CO102

Physician-Reported Treatment Attributes Considered in First-Line or Later-Line Settings and Perceptions Around BTKi Treatment in CLL/SLL in the United States

Christopher E. Jensen,[1] Zhijie Ding,[2] Tom Greenwood,[3] Caspian Kluth,[3] Isaac Sanderson,[3] Neil Milloy,[3] Heena Mavani,[2] Wasiulla Khan,[2] Zaina P. Qureshi,[2] Amber Simpson[3]

[1]Division of Hematology, University of North Carolina at Chapel Hill, Chapel Hill, NC, USA; [2]Janssen Scientific Affairs, LLC, Horsham, PA, USA; [3]Adelphi Real World, Bollington, United Kingdom

INTRODUCTION

- Bruton tyrosine kinase inhibitors (BTKis), have transformed the treatment landscape in chronic lymphocytic leukemia (CLL) and small lymphocytic lymphoma (SLL)[1]
- New treatments provide ever-increasing attributes for physicians to consider when treating CLL/SLL[2]
- Several prognostic biomarkers for CLL/SLL have been discovered over the past 2 decades and influence treatment and prognosis. However, their real-world usage and impact on treatment decisions remains uncertain[3]
- Studies of CLL/SLL treatments in first-line (1L) or later-line settings and treatment attributes driving therapy selection are limited

OBJECTIVES

- To describe and rank the attributes considered by physicians for 1L or later-line treatment in CLL/SLL
- To evaluate physician-reported prescription rates and reasons for selection of BTKi, chemoimmunotherapy (CIT; including intensive chemotherapy) or B-cell lymphoma 2 inhibitor (BCL2i)–based therapies in the 1L or later-line setting in the United States
- To describe the prevalence and reasoning of prognostic biomarker testing

METHODS

- Real-world data were taken from the Adelphi CLL II Disease Specific Programme™ (DSP), a cross-sectional survey conducted between October 2022 and April 2023 among hematologists and hemato-oncologists across the United States
- Participating physicians treated at least 6 patients with CLL/SLL per month with at least 4 patients who had previous treatment
- Participating physicians were responsible for prescribing decisions for the patients with CLL/SLL and accepted all survey terms and conditions

RESULTS

Demographics

- A total of 58 physicians participated in this study, the majority were hem-oncologists and self-reported following guidelines published from the National Comprehensive Cancer Network® (NCCN®) (**Table 1**)

Table 1. Physician demographics

	Physicians N = 58
Physician primary specialty, n (%)	
Hemato-Oncologist	55 (95)
Hematologist	3 (5)
Hospital type, n (%)	
Academic (teaching/specialist)	36 (62)
Community	22 (38)
Guidelines followed for CLL/SLL treatment, n (%)[a]	
NCCN[4]	43 (74)
iwCLL[5]	10 (17)

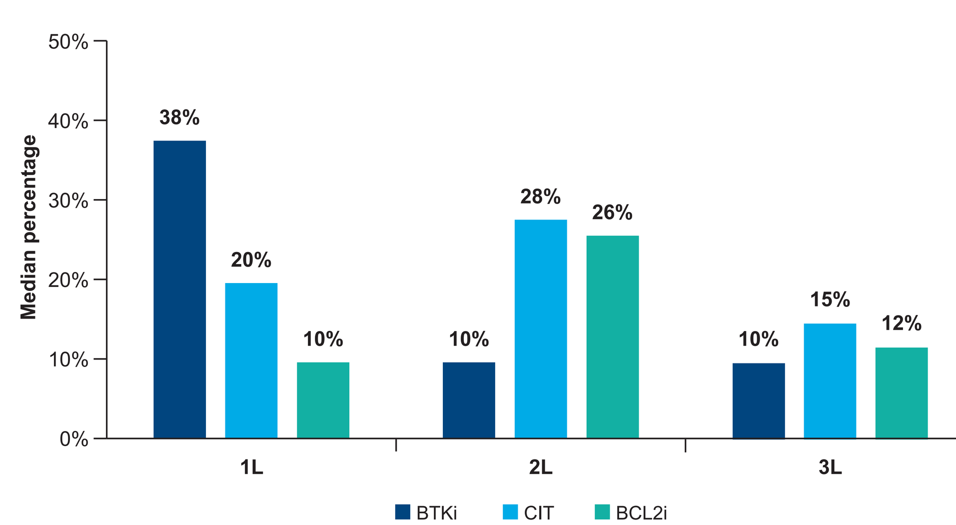
[a]Categories with n <10 are not reported

CLL/SLL, chronic lymphocytic leukemia/small lymphocytic lymphoma; NCCN, National Comprehensive Cancer Network; iwCLL, International Workshop on Chronic Lymphocytic Leukemia.

Physician-reported estimates of treatment rates prescribed at each line of therapy

- At 1L, physicians estimated a majority of patients were treated with BTKi followed by CIT (including intensive chemotherapy) or BCL2i, respectively (**Figure 1**)
- At second-line (2L), physicians estimated a majority of patients were treated with CIT, followed by BCL2i, or BTKi, respectively (**Figure 1**)
- At third-line (3L), physicians estimated a majority of patients were treated with CIT, followed by BCL2i, or BTKi, respectively (**Figure 1**)

Figure 1. Top 3 physician-reported treatments prescribed at each line of therapy[a]



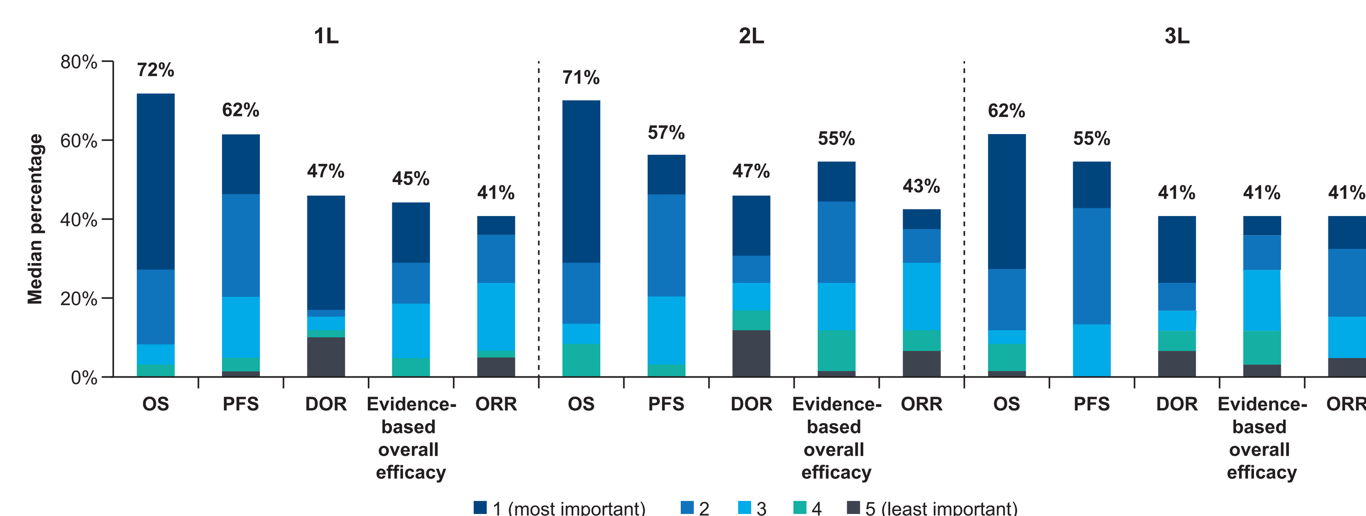
[a]Answers were recorded from 58 physicians

1L, first-line; 2L, second- line; 3L, third-line; BCL2i, B-Cell Lymphoma 2 inhibitor; BTKi, Bruton tyrosine kinase inhibitor; CIT, chemoimmunotherapy (including intensive chemotherapy).

Attributes considered at each line

- Overall survival (OS) was the most frequently considered attribute; a total of 42, 41, and 36 respondents reported that they consider OS for 1L, 2L, and 3L treatment, respectively
  - Among physicians who considered OS most ranked it as the most important factor for 1L, 2L, and 3L treatment selection (62%, 59%, and 56%, respectively; **Figure 2**)
- Progression-free survival (PFS) was the second most frequently considered attribute; a total of 36, 33, and 32 of respondents reported that they consider PFS for 1L, 2L, and 3L treatment, respectively
  - Of the physicians who considered PFS, most ranked it as the second most important factor for 1L, 2L and 3L treatment selection (42%, 45%, and 53%, respectively; **Figure 2**)
- The third most frequently considered attributes for treatment selection were duration of response (DOR) for 1L, evidence-based overall efficacy for 2L, and, jointly, DOR, evidence-based overall efficacy and overall response rate (ORR) for 3L (**Figure 2**)
- Of physicians who considered DOR at 1L (n = 27) most (63%) ranked it as the most important factor for 1L treatment
- Of physicians who considered evidence-based overall efficacy at 2L (n = 32), 38% ranked it as the second most important factor for 2L treatment (**Figure 2**)
- Among physicians who considered DOR, evidence-based overall efficacy, or ORR at 3L (n = 24), 42% considered these factors as the most important, 38% considered them second most important, and 42% considered them third most important (**Figure 2**)
- Other considered attributes that were not ranked in the top 5 selections were long-term safety (40%), ability to achieve complete response (31%), adverse events associated with treatment (22%), and impact on patient's quality of life (19%) for 1L treatment in CLL/SLL

Figure 2. Ranking of the top 5 physician-reported attributes considered when choosing treatment at each line of therapy[a]



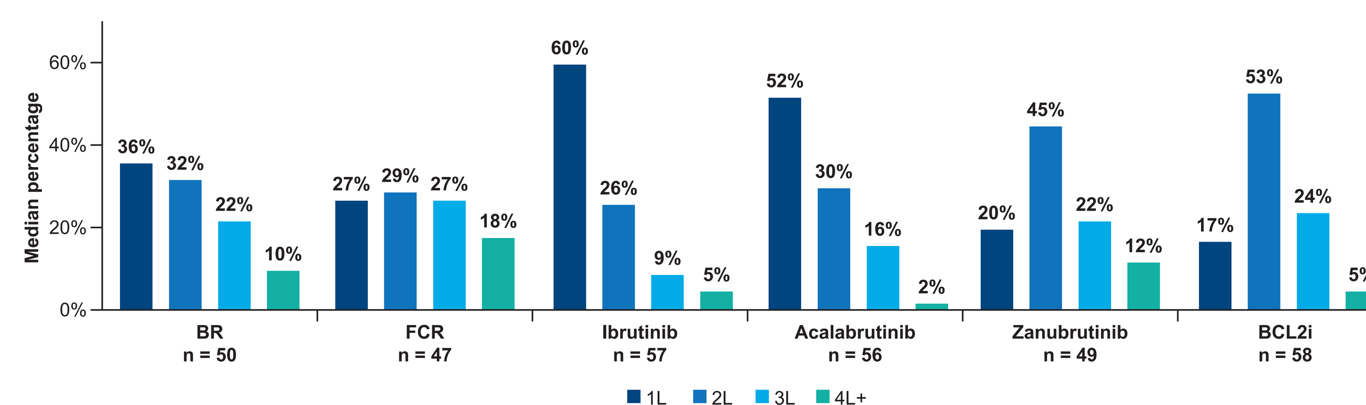
[a]Answers were recorded from 58 physicians

1L, first-line; 2L, second- line; 3L, third-line; OS, overall survival; PFS, progression-free survival; DOR, duration of response; ORR, overall response rate

Preferred treatments prescribed at each line of therapy

- The preferred line of therapy to prescribe ibrutinib and acalabrutinib was 1L, whilst for BCL2i it was 2L (60%, 52%, and 53%, respectively; **Figure 3**)
- Physicians reported preferring to prescribe ibrutinib, acalabrutinib, and bendamustine + rituximab (BR) at 1L (60%, 52%, and 36%, respectively; **Figure 3**)
- Fludarabine + cyclophosphamide + rituximab (FCR), zanubrutinib, and BCL2i were reported as therapies preferred to be prescribed at 2L (29%, 45%, and 53%, respectively; **Figure 3**)

Figure 3. Physician-reported preferred treatments at each line of therapy



1L, first-line; 2L, second- line; 3L, third-line; 4L+, fourth-line or later; BR, bendamustine + rituximab; FCR, fludarabine, cyclophosphamide, and rituximab; BCL2i, B-Cell lymphoma 2 inhibitor.

Reason for treating with therapy

- For BTKis, BCL2i, BR and FCR, physicians cited clinical data as the most common reason for use (57%, 55%, 42%, and 49%, respectively)
  - For BTKis, the top 3 reasons for their use were clinical data (57%), limited side effects (31%), and personal experience treating other patients (28%)
  - For BCL2i treatment, the top 3 reasons physicians cited were clinical data (55%), guidelines describing treatment use (33%), and limited side effects (29%)
  - For both BR and FCR, the top 3 reasons physicians cited were clinical data (42% and 49%), guidelines describing treatment use (38% and 32%), and personal experience treating other patients (32% and 32%)

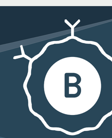
Physician estimates of biomarker testing

- Physicians estimated a mean (SD) of 75% (29.54%) of patients undergo testing for prognostic biomarkers
- Of the physicians that use testing for prognostic biomarkers (n = 57), the top 5 reported biomarkers tested were *TP53* mutation (74%), del(17p) (68%), del(13q) (67%), del(11q) (65%), and immunoglobulin heavy-chain variable (IGHV) (61%)
- The top 3 reasons for conducting biomarker tests were informing treatment selection (74%), gaining more accurate prognosis (54%), and determining mechanisms of resistance (51%)

LIMITATIONS

- These data were collected via a cross-sectional chart review conducted by physicians; access to the source records was not provided
- Although efforts were made to reduce inconsistencies, missing data, or discrepancies could not be verified with source chart information
- Although minimal inclusion criteria governed the selection of the participating physicians to provide a geographically diverse sample, participation was influenced by physician willingness to complete the survey
- The cross-sectional design of the DSP survey prevents any conclusions about causal relationships in the analysis
- Despite having access to medical records, physician responses to the DSP questionnaires may have been affected by recall bias, which is a common limitation of surveys

B-CELL MALIGNANCIES



CONCLUSIONS

- Overall survival was the most widely reported and most important attribute to physicians when considering 1L or later-line treatment for CLL/SLL
- Physicians estimated that most patients received BTKi at 1L, CIT at 2L, and CIT at 3L in the United States
- Almost all physicians reported prescribing ibrutinib, acalabrutinib and BCL2i. Most physicians preferred to prescribe ibrutinib and acalabrutinib at 1L and BCL2i at 2L
- Prognostic biomarker testing was most commonly conducted to inform treatment selection, with *TP53* mutation, (del(17p), del(13q), del(11q) and IGHV being the most commonly tested
- Additional studies are needed to characterize any possible changes in physicians' perception and practice patterns over time

ACKNOWLEDGEMENTS

Adelphi Real World conducted the Adelphi Real World CLL II DSP data collection. The DSP is a wholly owned Adelphi Real World product to which Janssen Scientific Affairs, LLC subscribes. Editorial support was provided by Agnieszka Looney, PhD, of ApotheCom, and funded by Janssen Biotech Inc., administered by Janssen Scientific Affairs, LLC.

References

1. Hallek M et al. *Am J Hematol*. 2021;96:1679-1705.
2. Wierda WG, Tambaro FP. *Blood*. 2020; 135:1421-1427.
3. Cohen JA. *Cancers (Basel)*. 2020;12:894.
4. Referenced with permission from the National Comprehensive Cancer Network, Inc. © National Comprehensive Cancer Network, Inc. 2023. All rights reserved. Accessed October, 15, 2023. To view the most recent and complete version of the recommendations, go online to NCCN.org. NCCN makes no warranties of any kind whatsoever regarding their content, use or application and disclaims any responsibility for their application or use in any way.
5. Hallek M et al. *Blood*. 2018;131:2745-2760.

Presented at the ISPOR Europe 2023 Annual Meeting; November 12-15, 2023; Copenhagen, Denmark