



POST-SAN DIEGO 2023

Novità dal Meeting della Società Americana di Ematologia

Novità dal Meeting della Società Americana di Ematologia

Verona

Palazzo della Gran Guardia

15-16-17 Febbraio 2024

COORDINATORI

Angelo Michele Carella

Pier Luigi Zinzani

BOARD SCIENTIFICO

Paolo Corradini

Mauro Krampere

Fabrizio Pane

Adriano Venditti

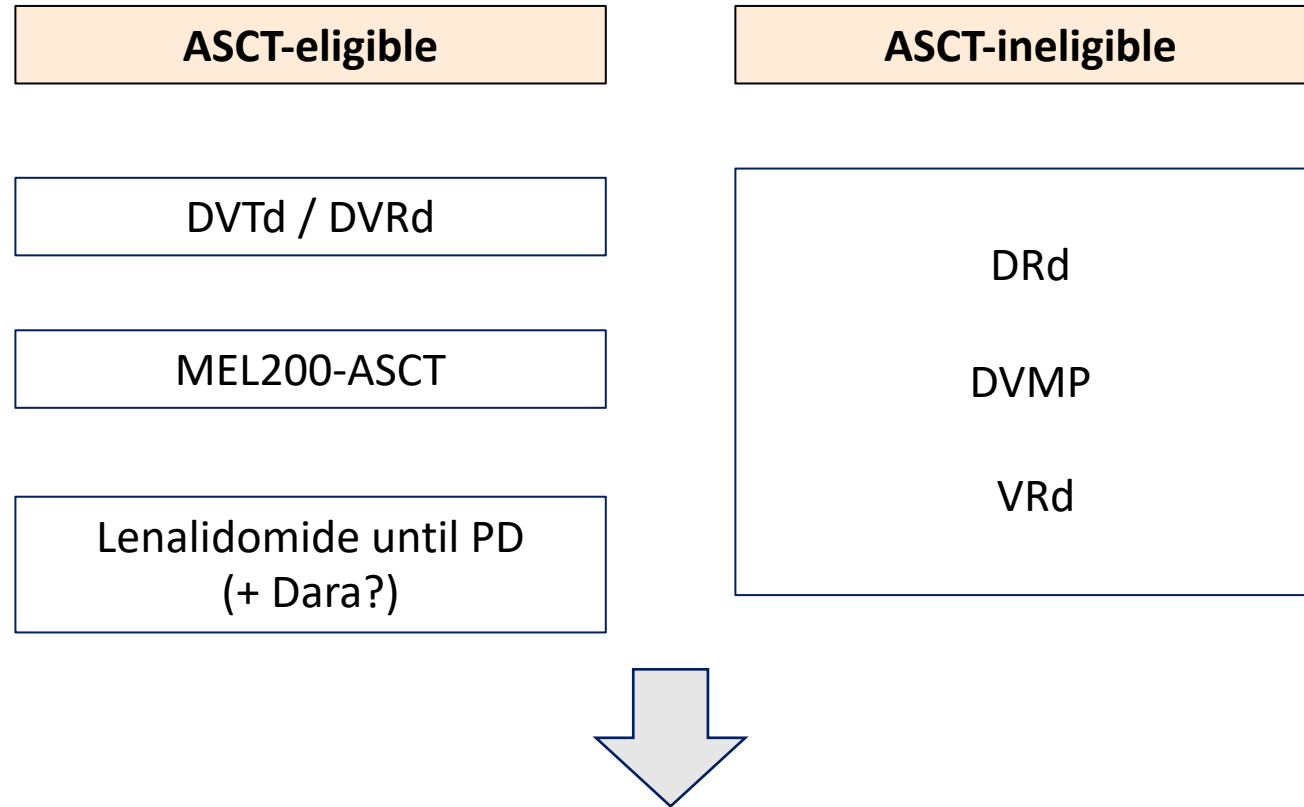




Disclosures of Name Surname

Company name	Research support	Employee	Consultant	Stockholder	Speakers bureau	Advisory board	Other
Janssen			x			x	x
Sanofi						x	x
BMS						x	x
GSK						x	x
Takeda						x	
Amgen						x	
Pfizer						x	
Menarini Stem-line							x

FRONTLINE TREATMENT for NDMM PATIENTS



What treatment at relapse for triple-class exposed/refractory patients?

Agenda

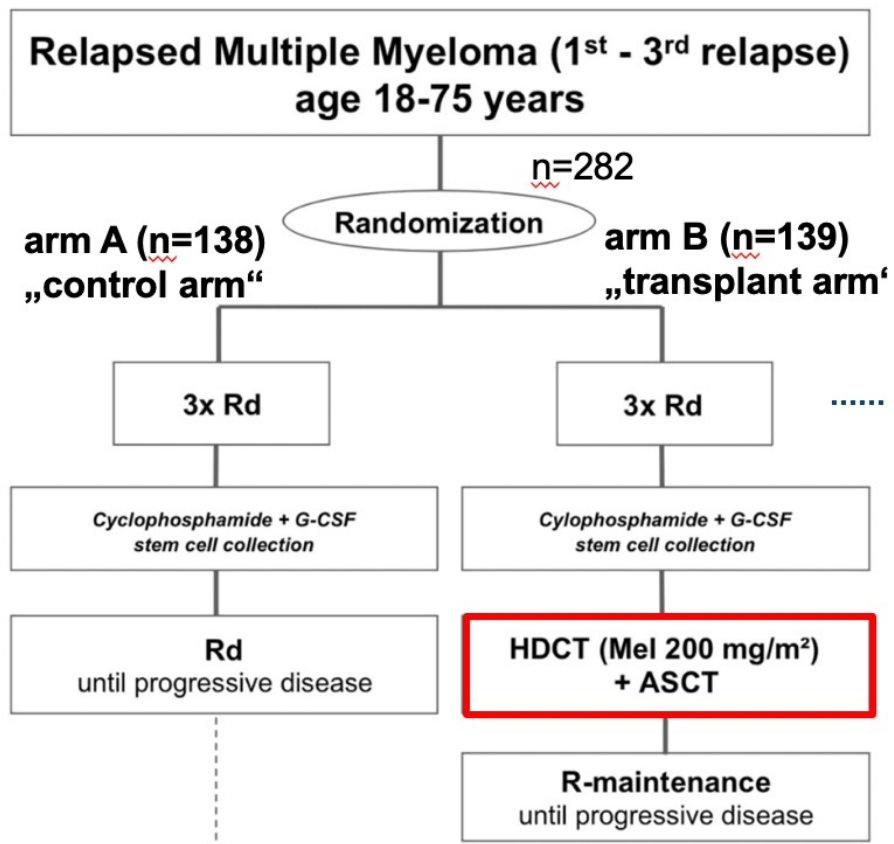
- Is there a role for salvage autologous stem cell transplant?
- Will CAR T-cell therapy become the standard salvage option at 1° relapse?
- How can we effectively bridge patients from 1° relapse to T-cell redirecting therapy in late lines?
- Patients with t(11;14): is it time for target therapy?

Agenda

- Is there a role for salvage autologous stem cell transplant?
- Will CAR T-cell therapy become the standard salvage option at 1° relapse?
- How can we effectively bridge patients from 1° relapse to T-cell redirecting therapy in late lines?
- Patients with t(11;14): is it time for target therapy?

Is salvage ASCT still fashionable?

Study design Rd-ASCT-R vs Rd

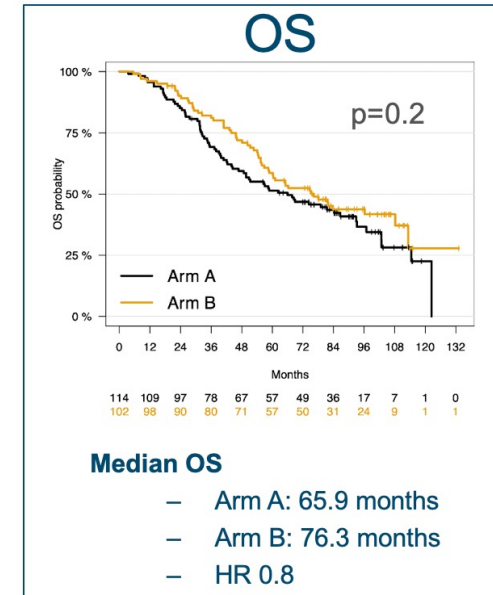
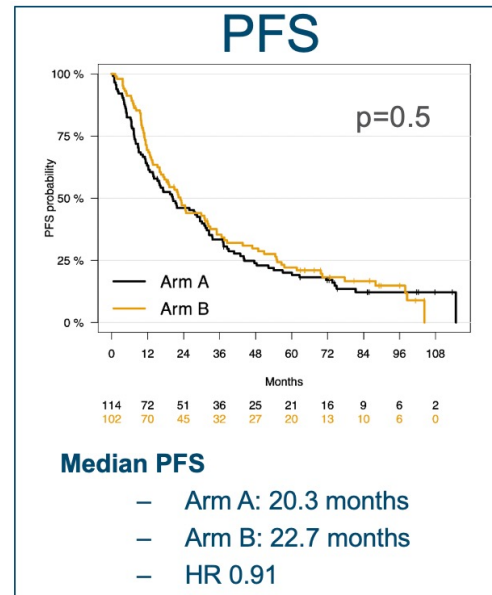


Baseline characteristics

	arm A (n=138) n (%)	arm B (n=139) n (%)
Interval diagnosis to randomization [years]	4.1 (0.7-16.5)	3.9 (0.2-19.4)
Prior lines of therapy		
1	129 (94)	131 (94)
2	8 (6)	5 (4)
3	1 (1)	3 (2)
Frontline HDCT/ASCT		
Single	130 (94)	129 (93)
Tandem	71 (55)	83 (64)
59 (45)	46 (36)	
Prior therapy		
Bortezomib	106 (77)	107 (77)
Thalidomide	25 (18)	31 (22)
Lenalidomide	18 (13)	12 (9)
Interferone	9 (7)	9 (6)
Chemoth. only	10 (7)	14 (10)

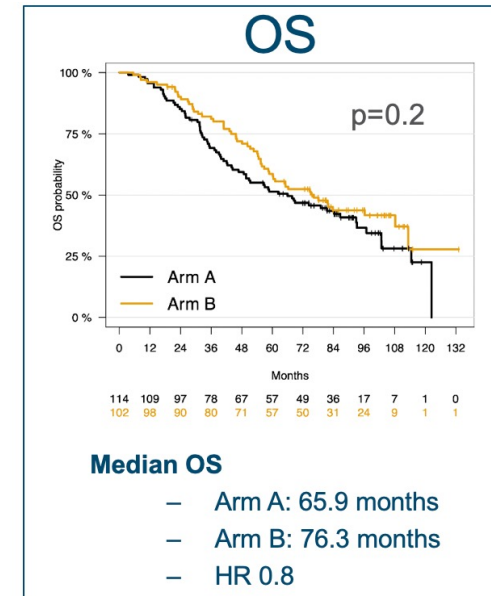
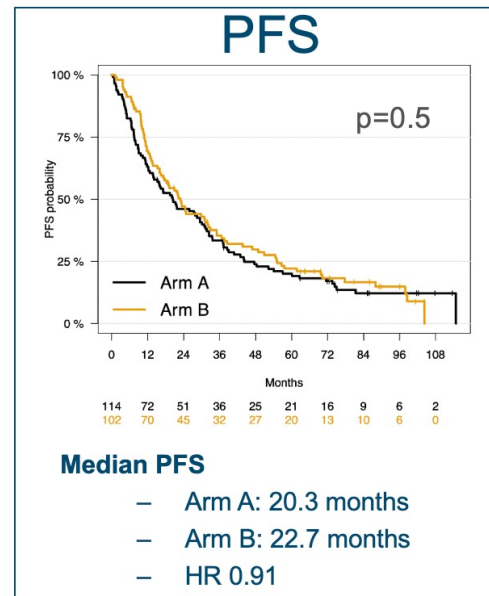
No PFS and OS advantage for patients receiving ASCT intensification

Intention-to-treat



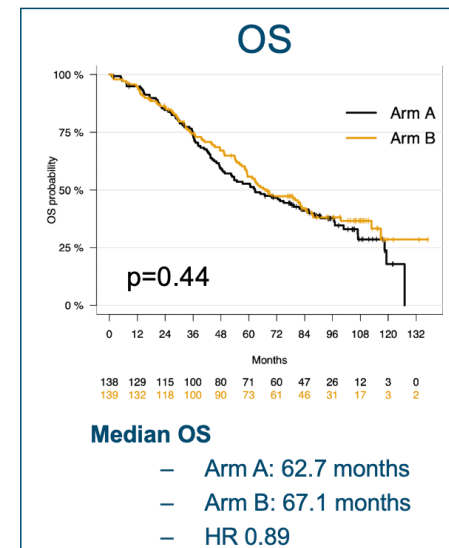
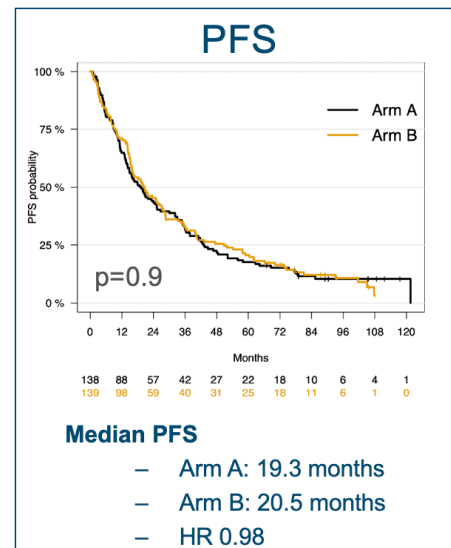
No PFS and OS advantage for patients receiving ASCT intensification

Intention-to-treat



In multivariate analysis, noPFS/OS difference in any of the subgroups analyzed (ISS, FISH, duration of 1° remission)

Per protocol



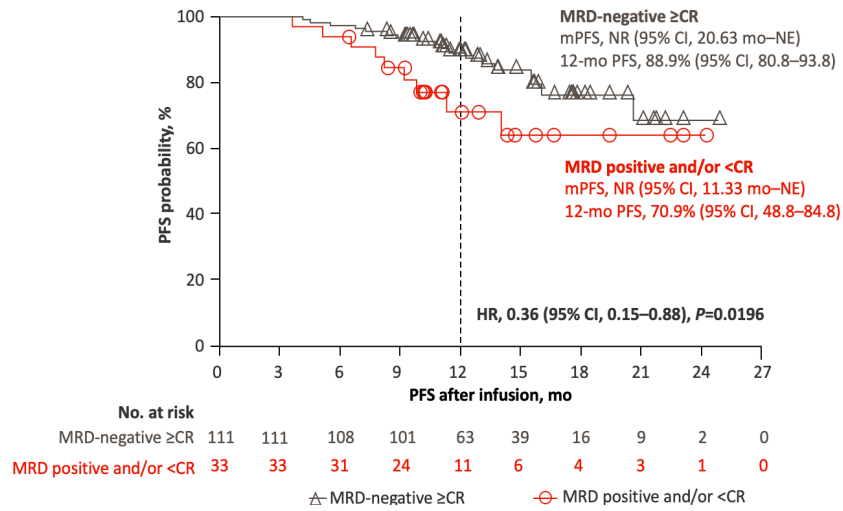
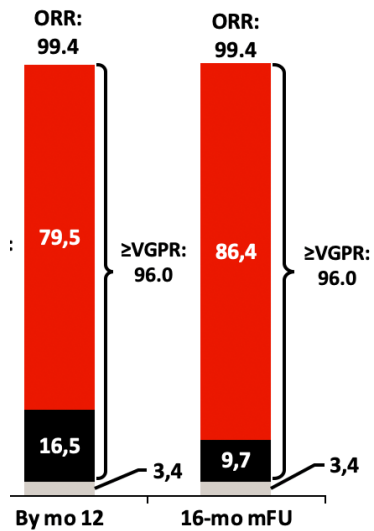
Agenda

- Is there a role for salvage autologous stem cell transplant?
- Will CAR T-cell therapy become the standard salvage option at 1° relapse?
- How can we effectively bridge patients from 1° relapse to T-cell redirecting therapy in late lines?
- Patients with t(11;14): is it time for target therapy?

Advancing anti-BCMA CAR T-cell to early lines

CARTITUDE-4: 1-3 prior lines, lenalidomide-refractory Per protocol analysis

PFS after infusion in patients by achievement of MRD negativity and best response in MRD-evaluable patients

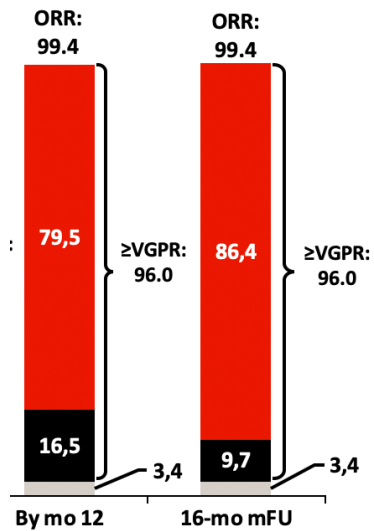


MRD neg 10^{-5} :
88%*

* Among evaluable patients

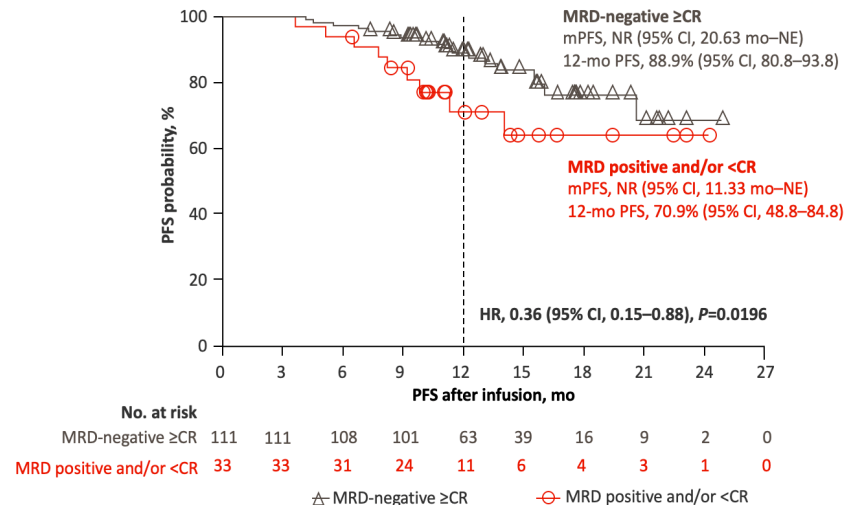
Advancing anti-BCMA CAR T-cell to early lines

CARTITUDE-4: 1-3 prior lines, lenalidomide-refractory Per protocol analysis

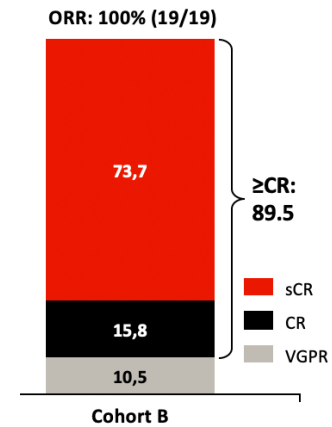


MRD neg 10^{-5} :
88%*

PFS after infusion in patients by achievement of MRD negativity and best response in MRD-evaluable patients

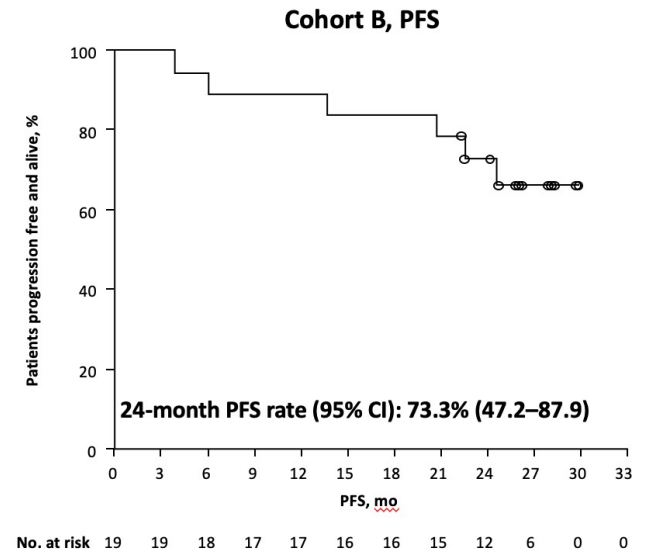


CARTITUDE-2: Early relapse PD \leq 12 months after ASCT or start of therapy



MRD neg 10^{-5} *
93.3% (14/15)

Cohort B

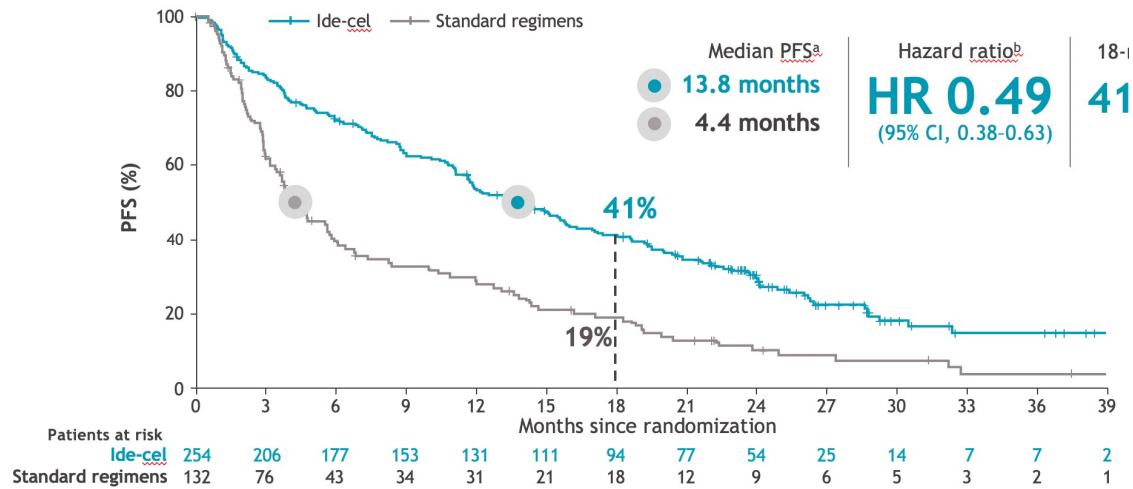


24-month PFS and OS rates: 73%
and 84%

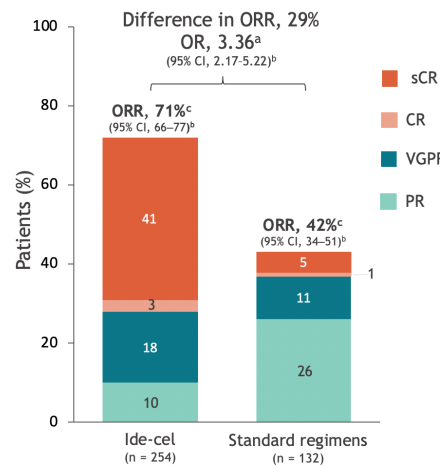
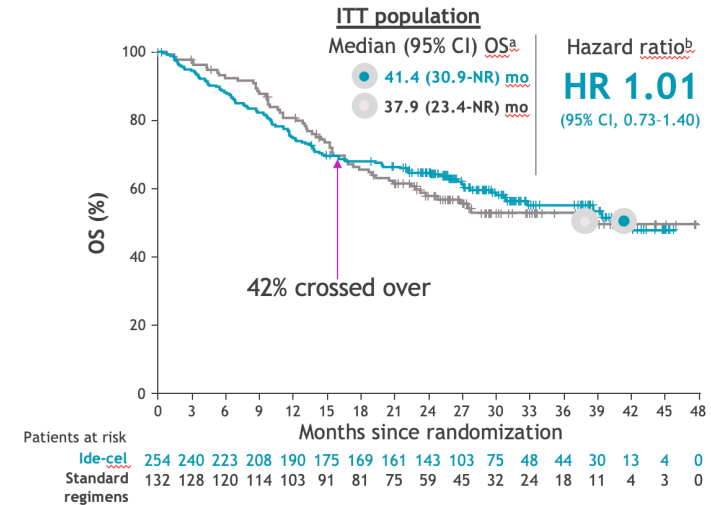
* Among evaluable patients

Advancing anti-BCMA CAR T-cell to early lines

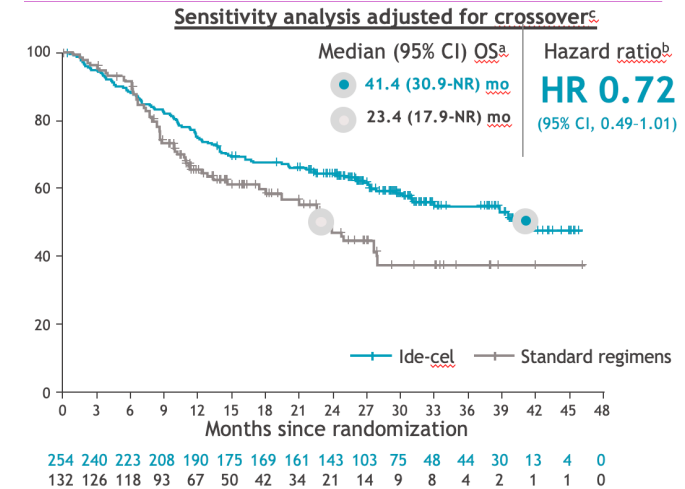
Progression-free survival



Overall survival: ITT and by cross-over



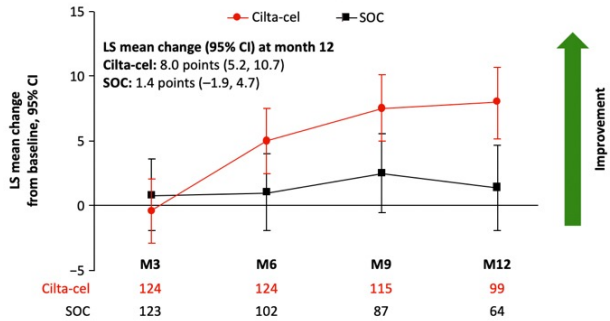
Secondary endpoint	Ide-cel (n = 254)	Standard regimens (n = 132)
CR rate (95% CI), % ^d	44 (38-50)	5 (2-9)
MRD-negative CR rate, n/N (%) (95% CI) ^e	57/163 (35) (28-42)	1/54 (2) (0-5)
Median (95% CI) DOR, months	16.6 (12.1-19.6)	9.7 (5.5-16.1)
Median PFS2, months	23.5	16.7
HR (95% CI)	0.79 (0.60-1.04)	



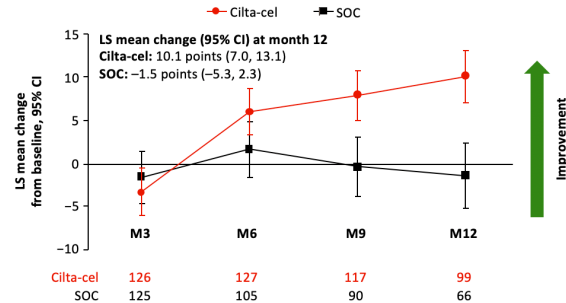
Anti-BCMA CAR T-cell therapy improves QoL in RRMM

CARTITUDE-4: ciltacel vs SoC 1-3 prior lines

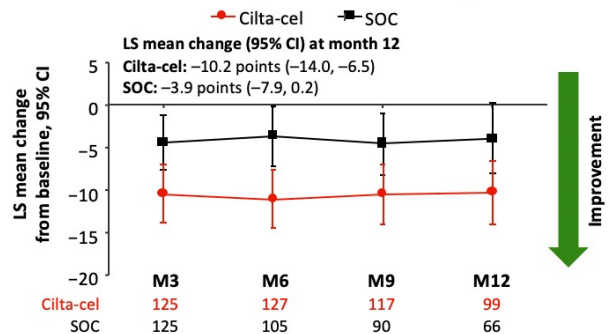
LS mean change from baseline in visual analogue scale^b



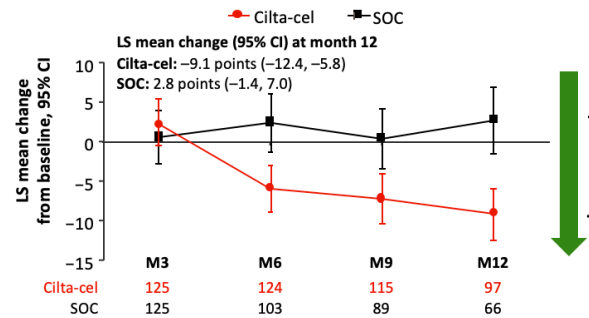
LS mean change from baseline in global health status^b



LS mean change from baseline in pain^a

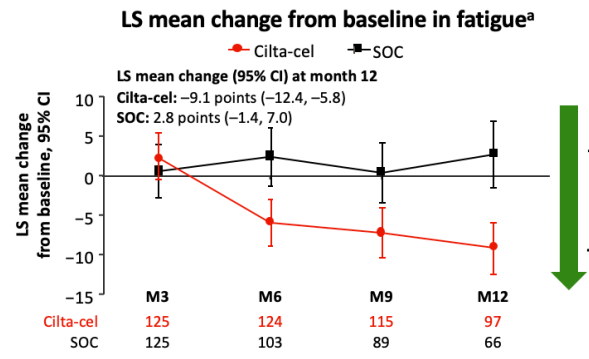
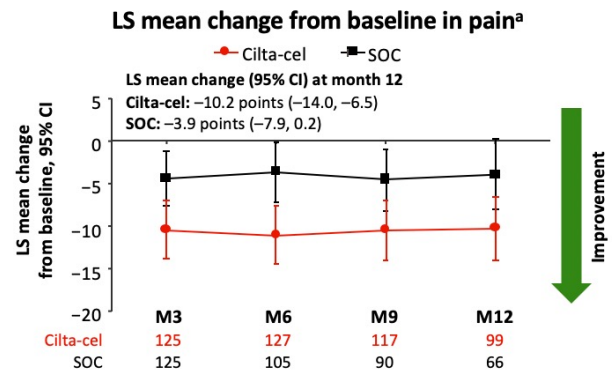
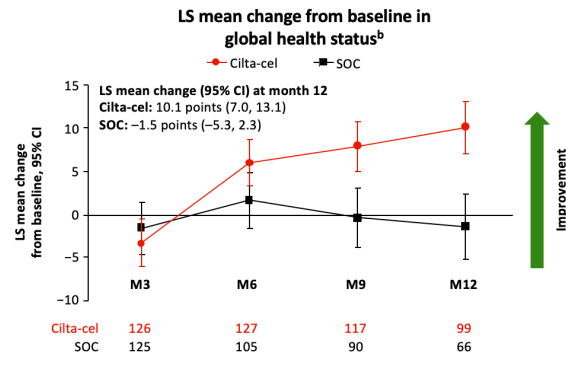
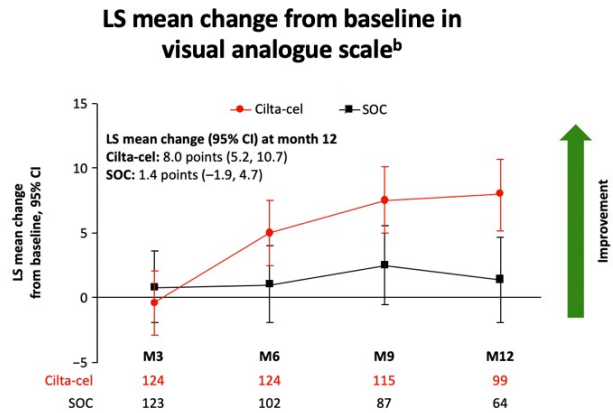


LS mean change from baseline in fatigue^a

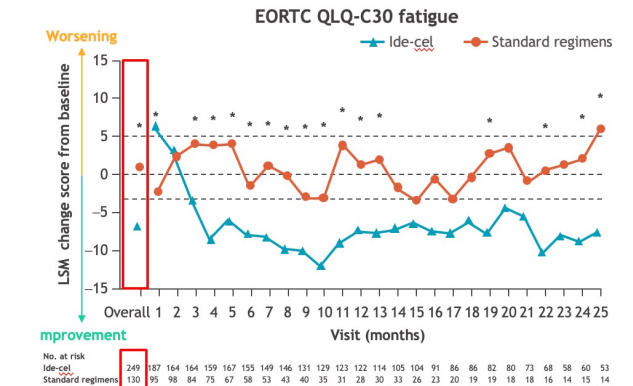
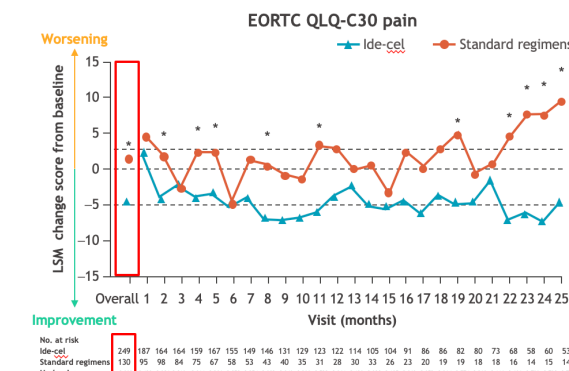
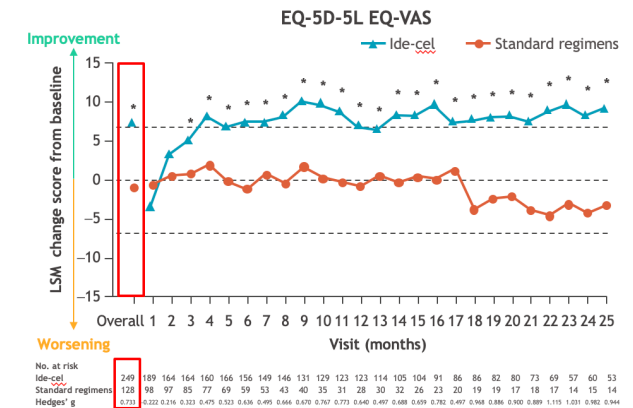
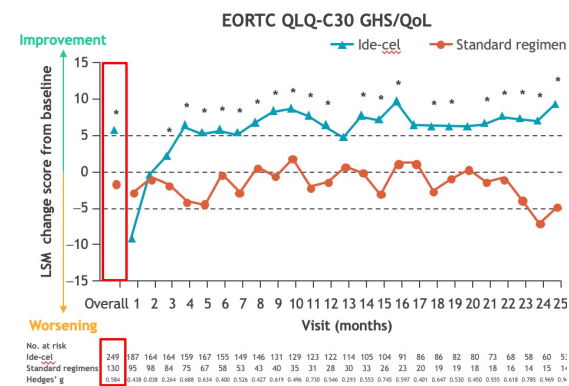


Anti-BCMA CAR T-cell therapy improves QoL in RRMM

CARTITUDE-4: ciltacel vs SoC 1-3 prior lines



KarMMa-3: Ide-cel vs SoC 2-4 prior lines of therapy



Agenda

- Is there a role for salvage autologous stem cell transplant?
- Will CAR T-cell therapy become the standard salvage option at 1° relapse?
- How can we effectively bridge patients from 1° relapse to T-cell redirecting therapy in late lines?
- Patients with t(11;14): is it time for target therapy?

Pomalidomide and dexamethasone with or without cyclophosphamide in RRMM patients

Multicenter, phase 3, randomized study

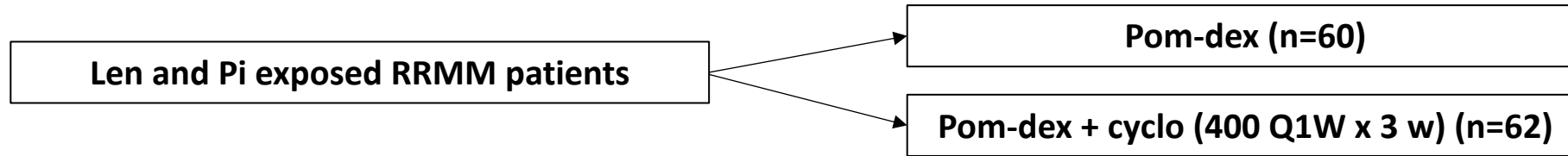
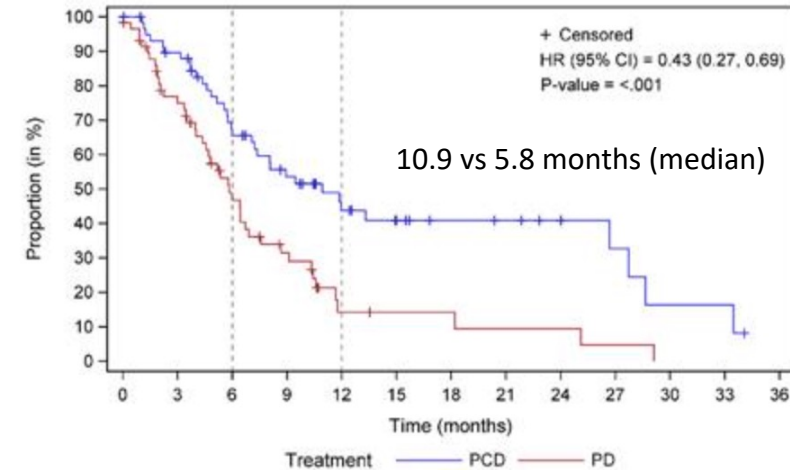


Table 1. Baseline Patient Characteristics

Characteristic N (%) / median [range]	PCD (N=62)	PD (N=60)
Age	68.5 [47-88]	67.2 [48-85]
Male gender	35 (56.5)	29 (48.3)
ISS stage I or II	45 (72.6)	45 (75.0)
ECOG performance score 0 or 1	55 (88.7)	50 (83.3)
Number of lines of prior treatment	3.0 [1-6]	3.0 [1-6]
Previously received therapies		
(i) Bortezomib	47 (75.8)	46 (76.7)
(ii) Carfilzomib	24 (38.7)	18 (30)
(iii) Ixazomib	7 (11.3)	8 (13.3)
(iv) Lenalidomide	61 (98.4)	60 (100)
(v) Thalidomide	34 (54.8)	28 (46.7)
(vi) Cyclophosphamide	29 (46.8)	19 (31.7)
Prior autologous transplant	27 (43.5)	24 (40)

Overall response rate, 55% vs 32%
Median DOR, 12 vs 5.7 months

Progression-free survival



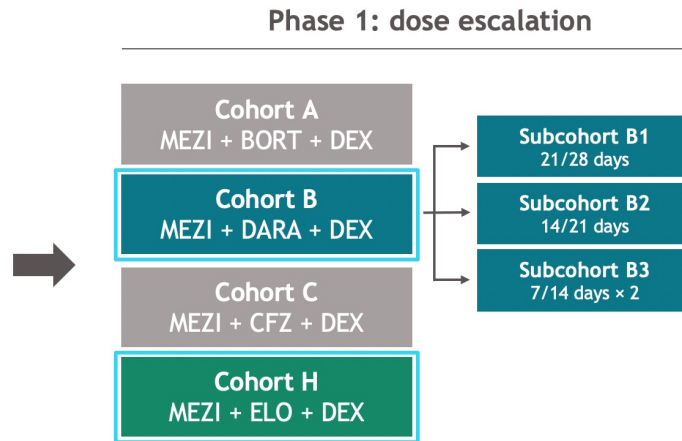
Treatment-emergent AEs: 82% vs 82% (neutropenia, anemia and infections)
Death rate, 2% vs 3%

Mezigdomide + dex and dara or elo RRMM: CC-92480-MM-002 trial

Mezigdomide is an oral CRBN E3 ligase modulator (CELMoD™) showing in preclinical studies rapid degradation of target proteins and apoptosis in MM cell lines and synergy with DEX, PIs, and anti-CD38 mAb

Key eligibility criteria

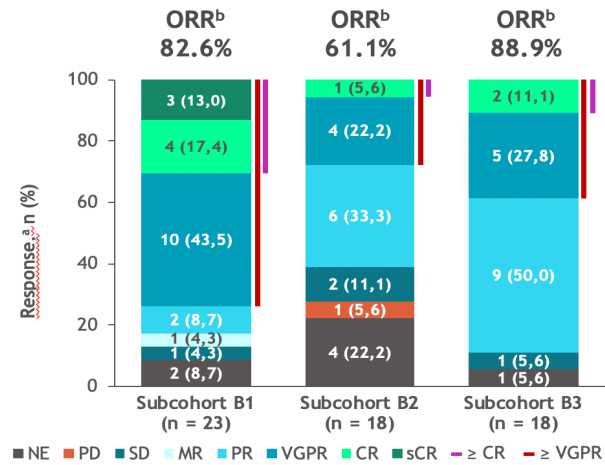
- Documented diagnosis of MM and measurable disease
- 2-4 prior regimens
- Documented disease progression during or after the last anti-myeloma therapy
- MR or better to ≥ 1 prior regimen



Characteristic ^a	Cohort B MeziDd (N = 59)	Cohort H MeziEd (N = 20)
Prior therapies, median (range), n		
Stem cell transplantation, n (%)	3 (2–5)	3 (2–5)
PI, n (%)	8 (13.6)	4 (20.0)
IMiD agent, n (%)	58 (98.3)	19 (95.0)
IMiD/CELMoD agent refractory, n (%)	59 (100)	20 (100)
LEN refractory, n (%)	50 (84.7)	16 (80.0)
POM refractory, n (%)	42 (71.2)	14 (70.0)
IBER refractory, n (%)	18 (30.5)	6 (30.0)
IBER refractory, n (%)	1 (1.7)	0
PI refractory, n (%)	37 (62.7)	9 (45.0)
BORT refractory, n (%)	18 (30.5)	5 (25.0)
IXA refractory, n (%)	15 (25.4)	1 (5.0)
CFZ refractory, n (%)	6 (10.2)	6 (30.0)
Prior anti-CD38 mAb, n (%)	5 (8.5)	17 (85.0)
Anti-CD38 mAb refractory, n (%)	0	16 (80.0)
DARA refractory, n (%)	0	16 (80.0)
ISA refractory, n (%)	0	1 (5.0)
Triple-class refractory,^b n (%)	0	6 (30.0)

Mezigdomide-based combinations in RRMM: efficacy and safety results

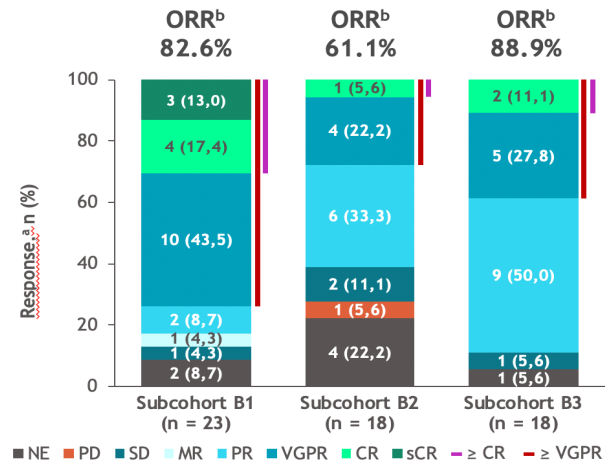
MeziDaradex



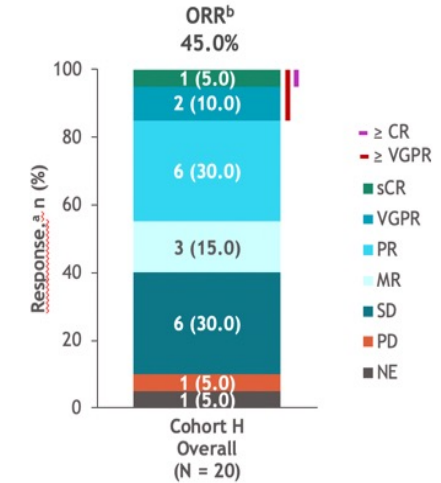
Most common (≥ 25% all grade) TEAEs and events of interest, ^a n (%)	Cohort B MeziDd					
	Subcohort B1 21/28 days (n = 23)		Subcohort B2 14/21 days (n = 18)		Subcohort B3 7/14 days × 2 (n = 18)	
	All grade	Grade 3/4	All grade	Grade 3/4	All grade	Grade 3/4
Neutropenia	19 (82.6)	16 (69.6)	11 (61.1)	11 (61.1)	12 (66.7)	11 (61.1)
Febrile neutropenia	1 (4.3)	1 (4.3)	0	0	0	0
Anemia	12 (52.2)	6 (26.1)	3 (16.7)	0	2 (11.1)	0
Thrombocytopenia	9 (39.1)	3 (13.0)	3 (16.7)	0	5 (27.8)	2 (11.1)
Non-hematologic TEAEs						
Fatigue	11 (47.8)	1 (4.3)	5 (27.8)	0	3 (16.7)	0
Infections	18 (78.3)	9 (39.1) ^c	7 (38.9)	1 (5.6) ^d	12 (66.7)	3 (16.7) ^e

Mezigdomide-based combinations in RRMM: efficacy and safety results

MeziDaradex



MeziElodex



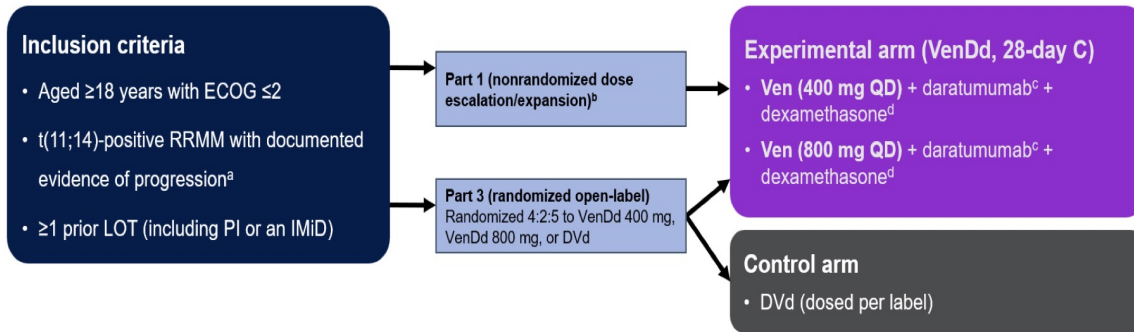
Most common (≥ 25% all grade) TEAEs and events of interest, ^a n (%)	Cohort B MeziDd					
	Subcohort B1 21/28 days (n = 23)		Subcohort B2 14/21 days (n = 18)		Subcohort B3 7/14 days × 2 (n = 18)	
	All grade	Grade 3/4	All grade	Grade 3/4	All grade	Grade 3/4
Neutropenia	19 (82.6)	16 (69.6)	11 (61.1)	11 (61.1)	12 (66.7)	11 (61.1)
Febrile neutropenia	1 (4.3)	1 (4.3)	0	0	0	0
Anemia	12 (52.2)	6 (26.1)	3 (16.7)	0	2 (11.1)	0
Thrombocytopenia	9 (39.1)	3 (13.0)	3 (16.7)	0	5 (27.8)	2 (11.1)
Non-hematologic TEAEs						
Fatigue	11 (47.8)	1 (4.3)	5 (27.8)	0	3 (16.7)	0
Infections	18 (78.3)	9 (39.1) ^c	7 (38.9)	1 (5.6) ^d	12 (66.7)	3 (16.7) ^e

Most common (≥ 25% all grade) TEAEs and events of interest, ^a n (%)	Cohort H MeziEd (N = 20)	
	All grade	Grade 3/4
Hematologic TEAEs		
Neutropenia	10 (50.0)	8 (40.0)
Febrile neutropenia	1 (5.0)	1 (5.0)
Thrombocytopenia	7 (35.0)	2 (10.0)
Non-hematologic TEAEs		
Diarrhea	8 (40.0)	0
Fatigue	7 (35.0)	1 (5.0)
Infections	13 (65.0)	7 (35.0) ^c

Agenda

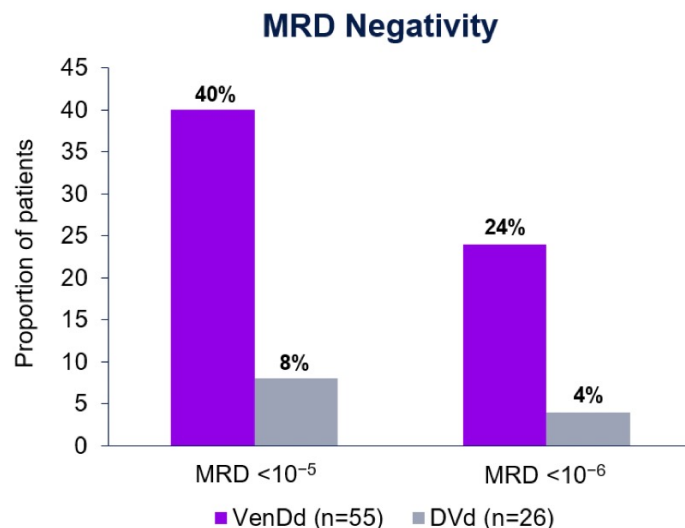
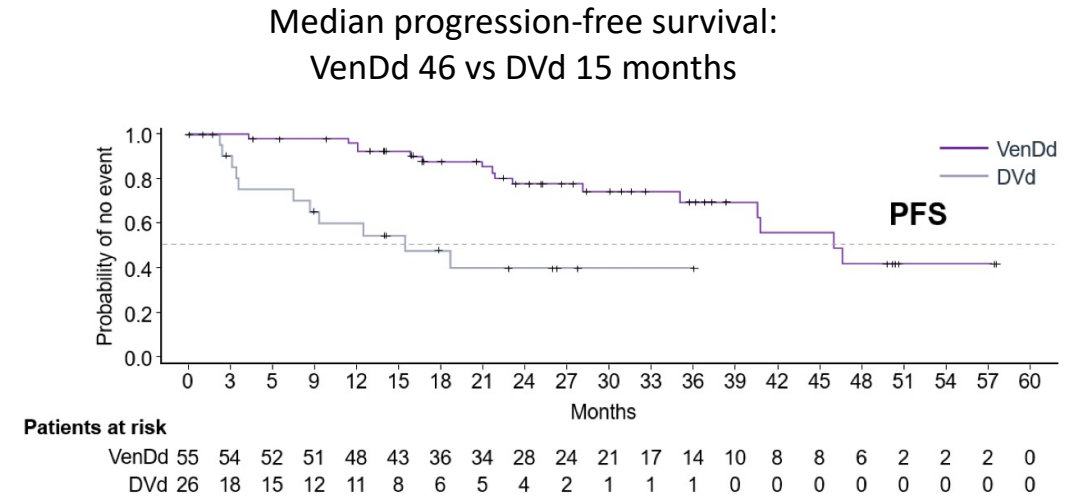
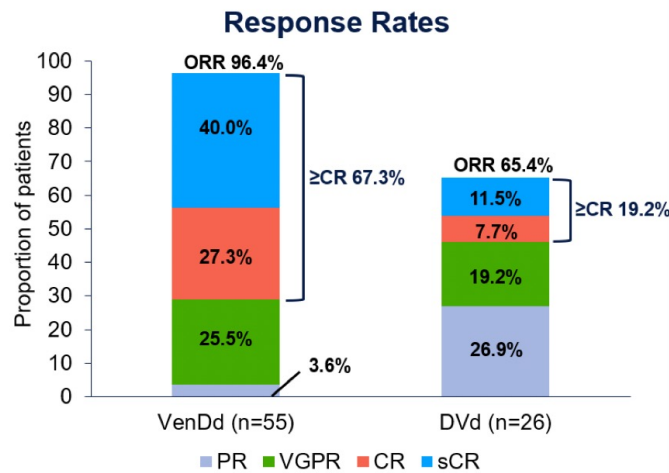
- Is there a role for salvage autologous stem cell transplant?
- Will CAR T-cell therapy become the standard salvage option at 1° relapse?
- How can we effectively bridge patients from 1° relapse to T-cell redirecting therapy in late lines?
- Patients with t(11;14): is it time for target therapy?

Daratumumab, venetoclax and dexamethasone vs. daratumumab, bortezomib and dexamethasone in t(11;14) RRMM patients



	VenDd (n=55)	DVd (n=26)
Age, median (range), years	62.0 (31–88)	69.5 (51–80)
Prior LOT		
1	29 (52.7)	10 (38.5)
2	9 (16.4)	13 (50.0)
3	8 (14.5)	2 (7.7)
≥3	9 (16.4)	1 (3.8)
Prior CD38 MAb	1 (1.8)	1 (3.8)
Len-refractory	41 (74.5)	20 (76.9)
Bort-refractory	16 (29.1)	3 (11.5)
ISS stage		
Stage 1	19 (34.5)	6 (23.1)
Stage 2	17 (30.9)	7 (26.9)
Stage 3	9 (16.4)	5 (19.2)
NE	7 (12.7)	8 (30.8)
Unknown	3 (5.5)	0
ECOG status		
Grade 1	24 (43.6)	16 (61.5)
Grade 2	1 (1.8)	2 (7.7)
High-risk cytogenetics		
Del(17p)	6 (10.9)	6 (23.1)
Gain(1q) (≥3 copies)	14 (25.5)	5 (19.2)

Venetoclax, daratumumab and dexamethasone vs. daratumumab, bortezomib and dexamethasone in t(11;14) RRMM patients



	VenDd (n=55)	DVd (n=24) ^a
Treatment exposure (months)		
Duration, mean (SD)	26.3 (14.4)	11.9 (10.3)
Duration, median (range)	24.8 (1.2–57.8)	9.6 (0.5–35.8)
All grade AE	54 (98.2)	23 (95.8)
Grade ≥ 3 AE	43 (78.2)	18 (75.0)
All grade neutropenia	9 (16.4)	1 (4.2)
Grade 3/4 neutropenia	7 (12.7)	0
All grade thrombocytopenia	4 (7.3)	8 (33.3)
Grade 3/4 thrombocytopenia	2 (3.6)	6 (25.0)
Any SAE	28 (50.9)	7 (29.2)
All deaths	8 (14.5)	5 (20.8)
SAE resulting in death ^b	1 (1.8)	0

Conclusions

Is there a role for **salvage** autologous stem cell **transplant**?



Salvage ASCT is becoming marginal in the era of triplets and immunotherapy

Will **CAR T-cell therapy** become the standard salvage option at 1° relapse?



BCMA CAR T-cells: new SoC at 1° relapse; high efficacy and improved QoL as compared to SoC triplets

How can we effectively **bridge** patients from 1° relapse to **T-cell redirecting** therapy in late lines?



Pomalidomide is the backbone for standard salvage triplets
MEZI: safe and potentially more effective
(ORR: MeziDaradex 78% vs DPd 68%; MeziElodex 45% vs EloPd 32%)

Patients with **t(11;14)**: is it time for **target therapy**?



Venetoclax confirmed to be effective in RRMM with t(11;14): high MRD 10⁵ neg rates (40%) and median PFS (46 months): third time's a charm?

ACKNOWLEDGEMENTS

**Division of Hematology, Department of Molecular Biotechnology and Health Sciences,
University of Torino
Azienda Ospedaliero-Universitaria Città della Salute e della Scienza di Torino, Torino, Italy**

Prof . Benedetto Bruno

Clinical trial and multiple myeloma Unit:

Dr. Sara Bringham
Dr. Francesca Gay
Dr. Alessandra Larocca
Dr. Giulia Benevolo
Dr. Stefania Oliva
Dr. Roberto Mina
Dr. Mattia D'Agostino
Dr. Giuseppe Bertuglia
Dr. Lorenzo Cani
Dr. Andrea Casson
Dr. Tommaso Picardi

Laboratory Staff
Transplant Unit
Nurses
Data Managing Staff
Statisticians

European Myeloma Network (EMN)
Prof. Mario Boccadoro



**UNIVERSITÀ
DI TORINO**

