Cost-Effectiveness of Abatacept Compared to Adalimumab in Italy Based on a Head-to-Head Outcomes Study in Rheumatoid Arthritis

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Background: In Italy, SC abatacept is used in RA patients, alone or in combination with MTX. This study was conducted to evaluate the cost-effectiveness of this combination compared to adalimumab.

Methods: A previously published decision tree model based on 1-year data from the AMPLE trial was adapted for patients with RA, for whom 2-year data were available, in an Italian setting. The model calculates results per cohort of 1000 patients. Onset and offset of response were modeled using Markov decision processes, with patients remaining in the Markov model for 2 years. The model was used to simulate 6 scenarios: 2 years of abatacept and 2 years of adalimumab, with adalimumab in treatment-naive and MTX-exposed RA patients, and with or without local injection-site reactions.

Results: incremental cost-effectiveness ratio (ICER) was calculated for 3 of the scenarios, with the following results: (1) adalimumab vs abatacept in treatment-naive patients with local injection-site reactions: ICER = €577,140 per QALY gained; (2) adalimumab vs abatacept in MTX-exposed patients with local injection-site reactions: ICER = €10,865 per QALY gained; (3) abatacept vs adalimumab in MTX-exposed patients with local injection-site reactions: ICER = €577,140 per QALY gained.

Conclusions: This study shows that the health economic value of abatacept compared with adalimumab from the perspective of the Italian NHS depends on the choice of health outcome endpoint evaluated. For health outcomes favoring abatacept, cost savings are realized. For adalimumab, health gains require additional costs. Hence, improvements in health outcomes with abatacept reduce the overall budget, whereas improvements in health outcomes with adalimumab lead to an increase in budget.