Commentary: Health care use drives the economic burden of malignant blood disorders in Europe

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Malignant blood disorders comprise a heterogeneous group of diseases including Hodgkin lymphoma, Non-Hodgkin lymphoma, leukemia and myeloma. Different types of diseases affect patients across all ages and require a variety of treatment strategies in which chemotherapy, immune-modulating agents and transplantation are often combined depending on the characteristics of malignant and non-malignant cells, the course of the disease (acute vs. chronic) and the condition of the patient (young vs. old). Although individual hematological cancers are defined as rare disease in the European Union (1), the incidence of total group of hematological disorders is substantial and represents 7% of all cancers (2).

Burns et al. reported the economic burden associated with the total group of malignant blood disorders and placed this against the economic burden of cancer in general and solid tumors such as breast cancer, colorectal cancer, prostate cancer and lung cancer. Malignant blood disorders accounted for 8% of the total EU-28 cancer costs, which is in line with the prevalence of this group of diseases. When focusing on health care costs alone, the economic burden of malignant blood disorders outweighs those of more prevalent cancers such as colorectal cancer, prostate cancer and lung cancer. The authors mention the high grade of health care use, related to hospitalization and high dose therapy including transplantation, as one of the main explanations for the high healthcare related costs associated with malignant disorders.

The proportion of health care cost within the total economic burden of malignant blood disorders also outweighs those of other solid tumors, while indirect costs due to morbidity, mortality and informal care are remarkably low, accounting for less than 40% of the economic burden. Indirect costs represent more than half of the burden of cancer in general (3), and equal numbers on indirect costs are reported for solid tumors such as lung cancer, colorectal cancer and breast cancer (4). In certain cases such as prostate cancer, low burden of morbidity and mortality can be explained by low mortality rates and a senior patient population that is associated with a limited number of life years lost (4). The reasons for a low proportion of indirect costs due to malignant blood disorders are less clear due to the heterogeneity of this group of diseases.

Numbers on the economic burden can only be calculated based on data from the past, while the pipeline involves innovative targeted therapies such as immuno-oncology that are likely to change future practice and associated costs. While in solid tumors new innovations are likely to make surgery less invasive or even replace it, the hematological domain faces an upcoming wave of targeted treatments that will be used in combination with existing therapies such as transplantation. For example, post-autologous hematopoietic stem cell transplantation (ASCT) immunotherapy shows promising results on long-term disease control by prolonging the time until remission in multiple

myeloma, especially in young patients (5). Although the costs of new treatments will add up to the already existing costs of transplantation, there may be scope for saving indirect costs in specific sub-populations. Given that treatment patterns and the impact of emerging therapies are dependent on the specific condition, a sub-analysis on individual diseases would allow understanding of the relationship between the costs of health care and the indirect costs due to the disease and future perspectives on potential costs and savings associated with new innovations.

The results of Burns et al. show variability in economic burden of hematological disorders across countries, and remarkable higher resource utilization was reported for countries such as Greece, Croatia, Cyprus and Slovakia. It is national health authorities' responsibility in European member states to ensure accessibility to quality care in an economically efficient and sustainable way. Modelling the economic burden is however never without limitations, and caution is required when numbers on medication use are extrapolated between countries that apply different mechanisms of health financing, such as hospital financing via Diagnostic Related Groups (DRG) versus per diem payment. Furthermore, there is also a European responsibility in ensuring equal accessibility of care across citizens. Pan-European mechanisms such as external reference pricing and parallel trade are known to influence availability of medicines in particular countries with low prices, such as Greece and Eastern European countries where lower availability of innovative therapies is reported (6). Harmonization of the accessibility of cancer care, influenced by price setting and reimbursement of drugs, is thus a first and indispensable step towards harmonization of care in practice, but it will be a major challenge to realize this within a European Union that is composed by individual member states that are heterogeneous in economic affluence and health policy mechanisms.

Reference List

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