Recent Patterns of Care With BTK Inhibitors and Distribution of Social Determinants of Health Among Patients With CLL/SLL in the US Community Setting

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Background: Few real-world studies have examined Bruton tyrosine kinase inhibitor (BTKi) sequencing patterns for chronic lymphocytic leukemia/small lymphocytic lymphoma (CLL/SLL). This study examined characteristics, treatment (tx) patterns, and social determinants of health (SDOH) of BTKi-treated patients (pts) with CLL/SLL in a community practice network.

Material and Methods: This was a retrospective study in adults with CLL/SLL who were prescribed a BTKi between 1/1/2020–4/30/2023 in The US Oncology Network. Structured study data from the iKnowMed electronic health record system were analyzed. Area Deprivation Index (ADI) scores for socioeconomic status (SES) levels were determined using community-specific income, education, employment, and housing data; low SES was defined as the top 20% of state- and national-level ADI scores. Rural/urban status was classified using US Department of Agriculture Rural-Urban Community Area codes. Insurance coverage was reported “as is”; Medicaid was considered a low SES indicator. Results were assessed by tx sequence. SDOH results were reported as counts, frequency, and—for selected measures—$\chi 2$ *P* values.

Results: Pts with CLL/SLL were included (N=2082; median age, 73 years; 61.9% male; median follow-up, 14.1 months). Most pts received acalabrutinib (n=1159) or ibrutinib (n=628) only; subsequent BTKis were reported for 8.7% (n=182). Pt characteristics across tx sequences were similar. Among 597 BTKi-treated pts in 2020, 62.3% (n=372) received ibrutinib; 1 received zanubrutinib. Among 206 BTKi-treated pts in 2023, 6.8% (n=14) and 28.6% (n=59) received ibrutinib and zanubrutinib, respectively. Low SES per state and national indicators was observed for 361 (17.3%) and 125 pts (6.0%), respectively, and was similar across subgroups. Most had Medicare (n=877 [42.1%]), followed by managed Medicare (n=508 [24.4%]). A statistical difference between tx was seen for rural/urban status (*P*<.01) but not state (*P*=.52) or national ADI (*P*=.36) or Medicaid vs other insurance (*P*=.18).

Conclusions: Between 1/1/2020–4/30/2023, ibrutinib use decreased while acalabrutinib and zanubrutinib use increased. SDOH was similar across BTKi sequence subgroups; rural/urban status, but not SES and Medicaid, appeared to influence prescribing patterns. Further real-world research and longitudinal follow-up are needed to examine the impact of SDOH on BTKi choice, switching, reasons for switching, and outcomes.