Global Leukemia Academy

Global Leukemia Academy

Evolving Treatment Landscape and Future Directions in Adult ALL Management

Focus: APAC

June 17/18 (US/Australia)
7.00 PM – 8.00 PM (CT)
10.00 AM – 11.00 AM (AEST)

Meeting sponsors AMGEN Autolus APTITUDE HEALTH

Global Leukemia Academy

Welcome, Introductions, and Meeting Overview

Elias Jabbour, MD
MD Anderson Cancer Center,
Houston, TX, USA

APTITUDE HEALTH®

Meet the Faculty

Elias Jabbour, MD
The University of Texas MD Anderson Cancer Center, Houston, TX

Ashish Bajel, MBBS, FRACP, FRCPA
Peter MacCallum Cancer Centre and Royal Melbourne Hospital, Melbourne, Australia

Program Objectives

- Gain insight into current treatment patterns for ALL in the APAC, including adoption of new technologies
- Discuss regional integration of genomic testing and its role in patient treatment
- Share the latest data on
  - Bispecifics and insights into their utility in ALL
  - Stem cell transplantation in ALL as a consolidation in first remission
  - The potential of MRD in monitoring and managing ALL
  - Promising novel and emerging therapies in ALL
- Discuss the opportunities for CAR T in leukemia: logistic barriers and challenges in the APAC
- Discuss future directions
  - Discuss the evolution of regional management algorithms for ALL

Virtual Meeting

Wednesday/Thursday, June 17/18, 2026

Time (CT)	Time (AEST)	Title	Speaker/Moderator
7.00 PM – 7.05 PM 5 min	10.00 AM – 10.05 AM 5 min	Welcome, Meeting Overview, and Introductions	Elias Jabbour, MD
7.05 PM – 7.25 PM 20 min	10.05 AM – 10.25 AM 20 min	Global Progress in ALL (review of data from recent congresses and impact on SOC) 15-min presentation and 5-min Q&A	Elias Jabbour, MD
7.25 PM – 7.40 PM 15 min	10.25 AM – 10.40 AM 15 min	ALL Patient Case Discussion (with genomic testing)	Ashish Bajel, MBBS, FRACP, FRCPA
7.40 PM – 7.55 PM 15 min	10.40 AM – 10.55 AM 15 min	Opportunities and Challenges in Everyday Practice (Q&A session)	Ashish Bajel, MBBS, FRACP, FRCPA, and Elias Jabbour, MD
7.55 PM – 8.00 PM 5 min	10.55 AM – 11.00 AM 5 min	Conclusions and Wrap-Up	Ashish Bajel, MBBS, FRACP, FRCPA, and Elias Jabbour, MD

Global Leukemia Academy

Global Progress in ALL

Elias Jabbour, MD
MD Anderson Cancer Center,
Houston, TX, USA

APTITUDE HEALTH®

What Is New in B-ALL in 2026

Elias Jabbour, MD
Department of Leukemia
The University of Texas MD Anderson Cancer Center,
Houston, TX

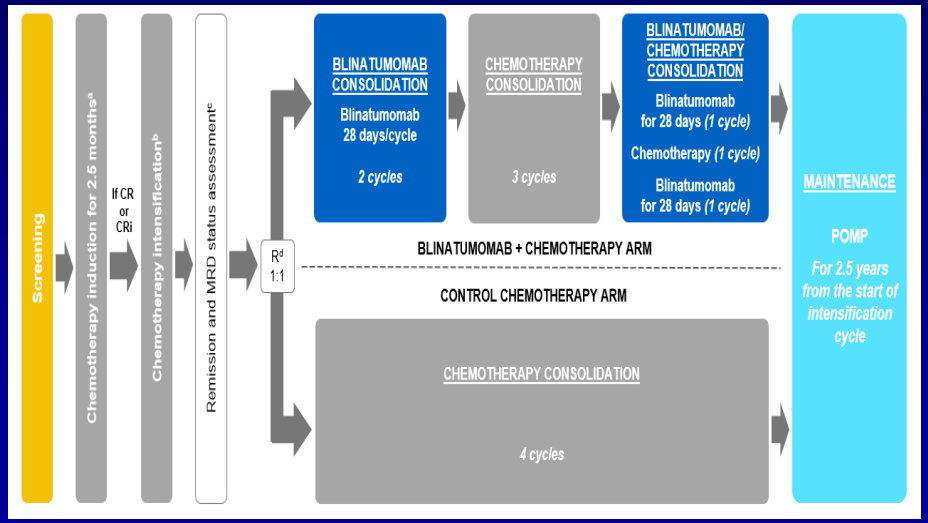
June 2026

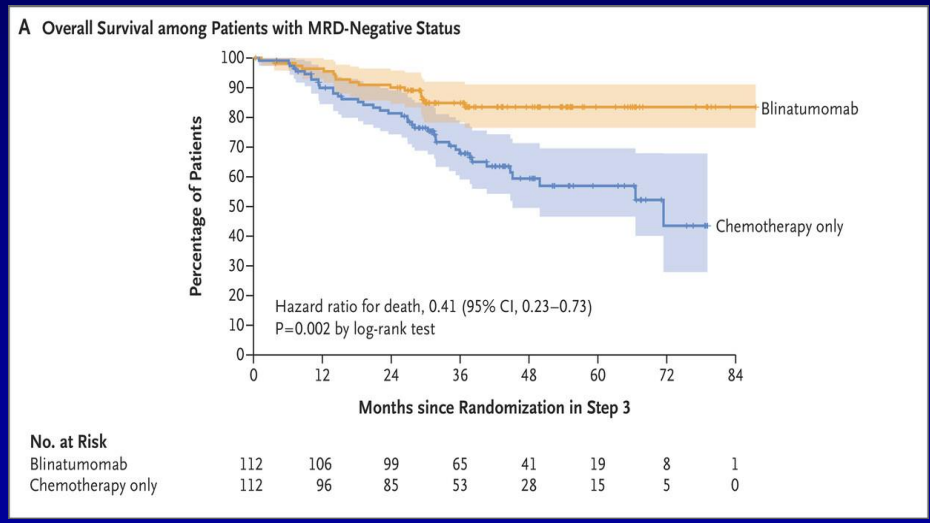
ALL: What Is New in 2026

- Philadelphia-negative ALL
- Philadelphia-positive ALL
- Measurable residual disease (MRD)
- Relapsed/refractory disease

E1910 Randomized Phase III Trial: Blina vs SOC as Consolidation in MRD-Negative CR

- 488 pts median age 51 yr (30–70)
- 224 MRD-neg CR randomized 1:1
- 22 pts (20%) Rx ASCT in each arm
- Median F/U 43 mo; median OS NR vs 71.4 mo (HR = 0.42; *P* = .003)
- No difference in OS if 1–2 cycles of blina vs control (HR: 0.62; *P* = .22)
- OS: 1–2 cycles vs 4 cycles (HR: 0.39; *P* = .07)

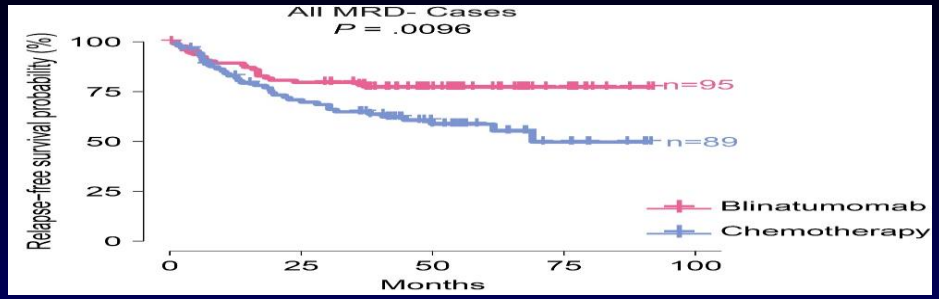


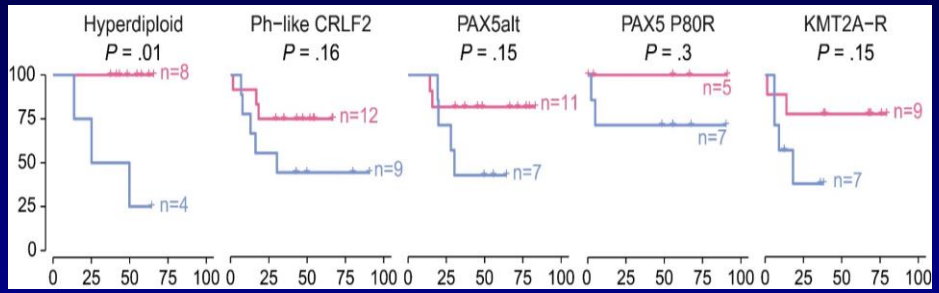


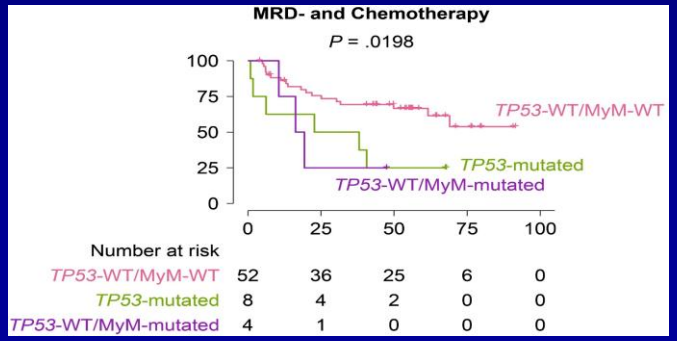
Litzow MR, et al. *N Engl J Med.* 2024;391:320-333.

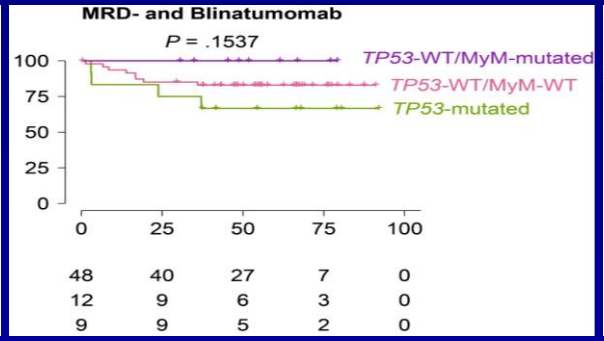
Genomics and Blina: Subsets Analysis E1910

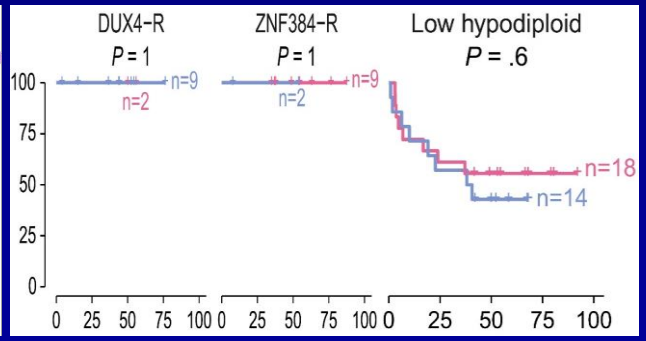
- Comprehensive genomic analysis of 569 adults with B-ALL
  - 22 molecular groups defined
  - Novel subgroup identified: *CEBP*-altered ALL (~3.5%)
- Pts for whom induction chemotherapy failed (n = 62) or were MRD-pos (n = 63) enriched
  - *BCR::ABL1*-like (30% vs 14%, *P* <.001), *KMT2A* (18% vs 9%, *P* = .03) and *BCL2/MYC* (5% vs 1%, *P* = .06)
- Pts who achieved MRD negativity enriched
  - *PAX5*alt (6% vs 18%, *P* = .002), *TCF3::PBX1* (0% vs 5%, *P* = .01), and *ZNF384* (2% vs 6%, *P* = .08)
- Blina (n = 93) improved RFS for pts with hyperdiploid, *PAX5*alt, *BCR::ABL1*-like, and *KMT2A*r ALL compared to chemotherapy alone (n = 90)
- *TP53* mutations (n = 65) associated with low hypodiploidy (n = 52)
- *CRLF2* rearrangements harbored the highest number of other CHIP gene mutations (n = 13), including *DNMT3A* (n = 4), *TET2* (n = 3), and *ASXL1* (n = 3)









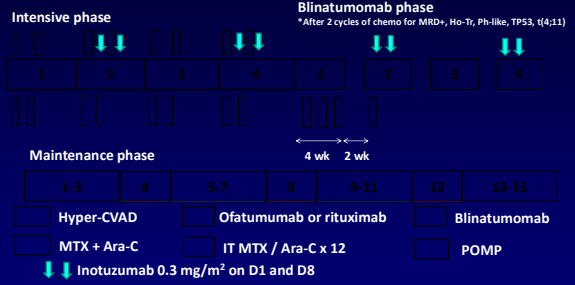


Zhong, et al. *Blood*. 2025;146(suppl 1):31.

Hyper-CVAD-InO → Blina in ND Adult ALL

- 75 pts (38 no InO, 37 InO); median age 33 yr (18–59); median F/U 48 mo (13–90)
- CR rate 100% (84% post-C1); MRD-neg 95% (66% at CR); NGS MRD-neg 79%; 60-day mortality 0%; 24 (32%) allo-SCT

Hyper-CVAD + Blinatumomab in B-ALL. Regimen



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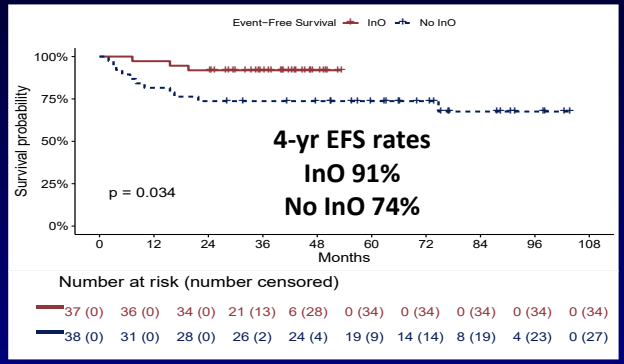
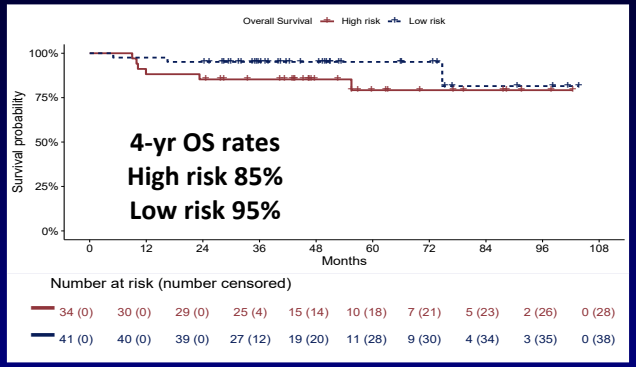
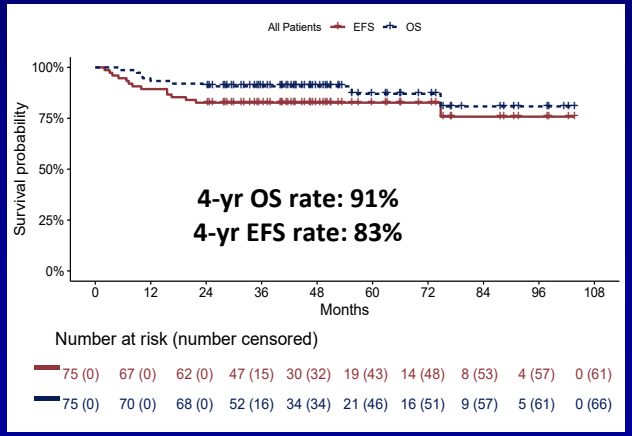


OS by risk





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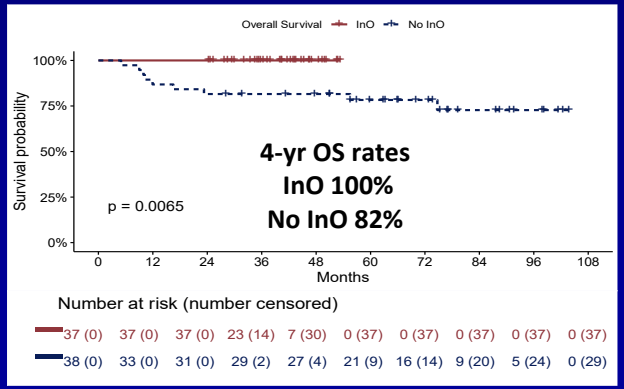
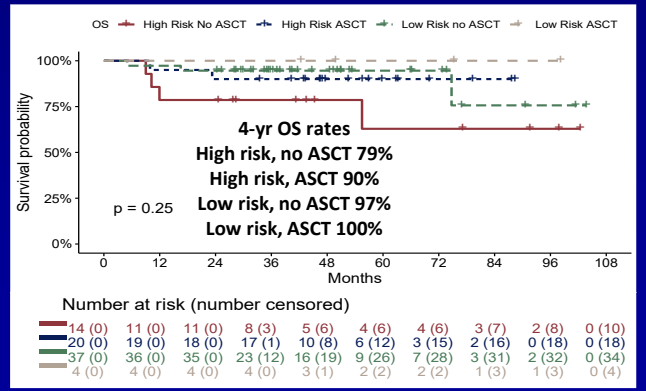


OS by risk and ASCT

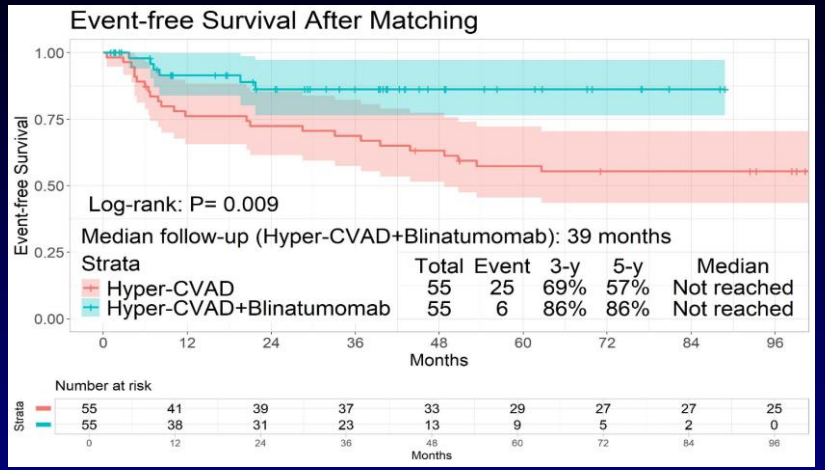


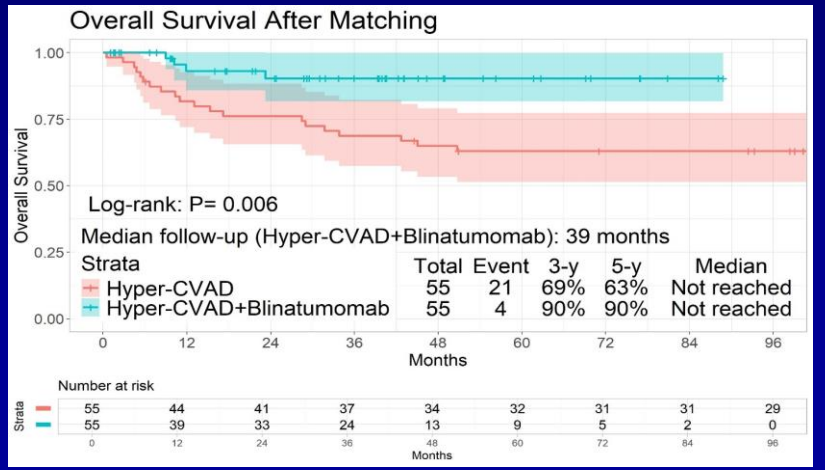
Goulart N, et al. *Blood*. 2025;146(suppl 1):1567.

Hyper-CVAD vs Hyper-CVAD-Blina ± InO in ND Ph-Neg B-ALL: Propensity Score Analysis

- 241 pts Rx with either Hyper-CVAD (n = 161) or Hyper-CVAD + blina ± InO (n = 80)
- Propensity score matching: 55 pts in each
- Median age 37 yr for Hyper-CVAD vs 35 yr for Hyper-CVAD + blina ± InO
- Median F/U: Hyper-CVAD 153 mo vs Hyper-CVAD + blina ± InO 36 mo
- No compromise in outcomes despite reduction in duration/amount of intensive chemotherapy

Outcome	Hyper-CVAD	Hyper-CVAD + Blina	*P* Value
AYA 3-yr EFS	77%	89%	.116
AYA 3-yr OS	77%	96%	.042
Ph-like 3-yr EFS	63%	83%	.271
Ph-like 3-yr OS	77%	96%	.042
High risk 3-yr EFS	57%	81%	.013
High risk 3-yr OS	57%	84%	.014





Goulart N, et al. *Blood*. 2025;146(suppl 1):1567.

Blina + ChemoRx Improves DFS and Mitigates Adverse Prognostic Factors in Childhood ALL (AALL1731)

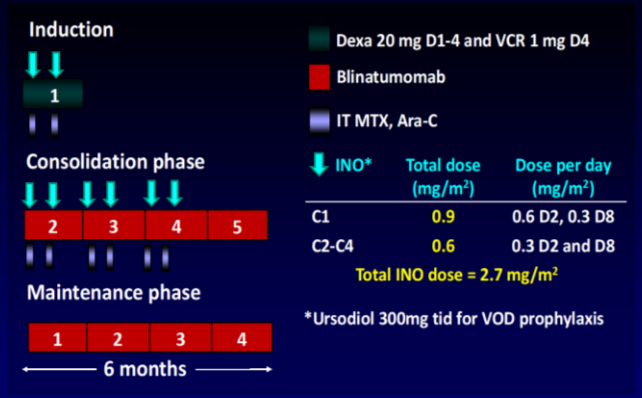
- 1440/2245 SR; median age 4.3 yr (1–10)
- Median F/U 3.5 yr; Rx chemoRx ± 2 BLINA

Parameter	ChemoRx (n = 722)	ChemoRx + Blina (n = 718)	*P* Value
4-yr DFS, %	87	95	<.0001
4-yr CIR, %	12.6	4.4	<.0001
BM relapse	9.4	3.1	<.0001
CNS relapse	2.2	1.4	.41

- Traditional adverse prognosticators lose significance with blina
- Unfavorable genetics (iAMP21, *KMT2A* rearrangement, t[17;19], hypodiploidy) adverse impact
- Addition of blina associated with improved outcomes in pts with unfavorable genetics: 4-yr DFS Arm C 77% vs Arm D 92%

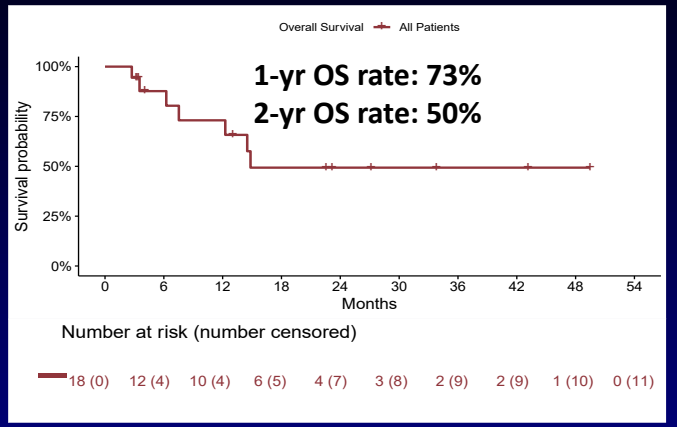
Gupta S, et al. *Blood*. 2025;146(suppl 1):758; Gupta S, et al. *N Engl J Med*. 2025;392(9):875-891.

Chemo-Free Rx With InO/Blina in Older Ph-Negative B-ALL



- N = 18, median age 76 (65–83), 94% >70 yr
- 38% high-risk cytogenetics, 50% with *TP53*mut
- No secondary MDS/AML
- No VOD
- Median F/U 24 mo
- 10 (55%) alive in CR without ASCT
- 2 relapsed (11%)

OS



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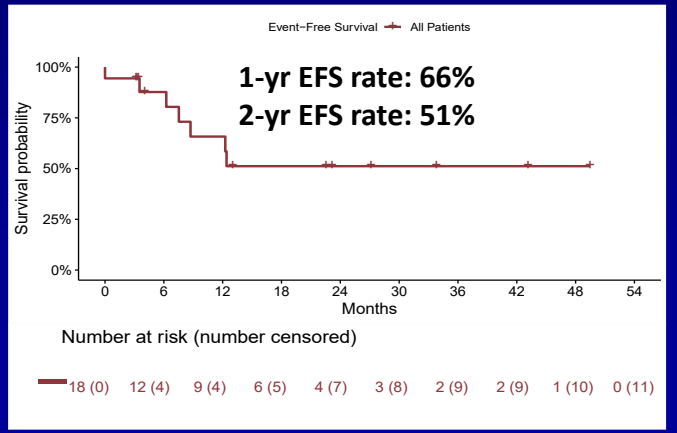


Parameter	N (%)
ORR (CR/CRi)	**17 (94)**
Complete remission	**16 (89)**
MRD-Negative CR/CRi	
MRD-neg by FCM (any time)	**16 (89)**
MRD-neg by FCM (postinduction)	**12 (67)**
MRD-neg by NGS (any time)	**10 (67)**
MRD-neg by NGS (postinduction)	**5 (33)**
Day 14 Evaluation (prior to receipt of blina)	
CR/CRi	**10 (82)**
MRD-neg by FCM	**4 (40)**

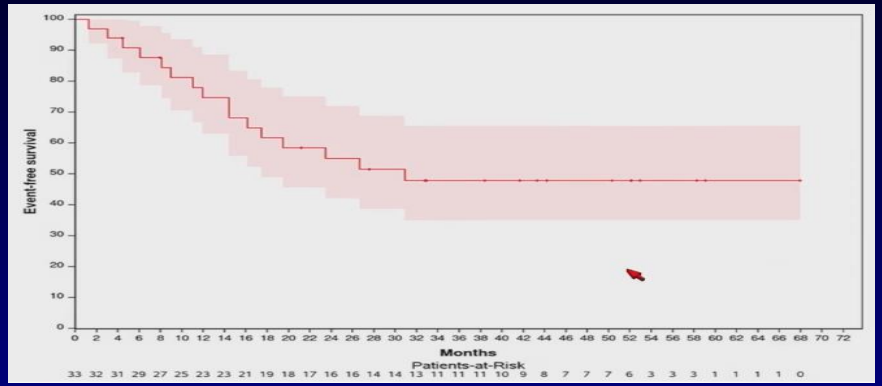
5 deaths in CR (28%): MI, PNA, resp failure, hospice, multiorgan failure post-ASCT

Goulart H, et al. *Blood*. 2025;146(suppl 1):5131.

Chemo Rx-Free InO + Blina in Pre–B-ALL (Alliance A 041703): Long-Term Follow-Up

- InO 0.8 mg/m^2 D1, 0.5 mg/m^2 D8 and 15; × 1–2; then blina × 2–3; IT MTX × 8
- 33 pts; median age 71 yr (60–84). Median F/U 45 mo
- CR-CRi post-Ino 85%; post-blina 97%
- 3-yr EFS 48% – median 31 mo; 12 relapses, 1 ED, 3 deaths in CR
- 3-yr OS 59% – median NR; 5 allo SCT, no CNS relapses
- Among relapses: 40% CD19 neg; 42% *TP53+*; 13 deaths
- MRD-neg post-course 1A better EFS (52% vs 0%, median NR vs 8 mo) and better OS (100% vs 0%; median NR vs 20 mo)
- 1 SOS (3% G5). Blina neurotoxicity: 3 pts (2 G3, 1 G5)

EFS



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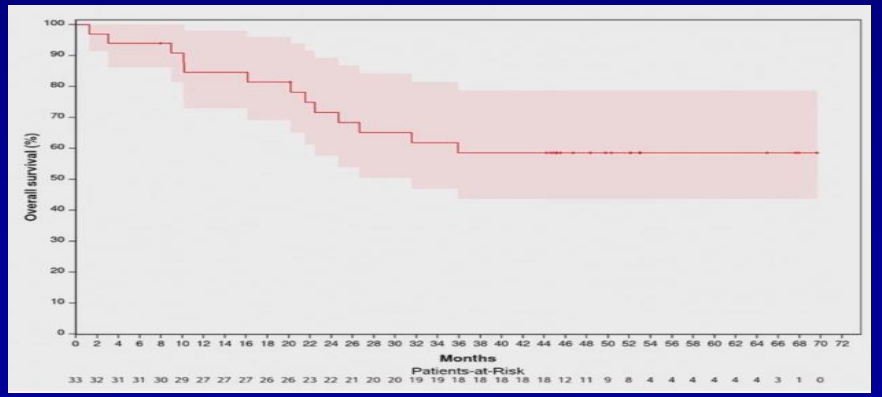
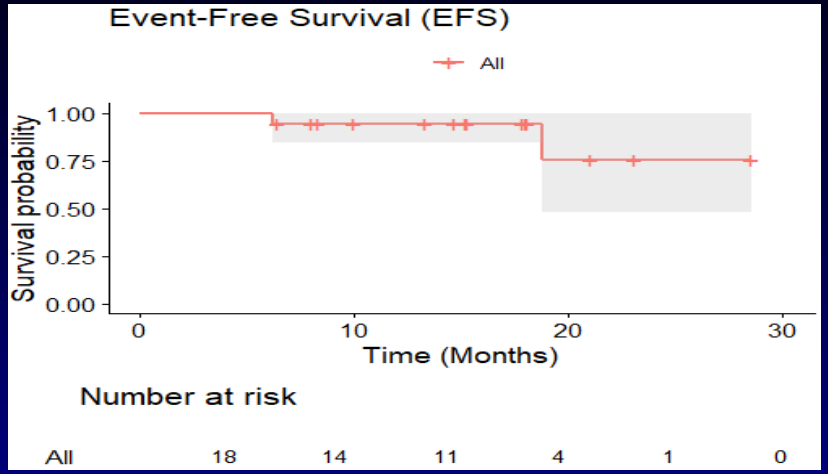
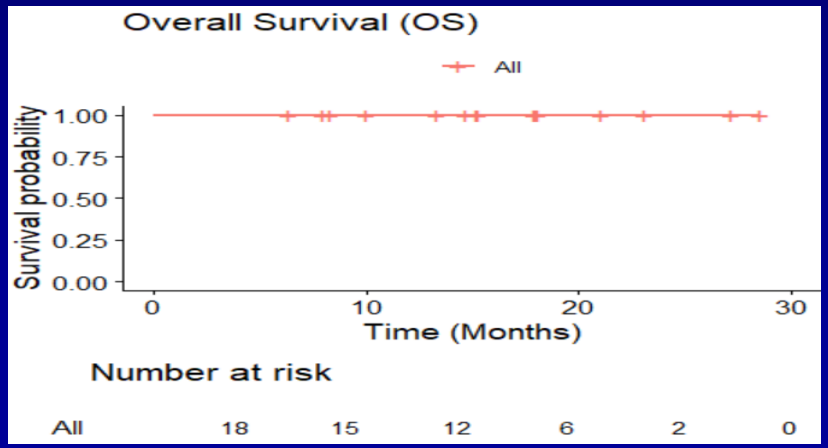


Wieduwilt M, et al. *J Clin Oncol*. 2025;43:3526-3535; Wieduwilt M, et al. *Blood*. 2025;146(suppl 1):444.

CD19 CAR T-Cells Rx in Older ALL in CR1

- 22 pts ≥55 yr; 18 evaluable: (200 million CAR Ts)
- Median age 64 yr (55–79); 6 Ph-pos; 2 hypodiploidy/*TP53* mutations; 2 Ph-like; 1 *KMT2A*r
- 15 (83%) Rx blina and 2 (11%) Rx InO; 18/18 MRD-neg CR at LD
- No ICANS and G≥2 CRS; 72% G1 CRS
- Median F/U 14.5 mo: 1-yr PFS 90%; 1 pt Ph-pos ALL mol relapse (alive in MRD-neg CR post-ASCT >2yr); 1 t-MDS 18 mo post-CAR; 16 in MRD-neg CR; all 6 Ph-pos ALL on TKI maintenance
- No death: 1-yr OS 100%
- CAR T cells expanded (peak 7–14 days; 13%)
- D28 17/17 pts LP CAR T cells expanded in CSF (median 0.4 × 10^3/mL)
- Baseline and D100 walk speed and cognitive function similar





Aldoss I, et al. *Blood*. 2025;146(suppl 1):443.

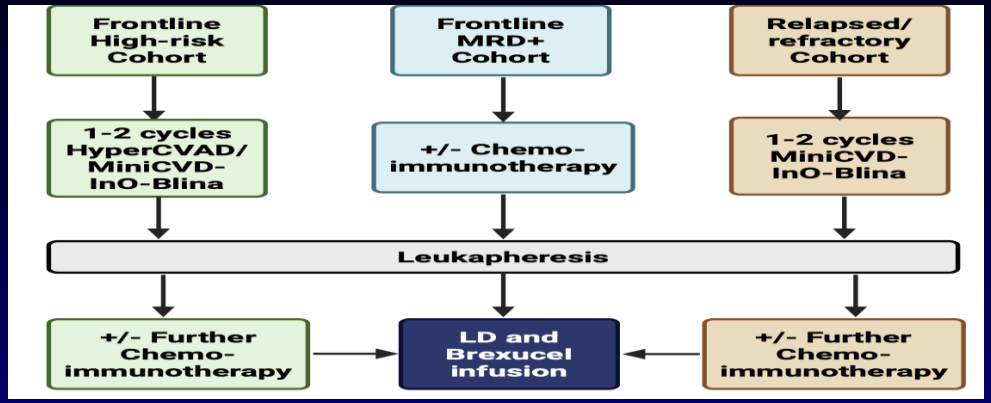
Frontline CD19 CAR T Consolidation in ND Ph-Negative ALL

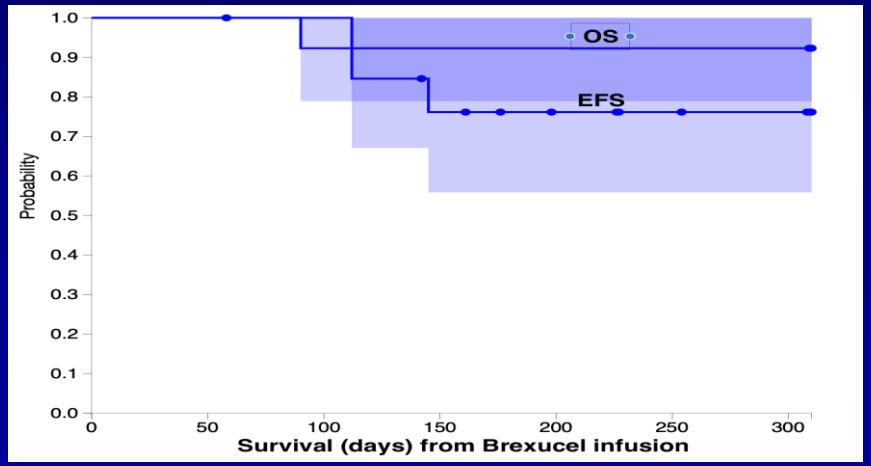
- Pediatric-inspired induction (w/VEN) → 1–2 cycles consolidation → 1 infusion CD19 CAR T → POMP (w/VEN)
- 44 pts Rx; median age: 36 yr (18–70)
  - 18% Ph-like; 9% complex karyotype; 2% EMD
  - 11% *TP53*; 9% *KMT2A*r; 9% *ZNF384*r; 11% *IZKF1*; 14% *PAX5* or *BCOR*
  - 16% MRD-pos (MFC), 12/33 (52%) NGS MRD-pos prior to CAR T
- After CAR T: 100% MRD-neg (MFC), 32/33 (97%) NGS MRD-neg within 3 mo
- All pts exhibited CAR T-cell expansion
- Median F/U: 10.6 mo; 1-yr OS 100%; 1-yr LFS 98%
- 4 pts allo-SCT during CR1; 1 allo-SCT after relapse
- CRS: 59% (G1 only); ICANS: 0; no G3+ non-heme AE

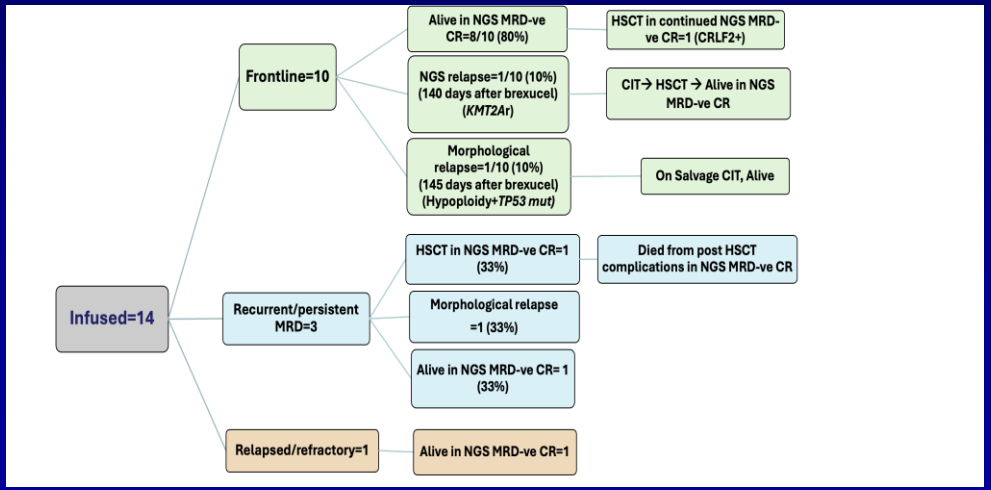
Gu R, et al. *Blood*. 2025;146(suppl 1):1561.

Brexu-Cel Consolidation Post-HCVAD/Mini-HCVD-InO-Blina in ALL

- 14 pts, median age 35 yr (19–77), 10 high-risk FL, 3 MRD, 1 R/R
- At LD, 100% CR, 93% MRD-neg NGS
- Median CAR T expansion 14 cells/µL (0–69)
- 57% G1 CRS only, no ICANS
- Median F/U 7.1 mo; 2 relapses (1 FL, 1 MRD) and 1 molecular relapse; 1 death post-HSCT
  - 6-mo EFS 79%; 6-mo OS 93%







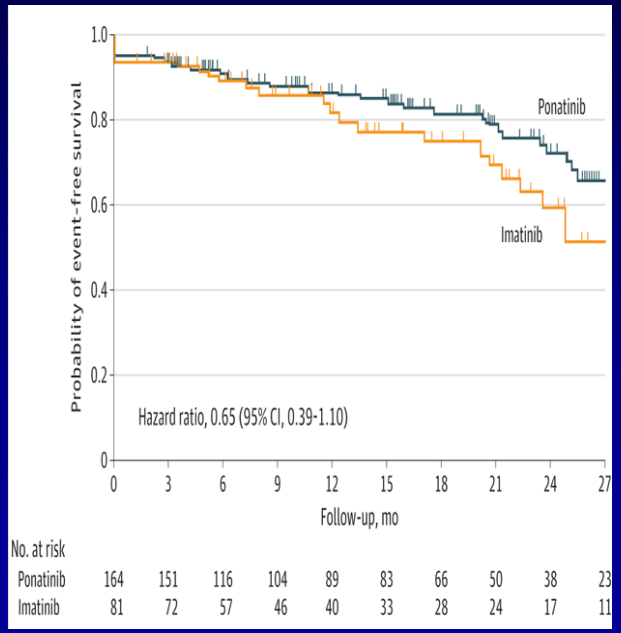
Senapati, et al. *Blood*. 2025;146(suppl 1):1573.

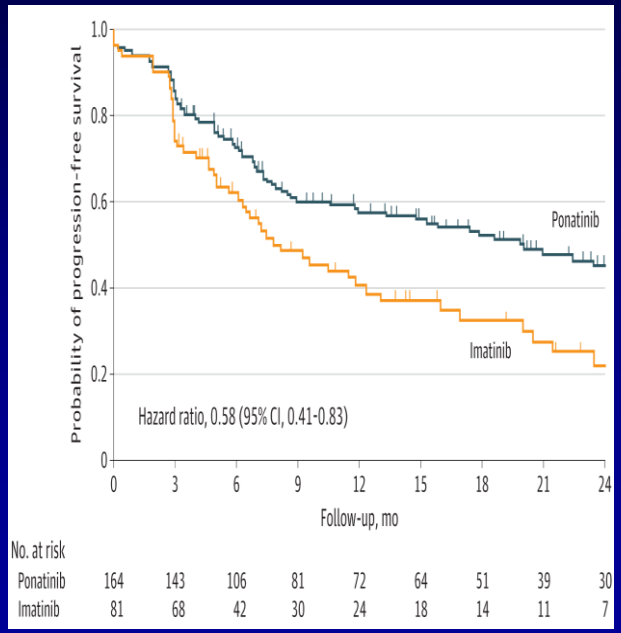
ALL: What Is New in 2026

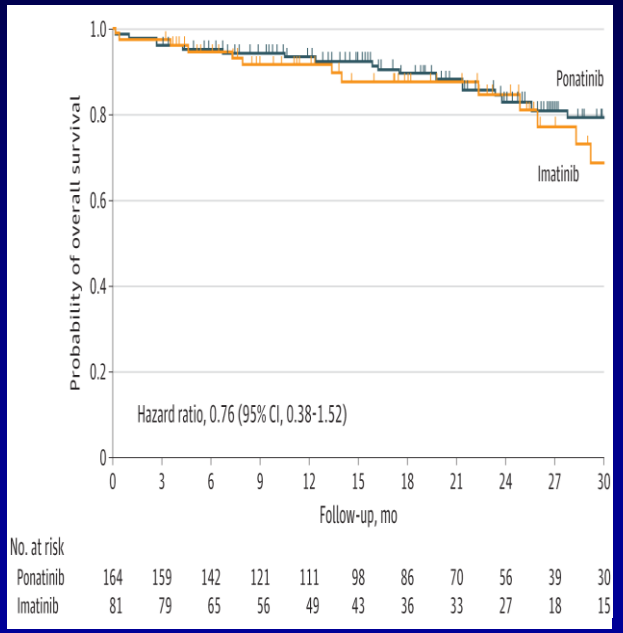
- Philadelphia-negative ALL
- **Philadelphia-positive ALL**
- Measurable residual disease (MRD)
- Relapsed/refractory disease

Ponatinib vs Imatinib in ND Ph-Positive ALL: PhALLCON Phase III Trial

- 245 pts randomized (2:1) to ponatinib 30 mg/D (n = 164) or imatinib (n = 81), both with VCR-Dex for 90 days; then continuation of TKIs and chemoRx
- Primary endpoint MR4 CR at 90 days: 34.4% vs 16.7% (*P* = .002)
- Subsequent ASCT 30% vs 37%







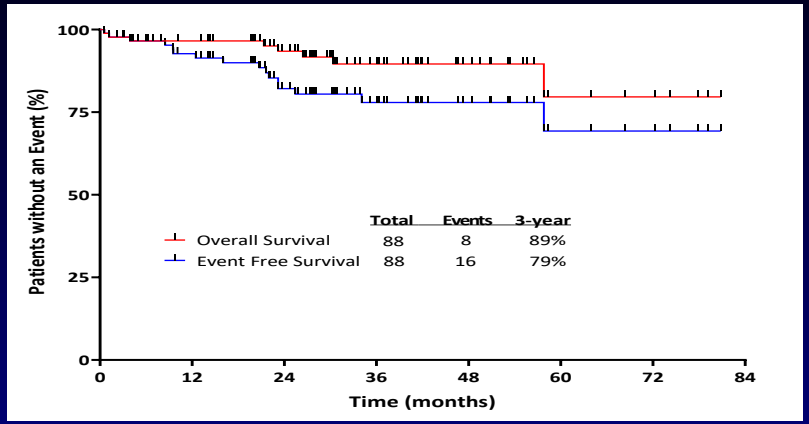
Jabbour E, et al. *JAMA*. 2024;331(21):1814-1823.

Ponatinib + Blina in ND Ph-Positive ALL

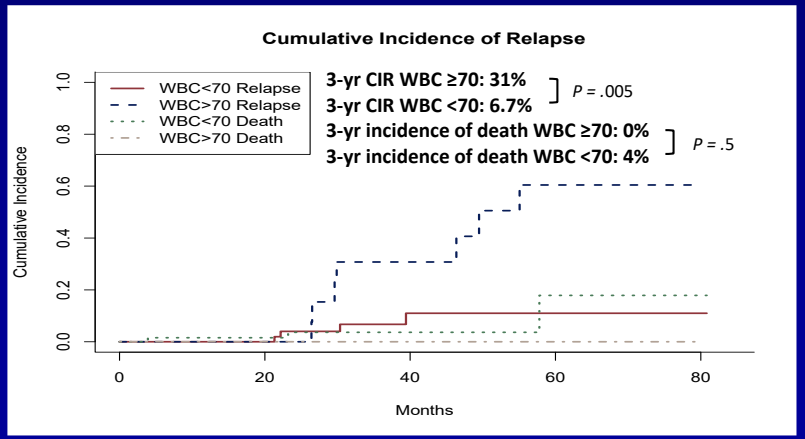
- 88 pts median age 50 (18–83) – 19% >70 yrs Rx with simultaneous ponatinib 30–15 mg/D and blina × 5 courses. 12–15 IT
- p190 78%, p210 20%, *IK7F1*^{plus} 52%
- Median F/U 32 mo, only 2 underwent ASCT
- N = 11 relapses (3-yr CIR 12%), median time: 20 mo (8–33) (5 BM only, 5 CNS only, 1 EMD only; 64% of relapsed pts with WBC ≥70)
- No diff in CIR with *IKZF1*^{plus}

Parameter	N (%) or median [range]
Overall response rate	61/65 (96)
CR rate	60/65 (95)
Molecular Response Rate	
MMR	74/77 (96)
CMR	65/79 (83)
MRD-Negativity Rate by NGS	
Post-C1	19/44 (43)
Overall	64/67 (95)
Time to MRD-neg by NGS	2.8 mo [0.8–51]
MRD Discordance	
NGS neg/PCR pos	13 (16)
NGS pos/PCR neg	3 (4)

Outcome



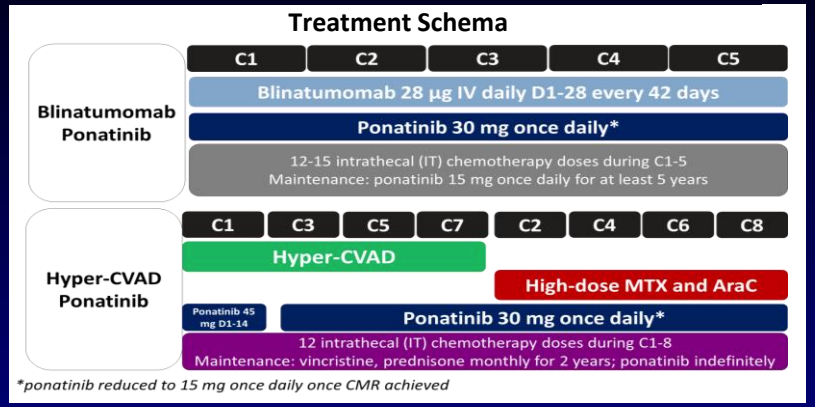
CIR

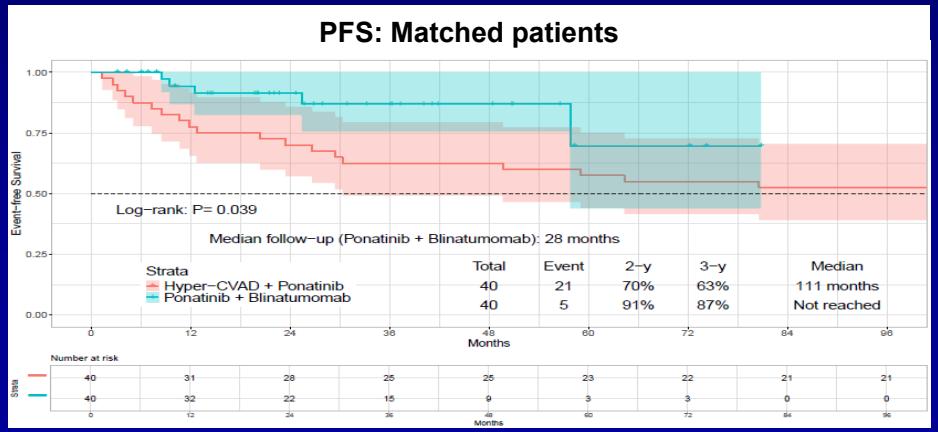


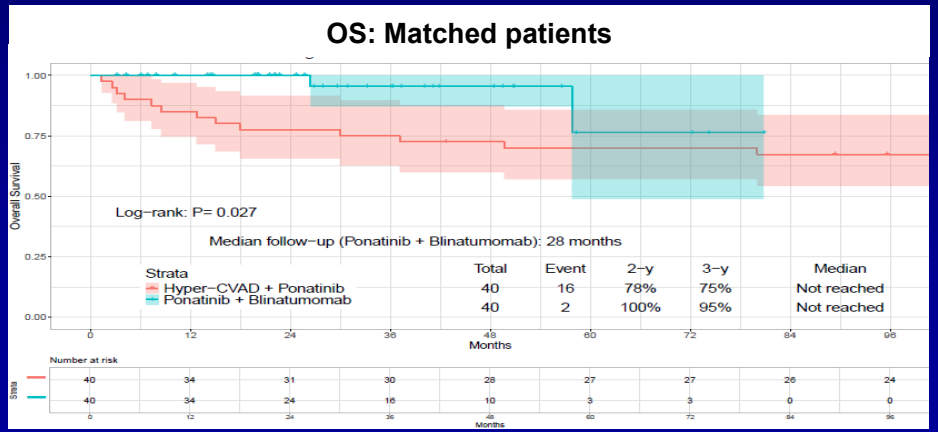
Goulart, et al. *Blood*. 2025;146(suppl 1):1571.

Blina-Ponatinib vs HCVAD-Ponatinib Propensity Matched Analysis

Parameter	Blina-Ponat (n = 40)	HCVAD-Ponat (n = 40)	*P* Value
ORR	100%	100%	--
C1 CMR	56%	38%	.115
Overall CMR	80%	90%	.348
Overall NGS MRD-neg	53/55 (96%)	--	--
Relapse rate	10%	28%	.083
Death in CR	3%	25%	.007
Allo-SCT	1 (3%)	8 (20%)	.029







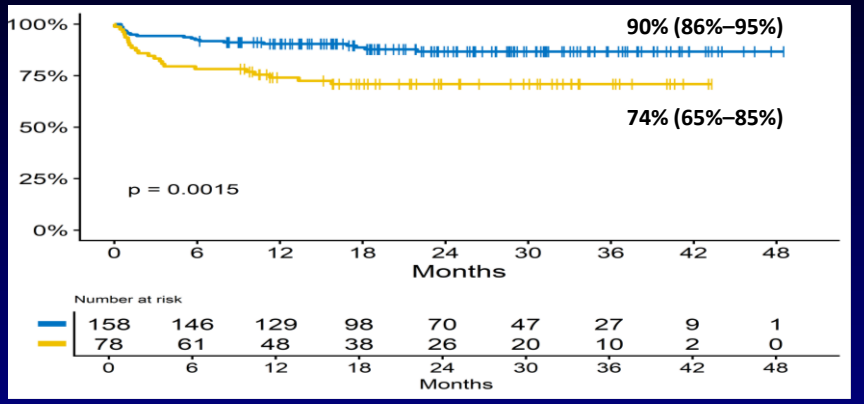
Sasaki, et al. *Blood*. 2025;146(suppl 1):1578.

Phase III GIMEMA ALL2820: Blina-Ponatinib vs Imatinib-ChemoRx in ND Ph-Positive ALL

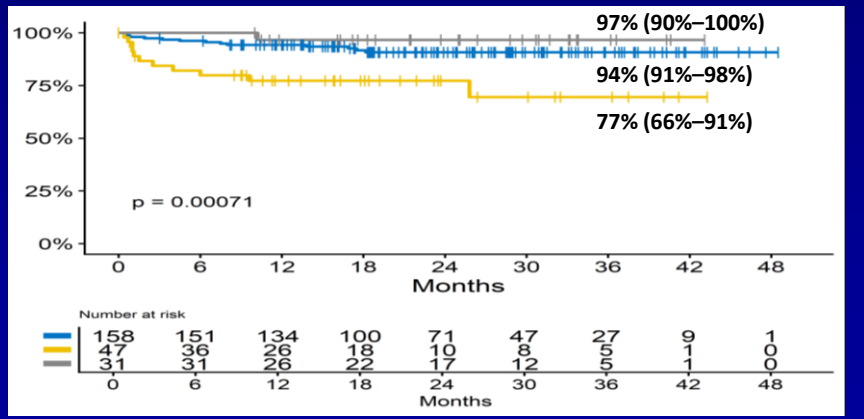
- 236 pts randomized 2:1 Blina-PON (n = 158) or ChemoRx-IM (n = 78). Induction 70 D (2 courses) or 3 ChemoRx
- Median age 57 yr vs 58 yr (28% and 27% >65 yr); *IKZF1*^{plus} 34% vs 26%
- Median F/U 23.4 mo (range 1–48 mo)

%	Blina-PON	ChemoRx-IM	
CHR (D70)	94	79	*P* = .001
Induction death	4	10	
MRD-neg (D70)	47	44	
MRD-neg (D133)	71	59	*P* = .009
MRD-neg post-crossover	NA	62 (18/29)	
Relapses	6 (n = 9; 1 CNS)	8 (n = 5; 0 CNS)	
Death	5	8	
ASCT	19	19	
18-mo EFS	90	77	*P* = .01

EFS



OS



Chiaretti, et al. *Blood*. 2025;146(suppl 1):439.

Ponatinib vs Dasatinib + Blina in Ph-Positive ALL

Parameter	Pona + Blina (n = 88; 5 blina)	Dasa + Blina (n = 63; 2+ blina)	Dasa + Blina (n = 24; 3 blina)	Pona + Blina (n = 158; 2–5 blina)
Median age (yr)	50	54	73	57
PCR neg, % NGS-clonoSEQ neg, %	83 95	93 (+PNQ)	75	71
4-yr OS, %	89	82	63 (5 yr)	18-mo OS 92%
Allo SCT, %	2	39	4	19
Relapses (CNS)	11 (5)	9 (4)	8 [3 T315I] (2)	9 (1)

Goulart, et al. *Blood*. 2025;146(suppl 1):1571; Foà R, et al. *J Clin Oncol*. 2024;42(8):881-885; Advani, et al. *Blood*. 2025;146(suppl 1):3343; Chiaretti, et al. *Blood*. 2025;146(suppl 1):439.

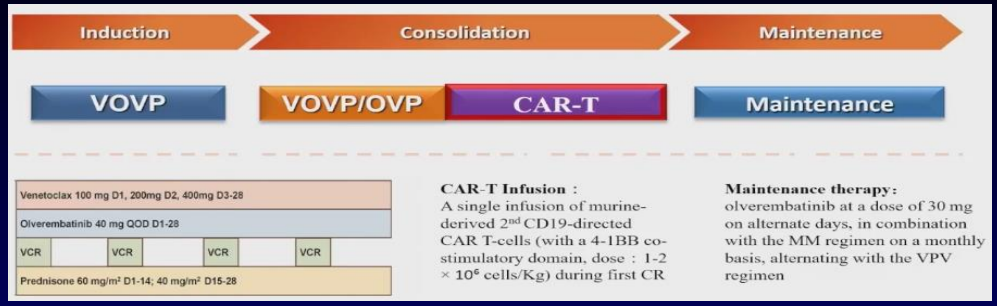
Olverembatinib + LD ChemoRx in FL Ph-Positive ALL: Part A of Phase III POLARIS-1

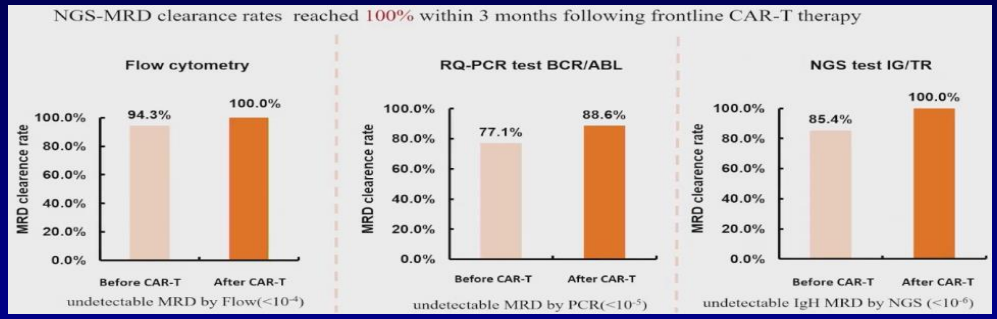
- 55 pts median age 43 yr; p190 65.5%
- Olverembatinib 30–40 mg QOD with 3 cycles of VP-VPD followed by 3 cycles of HD MTX alternating with 3 cycles of HDAC followed by 12 cycles of maintenance of 6-MP-MTX-VP
- Median duration of Rx 9.6 mo
- Primary endpoint MR4 CR at 90 days 52.8% (35.8% EOC1)
- Rx well tolerated, 1 pt G2 CAD
- Subsequent ASCT in 5 pts (9.1%)
- Progression in 4 pts (1 refractory and 3 CNS/BM)
- 9/10 pts with *IKZF1*^{plus} MRD-neg CR
- No difference between olverembatinib 30 and 40 mg QOD
- Randomization 2:1 of olverembatinib vs dealer's choice TKI with LD ChemoRx ongoing

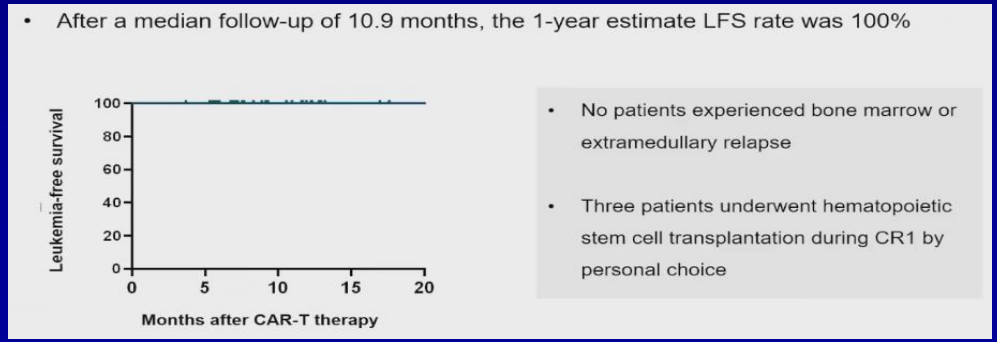
Chen S, et al. *Blood*. 2025;146(suppl 1):1574.

CD19 CAR T Consolidation in ND Ph-Positive ALL: Phase II

- 35 pts; median age 39 yr (20–60)
- IT for CNS as SOC
- At LD: 100% CR; 6% MRD-pos (MFC); 23% MRD-pos (*BCR::ABL1*); 15% MRD-pos (NGS)
- Post-CAR: 100% MRD-neg (MFC); 11% MRD-pos (*BCR::ABL1*); 100% MRD-neg (NGS)
- Median F/U 11 mo: 1-yr OS 100%; 1-yr LFS 100%
- No relapses; 3 elected allo-SCT by preference
- CRS 74% all G1; ICANS 0%



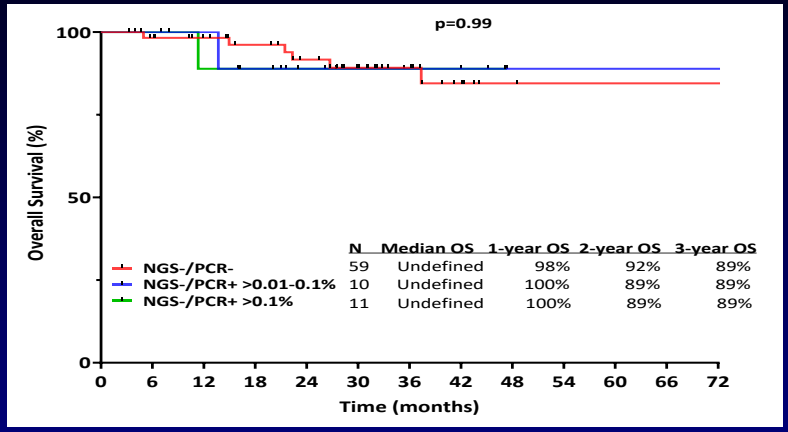


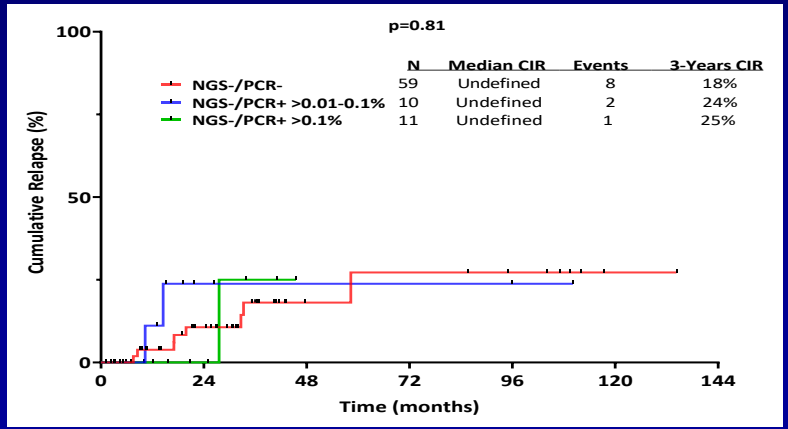


Gu R, et al. *Blood*. 2025;146(suppl 1):442.

PCR for *BCR::ABL1* vs NGS for IG/TR in Ph-Positive ALL

- 187 pts with Ph-pos ALL → NGS MRD-neg + PCR for *BCR::ABL1* pos or neg
- Discordance (NGS neg/PCR pos) in 23%
  - PCR >0.1% in ~50% of discordance cases
  - Similar rates in p190 and p210
  - High WBC → ↓ discordance
  - FISH pos in granulocytes → ↑ discordance
- No impact of discordance or level of *BCR::ABL1* PCR on relapse or OS
- 2 NGS neg/PCR-pos pts discontinued TKI → PCR >10% (but still NGS neg)





Maroun M, et al. *Blood*. 2025;146(suppl 1):551.

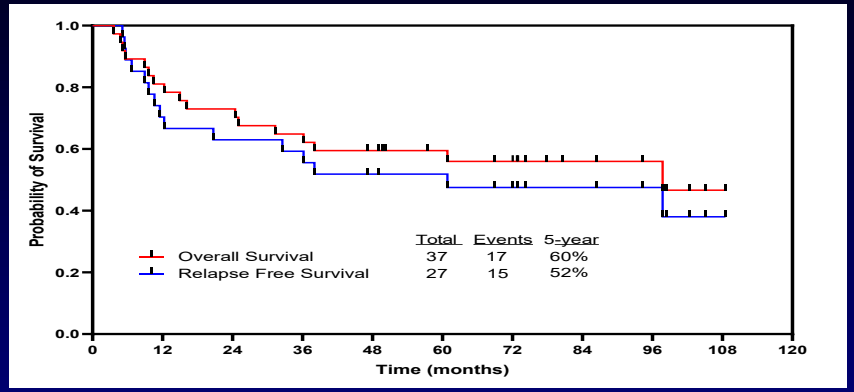
ALL: What Is New in 2026

- Philadelphia-negative ALL
- Philadelphia-positive ALL
- **Measurable residual disease (MRD)**
- Relapsed/refractory disease

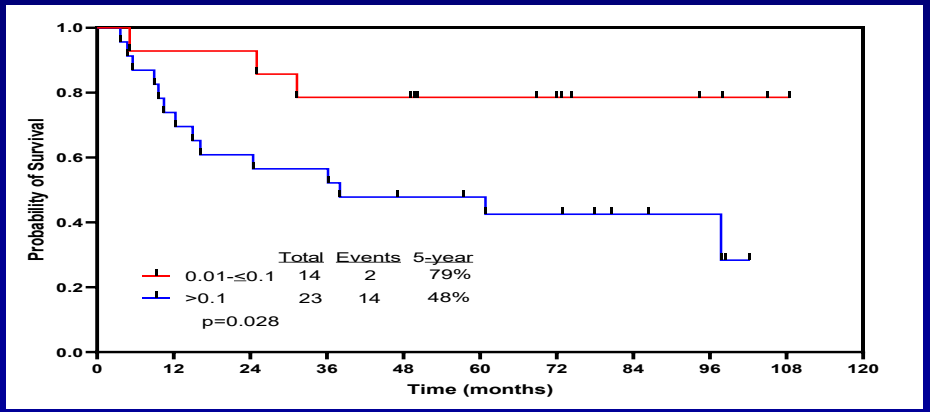
Blina for MRD-Positive ALL in CR1/CR2+

- 37 pts Rx. Post-blina MRD-neg 27/37 = 73%; 84% in Ph-neg ALL
  - 65% after C1
  - 3/5 (60%) NGS MRD-neg → all alive without allo-SCT
- Median number of cycles 3 (1–9); 8% received maintenance blina
- Median f/u 74 mo: 5-yr OS 60%; 5-yr OS if MRD-neg 63%
- 14 pts 0.01 to <0.1%: 5-yr OS 79%; 23 pts ≥0.1%: 5-yr OS 48%
- Allo-SCT (n = 15; CR1: 12 CR2+: 3)
- Median time (CR1 pts): 2 mo (0.6–6.9)
- Post–allo-SCT → 6 (40%) deaths; no allo-SCT→9 (41%) relapses, 11 (50%) deaths

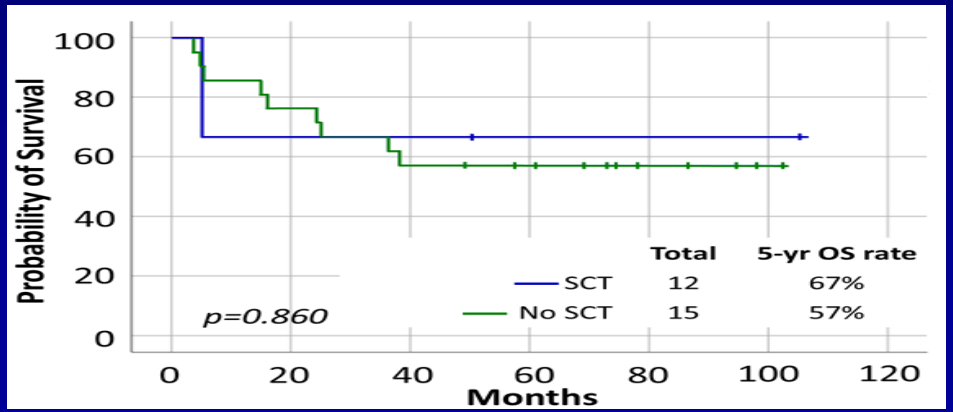
Outcomes



OS by MRD level



OS by ASCT

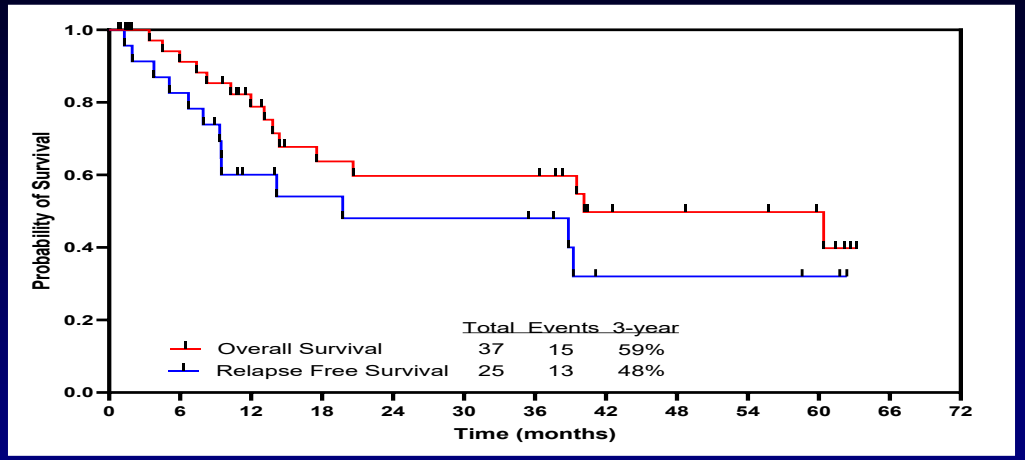


Jabbour E, et al. *Am J Hematol.* 2022;97(9):1135-1141; Rausch, et al. *Blood*. 2025;146(suppl 1):1575.

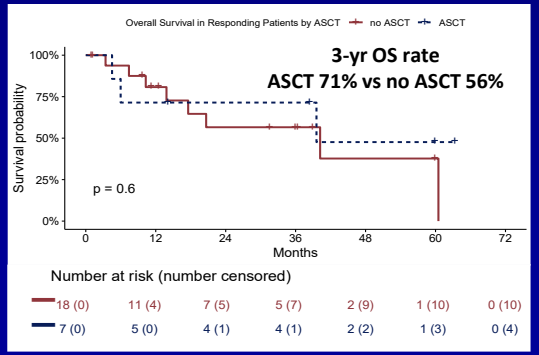
InO for MRD-Positive B-ALL: Long-Term Follow-Up

- 37 pts; median age 49 yr (19–71)
- 76% CR1, 24% CR2+
- InO 0.9 mg/m^2 C1 and 0.6 mg/m^2 C2–6
- 54% Ph-pos, 46% Ph-neg (47% Ph-like)
- Prior Rx: 65% blina, 11% CAR, 14% ASCT
- Median 3 (1–6) cycles of InO received
- Median F/U: 39 mo
- 25/37 (68%) MRD negativity
  - Ph-neg: 10/12 (71%) MRD-neg by FCM; 9/11 (81%) MRD-neg by NGS
  - Ph-pos: 9/9 (100%) MRD-neg by FCM; 4/6 (67%) MRD-neg by NGS; 2/9 (22%) *BCR::ABL1* neg
- SOS in 3 pts (1 after ASCT, 2 while on ponatinib)

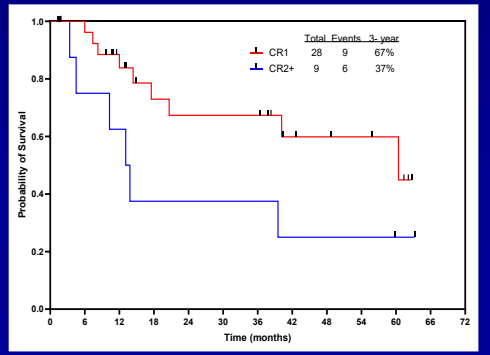
Outcomes



OS by ASCT



OS by CR1 vs CR2+



Goulart N, et al. *Blood*. 2025;146(suppl 1):3348.

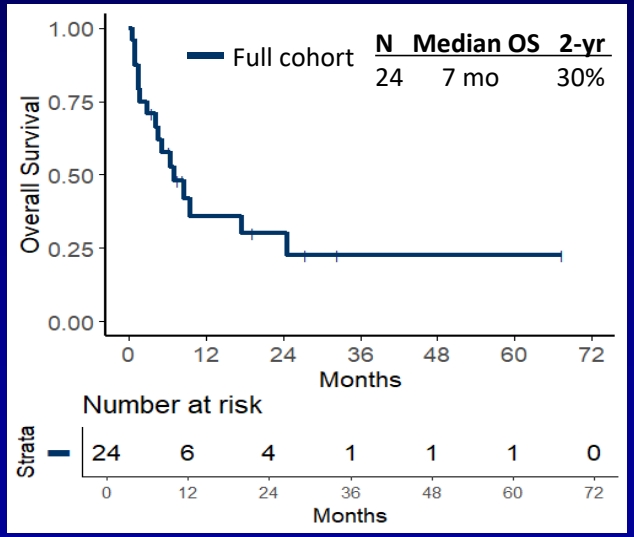
ALL: What Is New in 2026

- Philadelphia-negative ALL
- Philadelphia-positive ALL
- Measurable residual disease (MRD)
- **Relapsed/refractory disease**

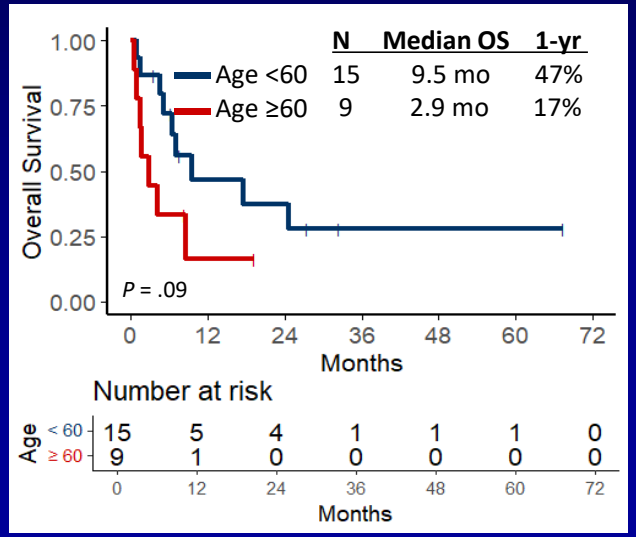
Outcomes Post-FL Blina-Based Regimens Failure

- 213 pts Rx (55% Hyper-CVAD, 45% mini-HCVD); median age 42 (18-88); 28% ≥60 yr
- Median F/U 37 mo: 2-yr CIR 11.4%
- MVA for relapse: BMI >30 (HR 2.98); WBC >50 (HR 3.64); *TP53* mutation (HR 2.71)
- CD19 positivity post-relapse 82%; relapse site: BM (42%), EMD alone (29%), both (29%)
- ORR to S1 = 54%; median OS 7 mo – 2-yr 30%; better OS in pts <60 yr and CR1D ≥12 mo

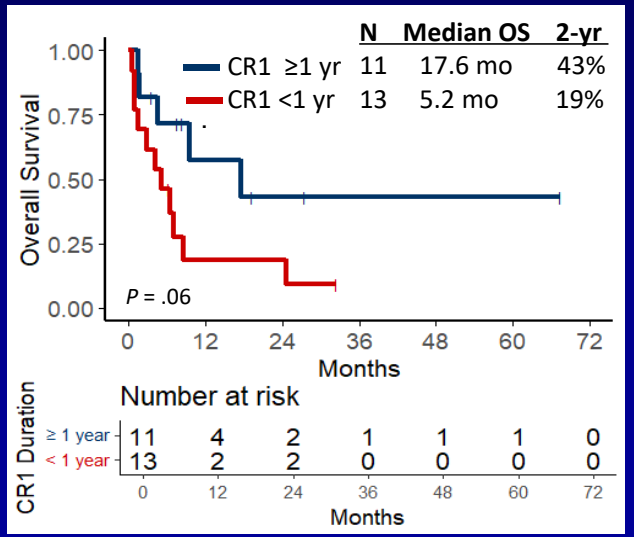
OS



OS by age



OS by CR1D

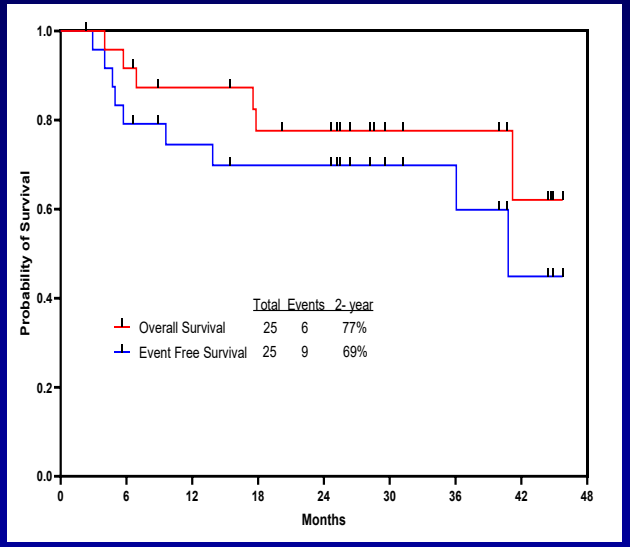


Arora, et al. *Blood*. 2025;146(suppl 1):751.

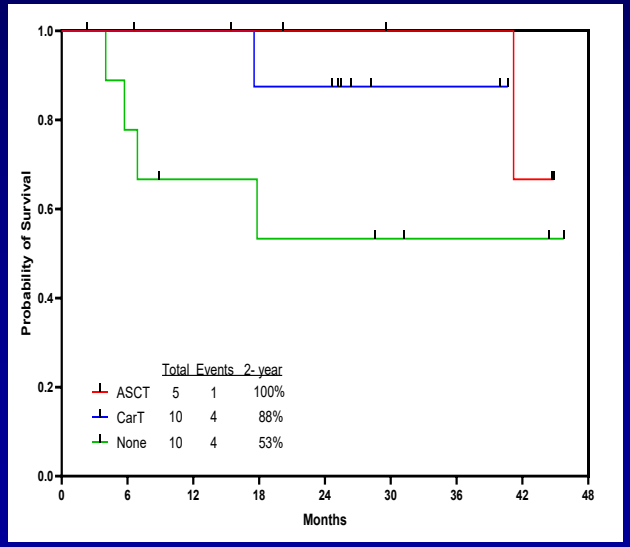
“Dose-Dense” Mini-HCVD + InO + Blina in R/R B-ALL

- 25 pts; median age 39 yr (19–62); 12% ≥60 yr
- 88% S1, 12% S2+, 16% high risk, 24% *TP53*, 12% prior ASCT, 32% prior blina
- ORR: 100%, CR 79%
- Best MRD-FCM 95% (73% post-C1), best MRD NGS 95% (38% post-C1)
- Median F/U 25 mo – 2-yr EFS 69%, 2-yr OS 77%
- 2-yr OS by consolidation: CAR 88%, none 53%, ASCT 100%

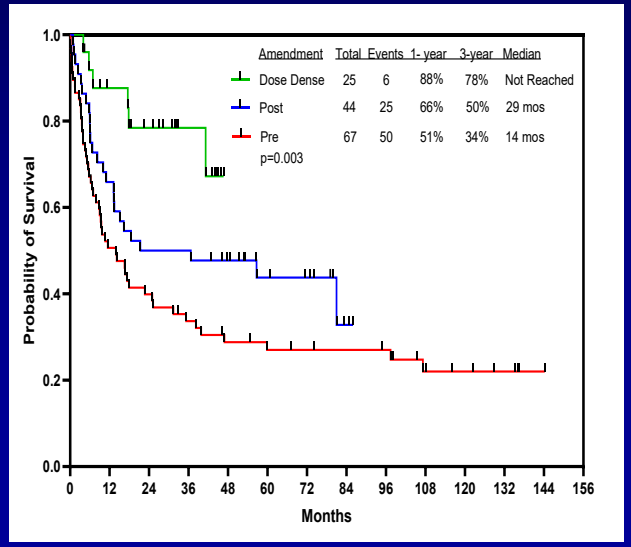
Outcomes



OS by consolidation



OS by regimen

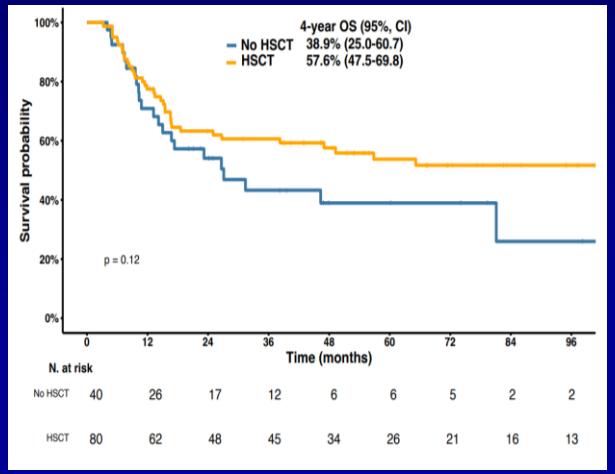


Goulart N, et al. *Blood*. 2025;146(suppl 1):3350.

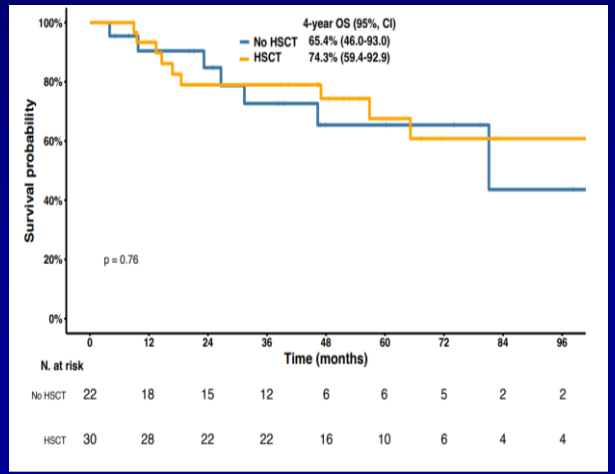
Outcomes After S1 in R/R ALL: Role of Allo-SCT Consolidation

- N = 172/203 pts (85%; 137 Ph-neg, 35 Ph-pos) in CR2; median age 48 (18-88); 10% ≥70 yr
- 9% Rx prior blina and/or InO, 11% prior allo-SCT; 54% CR1D ≥12 mo
- S1: 38% both blina and InO, 41% InO, 21% blina
  - MRD-neg EOC1 60%
- Consolidation 47% allo-SCT, 9% CAR T Rx, 44% none
- Median F/U 56 mo: 4-yr OS 46%, 4-yr RFS 38%, 4-yr CIR 42%
- MVA for worse OS: older age, MRD-pos EOC1, CR1D <12 mo

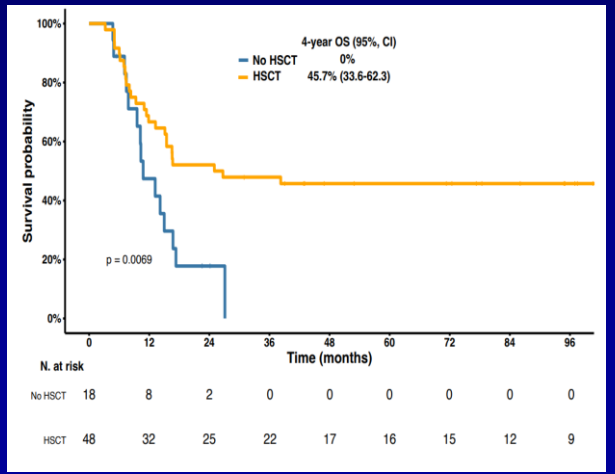
OS: Overall



OS: MRD-neg EOC1 and CR1D ≥12 mo



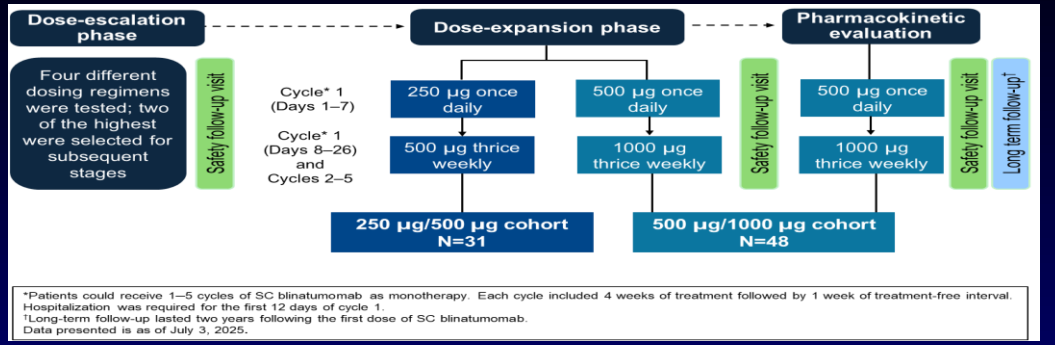
OS: MRD-pos EOC1 or CR1D <12 mo



Azevedo, et al. *Blood*. 2025;146(suppl 1):549.

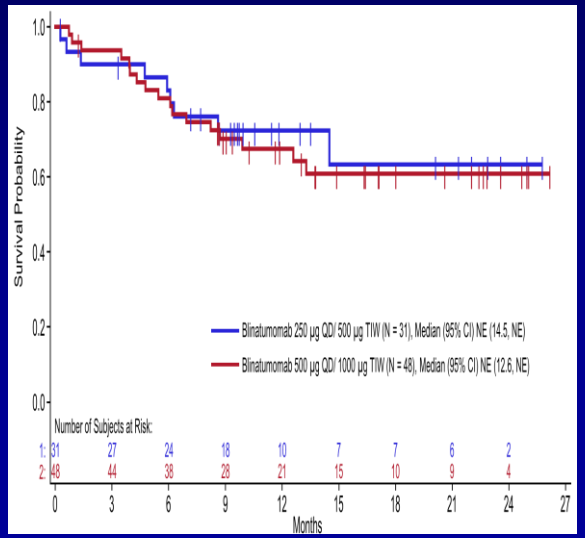
Subcutaneous Blina in R/R ALL

- 88 pts Rx: 36 at 250/500; 52 at 500/1000
- Rx 250 mcg daily × 7 then 500 mcg TIW; or 500/1000
- Median age 49 yr (19–78). Median prior Rxs 2 (1–7). Baseline BM blasts 60%
- Prior CAR T 16%, blina 19%, InO 33%, HSCT 28%
- Median F/U 14 mo

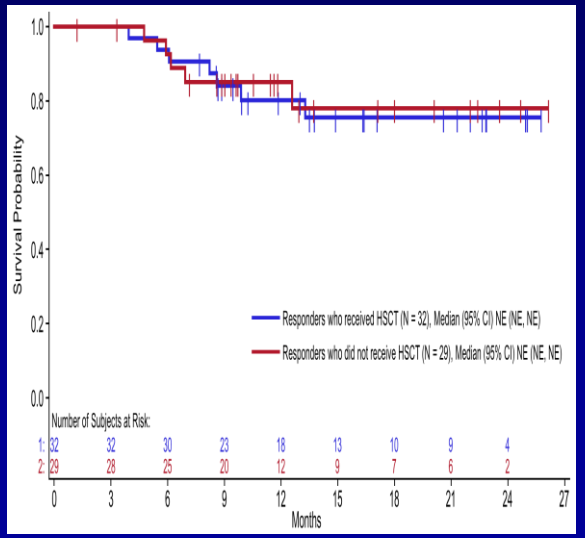


Parameter	250/500	500/1000
CR-CRh, %	75	79
CR-CRh-CRi, %	89	92
MRD-neg, %	89	93
No relapses, %	0	3
12-mo OS, %	72	67
G3 CRS, %	17	23
G3 ICAN, %	28	27

OS



OS of responders by HSCT status



Jabbour E, et al. *Lancet Haematol.* 2025;12(7):e529-e541; Jabbour E, et al. *Blood*. 2025;146(suppl 1):5117.

Surovatamig (AZD0486; CD3-CD19 BiTE) in R/R ALL

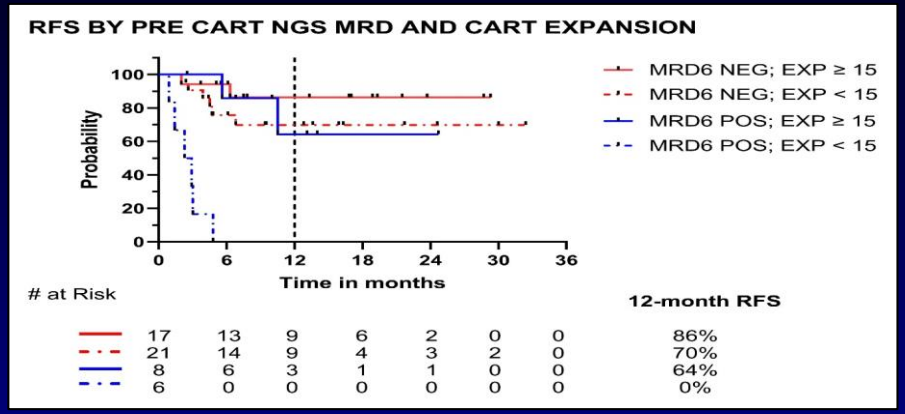
- 42 pts Rx in dose-escalation. Target dose 2.4, 7.2, or 15 mg
- Median age 50 yr (17–77); median prior Rx 3 (2–9); 60% >50% BM blasts; 62% prior CD19 Rx – 43% blina and 40% and/or CAR T Rx
- Median F/U 6.2; median DOR NR; DLTs in 2 pts (both resolved)
- G2+ CRS 9%, G3 ICAN in 1 pt

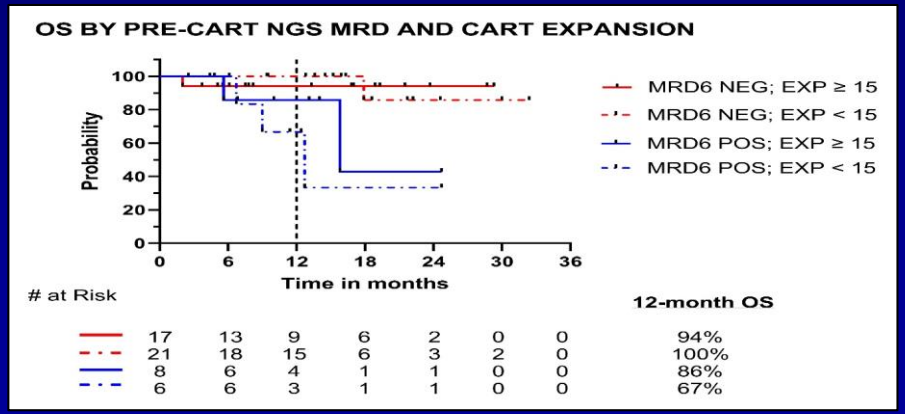
Parameter	Total	2.4 mg	7.2 mg	15 mg
No Rx	42	13	12	17
CR-CRi-CRh, %	67	46	58	82
CR, %	50	38	42	65
MRD-neg, %		83	100	100

- Among pts Rx at 15 mg, ORR 88% with prior blina, 73% with prior CAR T, 86% in double-exposed, and 86% in triple-exposed pts
- 6 of 7 pts with Ph-pos ALL demonstrated CR

Aldoss I, et al. *Blood*. 2025;146(suppl 1):3345.

Brexu-Cel as Consolidation Rx in B-ALL: Peak CAR T Expansion ≥15 Cells/µL and MRD Status





- 52 pts; 10 FL, 25 S1, 17 S2+

Pre-CAR T BM MRD6 NEG n = 38
- Peak CAR T expansion ≥15 (n = 17) → Relapse 1/17 (6%)
- Peak CAR T expansion <15 (n = 21) → Relapse 6/21 (29%)

Pre-CAR T BM MRD6 POS n = 14
- Peak CAR T expansion ≥15 (n = 8) → Relapse 1/8 (13%)
- Peak CAR T expansion <15 (n = 6) → Relapse 6/6 (100%)

Jain N, et al. *Blood*. 2025;146(suppl 1):6543.

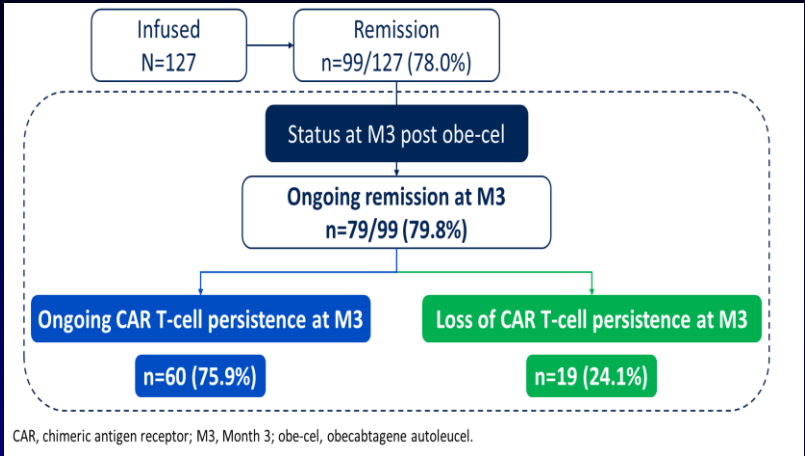
CD19 CAR T-Cell (Tisa-Cel) Rx for CNS Relapse

- 43 pts Rx; median age 8 yr (1–26); 91% first CNS relapse; 84% isolated CNS
- No cranial XRT for this relapse; Flu/Cy LD; dose 5 × 10^6 CART19 cells/kg
- At infusion: 14% BM disease, 19% CNS2, 5% CNS by imaging, no CNS3
- Day 28 CNS remission 98%; best overall response 100%; all MRD-neg
- Median F/U 12 mo: 1-yr and 2-yr EFS 90%; 1-yr and 2-yr OS 100% and 90%, respectively
- Among pts with F/U >4-yr (n = 14): 4-yr EFS 65%, 4-yr OS 93%
- CART19 detectable in CSF at day 28 in 98%
- CRS 77% (mostly G1; 1 G2 and 1 G4); ICANs in 4 pts (9%; no G4+). Fully recovered

DiNofia A, et al. *Blood*. 2025;146(suppl 1):648.

Obe-Cel in Adults With R/R ALL: T-Cell Persistence at Month 3

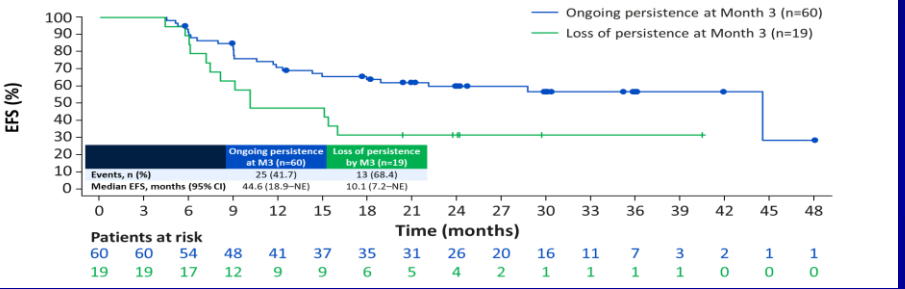
- 127 pts Rx; CR/CRi 78% (99/127)
- Median F/U 33 mo; 2-yr OS 46% 2-yr EFS 43%
- M3: 80% (79/99) pts in ongoing CR/CRi; 76% (60/79) CAR T-cell persistence
- T-cell persistence: median age 54 (20–81), 40% ≥3 prior Rx; 37% prior blina; 60% prior allo; median BM blast at LD 30%
- Median OS (T-cell persistence vs loss): 44.6 mo vs NR
  - 2-yr OS 69% vs 53%; 2-yr EFS 60% vs 32%
- 70/79 in CR/CRi at M3 did not receive allo-SCT
  - 49/54 (91%) pts in NGS MRD-neg CR at M3
  - 2-yr EFS 56% vs 33% (T-cell persistence vs loss)
  - 2-yr OS 68% vs 56% (T-cell persistence vs loss)



CAR, chimeric antigen receptor; M3, Month 3; obe-cel, obecabtagene autoleucel.

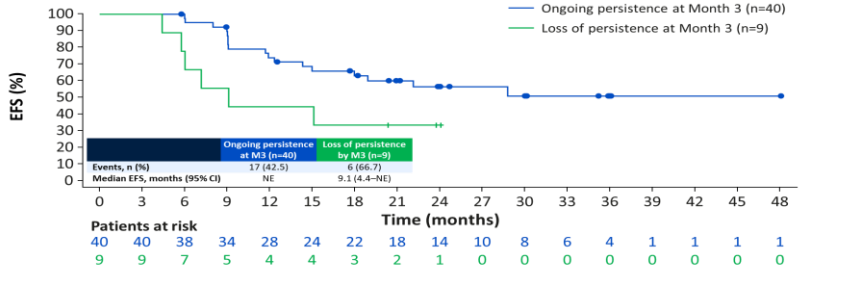
EFS by M3 persistence

Figure 2. Kaplan-Meier plot of EFS in patients with ongoing remission at M3, stratified by persistence status at M3.



EFS by M3 persistence and MRD-neg without HSCT

Figure 4. Kaplan-Meier plot of EFS in patients with ongoing remission at M3, no post-obe-cel SCT, and deep MRD-negative remission, stratified by persistence status at M3.



Roddie C, et al. *Blood*. 2025;146(suppl 1):5118.

*KMT2A*r = Adverse in R/R ALL Rx With Brexu-Cel (ROCCA database)

- 286 pts: 169 high-risk (HR), 117 standard-risk (SR)
  - HR: *TP53* (14%), *KMT2Ar* (9%), *CRLF2r* (29%), other (38%)
- HR more often Hispanic (50% vs 28%), similar disease burden, hx blina/InO/allo, CNS dx, EMD at time of apheresis compared to SR pts
- CR/CRi: 91% (HR) vs 90% (SR); MRD-neg: 79% vs 78%; median OS: 22 vs 21 mo

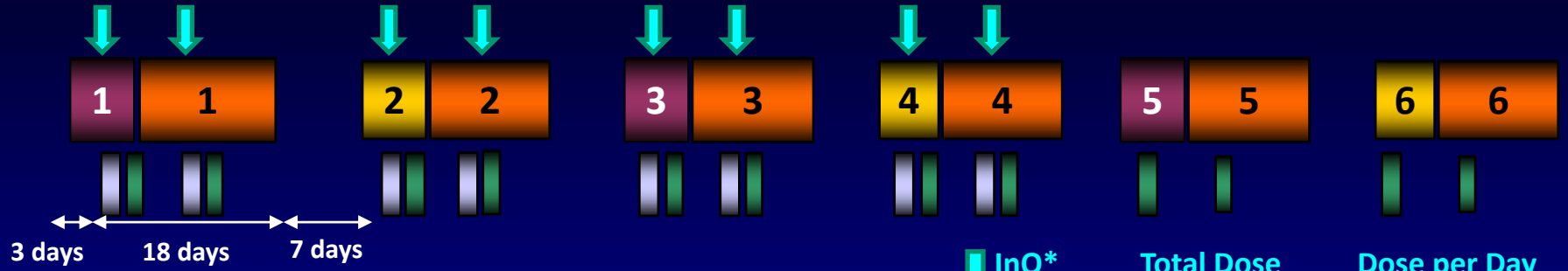
Parameter	*KMT2A*	*TP53*	*CRLF2*	Other
CR-CRi, %	71	95	95	89
Median EFS, mo	4	7	12	11
Median OS, mo	7	22	NR	NR

- *KMT2A*r-only subgroup with inferior OS (HR 3.17, 95% CI 1.53–6.58, *P* = .02)

Leonard, et al. *Blood*. 2025;146(suppl 1):3365.

Dose-Dense Mini-HCVD + InO + Blina + CAR T Cells in ALL: The CURE

Induction phase: C1–C6



InO*	Total Dose (mg/m^2)	Dose per Day (mg/m^2)
C1	0.9	0.6 D2, 0.3 D8
C2–4	0.6	0.3 D2 and D8

Total InO dose = 2.7 mg/m^2

*Ursodiol 300 mg TID for VOD prophylaxis.

Consolidation phase

CAR T consolidation

Mini-HCVD

Mini-MTX-Ara-C

Rituximab

IT MTX, Ara-C

Blinatumomab

Global Leukemia Academy

ALL Patient Case Discussion

Ashish Bajel, MBBS, FRACP, FRCPA
Peter MacCallum Cancer Centre and Royal Melbourne Hospital, Melbourne, Australia

APTITUDE HEALTH®

Ph-Negative ALL

Dr Ashish Bajel

Peter MacCallum Cancer Centre and
The Royal Melbourne Hospital

Initial Presentation

- 48-yr old-male patient with 4 weeks of fatigue, body aches, and rash on legs, May 2025
- No lymphadenopathy, organomegaly, few petechiae
- Hematology

  Hb 128 g/L WBC 1.7 × 10^9/L Diff 20% blasts, platelet count 66 × 10^9/L

  BMAT – 80% blasts – acute lymphoblastic leukemia

  Immunophenotyping – Blasts CD10+, CD19+, CD20+(dim), CD22+, CD34+, CD45+(dim)

  Cytogenetics: 46 XY

  FISH neg for *BCR::ABL* and *KMT2A*

  Gain of 11q and 22q (hyperdiploid clone vs masked hypodiploidy)

  NGS: *EZH2* (VAF 84%); *TP53* (VAF 83%)

  No CSF or testicular involvement

Progress

- Commenced with Hyper-CVAD chemotherapy
- CR after Hyper-CVAD 1A
- Completed Hyper-CVAD 1B (Ara-C MTX)
- Commenced blinatumomab consolidation with alternating Hyper-CVAD blocks
- Planned for 4 cycle of blinatumomab and chemotherapy in consolidation

Planned Treatment

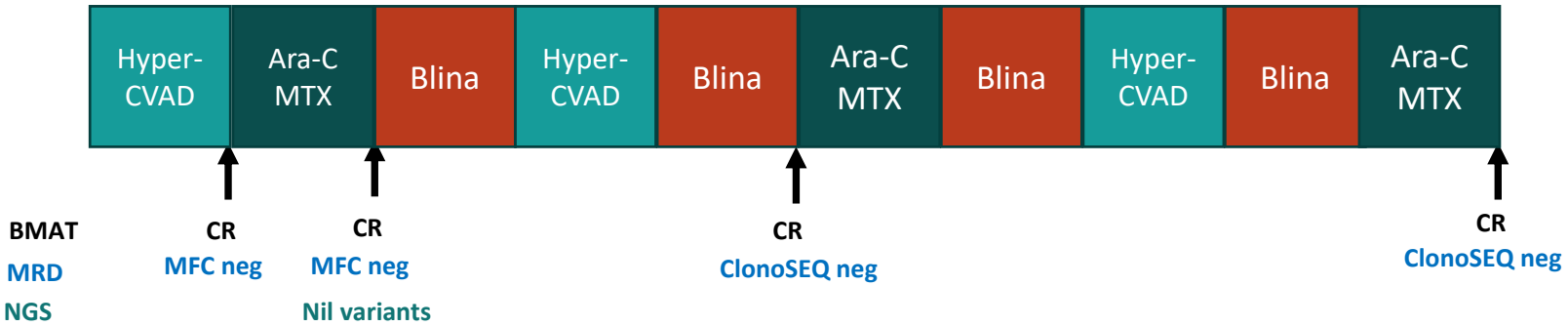
Question

01) How would you monitor this patient?

- Flow cytometry MRD
- Molecular MRD – IGH PCR or NGS (ClonoSEQ)
- NGS – *TP53* and *EZH2* clones

Progress

- Hyper-CVAD, A Block – BM CR
  - MRD on flow cytometry negative
- B Block, Ara-C MTX – BM NGS – no variants detected
- Post-cycle 2 blinatumomab – ClonoSEQ negative (approx. day 100)



Question

02) Your decision on risk stratification and allogeneic transplant would be based on (transplant fitness assumed):

- MRD response
- Genomics (*TP53*)
- Treatment (chemotherapy only, blinatumomab + chemotherapy)

Progress

- Completed consolidation chemotherapy and blinatumomab
- Continued in CR
- HLA mismatched donors identified
- Extensive discussion with patient – declined allogeneic transplant
- Continues on maintenance

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Opportunities and Challenges in Everyday Practice (Q&A session)

APTITUDE HEALTH®

Ph-Negative ALL

Incorporating blinatumomab in management of newly diagnosed ALL

- Timing and number of cycles of blinatumomab
- Relevance of rituximab in the era of blinatumomab
- Treating MRD positivity after blinatumomab

Risk stratification and transplant indication in blinatumomab era

- MRD and timing
- Baseline genomic profile
  - Hypodiploidy, *KMT2A* rearrangements, complex karyotype, *TP53*, Ph-like – *CRLF2* vs others
- EM disease
- WCC at diagnosis

Ph-Positive ALL

Blinatumomab and TKI-based treatment for Ph-positive ALL

Chemotherapy	MRD monitoring	Risk stratification and role of allogeneic SCT
• Chemotherapy free vs chemotherapy reduced	• *BCR::ABL* vs molecular NGS vs flow cytometry • One platform vs two platforms	• WCC at diagnosis • MRD • *IKZF1* plus • EM disease

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Conclusions and Wrap-Up

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