REAL-WORLD COST-EFFECTIVENESS OF BORTEZOMIB IN RELAPSED OR REFRATORY MULTIPLE MYELOMA IN THE NETHERLANDS


OBJECTIVES: The Dutch reimbursement policy for expensive inpatient medicines requires outcomes research after four years of temporary reimbursement. Based on a retrospective study, we explored the cost-effectiveness of bortezomib for relapsed/refractory multiple myeloma in Dutch daily practice. METHODS: Detailed clinical data from a real-world cohort of 72 patients treated with bortezomib and 67 patients never treated with bortezomib were collected from medical records. Validity of the incremental cost-effectiveness was assessed by comparing baseline prognostic between bortezomib and non-bortezomib patients. Clinical effectiveness was evaluated by comparing Kaplan-Meier survival estimates. Costs of resource use from a hospital perspective were based on patient-level data. RESULTS: Prognostic factors for bortezomib patients were significantly different compared to non-bortezomib patients. Incremental analyses for bortezomib versus non-bortezomib patients were therefore not performed. Total mean costs and median survival from start of relapsed/refractory treatment for bortezomib patients were €84,042 and 33.2 months. Bortezomib accounted for 21% of total costs among these patients. For non-bortezomib patients, total mean costs and median survival from start of relapsed/refractory treatment were €54,799 and 21.6 months. The proportion of patients still in follow-up at the end of data collection was slightly higher in bortezomib versus non-bortezomib patients (51% vs. 46%). Total mean costs for bortezomib patients did not differ significantly when excluding patients still in follow-up. For non-bortezomib patients, total mean costs bortezomib differed significantly when excluding patients still in follow-up, mainly due to high costs of lenalidomide treatment, stem cell transplants and inpatient hospital stays.

CONCLUSIONS: Our real-world data challenged the assessment of the incremental cost-effectiveness of bortezomib versus other treatments in the indication of relapsed/refractory multiple myeloma. It was possible to estimate the cost and effects for bortezomib patients in daily practice to determine the real-world value. Data synthesis incorporating effectiveness for the relevant comparator might facilitate estimation of a valid ICER.
option. An additional analysis was done supposing that infliximab's effectiveness was superior to ustekinumab's. The ICER per patient with PASI 75 between these products was €220,352 in Colombia and €50,989 in Peru. These values were higher than Colombian and Peruvian health systems' willingness to pay per PASI 75 (€40,334 and €29,242, respectively), calculated based on average for transition probabilities from the 30-day run-in and maintenance therapy. Transition probabilities were based on the comparative and long-term clinical trials identified through a systematic literature review. Missing data, including resource utilization, were obtained from a Delphi panel, and cost data were obtained from the official price/tariffs lists. Utilities were derived from the literature and were supplemented and validated by the Delphi panel.

RESULTS: The total cost of treatment with the lidocaine plaster was €1,414 per patient at a daily consumption of 1.1 plasters, compared with €1,100 for gabapentin (average dosage 100 mg/day during maintenance phase), and €1,348 for pregabalin (average dosage 488 mg during maintenance phase). Lidocaine plaster generated 0.428 QALYs, compared with 0.339 for gabapentin, and 0.399 for pregabalin. Lidocaine plaster therefore had an incremental cost-effectiveness ratio of 332.50 QALY gained relative to gabapentin at generic price, and €742/QALY relative to pregabalin. Scenario analyses and extensive one-way sensitivity analyses on all parameters including the time horizon confirmed the robustness of the results. CONCLUSIONS: The lidocaine 5% plaster is a highly cost-effective treatment for PHN in Spain.