

BDD-rFVIII in Europe. Clinical data are from the published literature. Pharmacy cost of rFVIII, immune tolerance induction (ITI) and bypassing agents for patients who developed inhibitors are considered from French health care perspective. **RESULTS:** Both products are listed and reimbursed at similar unit price whereas the overall cost to treat a patient with BDD-rFVIII is higher considering the increased consumption on prophylaxis and the risk of developing an inhibitor for PTPs. This may be translated into an increase cost of 36% over 1 year and 40% over 3 years when treating children and adult PTPs with prophylaxis. **CONCLUSIONS:** The cost study confirms the cost advantage of rFVIII (FL-rFVIII) as well as the need to compare the rFVIII based on the overall cost and not on the price per unit.

#### PSY20

##### COST OF ILLNESS OF NEUROPATHIC PAIN IN SPAIN IN 2012 FROM A SOCIETAL PERSPECTIVE

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**OBJECTIVES:** To quantify the total societal costs of Neuropathic Pain (NP) in Spain following a bottom-up prevalence approach. **METHODS:** The sample was drawn from the 2012 Adelphi NP Disease Specific Programme, a cross-sectional survey of 413 primary care physicians and specialists and their consulting patients across the EU5. Physicians completed patient record forms for 826 patients in Spain including patients' socio-demographic information, treatment history and resource utilization. Additionally, 577 patients voluntarily completed another questionnaire that included the Work Activity and Productivity Impairment Questionnaire (WPAI). Health-related costs were collected and adjusted to 2012 prices when needed. For professional caregivers' costs and work losses, Spanish average salaries were used. **RESULTS:** The 826 patients included accounted for a total of € 2,676,893.83, an average of € 3,240.79 per patient, with 72% (€2,350) of these being health related costs, including drugs (50%), consultations (11%), surgical (9%) and non-surgical (2%) procedures. Working losses related with patients' sick leave (as reported by doctors) accounted for 17% (€555) of the costs and professional caregiving added up to 10% of the total costs. The results were extrapolated to national prevalence figures of 2012 excluding patients assumed to be non-treated. The societal costs for 2012 were: health-related costs €514,583,543, work losses €119,417,964 and professional caregivers €72,204,921. Additionally, 91% of the caregivers were non-professional. 191 (33%) of the 577 patients completed the WPAI with an Overall Work Impairment score of 55%. Finally, 183 (33%) of the patients stated that NP prevented them from working at some point, with 26 patients stating this was "permanently". **CONCLUSIONS:** The economic impact associated with Neuropathic Pain (NP) implies substantial annual costs to the Spanish National Health Service of more than €500 Mio. and a large burden on patients' lives and their families. The results shown here suggest that an important part of the real cost is still hidden.

#### PSY21

##### EXPLORING THE BURDEN OF ILLNESS OF HEREDITARY ANGIOEDEMA IN THE UNITED KINGDOM

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**OBJECTIVES:** Hereditary angioedema (HAE) is a rare but potentially life-threatening condition with intermittent and unpredictable oedema affecting the larynx, abdomen and extremities. This study aims to define the burden of HAE in England and Scotland as published data are limited. **METHODS:** A comprehensive, cross-sectional, retrospective study of the burden of HAE (type I and II) in England and Scotland. Three data collection methods: 1) secondary care data identified using Hospital Episode Statistics based on D.84.1 diagnostic code (defects in complement system, C1-esterase inhibitor deficiency); 2) primary care data accessed through The Health Improvement Network (THIN) database using C-376-000 HAE diagnostic code. Both database analyses identified patients diagnosed ≤10 years and include all episodes ≤2years. Costs were calculated using most up-to-date best-matched HRG tariffs. 3) Primary research in five secondary care centres in England and Scotland collecting information on >100 patients (> 18 years) via medical records ≤2years, matched with patient self-completion questionnaires and centre interviews. Selected centres represent different approaches to HAE management to ensure a national representative sample. **RESULTS:** Data collection from all three phases of the study is on-going. Early results from 1) indicate 1,174 HAE patients admitted to hospitals in England, for any reason, in the past two years. Mean length of stay, including day cases, was 2.8 days. The annual total cost of secondary care in England was £3,227,149, corresponding to per HAE patient cost of £2,749. **CONCLUSIONS:** This is the first comprehensive UK HAE cost of illness study, providing a comprehensive understanding from both NHS and patient perspectives. Important insight into patient demographics, pathway of care, treatment patterns, and any regional or sub-population differences in the standard of care will be provided, helping to raise disease awareness in the UK.

#### PSY22

##### ADRENAL INSUFFICIENCY: BURDEN OF DISEASE IN FRANCE IN 2011

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**OBJECTIVES:** Adrenal insufficiency (AI) is a rare disease caused by a deficiency in hormone synthesis by adrenal glands, due to either the destruction of the glands (primary AI: PAI) or hypothalamic / pituitary causes (secondary AI: SAJ). Patients are treated with hormone replacement therapy, mainly hydrocortisone. Our aim was to assess the cost of AI management in France. **METHODS:** We used data from the French National Health Insurance (Social security) on patients who benefited from a long duration disease status N°31 for their AI in 2011 (primary and secondary combined) on the one hand, and the results of a Delphi Panel survey on the other hand. This survey, involving 15 endocrinologists from academic hospitals, was designed to better understand the patients' pathway in the absence of guidelines. An epidemiological approach

on the prevalence of the disease has led to a cost study using a "top-down" method. Sensitivity analyses were conducted on the following cost parameters: medical and drugs costs in primary care, costs of public and private hospitalizations - chosen according to their weight in the pathway described by the Delphi Panel. **RESULTS:** The social security paid a total of € 5,612,842 for 1377 AI patients in 2011. The annual cost per patient is therefore € 4,076, including 62% for primary care expenses, 29% for public hospital expenses and 9% for private hospital. The total population with AI is estimated between 26,000 and 30,000 patients, leading to a total cost ranging from € 106M and € 122M. A 1% reduction in hospital spending would generate a gain of € 430,000 to € 500,000 per year. **CONCLUSIONS:** Despite AI concerns few patients, significant costs are borne by Social Security. An increased compliance and a better management of symptoms such as fatigue could help optimizing this cost.

#### PSY23

##### ECONOMIC BURDEN OF PATIENTS WITH PAINFUL DIABETIC NEUROPATHY IN EUROPE: A SYSTEMATIC LITERATURE REVIEW

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**OBJECTIVES:** Painful diabetic neuropathy (PDN) is a complication of diabetes mellitus. The aim of this research was to describe the epidemiology and economic burden resulting from PDN in Europe. **METHODS:** A systematic literature review was performed according to a pre-defined search strategy and review criteria in Embase and PubMed from 2003 to 2012. Conference proceedings and Health Technology Assessment (HTA) organizations' websites were also searched from 2010 to 2012. **RESULTS:** In total, 23 original studies were identified that covered either epidemiology (n= 16) or economic burden (n=7) for PDN patients in Europe. 13 - 26% of European diabetes patients are reported to develop PDN. Health care costs per PDN patient were between €2,441 and €2,963 per annum in UK and Spanish studies, respectively. Inpatient care, medical visits and drug costs accounted for the majority of the total costs, although drug costs can vary widely depending on the choice of medication. Health care costs for PDN lead to a high total economic burden for European countries. Considering the identified prevalence data and cost estimates, the estimated total annual health care burden for the UK would be approximately €1.7 billion, from a payer perspective. In addition, PDN is significantly associated with disruptions in employment status and productivity loss, primarily driven by impairment while working (presenteeism), resulting in average European per-patient productivity losses of € 10,484 per annum. Pain severity highly influences economic outcomes: higher severity has been linked to significant increases in resource use, productivity losses and health care costs. **CONCLUSIONS:** The large number of PDN patients combined with the cost per patient results in a high economic burden of PDN for European countries. More severe pain results in increased resource use and costs for payers and society; therefore, more effective PDN treatments will lead to patient as well as economic benefits.

#### PSY24

##### COST OF OBESITY AND ECONOMIC VALUE OF OBESITY SURGERY FOR TURKEY (CEVOS-T)

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**OBJECTIVES:** Obesity and its comorbidities are among the primary challenges that health systems face globally. Obesity is rapidly becoming a problem in Turkey as well. Recent research has revealed that 30.3% of the population is obese (20.5% of males, 41% of females) of which 2.9% of the obese population is classified under the morbid obese category. The 2003 Burden of Disease Study also concluded that 26,006 deaths for males and 31,136 deaths for females could be averted by decreasing the ratio of obese population. **METHODS:** The objective of this study is to find out the economic impact of obesity with its possible economic benefits of obesity surgery for Turkey. **RESULTS:** Literature search and expert panel are the main methodologies used in the study. A comprehensive literature search was undertaken with key words in PubMed to find out the extent of obesity and its comorbidities and treatment methods in Turkey. Cost of obesity for Turkey was calculated depending on the published literature. An expert panel questionnaire form was designed after the literature search aiming at finding the cost. The form was sent to the experts in advance and a panel discussion was undertaken to reach a consensus. After the consensus building phase the economic benefits of obesity surgery were estimated based on the price tariff declared by the Social Security Institution (SGK). **CONCLUSIONS:** Cost of obesity for Turkey was estimated as US\$ 787,184,000 for 2012. It was the 1.05% of gross domestic product of Turkey. SGK pays US\$ 1707 weighted average for obesity surgery. It was estimated that return of investment on obesity surgery can be possible after the third year of surgery. The study indicated that obesity has a great impact to Turkish economy. On the other hand, obesity surgery can have a positive impact with its economic benefits to Turkish health system.

#### PSY25

##### A SYSTEMATIC LITERATURE REVIEW ON THE EPIDEMIOLOGY AND ECONOMIC BURDEN OF ANAEMIA ASSOCIATED WITH CHRONIC KIDNEY DISEASE

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**OBJECTIVES:** The epidemiological and economic burden associated with anaemia in patients with chronic kidney disease (CKD) in Europe has not been explored recently using systematic literature review (SLR) methods. Therefore, an SLR was conducted to assess these topics. **METHODS:** A systematic search was conducted of MEDLINE- and EMBASE-indexed literature on anaemia in CKD from 2007 to 2012 for publications on epidemiology and economic burden. Data from included articles were abstracted into a pre-designed template and synthesised using qualitative methods. **RESULTS:** The review identified 19 studies reporting on epidemiology and nine on economic burden. The prevalence of anaemia among patients with CKD varied widely by setting, being generally lower in those from the general population and