Real-world treatment utilization patterns, discontinuation and healthcare resource utilization of first-line (1L) bruton tyrosine kinase inhibitor (BTKi) therapy in chronic lymphocytic leukemia (CLL): age-related disparity

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ABSTRACT

BACKGROUND: CLL tends to affect older individuals, and older patients often endure greater health disparities and treatment burdens that may impact their access to healthcare resources, treatment adherence and outcomes. This study aimed to assess treatment utilization patterns, discontinuation, and healthcare resource utilization (HCRU) of 1L BTKi use in CLL, focusing on older patients ≥65 years (yrs).

METHODS: A retrospective observational study using the Symphony Integrated Dataverse was conducted to identify adult CLL patients initiating 1L BTKi (zanubrutinib [ZANU], acalabrutinib [ACA] or ibrutinib [IBR]) treatment regimen from 02/2022to 09/2024 (index period). Patients were further categorized by age at index date. Patient sociodemographic, clinical characteristics and outcomes were reported in overall and older (≥65 yrs) patients by each BTKi group. Treatment discontinuation rate, median time to discontinuation (TTD) and HCRU (was evaluated during treatment and follow-up periods.

RESULTS: A total of 6,846 patients initiated a 1L BTKi (ZANU: n=1,853; ACA: 3,519; IBR: 1,474) for CLL during the index period. Patients receiving ZANU were older (mean age: 70.9 yrs; 78% ≥65 yrs) than those receiving ACA (69.4 yrs; 71% ≥65 yrs) and IBR (69.6 yrs; 73% ≥65 yrs). Payer type and geography were significantly different across each BTKi group (*P*<.001). ZANU patients had the longest estimated median TTD overall (ZANU: 18.9 months [m], ACA: 17.8 m, IBR: 14.5 m; *P*<.001) and in patients ≥65 yrs (ZANU: 17.2 m, ACA: 15.2 m, IBR: 12.6 m; *P*<.001). ZANU patients also had the lowest estimated discontinuation rates at 60-, 90-, 120-, 150-, 180-, and 360-days post BTKi initiation in the overall and ≥65 yrs groups. There were significant differences across the BTKi group for inpatient visits per-patient-per-year in all patients and ≥65 yrs, with ZANU having the lowest visits of the BTKis (ZANU: 2.6, ACA: 3.6, IBR: 4.6; *P*=.029 and ZANU: 2.5, ACA: 4.3, IBR: 5.3; *P*=.004, respectively).

CONCLUSIONS: This real-world study demonstrated that CLL patients treated with ZANU had longer TTD, lower discontinuation rates, and less HCRU than ACA and IBR across all patients and specifically in older patients ≥65 yrs. Further studies on long-term and clinical outcomes are warranted.