Unique Substantial Clinical Benefit Values for the 12-Item International Hip Outcome Tool Based on Preoperative Level of Function

RobRoy L Martin [1], Benjamin R Kivlan [2], John J Christoforetti [3], Andrew B Wolff [4], Shane J Nho [5], John P Salvo Jr [6], Thomas J Ellis [7], Geoff Van Thiel [8], Dean Matsuda [9], Dominic S Carreira [10]

Affiliations

Affiliations

1 Rangos School of Health Sciences, Department of Physical Therapy, Duquesne University, Pittsburgh, Pennsylvania; UPMC Center for Sports Medicine, Pittsburgh, Pennsylvania. Electronic address: martinr280@duq.edu.
2 Rangos School of Health Sciences, Department of Physical Therapy, Duquesne University, Pittsburgh, Pennsylvania.
3 Allegheny-Singer Research Institute, Pittsburgh, Pennsylvania; Texas Health Sports Medicine, Allen, Texas.
4 Hip Preservation and Sports Medicine, Washington Orthopaedics and Sports Medicine, Washington, DC.
5 Department of Orthopedic Surgery, Division of Sports Medicine, Hip Preservation Center, Rush University Medical Center, Chicago, Illinois.
6 Orthopaedic Surgery, The Sydney Kimmel Medical College at Thomas Jefferson University Hospital, Philadelphia, Pennsylvania; Hip Arthroscopy Program, Rothman Institute, Philadelphia, Pennsylvania.
7 Orthopedic One, Ohio Orthopedic Surgery Institute, Dublin Methodist Hospital, Columbus, Ohio.
8 OrthoIllinois, Chicago, Illinois; Rush University Medical Center, Chicago, Illinois; US National Soccer Teams, Chicago, Illinois; Chicago Blackhawks Medical Network, Chicago, Illinois.
9 DISC Sports and Spine Center, Marina del Rey, California.
10 Peachtree Orthopedics, Atlanta, Georgia, U.S.A.

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Abstract

Purpose: To define unique substantial clinical benefit (SCB) values for improvement on the 12-item International Hip Outcome Tool (iHOT-12) based on a preoperative self-rating of function in patients undergoing hip arthroscopy for intra-articular pathology.

Methods: This was a retrospective review of prospective collected data on patients having hip arthroscopy for labral and chondral pathology and femoroacetabular impingement. On preoperative assessment and 1-year (+/-1 month) follow-up, subjects completed the iHOT-12 and a self-categorical rating of function ("severely abnormal," "abnormal," "nearly normal," or "normal"). Separate receiver operator characteristic analyses were performed for each preoperative categorical self-rating of function to determine unique SCB values for improvement-based changes in self-rating of function.

Results: Of 1034 eligible patients, 733 (71%) subjects met the inclusion criteria. Subjects consisted of 537 (73%) female and 196 (27%) male subjects with a mean age of 35.3 years (standard deviation 13). At a mean of 352 (standard deviation 21) days postsurgery, changes in iHOT-12 scores of 22, 28, and 27 points were associated with acceptable accuracy in identifying those who had an improved function rating when reporting a "severely abnormal," abnormal," and "nearly normal" rating on preoperative assessment, respectively. The accuracy of these SCB values in predicting improvement was different depending on the patient's preoperative rating of function. The accuracy of the SCB values in predicting improvement in those who had a "nearly normal" rating of function was not as accurate (area under the curve = 0.73) compared with those who had a "severely abnormal" or "abnormal" rating of function on preoperative assessment (area under the curve = 0.89; 0.89).

Conclusions: This study provides surgeons with unique SCB values for the iHOT-12 based on a preoperative rating function and may allow for a more precise interpretation of score changes. SCB values of 22, 28, and 27 points on the iHOT-12 at 1-year (+/-1 month) follow-up identified those who had an improved function rating, when reporting a "severely abnormal," abnormal," and "nearly normal" rating on preoperative assessment, respectively.

Level of evidence: III, retrospective comparative study.