

Hand Filler

A Randomized, Blinded Study to Validate the Merz Hand Grading Scale for Use in Live Assessments

JOEL L. COHEN, MD,^{*} ALASTAIR CARRUTHERS, FRCPC,[†] DEREK H. JONES, MD,[‡]
VIC A. NARURKAR, MD,[§] MARTIN WONG,^{||} LISA N. CHESKIN, MPH,^{||} J. RICHARD TROUT, PhD,[¶]
AND DAVID J. HOWELL, PhD[#]

BACKGROUND The Merz Hand Grading Scale (MHGS) is a 5-point scale used to grade appearance of the dorsum of the hand. The MHGS has been previously validated for assessment of photographed hands but not for live assessment.

OBJECTIVE The purpose of this randomized, blinded study was to validate the MHGS for live assessment of the hands in the clinical setting.

METHODS Three physician raters completed a scale qualification program that included MHGS training, ratings of standardized hand photographs, and statistical analysis for reliability. Eighty-four subjects (28 males, 30% Fitzpatrick skin Types IV–VI, mean age of 42 years), randomized to 2 live assessment sessions for independent and blinded observation of dorsa of their right hands, completed the study.

RESULTS Overall MHGS intrarater weighted Kappa value was 0.74 (0.68–0.79 [CI 95%]). First- and second-time hand-rating agreement scores ranged from 64% to 75%. Interrater weighed Kappa values ranged from 0.59 to 0.71, representing between-rater paired results of each combination of raters.

CONCLUSION High-weighted Kappa values and agreements demonstrate that consistency at different time points can be achieved individually and by different raters for live assessments. The MHGS is a suitable instrument for live assessment in the clinical setting.

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Hand Grading Scale

Please rate the Hand by using the following scale



No loss of fatty tissue

Mild loss of fatty tissue; slight visibility of veins

Moderate loss of fatty tissue; mild visibility of veins and tendons

Severe loss of fatty tissue; moderate visibility of veins and tendons

Very severe loss of fatty tissue; marked visibility of veins and tendons

0

1

2

3

4

Please indicate your choice by checking the appropriate box