published sources. Societal utility scores were obtained from a standard gamble study conducted in Canadians. Costs (2006 CDN dollars) and outcomes were discounted at 5%. Incremental cost-effectiveness ratios (ICERs) were estimated relative to lumiracoxib. Sensitivity analyses were conducted for all input parameters to identify influential inputs. **RESULTS:** Lumiracoxib was more effective and less costly (i.e. dominated) in all subgroups when compared to celecoxib. Compared to celecoxib, lumiracoxib was predicted to reduce clinical and complicated events in non-ASA patients by 10 and 55% respectively. ICERs ranged from –$11,253/QALY to –$187,203/QALY for average risk patients and became more favorable over the cohort's lifetime. Results were most sensitive to the utility of arthritis and adverse event rates but the interpretation was robust. Compared to the majority of secondary treatment algorithms, lumiracoxib also had an attractive cost-effectiveness profile. **CONCLUSION:** From an economic perspective, lumiracoxib is an attractive treatment choice for Canadian OA patients and is more cost-effective than celecoxib.

PAR4

ECONOMIC EVALUATION OF TUMOR NECROSIS FACTOR INHIBITORS IN THE TREATMENT OF ANKYLOSING SPONDYLITIS

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OBJECTIVES: Ankylosing spondylitis (AS) is a chronic, progressive inflammatory form of arthritis with annual estimated costs of US $6720 per patient. Given the chronic nature of AS and the high costs of the newer treatments such as tumor necrosis factor (TNF) inhibitors, the goal of this study is to conduct an incremental cost-effectiveness analysis of TNF inhibitors compared with a standard treatment option in patients with AS. **METHODS:** A Markov simulation model (one-year) was used to evaluate the incremental cost-effectiveness of three treatments in patients with AS: 1) etanercept; 2) infliximab; and 3) standard treatment (NSAIDs). The decision model assumed a base-case population of 40 year-old men and the efficacy and withdrawal data were based on clinical trials of respective drugs. The effectiveness measure was Assessments in Ankylosing Spondylitis 20% Response data (ASAS 20) and the incremental cost-effectiveness ratio (ICER) was calculated as additional cost per ASAS 20, compared with the next most expensive option. The study was conducted from a payer's perspective and the cost of treatment with each agent included medication costs, monitoring costs, infusion administration costs, and physician visit costs. One-way sensitivity analyses were conducted to test the robustness of study results. **RESULTS:** The annual costs for standard treatment, etanercept, and infliximab were $3000, $12,000 and $13,000, respectively. The ICER of etanercept compared with standard treatment was $10,860.96/ASAS 20, while the ICER of infliximab compared with standard treatment was $26,314.59/ASAS 20. One-way sensitivity analyses indicated that the conclusions were relatively stable to variations in model assumptions. **CONCLUSION:** The introduction of TNF inhibitors has represented a significant advance in the available treatments for patients with AS. Thus, demonstrating the cost-effectiveness of these new treatments can be a critical factor in determining the acceptability of these new therapies especially since these agents may offer improved function and significant downstream economic savings.

PAR5

COST-EFFECTIVENESS OF EXTENDED-RELEASE AND IMMEDIATE-RELEASE TRAMADOL FOR THE TREATMENT OF CHRONIC OSTEOARTHRITIS PAIN

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OBJECTIVES: To compare the cost-effectiveness of once-daily tramadol extended-release (ER) and branded and generic tramadol immediate-release (IR) formulations for the treatment of chronic osteoarthritis pain from a managed care payer perspective. **METHODS:** A one-year model was constructed to compare the cost per percent pain reduction using tramadol formulations for treating chronic osteoarthritis pain. Prevalence, clinical efficacy, and model assumptions were based on product labels, clinical study reports, and published literature. Overall costs included: drug costs (Red Book), concomitant drug costs to treat adverse events (AEs), and resource utilization costs (office visits, emergency room visits, and inpatient hospitalizations). Effectiveness was defined as percent pain reduction, calculated as mean change from baseline in pain intensity score (ER 35.37% and IR 29.63%). Based on the literature a 30% pain reduction is considered clinically meaningful (Farrar 2001). In the cost-effectiveness analysis, a linear relationship across all costs and effectiveness ranges was assumed to extrapolate costs per clinically meaningful pain reduced (30%). Univariate sensitivity analyses were conducted to determine model inputs with the most influence on model results. **RESULTS:** The overall annual cost of therapy per patient was $8238 (ER), $8120 (branded IR), and $7561 (generic IR). The annual patient cost for every percentage pain reduction was lowest for ER ($232.90) followed by generic IR ($255.18) and branded IR ($274.04). The incremental cost-effectiveness ratio (ICER) for ER versus branded IR was $20.48 and the ICER for ER versus generic IR was $118.00 per percentage pain reduction. Sensitivity analyses indicated that the drug cost for ER has the most influence on the cost-effectiveness ratio. **CONCLUSION:** This analysis suggests the drug acquisition cost of ER may be offset by its clinical effectiveness, resulting to be a more cost-effective treatment alternative.

PAR6

A COMPARISON OF HEALTH CARE COSTS IN PATIENTS WITH PSORIATIC ARTHRITIS (PSA) WHO RECEIVED ETANERCEPT (ETA), ETA PLUS METHOTREXATE (MTX), INFLIXIMAB (INF), OR INF PLUS MTX

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OBJECTIVES: To evaluate the all-cause health care costs among patients with PsA, who received anti-TNF treatment. **METHODS:** A retrospective study using the PharMetrics database, compiled from managed care plans throughout the United States from January 2000 through June 2005, was conducted. Patients continuously enrolled for 6 months pre- and 12 months post-diagnosis, and having 2 distinct claims of PsA, were included in the study. A 6-month period prior to the index diagnosis date was used to establish anti-TNF and/or MTX treatment, naïve patients, and to identify new PsA patients. Per patient per month treatment (PPPM) costs was calculated for patients during their treatment period. The cost of adverse events could not be identified separately in this analysis. A multivariate model was used to adjust for covariates including age, gender, number of medical visits, Charlson Co-morbidity Index, and pre-period health care costs. **RESULTS:** A total of 357 patients with PsA were included in the analysis. Nearly half of the patients