tient visit for 12 months. Annual average visit days of outpatients were 37. Annual overall costs per patient were 13.4 million Korean won (KRW), of which 10.5 million KRW (78.6%) was drug costs because of costly TNF antagonist. Inspection cost came next with 5.6% of the total costs, followed by hospitalization cost (4.6%), operation cost (4.0%), and doctor's fee (3.2%). Mean out-of–pocket expenditure was 3.7 million KRW, 27.1% of the overall costs. As age increased, so did the total costs. Male, medical aid, and patients with hospitalization or surgery were associated with significantly higher costs than female, health insurance, and inexperienced patients of hospitalization or surgery respectively($p<0.05$). **CONCLUSIONS:** Direct medical costs per capita of RA patients receiving TNF antagonist in Korea were 13.4 million KRW. The economic burden of RA patients is strongly influenced by TNF antagonist.

PMS17

EVALUATING THE ASSOCIATION BETWEEN SERUM URIC ACID LEVEL AND HEALTH CARE COSTS IN PATIENTS WITH GOUT

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OBJECTIVES: To describe the association between serum uric acid (sUA) levels and gout-related healthcare utilization and costs. **METHODS:** A retrospective analysis was conducted using a database from a regional managed care organization. Patients with primary gout were included in the study if they met the following criteria between 2006 and 2007: (1) age ≥18; (2) ≥1 diagnosis of gout (ICD-9-CM 274.xx), or ≥1 prescription gout-related medications (colchicine, allopurinol, probenecid); (3) 12 months continuous eligibility pre- and post- either the first gout diagnosis or first pharmacy claim date (index date). Patients with cancer diagnoses were excluded. Patients were classified into three sUA levels based on the measurement taken on the date closest to the index date: <6.0 mg/dL, 6.0- 8.99 mg/dL, and ≥9.0 mg/dL. Healthcare costs in the12 months post index period were compared across the three sUA levels using Kruskal-Wallis tests. **RESULTS:** A total of 1,622 patients were identified; 374 (23.0%) had an sUA <6.0 mg/dL, 788 (48.0%) had an sUA of 6.0-8.99 mg/dL, and 470 (29.0%) had an sUA ≥9.0 mg/dL. The mean gout-related healthcare costs were $217(standard deviation [SD] $631), $426 (SD $4330), and $647(SD $4274) for patients with sUA <6.0 mg/dL, 6.0- 8.99 mg/dL, and ≥9.0 mg/dL, respectively ($p<0.0001$). Statistically significant differences were also detected in the gout-related outpatient costs, gout-related emergency department costs, and gout-related prescription costs among the three groups. **CONCLUSIONS:** Our results showed that there is a positive association between sUA levels and gout-related healthcare utilization and costs. Lowering and maintaining sUA levels <6 mg/dL may lead to lower gout-related healthcare costs and decrease gout-related utilization of services. Further study is warranted.

PMS18

IMPACT OF TREATMENT PERSISTENCE AND COMPLIANCE ON HEALTH CARE RESOURCE UTILISATION AND TOTAL HEALTH CARE COST IN POST MENOPAUSAL WOMEN PRESCRIBED ORAL BISPHOSPHONATES – A RETROSPECTIVE STUDY USING THE GENERAL PRACTICE RESEARCH DATABASE (GPRD)

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OBJECTIVES: Oral bisphosphonate therapy reduces the risk of fractures and associated morbidity in women with post-menopausal osteoporosis. This study evaluated how failure to persist and comply with oral bisphosphonates impacts on the use of health care services and costs. **METHODS:** Retrospective cohort analysis of 6,870 women with incident bisphosphonate prescribing in UK primary care. Persistence was defined as no gaps in refill of >30 days; compliance was measured using medication possession ratio (MPR ≥80). The impact of non-persistence and non-compliance on the intensity of health service use (HSU) in the 24-month period following treatment was analyzed using negative binomial regression; the impact on costs was analysed using gamma regression. Primary care data, linked Hospital Episode Statistic data and nationally available prescribing and health care cost data were used. **RESULTS:** Persistence and compliance in the 24-month period was 32.4% and 59.2% respectively. In multivariable analysis, non-persistent patients had a 15% increased frequency of primary care contact (incident rate ratio (IRR): 1.15; 95% CI: 1.12-1.19) and a 92% increased (IRR: 1.92; 95% CI: 1.74-2.12) frequency of inpatient hospitalisation for any cause. The IRR of osteoporosis-related hospitalisations for non-persistent patients was 2.23 (95% CI: 1.66-2.98). Non-compliant patients had a 5% increased frequency of primary care contact (IRR: 1.05; 95% CI: 1.02-1.18), a 55% increased (IRR:1.55; 95% CI: 1.41-1.69) frequency of all-cause inpatient hospitalisation and a 37% increased frequency of osteoporosis-related hospitalisations (IRR: 1.37; 95% CI: 1.07 −1.75). Average total health care cost was significantly higher among non-persistent (£3,557 [95% CI: £3,372-£3,742]) than persistent patients (£2,540 [95% CI: £2,370- £2,710]). Among non-compliant patients, average total health care costs was £3,592 (95% CI: £3,369 –3,816) compared to compliant patients- £3,028 (95% CI: £2,853- £3,202)- a cost difference of £564. **CONCLUSIONS:** Suboptimal persistence and compliance with oral bisphosphonates is associated with significant increases in HSU and costs.

PMS19

FRACTURE-RELATED TREATMENT COSTS ATTRIBUTABLE TO PROTON PUMP INHIBITOR USE IN OSTEOPOROSIS PATIENTS

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OBJECTIVES: To estimate the differences in fracture-related treatment costs (FTC) between osteoporosis patients with and without proton pump inhibitor (PPI) use. **METHODS:** Data from the 2001-2008 Medical Expenditure Panel Surveys was used to identify osteoporosis patients >50 years old through an ICD-9-CM code of 733 or clinical classification code of 206. Patients were categorized into two groups based on PPI use. Considered medications included osteoporosis agents (bisphosphonates, hormone therapy, and raloxifene) and corticosteroids (excluding topicals). Fractures were identified based on ICD-9-CM codes 804-829. Mean of treatment costs were calculated with bootstrap confidence interval due to skewed costs. FTC were estimated using generalized linear model with log link function and gamma distribution. First, FTC for patients treated with PPI were predicted using the estimated coefficients from patients without PPIs using a generalized linear model with adjustments for patient characteristics, medication use, and comorbidities. Second, attributable costs to the use of PPI were estimated by the difference between predicted and observed costs for PPI users. Treatment costs for one year were calculated and converted to 2009 U.S. dollar using appropriate price indices. **RESULTS:** We identified 4,979 patients with osteoporosis. PPI use was found in 970 patients and in 4,009 it was not. Unadjusted cost differences showed patients with PPI use had similar osteoporosis-related costs (excluding fracture costs) to patients without ($883 vs. $798). However, patients treated with PPI had higher FTC by $335 than patients without PPI use ($709 vs. $374). After adjusting for the study variables, PPI use was associated with an increase in FTC by 63% when compared to patients not taking PPIs. **CONCLUSIONS:** Use of PPIs increases the economic burden of osteoporosis patients primarily due to fracture-related costs. Additional studies are warranted to further explore the cost attributable to fracture due to use of PPIs in osteoporosis patients.

PMS20

HEALTH CARE RESOURCES UTILIZATION IN THE MANAGEMENT OF JUVENILE IDIOPATHIC ARTHRITIS: ANALYSES WITH THE RAMQ DATABASE

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OBJECTIVES: Juvenile idiopathic arthritis (JIA) is a chronic autoimmune inflammatory disease in childhood affecting about 1 in 1000 children. The objectives of this study were to analyze drug utilization in JIA, particularly the use of anti-TNFs and to estimate health care resources utilization associated with JIA management. **METHODS:** A retrospective prescription claims analysis of a random sample of patients from the Régie de l'assurance maladie du Québec (RAMQ) provincial health plan (Québec, Canada) database was conducted. Data of patients with a diagnosis of rheumatoid arthritis and aged less than 20 years were obtained for the period from January 1998 to December 2009. Healthcare resources consumed by patients with JIA were identified in terms of visits to physicians, physician's interventions, arthritis related medications, other medications, emergency visits and hospitalizations. **RESULTS:** Data were obtained from the RAMQ for a total of 995 patients with a mean age of 11.4 years (SD=5.2). Anti-TNFs were used by 32 patients (3.2%). In the year following initiation of anti-TNF treatment, reductions in all healthcare resources used were observed, the greatest decreases being for the average number of medical visits per patient (before/after: 14.7 vs. 8.1) and average number of physician's interventions per patient (before/after: 5.8 vs. 3.3). Decreases in costs of all healthcare resources were also seen and costs associated with hospitalization decrease significantly by an average of CAN$1,356 per patient ($p<0.05$) in the year following the initiation of anti-TNF treatment. **CONCLUSIONS:** Anti-TNFs have demonstrated significant clinical benefits and on other aspects of JIA patients' lives, such as functionality, school performance, or health-related quality of life. Results of these claims analyses showed that the use of anti-TNFs was associated with decreases in healthcare utilization in the year following initiation of treatment which translated in reductions in the cost of healthcare resources for JIA patients.

PMS21

ABATACEPT OR INFLIXIMAB FOR RHEUMATOID ARTHRITIS IN VENEZUELA? A COST-EFFECTIVENESS ANALYSIS

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OBJECTIVES: To determine the cost−effectiveness of abatacept or infliximab in patients with rheumatoid arthritis (RA) with inadequate response to methotrexate (IR−MTX) in Venezuela. **METHODS:** Adapting a previously validated model, dynamic simulation techniques and clinical data from published literature were used to compare the clinical events, quality of life, and direct medical costs of abatacept and infliximab to MTX. The prevalence of the disease and the demographic characteristics for Venezuela, were used to assign a pretreatment score relative to the Health Assessment Questionnaire (HAQ). Then, HAQ scores were projected over time according to the efficacy of each treatment. The costs associated with each treatment and the disease were calculated from private and public hospitals, for a reference patient weighting 60 kg, and validated with a group of experts. The results of the model were analyzed over a 10−year time horizon using the payer's perspective, and a3% annual discount. Univariate and probabilistic sensitivity analyses for relevant parameters were performed to assess the robustness of the results of the model. **RESULTS:** A hypothetical cohort of 1,000 patients with RA and IR MTX in Venezuela,followed for 10 years, resulted in mean treatment costs of: U$5,126, U$57,824, andU$27,842 dollars, for MTX, abatacept, and infliximab,respectively. Total direct medical costs(discounted) per patient were U$ 50,441 (48,819−