



**TITLE:** Back and Neck Outcome Measurement Scales in Physiotherapy: Guidelines

**DATE:** 30 June 2015

## RESEARCH QUESTIONS

1. What are the evidence-based guidelines regarding the appropriate back outcome measurement scales for use in physiotherapy settings?
2. What are the evidence-based guidelines regarding the appropriate neck outcome measurement scales for use in physiotherapy settings?

## KEY FINDINGS

One evidence-based guideline was identified regarding the appropriate back outcome measurement scales for use in physiotherapy settings.

## METHODS

A limited literature search was conducted on key resources including PubMed, The Cochrane Library, University of York Centre for Reviews and Dissemination (CRD) databases, Canadian and major international health technology agencies, as well as a focused Internet search. Filters were applied to limit the retrieval to health technology assessments, systematic reviews, meta analyses and guidelines. Where possible, retrieval was limited to the human population. The search was also limited to English language documents published between January 1, 2010 and June 16, 2015. Internet links were provided, where available.

The summary of findings was prepared from the abstracts of the relevant information. Please note that data contained in abstracts may not always be an accurate reflection of the data contained within the full article.

## SELECTION CRITERIA

One reviewer screened citations and selected studies based on the inclusion criteria presented in Table 1.

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**Table 1: Selection Criteria**

|                      |   |
|----------------------|---|
| <b>Population</b>    | Patients requiring physiotherapy <ul style="list-style-type: none"> <li>Subgroup of interest: patients with musculoskeletal conditions or injuries</li> </ul> |
| <b>Intervention</b>  | Q1: Outcome scales for back outcomes<br>Q2: Outcome scales for neck outcomes  |
| <b>Comparator</b>    | Other outcomes scales;<br>No comparator   |
| <b>Outcomes</b>      | Guidelines and best practice regarding which outcome measures are most appropriate and most accurately measure change   |
| <b>Study Designs</b> | Health technology assessment reports, systematic reviews, meta-analyses   |

## RESULTS

Rapid Response reports are organized so that the higher quality evidence is presented first. Therefore, health technology assessment reports, systematic reviews, and meta-analyses are presented first. These are followed by evidence-based guidelines.

One evidence-based guideline was identified regarding the appropriate back outcome measurement scales for use in physiotherapy settings. No relevant health technology assessments, systematic reviews or meta-analyses were identified. In addition, no evidence-based guidelines were identified regarding the appropriate neck outcome measurement scales for use in physiotherapy settings.

Additional references of potential interest are provided in the appendix.

## OVERALL SUMMARY OF FINDINGS

The single evidence-based guideline<sup>1</sup> reported systematic review findings that identified and ranked (in order of use) 46 established outcome measures for the evaluation of chronic back pain. The authors recommend that outcomes should be routinely assessed and that specific factors should be considered when choosing an outcome scale. These factors include the presence of domains of most importance to patients, validity and reliability, responsiveness to change, staff and patient burden, and language and cost barriers. For pain outcomes, the Visual Analogue Scale or Numeric Pain Rating Scale are recommended, while the Oswestry Disability Index or Roland Morris Disability Index are recommended for functional outcomes.

No relevant literature was identified regarding the appropriate neck outcome measurement scales for use in physiotherapy settings; therefore, no summary can be provided.

## REFERENCES SUMMARIZED

### Health Technology Assessments

No literature identified

### Systematic Reviews and Meta-analyses

No literature identified

### Guidelines and Recommendations

1. Chapman JR, Norvell DC, Hermsmeyer JT, Bransford RJ, DeVine J, McGirt MJ, et al. Evaluating common outcomes for measuring treatment success for chronic low back pain. *Spine*. 2011 Oct 1;36(21 Suppl):S54-68. <http://www.ncbi.nlm.nih.gov/pubmed/21952190>

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## APPENDIX – FURTHER INFORMATION:

### Systematic Reviews - Diagnostic Accuracy

2. Newman AN, Stratford PW, Letts L, Spadoni G. A systematic review of head-to-head comparison studies of the Roland-Morris and Oswestry measures' abilities to assess change. *Physiotherapy Canada* 2013; 65(2): 160-166. Abstract: <http://www.utpjournals.press/doi/abs/10.3138/ptc.2012-12>

### Non-Randomized Studies

3. MacDermid J, Walton DM, Côté P, Santaguida PL, Gross A, Carlesso L. Use of outcome measures in managing neck pain: an international multidisciplinary survey. *Open Orthop J.* 2013 Sep 20:7;506-20. Available from: <http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3793628/>

### Review Articles

4. Misailidou V, Malliou P, Beneka A, Karagiannidis A, Godolias G. Assessment of patients with neck pain: a review of definitions, selection criteria, and measurement tools. *J Chiropr Med.* 2010 Jun; 9(2): 49-59. <http://www.ncbi.nlm.nih.gov/pmc/articles/PMC2943658/>

### Additional References

5. Harwood J, White A. Using outcome measures in the clinic [Internet]. Stratford (ON): Physiotherapy Alliance; 2013 [cited 22 June 2015]. Available from: <http://physiotherapyalliance.com/wp-content/uploads/2013/07/Outcome-Measure-Table-Jennifer-and-Andrew.pdf>
6. DeRenzo JS. Registry of selected physical therapy outcome measures with minimal detectable change scores. Columbia (SC): Arnold School of Public Health, University of South Carolina; 2010 [cited 22 June 2015]. Available from: [http://www.sph.sc.edu/dpt/dpt-rehab/pdf/Registry\\_of\\_Outcome\\_Measures\\_with\\_MDC\\_2010.pdf](http://www.sph.sc.edu/dpt/dpt-rehab/pdf/Registry_of_Outcome_Measures_with_MDC_2010.pdf)