

Diagnostic Clinical Prediction Rules for Specific Subtypes of Low Back Pain: A Systematic Review

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Setting the scene:

Patients with low back pain (LBP) are generally considered to consist of smaller subgroups that differ with regard to their symptomatology, prognosis, and response to various treatments. Several classification approaches have been proposed. Such classification approaches have been predominantly based on expert opinion and biologic plausibility, with notably little concordance among them. Recently, there has been greater focus on empirically derived subgrouping methods, including the development of clinical prediction rules (CPRs). A CPR is a clinical tool designed to assist decision making for individual patients by combining elements from the history, physical examination, and other investigations to make predictions regarding a patient's diagnosis, prognosis, or likely response to a particular treatment. Very little is known about diagnostic forms of CPRs for LBP so the aim of this review was to identify diagnostic forms of LBP CPRs and to appraise their readiness for application in clinical practice.

What did they do?

MEDLINE, Embase, the Cochrane Central Register of Controlled Trials, PyscINFO, CINAHL, AMED, and the Index to Chiropractic Literature databases were searched combined with hand searching and citation tracking to identify eligible studies. 2 independent reviewers identified relevant studies for inclusion using a 2-stage selection process. 15 studies were included in the review. The quality appraisal of included studies was conducted by 2 independent raters using the Quality Assessment of Diagnostic Accuracy Studies-2 and checklists composed of accepted methodological standards for the development of CPRs.

The primary finding of this review is that the majority of diagnostic LBP CPRs have not yet been developed beyond the initial derivation phase and therefore cannot be recommended for use in clinical practice at this time.

Takeaway message:

Most diagnostic Clinical prediction rules for LBP are in their initial development phase and cannot be recommended for use in clinical practice at this time.