



ASH 2023 update on AML and MDS

Tibor Kovacsovics, MD

City of Hope Phoenix

Disclosures

- Research funding: Abbvie, Gilead, Glycomimetics, Novartis, Syndax
- Honoraria: Rigel, Servier

Outline

- AML
 - FLT3 mutated AML: Quizartinib
 - Menin inhibitors
- MDS
 - high risk MDS: Ivosidenib
 - low risk MDS: Luspatercept, Imetelsat

Enrollment dates: September 2016 to August 2019
Data cutoff: August 13, 2021

Stratification factors

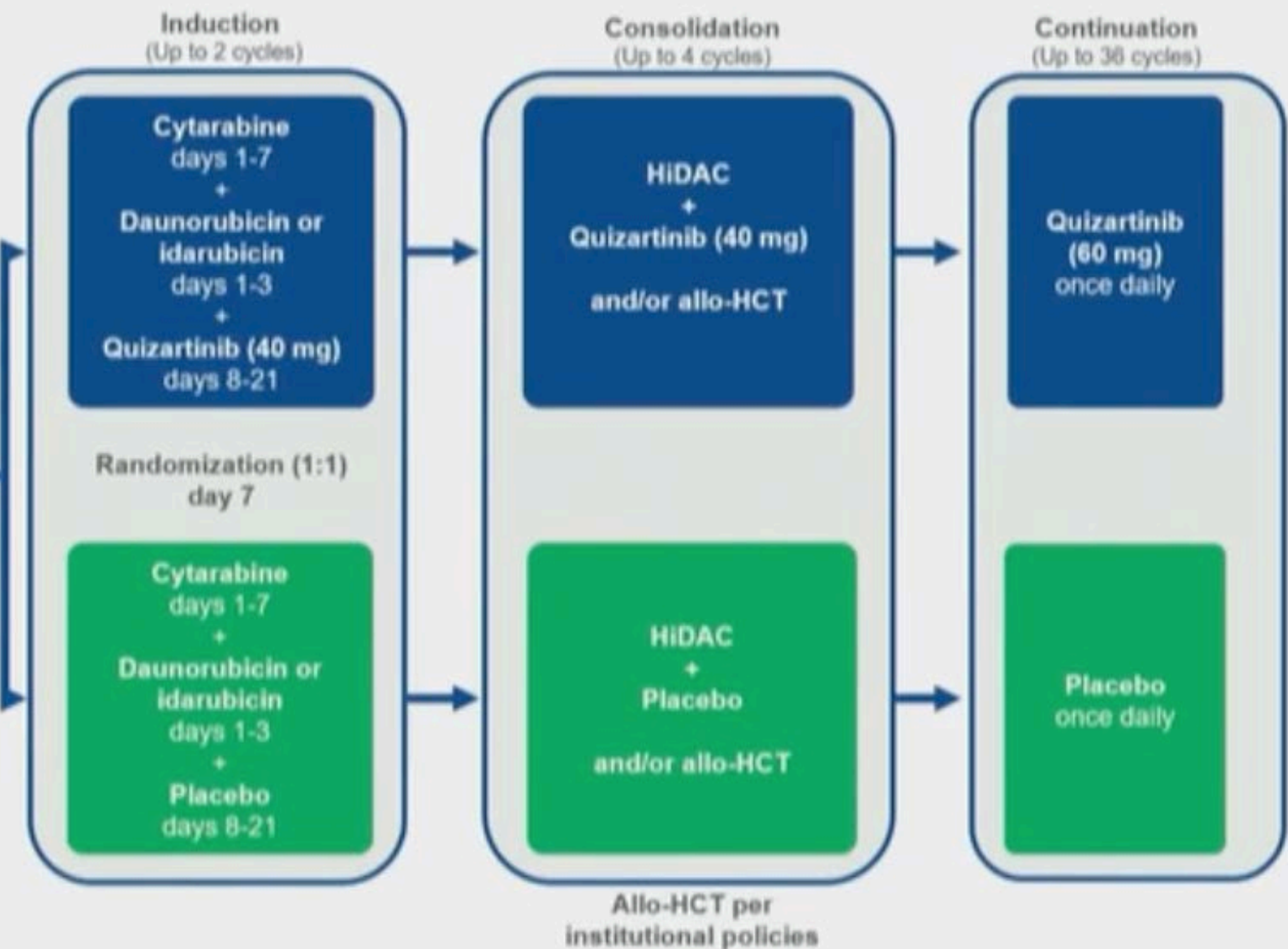
- **Region:** NA, EU, and Asia/other regions
- **Patient age:** <60 years, ≥60 years
- **WBC^a:** <40×10⁹/L, ≥40×10⁹/L

- Newly diagnosed *FLT3*-ITD+ AML
- 18-75 years of age
- ≥3% *FLT3*-ITD allelic frequency
- Patients begin 7+3 chemotherapy during screening

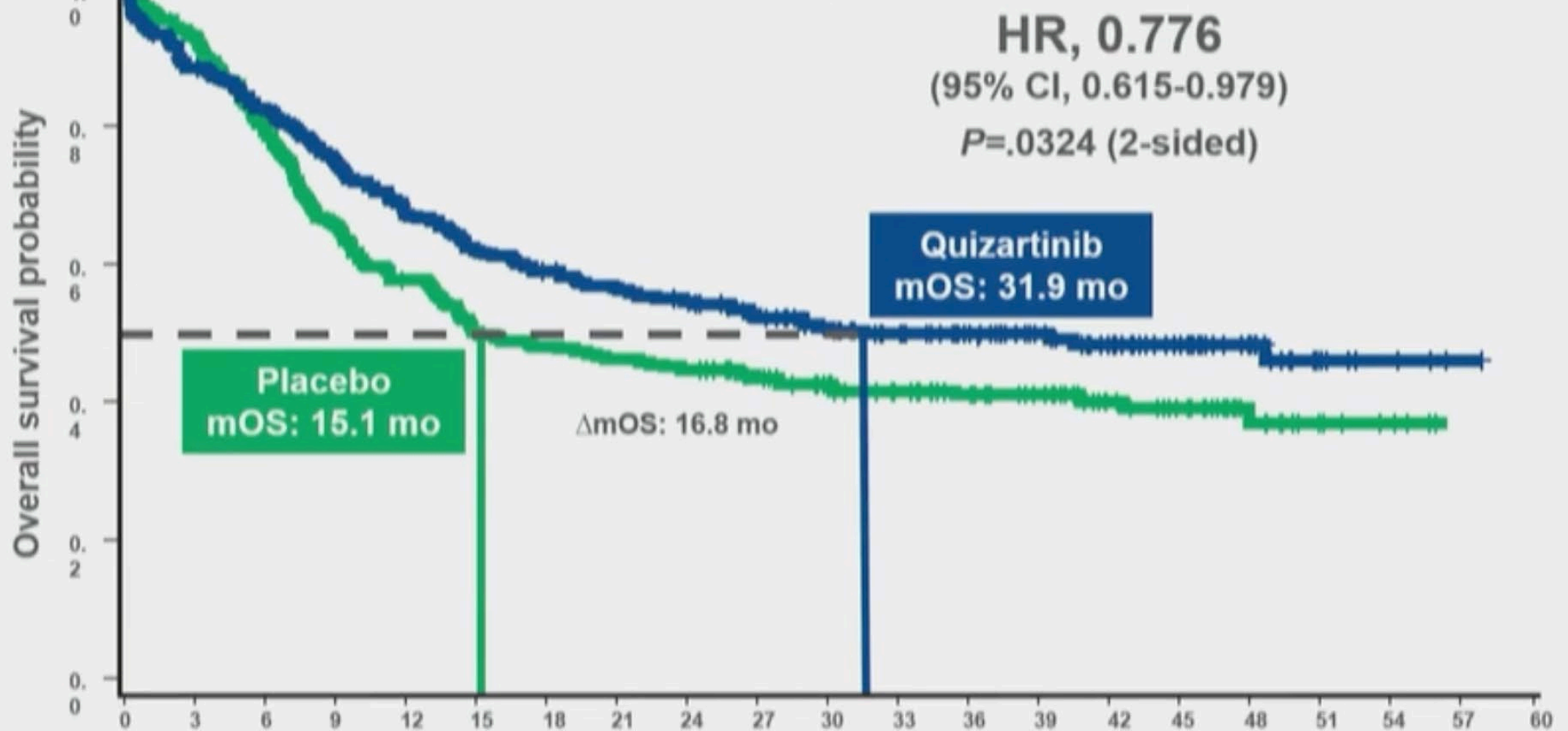
Selected endpoints

- **Primary endpoint:** OS
- **Secondary endpoints:** EFS, CR/CRc, Safety
- **Exploratory endpoints:** RFS, DoCR

A hierarchical testing procedure was used to test the primary endpoint of OS, followed by EFS, CR and CRc.



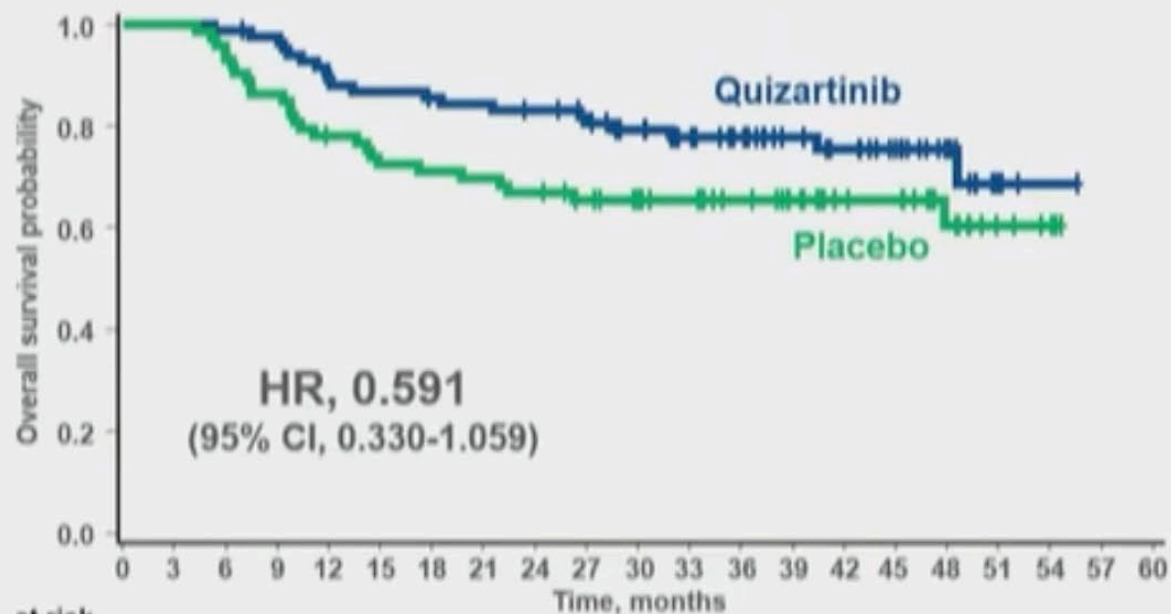
QuANTUM-First Primary Endpoint: Overall Survival



No. at risk	Time, months																				
	0	3	6	9	12	15	18	21	24	27	30	33	36	39	42	45	48	51	54	57	60
Quizartinib	268	233	216	195	176	162	153	145	139	126	110	96	83	68	53	36	24	8	4	1	0
Placebo	271	249	211	175	151	131	126	121	117	103	97	81	70	56	39	31	17	8	5	0	0

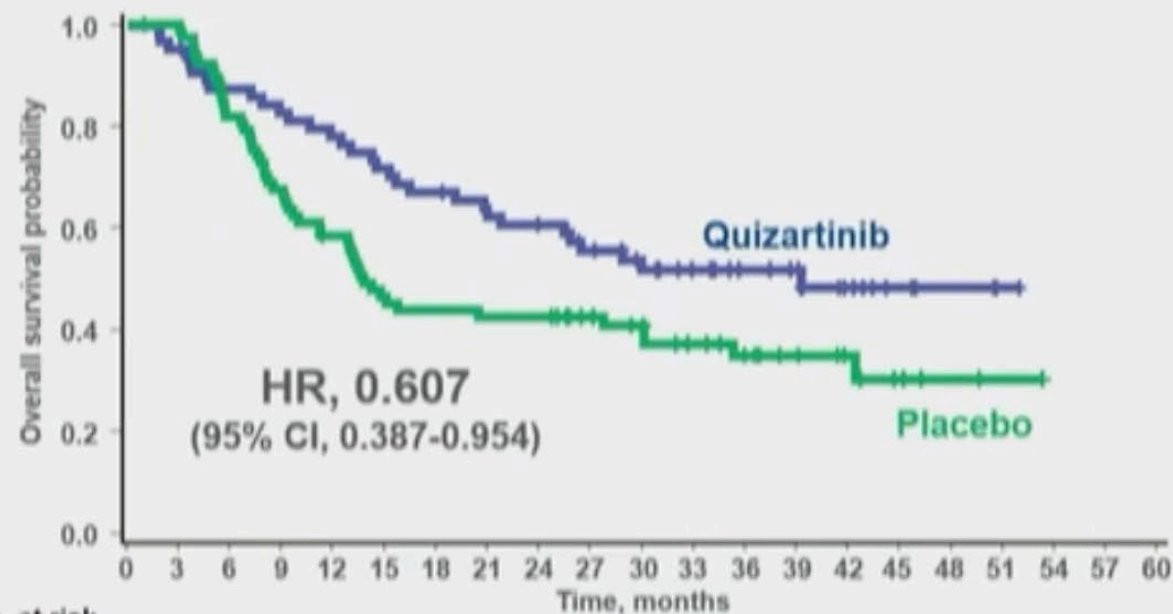
QuANTUM-First: Overall Survival in Patients Who Achieved CR

Patients With CR Who Received Allo-HCT in CR1



No. at risk	0	3	6	9	12	15	18	21	24	27	30	33	36	39	42	45	48	51	54	57	60
Quizartinib	84	84	83	81	74	72	70	69	67	63	57	50	42	34	29	22	14	3	1	0	0
Placebo	73	73	68	63	56	52	51	50	48	43	39	37	32	27	21	20	12	5	3	0	0

Patients With CR NOT Receiving Allo-HCT in CR1



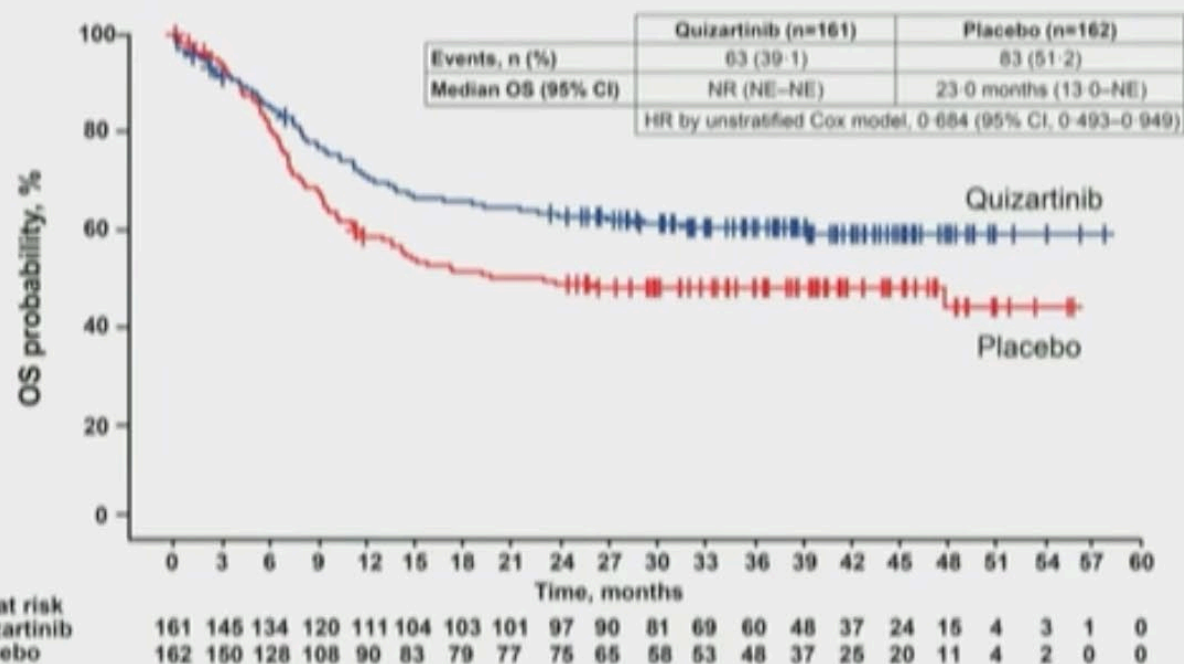
No. at risk	0	3	6	9	12	15	18	21	24	27	30	33	36	39	42	45	48	51	54	57	60
Quizartinib	63	60	54	51	48	44	41	37	35	30	25	21	17	15	9	5	3	1	0	0	0
Placebo	77	76	61	50	42	33	31	30	30	25	22	17	14	10	7	4	2	1	0	0	0

QuANTUM-First: Response and Duration of Complete Remission

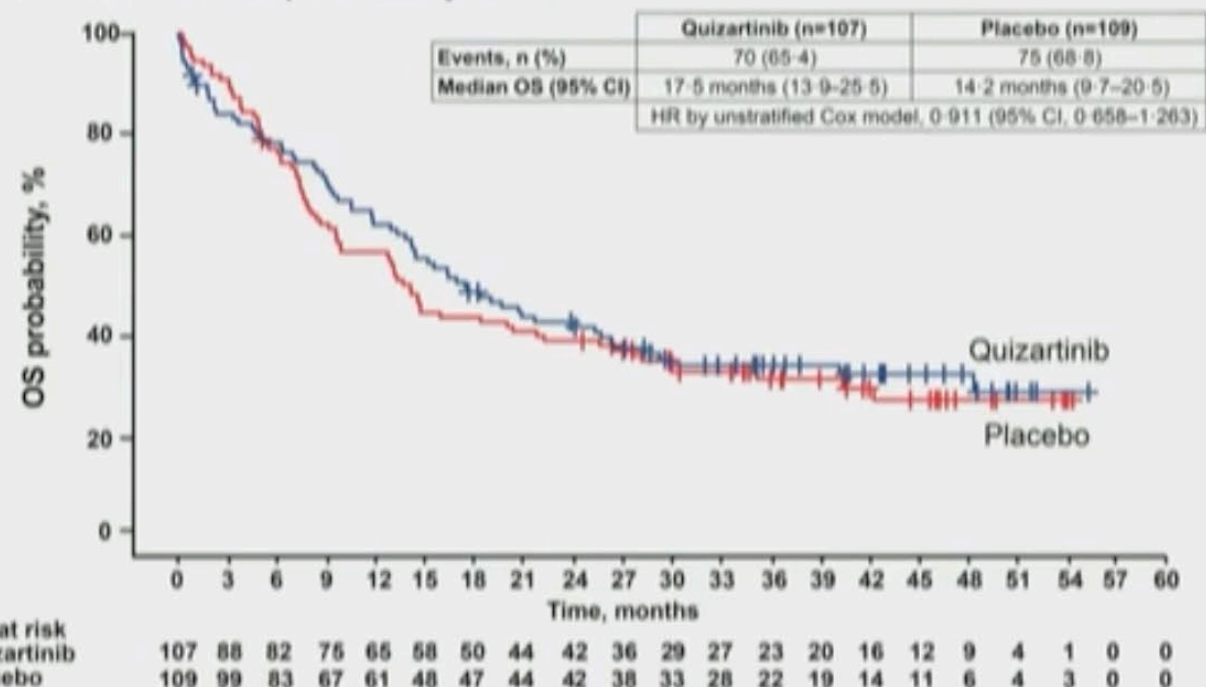
Parameter	Quizartinib (N=268)	Placebo (N=271)
CRc % 95% CI	71.6 (65.8-77.0)	64.9 (58.9-70.6)
CR % 95% CI	54.9 (48.7-60.9)	55.4 (49.2-61.4)
CRi % 95% CI	16.8 (12.5-21.8)	9.6 (6.4-13.7)
Duration of CR Median, months 95% CI	38.6 (21.9-NE)	12.4 (8.8-22.7)

QuANTUM-First: Overall Survival by Age

A. Overall survival in patients <60 years old



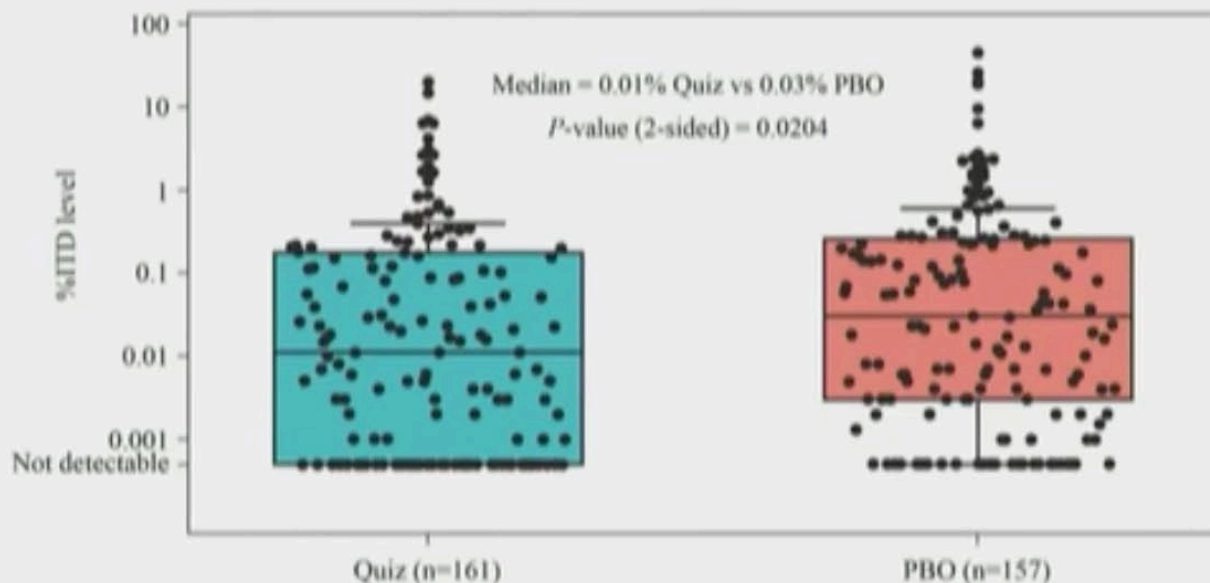
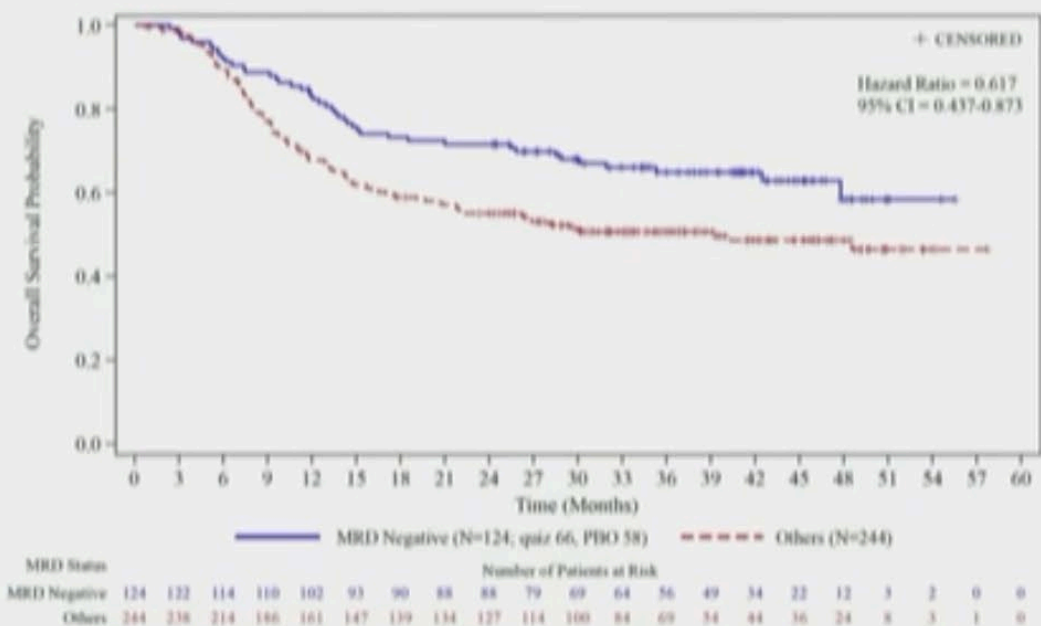
B. Overall survival in patients ≥60 years old



QuANTUM-First: *FLT3*-ITD–Specific MRD Clearance Is Associated With Improved OS

Percentage of patients in CRc with *FLT3*-ITD MRD of $<10^{-4}$ was similar across study arms (24.6% quiz vs 21.4% PBO, $P = 0.385$)

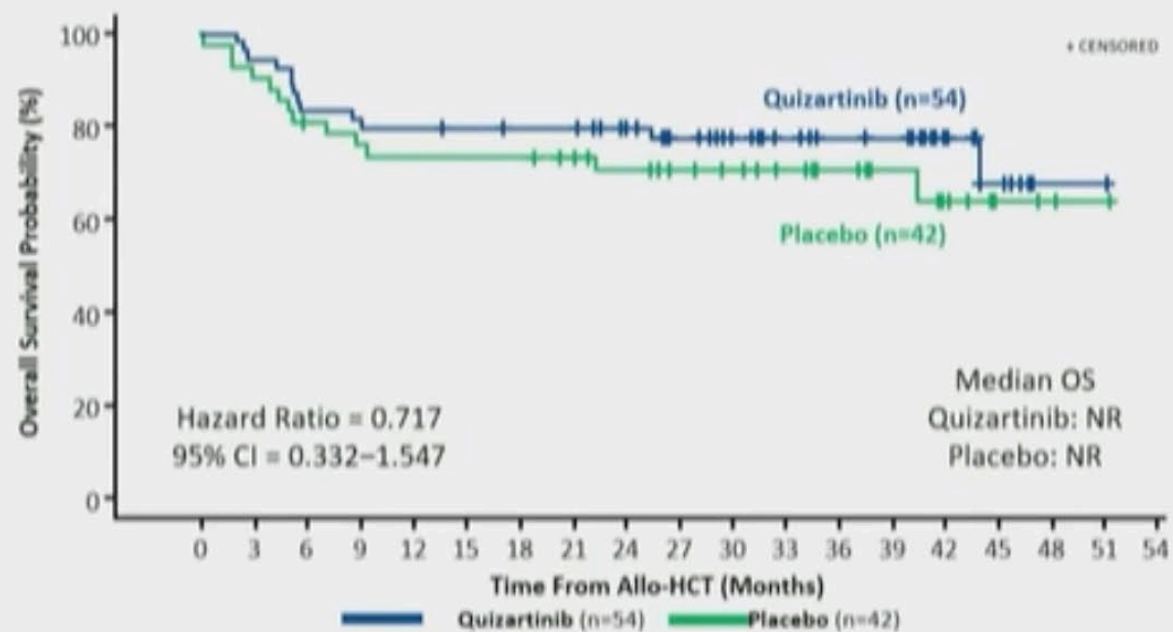
Percentage of patients in CRc with undetectable MRD ($< 1 \times 10^{-5}$) was greater with quizartinib (13.8% vs 7.4%, $P = 0.017$).



Long-term survival benefits conferred by quizartinib in the QuANTUM-First may in part derive from an early and deep reduction of the *FLT3*-ITD+ leukemia burden

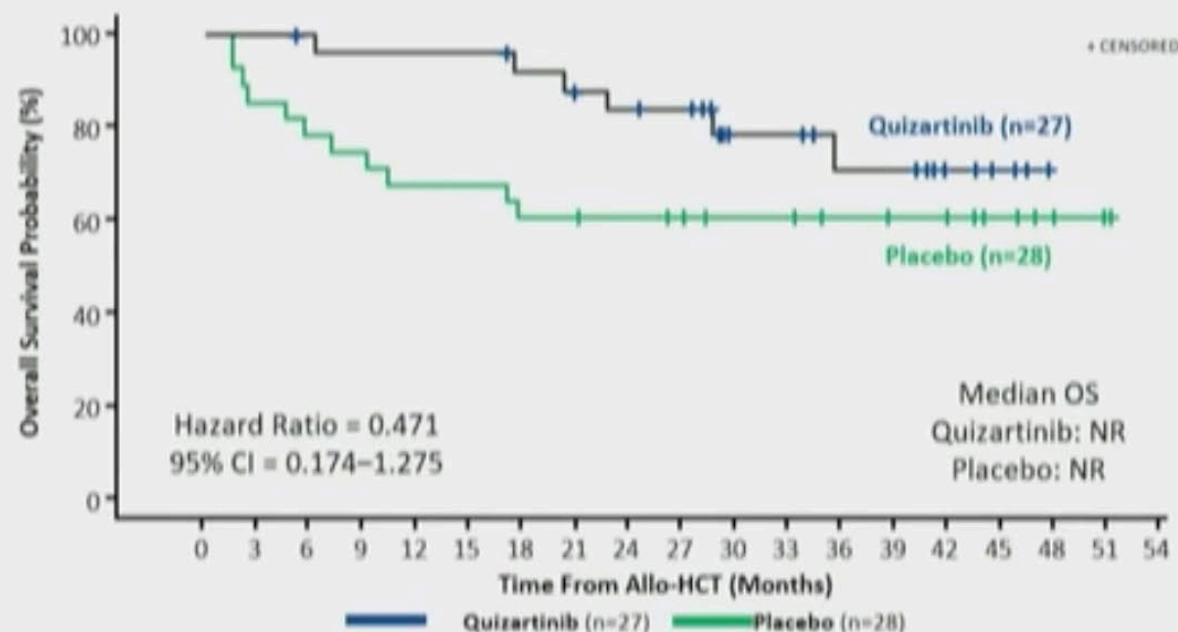
OS in Patients Undergoing Allo-HCT in CR1, From the Time of Allo-HCT, by Latest Pre-HCT MRD Status (Cut-off 10^{-4}), and by Treatment Arm

MRD Negative (n=96)



No. at risk	0	3	6	9	12	15	18	21	24	27	30	33	36	39	42	45	48	51	54
Quizartinib	54	51	45	44	43	42	41	41	37	31	26	22	19	18	11	6	1	1	0
Placebo	42	39	33	31	30	30	28	25	22	20	17	13	10	7	3	2	1	0	0

MRD Positive (n=55)

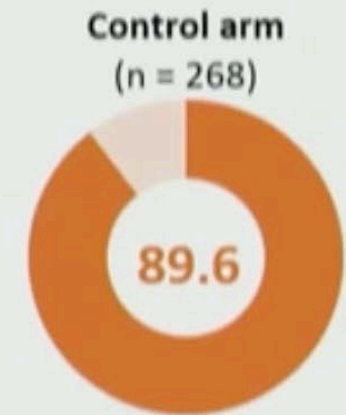
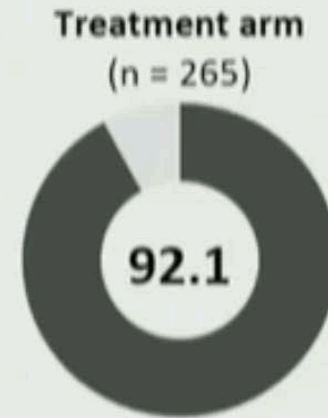


No. at risk	0	3	6	9	12	15	18	21	24	27	30	33	36	39	42	45	48	51	54
Quizartinib	27	27	26	25	25	25	23	21	20	19	12	12	9	9	5	3	0	0	0
Placebo	28	24	22	21	19	19	17	17	16	15	13	13	11	10	10	6	3	1	0

QuANTUM-First: Safety and Tolerability

- Overall, combining quizartinib with intensive chemotherapy and as continuation monotherapy was found to be manageable
- No new safety signals were reported
- 30-day mortality: Q 5.7%, P 3.4%
- 60-day mortality: Q 7.5%, P 4.9%
- Grade 3 QT incr: Q 2.3%, P 0.7%

Grade ≥ 3 TEAEs, %



Most Common TEAEs (any grade), %

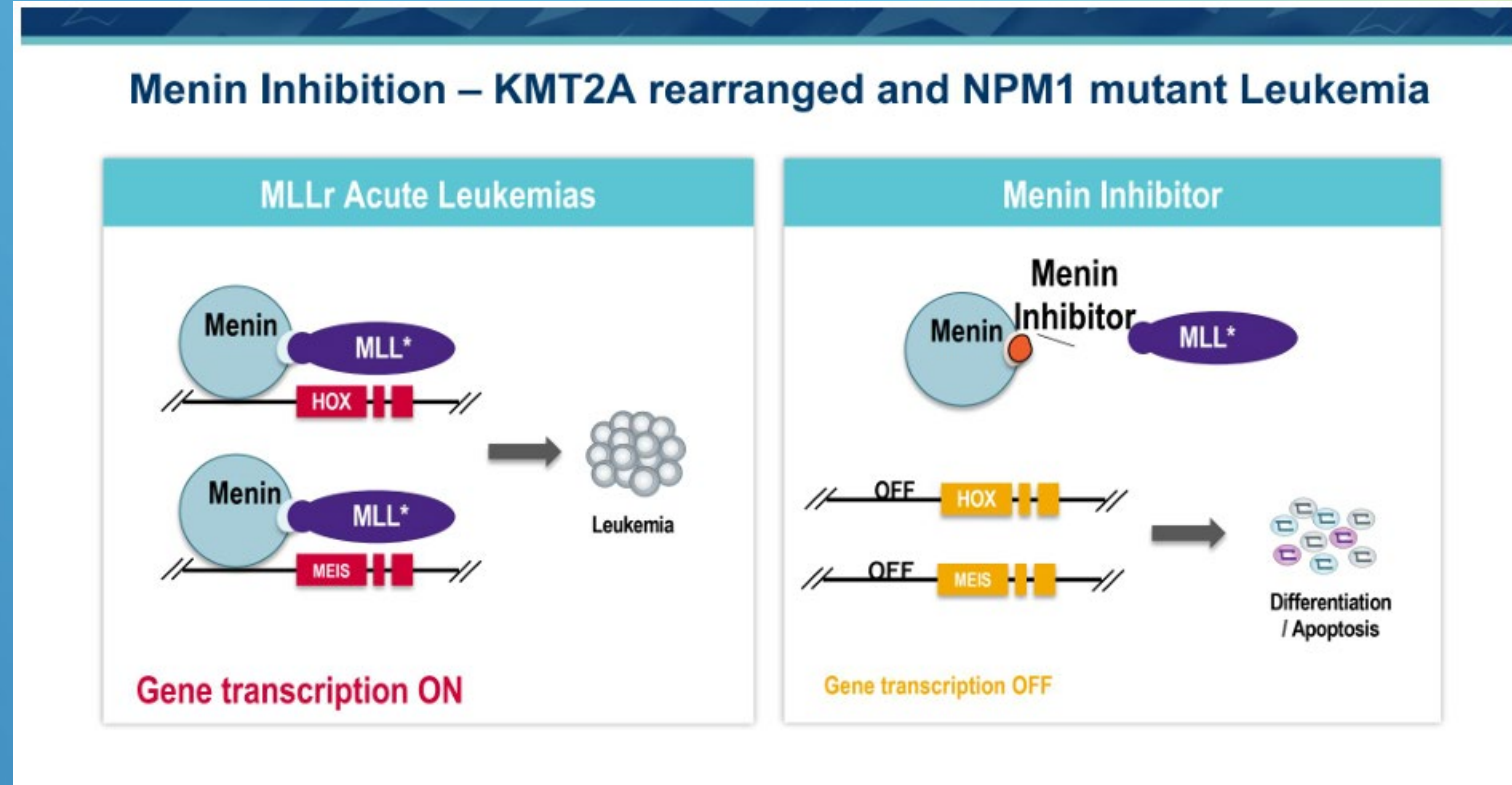


Quizartinib

- Second FLT3 inhibitor approved in front line therapy
- Compared to Midostaurin, the use of Quizartinib is limited to FLT3-ITD and to patients with a QTc <450 msec
- Emerging use of FLT3 ITD MRD testing using a PCR test followed by next generation sequencing (Invivoscribe)

Menin inhibitors

- Novel agents, blocking the interaction between menin and mutated KMT2A or NPM1
- Several inhibitors are in clinical development



Aldoss et al, ASH 2023 meeting, abstract 2907

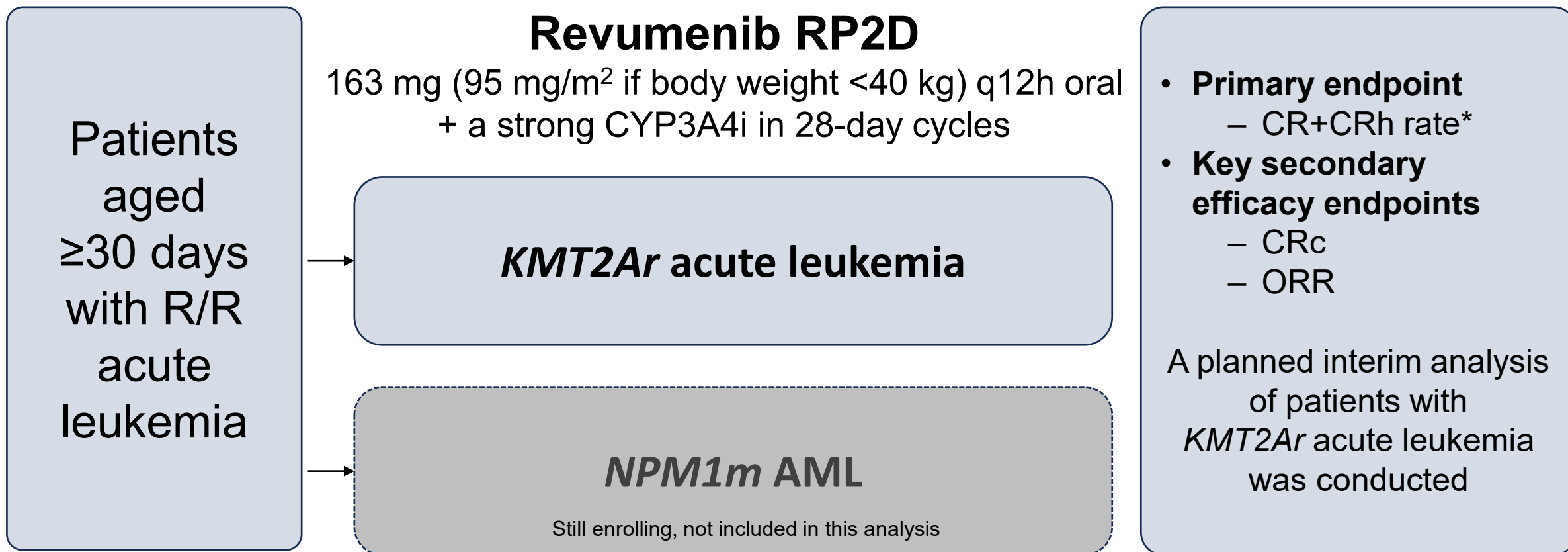


American Society of Hematology
Helping hematologists conquer blood diseases worldwide

Revumenib Monotherapy in Patients with Relapsed/Refractory *KMT2Ar* Acute Leukemia: Topline Efficacy and Safety Results from the Pivotal AUGMENT-101 Phase 2 Study

Ibrahim Aldoss, Ghayas C. Issa, Michael Thirman, John DiPersio, Martha Arellano, James S. Blachly, Gabriel N. Mannis, Alexander Perl, David S. Dickens, Christine M. McMahon, Elie Traer, C. Michel Zwaan, Carolyn Grove, Richard Stone, Paul J. Shami, Ioannis Mantzaris, Matthew Greenwood, Neerav Shukla, Branko Cuglievan, Yu Gu, Rebecca G. Bagley, Kate Madigan, Soujanya Sunkarani, Huy Van Nguyen, Nicole McNeer, Eytan M. Stein

AUGMENT-101 Phase 2 Study Design



*CR+CRh rate >10% in adult evaluable population considered lower efficacy bound

Aldoss et al, ASH 2023 meeting, abstract 2907

Baseline Characteristics

Parameter	Efficacy population (n=57)	Safety population (n=94) ^a
Leukemia type, n (%)		
AML	49 (86)	78 (83)
ALL	7 (12)	14 (15)
MPAL/Other	1 (2)	2 (2)
Co-mutations ^b , n (%)		
<i>FLT3</i>	5 (9)	7 (7)
<i>RAS</i>	9 (16)	12 (13)
<i>p53</i>	4 (7)	5 (5)
Primary refractory, n (%)	14 (25)	18 (19)
Number of prior lines of therapy, median (range)	2 (1–11)	2 (1–11)
1, n (%)	17 (30)	25 (27)
2, n (%)	14 (25)	28 (30)
≥3, n (%)	26 (46)	41 (44)
Prior venetoclax, n (%)	41 (72)	61 (65)
Prior HSCT, n (%)	26 (46)	47 (50)

Data cutoff: July 24, 2023. ^aDefined as patients with *KMT2Ar* acute leukemia having received at least 1 dose of revumenib. ^bIn patients that had co-mutation status reported.

Aldoss et al, ASH 2023 meeting, abstract 2907

Response

Parameter	Efficacy population (n=57)
ORR, n (%)	36 (63)
CR+CRh rate, n (%)	13 (23)
95% CI	12.7–35.8
<i>P</i> value, 1-sided	0.0036
CRc	25 (44)
95% CI	30.7–57.6
Negative MRD status ^a	
CR+CRh	7/10 (70)
CRc	15/22 (68)

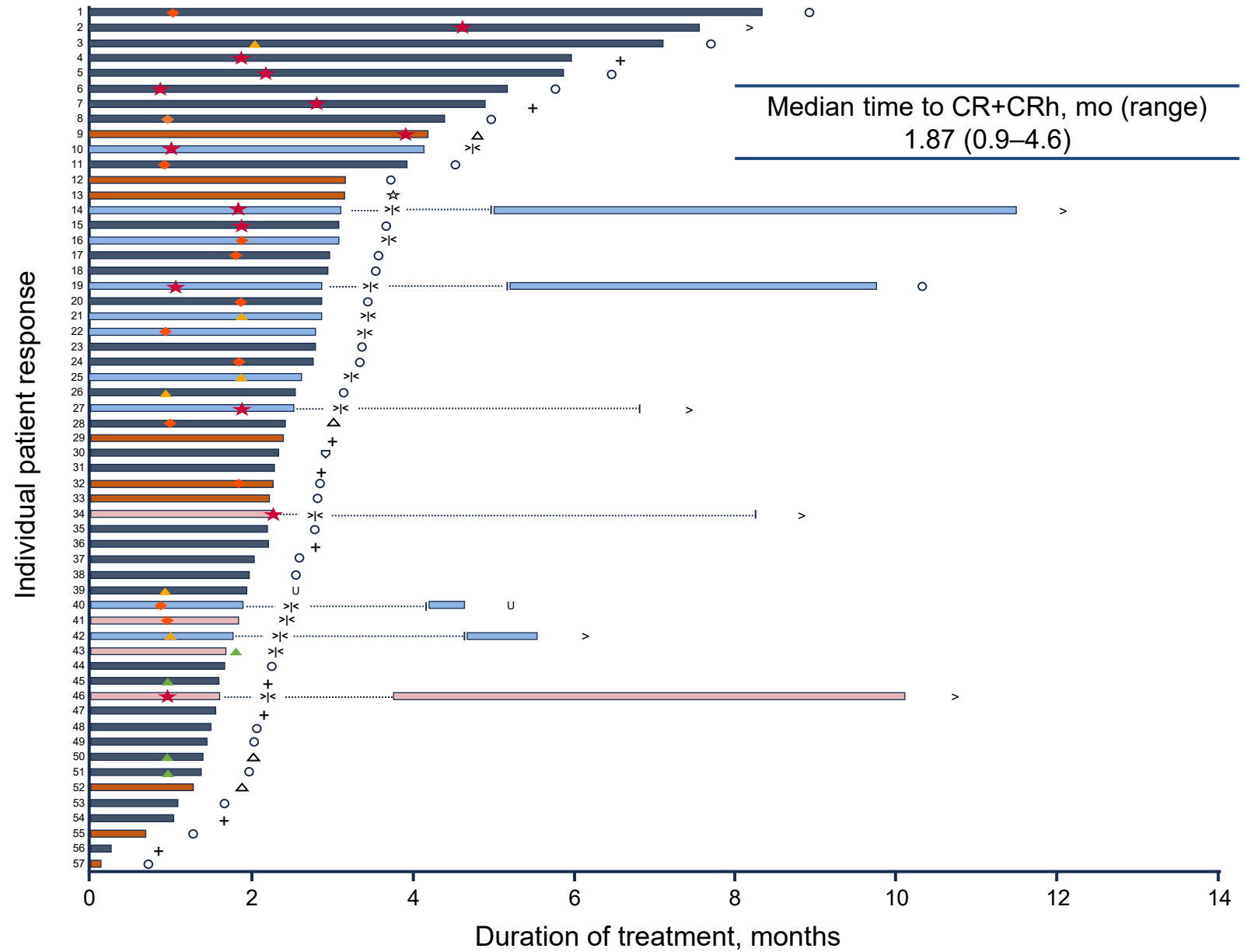
Parameter	Efficacy population (n=57)
Best response, n (%)	
CR	10 (18)
CRh	3 (5)
CRi	1 (1.8)
CRp	11 (19)
MLFS	10 (18)
PR	1 (1.8)
PD	4 (7)
No response	14 (25)
Other ^b	3 (5)

Data cutoff: July 24, 2023. ^aMRD done locally; not all patients had MRD status reported. ^bIncludes patients without postbaseline disease assessment.

Aldoss et al, ASH 2023 meeting, abstract 2907

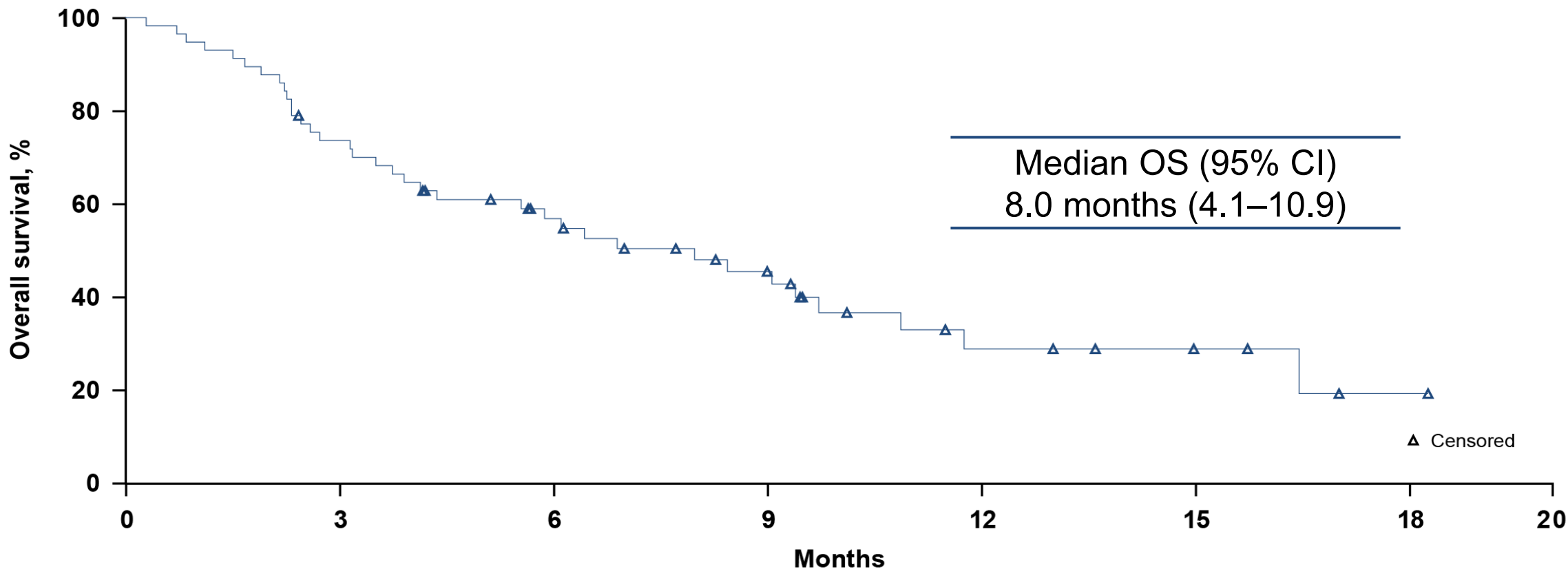
Duration of Treatment

- Adult
- Adult, underwent HSCT
- Pediatric
- Pediatric, underwent HSCT
- ★ CR/CRh
- ◆ CRp/CRi
- ▲ MLFS
- Progressive disease
- > Ongoing at data cutoff
- + Adverse event
- △ Subject withdrew consent for treatment
- >|< HSCT
- ☆ Noncompliance
- ⏏ Patient did not achieve at least a PR after 4 cycles
- U Prohibited concomitant medication



Aldoss et al, ASH 2023 meeting, abstract 2907

Overall Survival



At risk 57 41 27 18 7 4 1

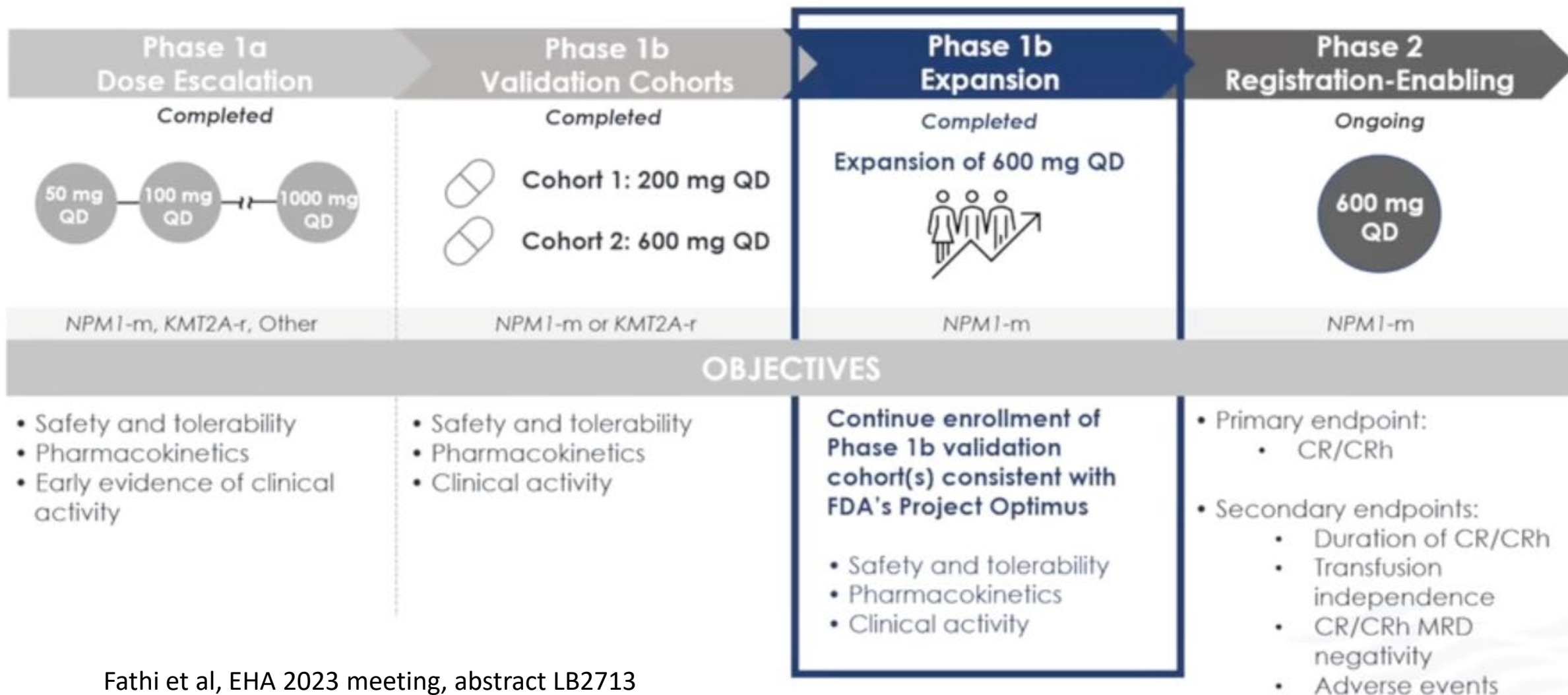
Aldoss et al, ASH 2023 meeting, abstract 2907

Activity, tolerability and resistance profile of the menin inhibitor ziftomenib in adults with relapsed or refractory *NPM1*-mutated AML

Amir T. Fathi¹, Eunice S. Wang², Ghayas C. Issa³, Jessica K. Altman⁴, Pau Montesinos⁵, Stephane DeBotton⁶, Roland Walter⁷, Kristen Pettit⁸, Stephen Strickland⁹, Mrinal Patnaik¹⁰, Marina Kremyanskaya¹¹, Maria R. Baer¹², James Foran¹³, Gary Schiller¹⁴, Lionel Ades¹⁵, Mael Heiblig¹⁶, Celine Berthon¹⁷, Jolanta Grembecka⁸, Tomasz Cierpicki⁸, Bradley Clegg⁸, Pierre Peterlin¹⁸, Eduardo Rodriguez Arbolí¹⁹, Olga Salamero Garcia²⁰, Cristina Papayannidis²¹, Kun Nie²², Julie Mackey²², Marilyn Tabachri²², Daniel Corum²², Mollie Leoni²², Stephen Dale²², Harry P. Erba²³

¹Massachusetts General Hospital, Boston, MA; ²Roswell Park Comprehensive Cancer Center, Buffalo, NY; ³MD Anderson Cancer Center, Houston, TX; ⁴Northwestern University Robert H. Lurie Comprehensive Cancer Center, Chicago, IL; ⁵Hospital Universitari i Politècnic La Fe, Valencia, Spain; ⁶Institut Gustave Roussy Service d'Hématologie Clinique, Paris, France; ⁷Fred Hutchinson Cancer Research Center, Seattle, WA; ⁸University of Michigan, Ann Arbor, MI; ⁹Sarah Cannon Research Institute, Nashville, TN; ¹⁰Mayo Clinic Minnesota, Rochester, MN; ¹¹Mount Sinai PRIME, New York, NY; ¹²University of Maryland-Marlene and Stewart Greenebaum Cancer Center, Baltimore, MD; ¹³Mayo Clinic Florida, Jacksonville, FL; ¹⁴UCLA Medical Center, Los Angeles, CA; ¹⁵Hospital Saint-Louis, Paris, France; ¹⁶Centre Hospitalier Lyon Sud, Lyon, France; ¹⁷Centre Hospitalo-Universitaire Lille, Lille, France; ¹⁸CHU de Nantes-Hôtel-Dieu, Nantes, France; ¹⁹Hospitales Universitarias Virgen del Rocío, Sevilla, Spain; ²⁰Hospital Universitari Vall d'Hebron-Institut de Recerca (VHIR), Barcelona, Spain; ²¹IRCCS Azienda Ospedaliera Universitaria di Bologna, Bologna, Italy; ²²Kura Oncology, Inc., San Diego, CA; ²³Duke Cancer Institute, Durham, NC.

KOMET-001 Phase 1/2 Study of Ziftomenib in R/R AML



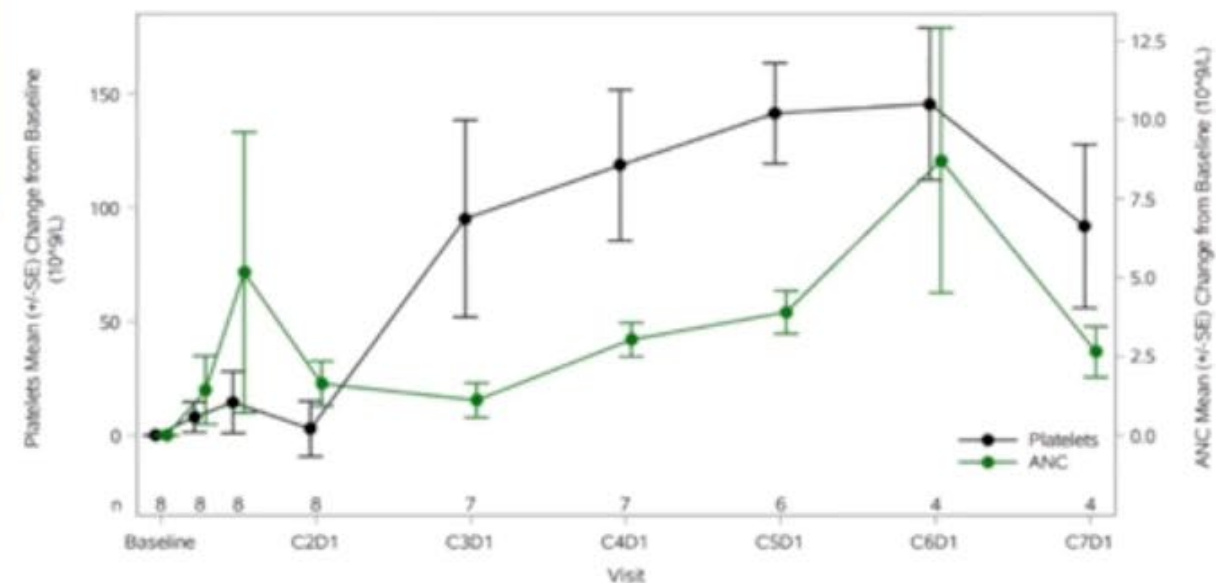
Fathi et al, EHA 2023 meeting, abstract LB2713

Ziftomenib Demonstrates Encouraging Clinical Activity

Best Overall Response	n (%)
Complete remission rate (CR)	7 (35)
CRc rate (CR+CRh+CRi)	8 (40)
Overall response rate (CR+CRh+CRi+MLFS)	9 (45)
CR	7 (35)
CRh	0
CRi	1 (5)
MLFS	1 (5)

33% CR co-FLT3m (N=6)
50% CR co-IDHm (N=8)

Mean Change in Platelets and ANC for CRc up to C7D1



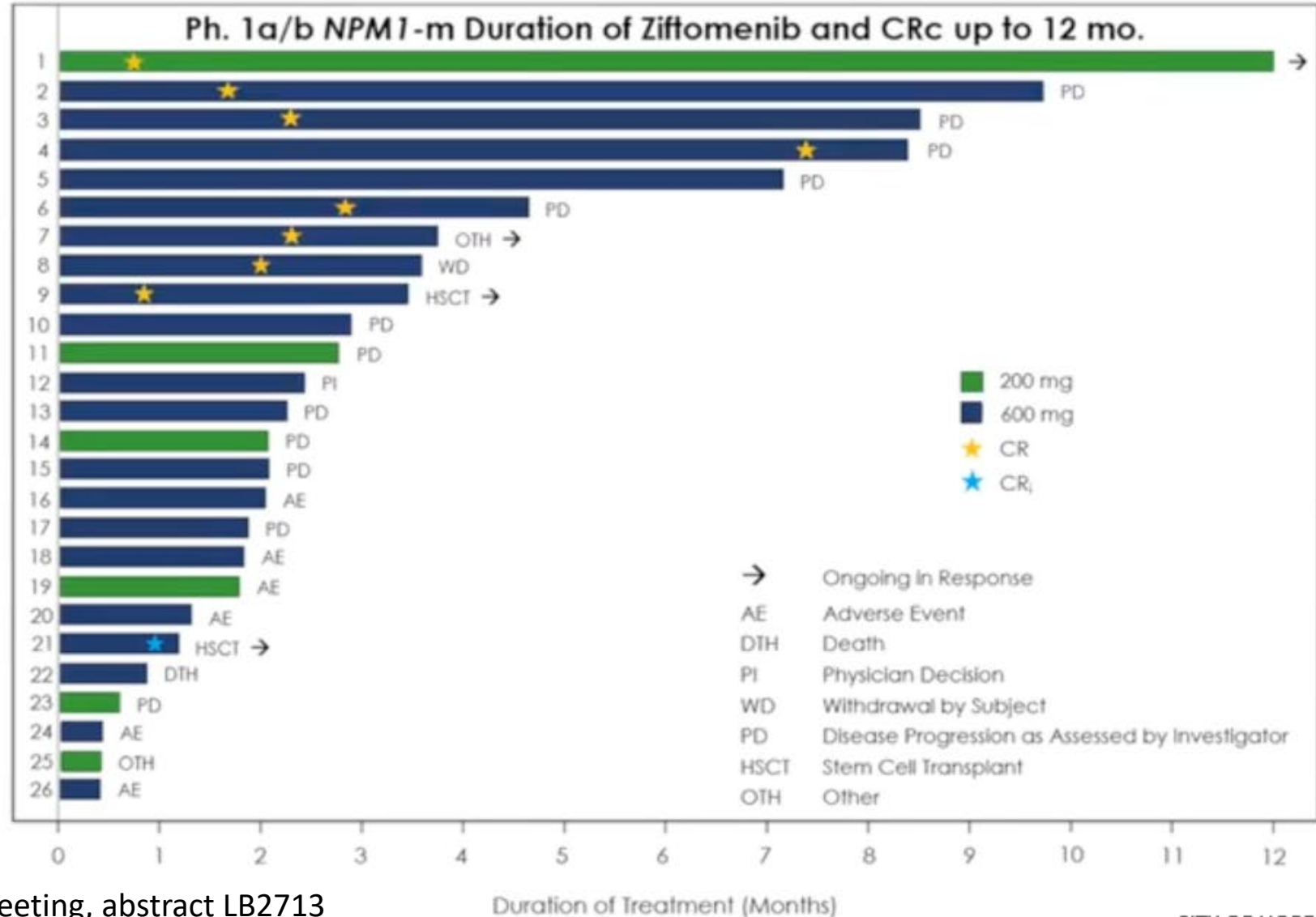
- Co-mutations in *FLT3* and *IDH1/2* did not affect chances of response to single agent ziftomenib
- 1 patient achieved CRi, proceeded to HSCT, and achieved and remains in CR
- Median time to first response: 51 days

HSCT, hematopoietic stem cell transplantation; MLFS, morphological leukemia-free state

Ziftomenib Monotherapy Drives Durable Responses

- Median DoR **8.2 months** (95% CI: 1.0 to Not Evaluable) with a median follow up time of 8.8 months

- Patient 1 remained on ziftomenib in CR (MRD-) into Cycle 36
- Patients 9 and 21 proceeded to HSCT
 - Patient 9 remains in complete response on ziftomenib for post-HSCT maintenance
 - Patient 21 remains in complete response



Menin inhibitors

- Novel agents showing activity as single agents in KMT2A- and NPM1 mutated AML
- Several agents being tested in clinical trials (Syndax, Kura, Sumimoto, Janssen)
- The first approval of a menin inhibitor is expected later this year
- Combination therapies are being developed

MDS

HR MDS

- Disappointing year for HR MDS, with negative anti-CD47 and anti-TIM3 antibody (Sabatolimab) trials
- The results of the Verona trial (Vidaza vs Vidaza/Ven) are still pending
- Ivosidenib approval

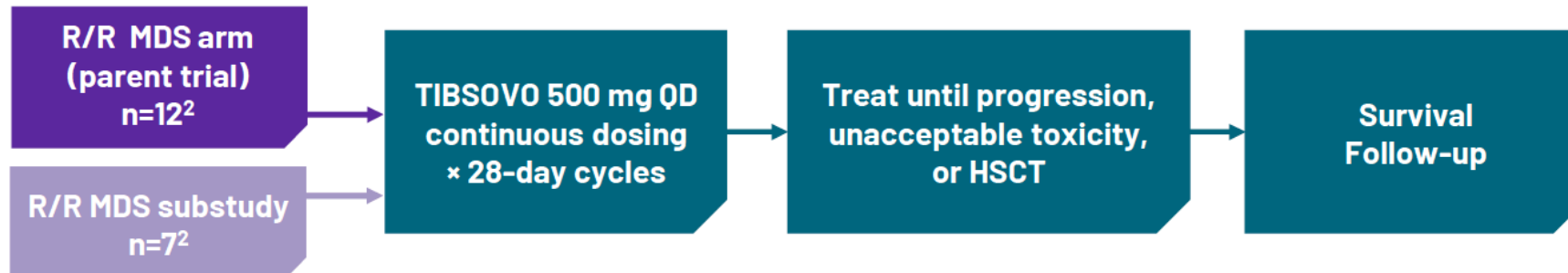
LR MDS

- Luspatercept
- Imetelstat

Ivosidenib in MDS: study design

The Efficacy of TIBSOVO in Patients With R/R *mIDH1*+ MDS^a Was Assessed in an Open-Label, Single-Arm, Multicenter Study^{1,2}

IDH1 mutations were detected in peripheral blood or bone marrow^{1,a}



Efficacy established based on¹

Rate of CR or PR per 2006 Working Group response criteria for MDS

Duration of CR + PR

Rate of conversion from transfusion dependence to transfusion independence

Ivosidenib in MDS: patient characteristics

	TIBSOVO (500 mg Daily) (N=18)
Demographics and Disease Characteristics	
Age, years, median (min, max)¹	74 (61, 82)
Sex, %¹	
Male	78
Race, %¹	
White	78
Black or African American	6
Not reported	17
IPSS-R score at screening, %²	
≤1.5 (Very Low)	0
>1.5 to 3 (Low)	22
>3 to 4.5 (Intermediate)	39
>4.5 to 6 (High)	17
>6 (Very High)	17
Unknown	6
Baseline bone marrow blasts, %, median (min, max)²	6 (0, 19)

	TIBSOVO (500 mg Daily) (N=18)
Disease Characteristics	
ECOG PS, %¹	
0	28
1	56
2	17
Cytogenetic risk status, %¹	
Good	22
Intermediate	44
Poor	28
Missing	6
Prior therapies, %¹	
Intensive chemotherapy	17
Non-intensive chemotherapy	83
1 line of HMA-based therapy	78
2 lines of HMA-based therapy	6

Servier, unpublished data

Ivosidenib in MDS: study results

Primary endpoint: CR+PR¹

All observed responses were CRs with no PRs

	TIBSOVO (500 mg Daily) (N=18)
CR, % ^a	38.9
95% CI	17.3-64.3

Secondary endpoint: DOCR+PR¹

All observed responses were CRs with no PRs

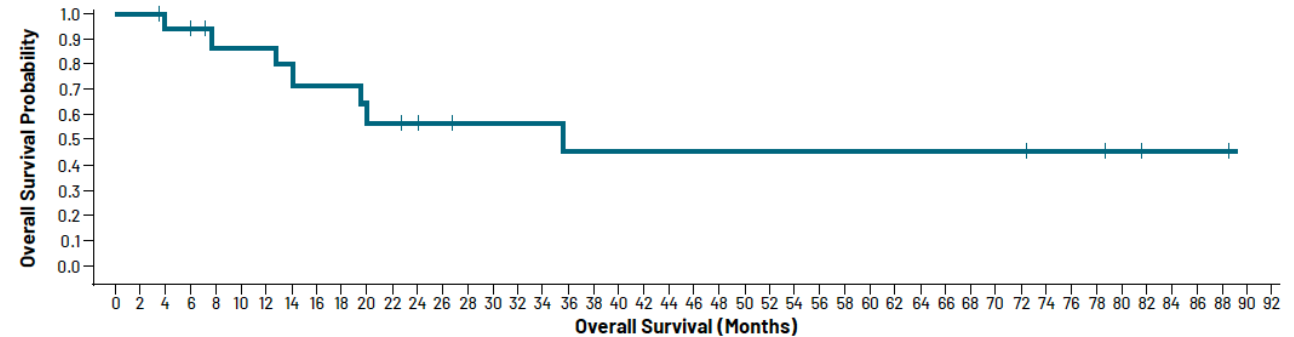
	TIBSOVO (500 mg Daily) (N=18)
Median DOCR, ^b months (range)	NE (1.9, 80.8+)

- The median time to CR was **1.9 months** (range, 1.0-5.6)¹

	TIBSOVO (500 mg Daily) (N=18)
mOS, months (range)	35.7 (3.7-88.7)
95% CI	13.1-NE

- Median OS follow-up was **27.1 months**
- 87% survival rate at 12 months** per Kaplan-Meier estimation
- Because there was no control arm in this study, OS results should be interpreted cautiously

mOS, Kaplan Meier Estimate



Number of

patients at risk 18 18 17 16 12 12 11 10 10 8 8 7 6 5 5 5 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 3 3 3 2 1 1 1 0

In the absence of a control arm, the exact treatment effect is not known.

Servier, unpublished data

Luspatercept versus epoetin alfa for treatment of anemia in patients with erythropoiesis-stimulating agent-naïve lower-risk myelodysplastic syndromes requiring red blood cell transfusions: data from the phase 3 COMMANDS study

Guillermo Garcia-Manero,¹ Uwe Platzbecker,² Valeria Santini,³ Amer M. Zeidan,⁴ Pierre Fenaux,⁵ Rami S. Komrokji,⁶ Jake Shortt,⁷ David Valcarcel,⁸ Anna Jonasova,⁹ Sophie Dimicoli-Salazar,¹⁰ Ing Soo Tiong,¹¹ Chien-Chin Lin,¹² Jiahui Li,¹³ Jennie Zhang,¹³ Ana Carolina Giuseppi,¹³ Sandra Kreitz,¹⁴ Veronika Pozharskaya,¹³ Karen L. Keeperman,¹³ Shelonitda Rose,¹³ Jeevan K. Shetty,^{14*} Sheida Hayati,¹³ Sadanand Vodala,¹³ Andrius Degulys,^{15,16} Stefania Paolini,¹⁷ Thomas Cluzeau,¹⁸ Matteo Giovanni Della Porta^{19,20}

¹Department of Leukemia, University of Texas MD Anderson Cancer Center, Houston, TX, USA; ²Medical Clinic and Policlinic 1, Hematology and Cellular Therapy, Leipzig University Hospital, Leipzig, Germany; ³MDS Unit, Hematology, University of Florence, AOUC, Florence, Italy; ⁴Department of Internal Medicine, Yale School of Medicine and Yale Cancer Center, Yale University, New Haven, CT, USA; ⁵Service d'Hématologie Séniors, Hôpital Saint-Louis, Université Paris 7, Paris, France; ⁶Moffitt Cancer Center, Tampa, FL, USA; ⁷Monash University and Monash Health, Melbourne, VIC, Australia; ⁸Hospital Universitari Vall d'Hebron, Barcelona, Spain; ⁹Medical Department Hematology, Charles University General University Hospital, Prague, Czech Republic; ¹⁰Hôpital Haut-Lévêque, Centre Hospitalier Universitaire de Bordeaux, Bordeaux, France; ¹¹Malignant Haematology & Stem Cell Transplantation, The Alfred, Melbourne, VIC, Australia; ¹²Department of Laboratory Medicine, National Taiwan University Hospital, Taipei, Taiwan; ¹³Bristol Myers Squibb, Princeton, NJ, USA; ¹⁴Celgene International Sàrl, a Bristol-Myers Squibb Company, Boudry, Switzerland; ¹⁵Hematology, Oncology and Transfusion Medicine Center, Vilnius University Hospital Santaros Klinikos, Vilnius, Lithuania; ¹⁶Institute of Clinical Medicine, Faculty of Medicine, Vilnius University, Vilnius, Lithuania; ¹⁷IRCCS University Hospital of Bologna, "Seràgnoli" Institute of Hematology, Bologna, Italy; ¹⁸Département d'Hématologie Clinique, Université Cote d'Azur, CHU Nice, Nice, France; ¹⁹Cancer Center IRCCS Humanitas Research Hospital, Milan, Italy; ²⁰Department of Biomedical Sciences, Humanitas University, Milan, Italy

*At the time of the study.

The COMMANDS study design

The COMMANDS study (NCT03682536) is a phase 3, global, open-label, randomized trial comparing the efficacy and safety of luspatercept versus epoetin alfa for the treatment of anemia due to IPSS-R LR-MDS in ESA-naïve patients who require RBC transfusions

Key eligibility criteria

- ≥ 18 years of age
- IPSS-R Very low-, Low, or Intermediate-risk MDS (with or without RS) by WHO 2016, with < 5% blasts in bone marrow^a
- Required RBC transfusions (2-6 pRBC units/8 weeks for a minimum of 8 weeks immediately prior to randomization)
- Endogenous sEPO < 500 U/L
- ESA-naïve

Patients stratified by:

- Baseline sEPO level
- Baseline RBC transfusion burden
- RS status

Randomized
1:1

Luspatercept (N = 178)
1.0 mg/kg s.c. Q3W
titration up to 1.75 mg/kg

Epoetin alfa (N = 178)^b
450 IU/kg s.c. QW
titration up to 1050 IU/kg

Response assessment at
day 169 and every
24 weeks thereafter

End treatment
Due to lack of clinical benefit^c
or disease progression
per IWG criteria

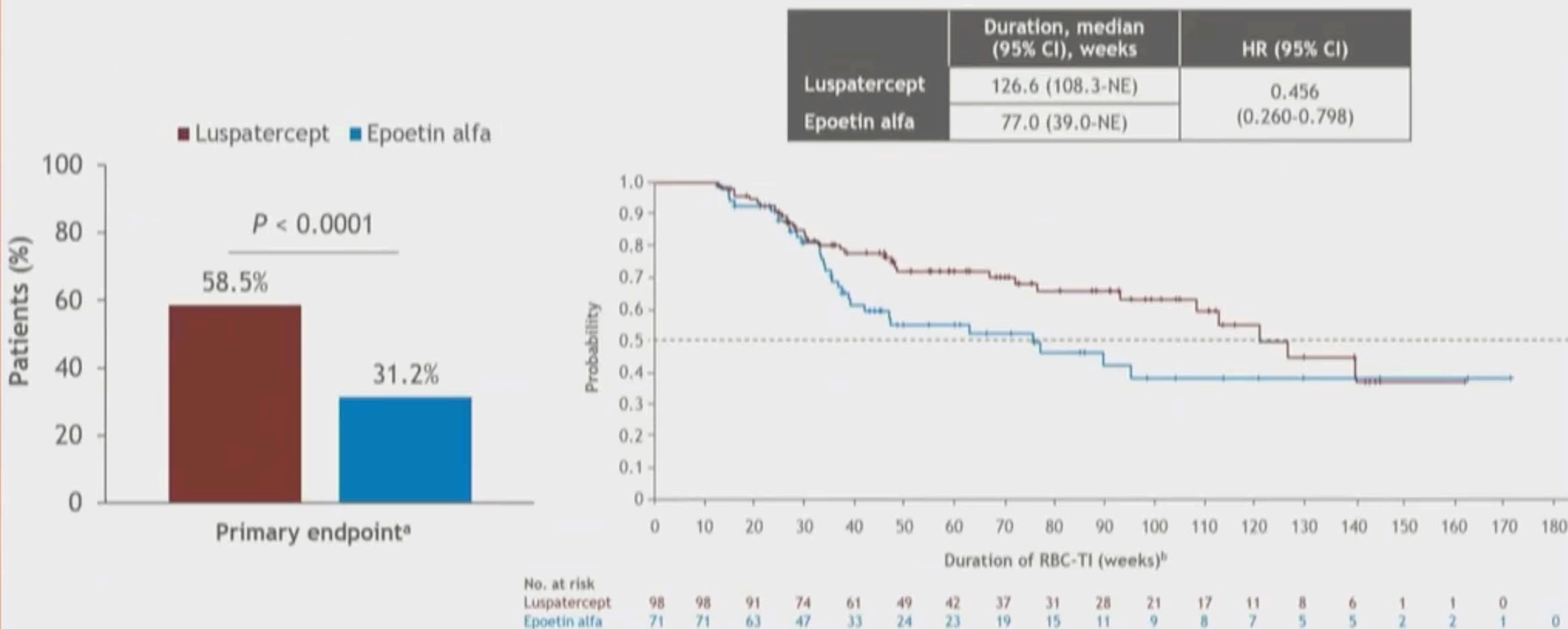
Post-treatment safety follow-up

- Monitoring for other malignancies, HR-MDS or AML progression, subsequent therapies, survival
- For 5 years from first dose or 3 years from last dose, whichever is later

^aMDS with del(5q) were excluded; ^b2 patients randomized to the epoetin alfa arm withdrew consent prior to receiving their first dose; ^cClinical benefit defined as transfusion reduction of ≥ 2 pRBC units/8 weeks versus baseline. AML, acute myeloid leukemia; del(5q), deletion 5q; HR-MDS, higher-risk MDS; IPSS-R, Revised International Prognostic Scoring System; IWG, International Working Group; MDS, myelodysplastic syndromes; pRBC, packed RBC; Q3W, every 3 weeks; QW, once weekly; RBC, red blood cell; RS, ring sideroblasts; SC, subcutaneously; sEPO, serum erythropoietin; WHO, World Health Organization.



Key responses from the COMMANDS: luspatercept superior to epoetin alfa



From Platzbecker U, et al. *Lancet* 2023;402:373-385. Used with permission.

This prespecified interim analysis included 301 patients who had either completed 24 weeks of treatment or discontinued prior to completing 24 weeks of treatment; ^aDuring weeks 1-24;

^bIn ITT responders during week 1-EOT.

NE, not estimable; HR, hazard ratio; ITT, intent-to-treat; CI, confidence interval.

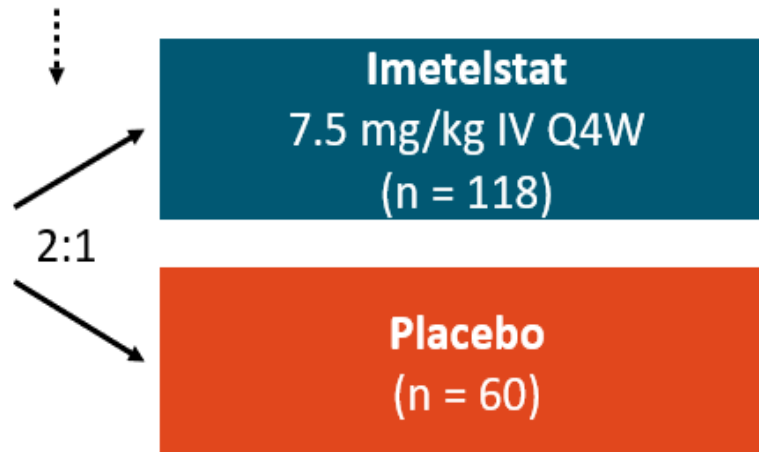


Imetelstat: IMerge Subgroup Analysis: Study Design

- International, double-blind, randomized phase III trial

*Stratified by transfusion burden (4-6 vs >6 U) and
IPSS-R category (low vs intermediate-1)*

Patients with low-risk or intermediate-1-risk
MDS (IPSS-R); R/R* to ESA or EPO >500 mU/mL
(ESA ineligible); RBC transfusion dependent
(≥4 U/8 wk over 16 wk prestudy); non-del(5q);
no prior lenalidomide or HMAs
(N = 178)



Supportive Care
RBC and platelet transfusions,
myeloid growth factors (eg, G-CSF),
and iron chelation therapy as
needed at discretion of investigator

Primary endpoint: 8-wk RBC-TI

Secondary endpoints: 24-wk RBC-TI, TI duration,
HI-E, safety

This analysis

Subgroup analysis: rates of RBC-TI vs placebo across IPSS,
IPSS-R, IPSS R cytogenetic, and IPSS-M risk categories

*Received ≥8 wk of ESA treatment (epoetin alfa ≥40,000 U, epoetin beta ≥30,000 U, darbepoetin alfa 150 µg, or equivalent per wk) without Hgb rise ≥1.5 g/dL or decrease in RBC transfusion requirement ≥4 U/8 wk, transfusion dependence, or reduction of Hgb by ≥1.5 g/dL after hematopoietic improvement from ≥8 wk of ESA treatment.

IMerge Subgroup Analysis: Rates of Durable Transfusion Independence

RBC-TI Response, %	Rates of Durable RBC-TI Over Time		
	Imetelstat	Placebo	P Value
≥ 8-Wk RBC-TI*	40	15	<.0008
≥ 16-Wk RBC-TI	31	7	<.0002
≥ 24-Wk RBC-TI	28	3	<.0001
≥ 1-Yr RBC-TI	18	2	<.0023

*Primary endpoint.

- Single continuous RBC-TI period was achieved by most 8-wk responders to imetelstat (83%)

IMerge Subgroup Analysis: RBC-TI by IPSS-M Risk Category

RBC-TI Response, n/N (%)	IPSS-M Very Low/Low/Moderate Low			IPSS-M Moderate High/High/Very High		
	Imetelstat	Placebo	P Value	Imetelstat	Placebo	P Value
≥8 wk	37/91 (40.7)	7/43 (16.3)	.007	4/12 (33.3)	1/9 (11.1)	.257
≥24 wk	26/91 (28.6)	1/43 (2.3)	<.001	1/12 (8.3)	0/9 (0)	.414
≥1 yr	11/91 (12.1)	0/43 (0)	.020	1/12 (8.3)	0/9 (0)	.414

- Imetelstat significantly increased proportion of patients with RBC-TI vs placebo, irrespective of IPSS-M risk category
- ≥8-wk RBC-TI observed in 4 of 12 (33.3%) patients with MDS recategorized as higher risk by IPSS-M who were treated with imetelstat

MDS

- Two new agents approved in 2023: Luspatercept and Ivosidenib
- Imetelstat expected to be approved later this year
- The use of ESAs in low risk MDS will become more limited over time
-

Thank you

Questions?