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How well do various utility measures perform in rheumatoid arthritis ?

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Objectivos (Objectives):

Utility measures are a key component in assessing health-related quality of life (HRQoL). Understanding which utility variables discriminate best among rheumatoid arthritis (RA) disease severity is of primary importance. We assessed the construct validity of three widely used HRQoL measures, EuroQoL, Brazier's SF-6D and VAS-QoL, by determining the ability of each of them to discriminate between groups of differing disease severity.

Metodologia (Methodology):

1,150 patients from an ongoing biannual cohort of Portuguese RA patients since 2003 were analyzed. Mean utility values in groups thought to have poorer prognostic measures (TNF use, joint replacement, presence of morning stiffness, other comorbidities (>3) and disease duration) were evaluated. Effect sizes (the standardized mean difference between two groups on a measured outcome) were also computed and compared with the minimally important differences (MID) of each utility scale using Cohen criteria. Utility instruments were plotted against the Health Assessment questionnaire (HAQ) disability index, a measure of physical disability that assesses the difficulty in performing activities of daily living, widely used and prognostic for RA, to evaluate how utilities were spread across HAQ scores. The same was done for the VAS-pain scale.

Resultados (Results):

Similar average/median scores were obtained for EuroQoL, SF-6D and VAS-QoL (0.53/0.59, 0.58/0.56 and 0.59/0.60, respectively). They also showed ability to distinguish between high and low severity groups. EuroQoL mean was 0.60 for TNF-users vs 0.52 for TNF non-users, $p=0.002$). This result proved convergence between utilities and measures of poor prognosis. When looking at the effect sizes, EuroQoL had the highest effect size among all three utilities, being the best discriminative utility tool. SF-6D had very low capacity to discriminate TNF users and joint replacements. Of the measures of poor prognosis, morning stiffness was the one which was discriminated best by utilities. When comparing HAQ scores with the three utilities, EuroQoL was the only one that was well spread (0-1) across the full range of HAQ (0-3). The same could not be said about SF-6D and VAS-QoL, where severe floor effects were noticed.

Conclusões (Conclusions):

All three utility measures were seen to have small to moderate effect sizes for RA poor prognostic factors, indicating difficulty for all, in discriminating RA severity. Morning stiffness was the prognostic factor best discriminated by all three utilities. SF-6D appeared to be the worst and therefore should not to be used as a good HRQoL.