ACR30 criteria with each of the drugs compared. NNTs calculated as the inverse of the Absolute Risk Reduction, have been derived using results according to intention-to-treat from a randomised controlled trial (US310) comparing 20 mg daily of leflunomide with 7.15–15 mg weekly of metotrexate, administered during 1 year. Considered annual treatment costs related with the costs of the drug administered the consultations and lab tests performed for routine monitoring, according to the information provided by the manufactures in their summary of product characteristics. Unitary costs have been obtained from Spanish cost databases. RESULTS: Using the ACR20 criteria NNTs with leflunomide and metotrexate SC are 4 (95% CI 2.56–7.71) and 5 (95% CI 3.03–14.3) respectively. Using the ACR50 criteria NNTs are 4 (95% CI 2.72–6.54) and 7 (95% CI 4.03–19.3). The annual cost of each treatment per patient-year (drugs and monitoring) equals 1793.3€ in case of leflunomide and 2149.2€ for metotrexate SC. Combining these results the cost of a controlled patient according to ACR20 amounts 7173€ for leflunomide and 10,746€ for metotrexate SC. Results according to ACR50 equals 7173€ and 15044€ respectively; CONCLUSION: From the Spanish National Health System perspective and effectiveness measured as respondent according to ACR20 the use of leflunomide for patients with Rheumatoid Arthritis could achieve important cost savings compared with the administration of metotrexate SC. The savings could be even more important when the ACR50 response criteria are considered.

ASSOCIATION BETWEEN DOSE CHANGES AND HEALTH CARE COSTS IN RHEUMATOID ARTHRITIS PATIENTS WHO RECEIVED INFlixIMAB THERAPY
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OBJECTIVES: To explore the relationship between dose changes and costs in rheumatoid arthritis (RA) patients treated with infliximab. METHODS: A 5-year retrospective study using the Medstat MarketScan database was conducted. The sample consisted of patients who had a diagnosis of RA (ICD-9 = 714.xx); at least three administrations of infliximab between 1999 and 2005; no history of using anti-tumor necrosis factors for at least 6-month prior to the index infusion, and continuous enrollment for at least 12 months after the index infusion. Per-member-per-month (PMPM) medical and pharmacy costs were compared among three patient cohorts: increase, decrease, and no change in dose during the first and the last doses in the study period. Differences in costs were conducted controlling for age, gender, and a health risk-adjuster score. The cost of adverse events could be adjusted for potential confounders, were performed to compare per-member-per-month (PMPM) expenditures. RESULTS: In total, 9545 RA patients were included (2405 in Group A and 7140 in Group B); 70.5% were female and the average age was 48.0 years. In the pre-index period, Group A had higher RA-related PMPM ($211 versus $32, p < 0.0001) and total health care costs ($711 versus $503, p < 0.0001) than Group B. Compared with the pre-index period, RA-related PMPM costs (excluding anti-TNF drugs) decreased for Group A by $44 (~20.9%) but increased for Group B by $3 (~9.5%) (p = 0.0332) during the post-index period. After adjusting for confounding variables, RA-related cost differences from pre- to post-index period remained between anti-TNF users and controls (p = 0.0049).
CONCLUSION: Although their pre-index RA-related costs were significantly higher, post-index RA-related costs (excluding anti-TNF drug costs) of RA anti-TNF users decreased significantly from pre-index costs compared with RA non-anti-TNF user costs. Additional analyses using clinical and quality-of-life measures are needed to determine the effectiveness of anti-TNF therapies.

COST-EFFECTIVENESS OF RITUXIMAB (MABTHERA) COMPARED WITH ABATAcept (ORENcia) FOR THE TREATMENT OF MODERATE/SEVERE RHEUMATOID ARTHRITIS (RA) IN THE UNITED KINGDOM
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OBJECTIVES: To evaluate the cost-effectiveness of rituximab compared to abatacept for the treatment of moderate/severe RA patients following the failure of one previous TNF-inhibitor from the perspective of the UK. METHODS: A cost-utility approach was adopted, evaluating the total direct NHS costs and QALYs. Baseline patient characteristics were based on the REFLEX phase III trial. A micro-simulation model of 10,000 RA patients estimated lifetime Health Assessment Questionnaire (HAQ) progression, QALYs and direct costs. The starting time-point of the model was upon commencement of treatment with abatacept or medical costs and the impact of dose changes on clinical and humanistic outcomes is recommended.

OBJECTIVES: To evaluate the impact of anti-tumor necrosis factor (TNF) therapy on health care costs in rheumatoid arthritis (RA) patients. METHODS: Two groups of patients were identified using claims data from Blue Cross Blue Shield health plans: Group A-RA patients who initiated anti-TNF therapy (adalimumab, etanercept or infliximab) between January 1, 2003 and June 30, 2005; Group B-RA patients without anti-TNF therapy. The groups were matched for gender, age and geographic region (3 controls: 1 anti-TNF user). The index date for Group A was defined as the date of first anti-TNF therapy; Group B patients were assigned the index date of their matched case. All patients were continuously enrolled for >6 months before and >12 months after the index date. RA-related and total health care expenditures, excluding anti-TNF drug cost, were calculated for the pre- and post-index periods. Multivariate analyses, controlling for potential confounders, were performed to compare per-member-per-month (PMPM) expenditures. RESULTS: In total, 2318 patients included in the study, 685 (29.6%) had decreased dose between the first and the last doses in the study period. Differences in costs were conducted controlling for age, gender, and a health risk-adjuster score. The cost of adverse events could be adjusted for potential confounders, were performed to compare per-member-per-month (PMPM) expenditures. RESULTS: In total, 9545 RA patients were included (2405 in Group A and 7140 in Group B); 70.5% were female and the average age was 48.0 years. In the pre-index period, Group A had higher RA-related PMPM ($211 versus $32, p < 0.0001) and total health care costs ($711 versus $503, p < 0.0001) than Group B. Compared with the pre-index period, RA-related PMPM costs (excluding anti-TNF drugs) decreased for Group A by $44 (~20.9%) but increased for Group B by $3 (~9.5%) (p = 0.0332) during the post-index period. After adjusting for confounding variables, RA-related cost differences from pre- to post-index period remained between anti-TNF users and controls (p = 0.0049).
CONCLUSION: Although their pre-index RA-related costs were significantly higher, post-index RA-related costs (excluding anti-TNF drug costs) of RA anti-TNF users decreased significantly from pre-index costs compared with RA non-anti-TNF user costs. Additional analyses using clinical and quality-of-life measures are needed to determine the effectiveness of anti-TNF therapies.