and follows the patient throughout the course of the disease. The model consists of treatments for lumbar spinal diseases and to assess the burden of spinal diseases while a small proportion requires expensive surgical interventions. The objective of this study was to evaluate the economic burden of JIA, which is considerable. Newer biologic drugs impact cost-of-illness estimates and have been included in this analysis.

Our search strategy included terms for cost-of-illness and JIA. Studies were searched from inception to December 2013, using terms for cost-of-illness and JIA. Studies were included if they included cost-of-illness information for JIA or a related condition. Five studies surveyed patients’ families; 2 used medical records; 2 used both. Six studies reported mean direct medical costs; range: $3,304 to $20,613. Six reported mean patient/parent time costs; range: $112 to $5,346. Drug costs were $4,665 to $14,850 for studies that included newer biologic drugs (n = 6). The price index was used to convert costs to constant US dollars (2012). Data are pre-sent as cost per person per year. Results: The search yielded 510 unique studies. Nine relevant studies were identified with data from 1,340 patients with JIA. Studies were identified from Australia (n = 2), Brazil (n = 1), Canada (n = 2), Japan (n = 1), and Turkey (n = 1). Five studies surveyed patients’ families; 2 used medical records; 2 used both. Six studies reported mean direct medical costs; range: $3,304 to $20,613. Six reported mean patient/parent time costs; range: $112 to $5,346. Drug costs were $4,665 to $14,850 for studies that included newer biologic drugs (n = 6) versus $353 to $1,158 for those without (n = 2); direct medical costs were $5,140 to $17,633 for those with biologic drugs (n = 6) versus $3,304 to $20,613 for those without (n = 4). There was incongruence in how costs were reported. Conclusions: The economic impact of JIA is considerable. Newer biologic drugs impact cost-of-illness estimates and must be considered when interpreting this information. Current data largely reflects European and North American costs. More research will assist policy developers and decision makers.

PMS24
A MODELLING FRAMEWORK TO ASSESS THE BURDEN OF SPINAL DISEASE
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OBJECTIVES: Rheumatoid arthritis (RA) is a chronic autoimmune disease characterized by inflammation and destruction of the joints. It is associated with decreased quality-of-life in its patients, and pharmacological and non-pharmacological treatments are available. The research aims to estimate the economic burden of RA in Taiwan. METHODS: The National Health Insurance Research Database (NHIRD), a claims-based dataset encompassing 99% of Taiwan’s population, was applied. We used a micro-costing approach for direct health care costs and indirect social costs by estimating the quantities and prices of cost categories. Direct costs included surgeries, diagnostic and medical devices, lab tests, and drugs. The costs and quantities of the direct economic burden were calculated based on 2014 data. We identified RA patients and a control cohort matched 1:4 on demographic and clinical covariates to calculate the incremental cost related to RA. The study was evaluated by absenteeism and presenteeism, which is the decreased productivity of patients. For the indirect burden, we estimated the rate of absenteeism and presenteeism from a patient survey and the average salary from official statistics. Costs were presented in 2013 USD (1 USD = 29.65 TWD). RESULTS: A total of 41,269 RA patients were included in the database with incremental total direct cost of $80,303,920 and indirect cost of $105,320,943. This resulted in an average incremental direct cost of $1,946 per RA patient. Within direct costs, the largest contributor was medication (47.9%), followed by inpatient care (26.2%), and hospitalizations ($3,128,309.3%). For indirect costs, absenteeism and presenteeism costs were $12,975,857 (12.3%) and $92,345,085 (87.7%), respectively. Conclusions: The economic burden of RA is mainly due to indirect health care costs, most notably, presenteeism. Efficient management of RA can improve the health status and quality of life, indeed, reduce the economic impact.

PMS25
THE BURDEN OF ILLNESS OF OSTEOSPOROSIS PATIENTS IN THE UNITED STATES MEDICARE POPULATION
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OBJECTIVES: To examine the economic burden and health care utilizations of osteoporosis in the U.S. Medicare population. METHODS: Osteoporosis patients were identified through Medicare Claims Database, 9th (ICD-9-CM) code. 733.0X from the national U.S. Medicare claims dataset from January 1, 2008 through December 31, 2010. The first osteoporosis diagnosis date was designated as the index date. One-year continuous enrollment was required for all patients. Discharge data were searched from inception to December 2013, using terms for cost-of-illness and JIA. Studies were included if they included cost-of-illness information for JIA or a related condition. Five studies surveyed patients’ families; 2 used medical records; 2 used both. Six studies reported mean direct medical costs; range: $3,304 to $20,613. Six reported mean patient/parent time costs; range: $112 to $5,346. Drug costs were $4,665 to $14,850 for studies that included newer biologic drugs (n = 6) versus $353 to $1,158 for those without (n = 2); direct medical costs were $5,140 to $17,633 for those with biologic drugs (n = 6) versus $3,304 to $20,613 for those without (n = 4). There was incongruence in how costs were reported. Conclusions: The economic impact of JIA is considerable. Newer biologic drugs impact cost-of-illness estimates and must be considered when interpreting this information. Current data largely reflects European and North American costs. More research will assist policy developers and decision makers.

PMS26
EVALUATION OF ECONOMIC BURDEN AND HEALTH CARE UTILIZATIONS FOR UNITED STATES MEDICARE PATIENTS WITH RHEUMATOID ARTHRITIS
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OBJECTIVES: To examine the economic burden and health care utilizations of rheumatoid arthritis (RA) patients in the U.S. Medicare population. METHODS: The study sample was extracted from the national Medicare claims data from 2008 to 2010. All Medicare beneficiaries were identified using ICD-9-CM (9th Revision, Clinical Modification) diagnosis code 714.0. To examine the economic burden of RA patients in the U.S. Medicare population were more likely to be female (88.9%), White (88.4%) and reside in the Southern U.S. region (38.7%). The average CCI score was 1.80. Comorbid conditions included diabetes (28.0%), cancer (18.9%), dyslipidaemia (24.2%) and chronic obstructive pulmonary disease (23.8%). Osteoporosis patients had a high percentage of prescriptions for alendronate sodium (12.0%), levofloxacin sodium (10.9%) and simvastatin (9.0%) within 60 days post-index date. Health care utilizations analysis showed the following results: Medicare carrier (99.4%), Durable Medical Equipment (DME, 36.9%), Home Health Agency (HHA, 18.5%), outpatient visits (81.6%) and inpatient stays (46.9%). Skilled Nursing Facility (SNF) data were excluded. Conclusions: Patients diagnosed with osteoporosis in the Medicare population have a high percentage of carrier and outpatient visits. The current study evidenced that high health care utilizations result in considerable expenditures.

PMS27
WHAT DETERMINES WORK PRODUCTIVITY LOSS IN RHEUMATOID ARTHRITIS (RA), CROHN’S DISEASE (CD) AND PSORIASIS (PS) IN POLAND? RESULTS OF THE POLISH PWD-2 WORK PRODUCTIVITY (WPAI) STUDY
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OBJECTIVES: Assessment of productivity loss caused by RA, CD and psoriasis and comparison differences in Poland. METHODS: The participants of the M2W study were consecutive patients with diagnosed RA, psoriasis and CD, in productive age between 18-65 years. The condition was confirmed by a physician. The participants were extracted from the hospital records and other written data. The data were collected in the validated Polish version of the WPAI questionnaire which included presenteeism, absenteeism and overall work productivity loss during the course of the disease. The within the latter group, stenosis was found in about 90% of patients with the highest medical costs. DISCUSSIONS: The treatment pathway for low back pain has not been modelled in such a comprehensive manner before. However, the model demands detailed data not currently available in most countries. There is a need for further data collection to be able to provide more reliable estimates for the burden of spinal disease.