Do Lower Extremity Outcome Questionnaires Used to Assess Ankle Replacements and Fusions Really Capture what Patients Want us to Hear?

Presenting:

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Summary:
The objective of this study was to compare items from patient-reported questionnaires measuring musculoskeletal outcomes with items generated by pre-and post-operative ankle arthrodesis and arthroplasty patients using the Patient-Specific Index (PSI-P). The International Classification of Functioning, Disability and Health (ICF) was used as an external reference. Questionnaires differ largely in their content and no single questionnaire captured all of the concerns identified by PSI-P. This analysis will guide us in the development of a new and more comprehensive instrument for evaluating ankle outcomes following ankle arthrodesis or arthroplasty.

Abstract:

Purpose:
The objective of this study was to compare items from patient-reported questionnaires measuring musculoskeletal outcomes with items generated by pre-and post-operative ankle arthrodesis and arthroplasty patients using the Patient-Specific Index (PSI-P). The International Classification of Functioning, Disability and Health (ICF) was used as an external reference.

Materials/Methods:
A literature review identified 6 questionnaires that assess lower extremity outcomes (AAOS, patient-reported portion of AOFAS, FFI, LEFS, SMFA, WOMAC). Surgical patients (n=142) from an orthopaedic surgeon’s practice completed the patient-selected items from PSI-P. Items from questionnaires and PSI-P were coded by 3 reviewers and linked to the ICF.

The ICF is divided into 4 components (Body Functions and Structures, Activities and Participation, Environmental Factors, and Personal Factors) which are then further divided into second level categories. A higher number of second level categories would indicate a questionnaire that captures a broader range of experiences.

Results:
Patient’s responses from PSI-P identified 690 meaningful concepts that were linked to 45 second level ICF categories. Most PSI-P responses fell into Activities and Participation (60.6%) and Body Functions and Body Structures (35.2%) including the second level categories Walking (19.1%), Pain (16.5%), and Recreation and Leisure (15.4%).

There was no statistical difference between arthrodesis and arthroplasty patients nor between preoperative versus postoperative patients in terms of the proportion of patient responses that fell into each ICF component.

A total of 237 meaningful concepts were identified in the 6 questionnaires studied and linked to 38 second level ICF categories. Overall, SMFA addressed the most number of second level categories and had the closest proportion of Body Function (23.0%) and Activities and Participation (68.9%) concepts as compared to PSI-P. The patient-reported portion of AOFAS addressed the fewest categories. LEFS only
contained items from Activities and Participation. AAOS was the only questionnaire to address the issue of ‘swelling’, though it represented 4.9% of all PSI-P responses.

**Conclusion:**
Questionnaires differ largely in their content and no single questionnaire captured all of the concerns identified by PSI-P. This analysis will guide us in the development of a new and more comprehensive instrument for evaluating ankle outcomes following ankle arthrodesis or arthroplasty.