



The Use of Patient Centered Outcome Instruments in Oncological Surgery of the Spine: A Bibliometric Analysis 2004-2014

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Introduction

Patient centered health measures have become the gold standard to assess efficacy of surgical spine procedures and is an essential component of cost-effectiveness research. Currently, however, there is an expansive range of patient reported outcome instruments without an established consensus as to which should be used for a particular diagnosis or procedure. This study aims to assess incidence, trends and use of patient centered health measures over the past decade to better define various instruments used in oncological spine research.

Methods

A search was conducted on PubMed with time frame from 2004-2013 of five Orthopaedic Journals (The Journal of Bone and Joint Surgery, The Bone and Joint Journal, The Spine Journal, The European Spine Journal and Spine). All journal abstracts were inspected for oncological spine surgery and inclusion of patient centered outcome instruments. Articles were then analyzed for diagnosis, procedure and level of evidence. Prevalence of outcome instruments and level of evidence were reported as percentages of total studies included.

Results

From 19,736 articles published, we identified 1,090 articles meeting our study criteria. A total of 40 articles addressed surgical oncological spine surgery with most coming from Spine (45.0%) followed by The European Spine Journal (35.0%). In total, there were 17 distinct outcome measures utilized. The top four most used outcome measures in descending order were Visual Analog Scale (37.5%), American Spine Injury Association (10.0%), Karnofsky Performance Status Scale (10.0%) and Eastern Cooperative Oncology Group Performance Assessment (ECOG, 7.5%). Most articles were of Level IV evidence (67.5%), while 5.0% were Level I evidence.

Learning Objectives

- 1) Describe importance of patient centered outcomes
- 2) Understand that there are a vast amount of different and incorrectly used PRO instruments
- 3) Understand the need to consolidate and use only a small number of most useful PRO instruments in oncological surgery of the spine

Conclusions

The breadth of patient centered outcome measures in oncological spine surgery is wide ranging. A consensus may be needed to consistently use a fewer number of most relevant instruments for more effective communication and comparison without overburdening patients.