REAL-WORLD INTRAVENOUS IMMUNOGLOBULIN (IVIG) UTILIZATION IN PATIENTS WITH CHRONIC LYMPHOCYTIC LEUKEMIA/SMALL LYMPHOCYTIC LYMPHOMA (CLL/SLL) TREATED WITH VENETOCLAX PLUS OBINUTUZUMAB VS ZANUBRUTINIB

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Background: Patients with CLL/SLL often develop secondary immunodeficiency and remain at elevated risk for serious infections, for which IVIG is commonly used as supportive care. However, real-world data on IVIG use patterns across targeted regimens and timing relative to infections remain limited.

Aims: To characterize real-world IVIG utilization patterns, including frequency and timing relative to treatment initiation, completion, and occurrence of serious infections in patients with CLL/SLL treated with fixed-duration combination venetoclax plus obinutuzumab (VO) or continuous zanubrutinib (zanu) monotherapy.

Methods: This retrospective observational study used US Symphony Integrated Dataverse database to identify adults with ≥2 CLL/SLL diagnoses who initiated VO (04/2016-12/2025) or zanu monotherapy (01/2020-12/2025). IVIG use was assessed for VO and zanu after treatment initiation through end of follow-up, with additional analysis of IVIG use after VO completion and zanu discontinuation. Subgroup analysis was conducted by recorded serious infections, and timing of IVIG use (before /after) relative to first serious infection, defined as receipt of injectable antimicrobials ≤15 days of hospitalization. Treatment utilization patterns were examined overall, by first line (1L) vs second or later line (2L+), and baseline characteristics between the cohorts.

Results: A total of 851 VO patients and 365 zanu patients received IVIG after treatment initiation (median follow-up: VO, 36.5 months; zanu, 22.6 months). Baseline characteristics were generally comparable, with zanu patients older than VO patients (median, 74 vs 69 years; *P*<.0001). Within 1 year prior to treatment initiation, 40% of VO and 59% of zanu patients had ≥1 IVIG use. Overall IVIG use after treatment initiation was higher with VO vs zanu (17.4% vs 5.2%; *P*<.0001) and increased in 2L+ more than 1L in both cohorts (VO: 27.2% vs 9.0%; zanu: 7.5% vs 2.1%, respectively; *P*<.0001). In IVIG recipients, mean number of IVIG administrations after treatment initiation was significantly higher with VO vs zanu (13.4 vs 9.8; *P*<.0001), driven primarily by use in 2L+. In patients with serious infections, first IVIG use before first serious infection occurred more commonly with VO than zanu (12.0% vs 6.3%), particularly in 2L+ (12.9% vs 6.7%). These patients also demonstrated higher frequency of IVIG use (mean: VO, 19.4 vs zanu, 13.6). First IVIG after first serious infection was observed in 8.7% of VO and 5.2% of zanu patients, with lower subsequent IVIG use intensity (mean use: 9.0 and 6.3, respectively). While 20.7% of VO patients and 11.5% of zanu patients

had serious infections, most IVIG recipients had no recorded serious infection (VO, 79.3%; zanu, 88.5%), yet IVIG use remained substantial (mean use: 13.0 vs 9.7, respectively). Across all categories, IVIG use increased with later lines of therapy. Notably, 11.5% of VO patients continued IVIG use after VO completion and 2.3% of zanu patients continued IVIG use after treatment discontinuation.

Summary/Conclusion: This study characterizes real-world IVIG utilization patterns, highlighting use prior to serious infection, suggesting proactive immune support. IVIG use was significantly more frequent and intensive in patients treated with VO than zanu. Findings underscore variability in supportive care and potential associated financial burden. Future prospective studies are needed to further define optimal IVIG strategies in patients with CLL.