



Patterns of ambulatory health care utilization in patients with Multiple Sclerosis

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DOI: 10.20364/VA-18.05

Abstract

Background

Multiple sclerosis (MS) can be accompanied by a broad spectrum of severe mental and somatic co-morbidities and secondary diseases. The need for intensive and interdisciplinary care of MS patients places high demands on the needs-based design of health care services. This study aimed to analyze the utilization of ambulatory health care by MS patients in Germany, taking into account the reasons for treatment, involved physicians, and changes in the utilization frequency of ambulatory health care services over time.

Methods

Data were derived from nationwide claims data of ambulatory health care. The study population comprised patients with a diagnosis of MS in the year 2015 and at least one additional diagnosis within the subsequent three quarters. Reasons for treatment and utilization patterns of ambulatory medical care services of MS patients were examined as part of a comparison with patients without MS (i.e. control patients [CPs]), who were matched according to sex, age and regional Association of Statutory Health Insurance Physicians (ASHIP). We investigated changes in contacts with Statutory Health Insurance physicians over a period of six years (2010–2015) in a subsample of prevalent MS patients (N = 142,203) who already met the case definition in 2010. Trends in the annual proportion of patients with at least one contact with a physician were examined for each medical specialty using the Cochran–Armitage test.

Results/conclusion

In seven out of eleven overarching medical specialties in 2015, the overall probability of utilization in at least one quarter was statistically significantly higher for MS patients by more than 10 % relative to CPs. Use of ambulatory neurological services was almost 7 times higher among MS patients in contrast to CPs (MS: 72 % vs CPs: 11 %). Strong relative differences were also found in urology (20 % vs 8 %) and psychiatry (including psychotherapeutic care providers, 13 % vs 7 %). Overall annual proportions of MS patients seen by ambulatory care providers remained largely stable over the six-year examination period with respect to the majority of medical specialist groups, while the utilization of urologists (+21 %, $p < 0.0001$) and internists (+10 %, $p < 0.0001$) showed the strongest increases over time. MS patients showed an increased likelihood of paralysis of the extremities, diseases of the bladder (including neuromuscular dysfunction) and mental illness relative to CPs. This is the first comprehensive, Germany-wide analysis of the utilization of ambulatory health care services among MS patients. The utilization patterns observed here illustrate a persistently elevated need for multi-disciplinary ambulatory care. Current figures relating to the intensity and diversity of utilization of ambulatory care by MS patients and corresponding changes over time can provide an important basis for the informed and needs-based design of cost-intensive medical treatment of those affected.

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Keywords

Ambulatory care, care profile, co-morbidity, MS, multiple sclerosis, outpatient, utilization

Citation

Holstiege J, Steffen A, Akmatov MK, Bätzing J. Patterns of ambulatory health care utilization in patients with Multiple Sclerosis. Central Research Institute for Ambulatory Health Care in Germany (Zi). Versorgungsatlas-Report No. 18/05. Berlin 2018. DOI: 10.20364/VA-18.05. URL: <https://www.versorgungsatlas.de/themen/alle-analysen-nach-datum-sortiert/?tab=6&uid=90>.