cally more likely to be female, be less physically active, be overweight or obese, reside in an urban community, have more comorbidities, have a lower HRQoL and a lower household income. The 1-year physician, day procedure and hospitalization costs were statistically higher in the OA group. CONCLUSIONS: These results indicate that the humanistic and economic burden of OA in Ontario is considerable.

ALTERNATIVE APPROACHES FOR ESTIMATING DRUG DOSING IN THE TREATMENT OF RHEUMATOID ARTHRITIS: THE CASE OF INFlixIMAB

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OBJECTIVES: This study examined two approaches to estimate drug dosing of infliximab, a commonly used biologic with weight-based dosing, for patients with rheumatoid arthritis (RA). METHODS: A national commercial database was utilized to analyze patients having a medical claim of infliximab therapy initiated between January 2004 and December 2007. Inclusion criteria were patient age ≥18, ≥2 RA diagnosis codes during treatment with infliximab, and ≤365 days of persistence with infliximab. Patients were excluded if they had other selected inflammatory diseases, had medical pharmacy claims of anti-TNFs during 6 months prior to the infliximab index date, or a record of taking abatacept or rituximab while on infliximab. Two methods were compared for estimating dosing of infliximab. Method I, which has been previously published, estimated dosing by dividing the plan’s allowed cost of infliximab by the wholesale acquisition cost (WAC), adjusting for WAC at time of each claim. Method II, a novel approach, used a propensity matching approach to impute patient’s weight onto the commercial database. Since infliximab has weight- based dosing, combining the cost of drug with patient weight allowed for an estimate of dosing. Dosing was expressed as the number of 100 mg vials of infliximab. Calculated drug dosing using the two methods were compared in terms of means, medians, and correlation coefficients. RESULTS: There were 20,172 drug dosing events in our sample. Median dose was slightly higher under Method I (3.76 vials) than under Method II (3.39 vials). Mean overall dosing levels were very consistent: 4.01 vials under Method I and 4.11 vials under Method II. Correlations among the two measures were high (rho = 0.75). CONCLUSIONS: Consistent calculations of infliximab drug dosing were obtained using two estimation approaches. Since several commercial databases lack direct information on weight-based drug dosing, such estimation methods may be useful.

DIFFERENCES IN DEMOGRAPHICS AND PRE-INDEX HEALTH CARE UTILITY AND COSTS IN PATIENTS WITH RHEUMATOID ARTHRITIS TAKING ANTI-TNF BIOLOGICS DURING THE FIRST YEAR OF PERSISTENT THERAPY

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OBJECTIVES: To evaluate differences in demographics and comorbid conditions in patients with rheumatoid arthritis (RA) taking adalimumab, etanercept, or infliximab and to compare their health care utilization/costs six months prior to the anti-TNF index date, or evidence of taking abatacept or rituximab while on anti-TNF. METHODS: A national commercial benchmark database was utilized to identify patients having a medical claim of anti-TNFs during 6 months prior to anti-TNF index date, or evidence of taking abatacept or rituximab while on anti-TNF. Continuous variables were summarized using means and standard deviations. Differences in means were tested with analysis of variance (ANOVA). Discrete variables were summarized by counts and percentages with chi square used to test for differences. RESULTS: A total of 4886 patients met inclusion criteria: adalimumab 1279 (26%), etanercept 1277 (27%), and infliximab 1330 (27%). In all cohorts, the majority of patients were female (75%). There was a significant difference in mean age (years, ± SD) across the three cohorts: adalimumab (55, ± 12), etanercept (54, ± 12), and infliximab (62, ± 13) (p < 0.0001). Infliximab patients had significantly higher rates of diabetes, anemia, GERD, osteoarthritis, osteoporosis, and cardiovascular diseases than adalimumab or etanercept. Six months prior to the start of therapy, infliximab patients had significantly higher rates of health care utilization (radiology and office visits) compared to adalimumab or etanercept. CONCLUSIONS: When examining baseline characteristics of RA patients taking adalimumab, etanercept, or infliximab, results showed that infliximab patients were older, had higher comorbidity burden, and higher utilization of select health care services. Baseline characteristics should be adjusted for in comparative analyses of anti-TNF drug utilization.

EVALUATION OF THE QUALITY AND CONTENT OF OSTEOPOROSIS PATIENT EDUCATION INFORMATION AVAILABLE ON THE INTERNET

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OBJECTIVES: Patient education is a vital component of effective disease management and health promotion. People worldwide rely on the internet to resolve issues or obtain information related to any health condition. The information available on the web through easily accessible, lacks regulatory control and is subject to manipulation. This calls for a need to authenticate the information available on the web. In this study, we evaluated the quality and content of websites providing information on osteoporosis: Patient education by employing the widely accepted criteria of HON code compliance. METHODS: About 210 websites providing patient education were retrieved from the meta search engine, Google, of which provided patient information on osteoporosis and were thus considered for evaluation. These health related websites were evaluated by 10 health care professionals for their HON Code compliance, their adherence to core education concepts and the HSWG criteria. RESULTS: Most of the sites were found to be compliant with the basic criteria stated by the HSWG. Only 11 of the 45 sites evaluated were HON Code compliant. A certain degree of variability in the quality of information of osteoporosis patient education with respect to core educational concepts was observed. CONCLUSIONS: Inclusion of helpful audio-visual descriptions, effective in-site search options, live conversations with experts and easier feedback mechanisms can be of significant help and can further help to fulfill the HSWG criteria and thereby enhancing the quality of patient information related to osteoporosis on the web.

PROJECTION OF SURGICAL LOADS OF HIP AND KNEE ARTHROPLASTY IN GERMANY

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OBJECTIVES: Recent trend in the number of primary total hip arthroplasty (THA) and total knee arthroplasty (TKA) in the US has suggested a massive future demand for THA and TKA. It is unknown if this trend is the same in Germany as they have slower growth rate in obesity compared to US. The purpose of our study was to describe the recent trend of primary THA and TKA in Germany. METHODS: Registry data on THA and TKA, collected from 2004 and 2008, and to compare their health care utilization/costs six months prior to the start of their index date, or evidence of taking abatacept or rituximab while on anti-TNF. Continuous variables were summarized using means and standard deviations. Differences in means were tested with analysis of variance (ANOVA). Discrete variables were summarized by counts and percentages with chi square used to test for differences. RESULTS: A total of 4886 patients met inclusion criteria: adalimumab 1279 (26%), etanercept 1277 (27%), and infliximab 1330 (27%). In all cohorts, the majority of patients were female (75%). There was a significant difference in mean age (years, ± SD) across the three cohorts: adalimumab (55, ± 12), etanercept (54, ± 12), and infliximab (62, ± 13) (p < 0.0001). Infliximab patients had significantly higher rates of diabetes, anemia, GERD, osteoarthritis, osteoporosis, and cardiovascular diseases than adalimumab or etanercept. Six months prior to the start of therapy, infliximab patients had significantly higher rates of health care utilization (radiology and office visits) compared to adalimumab or etanercept. CONCLUSIONS: When examining baseline characteristics of RA patients taking adalimumab, etanercept, or infliximab, results showed that infliximab patients were older, had higher comorbidity burden, and higher utilization of select health care services. Baseline characteristics should be adjusted for in comparative analyses of anti-TNF drug utilization.

DERIVING DOCTORS’ PRESCRIBING PATTERNS FROM CLAIMS DATA: AN APPLICATION TO TNF AND NON-TNF BIOLOGICS

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OBJECTIVES: Doctors’ practice and prescribing patterns are based on many factors, some of which are not observable. We derived doctors’ prescribing patterns from U.S. claims data to show how it might be related with tumor necrosis factor (TNF) prescription decisions. METHODS: Based on U.S. claims data we derived doctors’ IDs based on the physician who treated the enrollee for the longest period of time after eliminating any emergency room, laboratory, and radiology services. Physician prescribing patterns were then calculated from J-codes from the outpatient service and prescription drug records for TNF and non-TNF biologics. RESULTS: Among all TNF/anti-TNF prescribing doctors, patients who initiated their first TNF therapy were prescribed etanercept 42.8% of the time, adalimumab 31.2%, infliximab 21.1%, abatacept 1.7%, anakinra 0.5%, and rituximab 0.8% of the time. If doctors’ practice/prescribing patterns favored TNF use or SubQ, patients were more likely to be switched to another TNF therapy. CONCLUSIONS: Doctors’ prescribing patterns are important factors for prescription decisions. Any outcomes research models such as compliance, adherence or treatment effect studies should incorporate these patterns. Models who fail to control for these variables might contain omitted variable bias.