

# First-line Treatment in Patients with Transplant-Ineligible (TIE), Newly Diagnosed Multiple Myeloma (NDMM) by Age, Frailty, and Comorbidity

## Supplementary Materials

**Table S1. Characteristics of patients with TIE NDMM receiving Rd vs. Vd in HealthVerity (highlighted results >0.1 indicating channeling toward Rd and <-0.1 indicating channeling toward Vd)**

Variable	Category	By Regimen, n (%)		Standardized Difference
		Rd N=964	Vd N=1073	
Age at Dx, yrs (mean)		66.7	67.0	-0.03
Age at Dx	>65 years	467 (48.4%)	600 (55.9%)	-0.15
Gender	Male	470 (48.8%)	589 (54.9%)	-0.12
Race	White	567 (58.8%)	623 (58.1%)	0.02
	Black	200 (20.8%)	242 (22.6%)	-0.04
	Asian	34 (3.5%)	53 (4.9%)	-0.07
	Unknown	163 (16.9%)	155 (14.5%)	0.07
Ethnicity	Hispanic	179 (18.6%)	197 (18.4%)	0.01
Charlson Comorbidity Index	0	223 (23.1%)	156 (14.5%)	0.22
	1	81 (8.4%)	65 (6.1%)	0.09
	2	148 (15.4%)	188 (17.5%)	-0.06
	≥3	512 (53.1%)	664 (61.9%)	-0.18
Faurot Frailty Index	Fit	516 (53.5%)	601 (56%)	-0.05
	Pre-frail	201 (20.9%)	207 (19.3%)	0.04
	Frail	87 (9.0%)	98 (9.1%)	0.00
	Severely frail	62 (6.4%)	69 (6.4%)	0.00

Rd=lenalidomide + dexamethasone; Vd=bortezomib+dexamethasone

**Table S2. Characteristics of patients with TIE NDMM receiving Rd vs. Vd in Optum**  
(highlighted results >0.1 indicating channeling toward Rd and <-0.1 indicating channeling toward Vd)

Variable	Category	By Regimen, n (%)		Standardized Difference
		Rd N=611	Vd N=614	
Age at Dx, yrs (mean)		75.8	76.2	-0.05
Age at Dx	>65 years	552 (90.3%)	573 (93.3%)	-0.11
Gender	Male	295 (48.3%)	319 (52%)	-0.07
Race	White	297 (48.6%)	324 (52.8%)	-0.08
	Black	115 (18.8%)	116 (18.9%)	0.00
	Asian	12 (2%)	7 (1.1%)	0.07
	Unknown	187 (30.6%)	167 (27.2%)	0.08
Ethnicity	Hispanic	70 (11.5%)	44 (7.2%)	0.15
Charlson Comorbidity Index	0	81 (13.3%)	72 (11.7%)	0.05
	1	49 (8%)	49 (8%)	0.00
	2	78 (12.8%)	99 (16.1%)	-0.10
	≥3	403 (66%)	394 (64.2%)	0.04
Faurot Frailty Index	Fit	230 (37.6%)	250 (40.7%)	-0.06
	Pre-frail	127 (20.8%)	107 (17.4%)	0.09
	Frail	61 (10%)	75 (12.2%)	-0.07
	Severely frail	44 (7.2%)	41 (6.7%)	0.02

Rd=lenalidomide + dexamethasone; Vd=bortezomib+dexamethasone

**Table S3. Characteristics of patients with T1E NDMM receiving Rd vs. VRd in HealthVerity (highlighted results >0.1 indicating channeling toward Rd and <-0.1 indicating channeling toward VRd)**

Variable	Category	By Regimen, n (%)		Standardized Difference
		Rd N=964	VRd N=2507	
Age at Dx, yrs (mean, SD)		66.7	63.9	0.24
Age at Dx	>65 years	467 (48.4%)	1038 (41.4%)	0.14
Gender	Male	470 (48.8%)	1359 (54.2%)	-0.11
Race	White	567 (58.8%)	1551 (61.9%)	-0.06
	Black	200 (20.8%)	498 (19.9%)	0.02
	Asian	34 (3.5%)	74 (3%)	0.03
	Unknown	163 (16.9%)	384 (15.3%)	0.04
Ethnicity	Hispanic	179 (18.6%)	431 (17.2%)	0.04
Charlson Comorbidity Index	0	223 (23.1%)	537 (21.4%)	0.04
	1	81 (8.4%)	203 (8.1%)	0.01
	2	148 (15.4%)	441 (17.6%)	-0.06
	≥3	512 (53.1%)	1326 (52.9%)	0.00
Faurot Frailty Index	Fit	516 (53.5%)	1571 (62.7%)	-0.19
	Pre-frail	201 (20.9%)	422 (16.8%)	0.10
	Frail	87 (9%)	172 (6.9%)	0.08
	Severely frail	62 (6.4%)	85 (3.4%)	0.14

Rd=lenalidomide + dexamethasone; VRd=bortezomib+lenalidomide+dexamethasone

**Table S4. Characteristics of patients with TIE NDMM receiving Rd vs. VRd in Optum**  
(highlighted results >0.1 indicating channeling toward Rd and <-0.1 indicating channeling toward VRd)

Variable	Category	By Regimen, n (%)		Standardized Difference
		Rd N=611	VRd N=1392	
Age at Dx, yrs (mean, SD)		75.8	72.8	0.36
Age at Dx	>65 years	552 (90.3%)	1198 (86.1%)	0.13
Gender	Male	295 (48.3%)	722 (51.9%)	-0.07
Race	White	297 (48.6%)	660 (47.4%)	0.02
	Black	115 (18.8%)	267 (19.2%)	-0.01
	Asian	12 (2%)	27 (1.9%)	0.00
	Unknown	187 (30.6%)	438 (31.5%)	-0.02
Ethnicity	Hispanic	70 (11.5%)	134 (9.6%)	0.06
Charlson Comorbidity Index	0	81 (13.3%)	229 (16.5%)	-0.09
	1	49 (8%)	116 (8.3%)	-0.01
	2	78 (12.8%)	216 (15.5%)	-0.08
	≥3	403 (66%)	831 (59.7%)	0.13
Faurot Frailty Index	Fit	230 (37.6%)	663 (47.6%)	-0.20
	Pre-frail	127 (20.8%)	218 (15.7%)	0.13
	Frail	61 (10%)	97 (7%)	0.11
	Severely frail	44 (7.2%)	55 (4%)	0.14

Rd=lenalidomide + dexamethasone; VRd=bortezomib+lenalidomide+dexamethasone

**Table S5. Characteristics of patients with TIE NDMM receiving Vd vs. VRd in HealthVerity (highlighted results >0.1 indicating channeling toward Vd and <-0.1 indicating channeling toward VRd)**

Variable	Category	By Regimen, n (%)		Standardized Difference
		Vd N=1073	VRd N=2507	
Age at Dx, yrs (mean, SD)		67.0	63.9	0.28
Age at Dx	>65 years	600 (55.9%)	1038 (41.4%)	0.29
Gender	Male	589 (54.9%)	1359 (54.2%)	0.01
Race	White	623 (58.1%)	1551 (61.9%)	-0.08
	Black	242 (22.6%)	498 (19.9%)	0.07
	Asian	53 (4.9%)	74 (3%)	0.10
	Unknown	155 (14.5%)	384 (15.3%)	-0.02
Ethnicity	Hispanic	197 (18.4%)	431 (17.2%)	0.03
Charlson Comorbidity Index	0	156 (14.5%)	537 (21.4%)	-0.18
	1	65 (6.1%)	203 (8.1%)	-0.08
	2	188 (17.5%)	441 (17.6%)	0.00
	≥3	664 (61.9%)	1326 (52.9%)	0.18
Faurot Frailty Index	Fit	601 (56%)	1571 (62.7%)	-0.14
	Pre-frail	207 (19.3%)	422 (16.8%)	0.06
	Frail	98 (9.1%)	172 (6.9%)	0.08
	Severely frail	69 (6.4%)	85 (3.4%)	0.14

Vd=bortezomib + dexamethasone; VRd=bortezomib+lenalidomide+dexamethasone

**Table S6. Characteristics of patients with TIE NDMM receiving Vd vs. VRd in Optum**  
(highlighted results >0.1 indicating channeling toward Vd and <-0.1 indicating channeling toward VRd)

Variable	Category	By Regimen, n (%)		Standardized Difference
		Vd N=614	VRd N=1392	
Age at Dx, yrs (mean, SD)		76.2	72.8	0.44
Age at Dx	>65 years	573 (93.3%)	1198 (86.1%)	0.24
Gender	Male	319 (52%)	722 (51.9%)	0.00
Race	White	324 (52.8%)	660 (47.4%)	0.11
	Black	116 (18.9%)	267 (19.2%)	-0.01
	Asian	7 (1.1%)	27 (1.9%)	-0.07
	Unknown	167 (27.2%)	438 (31.5%)	-0.09
Ethnicity	Hispanic	44 (7.2%)	134 (9.6%)	-0.09
Charlson Comorbidity Index	0	72 (11.7%)	229 (16.5%)	-0.14
	1	49 (8%)	116 (8.3%)	-0.01
	2	99 (16.1%)	216 (15.5%)	0.02
	≥3	394 (64.2%)	831 (59.7%)	0.09
Faurot Frailty Index	Fit	250 (40.7%)	663 (47.6%)	-0.14
	Pre-frail	107 (17.4%)	218 (15.7%)	0.05
	Frail	75 (12.2%)	97 (7%)	0.18
	Severely frail	41 (6.7%)	55 (4%)	0.12

Vd=bortezomib + dexamethasone; VRd=bortezomib+lenalidomide+dexamethasone

**Table S7. Characteristics of patients with T1E NDMM receiving DRd vs. DVRd in HealthVerity (highlighted results >0.1 indicating channeling toward DRd and <-0.1 indicating channeling toward DVRd)**

Variable	Category	By Regimen, n (%)		Standardized Difference
		DRd N= 364	DVRd N= 931	
Age at Dx, yrs (mean, SD)		72.4	60.1	1.21
Age at Dx	>65 years	271 (74.5%)	229 (24.6%)	1.15
Gender	Male	198 (54.4%)	518 (55.6%)	-0.03
Race	White	228 (62.6%)	602 (64.7%)	-0.04
	Black	66 (18.1%)	159 (17.1%)	0.03
	Asian	5 (1.4%)	30 (3.2%)	-0.12
	Unknown	65 (17.9%)	140 (15%)	0.08
Ethnicity	Hispanic	66 (18.1%)	128 (13.8%)	0.12
Charlson Comorbidity Index	0	58 (15.9%)	224 (24.1%)	-0.20
	1	35 (9.6%)	78 (8.4%)	0.04
	2	49 (13.5%)	175 (18.8%)	-0.15
	≥3	222 (61%)	454 (48.8%)	0.25
Faurot Frailty Index	Fit	184 (50.6%)	583 (62.6%)	-0.25
	Pre-frail	79 (21.7%)	160 (17.2%)	0.11
	Frail	36 (9.9%)	62 (6.7%)	0.12
	Severely frail	30 (8.2%)	24 (2.6%)	0.25

DRd=Daratumumab +lenalidomide+ dexamethasone;

DVRd=Daratumumab+bortezomib+lenalidomide+dexamethasone

**Table S8. Characteristics of patients with TIE NDMM receiving DRd vs. DVRd in Optum (highlighted results >0.1 indicating channeling toward DRd and <-0.1 indicating channeling toward DVRd)**

Variable	Category	By Regimen, n (%)		Standardized Difference
		DRd N= 488	DVRd N= 365	
Age at Dx, yrs (mean, SD)		77.5	68.2	1.13
Age at Dx	>65 years	475 (97.3%)	266 (72.9%)	0.73
Gender	Male	246 (50.4%)	210 (57.5%)	-0.14
Race	White	237 (48.6%)	163 (44.7%)	0.08
	Black	98 (20.1%)	75 (20.6%)	-0.01
	Asian	15 (3.1%)	8 (2.2%)	0.06
	Unknown	138 (28.3%)	119 (32.6%)	-0.09
Ethnicity	Hispanic	42 (8.6%)	30 (8.2%)	0.01
Charlson Comorbidity Index	0	53 (10.9%)	88 (24.1%)	-0.35
	1	43 (8.8%)	26 (7.1%)	0.06
	2	70 (14.3%)	61 (16.7%)	-0.07
	≥3	322 (66%)	190 (52.1%)	0.29
Faurot Frailty Index	Fit	188 (38.5%)	191 (52.3%)	-0.28
	Pre-frail	104 (21.3%)	49 (13.4%)	0.21
	Frail	47 (9.6%)	12 (3.3%)	0.26
	Severely frail	29 (5.9%)	8 (2.2%)	0.19

DRd=Daratumumab +lenalidomide+ dexamethasone;

DVRd=Daratumumab+bortezomib+lenalidomide+dexamethasone