Real-world Bruton tyrosine kinase inhibitor (BTKi) use and clinical outcomes among patients with chronic lymphocytic leukemia/small lymphocytic lymphoma (CLL/SLL)

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Introduction

BTKis are the standard of care for CLL/SLL in the first-line (1L) and relapsed/refractory (R/R) settings. The next-generation BTKi zanubrutinib (zanu) demonstrated superiority over the first-generation BTKi ibrutinib (ibr) in treating R/R CLL, while the second-generation BTKi acalabrutinib (acala) only showed noninferiority to ibr. We previously reported that 138 patients (pts) treated with zanu were more likely to remain on treatment and less likely to require subsequent treatment (tx) compared with those treated with acala in 1L CLL in community oncology practices (ASH 2024) in a 1:2 matched analysis. Here, we provide updates on the full cohort in these settings (~200 pts more than the previous report).

Methods

US adult pts diagnosed with CLL/SLL who initiated 1L tx between January 1, 2020, and November 30, 2023, were identified using the Integra Connect PrecisionQ de-identified real-world database. Patients were followed until July 3, 2024. This matched cohort study used structured and curated data in which pts who initiated zanu were matched at a 1:2 ratio based on age and sex with pts who initiated acala. The probabilities of ongoing tx and not advancing to next line of therapy (LOT) from zanu or acala initiation and overall survival (OS) were estimated using Kaplan–Meier methods. Hazard ratios (HRs) were estimated using Cox proportional hazard models, adjusted for matching set.

Results

Six hundred pts were included in the study, including 200 zanu pts matched with 400 acala pts. The median duration of follow-up was 13.4 (range 0.9, 53.3) mos: 15.9 (0.9, 53.3) mos for acala and 11 (2.3, 32.2) mos for zanu. The median age was 75 (interquartile range 67, 81) yrs and 36.5% were female in both groups. Baseline ECOG performance status was similar between groups, with 87.8% acala pts and 87.5% zanu pts having an ECOG status of 0/1.

The ongoing tx probability and the probability of not advancing to next LOT at 6, 12, 18, and 24 mos were higher for zanu than acala (Table). The adjusted HRs (95% CI) with acala as the reference for ongoing tx probability at 6 and 12 mos were 0.51 (0.32, 0.80) and 0.51 (0.33, 0.74), respectively. The adjusted HRs (95% CI) for the probability of not advancing to next LOT at 6 and 12 mos were 0.75 (0.40, 1.35) and 0.75 (0.43, 1.23), respectively. Median OS was not reached in either the acala or zanu group.

Conclusions

In this real-world comparative effectiveness analysis in 1L CLL/SLL, patients who received zanu were significantly more likely to remain on treatment compared with those who received acala; they were also less likely to require the next LOT. Limitations include shorter follow-up time for zanu vs acala.

	1L, Ongoing tx probability, %	1L, probability of not advancing to next LOT, %

Mo	Acala	Zanu	Acala	Zanu
6	78.2	88.0	88.6	91.5
12	66.6	80.6	80.5	84.6
18	58.6	75.9	73.9	77.3
24	52.8	75.9	66.5	71.7