CLL-409

Real-World Zanubrutinib Treatment Patterns in Chronic Lymphocytic Leukemia/Small Lymphocytic Lymphoma Among US Community Oncology Patients With Prior Acalabrutinib Therapy

Jing-Zhou Hou,[1] Gregory A. Maglinte,[2] Xiaoliang Wang,[2] Anna Rui,[3] Lindsay Aton,[3] Ann Lasn,[2] Lisa Morere,[3] Rhys Williams,[2] Rushir Choksi[1]

[1]University of Pittsburgh Medical Center, Pittsburgh, PA, USA; [2]BeOne Medicines Ltd, San Carlos, CA, USA; [3]Integra Connect PrecisionQ, West Palm Beach, FL, USA

CONCLUSION

- In United States (US) community oncology practices, most patients with chronic lymphocytic leukemia/small lymphocytic lymphoma (CLL/SLL) who transitioned from acalabrutinib to zanubrutinib did so within 1 year of initiating acalabrutinib
- The majority of patients treated with zanubrutinib remained on treatment at data cutoff
- Consistent with other real-world data from across the US, patients with CLL/SLL had longer treatment duration with zanubrutinib than acalabrutinib, despite prior acalabrutinib treatment

INTRODUCTION

- Although acalabrutinib, a second-generation Bruton tyrosine kinase (BTK) inhibitor, offers greater selectivity than the first-generation BTK inhibitor ibrutinib, a proportion of clinical trial participants discontinued acalabrutinib due to adverse events[1-4]
- Zanubrutinib, a next-generation BTK inhibitor, was designed to maximize efficacy and tolerability in patients by minimizing off-target binding[5]
- This study aimed to describe the characteristics and treatment duration in patients with CLL/SLL previously treated with acalabrutinib who received zanubrutinib in real-world US community oncology practices

METHODS

Data Source and Study Design

- This retrospective observational study included US adult patients with CLL/SLL who initiated acalabrutinib at any time between January 1, 2020 and November 30, 2023 and subsequently received zanubrutinib at any time through April 18, 2024. The index date was the start date of zanubrutinib
- The study utilized structured electronic health data from the Integra Connect PrecisionQ de-identified real-world database
- Demographic and treatment characteristics were summarized using descriptive statistics
- The first line of therapy (LOT1) was defined as the start of, and up to 60 days of, acalabrutinib mono- or combination therapy. Advancement to a new LOT was based on the initiation of a new drug >60 days after initiation of the prior LOT, disease progression, or a treatment gap of ≥120 days. Changes from a covalent BTK inhibitor to another covalent BTK inhibitor within 60 days were not considered a treatment change and did not advance to a new LOT, even if due to disease progression

RESULTS

Baseline Demographics and Clinical Characteristics

- The baseline demographics and clinical characteristics of the 151 patients identified in the study are shown in **Table 1**

Table 1. Baseline Patient Demographics and Clinical Characteristics

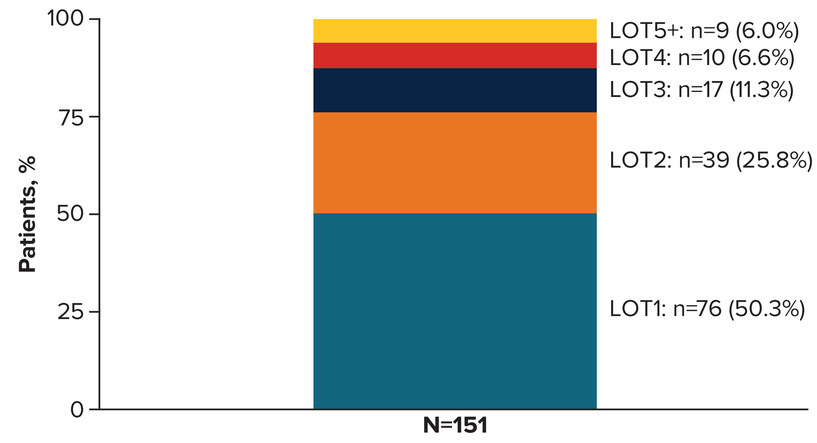
	N=151
Median age (range) at index date, years	73 (39-88)
Gender, n (%)	
Female	75 (49.7)
Male	76 (50.3)
Race, n (%)	
White	104 (68.9)
African American	9 (6.0)
Asian	2 (1.3)
Not documented/unknown/other	36 (23.8)
Ethnicity, n (%)	
Hispanic	3 (2.0)
Not Hispanic	121 (80.1)
Not documented/other	27 (17.9)
ECOG status at index, n (%)	
Missing data	49 (32.5)
ECOG 0	43 (42.2)
ECOG 1	51 (50.0)
ECOG 2+	8 (7.8)
Time from diagnosis to BTK inhibitor initiation, n (%)	
0 years	22 (14.6)
1 year	15 (9.9)
2 years	21 (13.9)
3 years	16 (10.6)
4 years	8 (5.3)
5+ years	69 (45.7)

ECOG, Eastern Cooperative Oncology Group.

Treatment Characteristics

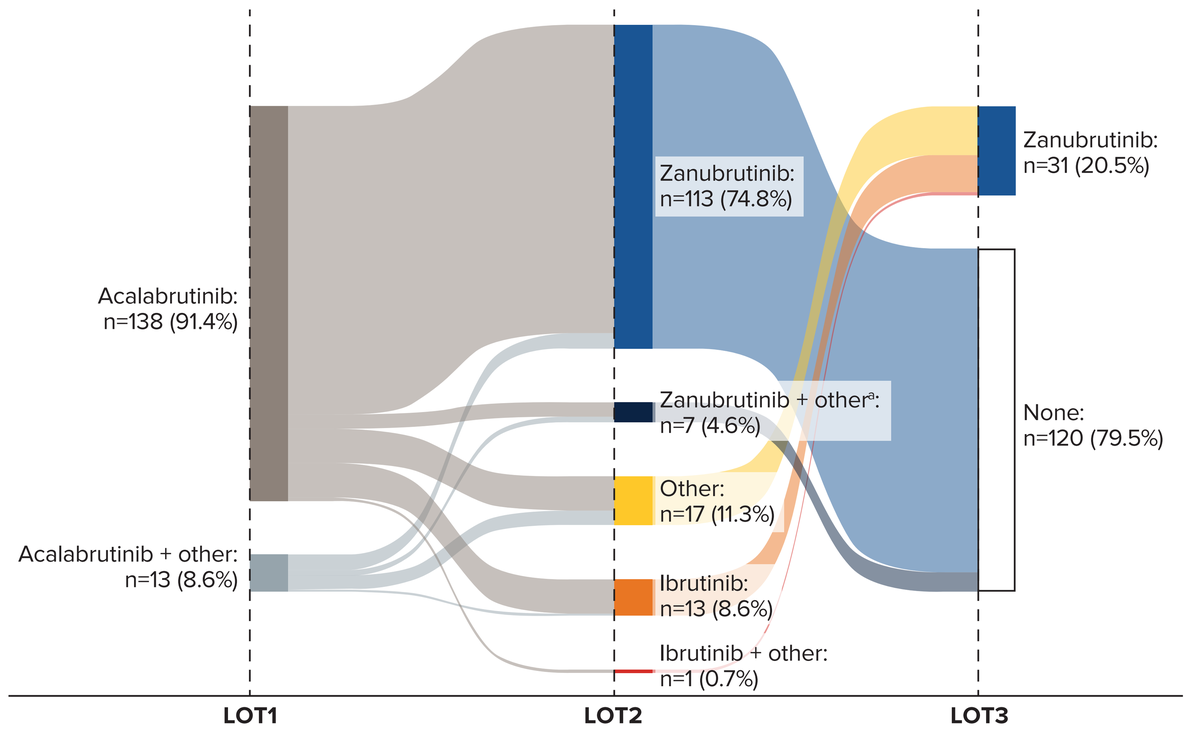
- Most patients received prior acalabrutinib in the first (50.3%) or second (25.8%) LOT (**Figure 1**)

Figure 1. LOT of Acalabrutinib Initiation



- After acalabrutinib therapy in any LOT, 79.4% of patients were treated with zanubrutinib mono- or combination therapy, 11.3% were treated with another drug (anti-CD20 monotherapy, n=8; chemoimmunotherapy, n=6; B-cell lymphoma 2 [BCL2] inhibitor, n=3) followed by zanubrutinib, and 9.3% were treated with ibrutinib mono- or combination therapy followed by zanubrutinib (**Figure 2**)
  - More patients who received prior acalabrutinib initiated zanubrutinib in 2023 and 2024 versus earlier timepoints (zanubrutinib was approved in January 2023[5])

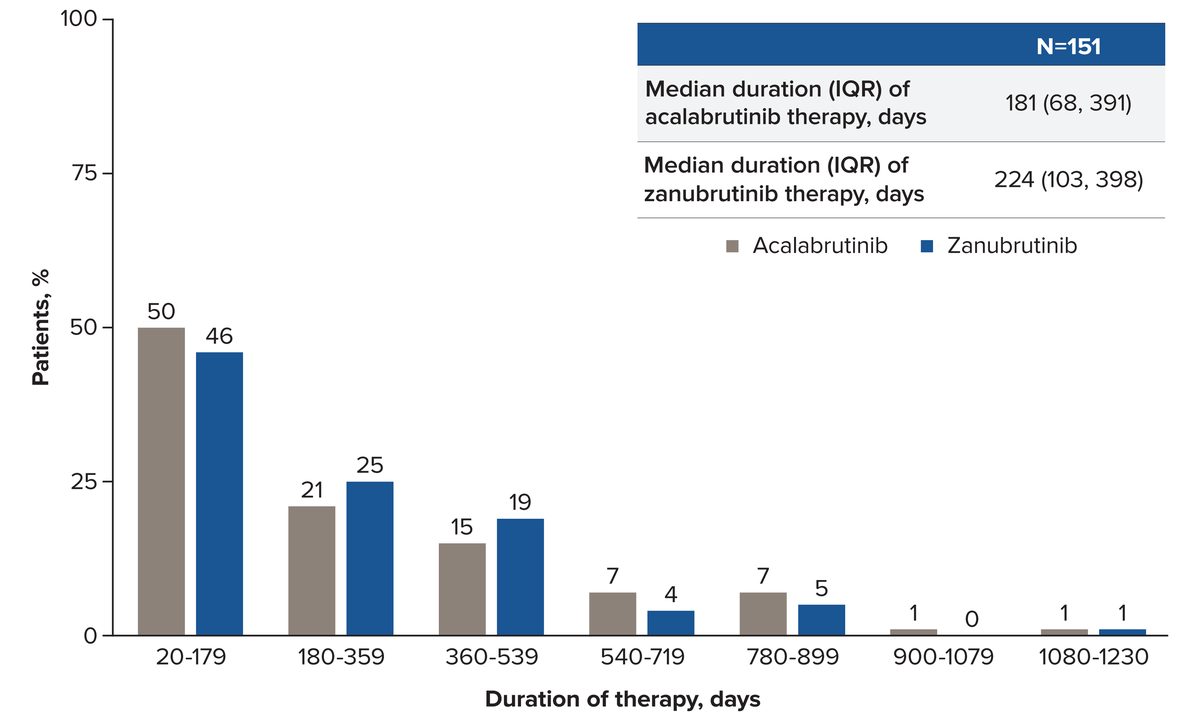
Figure 2. Treatment Change From Acalabrutinib to Zanubrutinib



[a]The zanubrutinib + other group includes zanubrutinib in combination with rituximab (n=6), bendamustine + rituximab (n=4), venetoclax (n=3), obinutuzumab (n=2), cyclophosphamide (n=1), and cyclophosphamide + rituximab (n=1).

- The median (interquartile range [IQR]) duration of acalabrutinib in any LOT was 181 (68, 391) days. Approximately 70% of patients discontinued acalabrutinib within 1 year (**Figure 3**)
- After discontinuing acalabrutinib and initiating zanubrutinib, patients stayed on zanubrutinib for a median (IQR) duration of 224 days (103, 398), with 93 (61.6%) patients remaining on zanubrutinib at data cutoff (**Figure 3**)

Figure 3. Duration of BTK Inhibitor Therapy



	N=151
Median duration (IQR) of acalabrutinib therapy, days	181 (68, 391)
Median duration (IQR) of zanubrutinib therapy, days	224 (103, 398)

REFERENCES

1. Byrd JC, et al. *J Clin Oncol.* 2021;19:3441-3452.
2. Hou J-Z, et al. *Future Oncol.* 2021;17:4959-4969.
3. Frei CR, et al. *Leuk Lymphoma.* 2021;62:1664-1673.
4. Mato AR, et al. *Haematologica.* 2018;103:874-879.
5. Brukinsa. Prescribing information. BeOne Medicines Ltd, 2025.

ACKNOWLEDGMENTS

This study was funded by BeOne Medicines Ltd. Medical writing support was provided by Cecelia Wall, MPH of Wall Medical Writing, LLC (Wake Forest, NC, USA) and editorial assistance was provided by AMICULUM, and supported by BeOne Medicines Ltd.

DISCLOSURES

J-ZH: Consultant: AstraZeneca; **GAM, XW, AL, RW:** Employment by BeOne Medicines Ltd and may hold stock or other ownership in BeOne Medicines Ltd; **AR, LA, LM:** Employment by IntegraConnect PrecisionQ; **RC:** Consultant: IntegraConnect PrecisionQ.

CORRESPONDENCE:
Jing-Zhou Hou, houj@upmc.edu; Gregory A. Maglinte, gregory.maglinte@beonemed.com

Presented at the Society of Hematologic Oncology 2025 Annual Meeting; September 3-6, 2025; Houston, TX, USA