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decreased with VI severity (the adjusted difference in LP between participants with ment poses substantial economic burden on individuals and families in Singapore. The economic burden of VI is mainly medical costs. Self-reported health problems seem to be better predictors of costs of VI than clinical measures.

## COSTS OF BURN CARE: A SYSTEMATIC REVIEW

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OBJECTIVES: Burn care is traditionally considered expensive care. However, detailed information about the costs of burn care is scarce, despite the increased need for this information and the enhanced focus on health care cost control. In this study, economic literature on burn care was systematically reviewed to examine the problem of burn-related costs. METHODS: Cost or economic evaluation studies on burn care that had been published in international peer-reviewed journals from 1950-2012 were identified. The methodology of these articles was critically appraised by two reviewers, and cost results were extracted. **RESULTS:** A total of 156 studies met the inclusion criteria. Nearly all of the studies were cost studies (n=153) with a health care perspective (n=139) from high income countries (n=127). Hospital charges were often used as a proxy for costs (n=44). Three studies were cost-effectiveness analyses. The mean total health care cost per burn patient in high-income countries was \$88,218 (range \$704- \$717,306, median \$44,024). CONCLUSIONS: A wide variety of methodological approaches and cost prices was found. We recommend that cost studies and economic evaluations employ a standard approach to improve the quality and harmonization of economic evaluation studies, optimize comparability and improve insight into burn care costs and efficiency.

## COSTS OF PSORIASIS IN EUROPE. A SYSTEMATIC REVIEW OF THE LITERATURE Obradors $M^1$ , Figueras $M^1$ , Paz $S^2$ , Comellas $M^3$ , Lizán $L^3$

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**OBJECTIVES:** To appraise the literature referred to direct and indirect costs of psoriasis in Europe. METHODS: A systematic review of the literature was performed. Electronic databases [MedLine/PubMed, Scopus, Cochrane Library, ISI Wok, MEDES, IBECS, CSIC] and Google Scholar were searched to identify publications referred to direct and indirect costs of psoriasis in Europe. Bibliographic references were hand searched. European studies published in English or Spanish until October 2013 were selected. Economic evaluations of specific drugs and of preventive or diagnostic interventions were excluded. Costs were updated to  $\epsilon$ , 2013. **RESULTS:** 12 studies were reviewed (4 German, 2 Swedish, 2 Italian, 1 Dutch, 1 French, 1 English and 1 Spanish). From the social perspective, the mean annual cost of psoriasis in Europe was heterogeneous and varied between €1,340.25 (Spain) and €8,253.74 (Italy), mainly due to differences of study sample characteristics, methodology used and national health system features. The highest proportion (68%-82.5%) of total costs was attributable to direct costs (hospitalizations, medications and laboratory tests). The annual total cost of severe psoriasis was, at least, 2.5 fold superior to the costs of mild disease, mostly because of a more frequent use of hospital resources and loss of productivity. Out-of-pocket expenditure ranged from €480.67 to €797.00, being mostly explained by the use of dermatological products (OTC) (29%-59.7%) and alternative therapies (balnerotherapies) (24%-49%). The initiation of biologic therapies implied reductions of up to 76% on the length of hospital stay and up to 98% hospital admissions, contributing to a decline of inpatient cost [ $\in$  2,357.30 (SD: 722.29) vs. €564.19 (SD: 257.62); p=0.005; UK]. **CONCLUSIONS:** Costs results vary across European countries. Severe psoriasis is a costly disease. The use of biologic agents may contribute to a more efficient management of severe psoriasis due to a more steady control of symptoms that improve clinical outcomes and decrease the needs for hospital care and inpatient cost.

### ECONOMIC BURDEN OF EYE DISEASE IN DIABETIC PATIENTS: LITERATURE REVIEW

Riera M1, Granell M2, Sarycheva A2, Roura M2

The Indian Market Marke focused on the economic burden of Diabetic Macular Edema (DME) and associated vision loss and blindness. METHODS: Literature searches in PubMed (including Medline) and Embase were conducted to identify economic data related to diabetic retinopathy, macular edema, blindness and low vision. Posterior filters included year of publication (from 2000 to May 2014), country (Canada, USA or Europe) and English language, Relevant full text articles were reviewed and major findings summarized. **RESULTS:** A total of 468 citations from 5 different searches were retrieved and 16 studies fulfilled the criteria to be summarized in this review. Microvascular diabetic complications were found to be frequent and led to a 70% increase in direct costs compared to patients with no complications. When microvascular and macrovascular complications were given together, management costs increased by up to 250%. Eye disease was associated with a 2,5 ratio of extra cost compared to diabetic patients without complications, with DME incurring in twice to 3 times higher costs related to Diabetic Retinopathy. Direct costs of DME accounted for 65-80% of total costs, with 73% of those being associated to hospital expenditure. Data on the economic burden of visual impairment and blindness were limited: vision loss had an annual per capita financial cost of \$19.370 in Canada (2007); including the value of lost wellbeing, the annual cost of vision loss was \$33.704 per patient. CONCLUSIONS: DME appears to be a costly complication of diabetes. Progression to visual impairment and blindness can lead to high economic and social burden.

# COST-ANALYSIS OF CHRONIC IDIOPATHIC URTICARIA DISEASE

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OBJECTIVES: Chronic idiopathic (or spontaneous) urticaria (CIU) is estimated to occur in 0.3% of the general population in Turkey. Although the burden of the disease is substantial for the payer, there has been no cost-analysis performed in our country. The purposes of this study are to determine the resources and costs related to the diagnosis and treatment of patients with CIU, and to estimate the annual economic burden to the Social Security Institution (SGK). METHODS: Delphi technique was applied to determine the type and the amount of resources used in different stages of CIU defined as mild or moderate to severe based on physicians clinical assessment. The Delphi method solicits the opinion of an expert panel through a carefully designed questionnaire which in this case included questions on: epidemiology, diagnosis, treatment of symptoms and angioedema, adverse events, follow-up visits, hospital and emergency service admissions. The responses were analysed and discussed in a face to face meeting followed by consensus building steps. Unit of resources used for different CIU severity levels were determined from expert opinion. Unit costs of resources used in outpatient clinics were obtained from SGK's Reimbursement Guideline-List of Procedure Fees Per Service. RESULTS: Hospitalizations, emergency admissions, outpatient visits and treatments, are the key cost drivers in the management of CIU The annual cost per patient is calculated to be 725.36 Turkish Liras (TL) for mild CIU, 1.322,61 TL for moderate CIU and 2,478.75 TL for severe CIU. The total annual cost of CIU to SGK is estimated to be 262 million TL in 2014. CONCLUSIONS: This is the first study that aims to estimate the resource utilisation and cost burden of CIU in Turkey by using the Delphi technique. Cost effective treatment of CIU is an unmet need given the heavy burden to SGK identified by the Delphi Panel.

### THE DIRECT AND INDIRECT COSTS OF WET AGE-RELATED MACULAR DEGENERATION (WAMD) AND DIABETIC MACULAR EDEMA (DME) IN GREECE Geitona M<sup>1</sup>, Karagiannis D<sup>2</sup>, Pantelopoulou G<sup>3</sup>, Hatzikou M<sup>3</sup>, Kousoulakou H<sup>1</sup>

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OBJECTIVES: Treatment delays in patients with wAMD and DME are very important since they are associated with disease progression. This is the first study in Greece to highlight patient's access delays' to treatment and to estimate the burden of diseases in Greece. METHODS: An expert panel with 11 ophthalmologists was convened. The experts came from six out of seven Regional Health Authorities, covering geographically the largest part of the country. A 13-page questionnaire was developed and validated. The Delphi technique was used to collect data on resource use and disease management, patient access delays, and indirect costs. Unit costs were retrieved from NHS sources and the analysis was conducted from the societal perspective, including direct costs incurred by patients, their families and the health care system, and indirect costs, of productivity losses. RESULTS: Total cost of managing wAMD during the first year of treatment was estimated at €20,660,32.8% of which consisted of direct costs (drug acquisition and administration, follow-up, lab and imaging tests), and 67.2% of which included non-medical and indirect costs (caregivers). Direct medical cost per DME patient for the first year of treatment was estimated at €6,066, while the non-medical and indirect costs were estimated at  $\ensuremath{\epsilon}$ 12,271, resulting in a total cost of  $\ensuremath{\epsilon}$ 18,337 per patient per year. 91% of the experts agreed that there are significant delays in patient access to specific treatments (average 20 days); all agreed (100%) that these delays lead to faster disease progression, and a strong majority (>80%) supported that they lead to deterioration of patients' QoL. **CONCLUSIONS:** There are significant costs associated with the management of wAMD and DME in Greece, 70% of which is incurred by patients and their families. Administrative procedures leading to patient access delays should be minimized in order to avoid disease progression and associated costs.

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# ECONOMIC BURDEN OF BURN INJURIES IN THE NETHERLANDS

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OBJECTIVES: Burn care has rapidly improved in the past decades. However, health care innovations can be expensive, demanding careful choices on their implementation. Obtaining knowledge on the extent of the costs of burn injuries is an essential first step for economic evaluations within burn care. The objective of this study was to determine the economic burden of patients with burns admitted to a burn center and to identify important cost categories until three months post-burn. METHODS: A prospective cohort study was conducted in the burn center of Maasstad Hospital Rotterdam, the Netherlands, including all patients with acute burn related injuries from August 2012 until July 2013. Total costs were calculated from a societal perspective, until three months post injury. Subgroup analyses were performed to examine whether the mean total costs per patient differed by age, etiology or percentage total body surface area (TBSA) burned. **RESULTS:** In our population, with a mean burn size of 8%, mean total costs were €24,246 per patient varying from €11,498 to €71,756. Most important cost categories were burn center days, surgical interventions and work absence. Flame burns were significantly more costly than other types of burns, adult patients were significantly more costly than children and adolescents