



Introduction

Patient centered health measures have become the gold standard to assess efficacy of surgical spine procedures and are 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. There is currently no agreement as to what patient reported outcome instruments should be used in cervical spine surgery. 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 degenerative cervical spine research.

Methods

A search was conducted on PubMed 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 degenerative cervical 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 244 articles addressed degenerative cervical spine surgery with most coming from Spine (40.2%). Overall, there were 41 distinct outcome measures utilized. The top six most used outcome measures in descending order were: Visual Analog Scale (43.0%), Japanese Orthopaedic Association (41.0%), Neck Disability Index (26.2%), Odom’s criteria (7.8%), Oswestry Disability Index (6.6%) and European Quality of Life 5-Dimensions (2.9%). Most articles were of Level IV evidence (32.0%), while 16.4% were of Level I evidence.

Learning Objectives

- 1) Patient centered outcome measures in degenerative cervical spine surgery
- 2) Understand the value of using PRO measures correctly in cervical spine surgery
- 3) The utilization of vast amounts of different PRO measure instruments in current studies
- 4)The need to consolidate an donly use the most valuable PRO measures in cervival spine studies

Conclusions

The breadth of patient centered outcome measures in degenerative cervical spine surgery research is extensive. A consensus may be needed to consistently use a fewer number of most relevant instruments for a given cervical pathology or procedure for more effective communication and comparison without overburdening patients.