



Introduction

Low back pain (LBP) is a heterogeneous disorder that encompasses somatic, neuropathic and central pain. Little is known about the methodological quality of guidelines for LBP. Despite its high incidence and multiple therapeutic options, there is a significantly high rate of treatment failure, which leads to the chronicity of patients and increased health expenditures. This article presents a systematic review of the literature on evidence based clinical practice guidelines for the interventional management of chronic LBP and appraisal of the methodological quality of the guidelines and their recommendations.

Methods

A systematic review was conducted using electronic databases (The National Guidelines Clearinghouse, National Institute for Clinical Excellence, Cochrane Back Review Group, PubMed, Clinical Evidence and Google Scholar). Only clinical practice guidelines on chronic LBP treatment that encompassed interventional management were included. Two individual appraisers used the AGREE-II instrument to assess methodological quality of the guidelines and compare the recommendations regarding the invasive management of chronic low back pain.

Table 1

AGREEII Domains	GUIDELINES						Mean	Range
	EUROPEAN ¹¹	APS ¹²	VASCA ¹³	NICE-RCGP ¹⁴	ASIPP ¹⁵			
Domain 1 Scope and purpose	75.00%	69.44%	91.67%	100.00%	100.00%	87.2%	69.44% - 100%	
Domain 2 Stakeholder involvement	55.56%	44.44%	50.00%	72.22%	63.89%	57.2%	44.44% - 72.22%	
Domain 3 Rigour of Development	64.58%	73.96%	64.58%	87.50%	93.75%	76.8%	64.58% - 93.75%	
Domain 4 Clarity of Presentation	63.89%	91.67%	80.56%	100.00%	58.33%	78.9%	58.33% - 100%	
Domain 5 Applicability	0.00%	37.50%	37.50%	89.58%	47.92%	42.5%	0.00% - 89.58%	
Domain 6 Editorial independence	83.33%	95.83%	91.67%	100.00%	100.00%	94.2%	83.33% - 100%	
Overall Guideline Assessment	5	6	4.5	6.5	5	-	-	
Recommendation	Yes, With modifications	Yes	Yes, With modifications	Yes	NO	-	-	

Percentage scores for each domain of the guidelines. Percentage is obtained using the formula recommended by the AGREE-II instrument [(Item Score - lowest possible score) / (maximum possible score - lowest possible score)]. Overall NICE-RCGP guidelines obtained the highest scores.

Results

Five guidelines met the inclusion criteria but only one was specific to interventional treatments. According to the AGREE-II, domains 1 (scope and purpose) and 6 (editorial independence) obtained the highest scores, while domains 2 (Stakeholder involvement) and 5 (Applicability) ranked lowest. Recommendations regarding diagnosis and non-invasive treatments were similar throughout the guidelines, however the evidence for interventional management was variable and inconsistent. (Table 1 and Table 2)

Table 2

		EUROPEAN ¹¹	APS ¹²	VASCA ¹³	NICE-RCGP ¹⁴	ASIPP ¹⁵
Domain 1	Item 1	13	4	11	14	14
	Item 2	11	14	14	14	14
	Item 3	9	13	14	14	14
	Total:	33	31	39	42	42
Domain 2	Item 4	11	10	11	14	14
	Item 5	2	3	2	4	2
	Item 6	13	9	11	14	13
	Total:	26	22	24	32	29
Domain 3	Item 7	13	14	12	14	14
	Item 8	13	14	11	14	14
	Item 9	11	13	12	14	14
	Item 10	12	12	10	14	14
	Item 11	12	12	9	14	14
	Item 12	13	14	13	14	9
	Item 13	2	5	3	14	13
	Item 14	2	3	8	2	14
Total:	78	87	78	100	106	
Domain 4	Item 15	13	12	11	14	10
	Item 16	13	13	11	14	13
	Item 17	3	14	13	14	4
	Total:	29	39	35	42	27
Domain 5	Item 18	2	2	9	14	4
	Item 19	2	3	13	13	3
	Item 20	2	13	2	14	13
	Item 21	2	8	2	10	11
	Total:	8	26	26	51	31
Domain 6	Item 22	11	14	14	14	14
	Item 23	13	13	12	14	14
	Total:	24	27	26	28	28
Overall Guideline Assessment		5	6	4.5	6.5	5

Five guidelines were appraised using the Agree-II instrument. Scores for each item of the 6 domains are presented. Each item can get a score from 2 - 14 which is the sum of the score (Ranging from 1 - 7) given by each evaluator.

Conclusions

In general, guidelines achieved satisfactory results for specific quality criteria. However, more rigorous and explicit methods to develop the guidelines are needed. There was a consistent lack of clarity regarding cost-effectiveness, external peer review and implementation that limit the adherence and distribution of the guidelines. Additionally, recommendations should be examined in the context of each type of pain, as per most targeted non-specific LBP, which altered the level of evidence for the interventions reviewed.

Learning Objectives

To identify an effective, evidence based approach to the patient with chronic LBP and discuss the importance of implementing and adhering to clinical practice guidelines for its interventional treatment. Finally, the appraisal of different guidelines and their recommendations should help clinicians in their daily practice determine which interventions are best suited for each type of pain and patient.

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