SDAI composite scores. MD globals may vary between physicians based on their age, sex, practice setting, experience, and years in practice.

Objectives: Our research goal was to determine which factors contribute to the variability of MD globals. We expected assessments to be lower as physician experience increased.

Methods: After obtaining ethics approval, we surveyed rheumatologists who were members of the Canadian Rheumatology Association with RA patient scenarios where each was rated as a MD global for disease activity from 0 – 10. The cases covered a range of disease activity; to determine extreme cases and cases in between. There were some scenarios where a change in status was given (i.e. a rating with one disease state and then the patient returned and another rating was given by each participant when the patient was obviously better or worse). Kappa, Intra-class correlation (ICC) coefficients, and linear mixed models were used to analyze the data

Results: We received 145 responses from eligible physicians spanning the above categories (approximately 40% response rate). Contrary to our original hypothesis, MD global assessments were not significantly different between physicians in any category (number of RA patients seen per year, years of experience, age, sex, type of practice [community vs. university], and self-reported expertise in RA). Moreover, the range of answers for the same scenario was as high as 7.6 out of a possible 10, indicating vast discrepancies between physicians. We checked to ensure the questions were not answered backwards by individuals using the scenarios where a patient changed disease activity over time. The agreement was highest in the extreme scenarios (very low and very high disease activity, but in the spectrum in between agreement was extremely poor). Some scenarios outlined changes in individual patients, however physicians surveyed were often in disagreement as to how well the patient recovered or worsened. The change in MD globals between one time and the next in the cases had better agreement than the actual scores.

Conclusions: This research emphasizes the need to establish stringent evaluation criteria of disease activity as rated by the physician in RA; particularly if remission and low disease activity is used clinically by CDAI or SDAI. Perhaps a catalogue examples of patient scenarios of MD globals that range from 0 to 10 should be developed, standardized and agreed upon; to decrease the wide variability of ranking by rheumatologists.

REFERENCES:

1. Aletaha D, Smolen J. The Simplified Disease Activity Index (SDAI) and the Clinical Disease Activity Index (CDAI): a review of their usefulness and validity in rheumatoid arthritis. *Clin Exp Rheumatol* 2005;23:S100–108.
2. Her M, Kavanaugh A. Patient-reported outcomes in rheumatoid arthritis. *Curr Opin Rheumatol* 2012;24:327–34.
3. Smolen JS, Breedveld FC, Schiff MH, Kalden JR, Emery P, Eberl G, et al. A simplified disease activity index for rheumatoid arthritis for use in clinical practice. *Rheumatol Oxf Engl* 2003;42:244–57.

Disclosure of Interest: None declared

DOI: 10.1136/annrheumdis-2018-eular.2149

FRI0670 VALIDATION OF THE ERS-RA RISK SCORE IN THE DUTCH CARRÉ STUDY.

M. Baniaamam¹, M. Nurmohamed¹. ¹Amsterdam Rheumatology immunology Center/ Reade and VU University Medical Center, Amsterdam, Netherlands

Background: The most frequent cause of death in patients with chronic rheumatoid arthritis (RA) is of cardiovascular (CV) origin¹. CV risk prediction scores in the

normal population do not predict the CV risk in RA patients adequately due to the additional systemic inflammatory burden which is pathogenic for CV disease. Recently, Solomon et al developed the ERS-RA Risk Score, a newly and expanded CV risk score predicting the 10 year CV event risk in RA patients². This is based on a cohort from the Consortium of Rheumatology Researchers of North America registry. In this abstract we present the results of a validation test performed with the ERS-RA Risk Score in the Dutch CARRÉ study³.

Objectives: To perform a validation test of the ERS-RA Risk Score in the Dutch CARRÉ study.

Methods: We validated the ERS-RA Risk Score in the CARRÉ cohort by performing a ROC curve analysis. The CARRÉ study is a Dutch cohort study investigating CVD and its risk factors in RA-patients who have been followed prospectively for at least five years. RA patients registered at Reade (location Jan van Breemen institute in Amsterdam, the Netherlands) participated if they fulfilled the 1987 ACR classification criteria, were diagnosed between 1989 and 2001, and were aged between 50 and 75 years. In contrast to the cohort used in study of Solomon et al, the CARRÉ study used the HAQ instead of the m-HAQ and the CARRÉ lacks the Predictor's Global Assessment to calculate the CDAI. However, to proximate the true outcome of the m-HAQ and the CDAI we conducted the following modifications of the CARRÉ cohort data. To calculate the CDAI we estimated the Predictor's Global Assessment as 70%, 80%, 100%, 110%, 120% and 130% of the Patient's Global Assessment. Furthermore, we approximated the m-HAQ score 50% lower than the HAQ score as described in a recent published article⁴.

Results: The CARRÉ study included 352 RA patients with 60 CV events over a 10 year follow up period. The mean age was 63.3 years of which 121 (34%) male participants. The ROC curve analysis shows an area under the curve of 0.603–0.612 depending on the predicted Predictor's Global Assessment (see figure 1).

Figure 1. ROC curve analysis of the ERS-RA Risk score in the CARRE cohort with different approximated CDAI scores

Conclusions: In conclusion, the ERS-RA Risk Score has a limited validity in the CARRÉ study, a Dutch RA cohort and can therefore not be used for risk prediction in Dutch RA patients

REFERENCES:

- 1) Avina-Zubieta JA, et al. Risk of cardiovascular mortality in patients with rheumatoid arthritis: a meta-analysis of observational studies. *Arthritis Rheum* 2008;59:1690–7.
- 2) Solomon DH, et al. Derivation and internal validation of an expanded cardiovascular risk prediction score for rheumatoid arthritis: a Consortium of Rheumatology Researchers of North America Registry Study. *Arthritis Rheumatol*. 2015 May;67(8):1995–2003.
- 3) van Halm VP, et al. Rheumatoid arthritis versus diabetes as a risk factor for cardiovascular disease: a cross-sectional study, the CARRÉ Investigation. *Annals of the Rheumatic Diseases* 2009;68:1395–1400.
- 4) Uhlig T, et al. Comparison of the Health Assessment Questionnaire (HAQ) and the modified HAQ (MHAQ) in patients with rheumatoid arthritis. *Rheumatology (Oxford)* 2006 April;45(4):454–458.

Disclosure of Interest: None declared

DOI: 10.1136/annrheumdis-2018-eular.5438