OBJECTIVES: To evaluate treatment adherence with TNF inhibitors and methotrexate in patients with rheumatoid arthritis. METHODS: We studied new drug starts with TNF inhibitors and methotrexate in RA patients enrolled in the California Medicaid program for the period 1999–2002. Drug discontinuation was defined if there was no prescription refill for 2 consecutive prescription periods (60 days for methotrexate and etanercept and 16 weeks for infliximab). Treatment persistence was assessed in terms of the number of days of continuous therapy. RESULTS: A total of 77,757 patients had a diagnosis of RA during 1999–2002. Of these, 8224 patients had a new drug start on methotrexate, and 2700 on TNF inhibitors (1251 for infliximab and 1449 for etanercept). Patients on TNF inhibitors were more likely to be female and non-white. During the study period (1999–2002), 82.3% of patients who started on methotrexate switched or discontinued their therapy, or added another drug (TNF inhibitor or leflunomide). Of the 2700 new drug starts on TNF inhibitors, 1649 patients (61.1%) discontinued or switched therapy (78.1% for etanercept, 41.3% for infliximab, p < 0.001 compared to methotrexate). The time to discontinuation was significantly higher in patients on TNF inhibitors (460.7 + 10.4 days) compared to those on methotrexate (364.5 + 4.5 days). Cox proportional hazard model analysis showed that after adjusting for age, gender and ethnic origin, the treatment discontinuation was still statistically significantly different between the two groups (p < 0.001). CONCLUSIONS: RA patients started on TNF inhibitors tend to stay significantly longer on therapy and have a lower rate of discontinuation compared to those started on methotrexate, perhaps indicating a better effectiveness/toxicity trade-off.
ETANERCEPT VERSUS INFlixIMAB PLUS METHOTREXATE IN RHEUMATOID ARTHRITIS: A COST-EFFECTIVENESS ANALYSIS FROM THE ITALIAN NHS PERSPECTIVE

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OBJECTIVES: Rheumatoid Arthritis (RA) is a chronic disease, whose social burden is mostly related to costs that increase with the progression of illness severity and related disability. Thus it is possible that early treatment induces significant cost savings. Recently favourable cost-effectiveness ratios were demonstrated for Etanercept (ETA) versus Infliximab plus Methotrexate (INFLI + METHO) for early RA treatment, in severe US patients previously untreated with METHO. An adaptation of the US model to Italy was undertaken, in order to evaluate cost-effectiveness of ETA, in the Italian National Health care System (NHS) perspective (direct medical costs).

METHODS: Cost-effectiveness analysis compared ETA 25mg twice weekly with INFLI 3mg/kg or 10mg/kg (mean patient weight 74Kg was assumed, from clinical trials) q4 or q8 weeks plus oral METHO (16mg/week). Time horizon was established at two years, according to published long-term follow-up clinical data. Also, drug dosages, efficacy and probabilities of events were based on published clinical trial data. Market prices were applied for medication costs plus official tariffs for IV administration and monitoring for INFLI and METHO.

For sepsis as a major adverse event, the NHS hospital tariff was used. The total per patient cost was then calculated and the cost-effectiveness ratio was expressed as cost/patient to prevent radiographically detected RA progression. RESULTS: Total cost/patient for ETA was lower compared to INFLI + METHO at different dosages (respectively, €25,931 vs from €44,745 to €119,215, depending on INFLI schedule), with the only exception of INFLI 3mg/kg q8 weeks (€24,189). Cost-effectiveness ratio (cost/patient successfully treated) was €41,160 for ETA vs values in the range of €56,122 to €218,743 for INFLI + METHO. CONCLUSIONS: ETA was found dominant (less costly and more effective) versus 3 different dosages of INFLI + METHO, and showed a positive cost-effectiveness ratio versus INFLI 3mg/kg q8 weeks, in the perspective of the Italian NHS.