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ePoster Viewing

Lyme borreliosis

EPIDEMIOLOGY AND COSTS OF LYME BORRELIOSIS HOSPITAL CARE IN GERMANY: LESSONS FROM A HEALTH CARE UTILISATION DATABASE ANALYSIS.

B. Lohr¹, I. Müller¹, O. Schöffski², K.-P. Hunfeld¹

¹Institute for Laboratory Medicine Microbiology and Infection Control, Northwest Medical Centre, Frankfurt, Germany ; ²Chair for Health Management, Friedrich-Alexander-University Erlangen-Nuremberg, Nuremberg, Germany

Objectives: Lyme borreliosis (LB) is the most common tick-borne disease in Europe and North America. In spite of high public interest relatively little is known on its economic impact on European health care systems especially for the inpatient sector. The aim of our study is to assess the associated annual (direct medical and indirect) costs and to gain epidemiological information on LB patients who require hospital treatment.

Methods: We performed a retrospective analysis of socioeconomic data for the years 2007-2011 provided by a statutory health insurance company covering approx. 6 million insured persons. The coverage of these administrative data is based on legal obligations and the system of diagnosis related groups established in Germany since 2003. Our database additionally contained demographic information and work-loss data enabling us to assess the indirect costs by the human-capital method. Data of patients with LB as a primary diagnosis were extracted by using documented hospital International Classification of Diseases Revision 10 codes. Individuals already having a coded inpatient diagnosis of LB in 2007 were excluded from the analysis for the years 2008-2011. All costs were calculated for a 1-year period from the third-party payer's perspective respectively from the societal perspective. Using official numbers given by the Federal Statistical Office of Germany we extrapolated the results of our cohort to Germany as a whole.

Results: In our cohort the incident diagnosis of LB was coded on average in 540 inpatients during the years 2008-2011. The median inpatient time was 9 days for the whole sample resulting in direct medical costs of 2,912€ per hospital stay. Extrapolating these findings to the German population level would result in about 7,750 LB patients annually leading to direct medical costs of more than 22 million Euro. The indirect costs of treated LB inpatients due to loss of productivity add up to more than 5 million Euro each year. Regarding LB epidemiology we could reproduce and particularise former findings such as median age of patients, bimodal age distribution with emphasis on the juvenile peak and the seasonal cumulation of hospitalised LB cases in the months between June and October. Finally we were able to show differences in the disease pattern between adolescents and adults.

Conclusion: LB is a public health problem causing significant costs both from perspective of health insurance companies and from a societal perspective. Our study is the first to identify LB as a possibly underestimated socioeconomic factor also for hospital care in Germany by use of a health care utilisation database.