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GLOBAL AND REGIONAL ESTIMATES OF CLINICAL AND ECONOMIC BURDEN OF LOW-BACK PAIN IN HIGH-INCOME COUNTRIES: A SYSTEMATIC REVIEW AND META-ANALYSIS

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Primary topic: Rheumatology

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Background: Low-back pain (LBP) is a common health problem, and the leading cause of activity limitation and work absence in people of all ages and socioeconomic status.

Purpose: This study aimed to analyse the clinical and economic burden of LBP in high income countries via systematic review and meta-analysis.

Methods: The systematic review was carried out using the PubMed, Medline, CINAHL, PsycINFO, AMED, Embase and Scopus databases with studies published from inception to December 10th, 2021. We also searched prescribing information, relevant web sites, reference lists and citation sections of recovered articles. Two reviewers independently assessed studies for inclusion and extracted data manually. Differences were resolved by consensus. Meta-analyses were conducted for clinical and economic outcomes.

Results: Literature search identified 3571 potentially relevant articles and 19 studies met the inclusion criteria and were therefore reviewed. The included studies were from region of America (n = 5); European region (n = 12) and the Western Pacific region (n = 2). The average annual direct and indirect costs estimate per population for LBP ranged from € 2.3 billion to € 2.6 billion; and € 0.24 billion to \$8.15 billion, respectively. In the random effects meta-analysis, the pooled rates of hospitalisation for LBP was 3.2% (95% confidence interval 0.6% - 5.7%). The pooled direct costs and total costs of LBP per patients were USD 9231 (95% confidence interval -7126.71 - 25588.9) and USD 10143.1 (95% confidence interval 6083.59 - 14202.6), respectively.

Conclusion(s): Low-back pain led to high clinical and economic burden in high income countries that varied significantly across the geographical contexts.

Implications: Knowledge of the clinical and economic impact of LBP in high income countries may be useful to influence programmes and behaviour in healthcare systems, through guiding policy makers and funding agencies to improve health outcomes of individual with this condition.

Keyword 1: Low back pain

Keyword 2: Economic burden

Keyword 3: High income countries

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Consent: Yes

Consent: Yes