HEALTH ECONOMIC EVALUATION OF PATIENTS WITH RHEUMATOID ARTHRITIS (RA) TREATED WITH ADALIMUMAB
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OBJECTIVES: To assess the cost-effectiveness of adalimumab versus etanercept in the management of Belgian patients with moderate to severe RA. Adalimumab is a human anti-TNF monoclonal antibody and is administered every other week, in combination with methotrexate (MTX) or other disease-modifying antirheumatic drugs, or as monotherapy. Two scenarios were developed: one for which each TNF-antagonist was combined with MTX, and one for which each was given as monotherapy.

METHODS: An incidence-based Markov model was created in MS-Excel, reflecting the current treatment strategies and their associated outcomes. ACR response rates were obtained for adalimumab and etanercept from pivotal clinical trials. After adjustment for differences in trial populations according to the Choi-method, 42.1% of adalimumab-therapy patients, 66.7% of adalimumab plus MTX patients, 60.1% of etanercept-therapy patients, and 65.6% of etanercept plus MTX patients achieved a ≥20% improvement in ACR criteria. Second-line infliximab therapy and a return to watchful-waiting in case of inadequate response and/or adverse events were also considered. Estimated resource use was provided by 6 rheumatologists. Effectiveness was expressed in QALYs, and calculated according to a validated method (Boggs) from HAQ-DI scores for ACR20 responders and non-responders. The analysis spanned 3 years.

RESULTS: Etanercept plus MTX and adalimumab plus MTX generated comparable utilities (1.284 vs. 1.287 QALYs), at a slightly higher cost for etanercept (38,970€ vs. 38,578€). An analysis of both as monotherapies resulted in a cost of 28,757€ and 1.138 QALYs for etanercept, and 22,784€ for adalimumab. The associated incremental cost-effectiveness was 69,971€, based on price-parity. Sensitivity analyses showed that results were sensitive toward variations in AE rates, response rates of second-line infliximab, and modifications in the administration modalities of adalimumab. However, these sensitivities did not affect the comparative results. CONCLUSIONS: Adalimumab is comparably effective and cost-effective to etanercept, but at a slightly to moderately lower cost.

PATTERNS OF DOSING WITH ADALIMUMAB AMONG COMMERCIALLY INSURED PATIENTS
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OBJECTIVES: To conduct a descriptive examination of patterns of dosing with adalimumab among a cohort of commercially-insured patients to assess whether dosing frequency in clinical practice is consistent with standard labeling. METHODS: Data were obtained from the PharMetrics Patient-Centric Database, which contains integrated medical and pharmacy claims data for approximately 43 million unique patients from 74 health plans across the U.S. All patients with two or more prescriptions for adalimumab during the period January–December 2003 were initially identified and followed for up to 11 months. Dosing frequency was expressed based on the average number of calendar days between injections, which was calculated by dividing the number of elapsed days between prescription claims by the quantity supplied (i.e., number of syringes) for the prescription initiating the interval. Injection frequency was tracked over time based on patients available at each prescription interval, and was also measured specifically among patients with at least six prescription intervals (i.e., seven consecutive prescriptions). For this calculation, the percentage of patients with time between injections that approximated every-week (0–11 days) vs. every-other-week (12 days or more) dosing was calculated. RESULTS: A total of 527 patients were available for analysis. The mean age of the sample was 51.3 years; 76.1% were female. The average number of days between injections declined substantially over time, from 16.2 days at the first interval (N = 527) to 12.5 days at the 10th interval (N = 27). As of the sixth interval, 34 patients (23.8%) were receiving injections on an approximate every-week basis, while the remaining 109 patients (76.2%) were dosed every other week. CONCLUSIONS: The results of this analysis suggest that the time between adalimumab injections may decline over multiple treatments; furthermore, after substantial use of adalimumab, up to one-quarter of patients may require injections more frequently than what is stipulated in the labeling.