OBJECTIVES: To assess the influence of different treatment schemes of post-stroke spasticity on societal costs in Russia. **METHODS:** Analytical model of decision-making in Microsoft Excel 2013 was designed for assessing an influence of local standard therapy and different types of botulinum toxin (abobotulinumtoxinA, onabotulinumtoxinA, incobotulinumtoxinA) on the societal costs. Societal costs included: disability pensions, temporary disability benefit and GDP loss of due to loss of working force in case post-stroke spasticity. Disability assessment scale score was used as efficacy criteria. The main domains of this scale (0 – normal life, 3 – full disability) were compared with Russian disability group system (1st group of disability – severe grade, 3d group – mild grade). According to the information retrieval using Ministry of trade and social development database and clinical trials data it was found that in 2014 out of 287,314 people with post-stroke spasticity there were 12,7% disabled people of 1st grade, 32,7% of 2nd one and 34,6% of 3d one. 20% of people have no disability group. For reference, accepted exchange rate was 1 US$ = 60,29 RUB. **RESULTS:** Therapy with abobotulinumtoxinA allows to decrease disability level with 16%-efficacy, therapy with onabotulinumtoxinA with 12,6 %-efficacy, standard therapy with 3,3%-efficacy. Consequently, societal costs economy for whole population of post-stroke spasticity patients for one year is US$ 378,97 million higher compared with standard therapy, US$ 119,21 million higher compared with onabotulinumtoxinA treatment scheme, and US$ 129,47 million higher compared with incobotulinumtoxinA treatment scheme. **CONCLUSIONS:** AbobotulinumtoxinA treatment scheme shows more prominent decrease of disability level in post-stroke spasticity patients in Russia and allows to decrease societal costs to a greater extent compared with other alternatives. That fact makes abobotulinumtoxinA more beneficial from the societal costs perspective compared with other treatment schemes.

PMS31

GENERIC SWITCH EVALUATION OF CELEBREX® IN PATIENTS WITH OSTEOARTHRITIS (OA) USING A RETROSPECTIVE CLAIMS DATABASE

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OBJECTIVES: The full economic impact of brand to generic switching within OA has not been well studied. The purpose of this study was to measure switch rates from the branded COX-2 inhibitor Celebrex (celecoxib) to generic non-steroidal anti-inflammatory drugs (NSAIDs) and compare economic outcomes between switched and persistent patients with OA. **METHODS:** This retrospective claims analysis used MarketScan®2009 to 2013 data to extract a cohort of incident adult OA (ICD-9-CM: 715.xx) patients prescribed with Celebrex. Patients included had 12-month continuous enrollment before (pre-index) and ≥6 months after their first (index) Celebrex claim and had ≥2 Celebrex claims. Persistence was measured as time to the first prescription gap of ≥30 days; treatment switch to generic NSAIDs required a fill for generic NSAIDs within 30 days of discontinuing Celebrex. Annualized healthcare resource utilization (HCRU) and direct costs were compared descriptively between patients switched to generic NSAIDs and persistent patients within propensity score matched cohorts. **RESULTS:** The 65,530 included patients had mean±SD age 61±11.9 years and were 62.5% female. By end of follow-up, 6,783 (10.35%) patients were persistent on Celebrex. The majority of patients (54,554, 83.3%) discontinued Celebrex without switching and 3,475 (5.3%) switched to generic NSAIDs (median time to switch or discontinuation was 2.96 months). After matching (N=3,298 per cohort), persistent users had less HCRU and significantly lower mean total costs ($23,949 vs $20,378, P < .001) compared to switched patients. Mean OA-related costs were similar for persistent vs switched patients ($5,755 vs $5,910, P=0.63), with persistent patients having higher mean drug costs ($2,693 vs. $1,098, P<.001) but lower mean inpatient ($2,370 vs $3,622, P< .001) and outpatient costs ($848 vs $1,035, P< .001). **CONCLUSIONS:** Despite lower drug costs, switching from Celebrex to generic NSAIDs was associated with greater inpatient and outpatient visits, leading to higher overall costs for OA patients.

PMS32

THE COST-EFFECTIVENESS OF MENISCAL REPAIR VERSUS PARTIAL MENISCECTOMY: A MODEL-BASED PROJECTION OF CLINICAL OUTCOMES AND COSTS IN THE UNITED STATES HEALTHCARE SYSTEM

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OBJECTIVES: Meniscal tears are the most common knee condition requiring surgery, and represent a substantial disease burden with long-term clinical and cost implications. Research performed over the last two decades has shed light on the success rates of the two primary treatment strategies—partial meniscectomy and meniscus repair. However, only limited information is available about the long-term costs and effects of these strategies. Our objective was to assess the long-term cost-effectiveness of meniscus repair compared to meniscectomy. **METHODS:** We constructed a decision-analytic Markov disease progression model, taking into account index strategy-specific failure rates as well as treatment-specific probabilities for the development of osteoarthritis (OA) and subsequent total knee replacement (TKR). Failure rates and OA incidence were derived from a review of controlled and uncontrolled studies as well as recent meta-analyses. Costs were derived from current 2014 U.S. national average reimbursement amounts and the published literature. We computed the 20-year incremental cost-effectiveness ratio (ICER) and relative event risks in a cohort of 38 year-old patients, 21% of whom were female. **RESULTS:** Over the 20 year horizon, meniscus repair was associated with a gradual increase in discounted QALYs from 12.84 to 12.99 compared to meniscectomy, at overall discounted savings of $2,598, making it the dominant index procedure strategy. While the meniscus repair strategy was associated with an increased failure rate (RR of 6.12), it led to substantial reductions in OA and TKR incidence (16.0% vs. 29.4% and 8.5% vs. 16.1%, respectively). Clinical benefit and cost-effectiveness further improved with longer-follow-up. **CONCLUSIONS:** Our model-based projection suggests that meniscus repair, despite substantially higher initial failure rates, is associated with improved

long-term outcomes and overall cost savings relative to meniscectomy, making it the dominant treatment strategy from a health-economic perspective.

PMS33

COMPARING BURDEN OF ILLNESS OF TOPHACEOUS WITH NON-TOPHACEOUS GOUT PATIENTS USING A LARGE US ELECTRONIC HEALTH RECORDS DATABASE

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OBJECTIVES: Gout is the most common and progressive arthritic condition. Its severity is assumed to have implications for the humanistic and economic burden of the illness. The objective of this study is to examine the burden of gout between patients with and without tophi using electronic health records (EHR). **METHODS:** The Humedica EHR database was searched starting on January 1, 2008 through February 28, 2013 for patients having an initial gout diagnosis (ICD-9 274.xx) and a confirmatory gout diagnosis at least 30 days later. Deidentified patients with enrollment from 6-months pre/12-months post initial gout diagnosis and at least one serum uric acid (SUA) level were included in the study. Patients (n=933) with a diagnosis of tophaceous gout (274.03, 274.81, and 274.82) during the 12-months post-index period were compared to all other gout (non-tophaceous) patients (n=45,512). Demographic characteristics and comorbidities, SUA levels, and use of colchicine for acute flares during the 12-months post-index period were compared using chi-square tests. **RESULTS:** Gout patients with tophi were more likely to be female (p<0.01) and have uncontrolled (SUA=6-8) or severely uncontrolled (SUA = > 10) SUA (p<0.0001) than patients without tophi. Colchicine use was higher in patients with tophi (p<.0001). There were significantly higher levels of cardiovascular comorbidities in the gout patients with tophi vs those without: hypertension (p<0.05), myocardial infarction (p<0.01), atherosclerosis (p<0.0001), dyslipidemia (p<0.0001), peripheral arterial disease (p<0.0001), congestive heart failure (p<0.0001), chronic heart disease (p<0.0001), cardiomyopathy(p<0.0001), ischemic and valvular heart disease (p<0.0001) and left ventricular hypertrophy (p<0.001). Gout patients with tophi had higher levels of chronic kidney disease, Stages 3-5, (p<0.0001), osteoarthritis (p<0.0001), rheumatoid arthritis (p<0.0001). **CONCLUSIONS:** Gout patients with tophi had significantly greater burden of disease and greater frequency of comorbidities than those without. Preventing the development of tophi may reduce comorbidities and frequency of colchicine use and warrants further investigation.

PMS34

DISEASE BURDEN OF PSORIATIC ARTHRITIS IN TAIWAN: A POPULATION-BASED ANALYSIS

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OBJECTIVES: Psoriatic arthritis (PsA) is an inflammatory arthritis associated with skin psoriasis. PsA causes swelling, stiffness and pain in joints, it may also affect the spine, ankles and wrists. It is also associated with decreased quality-of-life in its patients. Treatment of PsA includes both pharmacological and non-pharmacological treatments. The research aims to estimate the economic burden of PsA in Taiwan. **METHODS:** The National Health Insurance Research Database (NHIRD), a claims-based dataset encompassing 99% of Taiwan's population, was applied. The database measures direct costs to the healthcare system and does not take into account indirect costs such as absenteeism or loss of productivity. We used a micro-costing approach for direct health care costs by estimating the quantities and prices of cost categories. Direct costs included surgeries, ward usage, medical devices and materials, lab tests, PUVA therapy and medications. The costs and quantities of the direct economic burden were calculated based on 2011 data of NHIRD. We identified PsA patients and a control cohort matched 1:4 on demographic and clinical covariates to calculate the incremental cost related to PsA. **RESULTS:** A total of 4,053 PsA patients were included in the database with incremental total direct cost of $13,282,615. This resulted in an average incremental direct cost of $3,277 per PsA patient. Direct costs were mostly influenced by medication costs ($11,991,479; 90.28%), while lab tests ($576,403; 4.34%), PUVA therapy ($348,741; 2.63%), surgery ($150,471; 1.13%), ward usage ($130,978; 0.99%) and medical devices/materials ($84,543; 0.64%) made up the balance. Within medication costs, biologic and tablet disease-modifying anti-rheumatic drugs accounted for 45% and 22% of all medication costs, respectively. **CONCLUSIONS:** Our findings highlight the significant economic burden PsA places on Taiwan's economy. The direct costs of PsA in Taiwan are driven by medication costs and lab tests. Efficient management of PsA could reduce the economic impact of the disease.

PMS35

COSTS DESCRIPTION OF RHEUMATOID ARTHRITIS TREATMENT IN CHILE FOR PATIENTS WHO HAVE FAILED TO CONVENTIONAL SYNTHETIC DMARDS

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OBJECTIVES: Rheumatoid Arthritis (RA) is a chronic inflammatory disease which destroys synovial joints and generates pain; RA could disable patients and could be the cause of premature death. Its prevalence for Chile has been estimated in 0.46% (IC 95% 0.24-0.8). Available drugs for treatment include conventional synthetic Disease-Modifying Antirheumatic Drugs (csDMARDs), biological therapies and a new oral janus kinase inhibitor drug approved for treatment after failure of csD-MARDs: tofacitinib. The aim of this study is to determine the direct costs associated with available therapies after csDMARDs failure. **METHODS:** The analysis was made from third payer perspective with a time horizon of one year. Costs baskets were constructed, considering the costs of diagnosis, treatment and monitoring of the intervention and validated with rheumatologists. Drug costs were obtained from public tenders and official reports. Comparators were: tofacitinib (5mg twice/