needed to improve the safety of manual therapy in general or spinal manipulative therapy in particular. This supports the observation that in the

many jurisdictions where imaging is not directly available to manual therapists, neither safety nor effectiveness is compromised.

Finally, the authors state that "Rather than increasing risk, such exposures (from ionizing imaging) would likely stimulate the patient's own protection systems and result in beneficial health effects." While knowledge in topics such as radiation exposure modeling and radiation hormesis continually evolve, there are no large-scale studies that would justify the application of this principle in clinical practice today. To suggest otherwise at this time is professionally irresponsible.

Given the above, we request that the editors of *Dose-Response* retract the commentary in question immediately.

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With respect,
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References

1. National Institute for Health and Care Excellence: Clinical Guidelines (NICE). Low back pain and sciatica in over 16s: assessment and management | Guidance and guidelines. *Natl Inst Heal Care Excell*; 2016.
2. Qaseem A, Wilt TJ, McLean RM, Forcica MA; Clinical Guidelines Committee of the American College of Physicians. Noninvasive treatments for acute, subacute, and chronic low back pain: a clinical practice guideline from the American College of Physicians. *Ann Intern Med*. 2017;166(7):514-530. doi:10.7326/M16-2367.
3. Stochkendahl MJ, Kjaer P, Hartvigsen J, et al. National Clinical Guidelines for non-surgical treatment of patients with recent onset low back pain or lumbar radiculopathy. *Eur Spine J*. 2018;27(1):60-75. doi:10.1007/s00586-017-5099-2.
4. Bussi eres AE, Stewart G, Al-Zoubi F, et al. Spinal manipulative therapy and other conservative treatments for low back pain: a guideline from the Canadian Chiropractic Guideline initiative. *J Manipulative Physiol Ther*. 2018;41(4):265-293. doi:10.1016/j.jmpt.2017.12.004.
5. Ash LM, Modic MT, Obuchowski NA, Ross JS, Brant-Zawadzki MN, Grooff PN. Effects of diagnostic information, per se, on patient outcomes in acute radiculopathy and low back pain. *AJNR Am J Neuroradiol*. 2008;29(6):1098-1103. doi:10.3174/ajnr.A0999.
6. Kendrick D, Fielding K, Bentley E, Miller P, Kerslake R, Pringle M. The role of radiography in primary care patients with low back pain of at least 6 weeks duration: a randomised (unblinded) controlled trial. *Health Technol Assess*. 2001;5(30):1-69.
7. Kerry S, Hilton S, Dundas D, Rink E, Oakeshott P. Radiography for low back pain: a randomised controlled trial and observational study in primary care. *Br J Gen Pract*. 2002;52(479):469-474.
8. Djais N, Kalim H. The role of lumbar spine radiography in the outcomes of patients with simple acute low back pain. *APLAR J Rheumatol*. Wiley/Blackwell (10.1111). 2005;8:45-50. doi:10.1111/j.1479-8077.2005.00122.x.