OBJECTIVES: Bisphosphonates are anti-osteoporosis medication. This study evaluated the role of the use of bisphosphonates in the treatment of fracture of hip 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 1998 and 2007. Patients who received bisphosphonates within the first year of hip fracture were grouped into “bisphosphonates cohort”; those who received no anti-osteoporosis medications were grouped into “untreated cohort”. The date of the hip fracture served as the date of cohort separation. RESULTS: Among 3,427 patients identified, 161 received bisphosphonates and 3,266 were left untreated. The mean follow-up period of the bisphosphonates cohort and the untreated cohort were 5.1 and 4.72 years. There was no significant difference in the risk of re-fracture between the two groups (95% CI: 0.87-1.78, p=0.227). However, the osteoporosis-related costs of the bisphosphonates cohort were significantly higher than the untreated cohort (the average incremental total cost was $29,227 point values, 95% CI 14,890-43,564, p<0.001). Further analysis showed that the probability of cost-saving in the bisphosphonates cohort was 73.8%. CONCLUSIONS: This study found the use of bisphosphonates for the secondary prevention of hip fracture was cost-ineffective in a naturalistic setting.

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Biologic Discontinuation in Rheumatoid Arthritis: Experience from Canadian Clinics

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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 RHEUMADATA database with diagnosis of RA and treated with at least one biologic between 2003 and 2013 were selected. The RHEUMADATA database includes clinical, laboratory and socioeconomic information of patients with rheumatic diseases followed in three centers in Canada (Montreal, Quebec and Rimouski). 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 regression modeling. RESULTS: A total of 3,308 patients were included in the analysis. Among 3,308 patients, 161 (5%) patients 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-time vs. full-time, hazard ratio (HR): 1.57, 95% confidence interval (CI): 1.05-2.34; fund income $20,000 to $40,000 vs. less than $20,000 (HR: 1.35; 95% CI: 1.01-1.80) and $80,000 to $100,000 vs. less than $20,000 (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 metformine (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 biologic discontinuation rates were observed. This study also suggests that many clinical and socioeconomic variables are predictors of biologic discontinuation in RA patients.