Budget Impact Analysis of Zanubrutinib + Obinutuzumab for the Treatment of Relapsed or Refractory Follicular Lymphoma in the United States

Poster EE190

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BACKGROUND

- Follicular lymphoma (FL) is a typically indolent form of non-Hodgkin lymphoma (NHL) with an estimated 2.5 new cases per 100,000 men and women per year in the US[1]
- While most cases are indolent, FL is chronic and incurable. Patients with FL can have high response rates to early lines of treatment; however, in patients who relapse after ≥2 lines of therapy, remission tends to be shorter[2]
- Patients with FL treated in the routine third line setting have highly variable treatment patterns and unfavorable outcomes, representing a continued unmet medical need[3]
- Zanubrutinib + obinutuzumab was approved by the FDA for relapsed/refractory (R/R) FL in March 2024 and is included in the NCCN guidelines as a Category 2A option in the third line or later (3L+) setting[4]
- Zanubrutinib + obinutuzumab is being investigated in a phase 2, open-label, randomized study (ROSEWOOD; NCT03332017) for the treatment of adults aged ≥18 years with R/R FL who had previous treatment with ≥2 lines of therapy, including an anti-CD20 antibody and an alkylating agent
- This study aimed to estimate the budget impact of access to zanubrutinib + obinutuzumab for the treatment of R/R FL in 3L+ in adult patients from a US healthcare payer perspective

METHODS

Model Design

- An Excel-based budget impact model (BIM) was developed to estimate the economic impact of providing zanubrutinib + obinutuzumab access for adult patients with 3L+ R/R FL within a 1-million-member mixed commercial and Medicare US health plan over a 3-year period
- The model analysis compared a reference scenario without zanubrutinib + obinutuzumab on formulary to an alternative scenario with zanubrutinib + obinutuzumab on formulary
- The BIM accounted for a 3L+ FL population; projected market shares; and costs for drug acquisition, administration, monitoring, premedication, and adverse events (AEs)
- Model outputs included total, per-member per-month (PMPM), and per-treated-member per-month (PTMPM) annual budget impact over a 3-year horizon
- Costs were reported in 2024 US dollars
- A one-way sensitivity analysis was conducted by varying each input by 20% to assess the impact of input uncertainty on outcomes
- The 3L+ R/R FL patient population entering the model was estimated based on US-specific epidemiologic inputs for NHL prevalence, the proportion of NHL cases that are FL, and the proportion of patients who receive 3L+ treatment (**Table 1**)

Table 1. Target Population

	Input, %	Source
Medicare proportion	22.0	US Census Bureau 2021[5]
Commercial proportion	78.0	US Census Bureau 2021[5]
Plan members aged ≥18 years	77.7	US Census Bureau 2021[5]
NHL prevalence (age 18-64 years)	0.1315	SEER 2023[6]
NHL prevalence (age ≥65 years)	0.8970	SEER 2023[6]
Proportion of NHL that is FL	20.0	NCI PDQ 2023[7]
Proportion of patients with FL receiving 3L+ treatment	4.1	Huntington 2022[8]

3L+, third line or later; FL, follicular lymphoma; HNL, non-Hodgkin lymphoma; NCI PDQ, National Cancer Institute Physician Data Query; SEER, Surveillance, Epidemiology, and End Results.

- Comparators included zanubrutinib + obinutuzumab; lenalidomide ± rituximab; obinutuzumab ± lenalidomide; bendamustine + obinutuzumab; cyclophosphamide, doxorubicin, prednisone, rituximab + vincristine (R-CHOP); tazemetostat; mosunetuzumab-axgb; axicabtagene ciloleucel; and tisagenlecleucel (**Table 2**)
- Treatment comparators and baseline market shares were based on US market forecasts[9]
- Zanubrutinib + obinutuzumab was estimated to have a 10% market share in year 1 and 15% in years 2 and 3, drawing from lenalidomide-based regimens, obinutuzumab monotherapy, and tazemetostat
- AE management costs included grade ≥3 AEs that occurred in ≥5% of patients treated with one of the comparators
- AE incidences were extracted from trial publications and package inserts,[10-20] and AE costs reflected current Healthcare Cost and Utilization Project data[21]
- Drug cost were assumed to be undiscounted wholesale acquisition cost[22]
- Orally administered treatments were assumed to have no administration cost, and Centers for Medicare & Medicaid Services Physician Fee Schedule was used to estimate the cost of intravenous treatments[23]
- Mosunetuzumab-axgb treatment costs included pretreatment, premedication, and 3 days of inpatient or outpatient monitoring[23-25]
- Chimeric antigen receptor T-cell treatment costs included pretreatment, premedication, and either 10 days of inpatient or 12 days of outpatient monitoring [23,25-29]

Table 2. Drug and Administration Cost Inputs

Regimen	Brand Cost per Package, $	Biosimilar Cost per Package, $	Infusions or Cycles	Admin Cost per Cycle, $	Year 1 Drug Costs, $
Zanubrutinib + obinutuzumab	15,066 8242	N/A N/A	12.4 20	198	274,465
Lenalidomide	17,498	15,118	12	N/A	181,416
Lenalidomide + rituximab	17,498 940	15,118 717	12	168	236,252
Lenalidomide + obinutuzumab	17,498 8242	15,118 N/A	18 20	198	287,195
Obinutuzumab	8242	N/A	20	198	90,660
Bendamustine + obinutuzumab	3274 8242	2340 N/A	6 20	267	133,623
R-CHOP	940 N/A 663 N/A N/A	717 62 11 15 17	6	373	28,783
Tazemetostat	18,850	N/A	8	N/A	150,800
Mosunetuzumab-axgb	18,089	N/A	14	168	253,248
Axicabtagene ciloleucel	462,000	N/A	1	139	462,000
Tisagenlecleucel	427,048	N/A	1	139	427,048

N/A, not applicable; R-CHOP, cyclophosphamide, doxorubicin, prednisone, rituximab + vincristine.

RESULTS

- In the payer plan, 19 patients with R/R FL were estimated to receive 3L+ treatment with zanubrutinib + obinutuzumab, lenalidomide ± rituximab, obinutuzumab ± lenalidomide, bendamustine + obinutuzumab, R-CHOP, tazemetostat, mosunetuzumab-axgb, axicabtagene ciloleucel, or tisagenlecleucel
- The estimated total budget impacts from the addition of zanubrutinib + obinutuzumab to formulary were $209,524 ($0.017 PMPM) in year 1 and $335,982 ($0.028 PMPM) in years 2 and 3 (**Table 3**)

Table 3. Incremental Budget Impact by Year

Budget Impact Summary, $	Year 1	Year 2	Year 3
Δ Total cost	209,524	335,982	335,982
Drug acquisition	206,184	330,976	330,976
Drug administration	1726	2590	2590
Adverse events	1613	2417	2417
Per Member, $	**Year 1**	**Year 2**	**Year 3**
PMPM	0.017	0.028	0.028
PTMPM	913.87	1465.43	1465.43

PMPM, per member per month; PTMPM, per treated member per month.

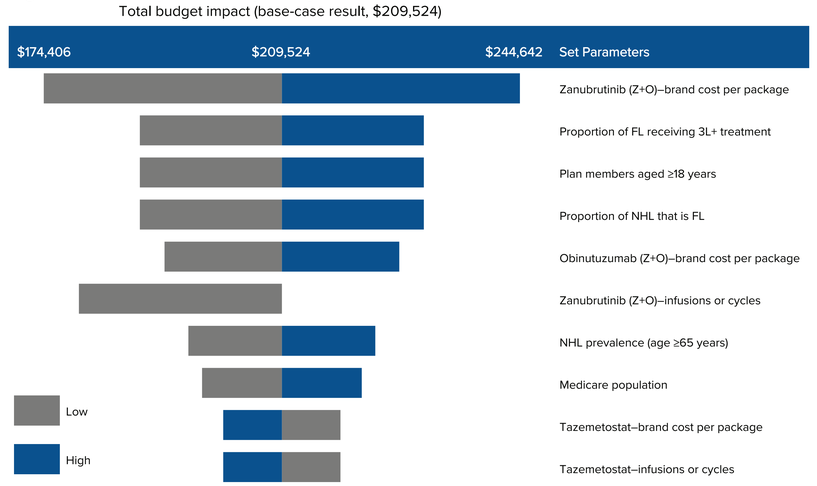
CONCLUSIONS

- Patients with 3L+ R/R FL, a chronic incurable disease with high unmet needs, may benefit greatly from treatment with zanubrutinib + obinutuzumab
- The addition of zanubrutinib + obinutuzumab to formulary for the treatment of 3L+ R/R FL has minimal budget impact on a US health plan over 3 years

Sensitivity Analysis

- BIM results were most sensitive to changes in zanubrutinib and obinutuzumab acquisition costs, proportion of patients with 3L+ FL receiving treatment, proportion of plan population aged ≥18 years, and the proportion of NHL cancers that are FL (**Figure 1**)

Figure 1. One-Way Sensitivity Analysis Tornado Chart



3L+, third line or later; FL, follicular lymphoma; NHL, non-Hodgkin lymphoma; Z+O, zanubrutinib + obinutuzumab.

DISCUSSION

- The population size and prevalence of FL were assumed to remain constant over the modeled time horizon. Treatment duration and safety profile data were derived from individual clinical trials for each regimen due to the lack of head-to-head trials between R/R FL treatment regimens
- The model did not include the costs after disease progression. Default medication doses are based on the recommended dosing and administration in their respective product labels, which may not reflect real-world treatment patterns, adherence, or persistence. The model used inputs and assumptions to estimate budget impacts, and the generalizability to specific health plans with different treatment patterns or costs may be limited

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