Cost-effectiveness of zanubrutinib + obinutuzumab for treatment of relapsed or refractory follicular lymphoma in the United States

Authors: Sameh Gaballa MD[1], Mei Xue[2], Shilpi Swami[3], Anuja Bhardwaj[4], Radha Sharma[5], Leyla Mohseninejad[6], Marjan Massoudi[2], Keri Yang[2]

Affiliations: [1]Moffitt Cancer Center, Tampa, FL, USA; [2]BeiGene USA; [3]ConnectHEOR, UK; [4]ConnectHEOR, India; [5]ConnectHEOR, Canada; [6]BeiGene Netherlands B.V.

ABSTRACT

Objectives: The FDA-approved combination of zanubrutinib and obinutuzumab (Z+O) has shown promise in phase 1b and phase 2 studies for treating third-line or higher refractory/relapsed follicular lymphoma (3L+ R/R FL). This study evaluates the cost-effectiveness of Z+O compared with mosunetuzumab (mosun) from the United States (US) payer perspective over a 40-year (lifetime) horizon.

Methods: Health outcomes and costs, both discounted at 3% annually, were modeled using a three-state partitioned-survival model comprising the health states 'progression-free' [PF], 'progressed disease' [PD], and death. Progression-free survival, overall survival, and time on treatment for Z+O were extrapolated using parametric models based on the patient-level data from the phase 2 ROSEWOOD trial (NCT03332017). The relative PFS data of Z+O vs mosun was estimated from a matching-adjusted indirect comparison (MAIC), as no direct head-to-head trial comparison was available, to account for differences in the population's baseline characteristics. With immature OS data, an assumption of equal OS was incorporated following US expert opinion. Costs included drug acquisition and administration, subsequent therapies, adverse event management, healthcare resource use, and terminal care. Utility data were sourced from the GO29781 trial and were adjusted for age and adverse events. Model uncertainties were explored via deterministic/probabilistic sensitivity analyses (PSA).

Results: In the base case, even with a longer length of treatment (12.9 mos), the lifetime cost of Z+O is competitive with mosun (incremental cost = $7,517). Additionally, Z+O extends quality-adjusted life years (QALYs) by 0.21 (Z+O =5.15 vs mosun=4.94), reflecting a health benefit. This yields an incremental cost-effectiveness ratio (ICER) of $35,819 per QALY and a resulting net monetary benefit of $23,963 at a willingness-to-pay threshold (WTP) of $150,000. The PSA results are consistent and confirm the model's robustness.

Conclusions: This model-based study suggests that Z+O is a cost-effective treatment option compared to mosun for 3L+ R/R FL in the US.