A Qualitative Study to Explore the Patient Experience of Continuous Covalent Bruton Tyrosine Kinase Inhibitors in Chronic Lymphocytic Leukemia: Study Methodology

Lydia Scarfò,[1] Georgina Tickler,[2] Lianne Barnieh,[3] Jennifer Fitzgerald,[4] Silvy Mardiguian,[5] Jan Rynne,[6] Gereon Maenzel,[7] Christina Karamanidou,[8] Sara Savar,[2] Jacqui Bernarde,[2] Kate Williams,[2] Talha Munir[9]

[1]Università Vita Salute and IRCCS Ospedale San Raffaele, Milano, Italy; [2]Acaster Lloyd, London, UK; [3]BeOne Medicines Ltd, Paris, France; [4]BeOne Medicines Ltd, Basel, Switzerland; [5]BeOne Medicines Ltd, London, UK; [6]CLL Advocates Network, CLL Ireland, Dublin, Ireland; [7]Leukämiehilfe RHEIN-MAIN e.V., Rüsselsheim, Germany; [8]Institute of Applied Biosciences, Centre for Research and Technology (INAB|CERTH), Thessaloniki, Greece; [9]Leeds Teaching Hospital, Leeds, UK

CONCLUSIONS

- In this interim analysis, hematologists and patients differed in their perceptions of which side effects of cBTK inhibitors impact patients' day-to-day lives the most and least
  - Hematologists placed greater emphasis on cardiovascular side effects (eg, arrhythmias), while patients considered symptoms such as pain to have the greatest impact on their lives
- This study had some limitations
  - Since patient recruitment is ongoing, this poster presents preliminary findings with a higher proportion of patients on ibrutinib
  - Qualitative research is not intended to be statistically representative, but to provide rich and in-depth insights into disease or treatment experiences from the patient's own perspective
- The disconnect between patient and hematologist perceptions highlights the importance of the patient voice and shared decision-making in the selection of treatments for CLL

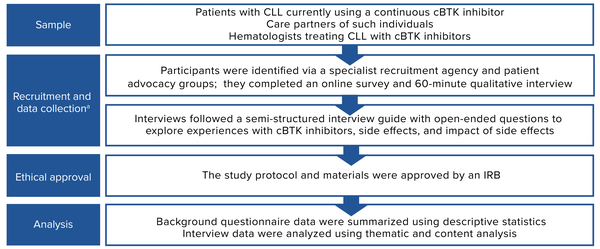
INTRODUCTION

- Covalent Bruton tyrosine kinase (cBTK) inhibitors, including ibrutinib, acalabrutinib, and zanubrutinib, are targeted therapies in chronic lymphocytic leukemia (CLL)[1]
- While side effects of cBTK inhibitors have been documented, qualitative data on the experience and impact of side effects from the patient, care partner, and clinician perspective are limited
- This qualitative study aimed to explore the relative impact of side effects associated with continuous cBTK inhibitors as well as the similarities and differences in the patient and hematologist experience of cBTK inhibitors in CLL
- This study is ongoing; the data presented in this poster are based on an interim analysis

METHODS

- Patients with CLL currently using a continuous cBTK inhibitor, care partners, and hematologists treating CLL with cBTK inhibitors were recruited and interviewed; interview responses were analyzed using thematic and content analyses (**Figure 1**)

Figure 1. Study Design



[a]Separate study materials were developed for each population.
Abbreviations: cBTK, covalent Bruton tyrosine kinase; CLL, chronic lymphocytic leukemia; IRB, independent review board.

RESULTS

- Fifteen hematologists across the United Kingdom, Germany, France, Spain, and Italy participated in this study (**Table 1**)
- To date, 32 patients and 6 care partners (data not presented) have been recruited; however, recruitment is ongoing (**Table 2**)

Table 1. Clinician Characteristics

Characteristics	Clinicians (n=15)
Country, n (%)	
United Kingdom	3 (20)
Germany	3 (20)
France	3 (20)
Spain	3 (20)
Italy	3 (20)
Clinical characteristics, mean (SD), years	
Time treating patients with CLL	20.8 (6.2)
Time using BTK inhibitors in CLL	9.1 (2.3)
cBTK inhibitors used, n (%)	
Ibrutinib	15 (100)
Acalabrutinib	15 (100)
Zanubrutinib	15 (100)
No. of patients treated over the last year, median (range)[a]	
Ibrutinib	20 (2-120)
Acalabrutinib	10 (5-60)
Zanubrutinib	6 (2-75)

[a]Includes new and routine cases.
Abbreviations: cBTK, covalent Bruton tyrosine kinase; CLL, chronic lymphocytic leukemia.

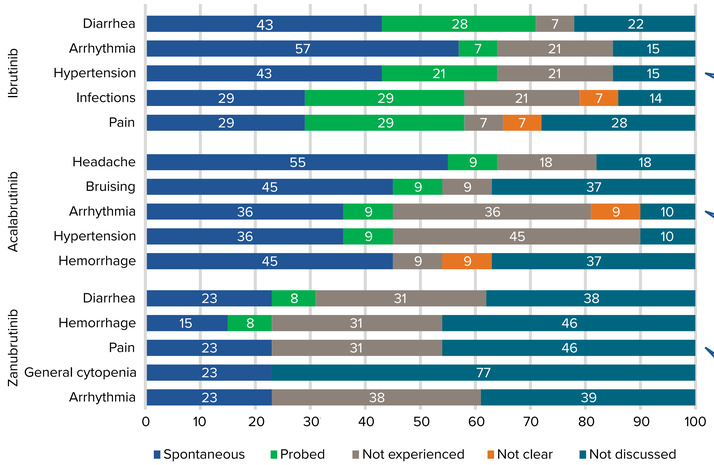
Table 2. Interim Patient Characteristics

Characteristics	Patients (n=32)
Country, n (%)	
United Kingdom	4 (13)
Germany	11 (34)
France	6 (19)
Spain	6 (19)
Italy	3 (9)
Ireland	2 (6)
Sex	
Male, n (%)	18 (56)
Age at screening	
Mean (SD), years	62.4 (10.8)
Current cBTK inhibitor, n (%)	
Ibrutinib[a]	18 (56)
Acalabrutinib[b]	9 (28)
Zanubrutinib	5 (16)

[a]One patient was currently taking ibrutinib and had previously taken acalabrutinib.
[b]One patient was currently taking acalabrutinib and had previously taken ibrutinib.
Abbreviation: cBTK, covalent Bruton tyrosine kinase.

- Hematologists discussed their experience treating CLL with ibrutinib (n=14, 93%), acalabrutinib (n=11, 73%), and zanubrutinib (n=13, 87%)
  - Thirty-six side effects were reported in relation to the three cBTK inhibitors: ibrutinib (n=27), acalabrutinib (n=24), and zanubrutinib (n=24) (**Figure 2**)
  - The most reported side effect by hematologists for ibrutinib and zanubrutinib was diarrhea (n=10, 71% and n=4, 31%, respectively); for acalabrutinib, it was headache (n=7, 64%) (**Figure 2**)
- Patients most frequently reported that pain had the greatest impact on their lives (n=10); however, hematologists (n=2) reported pain as one of the least impactful side effects (**Figure 3**)
- Conversely, hematologists most frequently reported that cardiovascular side effects (eg, hypertension, arrhythmia) impacted patients' lives the most (n=8), whereas patients (n=3) reported that hypertension had minimal impact on their lives (**Figure 3**)

Figure 2. Side Effects Associated With cBTK Inhibitors Reported by Hematologists



Diarrhea

*"... you get the impression that some patients feel more restricted dealing with an **increased frequency of stools** and more liquid stools. Patients who are older are also a bit scared. For example, when they go to the cinema or theater, they make sure that they have a seat somewhere on the outside and that before they sit down, they first check where the nearest toilet is that they can reach quickly if they have problems."*
– Hematologist discussing ibrutinib

Headaches

*"With acalabrutinib, patients do tend to have fewer arrhythmias and less hypertension, but they experience **more headaches**, especially in the first 2 months. The headaches usually improve over time and can be managed with caffeine-based treatments."*
– Hematologist discussing acalabrutinib

Pain

*"...the patient...has chills, all their **joints hurt**, it hurts when you touch an arm or a leg, or whatever. Their back hurts."*
– Hematologist discussing zanubrutinib

This figure includes the n=5 most reported side effects for each cBTK inhibitor.
Abbreviation: cBTK, covalent Bruton tyrosine kinase.

Figure 3. Most (in Red) and Least (in Green) Impactful cBTK Inhibitor Side Effects for Patients and Hematologists

Most impactful

*"...the **pain in my legs** had the most significant impact...being forced to take painkillers every day for such a long time and in relatively high doses. And having to endure the pain, because the painkillers did dull the pain a little, but that was the most unpleasant thing."* **– Patient**

*"[Arrhythmia] is the one that **scares the patient the most**. The patient ends up with atrial fibrillation and goes to the ER...they are afraid to take the drug. That has an impact."* **– Hematologist**

Least impactful

"...it's just an annoyance that they...[nails] seem to be splitting...the prettiness of my hands is not an important feature in what I do...it's not really a major problem. It's just irritating." **– Patient**

"...I wouldn't call... [muscle/joint pain] insignificant, it doesn't interfere with treatment adherence. It's generally mild and manageable, and it improves with symptomatic treatment." **– Hematologist**

Abbreviation: cBTK, covalent Bruton tyrosine kinase.

REFERENCE

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DISCLOSURES

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CORRESPONDENCE: Lydia Scarfò, scarfo.lydia@hsr.it

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