

BUDGET IMPACT OF ZANUBRUTINIB FOR TREATMENT OF RELAPSED OR REFRACTORY CHRONIC LYMPHOCYTIC LEUKEMIA IN THE UNITED STATES

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OBJECTIVES: The phase 3 ALPINE trial (NCT03734016) compared the efficacy and safety of ibrutinib, a first-generation Bruton's tyrosine kinase (BTK) inhibitor, with zanubrutinib, a novel highly selective BTK inhibitor, in patients with relapsed or refractory (R/R) chronic lymphocytic leukemia (CLL) or small lymphocytic lymphoma (SLL). The study aimed to conduct a budget impact analysis to estimate the incremental costs associated with using zanubrutinib in CLL/SLL patients from the US payer perspective.

METHODS: An Excel-based budget impact model (BIM) was developed to estimate the economic impact of providing adult R/R CLL patients access to zanubrutinib within a 1-million-member blended US health plan (80% commercial and 20% Medicare). Comparators included ibrutinib, acalabrutinib, venetoclax-based regimen, and chemo-immunotherapy. The targeted patient population was estimated based on epidemiological inputs. Treatment duration, adverse events (AE), dosing, and treatment schedules were obtained from clinical trial publications. Cost inputs included drug acquisition costs, drug administration costs, monitoring costs, and adverse event management costs. Model outputs included annual budget impact, per member per month cost (PMPM), and per treated member per month cost (PTMPM) differences. Deterministic sensitivity analyses (DSA) were conducted to assess parameter uncertainties and explore key model drivers.

RESULTS: In a hypothetical 1M members health plan, two patients were estimated to have R/R CLL and initiated treatment. Total healthcare costs were \$426K with zanubrutinib and \$430K without, suggesting that adding zanubrutinib is associated with a cost-saving of \$3,607 over 1 year (PMPM <-\$0.001; PTMPM: -\$175). The BIM results were most sensitive to zanubrutinib wholesale acquisition cost.

CONCLUSION: Results from the economic analysis suggests that providing access to zanubrutinib for patients with R/R CLL is associated with cost savings to a US health plan.