

The AOFAS Clinical Rating Systems—Time to Bid Adieu?

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With multiple options for management of foot and ankle disorders, the question often asked by researchers is “*What defines the success or failure of a treatment protocol?*” The patient with a seemingly well-healed pilon fracture may have a severe limitation of day-to-day activities, whereas the smoker with a failed ankle fusion may be able to ambulate without much discomfort.

Therefore, to bring objectivity in evaluation of outcomes, patient-centric functional outcome scores are considered indispensable. The AOFAS clinical rating systems have been around for the last 25 years, and have found their way into much of the published research on the foot and ankle. Developed by Kitaoka et al.,¹ the score was based on the algorithms similar to the Harris Hip Score and the Iowa Hip Score, and combines clinical evaluation and physical examination. In 2011, the American Orthopaedic Foot and Ankle Society (AOFAS) came out with a position statement on the AOFAS clinical rating systems, and have recommended against the use of these scores.²

The reader may be surprised to note that a well-established functional outcome score has fallen out of favor, and would like to understand the reasons, which are many. Perhaps the most obvious reason is the heavy weightage assigned to pain as an outcome measure. Of the total score, 40% depends on pain, and this may render the score less than ideal in those foot and ankle pathologies where deformity and loss of motion (rather than pain) is the major problem.²

Also of concern is the fact that the scoring system suffers from a lack of insight as to what constitutes a significant clinical change. The patient may have an AOFAS score of 65 at one follow-up and 70 at the next, which may not necessarily translate into a significant improvement of function. There has been an attempt to categorize the scores as ‘excellent’, ‘good’, ‘fair’, and ‘poor’, but these categories are arbitrary and may not be representative of the actual clinical outcome.²

Any functional outcome score should be objective in order to have good intra- and inter-observer repeatability. By virtue of including the element of clinical examination, the AOFAS scoring systems are prone to intra- and inter-observer variability, as different

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clinical examination techniques may vary across different observers. Furthermore, the number of responses in each category are limited, and this adversely affects the precision of this scoring system. These and several other concerns were pointed out by Guyton et al.,³ who concluded that this scoring system was not reliable.

Other researchers have correlated the AOFAS scoring systems with other functional outcome scores of wellness and health, such as the SF-36 score. A low level of correlation was noted, thereby indicating poor construct validity of the AOFAS scoring systems.⁴

This brings to the fore another important question: now that the AOFAS has advised against the use of its very own scoring systems, what are the options remain for the clinicians and researchers? It is being increasingly recognized that a single scoring system may not reflect the true clinical picture; therefore, it is essential to combine a lower limb-specific functional outcome score, such as the Lower Extremity Computerized Adaptive Test (LE CAT), with a quality of life score, such as the SF-36. The reader is advised to read the AOFAS position statement⁵ on patient-reported outcome measures for more details.

It is often said that “*good is the enemy of great*”. It may seem hard to part ways with the omnipresent AOFAS scoring systems, but the time has come to embrace the change and move ahead with the times. It is indeed time to bid adieu to the AOFAS clinical rating systems.

REFERENCES

1. Kitaoka HB, Alexander IJ, et al. Clinical rating systems for the ankle-hindfoot, midfoot, hallux, and lesser toes. *Foot Ankle Int* 1994 Jul;15(7):349–353. DOI: 10.1177/107110079401500701.
2. Pinsker E, Daniels TR. AOFAS position statement regarding the future of the AOFAS Clinical Rating Systems. *Foot Ankle Int* 2011 Sep;32(9):841–842. DOI: 10.3113/FAI.2011.0841.
3. Guyton GP. Theoretical limitations of the AOFAS scoring systems: an analysis using Monte Carlo modeling. *Foot Ankle Int* 2001 Oct;22(10):779–787. DOI: 10.1177/107110070102201003.
4. SooHoo NF, Shuler M, et al. American Orthopaedic Foot and Ankle Society. Evaluation of the validity of the AOFAS Clinical Rating Systems by correlation to the SF-36. *Foot Ankle Int* 2003 Jan;24(1): 50–55. DOI: 10.1177/107110070302400108.
5. Kitaoka HB, Meeker JE, et al. AOFAS Position Statement Regarding Patient-reported Outcome Measures. *Foot Ankle Int* 2018 Dec;39(12):1389–1393. DOI: 10.1177/1071100718809066.