OBJECTIVES: Biophosphonates are anti-osteoporosis medication. This study evaluated the cost of the use of biophosphonates in second line treatment of hip fracture in a naturalistic setting from the payer perspective. METHODS: Using the 1997–2007 Taiwan’s National Health Insurance research database, we identified patients with the first-ever hospitalization experience for hip fracture between 1997 and 2007, and those who received biophosphonates within the first year of hip fracture were grouped into “biophosphonates cohort”; those who received no anti-osteoporosis medications were grouped into “untreated cohort”. The difference in cost between the two cohorts was analyzed. RESULTS: Among 3,467 patients identified, 161 received biophosphonates within the first year of hip fracture. The mean follow-up period of the biophosphonate cohort and the untreated cohort were 5.1 and 4.7 years. There was no significant difference in the risk of first arm fractures between the two groups (Kaplan–Meier survival, log-rank test: p = 0.87–1.78, p = 0.277). However, the cost-effectiveness outcomes of the biophosphonate cohort were significantly higher than the untreated cohort (the average incremental cost was $29,227 point values, 95% CI $14,850–$43,564, p = 0.016). Further analysis by gender showed that the use of bisphosphonates is likely to be cost-saving from a one-year perspective; the probability of cost-saving was 73.8%. CONCLUSIONS: This study found the use of biophosphonates for the secondary prevention of hip fracture was cost-ineffective in a naturalistic setting.

PM560

BIOLGIC DISCONTINUATION IN RHEUMATOID ARTHRITIS: EXPERIENCE FROM CANADIAN CLINIC
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OBJECTIVES: The purpose of this study was to describe biologic discontinuation and assess the predictors of discontinuation in Canadian rheumatoid arthritis (RA) patients. METHODS: In this prospective cohort study, adult patients included in the RHUMADATA database with diagnosis of RA and treated with at least one biologic since 2003 were selected. The RHUMADATA database includes clinical, laboratory and socioeconomic information of patients with rheumatic diseases followed in three hospitals in the province of Quebec, Canada. Patients were followed for three years after therapy initiation or until treatment discontinuation, as measured using pharmacy records. Time to discontinuation and predictors of treatment discontinuation were explored using Cox proportional hazards model. RESULTS: A total of 10,597 individuals were included in this study. Among 10,597 individuals in the sample, 386 individuals had osteoarthritis. One-half of the sample was 47 years or younger, 54.43% were females, and 438% (70%) patients had stopped their first biologic after 6, 12, 24, and 36 months, respectively. In time-to-event analyses (Cox proportional hazard models), type of work (part vs. full time), hazard ratio (HR): 1.57, 95% confidence interval (CI): 1.05–2.34, fund income [$20,000 vs. less than $20,000 (HR: 1.35; 1.01–1.80) and $80,000 to $100,000 vs. less than $80,000 (HR: 2.16; 1.23–3.80)] were significantly associated with biologic discontinuation over the complete treatment duration. The number of disease-modifying antirheumatic drugs used (HR: 0.89; 0.80–0.99) and use of methotrexate (yes vs. no, HR: 0.80; 0.64–0.99) were associated with a reduced risk of biologic discontinuation. CONCLUSIONS: In this real-life Canadian study, high employment status, having a full-time job, and use of methotrexate were found associated with an increased risk of biologic discontinuation. It is also suggested that many clinical and socioeconomic variables are predictors of biologic discontinuation in RA patients.

PM561

PATIENT- AND PHYSICIAN-REPORTED MOTIVATIONS FOR MEDICATION NON-ADHERENCE OR SWITCHING IN RHEUMATOID ARTHRITIS
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OBJECTIVES: Rheumatoid arthritis (RA) is a chronic inflammatory disorder that affects the lining of joints, causing painful swelling that can result in bone erosion and joint deformity. Non-adherence to medication or a lessen inflammation; however, non-adherence and frequent switching are recognized problems in patients with RA. The objectives of this study are to better understand patients’ reasons for non-adherence and/or switching and physicians’ reasons for recommending a switch. METHODS: We extracted 300 records for RA patients from a unique database of physician-patient interactions (RealHealthData). Using Atlas.ti, we analyzed these records to analyze trends for medication adherence, i.e., why, when and how patients stopped or switched their medication. In addition, we analyzed physicians’ noted reasons for switching. RESULTS: On average, patients were 53 years old (±10). Patients were similar to the general RA population, with a noted variability of swelling and joint pain. The medications prescribed to the patients included: methotrexate (22%), Ocrelizumab (13%), Remicade (14%), Infliximab (14%) and Remicade (13%). Physicians reported reasons for switching and/or discontinuation of medication as: feeling the medication is not working and/or continual progression of symptoms (35%) and adverse reaction to medication such as itching (11%) and GI complications (11%). Of the physicians who recommended reasons for switching their patients’ medications included potential toxicities associated with drugs (46%) and observed disease progression (34%). CONCLUSIONS: It is critical to better understand patients’ and physicians’ reasons for switching medication for chronic disease like RA. The more we know about reasons for behavior, the more we can actively plan and organize research, development and outreach that is patient-centric and clinically meaningful. Our results demonstrate that using physician-patient interaction data can add tremendous value to outcomes researchers and healthcare decision makers.
OBJECTIVES: The aim of this study was to investigate the impact of chronic autoimmune diseases, mainly rheumatoid arthritis (RA), on functional status among patients in Slovakia. METHODS: Patients were prospectively recruited in the National Institute for Rheumatic Diseases in Slovakia during 2014 and data from patients on disease impact on their life were collected from physicians through a structured, self-administered questionnaire. The assessment was conducted among patients with RA using the Stanford Health Assessment Questionnaire (HAQ). RESULTS: The sample (100 respondents) was predominantly female (82%) with diagnosis of RA (86%). The average age was 51 with 14-year duration of the disease average. Thirty-eight percent of patients had osteoporosis, 21% a cardiovascular disease and 29% patients underwent surgery due to autoimmune diseases – 3 times on average. The most common symptom, occurring more than once a week, was fatigue reported also reduced physical activity, pain and specifically joint pain. Manifestations of the disease were on average at a mild intensity. Full work disability was more common (37%) than partial work disability (29%). Average HAQ score was 1.35 (SD=0.59). Majority of patients reported some or much difficulty in all HAQ domains and the highest disability was found for the domains of reach (score 1.59) and grip (1.54). HAQ score is increasing with the disease duration significantly lower (1.77) than in patients with the disease duration of 20 years and more (1.61). CONCLUSIONS: Results indicate that chronic autoimmune diseases, mainly rheumatoid arthritis (RA), have negative impact on activities of daily living and the most commonly reported symptoms are fatigue and pain. Functional status is worsening with the duration of the disease.

PMS56

Socio-economic status and work disability among patients with Rheumatoid Arthritis in the Slovak Republic

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OBJECTIVES: To evaluate the relationship between medication adherence, disease severity and employment status in patients with rheumatoid arthritis. METHODS: A list of 3000 patients (18-65 years) were identified from a Specialty Pharmacy database. 1,041 patients with a diagnosis of rheumatoid arthritis (RA) were identified from the list and were invited to participate in a survey. The patients were mailed a cover letter, consent form, and a demographic and questionnaires. Patient Work Productivity and Activity Impairment (WPAI) questionnaire (assess productivity losses), Health Assessment Questionnaire (HAQ, disease severity), Modified Morisky Scale (MMS; medication adherence) were administered. Survey responses were linked to clinical measures obtained from the specialty pharmacy database. Descriptive and logistic regression analyses were conducted using employment status as an outcome variable and HAQ, adherence, and demographics as input variables. The statistical analyses were conducted using SPSS version 22.0. RESULTS: The response rate was 30.45% (n=317). Based on WPAI results, 57.4% (n=174) identified themselves as being employed. Differences in mean age and marital status between employed and unemployed (54.09 vs 56.23 years, χ²=13.6 at p<0.05) were statistically significant (p<0.001) while there was no difference in the disease duration (p=0.494). 47.3% of unemployed and 21.8% employed had HAQ scores higher than 1. There was a statistically significant difference in employed vs. unemployed (p<0.001) across disease severity based on HAQ. While there was no difference in the level of knowledge (p=0.187), there was a statistically significant difference (p<0.001) in the level of motivation between employed (63.5% high motivation) and unemployed (54.1%), which was linked to job status. CONCLUSIONS: Study results showed that employed patients, while having similar disease duration and level of knowledge, reported lower motivation on the MMS adherence scale. Although these patients had less severe RA compared to unemployed, this patient-perceived work productivity.