

## Book review

### *AO Handbook: Musculoskeletal outcomes measures and instruments*

Michael Suk, Beate P Hanson, Daniel C Norvell, David L Helfert, 450 pages, AO Publishing, Thieme 2005  
ISBN 3-13-141061-2 (GTV), 1-58890-366-4 (TNY)

This handbook has 450 pages and is divided into two parts. The first part describes the basics and the concepts of outcomes research in a way that makes it easy to survey. This is followed by a review and assessment of 155 instruments that have been developed for patients with musculoskeletal diseases or symptoms. The book can serve as a basis for choosing between alternative outcome instruments in both clinical work and research. One of the advantages of this book is that clinicians with limited knowledge of patient-relevant evaluation instruments should also benefit from reading it.

Over the past 2 decades, a paradigmatic shift has taken place in healthcare research. Today, the emphasis is on evaluation from the patient's point of view. Nowadays, it is taken for granted that the patient's own perception of the treatment should be taken into account, and there is consensus that patient-relevant assessment should be the primary outcome in clinical studies, irrespective of the medical discipline.

This trend has not had much of an effect on orthopedics until recently. Traditionally, process measures such as radiographs, angles, joint mobility, muscle strength and other clinical findings have been used to evaluate orthopedic procedures. There is thus a need for a comprehensive book that will introduce the reader to the concepts and methodology used in the evaluation or validation of these instruments. This handbook is such a book.

The authors have vacuumed the market for outcomes instruments and have identified 155 instruments of either general character or concerning patients with symptoms in the shoulder, elbow, hand/wrist, pelvis, hip, knee, ankle, and foot. The instruments are assessed with regard to degree of validation, i.e. has the instrument been validated at all or, if so, what was the outcome of the test

with regard to: validity of content, concept, and criteria, as well as internal consistency, repeatability, and sensitivity to change over time? For each of these requirements, the instruments can score 0 points (not tested), 1 points (fails to meet set standards) or 2 points (fulfills set standards). Thus, an instrument that has been validated for all important considerations can score a maximum of 6 points. This part of the validation has been done according to distinct, fixed guidelines. It is then estimated how user-friendly the instrument is for the patient (0–2 points: equal to limited, fair, strong) and for the examiner/clinician (0–2). This second part can give a score of 4 points and each instrument can thus score a maximum of 10 points. It is not clear which were the guidelines used for assessment of user-friendliness.

One cannot choose a specific instrument solely on the basis of how many points it scores, however. For example, the Harris Hip Score, used in hundreds of papers reporting the outcome of total hip replacement, gets a total of 8 points out of 10. A closer analysis reveals, however, that the instrument lacks points/scoring for validity of content, i.e. it has not been examined whether the instrument really evaluates what is relevant for the patient. Evidently, in this case one has to question the value of including this instrument to evaluate the patient's perception. The Harris Hip Score is the kind of instrument that is clinician-based, as opposed to being patient-reported. These concepts are explained by the authors in the methods chapter under the heading "What makes a quality outcome instrument?"

This new handbook in outcomes is a useful addition to the clinician's bookshelf and is certainly of value when choosing outcomes instruments. However, one cannot take for granted that the highest

score equals the best instrument; a close examination on the basis of one's own field of application is necessary, as also pointed out by the authors in the chapter "Choosing the right one".

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