and promote services and/or treatments. This study can also help to assess the cost-benefit ratio of folate acid supplementation and the cost-benefit ratio of recommended food supplements.

**MEDICAL RESOURCE UTILIZATION AND WORKDAYS LOST IN PATIENTS WITH FIBROMYALGIA**

**OBJECTIVES:** Fibromyalgia or fibromyalgia syndrome (FMS) is characterized by chronic widespread muscular pain and generalized tender points, often accompanied by a number of associated symptoms such as fatigue, sleep disturbance, psychological distress. The objective of this study was to assess the medical resource utilization (MRU) and workdays lost (WDL) of FMS patients according to the level of pain and fatigue. METHODS: The Adelphi Fibromyalgia Disease Specific Programme is a cross-sectional survey among 2,159 FMS patients in France, Germany, Italy, Spain and the UK. The survey included one questionnaire filled in by the patient and one by the physician. Patient health states were defined on the basis of items 15 and 16 (100 mm VAS scales) of FRQ (Fibromyalgia Impact Questionnaire). RESULTS: From the pool of 2,154 patients, indirect costs were covered by health care visits, hospitalizations, procedures and drug costs; and, indirect costs in two types: absenteeism or work with reduced productivity. Costs were compared and differences were documented. Trends in terms of tests, drugs, general practitioners and specialists visits, over a period of 4 years before diagnosis to 4 years after the diagnosis. Medical resource use if diagnosis would not have been established was predicted using adapted published Nason linear regression models. The observed and predicted trends in outpatient resource use and costs were calculated, so the impact of diagnosis could be evaluated for each of these medical resources. RESULTS: In the five countries studied, whereas costs are increasing during the years till diagnosis (+40–72% in 4 years, €394€ per patient the year of diagnosis from the health care perspective in Italy to €2108 in France), after diagnosis a decrease is observed (5–10%). Compared to a diagnosed FM patient, a non-diagnosed patient represents an incremental cost that ranges between 97€ (Italy) and €421€ (Spain) per patient and per year. CONCLUSIONS: Within the diagnosis of FM reduces costs gradually independent of the country studied.

**HEALTH CARE RESOURCES AND COSTS OF FIBROMYALGIA: A REVIEW OF THE EVIDENCE**

**OBJECTIVES:** This review was performed to document and analyse the evolution of costs in Fibromyalgia (FM). METHODS: A systematic review (SR) was performed using Medline terms (Medline 1980–2009). Articles on FM were selected if they presented direct or indirect costs. Two researchers extracted costs which were divided by type of resource, impacting costs were covered by health care visits, hospitalisations, procedures and drug costs; and, indirect costs in two types: absenteeism or work with reduced productivity. Costs were compared and differences were documented. Trends analysis was performed after converting results to USD. RESULTS: Out of 28 citations, 7 articles were included. Four papers reported costs in USD, 2 in Euros and 1 in CAS. Costs were reported/patient/year, except for the Canadian 6-month study. All studies identified total direct costs, disaggregated in subtypes by 6 of them. Five studies reported total indirect costs; 35 reported on absenteeism and on reduced productivity. Four US studies were performed before 2000, and one in 2005. There was a progression in total direct costs/patient/year from 1996 to 2005 of USD$2274 to USD$7286 respectively and for total indirect costs, from USD$1010 to USD$2913. Two European analyses provided similar total direct costs/patient/year, but did not report on the same indirect costs. The 6-month results were excluded from the primary trend analysis. A slope of y = 1996x and R² = 0.83 was obtained, showing a reliable increasing trend. Including the 6-month analysis (multiplied by 2), results changed to y = 1881x, R² = 0.64. CONCLUSIONS: This SR and trend analysis documented two major categories and subtypes of costs reported for FM, and detected an increasing trend. Limitations arose from adjusting indirect costs in two studies and the inclusion of papers from various settings. Further detailed analyses, including costs of comorbidities and premature death, are warranted to establish the full economic impact of FM.

**DIRECT AND INDIRECT COSTS OF RHEUMATOID ARTHRITIS MANAGEMENT IN POLAND**

**OBJECTIVES:** The purpose of this analysis was to assess the direct and indirect costs of rheumatoid arthritis (RA) treatment in Poland in the years 2003–2007. METHODS: In order to estimate the direct medical costs of RA, including the costs of medical consultation, hospitalization, rehabilitation, drugs and diagnostic tests, data for the years 2004–2007 of the National Health Fund were used. Indirect costs like costs of pensions for incapacity for work, the costs of rehabilitation and social costs of rents for the years 2003–2007 were obtained from the Department of Social Security. RESULTS: Direct medical costs of RA in Poland ranged from 115.7 million pln in 2004 to 126.5 million pln in 2007. Costs of hospital treatment amounted up to 70% of the direct costs in 2007. Indirect costs amounted to almost 60 million pln in 2003 and rose to over 62 million pln in 2007. The largest share of these costs constitute the costs of pensions for incapacity for work, which share in indirect costs was 83% in 2007. Costs of rehabilitation were increasing in subsequent years (from 4 million in 2003 to 9.7 million pln in 2007). The total cost of treatment of RA showed an upward trend, reaching a value almost 177 million pln in 2004 and increased to almost 188 million pln in 2007. The total cost was dominated by the direct costs with share equal to 65% in 2004 to 66.8% in 2007 of the total costs. CONCLUSIONS: From year to year RA causes a growing economic burden on the health care and social insurance in Poland. The cost structure is dominated by the direct costs, which in turn largely consist of the costs of hospital treatment. Indirect costs are affected largely by rents due to the inability to work.

**COSTS AVOIDED BY DIAGNOSING FIBROMYALGIA**

**OBJECTIVES:** To estimate the costs savings in outpatient medical resource use associated with diagnosing fibromyalgia during the four years after diagnosis in five European countries (UK, France, Italy, Spain, Germany). METHODS: The UK resource use data were extracted from medical records of 2,260 patients diagnosed with FM between 1999 and 2003 in the General Practice Research Database (GPRD). For the other countries, a questionnaire was created based on the UK data and local experts, GP and rheumatologists, were asked to compare their own clinical practice to UK prescriptions in terms of tests, drugs, general practitioners and specialists visits, over a period of 4–4 years before diagnosis to 4–4 years after the diagnosis. Medical resource use if diagnosis would not have been established was predicted using adapted published Possion logarithmic regression models. The observed and predicted trends in outpatient resource use and costs were calculated, so the impact of diagnosis could be evaluated for each of these medical resources. RESULTS: In the five countries studied, whereas costs are increasing during the years till diagnosis (+40–72% in 4 years, €394€ per patient the year of diagnosis from the health care perspective in Italy to €2108 in France), after diagnosis a decrease is observed (5–10%). Compared to a diagnosed FM patient, a non-diagnosed patient represents an incremental cost that ranges between 97€ (Italy) and €421€ (Spain) per patient and per year. CONCLUSIONS: Within the diagnosis of FM reduces costs gradually independent of the country studied.

**HEALTH ECONOMIC COMPARISON OF OUTPATIENT MANAGEMENT OF FIBROMYALGIA BEFORE AND AFTER DIAGNOSIS IN FIVE EUROPEAN COUNTRIES**

**OBJECTIVES:** To compare the resource use and related costs associated with the management of fibromyalgia (FM) in five European countries (UK, France, Italy, Spain, Germany). METHODS: The UK resource use data were extracted from medical records of 2,260 patients diagnosed with FM between 1999 and 2003 in the General Practice Research Database (GPRD). For the other countries, a questionnaire was created based on the UK data and local experts, GP and rheumatologists, were asked to compare their own clinical practice to UK prescriptions in terms of tests, drugs, general practitioners and specialists visits, over a period of 4–4 years before diagnosis to 4–4 years after the diagnosis. Information on paramedical and alternative care was also collected for France, Italy, Spain, Germany. Inpatient care and productivity loss were not included in GPRD and thus also not in the questionnaire. The public payer and societal perspective were used. RESULTS: Resource use and average costs related to lab tests per person-year from the public health care payer perspective were highest in Spain (101€) and the UK, the year of diagnosis and decrease afterwards (69€ in Spain). Drug costs are higher in Germany (€243€) mainly due to the higher unit costs. Costs related to GP visits increase till diagnosis in Germany (€892€) and the UK. The costs for referrals to specialists are the highest before diagnosis in the UK (€131€), France, and Italy. Overall, the highest mean annual total cost per patient from the societal perspective was found in Italy (€1,897€), the lowest in Italy (€1,897€). The highest patient contribution was seen in France (54€), the lowest in Italy (16€). CONCLUSIONS: Although moderate differences between countries were found in the management of FM, once a formal FM diagnosis was made, the resource use and costs decreased independently of the countries studied.

**COST ANALYSIS OF BALLOON KYPOPLASTY VERSUS NON SURGICAL MANAGEMENT FOR OSTEOPOROTIC VERTEBRAL FRACTURES IN GERMANY**

**OBJECTIVES:** Balloon kyphoplasty (BK) is a minimally invasive procedure for the treatment of painful vertebral compression fractures (VCFs). Superior clinical outcomes data versus non surgical management (NSM) has recently been demonstrated in a large RCT comparing BK and VCF. Furthermore, preliminary results of a large

**PARIS ABSTRACTS**