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Review Article

Advice for acute low back pain: a comparison of what research supports and what guidelines recommend

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Abstract

BACKGROUND: Advice is widely considered an effective treatment for acute low back pain (LBP); however, details on what and how to deliver this intervention is less clear.
PURPOSE: We assessed and compared clinical trials that test advice for acute LBP with practice guidelines for their completeness of reporting and concordance on the content, method of delivery, and treatment regimen of advice interventions.
DESIGN/SETTING: Systematic review.
METHODS: Advice randomized controlled trials were identified through a systematic search. Guidelines were taken from recent overviews of guidelines for LBP. Completeness of reporting was assessed using the Template for Intervention Description and Replication checklist. Thematic analysis was used to characterize advice interventions into topics across the aspects of content, method of delivery, and regimen. Concordance between clinical trials and guidelines was assessed by comparing the number of trials that found a statistically significant treatment effect for an intervention that included a specific advice topic with the number of guidelines recommending that topic.
RESULTS: The median (interquartile range) completeness of reporting for clinical trials and guidelines was 8 (7–9) and 3 (2–4) out of nine items on the Template for Intervention Description and Replication checklist, respectively. Guideline recommendations were discordant with clinical trials for 50% of the advice topics identified.
CONCLUSION: Completeness of reporting was less than ideal for randomized controlled trials and extremely poor for guidelines. The recommendations made in guidelines of advice for acute LBP were often not concordant with the results of clinical trials. Taken together, these findings mean that the potential clinical value of advice interventions for patients with acute LBP is probably not being realized.

Keywords: Acute; Advice; Clinical trials; Low back pain; Practice guidelines; Translation

FDA device/drug status: Not applicable.

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Background

Advice is widely considered as an effective treatment for acute low back pain (LBP) as evidenced by its inclusion in all international guidelines [1]. However, the content, method of delivery, and treatment regimen to use for advice interventions are less clear. For example, although advice interventions assessed in trials often include instruction in specific exercises [2], specific tips for performing daily activities [3,4], or education on anatomy [4] or pain mechanisms [5], there is no mention of these advice topics in many guidelines [6–11]. Additionally, although guidelines generally provide information on the content (eg, avoid bed rest), they are typically silent on other aspects such as the method of advice delivery (eg, booklet) and regimen (eg, two 10-minute consultations) for the advice interventions they recommend.

To guide the provision of evidence-based advice to patients with acute LBP, practice guidelines must comprehensively report the content, method of delivery, and treatment regimen. These reports should also be concordant with the clinical trials that have previously shown the advice intervention to be effective [12]. Assessing whether all key aspects of an intervention have been reported can be performed using the Template for Intervention Description and Replication (TIDieR) checklist [13]. This checklist was developed to guide reporting of interventions in randomized controlled trials (RCT). To date, no studies have used TIDieR to assess concordance between the advice interventions recommended in guidelines and those evaluated in trials. The absence of these studies means we do not know whether clinical practice guidelines are appropriately guiding clinicians who wish to deliver effective, evidence-based advice for their patients with acute LBP.

To address this knowledge gap, we compared clinical trials that test advice for acute LBP with practice guidelines that provide advice recommendations for acute LBP. This was done by comparing the completeness of intervention reporting and assessing concordance across the aspects of content, method of delivery, and regimen. We also characterized the aspects of content, method of delivery, and regimen to provide a framework from which to understand the variety of advice interventions for acute LBP. The results of this study will clarify any discrepancies existing in practice guidelines of advice for acute LBP and thus facilitate the implementation of evidence-based advice interventions for acute LBP. The specific aims of this study were to:

(1) assess the completeness of reporting of advice interventions tested in RCTs and the advice interventions recommended in practice guidelines;
(2) characterize the content, method of delivery, and regimen of advice interventions for both RCTs and guidelines; and
(3) assess the concordance between the advice interventions supported by RCTs (where there was a significant benefit in pain, disability, return to work, or quality of life) and those recommended in clinical practice guidelines for acute LBP.

Methods

Search

We conducted a systematic search of MEDLINE, EMBASE, CENTRAL, and PEDro databases from inception to September 2015. We adopted the Cochrane Back and Neck Group key words for LBP and RCTs [14] and combined them with keywords for education or advice [15]. The complete search strategies for all databases are contained in Appendix S1. Practice guidelines were sourced from recent guideline overviews conducted by Koes et al. [1] and Verhagen et al. [16].

Study selection of advice RCTs

The articles identified during the search were initially screened via title and abstract by a single reviewer, excluding clearly ineligible records. If there was doubt regarding an article's eligibility at this stage, it was included as a potentially eligible article. All potentially eligible articles were subject to a second screening process undertaken by two independent reviewers using the full text of the article. All disagreements were resolved by discussion and consensus. For excluded full-text articles, the reason for exclusion was recorded. To be included in this review, all trials needed to meet the following criteria:

Design: RCT that used true randomization to prospectively allocate participants to treatment groups. Quasi-RCTs (eg, allocation by order of enrolment) were excluded.
Patient population: Enrolled subjects with acute (<12 weeks' duration) nonspecific LBP. Mixed-duration populations (acute and chronic LBP) or trials enrolling specific populations other than nonspecific LBP (eg, ankylosing spondylitis, pregnancy-related LBP, sciatica) were excluded.
Treatment contrast: Advice interventions were any advice, education or information (verbal, written, or audiovisual, including web-based interventions), given by a health-care professional to improve patients' understanding of their back problem and appropriate management [15]. Co-interventions were allowed as long as the advice component of the intervention was the predominant contrast (ie, greater than 50% of the total regimen contrast). Eligible control interventions were no treatment, placebo, or another treatment (including different advice).
Outcomes: Include a clinical outcome for acute LBP, for example, pain, disability, work status (eg, return to work), or health-related quality of life.
Other restrictions: Articles were written in English. There were no restrictions by year of publication.