

**Supplementary**

**Table S1** Early grade  $\geq 3$  infections according to severity of suppressed uninvolved immunoglobulins

Immune types	Types of suppressed uninvolved Igs	Severity of suppressed uninvolved Igs, %	All patients	Infection, yes	Infection, no	P value	
Light chain only	IgG	>0	20 [77]	10 [91]	10 [67]	0.197	
		>25	16 [64]	6 [60]	10 [67]	1.000	
		>50	5 [20]	4 [40]	1 [7]	0.121	
		>75	0	0	0	–	
	IgA	>0	18 [69]	6 [55]	12 [80]	0.218	
		>25	12 [48]	3 [30]	9 [60]	0.226	
		>50	10 [40]	3 [30]	7 [47]	0.678	
		>75	4 [16]	2 [20]	2 [13]	1.000	
	IgM	>0	18 [69]	8 [73]	10 [67]	1.000	
		>25	12 [46]	6 [55]	6 [40]	0.692	
		>50	5 [19]	5 [36]	1 [7]	0.128	
		>75	0	0	0	–	
	IgA	IgG	>0	17 [74]	9 [100]	8 [57]	0.048
			>25	15 [65]	8 [89]	7 [50]	0.086
			>50	10 [44]	7 [78]	3 [21]	0.013
			>75	3 [13]	2 [22]	1 [7]	0.538
IgM		>0	18 [82]	9 [100]	9 [69]	0.115	
		>25	12 [57]	8 [89]	4 [33]	0.024	
		>50	9 [43]	6 [67]	3 [25]	0.087	
		>75	2 [10]	1 [11]	1 [83]	1.000	
IgG	IgA	>0	42 [66]	19 [86]	23 [55]	0.013	
		>25	29 [45]	15 [68]	14 [33]	0.010	
		>50	22 [34]	11 [50]	11 [26]	0.095	
		>75	6 [9]	3 [14]	3 [7]	0.406	
	IgM	>0	51 [77]	18 [82]	33 [75]	0.757	
		>25	46 [70]	17 [77]	29 [66]	0.405	
		>50	34 [52]	14 [64]	20 [46]	0.198	
		>75	15 [23]	7 [32]	8 [18]	0.229	

Number [%]. Ig, immunoglobulin.

**Table S2** Therapeutic regimens, grade  $\geq 3$  neutropenia and grade  $\geq 3$  infections

Various	Infection, no	Infection, yes	P value
Therapeutic regimens			0.056
VCD	50 (67.6)	24 (32.4)	
PAD	9 (69.2)	4 (30.8)	
VDT	16 (44.4)	20 (55.6)	
Neutrophil $<1 \times 10^9/L$			0.258
No	62 (63.9)	35 (36.1)	
Yes	13 (50.0)	13 (50.0)	
Response to induction therapy ( $\geq$ PR)			0.008
Yes	67 (67.0)	33 (33.0)	
No	8 (34.8)	15 (65.2)	

Number (%). VCD, bortezomib and dexamethasone plus cyclophosphamide; PAD, bortezomib and dexamethasone plus doxorubicin; VDT, bortezomib and dexamethasone plus thalidomide; PR, partly response.

**Table S3** Univariate Cox regression analysis for early grade  $\geq 3$  infections

Various	OR	95% CI	P value
Age, $\geq 65$	0.971	0.470–2.004	0.936
Sex, male	1.423	0.788–2.572	0.242
ECOG-PS, $\geq 2$	3.576	1.994–6.411	$<0.001$
NT-proBNP, $\geq 300$ ng/L	3.971	2.207–7.147	$<0.001$
Immunoparesis	2.835	0.881–9.129	0.081
Partial immunoparesis	3.014	1.459–6.228	0.003
CRP $\geq 5$ mg/L	1.287	0.725–2.283	0.389
B2M, $\geq 3.5$ mg/L	1.737	0.813–3.713	0.154
B2M, $\geq 5.5$ mg/L	1.924	1.044–3.545	0.036
Albumin, $<35$ g/L	2/089	0.978–4.465	0.057
Hemoglobin, $<90$ g/L	2.281	1.206–4.314	0.011
Neutrophil, $<1 \times 10^9/L$	1.532	0.811–2.897	0.189
Lymphocyte, $<1 \times 10^9/L$	0.896	0.322–2.495	0.834
eGFR, $<60$ mL/min/1.73 m <sup>2</sup>	2.054	1.163–3.626	0.013
Elevated LDH	2.159	1.183–3.937	0.012
High risk FISH, yes	1.498	0.645–3.477	0.347
ISS stage III	1.924	1.044–3.545	0.036
R-ISS stage III	1.595	0.766–3.321	0.213
High risk defined by Dumontet <i>et al.</i> (10)	2.970	1.513–5.829	0.002

OR, odds ratio; CI, confidence interval; ECOG-PS, Eastern Cooperative Oncology Group-Performance Status; NT-proBNP, N-terminal fragment of the B-type brain natriuretic peptide; CRP, C-reactive protein; B2M, beta-2-microglobulin; eGFR, estimated glomerular filtration rate; LDH, lactate dehydrogenase; FISH, fluorescence in situ hybridization; ISS, international staging system; R-ISS, revised ISS.