Utilization of disease-modifying antirheumatic drugs in patients with incident rheumatoid arthritis: a German perspective based on nationwide ambulatory drug prescription data

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DOI: 10.20364/VA-18.04

Abstract

Background
According to the treatment guidelines of the German Society of Rheumatology, a therapy with disease-modifying antirheumatic drugs (DMARDs) should be initiated as soon as possible following diagnosis of rheumatoid arthritis (RA). On the population level, however, it is currently unknown to what extent current clinical practice in Germany reflects the guidelines. The aim of the present study was thus to estimate the proportion of incident RA patients receiving DMARD therapy, glucocorticoids (GCs) and/or non-steroidal anti-inflammatory drugs (NSAIDs) within the first year of diagnosis in Germany.

Methods
We assembled a cohort of incident RA patients from nationwide drug prescription data of outpatient care. Patients were defined as incident if they had received their first diagnosis of RA (index diagnosis) in at least one quarter of 2012 and a second RA diagnosis within one of the three following quarters. To increase specificity, an additional RA diagnosis was required in 2013 and 2014 for incident patients to be included in the study. We assessed the proportion of incident RA patients with a DMARD prescription within the first year of disease among all incident RA cases and by age, sex, RA subtype (seropositive vs. seronegative), and specialty of prescribing physician. Besides the group of all DMARDs, we also investigated the subgroups of conventional synthetic (csDMARDs) and biologic DMARDs (bDMARDs). In addition to the first year of disease, the prescription prevalence was investigated for the second and third year of disease, respectively.

Results
In total, 44 % of the 54,896 incident RA patients received a DMARD prescription within the first year of disease. Of these, 41 % exclusively received a csDMARD, 2.1 % a csDMARD as well as a bDMARD and 1.2 % only a bDMARD. Younger patients (<35 years) were 1.25 times more likely to receive a csDMARD within the first year of disease than patients aged ≥65 years (48 % vs. 39 %) and 9 times more likely to receive a bDMARD (10 % vs. 1.1 %). Patients with seropositive RA were twice as likely to receive DMARDs compared with seronegative patients. Patients who had prescriptions from a rheumatologist were also twice as likely to receive DMARDs compared to patients without rheumatology care (79 % vs. 37 %). A total of 55 % and 64 % of patients received GCs and NSAIDs within the first year of disease, respectively. Within the whole period of the first three years of disease, the prescription prevalence of NSAIDs, GCs, csDMARDs and bDMARDs was 79 %, 64 %, 48 % and 6.3 %, respectively.

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Conclusion

This nationwide population-based study illustrates that less than half of incident RA patients receive DMARDs within the first year of diagnosis. The study highlights the importance of involving a rheumatologist for early treatment with DMARDs. Further research is needed to elucidate the factors influencing the choice of pharmacotherapy in older persons with incident RA.

Keywords

Ambulatory drug prescription data, biologicals, disease-modifying antirheumatic drugs, glucocorticoids, non-steroidal anti-inflammatory drugs, rheumatoid arthritis

Citation

Steffen A, Holstiege J, Klimke K, Akmatov MK, Bätzing J. Utilization of disease-modifying antirheumatic drugs in patients with incident rheumatoid arthritis: a German perspective based on nationwide ambulatory drug prescription data. Central Research Institute for Ambulatory Health Care in Germany (Zi). Versorgungsatlas Report No. 18/04. Berlin 2018. DOI: 10.20364/VA-18.04. URL: http://www.versorgungsatlas.de/themen/alle-analysen-nach-datum-sortiert/?tab=6&uid=91.