



Ischemic heart disease in German ambulatory care—Temporal trends and regional variations

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Abstract

Background

Ischemic heart disease is the leading cause of death worldwide including Germany and associated with high societal costs. Current data on regional prevalence of ischemic heart disease may inform health care planning and targeted prevention strategies. The aim of this study was to assess temporal trends and regional variations in ischemic heart disease prevalence.

Methods

Annual raw and age-sex standardized diagnosis prevalence of ischemic heart disease was assessed for Germany as a whole and on the level of regional Associations of Statutory Health Insurance Physicians in the population of all statutory health insured inhabitants for the years 2009 to 2018. Analyses were based on a full sample of ambulatory claims data from the years 2009 to 2018. Patients diagnosed with ischemic heart disease in at least two quarters of a given year were considered as prevalent cases.

Results

In 2018, 4.42 million insurants were diagnosed as having ischemic heart disease, corresponding to a raw diagnosis prevalence of 6.1%. Age-standardised prevalence in women decreased gradually over the years of study from 4.5% in 2009 to 3.9% in 2018. In men this figure rose from 8.0% in 2009 to 8.2% in 2014, but decreased in the two following years (2018: 8.0%). Regional variation of age-sex standardized prevalence was 45% lower in contrast to its raw values (coefficient of variation, raw: 0.26; standardised: 0.14). Eastern German states exhibited the highest age-sex standardized prevalence but also the strongest decline of morbidity over the 10 years of study. Nevertheless, after standardization for age and sex the 2018 prevalence of ischemic heart disease was still 25% higher in East Germany (without Berlin: 6.7%) compared to West Germany (5,3%).

Conclusion

Differences in trends of age-standardised prevalence between sexes may be a manifestation of varying sex-specific developments of incidence and prognosis of ischemic heart disease over time. Reductions of regional variations of ischemic heart disease prevalence during the years of study were the result of a disproportionately stronger decline in prevalence in Eastern Germany. This likely corresponds to a more pronounced drop of ischemic heart disease incidence in these high prevalence regions in contrast to other German states.

Keywords

Angina pectoris, coronary artery disease, coronary heart disease, diagnosis prevalence, ischemic heart disease, myocardial infarction, regional variation, trend

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