

Disease activity paths for early and long-term rheumatoid arthritis: Real-world data from the OBRI rheumatoid arthritis study cohort

Disease activity level described at one specific point in time does not accurately reflect disease course in chronic and relapsing diseases such as rheumatoid arthritis (RA). We described the disease activity paths in early RA (less than 2 years' disease duration) and long-term RA (more than 2 years disease duration) over time.

Patients with data available for two measures disease activity measures [28-Joint Disease Activity Score-erythrocyte sedimentation rate (DAS28-ESR) and Clinical Disease Activity Index (CDAI)] over two years were included. Using a statistical method known as latent growth curve modelling, subgroups of patients following distinct patterns were identified paths.

1920 patients were included with 34.4% in early RA. Using the two different measures, subgroups of different disease activity patterns were found.

The early RA group with moderate to high disease activity had a significantly higher number of additional medical conditions (comorbidities) and biologic medication and steroid use.

Conclusion: Disease course was different in early and long-term RA. Using DAS28-ESR, only 14.2% of long-term RA reached remission compared to 73.1% of early RA. Using CDAI, only 1.9% of early RA and none of the long-term RA achieved remission, likely reflecting the impact of the patient view of their disease in the measure. Sociodemographic characteristics (such as age, sex, marital status, education, and employment) and early treatment may have impact on disease course and therefore impacted health outcomes.

Mohammad Movahedi, Angela Cesta, Xiuying Li, Claire Bombardier, OBRI investigators. [Disease activity trajectories for early and established rheumatoid arthritis: Real-world data from a rheumatoid arthritis cohort.](#) PLoS One. 2022 Sep 7;17(9):e0274264. doi: 10.1371/journal.pone.0274264.