

ABSTRACT

Objective: To review the current and emerging predictors of treatment response by DMARDS in Rheumatoid Arthritis (RA) patients. **Data source:** Published original research work and reviews were searched in English related to determinants of treatment response in rheumatoid arthritis on DMARDS **Study design:** Only articles that emphasis on determinants of rheumatoid arthritis treatment response with DMARDS **Data extraction:** Online and library searches done. **Data synthesis:** Data added and summarized **Conclusions:** Treatment of RA has been based on the use of a group of Disease-Modifying Antirheumatic Drugs (DMARDs), of which methotrexate is the most widely used. Although comprehensive clinical experience exists for MTX and synthetic DMARDs, to date it has not been possible to preview correctly whether or not a patient will respond to treatment with these drugs. Predicting response to MTX and other DMARDs would allow the selection of patients based on their likelihood of response, thus enabling individualized therapy and avoiding unnecessary adverse effects and elevated costs. Distinguishing responders from non-responders at treatment start as studies have failed to consistently reproduce similar determinants. Variables possibly influencing drug effectiveness may be related to disease, patient, treatment, clinical or biological (genetic and non-genetic) factors. This study seeks to review the current data regarding biomarkers of treatment response to DMARDS.