Combination of Zanubrutinib + Venetoclax for Treatment-naive CLL/SLL With del(17p) and/or *TP53*: Preliminary Results From SEQUOIA Arm D

Shuo Ma,¹ Talha Munir,² Masa Lasica,³ Mazyar Shadman,^{4,5} Alessandra Tedeschi,⁶ Emmanuelle Ferrant,⁷ Ian W. Flinn,⁸ Wojciech Janowski,⁹ Monica Tani,¹⁰ Tadeusz Robak,¹¹ Jennifer R. Brown,¹² Constantine S. Tam,¹³ Tian Tian,¹⁴ Emily Mantovani,¹⁴ Stephanie Agresti,¹⁴ Linlin Xu,¹⁴ Aileen Cohen,¹⁴ Wojciech Jurczak,¹⁵ **Paolo Ghia^{16,17}**

¹Robert H. Lurie Comprehensive Cancer Center, Northwestern University Feinberg School of Medicine, Chicago, IL, USA; ²Leeds Teaching Hospitals NHS Trust, Leeds, UK; ³St Vincent's Hospital Melbourne, Fitzroy, VIC, Australia; ⁴Fred Hutchinson Cancer Research Center, Seattle, WA, USA; ⁵University of Washington, Seattle, WA, USA; ⁶ASST Grande Ospedale Metropolitano Niguarda, Milan, Italy; ⁷Département Hématologie, CHU de Lyon-Sud, Lyon-Sud, France; ⁸Tennessee Oncology/OneOncology, Nashville, TN, USA; ⁹Calvary Mater Newcastle Hospital, Waratah, NSW, Australia; ¹⁰Hematology Unit, Santa Maria delle Croci Hospital, Ravenna, Italy; ¹¹Medical University of Łódź, Copernicus Memorial Hospital, Łódź, Poland; ¹²Dana-Farber Cancer Institute, Boston, MA, USA; ¹³Alfred Hospital and Monash University, Melbourne, VIC, Australia; ¹⁴BeiGene USA, Inc, San Mateo, CA, USA; ¹⁵Maria Sklodowska-Curie National Research Institute of Oncology, Kraków, Poland; ¹⁶IRCCS Ospedale San Raffaele, Milan, Italy; ¹⁷Università Vita-Salute San Raffaele, Milan, Italy

Disclosures for Paolo Ghia

AbbVie (honoraria, research funding); AstraZeneca (honoraria, research funding); BeiGene (honoraria);
 Bristol Myers Squibb (honoraria, research funding); Janssen (honoraria, research funding); Galapagos (honoraria);
 Lilly/Loxo (honoraria); MSD (honoraria); Roche (honoraria); Sanofi (honoraria)

Introduction

- Zanubrutinib is a highly potent and selective next-generation BTK inhibitor approved in TN and R/R CLL
 as monotherapy^{1,2} that was designed to provide complete and sustained BTK occupancy, with fewer off-target
 AEs and improved efficacy compared with other BTK inhibitors^{3,4}
- In Arm C of the phase 3 SEQUOIA trial, zanubrutinib monotherapy was well tolerated and achieved a high ORR (95%) and 18-month PFS estimate (89%) in patients who had untreated CLL/SLL with del(17p)⁵, which were consistent with outcomes in patients without del(17p)⁶
- Monotherapy with venetoclax, the first-generation BCL2 inhibitor, has also been shown to be well tolerated with durable responses achieved in patients with del(17p) and/or TP53 mutation⁷, but data on venetoclax + ibrutinib combination therapy in this high-risk population has been limited
- Combination therapy with a BCL2 inhibitor in patients with high-risk CLL may provide deep responses and improve outcomes in patients treated with zanubrutinib
- Preliminary results in patients with del(17p) and/or TP53 mutation who received zanubrutinib + venetoclax combination treatment in Arm D of the SEQUOIA trial are presented

^{1.} Brukinsa. Prescribing information. BeiGene, Ltd; 2024; 2. Brukinsa. Summary of product characteristics. BeiGene, Ltd; 2021; 3. Guo Y, et al. *J Med Chem*. 2019;62(17):7923-7940;

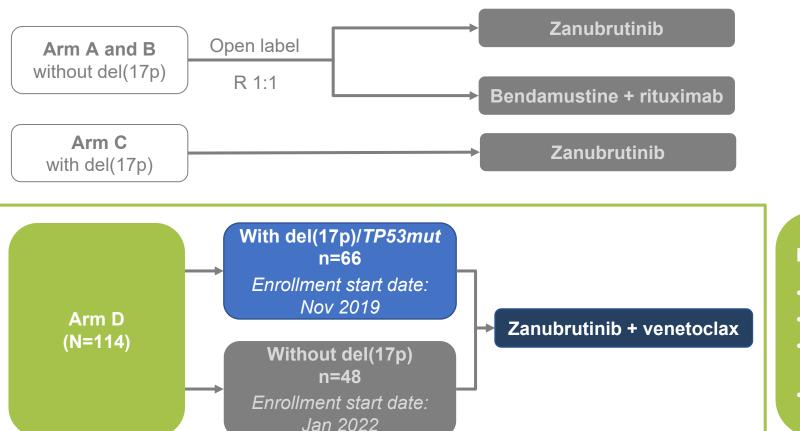
^{4.} Tam CS, et al. Expert Rev Clin Pharmacol. 2021;14(11):1329-1344; 5. Tam CS, et al. Haematologica. 2021;106(9):2354-2363; 6. Tam CS, et al. LancetOncol. 2022;23(8):1031-1043;

^{7.} Stilgenbauer S, et al. *J Clin Oncol*. 2018;36(19):1973-1980.

SEQUOIA Study Design – Arm D Cohort With del(17p) and/or TP53mut

Key eligibility criteriaUntreated CLL/SLLMet iwCLL criteria for treatment

- Measurable disease by CT/MRIFor Arm D: central
- confirmation of del(17p) by FISH and/or local *TP53* mutation

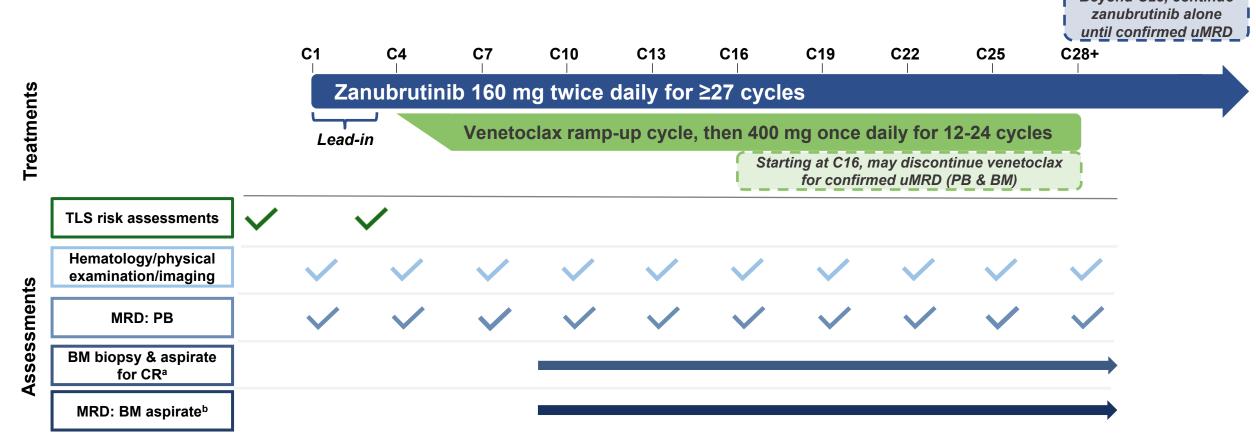


Endpoints for Arm D

- ORR (INV)a
- PFS (INV)
- uMRD4 rate
 (<10⁻⁴ sensitivity)
- Safety per CTCAE

SEQUOIA Arm D Treatment Regimen and Assessment Schedule

Zanubrutinib lead-in (3 cycles) followed by zanubrutinib + venetoclax (12-24 cycles dependent on uMRD early venetoclax-stopping rules), then zanubrutinib monotherapy until disease progression, unacceptable toxicity, or meeting uMRD early zanubrutinib-stopping rules



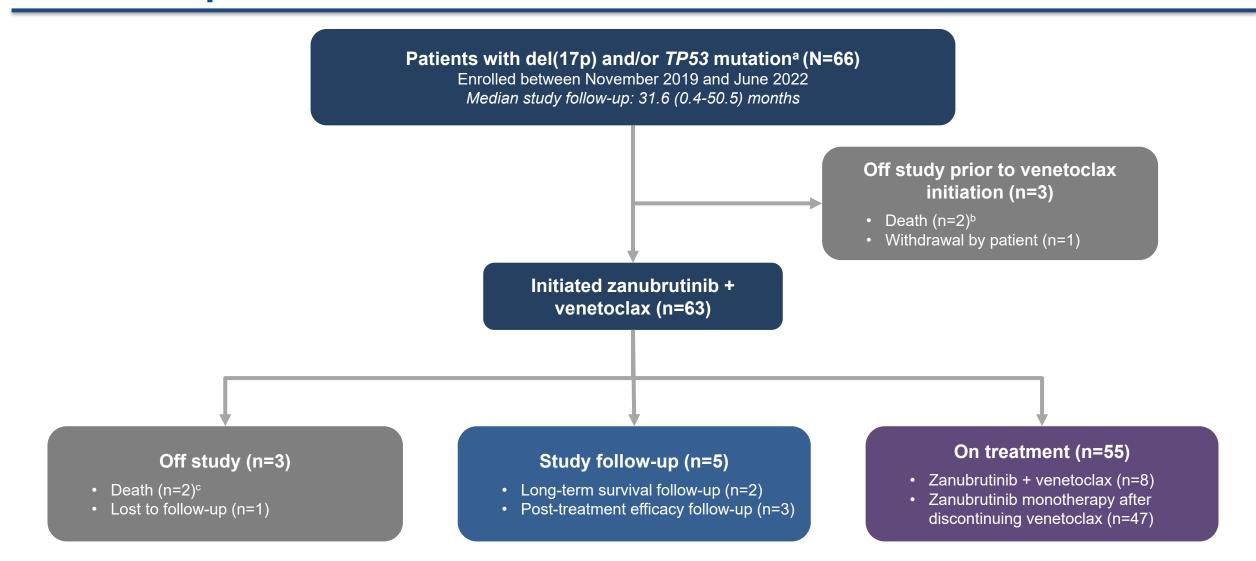
^a BM biopsy and aspirate are required to confirm a suspected CR/CRi (BM collection timepoint not defined per protocol), starting after cycle 9 and then annually if needed.

^b Patients with confirmed CR/CRi and 2 consecutive PB uMRD ≥12 weeks apart.

uMRDa-guided Early Zanubrutinib- or Venetoclax-stopping Rules

- Zanubrutinib or venetoclax can be stopped early if all of the following conditions are met:
 - Response assessed as CR/CRi confirmed by a bone marrow biopsy
 - uMRD4 achieved in 2 consecutive peripheral blood MRD tests conducted ≥12 weeks apart
 - uMRD4 achieved in 2 consecutive bone marrow aspirate MRD tests conducted ≥12 weeks apart
 - Received
 - ≥12 cycles of venetoclax (to stop venetoclax early)
 - ≥27 cycles of zanubrutinib (to stop zanubrutinib early)

Patient Disposition



Data cutoff: January 31, 2024.

^a Based on central assessment. ^b Due to AE. ^c Due to AE (n=1); due to PD (n=1).

Treatment Discontinuations

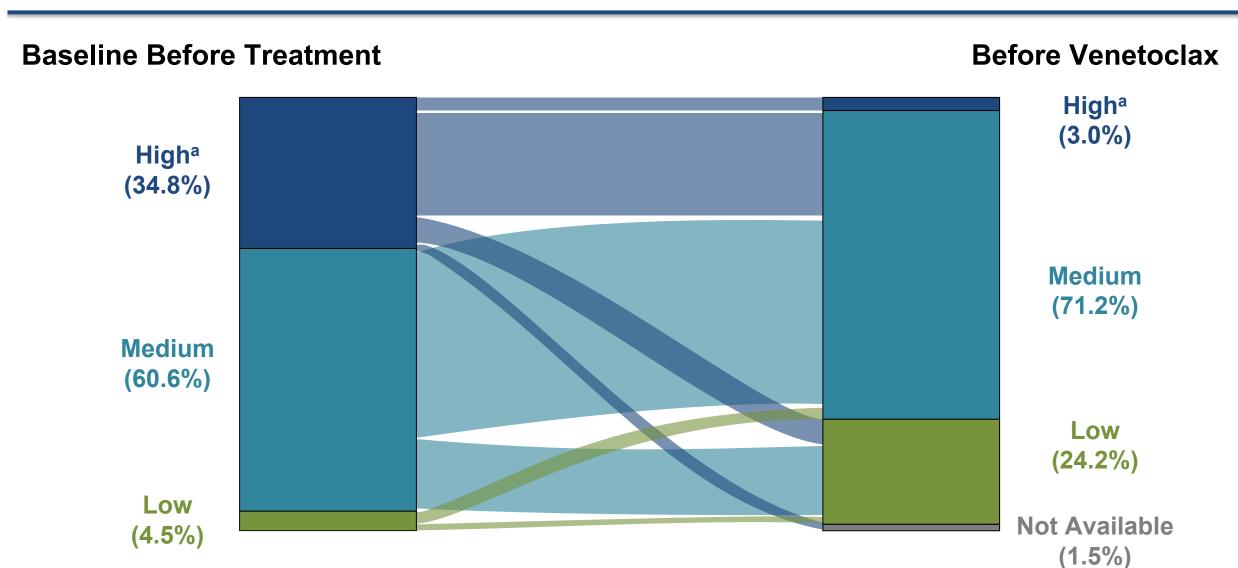
Patient, n (%)	Zanubrutinib + venetoclax (n=66)	
Enrolled/dosed	66 (100)	
Treated with zanubrutinib only	3 (5)	
Discontinued from zanubrutinib	11 (17)	
AE	5 (8)	
PD	2 (3)	
Completed treatment (uMRD early stopping)	3 (5)	
Withdrawal by patient	1 (2)	
Discontinued from venetoclax	55 (83)	
Completed treatment	50 (76)	
24 cycles per protocol	49 (74)	
uMRD early stopping	1 (2)	
AE	2 (3)	
PD	2 (3)	
Investigator decision	1 (2)	

SEQUOIA Arm D Included a High-risk Cohort

	Zanubrutinib + venetoclax	
Characteristic	(n=66)	
Age, median (range), years	66 (26-87)	
≥65 years, n (%)	36 (55)	
Male sex, n (%)	34 (52)	
White race, n (%)	58 (88)	
ECOG performance status, n (%)		
1	32 (48)	
2	2 (3)	
SLL, n (%)	3 (5)	
Bulky disease, n (%)		
Any target lesion LDi ≥5 cm	29 (44)	
Any target lesion LDi ≥10 cm	5 (8)	
Genotype status, n (%)		
del(17p) positive and/or <i>TP53</i> mutated	66 (100)	
del(17p) positive and <i>TP53</i> mutated	42 (64)	
del(17p) positive and <i>TP53</i> wildtype	17 (26)	
del(17p) negative and <i>TP53</i> mutated	7 (11)	
Unmutated IGHV	56 (85)	
Complex karyotype, n (%)		
≥3 abnormalities	33 (50)	
≥5 abnormalities	24 (36)	
del(17p) % of abnormal nuclei, median (range) 60.5 (1-98)		

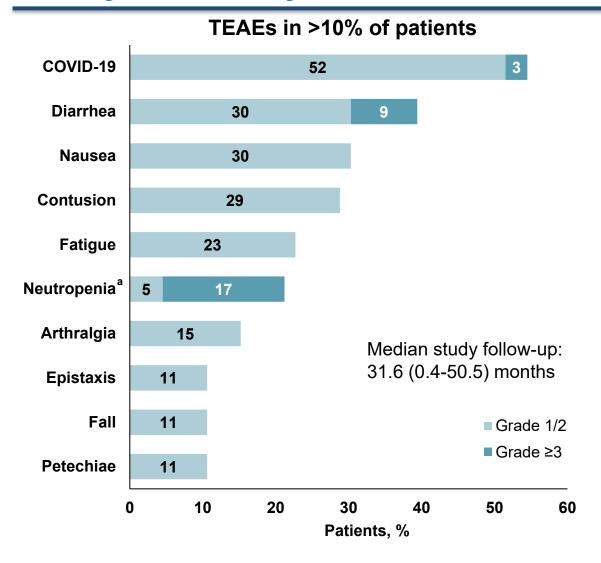
LDi, longest diameter.

Proportion of Patients at High Risk for TLS Decreased by 91% After Zanubrutinib Lead-in

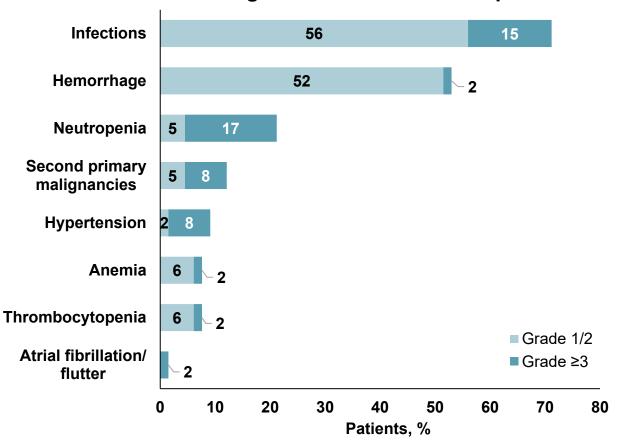


^a Any lymph node with the largest diameter ≥10 cm or an absolute lymphocyte count ≥25 x 10⁹/L and a lymph node with the largest diameter ≥5 cm by radiologic assessment. TLS, tumor lysis syndrome.

Safety Summary



Treatment-emergent adverse events of special interest



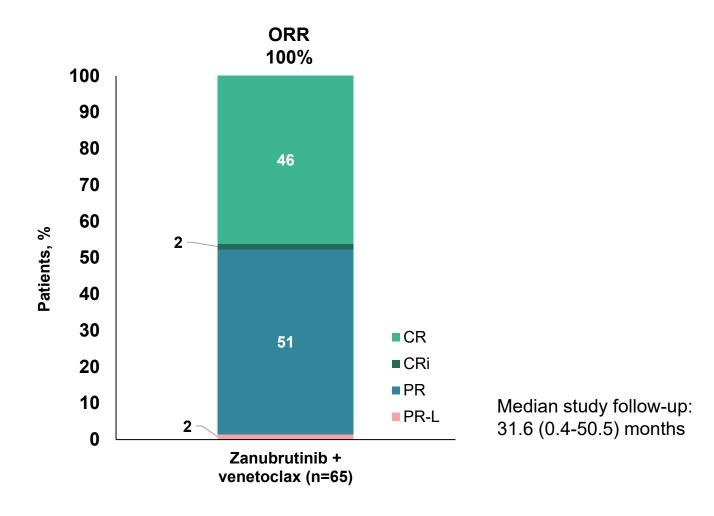
Of all infections, 36 patients (55%) had COVID-19,
 2 (3%) of whom experienced a grade ≥3 event

TEAEs Leading to Discontinuation and Death

Patients, n (%)	Zanubrutinib + venetoclax (n=66)	
TEAE leading to zanubrutinib discontinuation	5 (8)	
TEAE leading to venetoclax discontinuation	2 (3)	
TEAE leading to death	3 (5)	

Patient	TEAE(s)	Led to zanubrutinib discontinuation	Led to venetoclax discontinuation	Led to death
1	Motor vehicular accident, intra-abdominal hemorrhage, and intracranial hemorrhage	X	X	X
2	Pneumonitis	X	N/A ^a	
3	Lung carcinoma	X	N/A ^b	X
4	Pneumonia	X	X	
5	Pneumonia (<i>S. aureus</i>) Septic shock (<i>S. aureus</i>)	X	N/A ^b	X

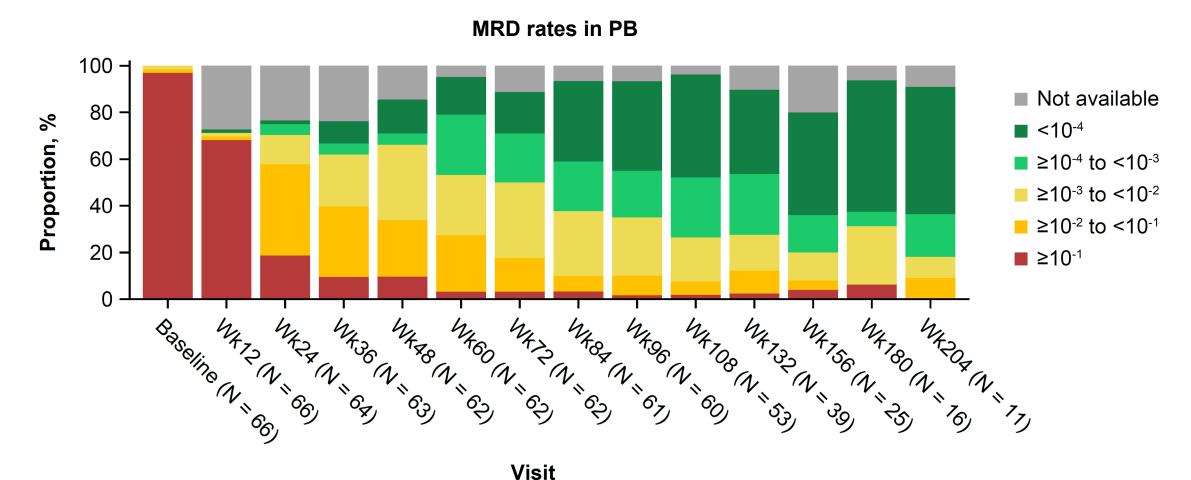
In 65 Response-evaluable Patients^a with del(17p) and/or *TP53* Mutation, ORR^{b,c} was 100% and the CR+CRi rate was 48%



^a Received ≥1 dose of zanubrutinib with ≥1 post-baseline disease assessment. The 1 patient that was not response-evaluable died during cycle 1. ^b Responses assessed by investigator per modified iwCLL criteria for CLL and Lugano criteria for SLL. ^c ORR was defined as PR-L or better.

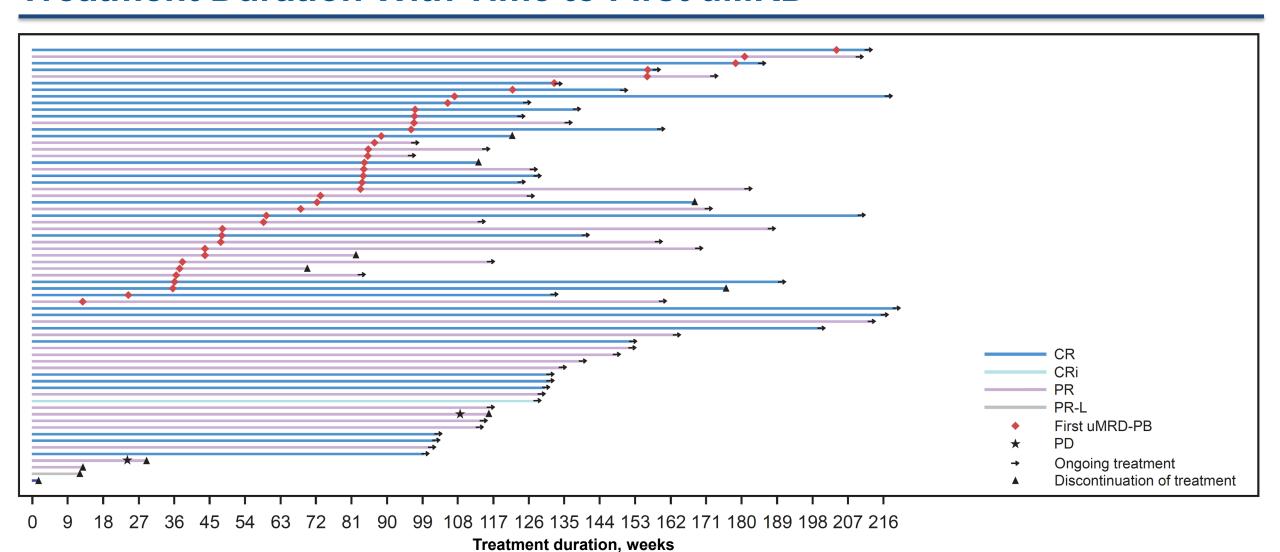
Rates of uMRD in PB Increased with Longer Treatment Duration

Best uMRD rate: 59% (39/66) in ≥1 PB sample; 37% (13/35) in ≥1 BM sample^a

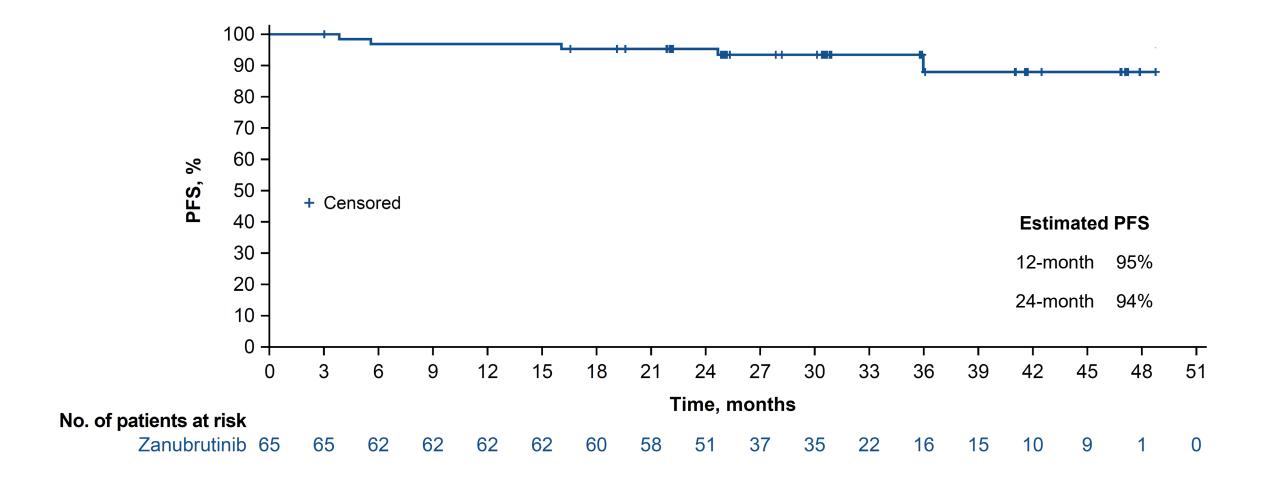


^a BM biopsy and aspirate were required to confirm a suspected CR/CRi and additional BM aspirate uMRD sample collection was dependent on PB uMRD status; BM collection timing varied by patient. On treatment BM aspirate samples have been collected in 35 patients to date.

Treatment Duration With Time to First uMRD



With Median Study Follow-up of 31.6 Months, Median PFS was Not Reached



Conclusions

- Preliminary results for treatment with zanubrutinib + venetoclax in patients with high-risk TN CLL/SLL with del(17p) and/or TP53 mutation showed favorable safety and tolerability
 - Rates of atrial fibrillation/flutter and hypertension were low (2% and 9%, respectively)
- Promising efficacy was seen in this high-risk population with deep and durable responses
 - An ORR of 100% and a high rate of uMRD were achieved
 - With a median follow-up of 31.6 months, high 12- and 24-month PFS estimates were seen (95% and 94%, respectively)
- The study is ongoing and results in patients who meet MRD-guided early stopping rules will be reported as data mature
- The ongoing phase 3 CELESTIAL-TNCLL trial (BGB-11417-301) is evaluating zanubrutinib in combination with sonrotoclax, a next-generation and potent BCL2 inhibitor, as fixed duration therapy in patients with TN CLL

Acknowledgments

- The authors thank the patients and their families, investigators, co-investigators, and the study teams at each of the participating centers
- This study was sponsored by BeiGene, Ltd
- Medical writing was provided by Brittany Gifford, PharmD, of Nucleus Global, an Inizio company, and supported by BeiGene