# Medical or Research Professionals / Clinicians - Abstract Submission
*Rheumatoid arthritis - prognosis, predictors and outcome*

**EULAR11-3072**

**THE RELATIONSHIP BETWEEN TIME IN REMISSION AND FUNCTIONAL STATUS IN RHEUMATOID ARTHRITIS**

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**I confirm that my abstract complies with the rules and contains orginal data:** Yes
**My abstract has been or will be presented at a scientific meeting during a 12 months period prior to EULAR 2011:** No
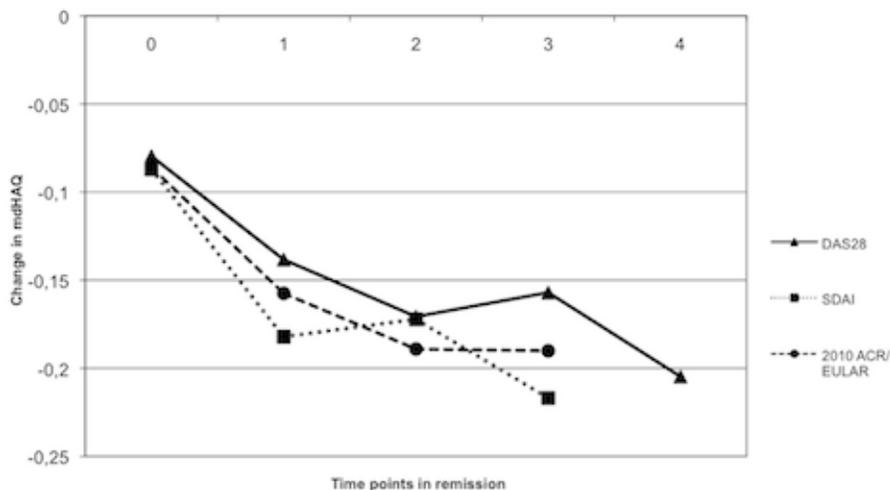**Are you applying for a Travel Bursary?:** Yes

**Background:** It is suggested that patients with Rheumatoid Arthritis (RA) in sustained remission have a more favorable outcome, but data are lacking.

**Objectives:** Describe change in functional outcome as measured by the multidimensional HAQ (mdHAQ) in relation to the number of time points in remission in RA patients.

**Methods:** Annually collected disease activity variables and outcomes from a prospective, observational, single-center cohort with RA patients were analyzed in patients with at least two years follow-up (n=871). Remission was determined by the DAS28-CRP4<2.6, SDAI≤3.3 and 2010 ACR/EULAR criteria. Data were primarily analyzed using linear mixed models (mdHAQ set as outcome variable). For a secondary analysis we had set -0.3 in mdHAQ score as minimal clinical important improvement (MCII) and excluded subjects with mdHAQ<0.5 at baseline.

**Results:** Subjects in remission at one or more time points, regardless of the remission criteria, had a more favorable outcome of mdHAQ compared to subjects who never reached remission (p<0.001). In addition, more time points in remission produced more favorable outcomes (see **Figure**). After 4 years follow-up, more subjects (72%) with >60% of time in DAS28 remission reached the MCII compared to subjects with <60% (50%,p=0.03) or no remission (31%,p<0.001). When stratifying according to baseline mdHAQ, subjects with a low mdHAQ (0-0.5) at baseline remained at approximately the same level when in DAS28 remission (mean change mdHAQ= -0.004), while subjects with a high mdHAQ (1.0-3.0) at baseline showed improvement in functional status during DAS28 remission (mean change mdHAQ= -0.504, p<0.001) after 4 years.

**Image/Graph:**



Figure; Change in mdHAQ score in relation to the number of time points in remission. For instance, for patients in DAS28 remission ≥ 4 time points mdHAQ improved with 0.21 per year compared with the improvement of 0.14 per year of patients with only 1 time point in DAS28 remission.

**Conclusions:** In our study, subjects with more time points in remission experienced greater improvement in mdHAQ. During sustained remission, subjects with high baseline mdHAQ scores improved more than those with lower baseline mdHAQ.