

Real-world Bruton tyrosine kinase inhibitor treatment patterns and outcomes among patients with CLL/SLL in US community oncology practices

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ABSTRACT

Introduction: BTKis are standard-of-care for CLL and SLL. The second-generation BTKi acalabrutinib (acala) and next-generation zanubrutinib (zanu) are preferred over the first-generation ibrutinib based on toxicity profiles. This study aimed to describe the characteristics and outcomes of patients with CLL/SLL treated with first-line (1L) BTKis in community oncology practices.

Methods: US adults diagnosed with CLL/SLL who initiated treatment between January 1, 2020–November 30, 2023, were identified using the Integra Connect PrecisionQ database and followed until May 30, 2024. This cohort study matched patients who initiated zanu at a 1:2 ratio with patients who initiated acala.

Results: 414 patients were included (138 zanu and 276 acala patients). Median follow-up duration was 12.7 (range 1.7, 53.0) months; 15.3 (1.7, 53.0) months for acala and 10.9 (2.3, 32.2) months for zanu. For both groups, median age was 76 (range 45, 89) years and 37.7% were female. Most patients had an ECOG status of 0/1 at index (acala vs zanu: 90.2% vs 89.6%). Cytopenias were the most frequent noncardiac comorbidities in both groups at baseline, including anemia (acala vs zanu: 38.0% vs 45.7%), thrombocytopenia (27.9% vs 29.0%), and neutropenia (9.4% vs 10.1%). 11.2% and 14.5% of patients in the acala and zanu groups, respectively, had a preexisting cardiac comorbidity, most commonly hypertension (acala vs zanu: 9.4% vs 10.9%). The ongoing treatment probability (95% CI) was 80.7% (75.5%, 84.9%) at 6 months and 68.8% (62.6%, 74.2%) at 12 months in the acala group and 89.8% (83.5%, 93.9%) at 6 months and 81.2% (72.7%, 87.2%) at 12 months in the zanu group (unadjusted HR [95% CI]: 0.56 [0.31, 1.01], $P=0.05$ [6 months]; 0.56 [0.35, 0.89], $P<0.05$ [12 months]). The probability (95% CI) of not receiving a subsequent treatment was 85.0% (80.2%, 88.8%) at 6 months and 76.8% (71.1%, 81.5%) at 12 months in the acala group and 89.8% (83.5%, 93.9%) at 6 months and 82.0% (73.5%, 87.9%) at 12 months in the zanu group (unadjusted HR [95% CI]: 0.74 [0.40, 1.36], $P=0.33$ [6 months]; 0.74 [0.45, 1.21], $P=0.23$ [12 months]). Median overall survival was not reached in either group (unadjusted HR [95% CI]: 0.89 [0.48, 1.65], $P=0.72$).

Conclusions: Among patients with CLL/SLL treated with 1L BTKis in the US, those treated with zanu were more likely to remain on 1L treatment at 6 and 12 months, vs acala. Patients in the zanu group were also less likely to require a subsequent treatment at 6 and 12 months, vs patients in the acala group. Further data curation and additional analyses are pending to understand the observed differences among BTKi utilization and outcomes in these patients.