18.8%). Grade 3 or 4 infections occurred in 27.7% vs 8.3% of pts. LEN-refractory pts had a median Tx duration of 9.7 with PVd vs 6.1 mos with Vd. In LEN-nonrefractory pts, median Tx duration of Pvd vs Vd was 13.6 vs 6.6 mos.

Table 1. Median PFS and Response After 1 Prior LOT

Outcome	LEN Refractory (n = 129)		LEN Nonrefractory (n = 97)	
	PVd (n = 64)	Vd (n = 65)	PVd (n = 47)	Vd (n = 50)
PFS				
Median, mos	17.8	9.5	22.0	12.0
HR (95% CI)	0.55 (95% CI, 0.33-0.94)		0.54 (95% CI, 0.29-1.01)	
P value	.0276[a]		.0491[a]	
ORR (≥ PR), %	85.9	50.8	95.7	60.0
P value[b]	< .001		< .001	
≥ CR, %	12.5	7.7	25.5	4.0
VGPR, %	43.8	15.4	42.6	18.0
PR, %	29.7	27.7	27.7	38.0

[a] 2-sided *P* value based on a Cox proportional hazards model. [b] Probability from Fisher Exact test.
CR, complete response; LEN, lenalidomide; LOT, line of therapy; ORR, overall response rate; PFS, progression-free survival; PR, partial response; PVd, pomalidomide, bortezomib, and low-dose dexamethasone; sCR, stringent complete response; Vd, bortezomib and dexamethasone; VGPR, very good partial response.

Summary/Conclusion: In LEN-refractory and -nonrefractory pts after 1 prior LOT, PVd reduced the risk of progression and death by 45% and 46% vs Vd, respectively. Further, in both subgroups, second-line Tx with PVd significantly improved ORR and led to deeper responses compared with Vd. TEAEs with PVd therapy were generally consistent with the known profiles of POM, BORT, and DEX. These data further demonstrate that PVd is effective and tolerable in pts for whom LEN is no longer a Tx option, including LEN-refractory pts, supporting its use as second-line therapy in RRMM.

PF596 EFFICACY AND SAFETY OF DARATUMUMAB, BORTEZOMIB, AND DEXAMETHASONE (D-VD) IN RELAPSED OR REFRACTORY MULTIPLE MYELOMA (RRMM): UPDATED SUBGROUP ANALYSIS OF CASTOR BASED ON CYTOGENETIC RISK

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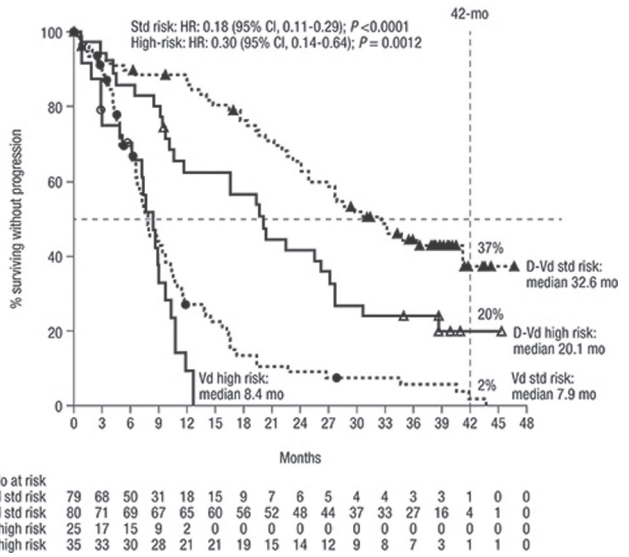
Background: Patients (pts) with multiple myeloma associated with high cytogenetic risk abnormalities have poor outcomes. In CASTOR, D-Vd prolonged progression-free survival (PFS) vs bortezomib and dexamethasone (Vd) alone, and exhibited a manageable safety profile in pts with RRMM. We conducted a subgroup analysis of D-Vd vs Vd in CASTOR, based on cytogenetic risk.
Aims: The purpose of this analysis was to determine the efficacy and safety of D-Vd in CASTOR based on cytogenetic risk status.
Methods: Eligible pts received ≥1 prior line of therapy. Cytogenetic risk was based on a combined analysis of next-generation sequencing (NGS) and fluorescence in situ hybridization (FISH)/karyotype testing. High-risk pts had t(4;14), t(14;16), or del17p abnormalities. Standard (std)-risk pts were confirmed negative for all 3 abnormalities. Minimal residual disease (MRD; 10^{-5}) was assessed via NGS using clonoSEQ® assay V2.0.
Results: In CASTOR (D-Vd, n = 251; Vd, n = 247), high-risk was confirmed in 26.7% and 25.9% of pts in the D-Vd and Vd groups, respectively. At a median follow up of 40.0 months (mo), D-Vd prolonged PFS vs Vd in pts with high- (median 13.4 vs 7.2 mo; HR, 0.40 [95% CI, 0.24–0.65]; *P* = 0.0002) or std-risk (median 18.4 vs 6.8 mo; HR, 0.28 [95% CI, 0.20–0.37]; *P* <0.0001). Higher ORR was seen with D-Vd vs Vd (high risk: 84.8% vs 60.0%; *P* = 0.0226; std risk: 85.4% vs 65.0%; *P* <0.0001), including deep responses of ≥CR (high risk: 33.3% vs 8.3%; std risk: 29.9% vs 10.2%) and ≥VGPR (high risk: 65.2% vs 35.0%; *P* = 0.0049; std risk: 64.3% vs 28.0%; *P* <0.0001). Higher rates of MRD negativity (high risk: 17.9% vs 0%; *P* = 0.0003; std risk: 13.3% vs 2.4%; *P* = 0.0003), and sustained MRD negativity for ≥6 mo (high risk: 16.4% vs 0%; *P* = 0.0006; std risk: 6.1% vs 1.8%; *P* = 0.0859) and ≥12 mo (high risk: 7.5% vs 0%; *P* = 0.0581; std risk: 1.8% vs 0%; *P* = 0.2477) were seen with D-Vd vs Vd. D-Vd significantly prolonged PFS vs Vd in pts with one prior line of therapy only (high risk: median 20.1 vs 8.4 mo; HR, 0.30 [95% CI, 0.14–0.64]; *P* = 0.0012; std risk: median 32.6 vs 7.9 mo; HR, 0.18 [95% CI, 0.11–0.29]; *P* <0.0001; **Figure**). Additionally, D-Vd significantly prolonged PFS2 (high risk: median 27.9 vs 18.6 mo; HR, 0.59 [95% CI, 0.37–0.94]; *P* = 0.0258; std risk: median 40.1 vs 21.6 mo; HR, 0.43 [95% CI, 0.32–0.59]; *P* <0.0001) regardless of cytogenetic risk status.
Additional data including safety analyses will be presented.



Summary/Conclusion: Adding daratumumab to Vd demonstrates significant efficacy in pts with high-risk RRMM including PFS2. Among high-risk RRMM pts, MRD negativity was only achieved with D-Vd. These findings support use of D-Vd for high-risk RRMM. NCT02136134

PF597 HIGH DOSE MELPHALAN (200MG/M2) AND AUTOLOGOUS TRANSPLANTATION IN NEWLY-DIAGNOSED MULTIPLE MYELOMA UP TO THE AGE OF 70 YEARS: A SUBGROUP ANALYSIS FROM THE PHASE III GMMG-MM5 TRIAL

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