(15,398 vs 8614; p=0.016) than patients without these co-morbidities. Indirect costs were also higher in PD patients with these co-morbidities than patients with PD only; the differences being significant only for dementia (8623 vs. 8966, p=0.037). CONCLUSIONS: Co-morbid dyskinesia, dementia, or depression were observed to be the major contributors to the fiscal burden of PD in Germany, post-2000. An overall increase in the (estimated) costs associated with these co-morbidities was observed over the time-period evaluated. Further studies to confirm the cause of increased (estimated) costs associated with these co-morbidities in PD are warranted.

**PND19**

PHARMACOLOGICAL COSTS OF RECURRENT-REMITTENT MULTIPLE SCLEROSIS TREATMENT IN SPAIN

Polian L1, Grau S2, García-Requena A3, García-Jurado L4

1Medicus SL, Madrid, Spain, 2WESY, Majadahonda, Madrid, Spain

OBJECTIVES: Multiple sclerosis (MS) is a chronic, neurodegenerative inflammatory disease of the central nervous system. In Spain, the prevalence rate of MS is estimated to range between 53 and 58 cases per 100,000. At disease onset, relapsing-remitting MS (RRMS) is diagnosed in approximately 60% to 85% of MS patients. Based on the available evidence, pharmacological costs of disease modifying drugs (DMDs) represent the highest proportion of direct health care costs. In order to ensure sustainability of the health system is crucial to analyze pharmacological cost of DMD used in the treatment of RRMS from the perspective of the health system. METHODS: A direct medical costs analysis model was developed to assess pharmacological costs per patient and year of treatment with DMD. Therapeutic alternatives assessed were: interferon (IFN) β-1a intramuscular, IFN β-1a subcutaneous 22 μg, IFN β-1a subcutaneous 44 μg, IFN β-1b subcutaneous, IFN β-1b subcutaneous, glatiramer acetate, natalizumab and fingolimod. Dosages for each drug were those described in summary product characteristics. Pharmacological costs were obtained from the database of General Medical College of the Pharmacists (BotPlus) consulted at May 2012. Costs were expressed as ex-factor price applying 7.5% discount according to RDL 8/2010. RESULTS: Pharmacological costs per patient and year of treatment for each one of the therapeutic alternatives assessed were: €11,531 to IFN β-1a im; €12,957.23 for IFN β-1a sc IIb, €14,035.64 for IFN β-1a sc IV, 9,791.55 for IFN β-1b sc; 9,420.38 for glatiramer acetate; 19,681 € for natalizumab and 19,292.90 € for fingolimod. CONCLUSIONS: Due to actual socioeconomic climate and the recent measures of pharmaceuticals costs containment, when selecting the most appropriate therapeutic option additionally to efficacy criteria, the economic impact on pharmacy services should be also considered. This analysis is particularly relevant in the case of chronic diseases with a high socioeconomic impact, as the RRMS.

**PND20**

12-MONTH COST OF ILLNESS STUDY OF MODERATE ALZHEIMER’S DISEASE PATIENTS IN SPAIN: THE EVOCOST STUDY

Salva A1, Frank-Garcia A2, Lereun C3, Gimenos V4, Milea D1, Rineiro S5

1Universitat Autònoma de Barcelona, Barcelona, Spain, 2Institut Universitàri de Barcelona, Spain, 3Institut Universitàri de Catalunya, Spain, 4Universidad Sanitas, Spain, 5Institut Universitàri de Catalunya, Spain

OBJECTIVES: There is a lack of long-term prospective data to document the economic burden (direct and indirect costs) of Alzheimer’s disease (AD), especially in moderate AD where disease management becomes more complex. The EVOCOST study aimed to describe and analyse the health care resource use and costs associated with clinical evolution in a cohort of moderate AD patients in routine medical practice in Spain. METHODS: The EVOCOST study is a prospective 12-month multicentre cohort study recruiting community-dwelling moderate AD patients in Spain. Participants reporting secondary care use were found to visit hospital most often (44% vs. 33% for outpatient care; 81.31% of total relapsing-remitting MS related medical direct costs in the Mexican patients case management is the follow-up pharmacotherapy with disease modifying drugs (DMD’s) that amounted about 4,849.06 Euro per year. Indirect costs included disability grant (441.7 Euro per year), GDP waste in case of absence at the working place (126.95 Euro per year) and in case of forced work refusal of patients (4,182.9 Euro per year) or their relatives (2,429.5 Euro per year) and social worker help (251.9 Euro per year). CONCLUSIONS: Cost of illness analysis of MS showed that the highest priced stages are DMD’s therapy and GDP waste. Total direct costs amounted 5,369.7 Euro per year, indirect costs - 7,195.6 Euro per year. Total costs amounted 12,563.62 Euro per year.

**PND22**

DESCRIPTIVE ANALYSIS OF THE DIRECT COSTS OF RELAPSE-REMITTING MULTIPLE SCLEROSIS IN THE MEXICAN SETTING

Flumeza M1, Soto H2, Carbajal A2

1Hospital Infantil de Mexico Federico Gomez, Mexico City, Mexico, 2Inlines Consulting, Mexico DF, Mexico

OBJECTIVES: To determine the direct medical costs incurred in the treatment of relapsing-remitting MS patients in the Social Security Mexican Institute (IMSS). METHODS: A secondary use of data for this analysis was obtained from a follow-up pharmacotherapy with disease modifying drugs (DMD’s) that amounted about 4,849.06 Euro per year. Indirect costs included disability grant (441.7 Euro per year), GDP waste in case of absence at the working place (126.95 Euro per year) and in case of forced work refusal of patients (4,182.9 Euro per year) or their relatives (2,429.5 Euro per year) and social worker help (251.9 Euro per year). CONCLUSIONS: Cost of illness analysis of MS showed that the highest priced stages are DMD’s therapy and GDP waste. Total direct costs amounted 5,369.7 Euro per year, indirect costs - 7,195.6 Euro per year. Total costs amounted 12,563.62 Euro per year.

**PND23**

ECONOMIC BURDEN OF ILLNESS FOR PERSONS WITH SPINA BIFIDA (SB) IN GERMANY

van Nooten R1, Wittneve R2, Stein R3, Lindemann M4, Joekel M5, Ralyu M6, Lambrelli D2, Eriksson D1, Wansik V1

1Genentech Corporation, London, UK, 2University of Medicine, Johannes Gutenberg University Mainz, Mainz, Germany, 3Bayer Pharma, Berlin, Germany

OBJECTIVES: To describe economic burden for persons with spina bifida in Germany. METHODS: Survey data were used to capture use of health care and assistive technologies for both last year and ten years prior to data collection. Participants were recruited from the tertiary clinic database or when initiating care in the clinic. Participants had to have a verifiable SB diagnosis, and a cognitive ability to respond to the questionnaire or a caregiver able to answer questions. Data were double-entered with queries issued to patients to improve data quality. Descriptive analyses from 2002 to 2014 were performed. RESULTS: Information on resource use for 88 participants was collected (44% female, mean age 28.7, SD 13.5). In the year prior to data collection, 88.6% (N=78) had at least one visit to a general practitioner (GP), 77.3% (N=68) a visit to urologist, and 69.3% (N=61) a visit to physiotherapist. Mean number of annual visits was 7.6 GP, 3.6 urologist, and 6.5 physiotherapist visits. Participants reporting secondary care use were found to visit hospital most often (N=38, 43.2%) followed by emergency room care (N=12, 13.6%). Among responders being hospitalized, average annual length of stay in a regular ward was 14.8 days per person, with average hospitalization of 7.3 days. During previous ten years, majority of responders required a wheelchair (N=59, 67.0%), glasses (N=57, 64.7%), and orthopaedic shoes (N=52, 59.1%), with an average of 2.5, 2.8, and 6.1 new items respectively. CONCLUSIONS: Results indicate that persons with SB require a substantial amount of health care both in short and long term and that the overall burden experienced by persons with SB may be high, especially if coupled by possible quality of life implications. Successful prevention, using education and targeted intervention for women of childbearing age could reduce the burden, but further research is required to fully understand economic impact of SB.