Epidemiology of rheumatoid arthritis in Germany – an analysis based on nationwide claims data of outpatient care

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Abstract

Background:

Rheumatoid arthritis (RA) is a chronic inflammatory autoimmune disease imposing a substantial burden on individuals and society. Data on the occurrence of RA in Germany are scarce, though. The aim of the present study was to provide current data on the proportion of persons that were diagnosed with RA in the years 2009–2015 (diagnostic prevalence), on the total number of persons affected by RA in 2014 (true prevalence) and on the incidence of RA in 2014.

Methods:

The analysis was based on nationwide claims data of outpatient care. For each year, RA cases were identified as patients who had received a diagnosis of RA (M05.- or M06.-) in at least one quarter of the respective year and a second RA diagnosis within one of the three following quarters and who additionally had undergone an immunological laboratory testing in one of the quarters with RA-diagnosis. The diagnostic prevalence was then calculated by dividing the number of RA cases in the year of interest by the total number of statutory health insurance members in the respective year. For estimating the true prevalence in 2014, we included only those patients who were very likely to be truly RA prevalent considering all years with fulfilled case definition over the whole observation period. Patients were classified as incident in 2014 if they fulfilled the case definition in 2014 and 2015 and had no prior RA diagnosis in the preceding three years (2011–2013).

Results:

The diagnostic prevalence increased from 0.87% (N = 526,211) in 2009 to 1.08% (N = 666,220) in 2015. Women were 2.5 times more likely to be diagnosed with RA than men (1.49 % vs. 0.62 % in 2015). Diagnostic prevalence increased with age and was highest in persons aged 75 to 79 years. On a regional level, we observed a marked gradient from north/northeast to south/southwest. For 2014, the true prevalence was estimated to be 1.23 % (1.70 % in women, 0.70 % in men). The incidence in 2014 amounted to 80 new RA cases per 100,000 insured persons. Women were two times more likely to be newly diagnosed with RA than men (104 vs. 54 per 100,000).

Conclusion:

This study presents current and Germany-wide data on the occurrence of RA. The diagnostic prevalence rose steadily in recent years indicating an increasing importance of RA in outpatient care. Our study also suggests that the true prevalence may be higher than previously assumed.

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Keywords

diagnostic prevalence, incidence, cumulative incidence, prevalence, rheumatic arthritis.

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