Abstract

OBJECTIVES:

To assess (A) determinants of patient's global assessment of disease activity (PTGL) and patient's assessment of general health (GH) scores of rheumatoid arthritis (RA) patients; (B) whether they are equivalent as individual variables; and (C) whether they may be used interchangeably in calculating common RA activity assessment composite indices.

METHODS:

Data of 7023 patients from 30 countries in the Quantitative Standard Monitoring of Patients with RA (QUEST-RA) was analysed. PTGL and GH determinants were assessed by mixed-effects analyses of covariance models. PTGL and GH equivalence was determined by Bland-Altman 95% limits of agreement (BALOA) and Lin's coefficient of concordance (LCC). Concordance between PTGL and GH based Disease Activity Score 28 (DAS28), Clinical Disease Activity Index (CDAI) and Routine Assessment of Patient Index Data 3 (RAPID3) indices were calculated using LCC, and the level of agreement in classifying RA activity in four states (remission, low, moderate, high) using κ statistics.

RESULTS:

Significant differences in relative and absolute contribution of RA and non-RA related variables in PTGL and GH ratings were noted. LCC of 0.64 and BALOA of -4.41 to 4.54 showed that PTGL and GH are not equivalent. There was excellent concordance (LCC 0.95-0.99) for PTGL and GH based DAS28, CDAI and RAPID3 indices, and >80% absolute agreement (κ statistics 0.75-0.84) in RA activity state classification for all three indices.

CONCLUSIONS:

PTGL and GH ratings differ in their determinants. Although they are individually not equivalent, they may be used interchangeably for calculating composite indices for RA activity assessment.