Highlights from IMW 2021

1-2 febbraio 2022
Bologna
Royal Hotel Carlton

Tommaso Caravita di Toritto
UOSD Ematologia ASL Roma 1

Terapia di prima linea del paziente non candidato ad ASCT

Fit

Priva di alchilanti e di anti-CD38

Coordinatore Scientifico
Michele CAVO

Comitato Scientifico
Michele CAVO
Maria Teresa PETRUCCI

Conflitti di interesse

Advisory Board: Amgen, Sanofi, GSK.

Moderatore/relatore a congressi: Amgen

PI in trials clinici: BMS, Janssen-Cilag, Takeda

Spese per partecipazione a congressi: Amgen, BMS, Celgene, Janssen-Cilag

Modern paradigms of treatment of multiple myeloma

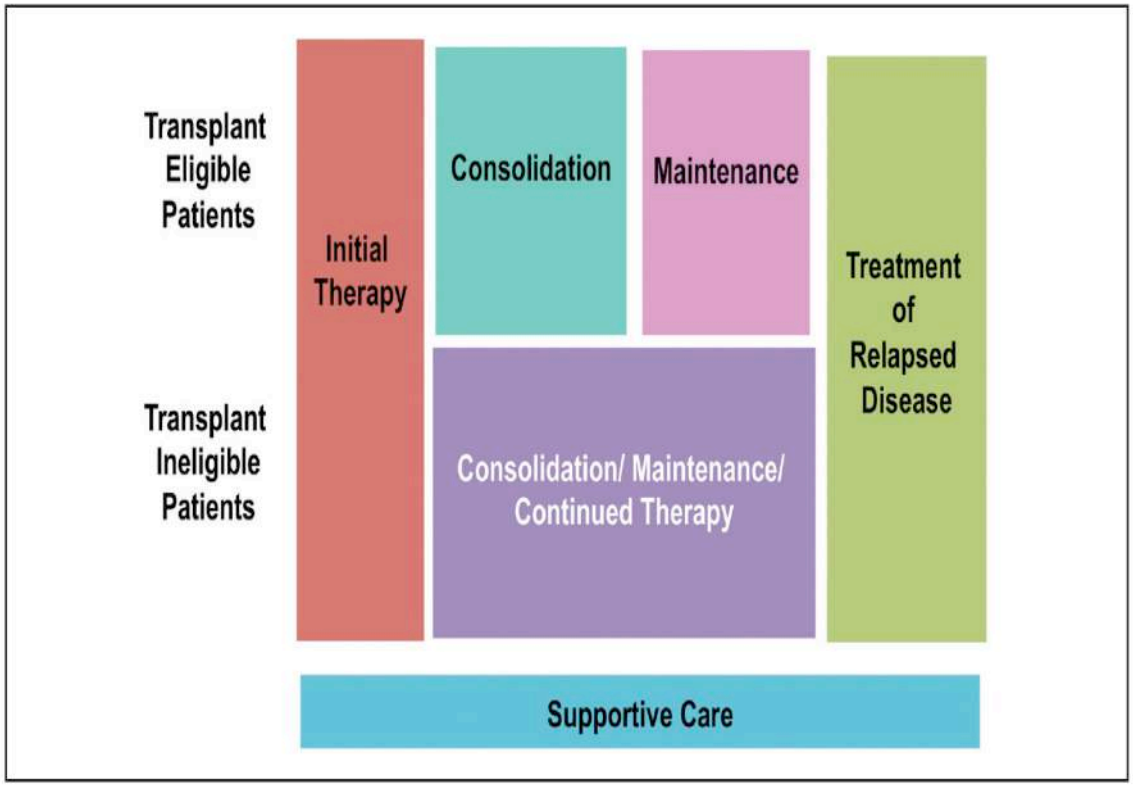


Figure 1. Managing Myeloma: The Components

Anderson and Mikheal, Blood and Marrow Transplantation 2016

Combination therapy ……. early delivered

Rational: intratumoral clonal heterogeneity
lower number of genetic mutations at diagnosis
immune system ilness compromised at diagnosis

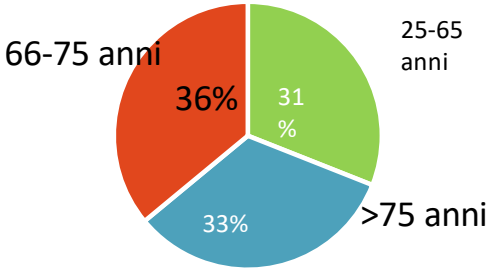
Continous therapy

Rational: MM is incurable disease
Concern of selection of resistences: no evidence (better PFS-2 in trials)
Relevant in the elderly patients: therapies following recurrence are more difficult

MRD negativity as treatment goal

The most powerful surrogate for survival, regardless of therapy
Critical milestone on the path to developing a cure of multiple myeloma

Landgren et al., JIM 2017
Cejalvo et al.,Exp Rev Hem



Età mediana alla diagnosi: 69 aa

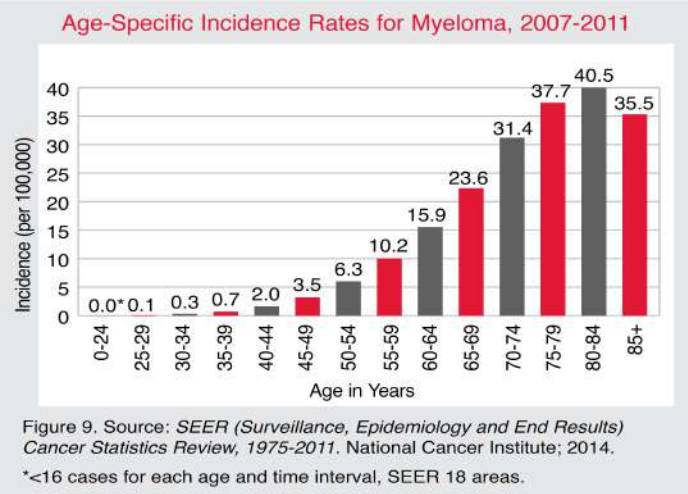
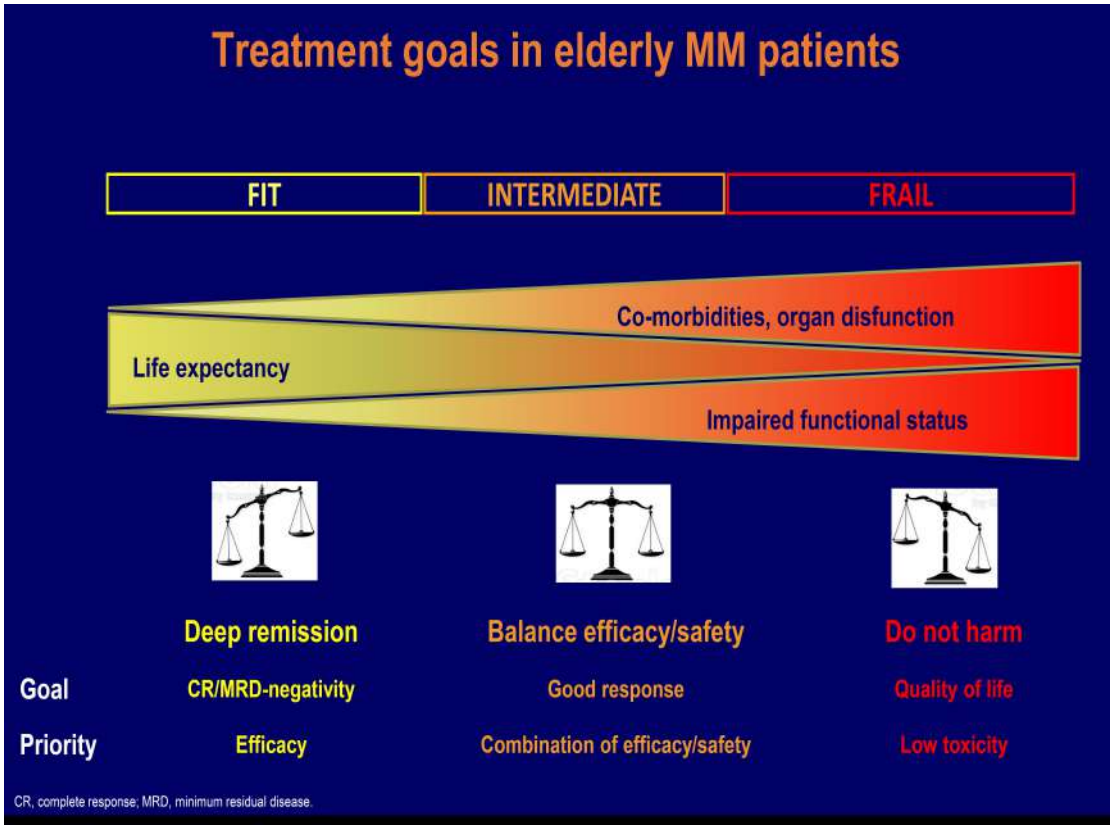


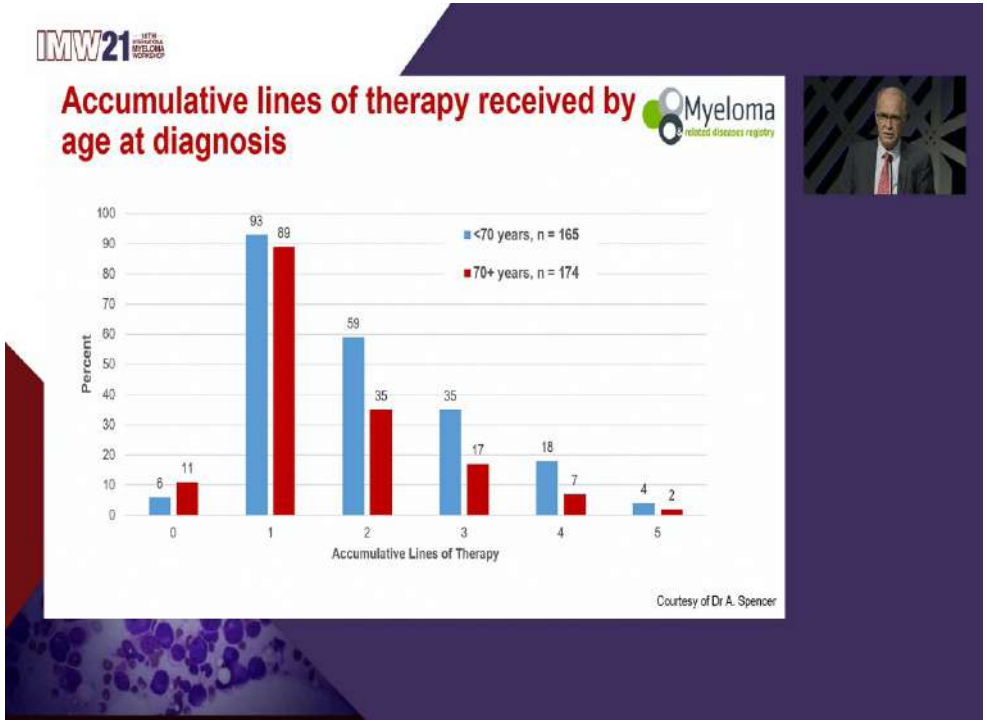
Figure 9. Source: *SEER (Surveillance, Epidemiology and End Results) Cancer Statistics Review, 1975-2011*. National Cancer Institute; 2014.

*<16 cases for each age and time interval, SEER 18 areas.



Treatment of NDMM non TE

- Epidemiology



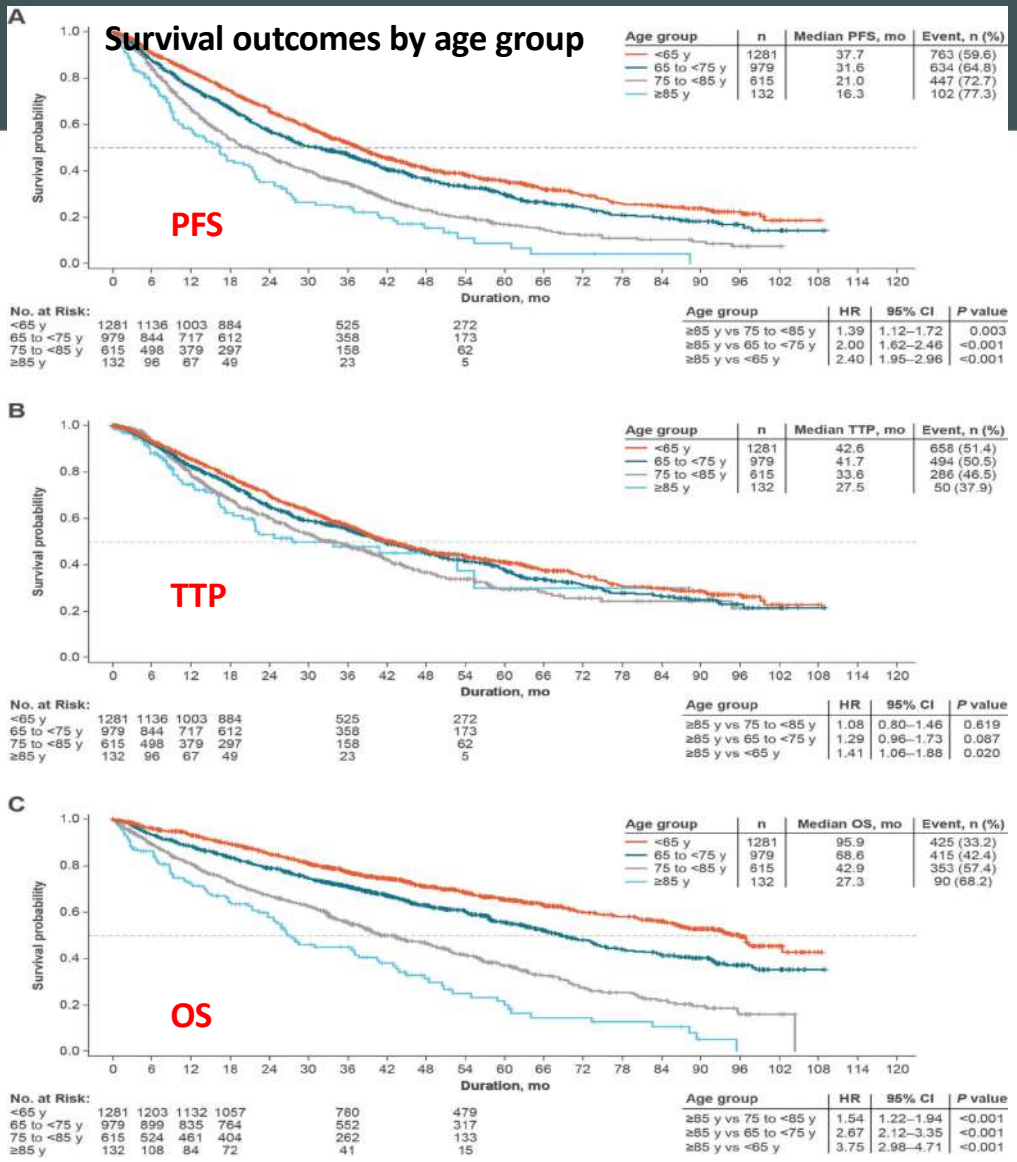
- Frailty
  - IMWG frailty score: long term outcome

Variable		HR (CI 95%)	P	SCORE
AGE	Age <75 years	1	-	0
	Age 75-80 years	1.13 (0.76-1.69)	0.549	1
	Age >80 years	2.40 (1.56-3.71)	<0.001	2
CHARLSON INDEX	Charlson ≤1	1	-	0
	Charlson ≥2	1.37 (0.92-2.05)	0.125	1
ADL SCORE	ADL >4	1	-	0
	ADL≤4	1.67 (1.08-2.56)	0.02	1
IADL SCORE	IADL >5	1	-	0
	IADL≤5	1.43 (0.96-2.14)	0.078	1

ADDITIVE TOTAL SCORE	PATIENT STATUS
0	FIT
1	INTERMEDIATE
≥2	FRAIL

  - PFS and OS frailty level in the FIRST study
  - Gait speed and survival outcomes in elderly patients with hematological malignancies

Facon T, 18° IMW Plenary Session 2021



Treatment patterns and outcomes in elderly patients with NDMM: results from the Connect®MM Registry

Elderly patients (≥75 years old) typically received ≤1 novel agent (83–93%), whereas **younger patients (<75 years old) received ≥2 novel agents (33–43%)** in 1 L versus elderly pts (8–17%). Fewer elderly patients received triplet regimens as 1 L therapy (18–40%) versus younger patients (56–66%). Stem cell transplant as part of 1 L therapy was more common among younger patients (aged <65 years, 44%; 65–74 years, 25%) versus the elderly (aged 75–84 years, 2%; ≥85 years, 0%).

The most common initial therapies in the ≥85-year group were bortezomib–dexamethasone (Vd), lenalidomide–dexamethasone (Rd), lenalidomide–bortezomib–dexamethasone (RVd), and dexamethasone (Supplemental Fig. 1). Younger patients typically received RVd, Vd, cyclophosphamide–bortezomib–dexamethasone, or Rd as initial therapy.

Lee HC et al, Blood Cancer J 2021

First-Line MM Treatment: Key AEs, Considerations

Drug Class	Name	Key Potential AEs	Nursing Considerations
Proteasome inhibitors	Bortezomib[1]	PN, T, M, F	IV, SC; monitor platelets; safe in renal failure
	Carfilzomib[2]	PN, C, M, F, DVT	Hydration, cardio/pulmonary
	Ixazomib[3]	PN, T, GI, R	Reduce dose for hepatic/**renal** disease
Immunomodulatory agents	Lenalidomide[4]	DVT, M, BD, R, D	ASA or LMWH if high risk for **clots**; weekly CBC x 8 wk
	Thalidomide[5]	DVT, M, BD	As above
	Pomalidomide[6]	DVT, M, BD, F	As above
Monoclonal antibodies	Daratumumab[7] Elotuzumab[8] Isatuximab[9]	IR, M, RD*	Infusion reaction risk; pre/post med as directed; interrupt infusion if reaction, **infection**

*mAbs can disrupt M-protein assays, indicating potential lack of response.

1. Bortezomib PI. 2. Carfilzomib PI. 3. Ixazomib PI. 4. Lenalidomide PI. 5. Thalidomide PI. 6. Pomalidomide PI.
7. Daratumumab PI. 8. Elotuzumab PI. 9. Isatuximab PI.

Slide credit: clinicaloptions.com

Treatment Considerations for ASCT-Ineligible Patients

Patient Population	Considerations
Fit patients	Use standard 3-drug regimens with available dose reductions to improve tolerability (VRd-lite, DaraRd)
Frail, unfit patients	Consider starting with doublet therapy (Rd, Vd) and adding third agent if tolerable Geriatric assessment
Renal dysfunction	Lenalidomide dose adjusted based on CrCl
Cardiac dysfunction	Avoid carfilzomib Use thromboprophylaxis with lenalidomide-based therapy
Peripheral neuropathy	Administer bortezomib SQ and use weekly dosing Consider induction with IRd

Keep in mind risk of clots, infection, bone health and disease monitoring throughout

Slide credit: clinicaloptions.com

Highlights from IMW 2021

1-2 Febbraio 2022
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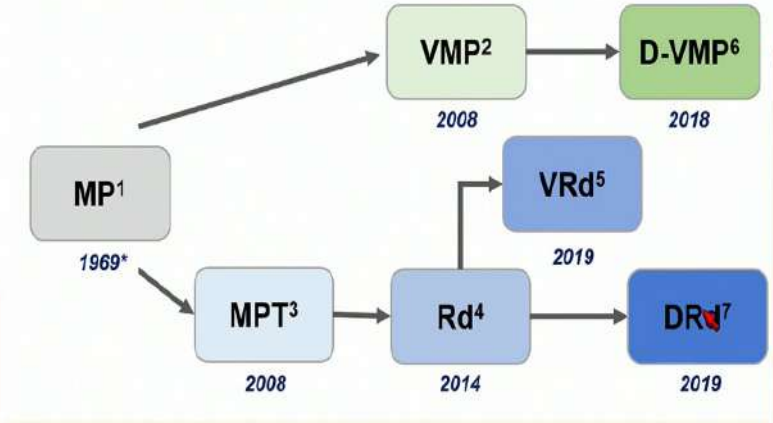
IMW21 18TH INTERNATIONAL MYELOMA WORKSHOP

Treatment Landscape and Perspective in ND TNE Patients

Regimens, Date of EMA approval, OS



Ongoing/planned studies
Need for frailty assessement

- Dara-/Isa-VRd**
- New IMiDs/CelMods
- Bispecific Antibodies
- CAR-T cells
- Continuous vs FDT
- Role of MRD
- Do not forget other aspects of MM (infections…)

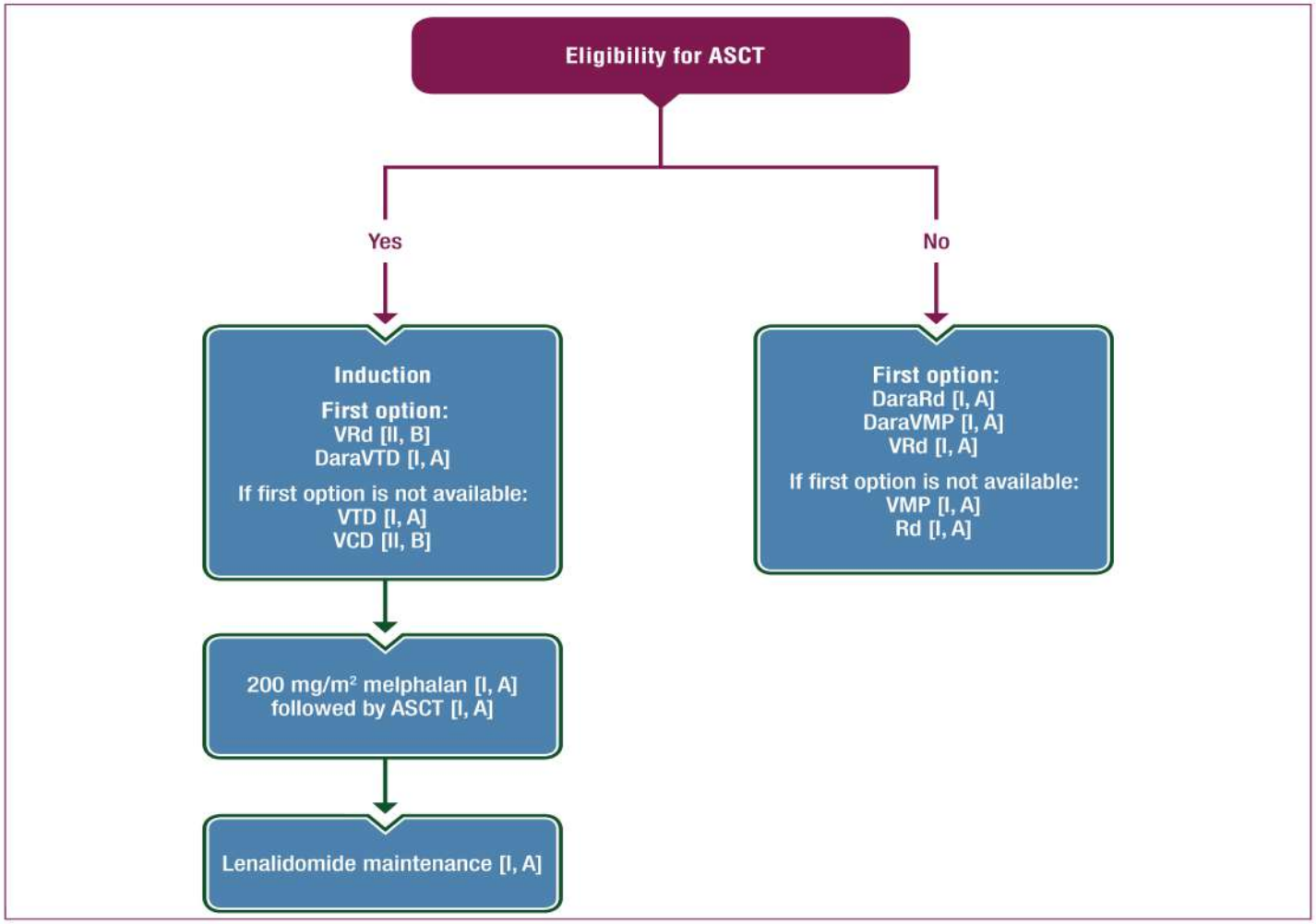
* Publication; OS Overall survival; **NCT03319667 et NCT03652064;
[1]MP, melphalan-prednisone; [2]VMP, bortezomib(Velcade)-melphalan-prednisone; [3]MPT, melphalan-prednisone-thalidomide; [4]Rd, lenalidomide(Revlimid)-dexamethasone; [5]VRd, bortezomib(Velcade)-lenalidomide (Revlimid)-dexamethasone; [6]D-VMP, daratumumab-bortezomib (Velcade)-melphalan-prednisone; [7]DRd, daratumumab-lenalidomide(Revlimid)-dexaméthasone; Isa = isatuximab; IMiDs = immunomodulateurs; BCMA = B cell maturation antigen; Ac = antibody; CAR-T cells = chimeric receptor T cells.

Facon T, 18° IMW Plenary Session 2021

Combination Rd based Therapy in Patients With Newly Diagnosed TI MM

Outcome	SWOG S0777[1]	VRd-lite[2]	MAIA[3]	Eloquent-1[4]	TOURMALINE-MM2[5]
Study regimen	VRd vs Rd (n = 264*)	VRd lite† (n = 50)	DRd vs Rd (n = 368)	EloRd vs Rd (n = 750)	IRd vs Rd (n = 351)
Study phase	III	II	III	III	III
Study population	69% intent to transplant	100% ineligible for transplant	100% ineligible for high-dose CT and transplant	100% ineligible for transplant	100% ineligible for transplant
Median f/u, mo	84	61	47.9		53.3§
ORR, %	90.2 vs 78.8	86	93 vs 82		82.1 vs 80
Median PFS, mo	41 vs 29 (*P* = .003)	41.9	NR vs 34.4	NO SD	35.3 vs 21.8 (*P* = .073)
Median OS, mo	NR vs 69 (*P* = .0114)	NR	--		NR vs NR (HR: 0.998)

1. Durie. Blood Cancer J. 2020;10:53. 2. O'Donnell. ASH 2019. Abstr 3178. 3. Kumar. ASH 2020. Abstr 2276. 4. press-release/corporatefinancial-news/bristol-myers-squibb-reports-primary-results-eloquent-1-study-. Bristol-Myers Squibb; March 9, 2020. Accessed July 8, 2020. . 5. Facon. ASH 2020. Abstr 551.



Multiple myeloma: EHA-ESMO Clinical Practice Guidelines for diagnosis, treatment and follow-up

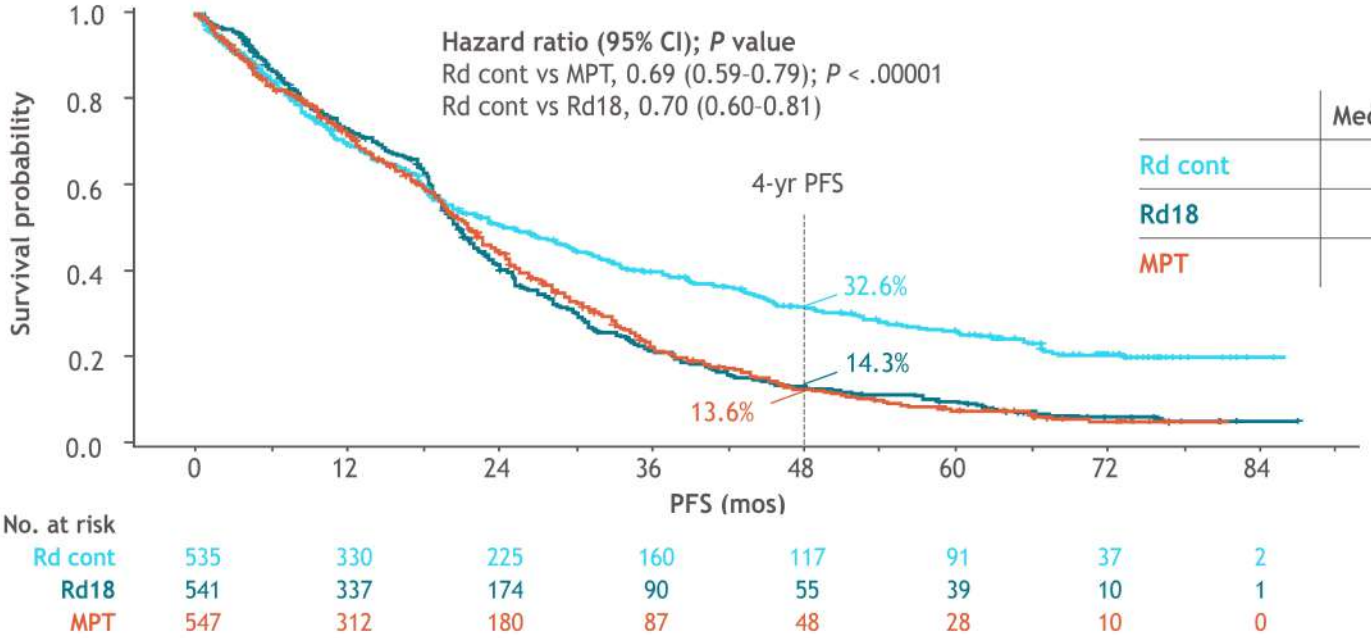
Recommendations for MM front-line therapy

Dimopoulos MA, Annals of Oncology 2021

FIRST trial: PFS

January 2016 data cut-off (median follow-up: 67 mos)

- Results remain consistent nearly 3 yrs after the original analysis of the primary endpoint, PFS
  - Rd continuous significantly improved PFS vs MPT (*P* < .00001)



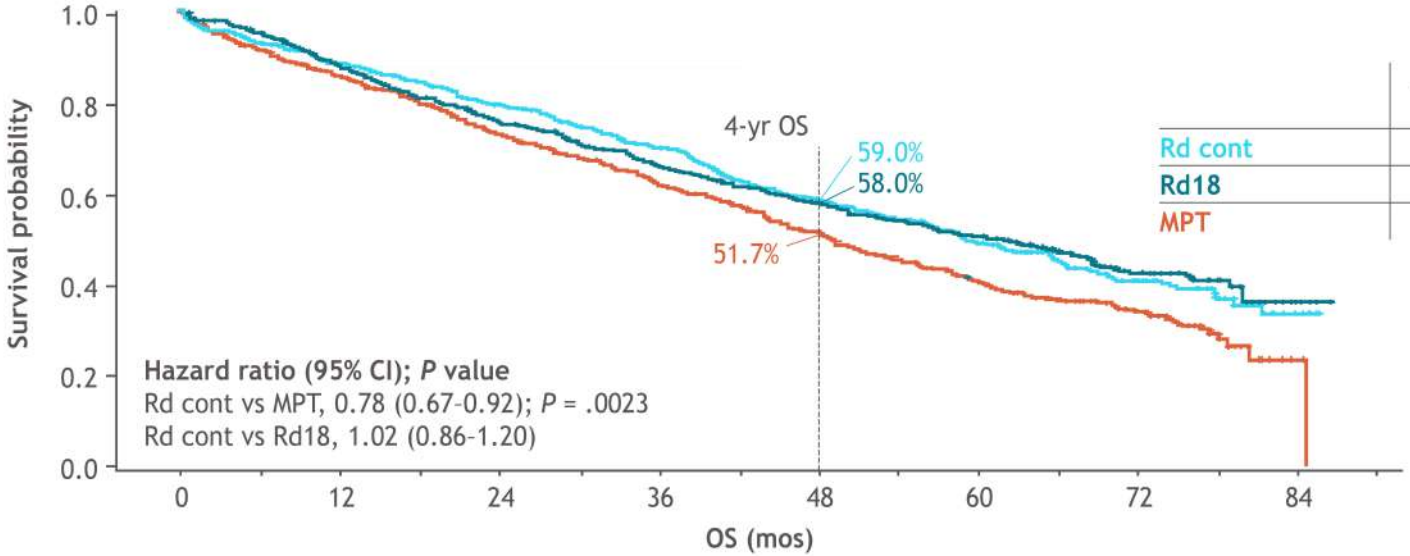
	Median PFS, mos	4-yr PFS, %
Rd cont	26.0	32.6
Rd18	21.0	14.3
MPT	21.9	13.6

Facon T et al. *Blood*. 2018;131:301-310.

FIRST trial: final OS analysis

January 2016 data cut-off (median follow-up: 67 mos)

- Rd continuous significantly extended OS vs MPT (*P* = .0023) and resulted in similar OS vs Rd18
- In patients achieving ≥ VGPR, median OS was 79.5 mos with Rd continuous, 55.7 mos with MPT, and 80.1 mos with Rd18



	Median OS, mos	4-yr OS, %
Rd cont	59.1	59.0
Rd18	62.3	58.0
MPT	49.1	51.7

No. at risk								
Rd cont	535	457	403	340	277	226	97	6
Rd18	541	465	394	333	283	239	96	7
MPT	547	448	375	313	254	192	78	2

Facon T et al. *Blood*. 2018;131:301-310. © 2017 American Society of Hematology.

FIRST trial: selected grade 3/4 AEs

January 2016 data cut-off[1]

Selected grade 3/4 AEs	Rd continuous (n = 532)	Rd18 (n = 540)	MPT (n = 541)
Hematologic, (%)			
Neutropenia	30	26	45
Anemia	19	16	19
Thrombocytopenia	9	8	11
Febrile neutropenia	1	3	3
Nonhematologic, (%)			
Infections	32	22	17
Pneumonia	9	8	6
Cataract	7	3	1
Deep vein thrombosis	5	4	3
Diarrhea	5	3	1
Pulmonary embolism	4	3	4
Constipation	2	2	5
Peripheral sensory neuropathy	1	< 1	9

- There were no new safety concerns compared with earlier analyses[2,3]
- Grade 3/4 neutropenia was more common with MPT (45%) than with Rd continuous (30%) or Rd18 (26%)
- Grade 3/4 infections were observed more frequently with Rd continuous (32%) than with Rd18 (22%) or MPT (17%)

1. Facon T et al. *Blood*. 2018;131:301-310. 2. Benboubker L et al. *N Engl J Med*. 2014;371:906-917. 3. Hulin C et al. *J Clin Oncol*. 2016;34:3609-3617.

SWOG S0777: Study Design[1,2]

Phase 3 trial of RVd vs Rd as initial therapy in NDMM patients with no immediate intent to undergo ASCT, irrespective of eligibility

Primary endpoint:
PFS

Secondary endpoints:
OS, ORR, safety

NDMM
≥ 18 years
N = 525

Randomisation

INDUCTION

RVd (n = 264)
BORT: 1.3 mg/m^2 IV D1, 4, 8, 11
LEN: 25 mg D1–14
DEX: 20 mg D1, 2, 4, 5, 8, 9, 11,12
8 x 21-day cycles

Rd (n = 261)
LEN: 25 mg D1–21
DEX: 40 mg D1, 8, 15, 22
6 x 28-day cycles

MAINTENANCE

Rd
LEN: 25 mg D1–21
DEX: 40 mg D1, 8, 15, 22
28-day cycles until PD

Rd
LEN: 25 mg D1–21
DEX: 40 mg D1, 8, 15, 22
28-day cycles until PD

ASCT, autologous stem cell transplant; BORT, bortezomib; D, day; DEX, dexamethasone; IV, intravenous; LEN, lenalidomide; NDMM, newly diagnosed multiple myeloma; ORR, overall response rate; OS, overall survival; PD, progressive disease; PFS, progression-free survival; Rd, lenalidomide and dexamethasone; RVd, lenalidomide, bortezomib and dexamethasone.

1. Durie B, et al. Lancet. 2017;389:519–527; 2. Durie B. ASH 2018. Abstract 1992.

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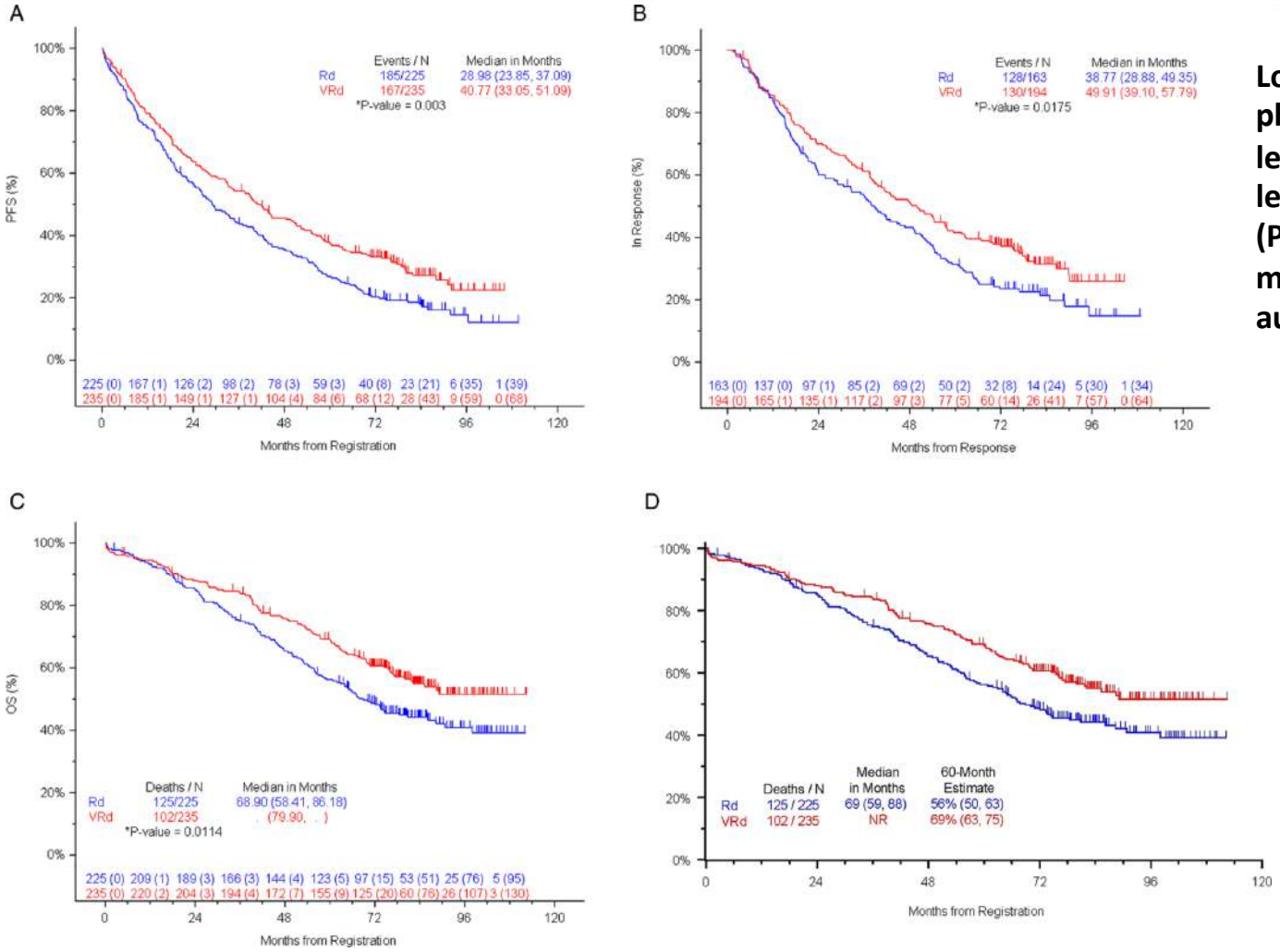
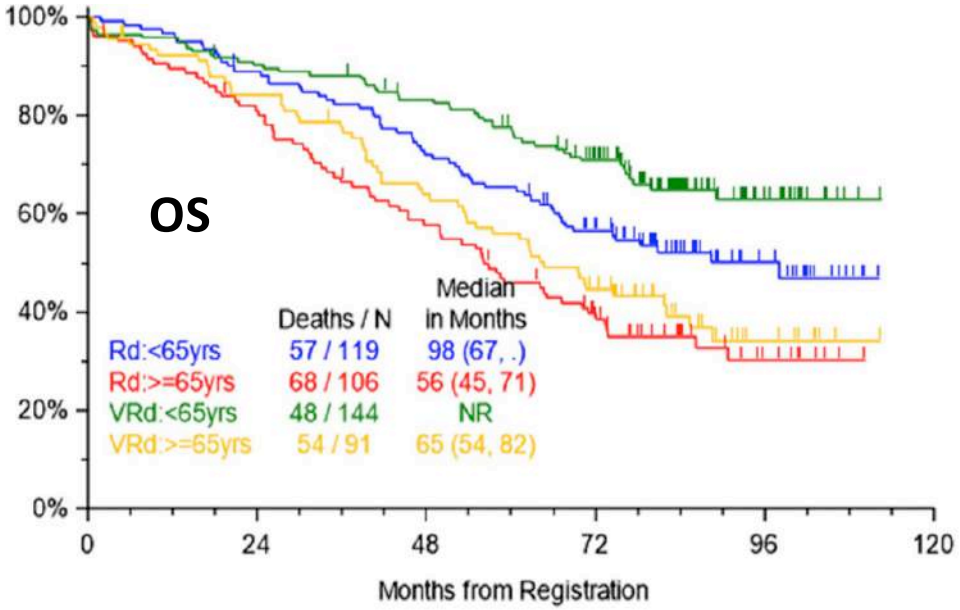


Longer term follow-up of the randomized phase III trial SWOG S0777: bortezomib, lenalidomide and dexamethasone vs. lenalidomide and dexamethasone in patients (Pts) with previously untreated multiple myeloma without an intent for immediate autologous stem cell transplant (ASCT)

Outcomes for VRd and Rd.
a Progression-free survival (N = 460).
b Response duration (N = 357).
c Overall survival (N = 460).
d Overall survival (OS) at 5 years.

Durie et al. Blood Cancer Journal (2020)

Impact of age in outcomes

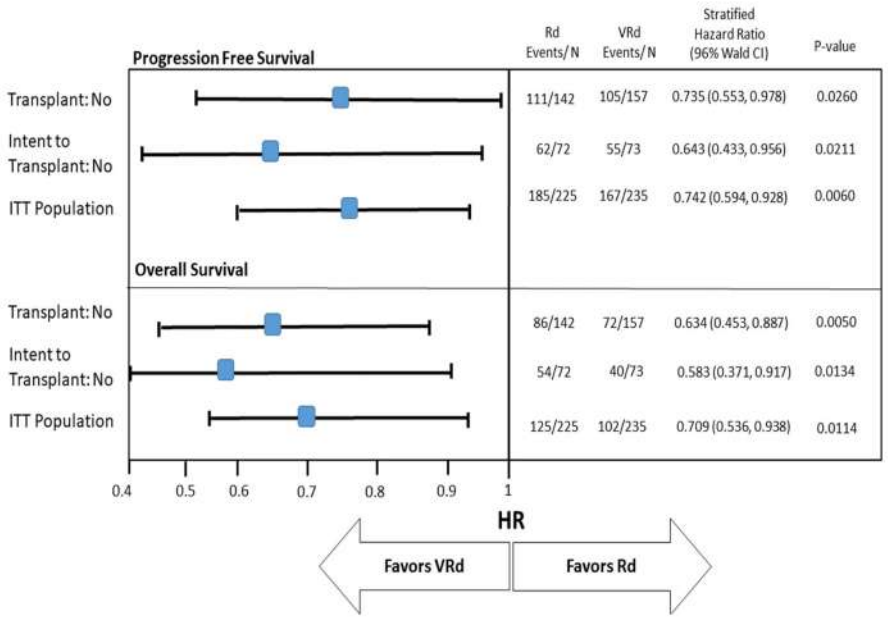


Age < 65 years: HR= 0.640 (0.421,0.973); stratified, two-sided p= 0.028

Age ≥ 65 years: HR= 0.769 (0.520,1.138); stratified, two-sided p= 0.168

Durie et al. Blood Cancer Journal (2020)

Data for pts not transplanted and for those with no intent to transplant



Longer term follow-up of the randomized phase III trial SWOG S0777

Longer term follow-up of the randomized phase III trial SWOG S0777

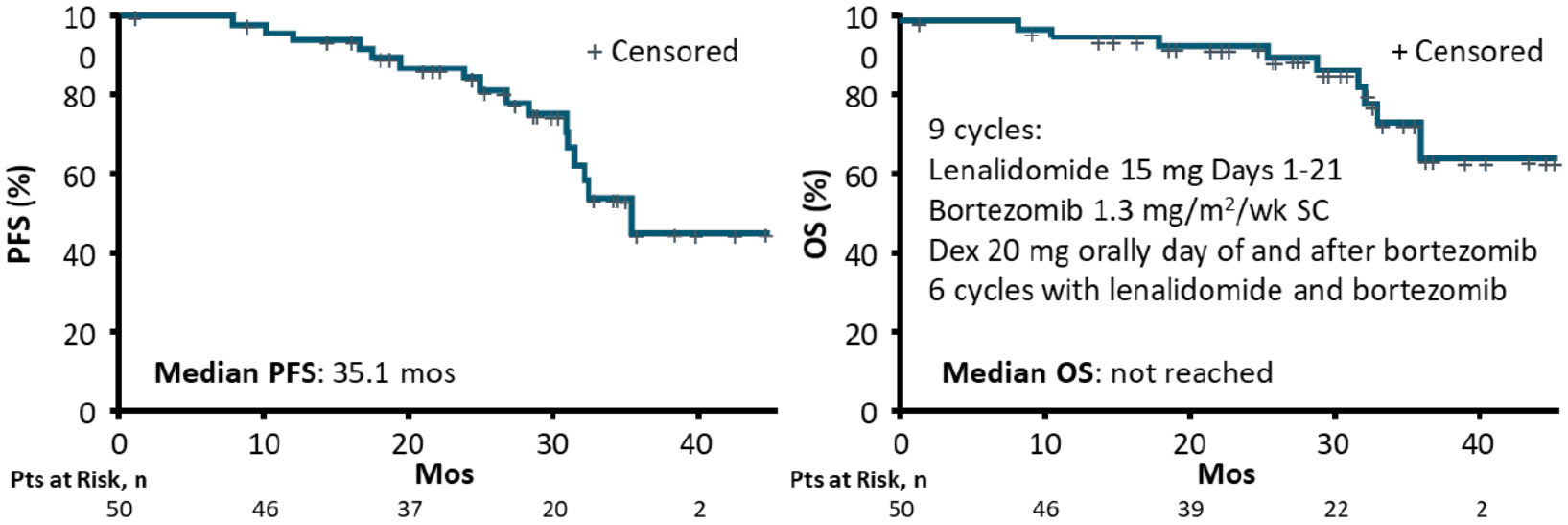
Adverse event description	Revlimid/dexamethasone (*N* = 222)					Velcade/Revlimid/dexamethasone (*N* = 234)				
	1	2	3	4	5	1	2	3	4	5
Allergy/immunology	12 (5%)	5 (2%)				10 (4%)	4 (2%)	2 (<1%)		
Auditory/ear	1 (<1%)	16 (7%)				1 (<1%)	8 (3%)			
Blood/bone marrow	22 (10%)	53 (24%)	68 (31%)	39 (18%)		27 (12%)	52 (22%)	70 (30%)	44 (19%)	
Cardiac arrhythmia	5 (2%)	4 (2%)	4 (2%)			10 (4%)	3 (1%)	3 (1%)		
Cardiac general	13 (6%)	9 (4%)	8 (4%)			15 (6%)	17 (7%)	21 (9%)		
Coagulation	1 (<1%)		3 (1%)					5 (2%)		
Constitutional symptoms	61 (27%)	77 (35%)	38 (17%)			60 (26%)	84 (36%)	51 (22%)		
Death					1 (<1%)					2 (<1%)
Dermatology/skin	60 (27%)	23 (10%)	9 (4%)			50 (21%)	41 (18%)	7 (3%)	1 (<1%)	
Endocrine	11 (5%)	8 (4%)				7 (3%)	12 (5%)			
Gastrointestinal	77 (35%)	71 (32%)	19 (9%)			64 (27%)	79 (34%)	51 (22%)	2 (<1%)	1 (<1%)
Hemorrhage/bleeding	13 (6%)	2 (<1%)				9 (4%)	3 (1%)	8 (3%)		
Hepatobiliary/pancreas			2 (<1%)							
Infection	1 (<1%)	31 (14%)	27 (12%)	4 (2%)		1 (<1%)	33 (14%)	34 (15%)	7 (3%)	1 (<1%)
Lymphatics	58 (26%)	19 (9%)	1 (<1%)			73 (31%)	26 (11%)	4 (2%)		
Metabolic/laboratory	56 (25%)	58 (26%)	51 (23%)	13 (6%)		50 (21%)	58 (25%)	57 (24%)	8 (3%)	
Musculoskeletal/soft tissue	25 (11%)	25 (11%)	16 (7%)	1 (<1%)		15 (6%)	31 (13%)	24 (10%)		
Neurology	78 (35%)	44 (20%)	21 (9%)	3 (1%)	1 (<1%)	42 (18%)	70 (30%)	77 (33%)	4 (2%)	
Ocular/visual	21 (9%)	8 (4%)	11 (5%)			39 (17%)	17 (7%)	6 (3%)		
Pain	44 (20%)	29 (13%)	10 (5%)			55 (24%)	43 (18%)	28 (12%)		
Pulmonary/upper respiratory	42 (19%)	27 (12%)	9 (4%)	1 (<1%)		56 (24%)	17 (7%)	15 (6%)	5 (2%)	
Renal/genitourinary	3 (1%)	2 (<1%)	9 (4%)	1 (<1%)		10 (4%)	3 (1%)	6 (3%)		
Secondary malignancy			5 (2%)	1 (<1%)				5 (2%)	2 (<1%)	
Sexual/reproductive function	1 (<1%)	1 (<1%)	1 (<1%)			3 (1%)	1 (<1%)			
Syndromes			2 (<1%)			1 (<1%)	2 (<1%)	4 (2%)		
Vascular		7 (3%)	15 (7%)	6 (3%)		1 (<1%)	9 (4%)	20 (9%)	4 (2%)	

Adverse events at least possibly attributable to study drug by category

Durie et al. Blood Cancer Journal (2020)

VRd-lite: Phase II Trial in Older or ASCT-Ineligible Patients

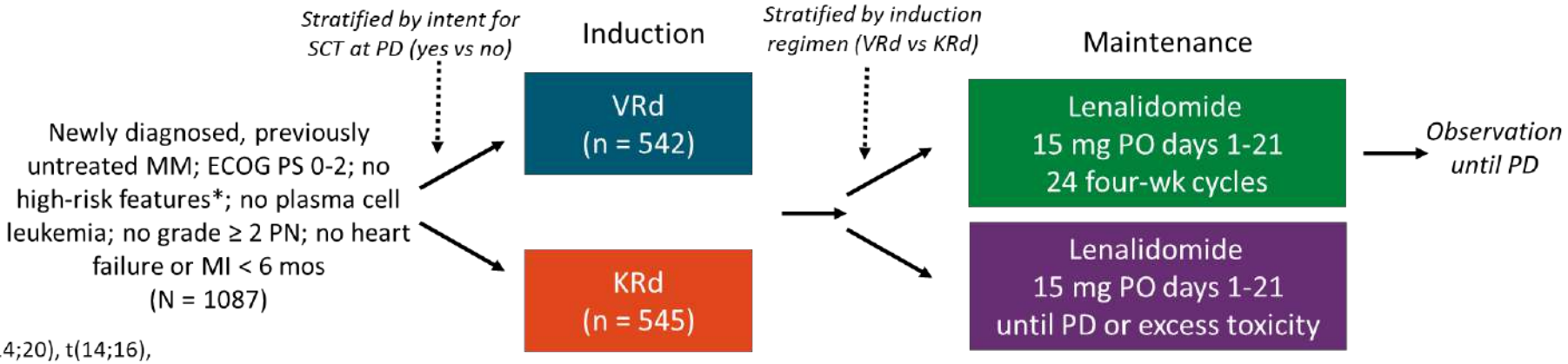
- Single-arm phase II trial in ASCT-ineligible patients with newly diagnosed MM; median age: 73 yrs (range: 65-91)
  - ORR: 86% (≥ VGPR: 66%) (N = 50)



O'Donnell. Br J Haematol. 2018;182:222.

Slide credit: clinicaloptions.com

ENDURANCE: Study Design



*t(14;20), t(14;16), del(17p), LDH > 2 x ULN.

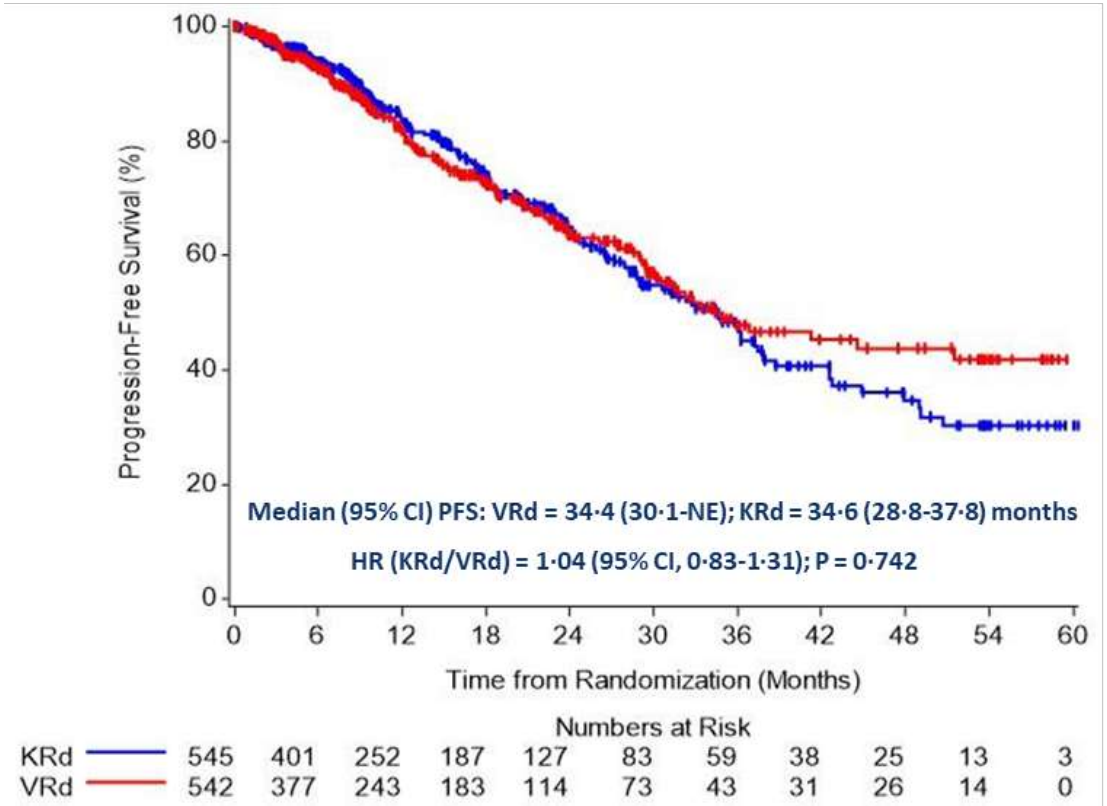
- Coprimary endpoints: PFS after induction, OS with maintenance
- Secondary endpoints: ORR, MRD, TTP, OS, safety
- QoL assessed during and after induction

VRd (12 three-wk cycles)
- Bortezomib: 1.3 mg/m^2 SQ or IV Days 1, 4, 8, 11 of cycles 1-8; Days 1, 8 of cycles 9-12
- Lenalidomide: 25 mg PO QD Days 1-14
- Dexamethasone: 20 mg PO Days 1, 2, 4, 5, 8, 9, 11, 12 of cycles 1-4; 10 mg Days 1, 2, 4, 5, 8, 9, 11, 12 of cycles 5-8; 10 mg Days 1, 2, 8, 9 of cycles 9-12

KRd (9 four-wk cycles)
- Carfilzomib: 20 mg/m^2 IV Days 1, 2; 36 mg/m^2 Days 8, 9, 15, 16 of cycle 1; 36 mg/m^2 IV Days 1, 2, 8, 9, 15, 16 of cycles 2-9
- Lenalidomide: 25 mg/day PO Days 1-21
- Dexamethasone: 40 mg PO Days 1, 8, 15, 22 of cycles 1-4; 20 mg Days 1, 8, 9, 15, 22 of cycles 5-9

Kumar. ASCO 2020. Abstr LBA3.

ENDURANCE: PFS from Induction Randomization

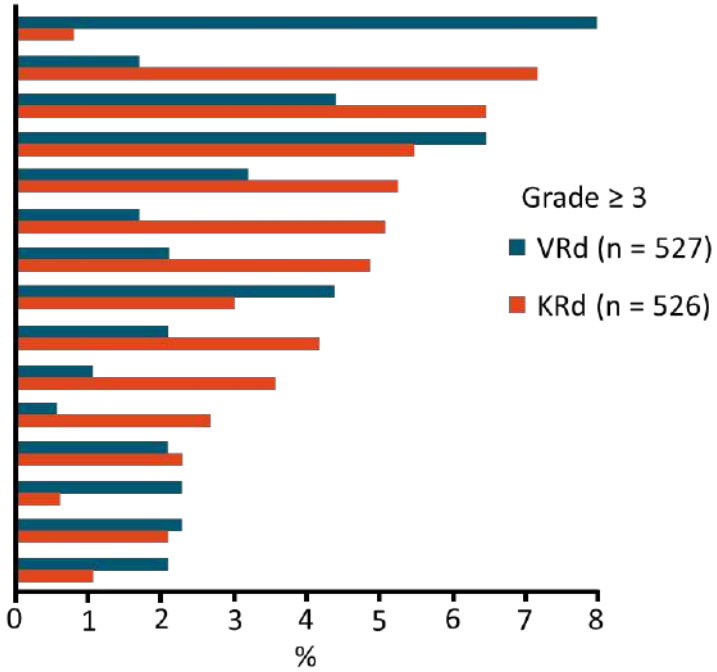


- 2nd interim analysis of PFS (Jan 2020): 298 PFS events (75% of 399 planned)
- Median (95% CI) estimated follow up of 15 (13-18) months
- For patients ≥ 70 years, median PFS (95% CI) for VRd = 37 (29-NE) and KRd = 28 (24-36) months
- With censoring at SCT or alternative therapy: Median PFS (95% CI) for VRd = 31·7 (28·5-44·6) and KRd = 32·8 (27·2-37·5) months

Kumar. ASCO 2020 Abstr LBA3.

ENDURANCE: Specific Treatment-Related AEs and Treatment-Related AEs of Interest

Nonhematologic Treatment-Related AEs ≥ 2%

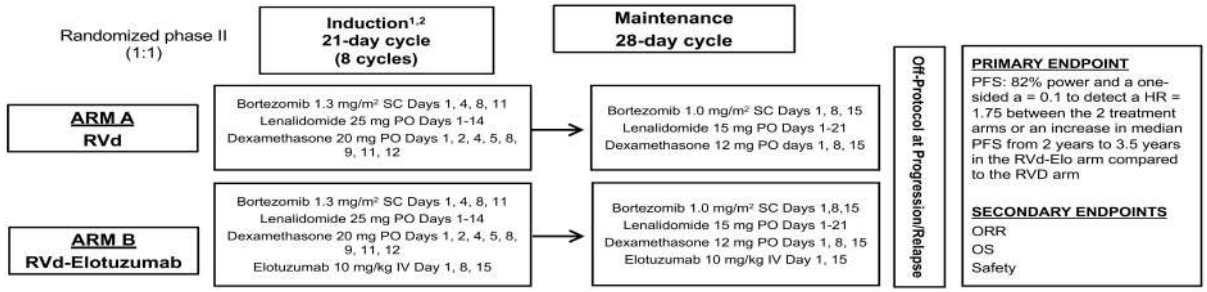


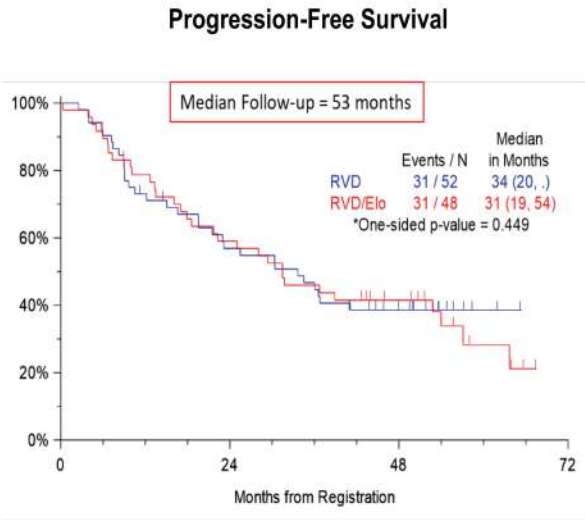
Treatment-Related AE of Interest, %	VRd (n = 527)	KRd (n = 526)	*P* Value
Cardiac, pulmonary, and renal			
▪ Total	4.8	16.1	< .001
▪ Grade 3	4.6	12.6	
▪ Grade 4	0	2.5	
▪ Grade 5	0.2	1	
Peripheral neuropathy			
▪ Total	53.4	24.4	< .001
▪ Grade 1/2*	45.4	23.6	
▪ Grade 3	8	0.8	

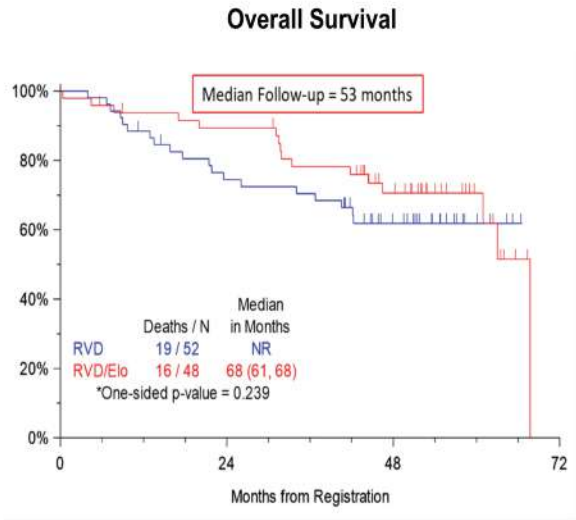
*Not required reporting.

Kumar. ASCO 2020 Abstr LBA3.

Bortezomib, lenalidomide, and dexamethasone with or without elotuzumab in patients with untreated, high-risk multiple myeloma (SWOG-1211): primary analysis of a randomised, phase 2 trial







Usmani SD et al, Lancet Haematol. 2021

Median follow-up of 53 months

no difference in PFS (RVd 33·64 months [95% CI 19·55–not reached], RVd-elotuzumab 31·47 months [18·56–53·98]; hazard ratio 0·968 [80% CI 0·697–1·344]; one-sided p=0·45].

37 (71%) of 52 patients in the RVd group and 37 (77%) of 48 in the RVd-elotuzumab group had grade 3 or worse adverse events.

No significant differences in the safety profile were observed, although some notable results included grade 3–5 infections (four [8%] of 52 in the RVd group, eight [17%] of 48 in the RVd-elotuzumab group), sensory neuropathy (four [8%] of 52 in the RVd group, six [13%] of 48 in the RVd-elotuzumab group), and motor neuropathy (one [2%] of 52 in the RVd group, four [8%] of 48 in the RVd-elotuzumab group).

Highlights from IMW 2021

1-2 Febbraio 2022
Bologna
Royal Hotel Carlton

Agent	Mechanism of action	Toxicity	Current status	Potential role in NDMM
TAK-079[87]	Second-generation anti-CD38 monoclonal antibody, administered subcutaneously.	No significant IRR, mild infusion site reaction, neutropenia.	Completed phase 1 single agent trial in RRMM. Currently being studied in combination.	Agent is being studied in combination with PIs and IMiDs.
Subcutaneous daratumumab[88]	Daratumumab co-formulated with recombinant human hyaluronidase PH20 enabling subcutaneous administration	Less IRR than intravenous daratumumab. Neutropenia, respiratory infections.	Completed comparative trial vs intravenous daratumumab demonstrating similar efficacy and improved safety.	Agent is being studied in combination with established NDMM regimens and as maintenance therapy
Selinexor[8]	Exportin-1 (XPO-1) inhibitor. It retains tumor suppressing proteins, glucocorticoid receptor and oncoprotein RNA in the nucleus.	Nausea, vomiting, weight loss, hyponatremia, thrombocytopenia. Better tolerated when administered once a week.	Available for treatment of triple class-refractory RRMM. Completed trial in combination with bortezomib and dexamethasone (SVD) in RRMM showing superiority over VD alone.	In combination with PIs, IMiDs and monoclonal antibodies
Melphalan flufenamide [89]	Peptide-conjugated alkylator	Neutropenia, thrombocytopenia, anemia.	In trials with combination with other MM agents, mostly in RRMM.	In combination with PIs, IMiDs and monoclonal antibodies
Iberdomide[90]	Oral, cereblon E3 ligase modulator. Increases degradation of Aiolos and Ikaros	Neutropenia, thrombocytopenia, anemia, infections.	Studied as single agent and in combination with PIs and daratumumab in RRMM.	Replacing IMiDs in backbone regimens, in combination with Pis, monoclonal antibodies. Maintenance therapy.
Venetoclax[72]	Oral BCL2 inhibitor	Nausea, diarrhea, increased risk of infections.	Active in combination with dexamethasone in patients with RRMM harboring t (11;14) and/or high BCL-2 level. Under investigation in combination with PIs and IMiDs	In combination with backbone MM regimens in patients with t(11;14).
Balantamab Mafodotin[62]	Anti-BCMA antibody conjugated with monomethyl auristatin-F	Dose-limiting keratitis, thrombocytopenia, neutropenia.	Active as single agents in patients with RRMM. Ongoing trials exploring combination with established MM agents.	Agent is being studied In combination with established NDMM regimens. Potential as consolidative therapy.
AMG-420/701[63]	BCMA-CD3 BiTE® T-cell engager (AMG-420), associated with half-life extender (AMG-701)	Infections, CRS, neuropathy	AMG-420 active in RRMM, development stopped in favor of AMG-701, currently on trial	In combination therapy, as consolidative strategy.
CC-93269[64]	BCMA-CD3 2 + 1 IgG-based T-cell engager	Infections, neutropenia, CRS	Active as single agent in patients with RRMM.	In combination therapy, as consolidative strategy.
Teclistamab[60]	BCMA-CD3 DuoBody T-cell engager	Infections, neutropenia, CRS	Active as single agent in patients with RRMM.	In combination therapy, as consolidative strategy.
bb2121[7]	BCMA-targeted autologous chimeric antigen receptor T cells	CRS, neurotoxicity, neutropenia, thrombocytopenia, infections	Active as single agent in patients with heavily pretreated RRMM. Undergoing phase three trials in RRMM	Agent is being studied as first line therapy in patients with R-ISS 3 NDMM.
JNJ-68284528[65]	BCMA-targeted autologous chimeric antigen receptor T cells	CRS, neurotoxicity, neutropenia, thrombocytopenia, infections	Active as single agent in patients with heavily pretreated RRMM. Undergoing phase 3 trials in RRMM	Agent is being studied as consolidative strategy in patients with high risk MM.
JCAR125H[91]	BCMA-targeted autologous chimeric antigen receptor T cells with fixed ration of CD4:CD8 cells	CRS, neurotoxicity, neutropenia, thrombocytopenia, infections	Active as single agent in patients with RRMM.	Consolidative strategy, upfront treatment of high-risk patients.

New agents with potential use in the management of NDMM

Bal S et al, Am J Hematol 2021

GRAZIE PER L'ATTENZIONE