



# 2022 ASH Late Breaker Data Discussion

DECEMBER 13, 2022

# Disclosures

Certain statements contained in this presentation and in the accompanying oral presentation, other than statements of fact that are independently verifiable at the date hereof, may constitute forward-looking statements. Examples of such forward-looking statements include statements regarding BeiGene's research, discovery, and pre-clinical and early-stage clinical programs and plans; recent clinical data for BeiGene's product candidates and approvals of its medicines; the conduct of late-stage clinical trials and expected data readouts; additional planned commercial product launches; and the advancement of and anticipated clinical development, regulatory milestones and commercialization of BeiGene's medicines and drug candidates. Actual results may differ materially from those indicated in the forward-looking statements as a result of various important factors, including BeiGene's ability to demonstrate the efficacy and safety of its drug candidates; the clinical results for its drug candidates, which may not support further development or marketing approval; actions of regulatory agencies, which may affect the initiation, timing and progress of clinical trials and marketing approval; BeiGene's ability to achieve commercial success for its marketed medicines and drug candidates, if approved; BeiGene's ability to obtain and maintain protection of intellectual property for its technology and medicines; BeiGene's reliance on third parties to conduct drug development, manufacturing and other services; BeiGene's limited experience in obtaining regulatory approvals and commercializing pharmaceutical products and its ability to obtain additional funding for operations and to complete the development and commercialization of its drug candidates and achieve and maintain profitability; the impact of the COVID-19 pandemic on BeiGene's clinical development, commercial, regulatory and other operations, as well as those risks more fully discussed in the section entitled "Risk Factors" in BeiGene's most recent periodic report filed with the SEC, as well as discussions of potential risks, uncertainties, and other important factors in BeiGene's subsequent filings with the SEC. All information in this presentation is as of the date of this presentation, and BeiGene undertakes no duty to update such information unless required by law.

Some of the clinical data in this presentation relating to BeiGene's investigational drug candidates is from pre-clinical studies or early phase, single-arm clinical trials. When such data or data from later stage trials are presented in relation to other investigational or marketed drug products, the presentation and discussion are not based on head-to-head trials between BeiGene's investigational drug candidates and other products unless specified in the trial protocol. BeiGene is still conducting pre-clinical studies and clinical trials and, as additional patients are enrolled and evaluated, data on BeiGene's investigational drug candidates may change.

This presentation and the accompanying oral presentation contain data and information obtained from third-party studies and internal company analysis of such data and information. BeiGene has not independently verified the data and information obtained from these sources. Forward-looking information obtained from these sources is subject to the same qualifications noted above.

# AGENDA & SPEAKERS

- > **Introduction:** John V. Oyler
- > **BRUKINSA ALPINE Overview:** Jennifer R. Brown, M.D., Ph.D.
- > **BRUKINSA Data:** Mazyar Shadman, M.D., M.P.H.
- > **Key Takeaways:** Mehrdad Mobasher, M.D., M.P.H.
- > **Q&A**



# Introduction

John V. Oyler

Co-Founder, Chairman, and CEO



BeiGene

# At A Glance



@BeiGeneGlobal



BeiGene



Founded  
2010



Co-Founder, Chairman,  
and CEO  
John V. Oyler



30 Offices, 9,000+ Colleagues on  
5 Continents



900+ Oncology Research Team



3,300+ Clinical Development &  
Medical Affairs Team



3,500+ Commercial  
Team in China, North  
America and Europe



60+ Pre-clinical programs,  
the majority with  
first-in-class potential



~50+ Assets in clinical and  
commercial stages



~20 Industry  
Collaborations

TRANSLATING SCIENCE TO IMPROVE ACCESS AND AFFORDABILITY BY CHALLENGING THE STATUS QUO

---

**Trials Span**

**45<sup>+</sup>**

**Countries  
& Regions**

---

**20K<sup>+</sup>**

**People Enrolled in**

**110<sup>+</sup>**

**Clinical Trials**

---





# BRUKINSA<sup>®</sup> ALPINE Overview

Jennifer R. Brown, M.D., Ph.D.

# Jennifer R. Brown, M.D., Ph.D.

Director, Chronic Lymphocytic Leukemia (CLL) Center at the Dana Farber Cancer Institute



- Institute Physician
- Worthington and Margaret Collette Professor of Medicine in the Field of Hematologic Oncology, Harvard Medical School
- Clinical interests include chronic lymphocytic leukemia, lymphoma, stem cell/bone marrow transplant
- Education:
- Fellowship: Dana-Farber/Partners CancerCare, Medical Oncology
- Residency: Massachusetts General Hospital, Internal Medicine
- Medical School: Harvard Medical School





Jennifer R. Brown, MD, PhD<sup>1</sup>, Barbara Eichhorst, MD<sup>2</sup>, Peter Hillmen, MD PhD<sup>3</sup>, Nicole Lamanna, MD<sup>4</sup>, Susan M. O'Brien, MD<sup>5</sup>, Constantine S. Tam, MBBS, MD<sup>6,7</sup>, Lugui Qiu, MD<sup>8</sup>, Maciej Kaźmierczak, MD, PhD<sup>9</sup>, Wojciech Jurczak, MD, PhD<sup>10</sup>, Keshu Zhou, MD, PhD<sup>11</sup>, Martin Simkovic MD, PhD<sup>12,13</sup>, Jiri Mayer, MD<sup>14</sup>, Amanda Gillespie-Twardy, MD<sup>15</sup>, Alessandra Ferrajoli, MD<sup>16</sup>, Peter S. Ganly, BMBCh, PhD<sup>17</sup>, Robert Weinkove, MBBS, PhD<sup>18,19</sup>, Sebastian Grosicki, MD, PhD<sup>20</sup>, Andrzej Mital, MD, PhD<sup>21</sup>, Tadeusz Robak, MD, PhD<sup>22</sup>, Anders Osterborg, MD, PhD<sup>23,24</sup>, Habte A. Yimer, MD<sup>25</sup>, Tommi Salmi, MD<sup>26</sup>, Megan (Der Yu) Wang, PharmD<sup>26</sup>, Lina Fu, MS<sup>26</sup>, Jessica Li, MS<sup>26</sup>, Kenneth Wu, PhD<sup>26</sup>, Aileen Cohen, MD, PhD<sup>26</sup>, Mazyar Shadman, MD, MPH<sup>27,28</sup>

*1Dana-Farber Cancer Institute, Boston, MA, USA; 2University of Cologne, Cologne, Germany; 3St James's University Hospital, Leeds, United Kingdom; 4Columbia University, New York, NY, USA; 5University of California, Irvine, CA, USA; 6The Alfred Hospital, Melbourne, Victoria, Australia; 7Monash University, Melbourne, Victoria, Australia; 8National Clinical Research Center for Hematological Disorders, Institute of Hematology and Blood Diseases Hospital, Chinese Academy of Medical Sciences and Peking Union Medical College, Tianjin, China; 9Department of Hematology and Bone Marrow Transplantation, Poznan University of Medical Sciences, Poznan, Poland; 10Maria Skłodowska-Curie National Research Institute of Oncology, Krakow, Poland; 11Affiliated Cancer Hospital of Zhengzhou University, Henan Cancer Hospital, Zhengzhou, China; 124th Department of Internal Medicine - Hematology, University Hospital, Hradec Kralove, Czech Republic; 13Faculty of Medicine, Charles University, Prague, Czech Republic; 14Department of Internal Medicine-Hematology and Oncology, Masaryk University and University Hospital, Brno, Czech Republic; 15Blue Ridge Cancer Care, Roanoke, VA, USA; 16Department of Leukemia, The University of Texas MD Anderson Cancer Center, Houston, TX, USA; 17Department of Haematology, Christchurch Hospital, Christchurch, New Zealand; 18Te Rerenga Ora Blood and Cancer Centre, Te Whatu Ora Health New Zealand Capital Coast & Hutt Valley, Wellington, New Zealand; 19Cancer Immunotherapy Programme, Malaghan Institute of Medical Research, Wellington, New Zealand; 20Department of Hematology and Cancer Prevention, Health Sciences Faculty, Medical University of Silesia, Katowice, Poland; 21Department of Hematology and Transplantology, Medical University of Gdańsk, Gdańsk, Poland; 22Medical University of Lodz, Lodz, Poland; 23Department of Oncology-Pathology, Karolinska Institutet, Stockholm, Sweden; 24Department of Hematology, Karolinska University Hospital, Stockholm, Sweden; 25Texas Oncology-Tyler/US Oncology Research, Tyler, TX, USA; 26BeiGene (Beijing) Co., Ltd., Beijing, China and BeiGene USA, Inc., San Mateo, CA, USA; 27Fred Hutchinson Cancer Center, Seattle, WA, USA; 28University of Washington, Seattle, WA, USA*

*Tuesday, December 13, 2022: 9:00-10:30 AM*  
Late-Breaking Abstracts Session

64th ASH Annual Meeting and Exposition,  
December 10-13, 2022 **LBA #6**

# Zanubrutinib Demonstrates Superior Progression Free Survival Compared with Ibrutinib for Treatment of Relapsed/Refractory Chronic Lymphocytic Leukemia and Small Lymphocytic Lymphoma: Results from Final Analysis of ALPINE Randomized Phase 3 Study

# Bruton Tyrosine Kinase Inhibition in CLL: Background

- B-cell antigen receptor (BCR) signaling is required for tumor expansion and proliferation in CLL and B-cell lymphomas<sup>1</sup>
  - BCR signaling is dependent on BTK (Bruton's Tyrosine Kinase)
- Ibrutinib, a first-in-class, covalent BTK inhibitor, has transformed CLL therapy; however, it has properties that limit use
  - Treatment discontinuation from toxicities has been reported in 16%-23% of patients<sup>3-6</sup>
  - Exposure coverage between dosing intervals falls below  $IC_{50}$  and variable BTK occupancy at trough has been observed

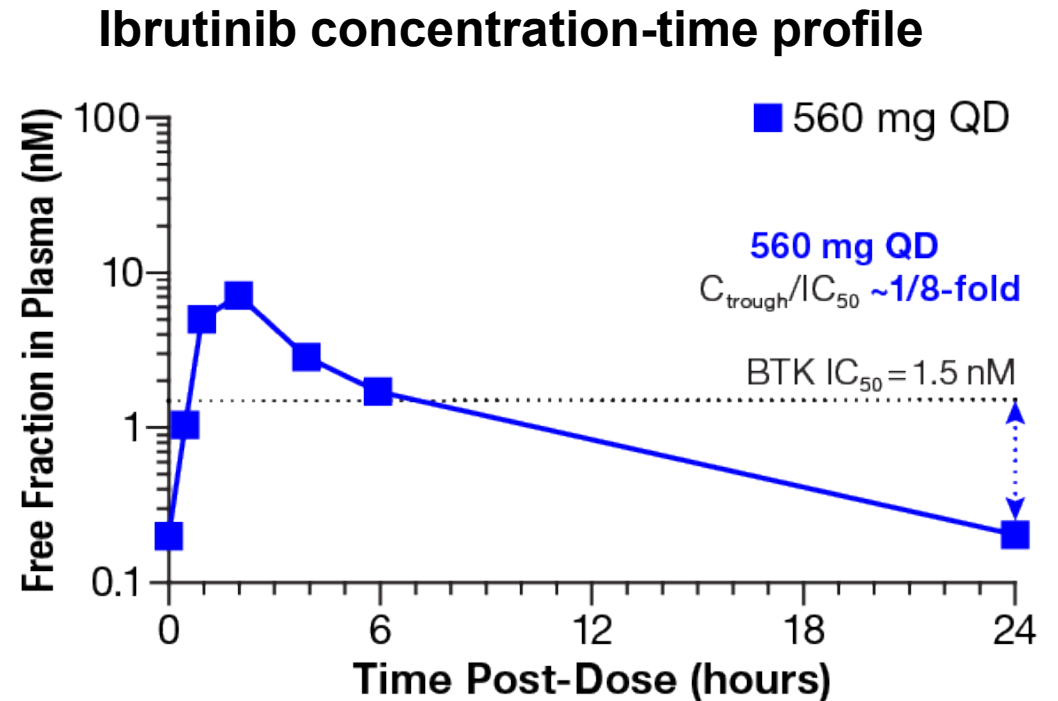


Figure adapted from Tam CS et al. *Expert Rev Clin Pharmacol*. 2021;14:11, 1329-1344

1. Singh SP, Dammeijer F and Hendriks RW. *Molecular Cancer*. 2018; 17:57.; 2. Molis S, Matures E, Tam C, Polliack A. *Hematol Oncol*. 2020; 38: 129-136; 3. Sharman JP, Black-Shinn JL, Clark J, et al. *Blood*. 2017;130(suppl 1):4060; 4. Mato AR, Nabhan C, Thompson MC, et al. *Haematologica*. 2018;103(5):874-879; 5. Munir T, Brown JR, O'Brien S, et al. *Am J Hematol*. 2019;94(12):1353-1363; 6. Ghia P, Owen C, Robak T, et al. EHA Abstract EP636 2021.

# Zanubrutinib: Differentiating Features and Background

- Zanubrutinib is a second-generation Bruton tyrosine kinase inhibitor (BTKi)
  - Zanubrutinib was designed to have greater BTK specificity than ibrutinib
  - Zanubrutinib has exposure coverage above its  $IC_{50}$
  - Higher drug-concentration/ $IC_{50}$  ratios would be expected to lead to more sustained and complete BTK inhibition to improve efficacy
- Zanubrutinib has demonstrated superior PFS by IRC over chemoimmunotherapy in treatment-naive CLL/SLL patients without del(17p)<sup>1</sup>

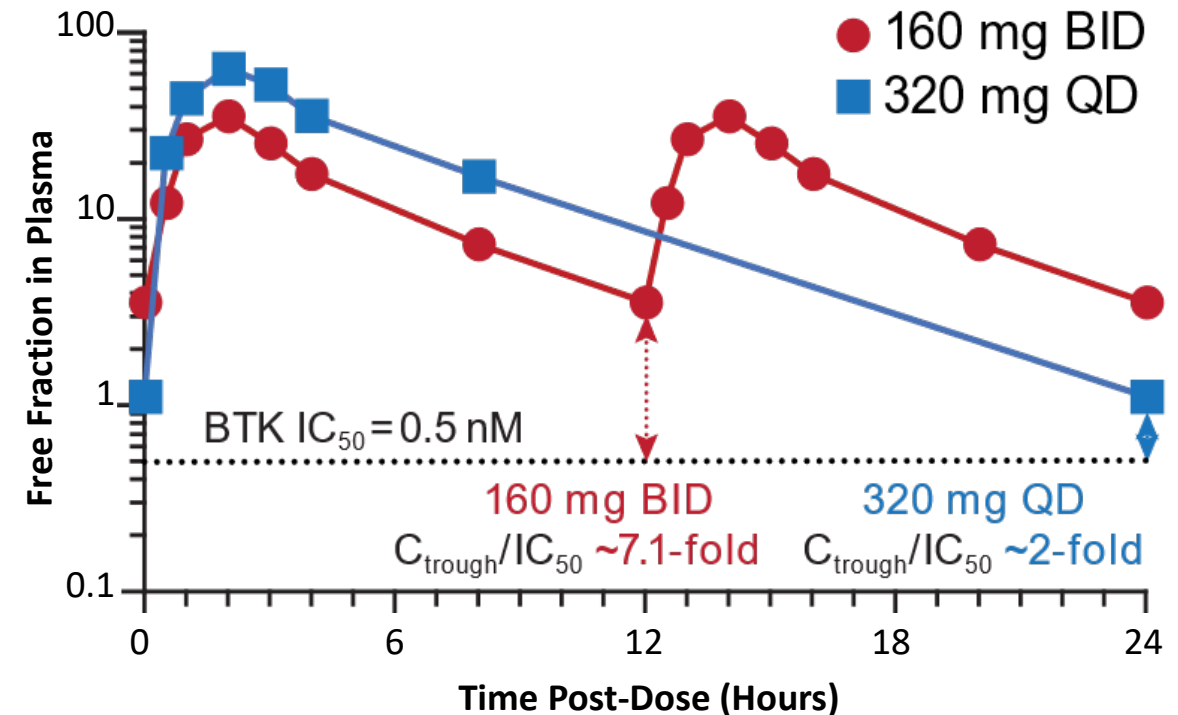


Figure modified from Ou YC, Tang Z, Novotny W, et al *Leukemia & Lymphoma*. 2021; 62(11):2612-2624.

<sup>1</sup>Tam CS, Brown JB, Kahl BS, et al. *Lancet Oncol*. 2022. [https://doi.org/10.1016/S1470-2045\(22\)00293-5](https://doi.org/10.1016/S1470-2045(22)00293-5)

# ALPINE Study Design

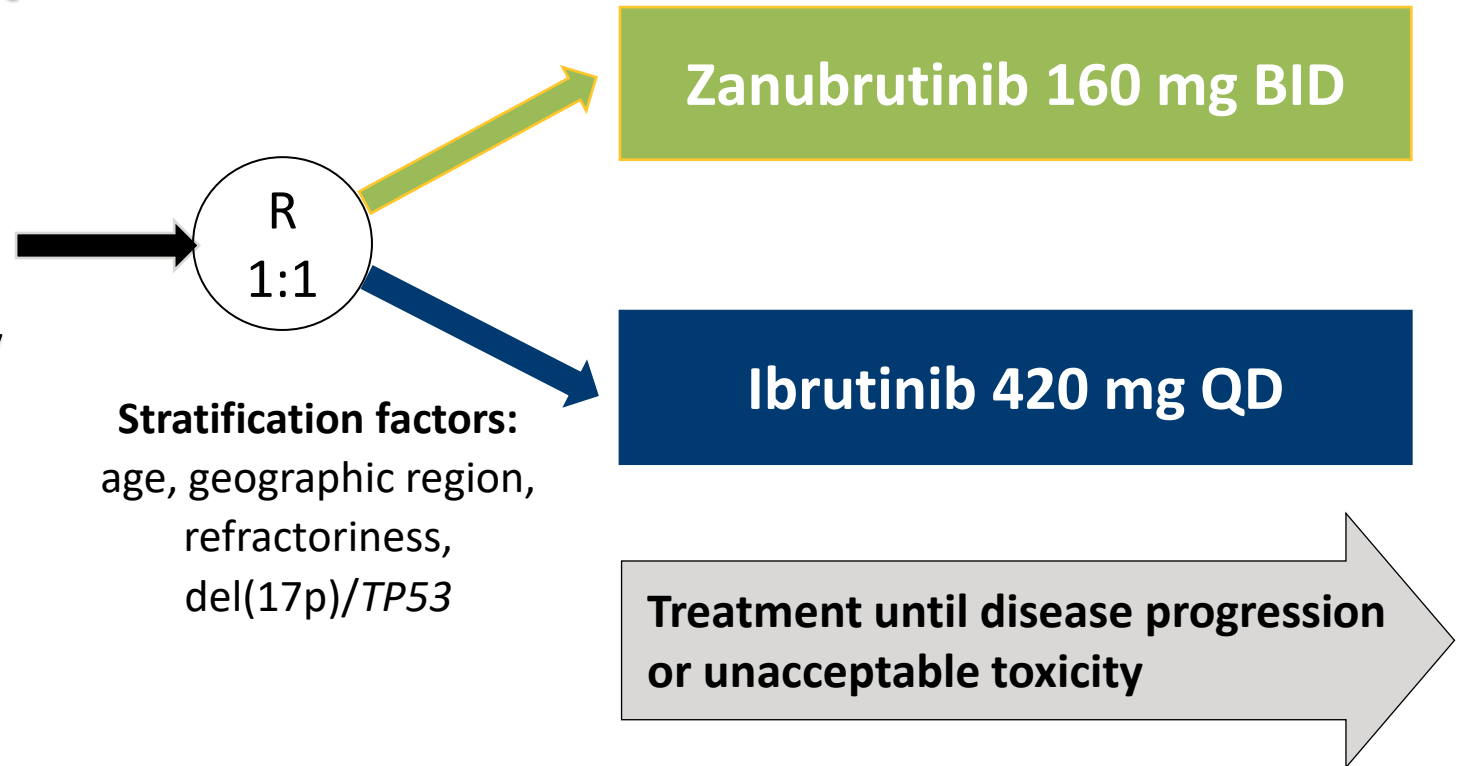
**R/R CLL/SLL with  $\geq 1$  prior treatment**  
(Planned N=600, Actual N=652)

## Key Inclusion Criteria

- R/R to  $\geq 1$  prior systemic therapy for CLL/SLL
- Measurable lymphadenopathy by CT or MRI

## Key Exclusion Criteria

- Prior BTK inhibitor therapy
- Treatment with warfarin or other vitamin K antagonists



# Endpoints and Statistical Design

## Primary Endpoint

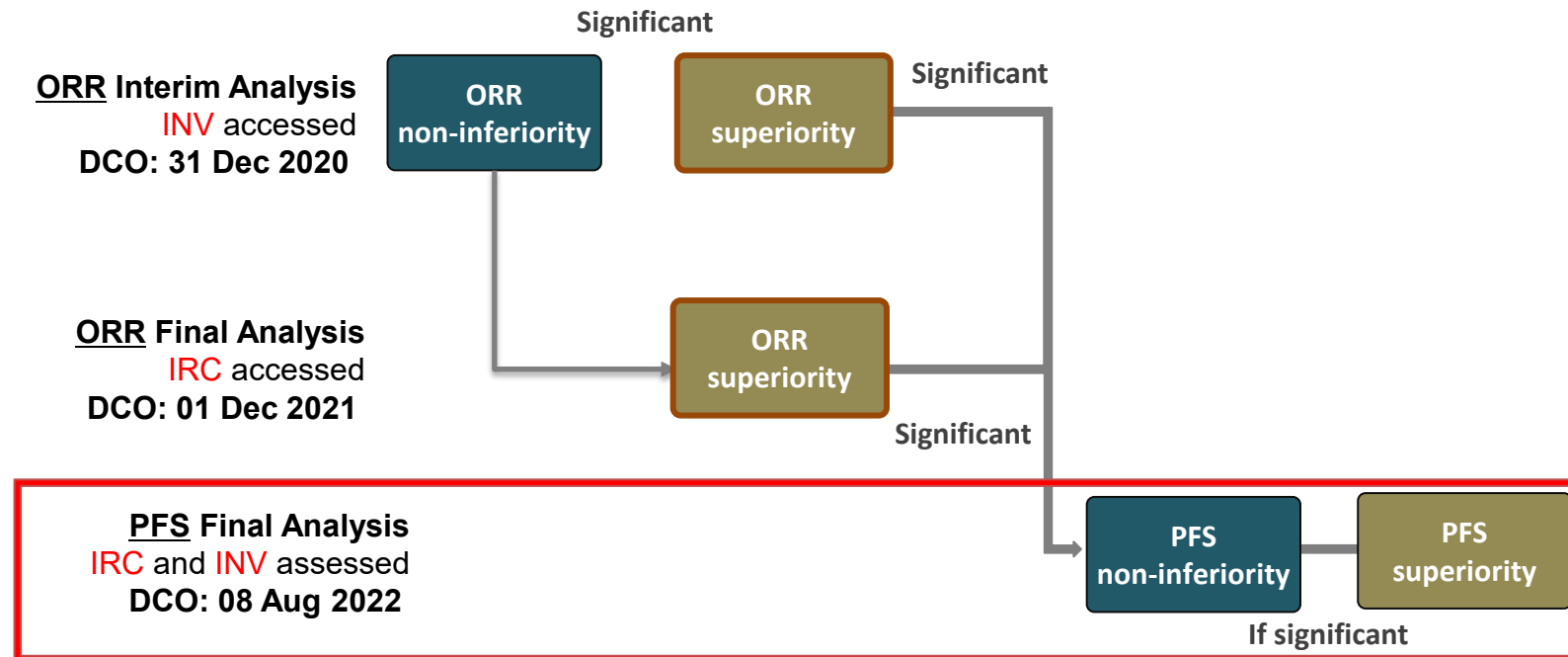
- ORR (PR+CR) noninferiority and superiority (by investigator)

## Key Secondary Endpoints

- PFS
- Incidence of atrial fibrillation

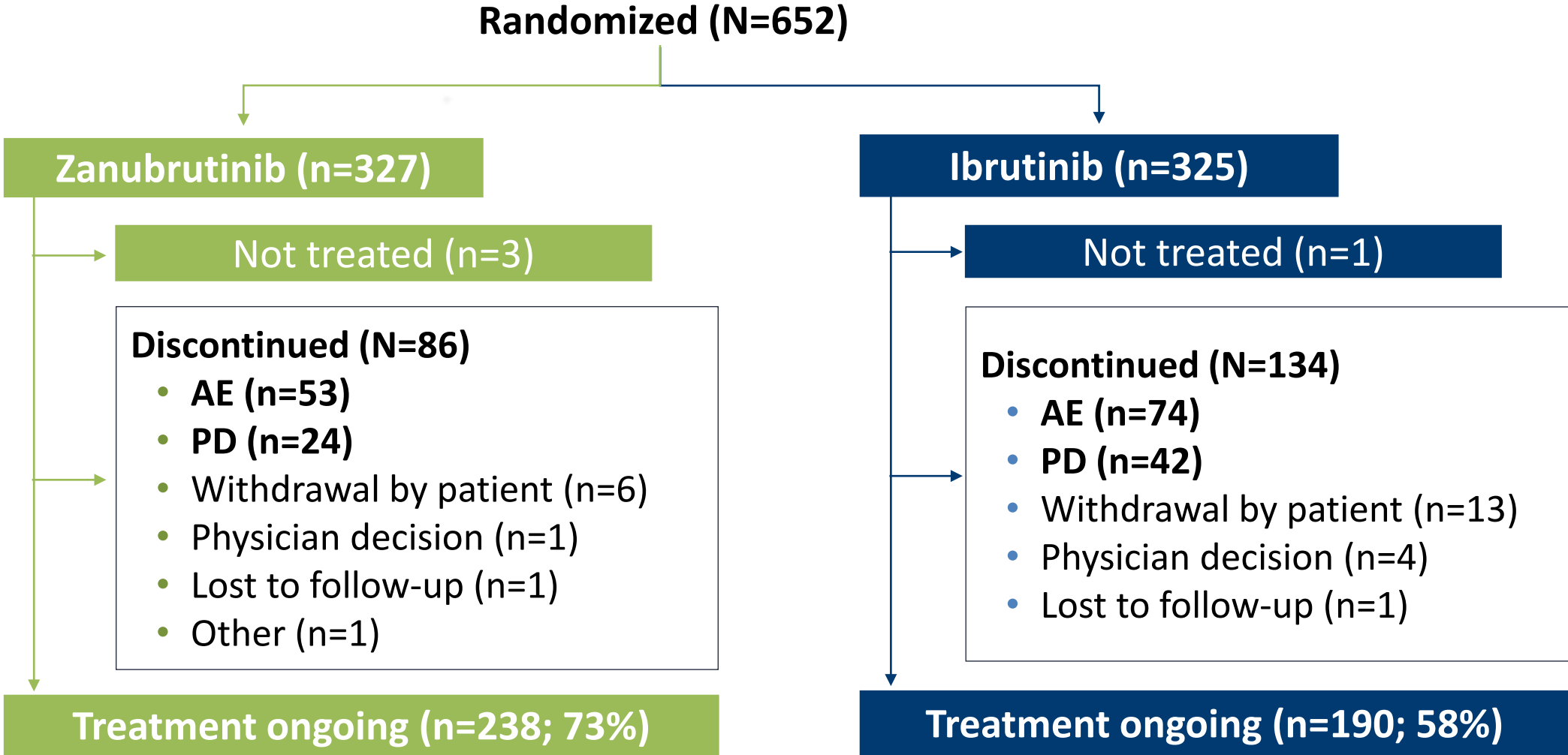
## Other Secondary Endpoints

- DoR, OS
- Time to treatment failure
- PR-L or higher
- Patient-reported outcomes
- Safety



**Overall response rate noninferiority and superiority were demonstrated in the ORR interim and final analyses; PFS was tested for noninferiority under hierarchical testing when 205 events had occurred**

# Patient Disposition



AE, adverse event; PD, progressive disease.

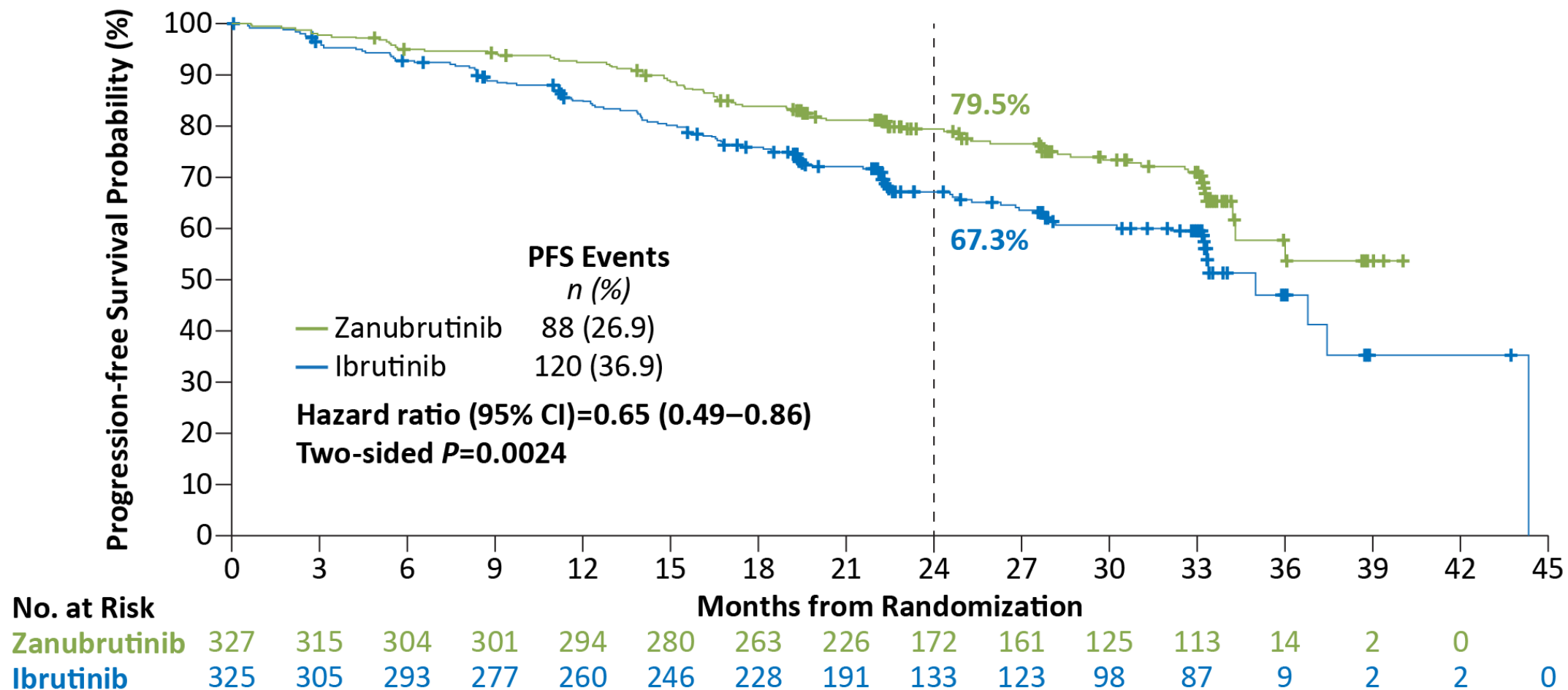
# Balanced Demographics and Disease Characteristics

	Zanubrutinib (n=327)	Ibrutinib (n=325)
<b>Age, median (range)</b> ≥65 years, n (%)	<b>67 (35-90)</b> 201 (61.5)	<b>68 (35-89)</b> 200 (61.5)
<b>Male, n (%)</b>	<b>213 (65.1)</b>	<b>232 (71.4)</b>
<b>ECOG PS ≥1, n (%)</b>	<b>198 (60.6)</b>	<b>203 (62.5)</b>
<b>Prior lines of systemic therapy, median (range)</b> >3 prior lines, n (%)	<b>1 (1-6)</b> 24 (7.3)	<b>1 (1-12)</b> 30 (9.2)
<b>del(17p) and/or <i>TP53</i><sup>mut</sup>, n (%)</b> del(17p) <i>TP53</i> <sup>mut</sup> without del(17p)	<b>75 (22.9)</b> 45 (13.8) 30 (9.2)	<b>75 (23.1)</b> 50 (15.4) 25 (7.7)
<b>del(11q), n (%)</b>	<b>91 (27.8)</b>	<b>88 (27.1)</b>
<b>IGHV mutational status, n (%)</b> Mutated Unmutated	 79 (24.2) <b>239 (73.1)</b>	 70 (21.5) <b>239 (73.5)</b>
<b>Complex karyotype*</b>	<b>56 (17.1)</b>	<b>70 (21.5)</b>
<b>Bulky disease (≥5 cm), n (%)</b>	<b>145 (44.3)</b>	<b>149 (45.8)</b>

\*Complex karyotype is defined as having ≥3 abnormalities.

# Zanubrutinib PFS by IRC Significantly Superior to Ibrutinib

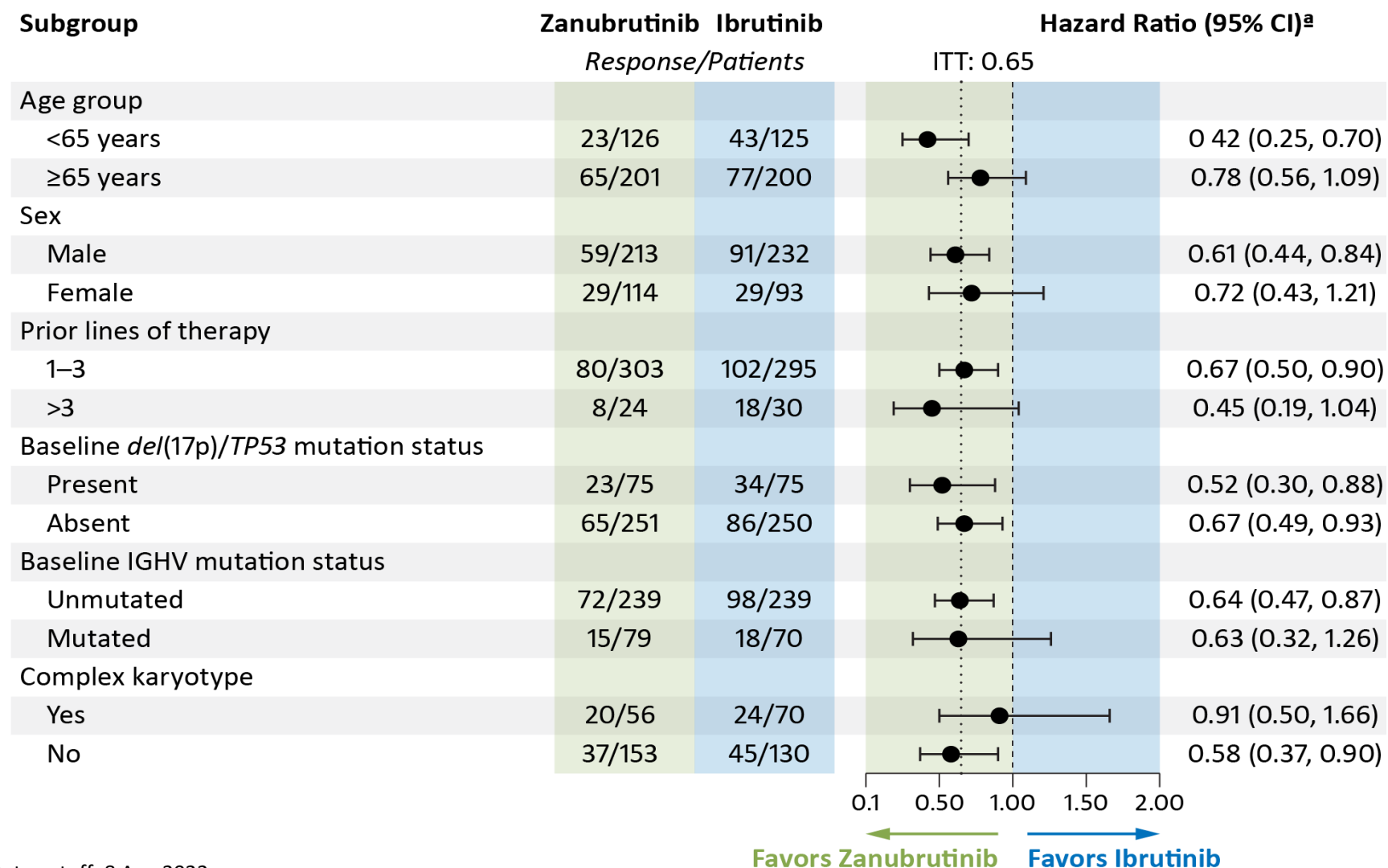
Median study follow-up of **29.6** months



Data cutoff: 8 Aug 2022



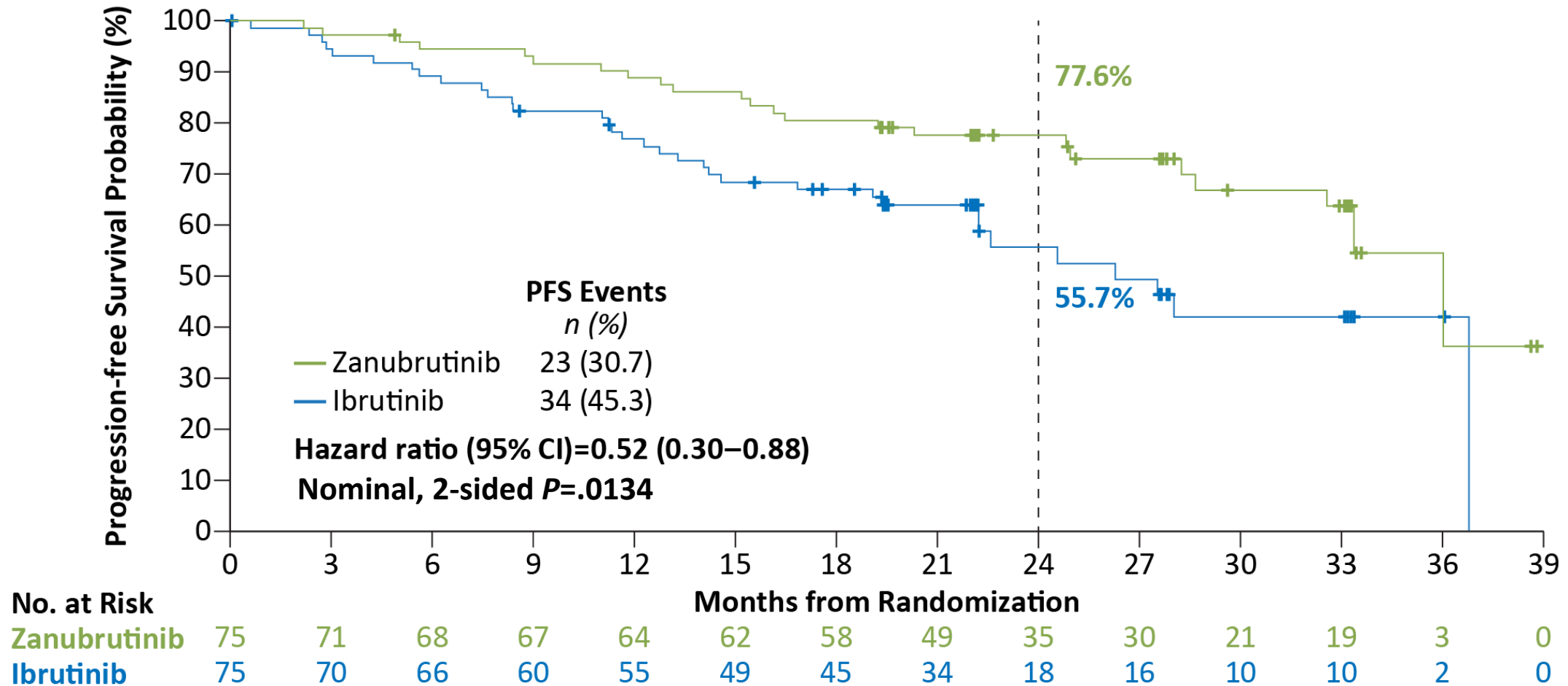
# PFS Favored Zanubrutinib Across Subgroups



Data cutoff: 8 Aug 2022

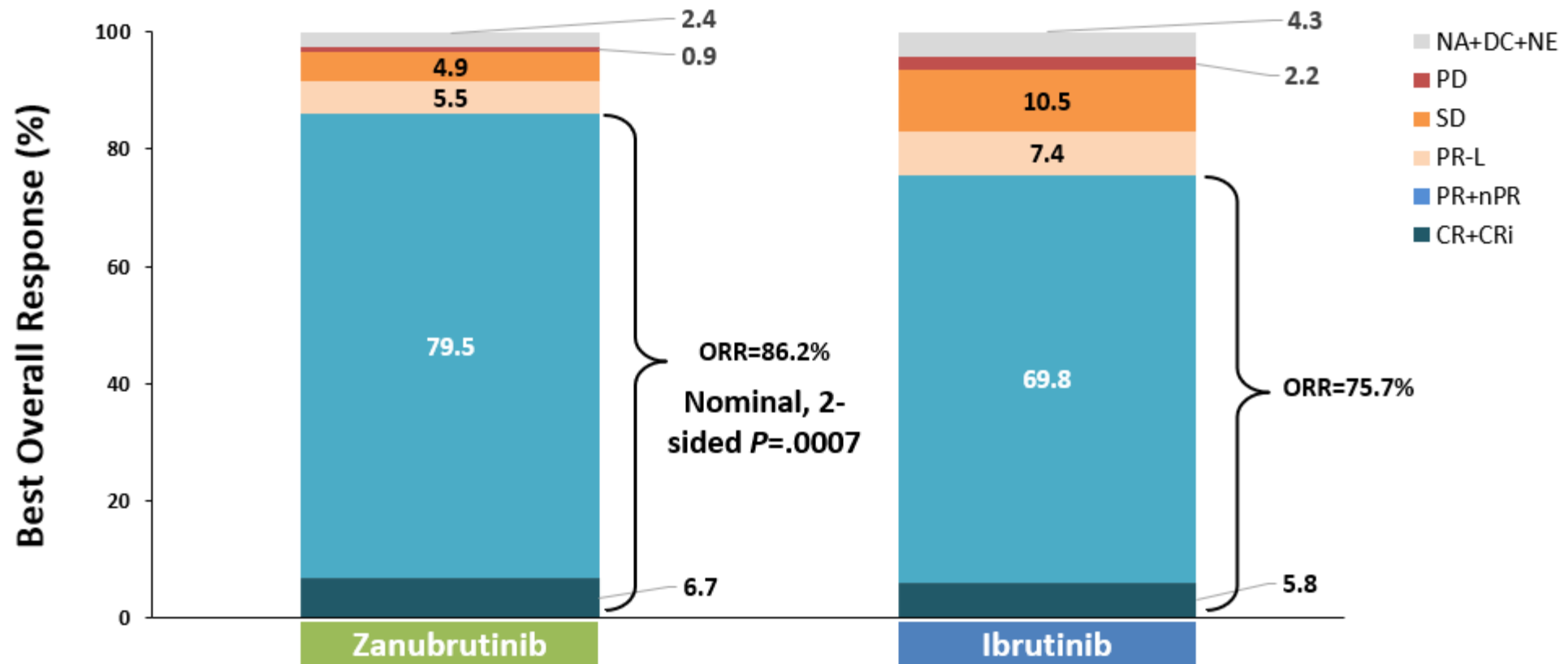
<sup>a</sup>Hazard ratio and 95% CI were unstratified for subgroups.

# Zanubrutinib Improved PFS in Patients with del(17p)/TP53<sup>mut</sup>



PFS data assessed by IRC  
Data cutoff: 8 Aug 2022

# Zanubrutinib Showed Higher ORR Assessed by IRC

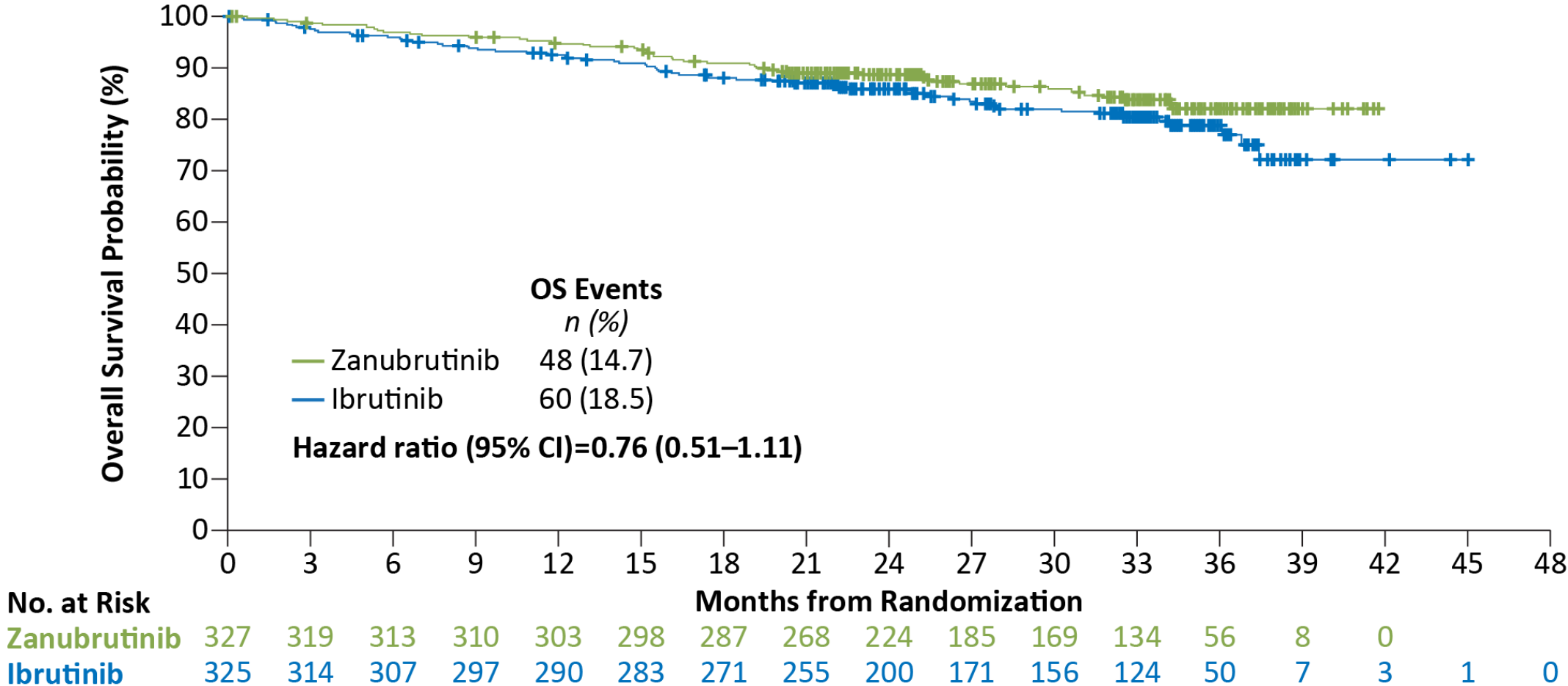


CR, complete response; CRi, complete response with incomplete bone marrow recovery; nPR, nodular partial response; PR, partial response; PR-L, partial response with lymphocytosis; SD, stable response; PD, progressive disease; NA, not assessed; DC, discontinued prior to first assessment; NE, not evaluable.

Data cutoff: 8 Aug 2022

# Overall Survival

Fewer deaths with zanubrutinib compared with ibrutinib



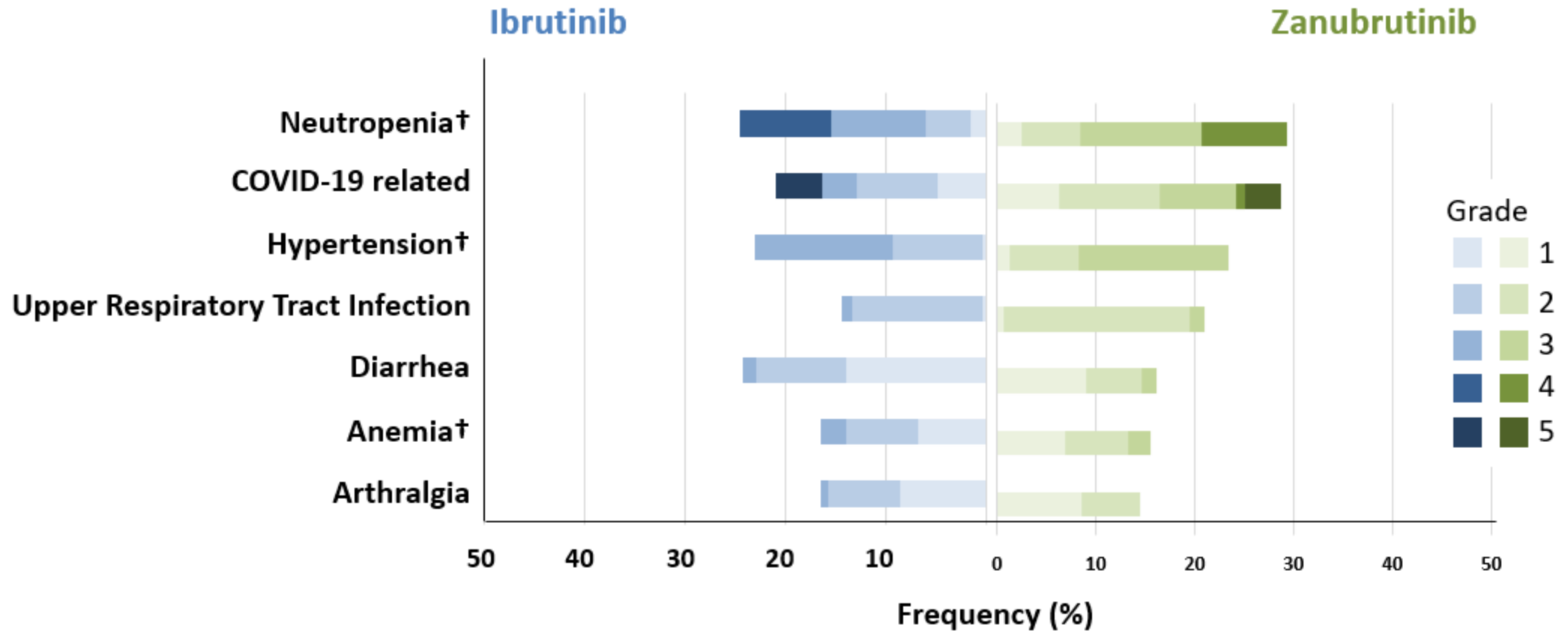
Data cutoff: 8 Aug 2022

# Overall Safety/Tolerability Summary

Zanubrutinib safety profile was favorable to ibrutinib

	Zanubrutinib (n=324)	Ibrutinib (n=324)
<b>Median treatment duration, months</b>	<b>28.4</b>	<b>24.3</b>
<b>Any grade adverse event</b>	<b>318 (98.1)</b>	<b>321 (99.1)</b>
Grade 3 to 5	218 (67.3)	228 (70.4)
Grade 5	33 (10.2)	36 (11.1)
<b>Serious adverse event</b>	<b>136 (42.0)</b>	<b>162 (50.0)</b>
<b>Adverse events leading to</b>		
<b>Dose reduction</b>	<b>40 (12.3)</b>	<b>55 (17.0)</b>
<b>Dose interruption</b>	<b>162 (50.0)</b>	<b>184 (56.8)</b>
<b>Treatment discontinuation</b>	<b>50 (15.4)</b>	<b>72 (22.2)</b>

# Most Common Adverse Events\*



\*Adverse events occurring in  $\geq 15\%$  of patients in either arm.

†Pooled terms.

Data cutoff: 8 Aug 2022

# Zanubrutinib Had A Favorable Cardiac Profile

Lower rate of cardiac events, serious cardiac events, treatment discontinuation, and deaths

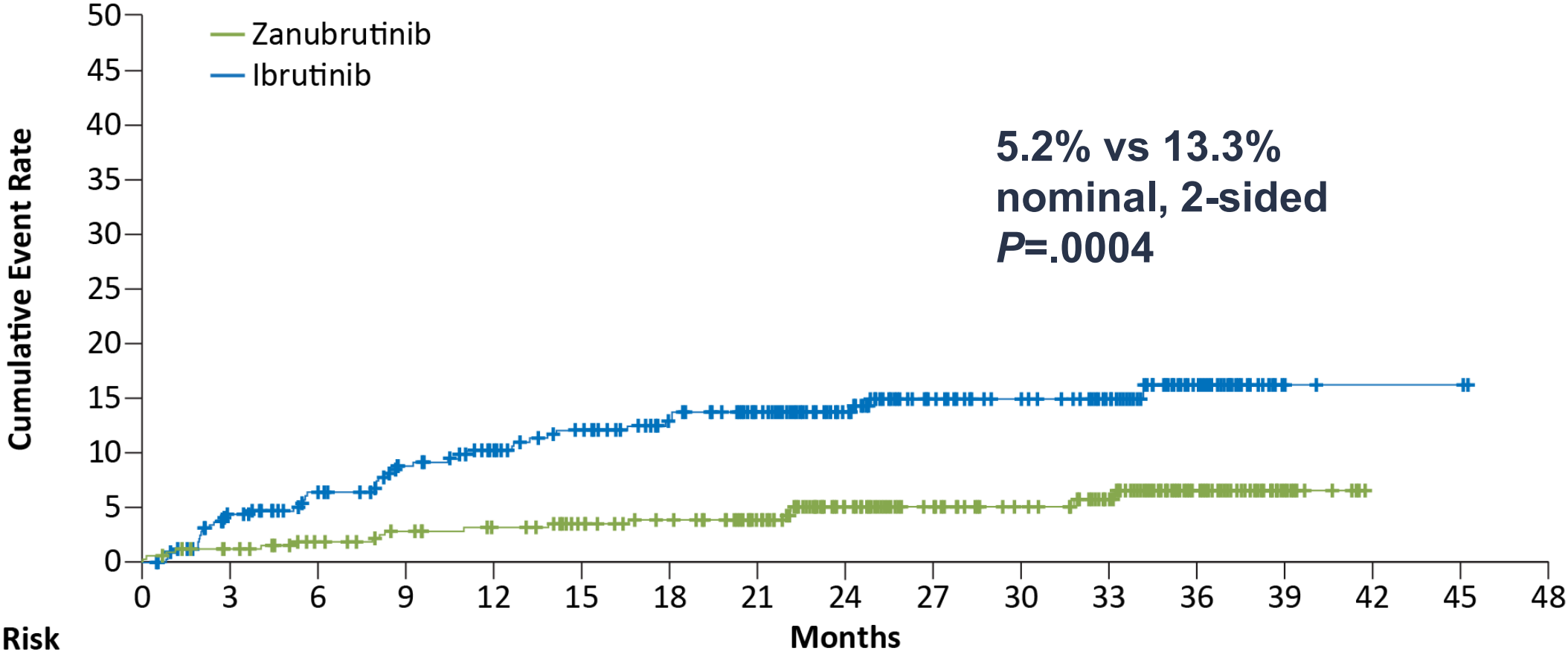
- Lower rate of serious cardiac adverse events reported with zanubrutinib
  - A fib/flutter (n=2)
  - MI/ACS (n=2)
  - CHF (n=2)
- **Fatal cardiac events:**
  - **Zanubrutinib, n=0 (0%)**
  - **Ibrutinib, n=6 (1.9%)**

	Zanubrutinib (n=324)	Ibrutinib (n=324)
<b>Cardiac adverse events</b>	<b>69 (21.3%)</b>	<b>96 (29.6%)</b>
<b>Serious cardiac adverse events</b>	<b>6 (1.9%)</b>	<b>25 (7.7%)</b>
<b>Cardiac adverse events leading to treatment discontinuation</b>	<b>1 (0.3)</b>	<b>14 (4.3)</b>
Ventricular extrasystoles	1 (0.3)	0
Atrial fibrillation	0	5 (1.5)
Cardiac arrest	0	2 (0.6)*
Cardiac failure	0	2 (0.6)
Cardiac failure acute	0	1 (0.3)*
Congestive cardiomyopathy	0	1 (0.3)*
Myocardial infarction	0	1 (0.3)*
Palpitations	0	1 (0.3)
Ventricular fibrillation	0	1 (0.3)

\*Cardiac deaths. One death not listed due to myocardial infarction with ibrutinib discontinuation due to diarrhea 14 days prior to the fatal event.

Data cutoff: 8 Aug 2022

# Fewer Atrial Fibrillation/Flutter Events With Zanubrutinib



**No. at Risk**

	0	3	6	9	12	15	18	21	24	27	30	33	36	39	42	45	48
Zanubrutinib	324	312	302	294	288	277	268	249	199	164	148	120	51	10	0		
Ibrutinib	324	295	278	260	247	230	211	193	153	121	108	89	40	3	2	1	0

Data cutoff: 8 Aug 2022



# Conclusions

- Zanubrutinib demonstrated superior PFS over ibrutinib in patients with relapsed/refractory CLL/SLL
  - PFS benefit seen across all major subgroups, including the  $\text{del}(17p)/TP53^{mut}$  population
- Zanubrutinib has a favorable safety profile compared with ibrutinib
  - Lower rate of grade  $\geq 3$  and serious AEs, fewer AEs leading to treatment discontinuation and dose reduction
  - Zanubrutinib has a better cardiac profile than ibrutinib with lower rates of atrial fibrillation, serious cardiac events, cardiac events leading to treatment discontinuation, and fatal cardiac events
- ALPINE is the first study to demonstrate PFS superiority in a head-to-head comparison of BTK inhibitors in patients with relapsed/refractory CLL/SLL;  
**Zanubrutinib has now proven superiority to ibrutinib in both PFS and ORR**



# BRUKINSA<sup>®</sup> Data

Mazyar Shadman, M.D., M.P.H.

# Mazyar Shadman, M.D., M.P.H

Associate Professor, Fred Hutch Cancer Center and University of Washington



- Dr. Shadman focuses on lymphoid malignancies with a clinical research goal to identify the best treatment sequence or combination for patients with high-risk lymphoma and CLL.
- Attending Physician, Hematologic Malignancies  
Fred Hutchinson Cancer Center
- Associate Professor, Medical Oncology Division  
University of Washington School of Medicine

## Education

- Hematology and Medical Oncology fellowship, University of Washington/Fred Hutchinson Cancer Research Center, 2011-2014
- Internal Medicine Residency, Cleveland Clinic, 2008-2011
- M.P.H., Cancer Epidemiology, University of Washington, 2008
- M.D., Tehran University of Medical Sciences, 2004





# Key Takeaways

Mehrdad Mobasher, M.D., M.P.H.  
Chief Medical Officer, Hematology

# Key Takeaways - BRUKINSA®

- Designed to be a best-in-class BTKi
  - Improve efficacy through targeted and sustained BTK inhibition
  - Improve safety by reducing inhibition of off-target tyrosine kinases
- Broad clinical development program with 4,700+ subjects enrolled in clinical trials in 30+ geographies, with 3,700+ outside of China
- Today, BRUKINSA® is the only BTKi demonstrating PFS superiority vs. IMBRUVICA® in a head-to-head study
- Approvals in 60+ markets and four indications
- sNDA in CLL based on ALPINE (ORR Superiority endpoint) and SEQUOIA (1L CLL) with PDUFA in January 2023

# Q&A Participants



**Dr. Jennifer Brown**  
Dana Farber Cancer Institute

---



**Dr. Mazyar Shadman**  
Fred Hutch, University of Washington

---



**John V. Oyler**  
Co-Founder, Chairman and Chief Executive Officer

---



**Josh Neiman**  
Chief Commercial Officer,  
North America and Europe

---



**Dr. Mehrdad Mobasher**  
Chief Medical Officer,  
Hematology

---



**Julia Wang**  
Chief Financial Officer

---



*Cancer has no borders.*

*Neither do we.*



THANK YOU