ADHERENCE TO DULOXETINE AND HOSPITAL UTILIZATION IN PATIENTS WITH INADEQUATE RESPONSE TO METHOTREXATE
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BACKGROUND: Biological therapies including infliximab, etanercept, adalimumab and abatacept are options for rheumatoid arthritis (RA) patients who have an inadequate response to Disease-Modifying Anti-Rheumatic Drugs (DMARDs), such as methotrexate (MTX). OBJECTIVES: To determine the cost-effectiveness of abatacept compared to other biologics in the treatment of moderate-to-severe active RA in patients with inadequate response to MTX in Canada. METHODS: An existing US-based cost-effectiveness model was adapted to the Canadian setting. The techniques of dynamic simulation were employed to estimate the impact of abatacept and other biologics on functional disability (expressed in patients’ Health Assessment Questionnaire (HAQ) scores) and clinical and economic outcomes. The model focuses on a hypothetical cohort of patients, simulating their disability quarterly over 1, 5, 10 years and lifetime. First-order simulation was conducted to gauge the influence of individual input parameters. Second-order Monte Carlo simulation was performed to examine the overall effect of uncertainty in the model. Efficacy data were based on a separate meta-analysis. The perspective adopted was that of a provincial ministry of health. Utility data were obtained from a study that mapped Health Utility Index values on a Canadian RA population. Costs (2009 CAD) and outcomes were discounted at 5% annually. RESULTS: Abatacept has a cost-effectiveness ratio of approximately $93,000 per QALY gained vs. MTX, comparable with those of etanercept ($96,000) and adalimumab ($112,000) and much lower than that of infliximab ($171,000). At willingness-to-pay between $80,000 and $97,000, abatacept is the most cost-effective option. Results were most sensitive to the assumption of the threshold for clinically meaningful HAQ improvement at 6-month and applied time horizon. CONCLUSIONS: Determination of an appropriate biological therapy in RA depends on multiple factors including economic value. Abatacept offers a valuable therapeutic option for the treatment of moderate-to-severe active RA in patients with inadequate response to one or more DMARD therapies.

MUSCULAR-SKELETAL DISORDERS – Patient-Reported Outcomes Studies

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AN EVENT-LEVEL ANALYSIS OF PRESCRIPTION REFILL INTERVALS FOR ADALIMUMAB AND ETANERCEPT IN THE TREATMENT OF RHEUMATOID ARTHRITIS
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OBJECTIVES: To assess differences in rates of shorter, longer, and on-time prescription refill intervals for adalimumab and etanercept in rheumatoid arthritis (RA) and to identify factors associated with rates of longer prescription refill intervals.

METHODS: An event-level analysis was conducted using medical/pharmacy claims from a database of 98 managed care plans. Inclusion criteria included index tumor necrosis factor inhibitor (anti-TNF) started January 2004-December 2007, patient age 218, 2 RA diagnosis codes (ICD-9 code 714.xx), and 365 days of index anti-TNF treatment. Patients with selected other inflammatory conditions or evidence of anti-TNFs during 6 months prior to index date or abatacept or rituximab while on index anti-TNF were excluded. Prescription refill intervals were assessed by comparing the observed time between dates of prescription claims with recommended dosing frequency in prescribing information (i.e., adalimumab = 14 days, etanercept = 7 days). Observed refills within seven days of the recommended dosing frequency were considered “on time”; intervals greater than seven days “longer”; and less than seven days “shorter”. Multivariable logistic regression analyses were performed to examine determinants of longer refill intervals. RESULTS: There were 26,103 prescription refill events for adalimumab (N = 1,279 patients), and 48,859 for etanercept (N = 2,277 patients). Rates of shorter refill intervals were low: 3.7% for adalimumab and 3.5% for etanercept. Longer and on-time refill interval rates were comparable for adalimumab (27.4% and 69.9%) and etanercept (29.5% and 67.0%), respectively. Regression analyses revealed etanercept longer intervals increased with duration of use (p < 0.01), female gender (p < 0.01), and lack of insurance (p < 0.01), but decreased with older age (p < 0.01). A similar pattern emerged for adalimumab. CONCLUSIONS: More than one in four of all adalimumab and etanercept prescription refill events in RA had longer refill intervals than recommended. Further research is warranted assessing the clinical and economic consequences of delays in prescription refills, which may be suggestive of under-dosing.

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PARTICIPATION, SATISFACTION AND KNOWLEDGE LEVEL AMONG PSORIASIS ARTHRITIS AND CUTANEOUS PSORIASIS PATIENTS
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OBJECTIVES: To examine attitudes and satisfaction with decision-making among psoriatic arthritis (PA) patients, comparing them with cutaneous psoriasis (CP) patients. A further aim was to analyse factors associated with patients preferring an active participation and patient satisfaction. METHODS: A questionnaire was self-completed after a routine medical visit by a consecutive sample of 231 psoriasis patients, including 33 PA patients. The questionnaire was based on previously pub-
lished instruments and included neutrally worded questions in order to minimise acquiescence response bias. RESULTS: Among patients with CP and PA 27.3% and 28.1%, respectively, preferred to leave decisions entirely to the doctor, while 72.7% and 71.9%, respectively, wanted to be involved in decision-making. Good knowledge levels on rheumatoid arthritis was present by 17.0% and 21.4% of CP and PA patients. Among PA patients, overall satisfaction was associated with doctors having asked patients if they had preferences or concerns, if they considered patients' preferences and if they informed patients about treatment options and potential side-effects. At multiple choice, information on treatment options and side-effects (OR = 1.01, 95%CI 0.25–1.50; p < 0.001) and information on treatment options (OR = 3.15, 95%CI 1.4–7.1; p < 0.006) were associated with overall satisfaction, controlling for diagnosis and other potential confounders. CONCLUSIONS: The majority of patients with PA and CP wanted to participate in decision-making, however we found substantial knowledge gaps. Satisfaction was associated with doctors providing information and actively involving patients in decision-making.

PM354 CAPTURING DATA ON HEALTH CARE USE AND COSTS FOR PATIENTS WITH OSTEOARTHRITIS: AGREEMENT BETWEEN A PATIENT-COMPLETE QUESTIONNAIRE AND ADMINISTRATIVE RECORDS

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OBJECTIVES: Estimating health care costs is an essential step in the economic evaluation of osteoarthritis-related treatments. We investigated the extent of agreement between a questionnaire and administrative records for capturing these costs for patients with osteoarthritis (OA). METHODS: METHODS: Participants with hip and/or knee OA completed a questionnaire about their health care use over three months. We gathered equivalent data from four administrative databases. Using the kappa statistic (K) we assessed the extent of agreement between the methods for dichotomous (yes/no) reporting of visits. We used Bland Altman plots to assess the reporting methods for systematic biases in the recording of visit quantity and costs. RESULTS: We recruited 50 participants, mean ± SD age 70.0 ± 7.9 years, 58% female, with primary complaints of knee (62%) or hip OA. Agreement between the two methods was fair for specialist (K = 0.24 to 0.36) and general practitioners (GP) visits (K = 0.38), and moderate to substantial for the majority of medications reported (K = 0.41–0.71). Participants accurately reported number of visits and medications used but were not accurate when reporting out-of-pocket costs for GP services. CONCLUSIONS: The questionnaire and administrative databases were in agreement with database-derived costs when considering societal costs. The cost of the questionnaire-based method was less than one-third of the cost of accessing the administrative databases. CONCLUSIONS: A patient-completed questionnaire is feasible, captures data on health care use that are in agreement with administrative databases, and can be used for capturing societal costs for patients with hip and/or knee OA.

PM355 ASSESSING THE EQUIVALENCE OF ELECTRONIC AND PAPER DATA COLLECTION OF EQ-5D DATA IN RHEUMATOID ARTHRITIS

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OBJECTIVES: The EQ-5D is the most widely utilised tool for assessing patient health states and health care capture of patient-reported health. Electronic methods (ePRO, E) are increasingly being used for patient reported outcomes. Methods: METHODS: A total of 43 patients (31 female) aged 32–83 years took part in a single session during which they completed P and E versions of the EQ-5D and health care utilisation battery (call/visit the doctor, ER, medication use, over the counter treatments). The ISRQ also captured patient demographics, missed work due to ISR, and changes in therapy due to ISR ( postponements, schedule changes, discontinuations). A post hoc analysis was conducted to explore ISR severity using items in the severity battery (mild (1–2 symptoms), moderate (3 symptoms), and severe (4 symptoms)). Each severity group was then assessed for differences in ISR health care utilization (physician services and medication use). RESULTS: Forty-one patients were recruited. All ISR characteristics in the ISRQ and 30% of items for ISR management elicited a response. There were no responses with missed work due to ISR, and no change in therapy items received a response. In the post hoc analysis, one patient in the mild group used physician services compared to 1 (14%) in the moderate group and 0 in the severe group. CONCLUSIONS: The ISRQ is the first tool available for assessing patient-reported outcomes of ISR and many items suggest that item completion rates are favorable, and the symptom battery can be applied to estimate ISR severity. Low responses to certain utilization and productivity items suggest that these items may extend the tool’s response burdens, or be of minimal perceived relevance. Given the significant cost of anti-TNF therapy, the ISRQ can be useful in analyses aimed at weighing the costs and outcomes of this medication class.