# Assessing prognosis and prediction of treatment response in early rheumatoid arthritis: systematic reviews

Rachel Archer,\* Emma Hock, Jean Hamilton, John Stevens, Munira Essat, Edith Poku, Mark Clowes, Abdullah Pandor and Matt Stevenson

School of Health and Related Research (ScHARR), University of Sheffield, Sheffield, UK

\*Corresponding author r.archer@sheffield.ac.uk

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## **Plain English summary**

Treatment response in early rheumatoid arthritis

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Rheumatoid arthritis (RA) is a chronic disease that can cause disability and pain. Health professionals need to be able to judge at an early stage of disease which patients may experience more severe RA or respond better to different treatments. This assessment aimed to (1) study tools that identify, at an early stage of disease, the disease course and (2) determine whether or not there are any patient characteristics that predict which patients are likely to respond best to particular treatments.

Twenty-three studies were found that tried to predict the severity of disease using patient characteristics. Six studies assessed how well these predictions performed in different groups of patients. Results were mixed, showing that a tool that performs well for one group of patients may not perform well for others. Further research is needed to understand which combinations of patient characteristics best predict the severity of disease in patients with early RA.

Twelve studies were found that allowed us to find out whether or not different patient characteristics can predict different treatment effects. Ten characteristics were assessed. The results were inconclusive, although the benefit of some treatments seemed to differ according to different patient characteristics. Further research is needed to understand how treatment benefit varies by patient characteristics.

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