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Cost-effectiveness of different strategies for treatment relapsing-remitting multiple sclerosis

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Aim: To compare the cost-effectiveness of different disease-modifying therapies' strategies for treatment of relapsing-remitting multiple sclerosis (RRMS) (Figure 1). **Methods:** A Markov model was developed to assess the cost-effectiveness and incremental cost-effectiveness ratios for different strategies of using disease-modifying therapies from a US third-party payer perspective. All costs were converted to 2014 US\$. **Results:** Over 20 years, the total costs per patient were estimated at US\$161,136.60 for Strategy 1 (symptom management [SM] alone), US\$551,650.66 for Strategy 2 (SM and IFN- β -

1a), US\$703,463.60 for Strategy 3 (SM and natalizumab) and US\$670,985.24 for Strategy 4 (SM and alemtuzumab). The accumulated quality-adjusted life years were 10.49, 10.66, 10.69 and 10.71 for each of the four Strategies 1-4, respectively. The resulting incremental cost-effectiveness ratios were 2,297,141.53 comparing Strategy 2 to Strategy 1, and -1,623,918.00 comparing Strategy 4 to Strategy 3. **Conclusion:** Strategy 1 was the cost-effective strategy for treatment of RRMS when compared with other strategies.

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