Budget Impact Analysis of Zanubrutinib for the Treatment of Adult Patients With Mantle Cell Lymphoma Who Have Received At Least One Prior Therapy From the Payer Perspective in the United States

Rongzhe Liu\(^1\); Yu-Chen Yeh\(^1\); Keri Yang\(^3\); Xin Gao\(^1\); Mark Balk\(^3\), Boxiong Tang\(^3\)

\(^1\) Pharmerit International, Bethesda MD; \(^2\) Pharmerit International, Newton MA; \(^3\) BeiGene, Ltd.

**OBJECTIVES:** Mantle cell lymphoma (MCL) is a rare, aggressive B-cell non-Hodgkin lymphoma. This study aimed to evaluate the budget impact of zanubrutinib, a Bruton’s tyrosine kinase inhibitor, for the treatment of adult patients with MCL in the United States (US) who have received at least 1 prior therapy.

**METHODS:** A 1-year Excel-based model was developed to estimate the budget impact of adding zanubrutinib to the formulary of a 1-million-member health plan from the US Medicare and commercial payer perspectives. Comparators included acalabrutinib, ibrutinib, bendamustine/rituximab, and rituximab/cyclophosphamide/doxorubicin/vincristine/prednisone (RCHOP). The targeted patient population was estimated based on literature review. Treatment duration and adverse event (AE) rates were obtained from clinical trial publications and prescribing information. Costs of drugs, drug administration, monitoring, and AE management were obtained from the RED BOOK and published fee schedules. Costs were reported in 2020 US dollars.

**RESULTS:** In a 1-million-member Medicare plan, 13 patients were estimated to have received at least 1 prior therapy for MCL and eligible for further treatment. After the adoption of zanubrutinib, the estimated 1-year budget impact was -$8139 (-$633 per-patient per-year [PPPY], and -$0.001 per-member per-month [PMPM]) for the Medicare plan. In a 1-million-member commercial plan, 1 patient would be eligible for further treatment. The estimated 1-year budget impact was -$739 (-$633 PPPY, and -$0.000 PMPM) in the commercial plan. One-way sensitivity analyses showed that the main drivers of the budget impact were drug acquisition cost and treatment duration of zanubrutinib, followed by treatment duration and drug acquisition costs of acalabrutinib and ibrutinib.

**CONCLUSIONS:** Zanubrutinib offers an important treatment option for adult patients with MCL who have received at least 1 prior therapy. Adding zanubrutinib to the formulary is associated with cost savings over 1 year, driven primarily by the lower annual per-patient drug acquisition cost of zanubrutinib.