

Cost-effectiveness of rituximab (MabThera) in diffuse large B-cell lymphoma in The Netherlands.

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Abstract

OBJECTIVE: To determine the incremental cost-effectiveness ratio (ICER) of cyclophosphamide, doxorubicin, vincristine and prednisone (CHOP) vs. CHOP plus rituximab (R-CHOP) in diffuse large B-cell lymphoma (DLBCL) patients in the Netherlands.

METHODS: A state transition model was developed to estimate the clinical course, costs and quality of life of patients with stage II, III or IV DLBCL receiving initial treatment with CHOP or R-CHOP to arrive at the ICER. The base year for the cost analysis was 2002 and was performed from the societal perspective. Only direct medical costs were included. The time horizon of the model was 15 yr and both costs and effects were discounted at 4%. Sensitivity analyses were performed to determine the effect of varying base-line assumptions of the model.

RESULTS: The incremental gain in quality adjusted life years (QALYs) was 0.88 in both the younger and the older patient groups. The costs were 12 343 higher in the younger group of patients and 15 860 in the older patients. This resulted in an ICER of 13 983 for the younger and 17 933 for the older patients per QALY gained. These results were sensitive to the time horizon of the model, other variations had a marginal impact on the outcome.

CONCLUSION: The addition of rituximab to standard therapy for DLBCL results in a gain of 0.88 QALYs. The ICER of 13 983 for younger and 17 933 for older patients per QALY gained should, seen in the light of disease severity, be considered acceptable by most policy makers in priority setting for budget allocation.

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