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REVIEW

Cost of illness of community-acquired pneumonia. Review of the literature and possible strategies in the Serbian health care setting

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ABSTRACT

Community-acquired pneumonia (CAP) represents a potentially severe illness with high incidence and significant economic impact. The estimated incidence varies from 1.6 to 13.4 cases/1000 inhabitants per year. Its burden of disease is attributed to high morbidity, mortality and serious health care utilization and expenditure throughout the world. The identification of determinants of high treatment costs could help in defining strategies for their reduction and more efficient use of the existing resources. In this article, a review of the existing literature about CAP cost-of-illness is provided, together with some considerations about possible strategies to decrease CAP costs in the Serbian health care setting. Available reports from cost-of-illness trials of CAP are relatively scarce. Most of them highlight the high costs generated by treatment protocols, with important differences between inpatients and outpatients. The inpatient cases of CAP varies from 18 to 60%. The therapy represents 10 to 15% of the overall costs of CAP. The costs of CAP treatment among inpatients are 7.9 times higher than those in outpatients. In case of complications and prolonged length of stay, this difference could even be 17 to 51 times higher. Frequent hospital admissions could be avoided, which would reduce the costs of CAP treatment. An important precondition for successful cost containment would be higher adherence to clinical guidelines, particularly reflected through Pneumonia Severity Index-a (PSI) application. Thus, it would be possible to significantly reduce the length of stay in hospital, in majority of patients, without jeopardizing their health or influencing the clinical course of illness.

Keywords

Community-acquired pneumonia; Cost of illness analysis; Costs; Health economics; Serbia

COST OF ILLNESS: ANALYSIS APPROACH

The awareness about health service resources limitation is increasing in medical circles throughout the world, and the number of studies dedicated to the use of these resources, often related to particular diseases, is increasing during recent years. Past few decades of dynamic development of health economics worldwide have brought new methodological approaches to medical care costs assesment. Cost-of-illness analysis is based on descriptive assessment of "real world"cost matrix associated with particular health conditions. These trials can be planned either as prospective or retrospective. Essentially, they mostly provide an in-depth follow up of patients suffering from certain disorder. Thus we get insight into both direct medical costs of care and indirect ones (e.g., productivity loss). Depending on perspective chosen (e.g., citizen, third party payer or society) most trials face difficulties to encompass all disease-related costs. In the attempt to resolve these methodological issues, cost analysis alongside clinical trials on efficiency have become the most widely exploited study design providing detailed picture on individual patient's services consumption and expenditure. This review aims at providing comprehensive comparison of up-to-date knowledge on community-acquired pneumonia economic consequences worldwide.

COMMUNITY-ACQUIRED PNEUMONIA

Community-acquired pneumonia (CAP) is defined as potentially severe disease with high incidence and significant economic

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