

PubMed Display Settings: Abstract

[Lancet](#). 2009 Feb 7;373(9662):463-72. doi: 10.1016/S0140-6736(09)60172-0.

Imaging strategies for low-back pain: systematic review and meta-analysis.

Chou R, Fu R, Carrino JA, **Deyo RA**.

Oregon Health and Science University, Portland, OR, USA.

Abstract

BACKGROUND: Some clinicians do lumbar imaging routinely or in the absence of historical or clinical features suggestive of serious **low-back** problems. We investigated the effects of routine, immediate lumbar imaging versus usual clinical care without immediate imaging on clinical outcomes in patients with **low-back pain** and no indication of serious underlying conditions.

METHODS: We analysed randomised controlled trials that compared immediate lumbar imaging (radiography, MRI, or CT) versus usual clinical care without immediate imaging for **low-back pain**. These trials reported **pain** or function (primary outcomes), quality of life, mental health, overall patient-reported improvement (based on various scales), and patient satisfaction in care received. Six trials (n=1804) met inclusion criteria. Study quality was assessed by two independent reviewers with criteria adapted from the Cochrane **Back** Review Group. Meta-analyses were done with a random effects model.

FINDINGS: We did not record significant differences between immediate lumbar imaging and usual care without immediate imaging for primary outcomes at either short-term (up to 3 months, standardised mean difference 0.19, 95% CI -0.01 to 0.39 for **pain** and 0.11, -0.29 to 0.50 for function, negative values favour routine imaging) or long-term (6-12 months, -0.04, -0.15 to 0.07 for **pain** and 0.01, -0.17 to 0.19 for function) follow-up. Other outcomes did not differ significantly. Trial quality, use of different imaging methods, and duration of **low-back pain** did not affect the results, but analyses were limited by small numbers of trials. Results are most applicable to **acute** or subacute **low-back pain** assessed in primary-care settings.

INTERPRETATION: Lumbar imaging for **low-back pain** without indications of serious underlying conditions does not improve clinical outcomes. Therefore, clinicians should refrain from routine, immediate lumbar imaging in patients with **acute** or subacute **low-back pain** and without features suggesting a serious underlying condition.

Comment in

Is immediate imaging important in managing **low back pain**? [J Athl Train. 2011]

Imaging for **low-back pain**. [Lancet. 2009]

ACP Journal Club. Review: Immediate routine lumbar-spine imaging does not improve clinical outcomes in **low-back pain**. [Ann Intern Med. 2009]

PMID: 19200918 [PubMed - indexed for MEDLINE]

Publication Types, MeSH Terms

LinkOut - more resources