6553 General Poster Session (Board #16D), Mon, 1:15 PM-5:15 PM

Cost-effectiveness analysis of bendamustine plus rituximab versus CHOP-R in treatment-naive patients with mantle cell (MCL) and indolent lymphomas (IL).

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Background: To assess the cost-effectiveness of bendamustine plus rituximab (B-R) vs cyclophosphamide, doxorubicin, vincristine, prednisone, and rituximab (CHOP-R) for treatment-naive patients with MCL or IL from a US healthcare payer perspective. **Methods:** A discrete event simulation was developed for a mixed population of patients with MCL or IL. Two arms were simulated, each containing 1000 identical MCL or IL patients treated with B-R or CHOP-R. Input data for baseline characteristics, overall response, and risks for treatment-related adverse events (AEs) and infections were obtained from the NHL 1-2003 trial (n=549, primarily stage IV MCL and IL); gaps were filled by consultation with experts. Direct medical costs and utilities were estimated based on US databases and published literature. Costs and benefits were discounted at 3% per annum. Base case model predictions were performed by selecting regression models that had a best fit to progression free survival (PFS). Robustness of these models was evaluated by testing other models with reasonably good fit. **Results:** In the base case, model predicts longer PFS for B-R than for CHOP-R in MCL (average of 49.8 vs 28.6 months) and IL (67.9 vs 51.0). Quality-adjusted life-years (QALYs) per patient were higher for B-R than CHOP-R for MCL (3.51 vs 2.68) and IL (4.42 vs 3.58). For MCL, total per-patient costs were $115,191 for B-R and $100,261 for CHOP-R; for IL, respective costs were $134,814 and $110,065, resulting in incremental cost-effectiveness ratios (ICERs) for B-R vs CHOP-R of $18,161 per QALY for MCL and $29,549 for IL (ICER<$50,000 to be cost-effective). Higher complete and partial response rates for B-R than for CHOP-R impacted subsequent treatment costs, which were lower for B-R by $21,632 for MCL and $24,961 for IL, as well as AE costs, lower by $10,113 and $10,570, respectively. The model results were robust with respect to the use of alternative regression models for PFS estimation. **Conclusions:** In patients with MCL or IL, the model demonstrates that B-R is a cost-effective alternative to CHOP-R. Alternative regression models confirmed robustness of results. Support: Teva Pharmaceutical Industries Ltd.