drivers of cost consumption in the treatment of patients with psoriasis and PsA in the Czech Republic. Cohort in our study was not treated with biological treatment which would certainly increase the costs therefore further study is required to access the cost-effectiveness of such treatment in the Czech Republic.

PMS21

DIFFERENCES IN COST-OF-ILLNESS AND QUALITY OF LIFE BETWEEN RHEUMATOID ARTHRITIS AND ANKYLOSING SPONDYLITIS IN SOUTH KOREA

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OBJECTIVES: To estimate and compare cost-of-illness (COI) and health-related quality of life (HRQOL) of rheumatoid arthritis (RA) and ankylosing spondylitis (AS) in South Korea. **METHODS:** Patients with RA (n=196) and AS (n=191) were surveyed by face-to-face interviews at the Rheumatology Clinic of Seoul National University Hospital. Direct costs [medical costs (treatment, drug, private physiotherapy, traditional Chinese medicine, other alternative medicine), non-medical costs (travel, dietary supplements, auxiliary device, home assistance)], indirect costs (productivity loss due to job loss and sick leave) and deterioration in HRQOL of RA and AS patients were measured. HRQOL was assessed using KEQ-5D. Factors associated with COI and HRQOL were analyzed using multiple regression and multivariate logistic regression. **RESULTS:** COI of AS patients was more than double compared to that of RA patients (RA: 6,446,376 Korean Won, AS: 12,433,629 Korean Won) but HRQOL of RA patients was lower than that of AS patients (RA: 0.49, AS: 0.62). As functional severity worsened in both diseases, the total costs increased accordingly (RA: functional class (FC) I: 4,230,204 Korean Won, FC II: 7,250,674 Korean Won, FC III: 8,046,434 Korean Won, FC IV: 8,206,215 Korean Won, AS: FC I: 8,125,096 Korean Won, FC II: 13,995,292 Korean Won, FC III, IV: 30,118,247 Korean Won) and the HRQOL scores decreased (RA: FC I: 0.67, FC II: 0.50, FC III: 0.29, FC IV: 0.23, AS: FC I: 0.72, FC II: 0.61, FC III, IV: 0.24). Functional severity was the major determinant of COI and HRQOL in RA and AS. **CONCLUSIONS:** Although the HRQOL of AS patients was not as low as that of RA patients, the COI of AS patients was higher than that of RA patients. Considering the relatively low HRQOL and relatively low medical costs of RA patients, re-examination of reimbursement plan of Korean National Health Insurance is needed to figure out this problem.

PMS22

THE BURDEN OF ILLNESS OF OSTEOPOROSIS IN CANADA

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OBJECTIVES: Since the 1993 estimate of the burden of osteoporosis in Canada, the population has aged and new treatment options have been introduced. The study purpose was to estimate the current burden of illness due to osteoporosis in Canadians aged 50 and over. **METHODS:** Analyses were conducted using five national administrative databases from the Canadian Institute for Health Information for the fiscal-year ending March 31 2008 (FY 2007/08). Gaps in national data were supplemented by provincial data extrapolated to national levels. Osteoporosis-related fractures of the hip, humerus, vertebra, wrist, other sites and multiple sites were identified using a combination of most responsible diagnosis and intervention codes. Fractures associated with severe trauma codes were excluded from the analysis. Costs, expressed in 2010 dollars, were calculated for osteoporosis-related hospitalizations, emergency care, same day surgeries, rehabilitation, continuing care, home care, long-term care, prescription drugs, physician visits and productivity losses. Sensitivity analyses were conducted to measure the impact on the results of key assumptions. **RESULTS:** Osteoporosis-related fractures were responsible for 57,413 acute care admissions and 832,594 hospitalized days in FY 2007/08. Acute care costs were estimated at $1.2 billion. When outpatient care, prescription drugs and indirect costs were added, the overall yearly cost of osteoporosis was over $2.3 billion for the base case analysis and as much as $3.9 billion if a proportion of Canadians were assumed to be living in long-term care facilities due to osteoporosis. **CONCLUSIONS:** Osteoporosis is a chronic disease that results in a substantial economic burden to the Canadian society.

PMS23

ANALYSIS OF INDIRECT COSTS FOR CARE OF RHEUMATOID ARTHRITIS PATIENTS USING LARGE COHORT DATABASE, IORRA, IN JAPAN

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OBJECTIVES: To examine annual indirect cost in large-scale rheumatoid arthritis (RA) patient cohort (IORRA) in Japan. **METHODS:** From patients' perspective, we calculated indirect costs of RA patients, participants of the 15-17th IORRA studies in Oct. 2007- Oct. 2008. Productivity losses due to occasional absence from working and those due to permanent retirement were separately estimated, by multiplying average time with average wage, stratified by age & sex distribution of the cohort. We also assessed correlations between these costs and RA disease activity, disability level and QOL. **RESULTS:** Data from 5284 RA patients were extracted. A total of 34.8% of those were staying working in spite of RA. However, 9.9% reduced there working time and 8.4% quitted their job due to RA. In average, RA patient missed 435.1 working hours per 1year. By multiplying average wage, JPY1,753, annual indirect costs per RA patient was estimated to JPY762,000. For whole RA patients in Japan (n=700,000), it would be JPY53.3billion per year. These costs increased progressively with worsening RA disease activity, disability level, or QOL. For example, patients with lower EQ-5D score (less than 0.5) missed more working time than those with higher one did (more than 0.8). Average missed time for working and annual indirect cost among them were 1,087hours versus 275.8 hours and JPY1,906,000 versus JPY484,000, respectively. With same cohort data, we had already proved that direct costs also had same trend. Total costs for RA patient were JPY4,800,000 (JPY2.9mil. for direct cost and JPY1.9mil. for indirect cost) for patients with lower EQ-5D score and JPY1,800,000 (JPY1.3mil. for direct cost and JPY0.5mil. for indirect cost) for patients with higher one from societal perspective. **CONCLUSIONS:** Heavy economic burden lies in RA patients and grows heavier as the disease state is exacerbated using IORRA database. The increase indirect cost may be suppressed by proactively controlling RA.

PMS24

THE COST OF CARE OF RHEUMATOID ARTHRITIS AND ANKYLOSING SPONDYLITIS PATIENTS IN TERTIARY CARE RHEUMATOLOGY UNITS IN TURKEY

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OBJECTIVES: To determine direct and indirect cost due to rheumatoid arthritis (RA) and ankylosing spondylitis (AS) in Turkey. **METHODS:** An expert panel composed of 21 experts chosen from all national tertiary care rheumatology units (n=53) was convened to estimate the direct and indirect costs of care of patients with RA and AS in Turkey, using "cost-of-illness" methodology. To measure indirect costs, the number of days of sick leave, the extent of disability, and the levels of early retirement and early death were also evaluated. Lost productivity costs were calculated using the "human capital approach", based on the minimum wage. **RESULTS:** The total annual direct costs were 2.917,03 Euro per RA patient and 3.565,9 Euro for each AS patient. The direct costs were thus substantial, but the indirect costs were much higher because of extensive morbidity and mortality rates. The total annual indirect costs were 7.058,99 Euro per RA patient and 6.989,81 for each AS patient. Thus, the total cost for each RA patient was 9.976,01 Euro and that for an AS patient 10.555,72 Euro, in Turkey. **CONCLUSIONS:** From the perspective of those who pay for health care, both RA and AS has become a burden in Turkey. The cost of lost productivity is higher than the medical cost. Another important conclusion is that indirect costs constitute 70% and 66% of total costs in patients with RA and AS, respectively. The annual cost of RA for whole Turkish population is 2.130.424.680 Euro. This amount contributes to 0.37% of the GDP in Turkey. Whereas for AS, the annual cost of disease in Turkey is 2.209.201.904 Euro and this corresponds to 0.38% of the GDP. To conclude, RA and AS diseases have total burden of 4.339.626.584 Euro that is 0.75% of the Turkish GDP.

PMS25

EVALUATION OF DIRECT COSTS FOR THE TREATMENT OF ACTIVE JUVENILE RHEUMATOID ARTHRITIS USING BIOLOGICS

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OBJECTIVES: Evaluate direct costs for the treatment of patient with active juvenile rheumatoid arthritis (JRA) in the inefficiency of conventional therapy. **METHODS:** Direct costs applied to patient, health care and society in process of medical care provision were evaluated. In the study direct costs included cost of biologics for the treatment of active JRA, therapy cost of the most common side effects caused by biologics use, cost of inpatient care and cost of out-patient diagnostic and treatment of JRA patients. **RESULTS:** Therapy cost with Etanercept and Abatacept was evaluated on the first stage including spending on one patient treatment with active JRA with body weight 15 till 65 kg. during one year after three months of inefficient conventional therapy. Biologics doses and dosing regimen were defined on the basis of application sheet. Calculated annual therapy cost for Etanercept varied from 11,752 EUR to 23,503 EUR depending on body weight and for Abatacept from 8,879 EUR to 26,638 EUR respectively. During cost analysis authors considered only very often (>1/10) and often (>1/100, < 1/10) occurred side effects. Thus, cost of side effects treatment caused by Etanercept use resulted in 44 EUR and for Abatacept – 69 EUR. Next stage of cost analysis was evaluation of therapy cost for patients with JRA according standard of inpatient treatment è standard of out-patient treatment. Cost of 30 days of inpatient care and 14 months of out-patient care was considered during cost analysis for the treatment of patients with JRA. Cost of inpatient and out-patient care for patient with JRA excluding biologics cost amounted to 33585 EUR. **CONCLUSIONS:** Finally total direct costs for the treatment of patient with JRA during one year with body weight from 15 till 65 kilogram varied from 45,380 EUR to 57,132 EUR for Etanercept and from 42,534 EUR to 60,292 EUR for Abatacept respectively.