Supplemental Tables

Table S1. Best clinical response subset analyses (all treated patients, n=61)

	Disease status relative to frontline treatment		Refractory status to frontline treatment		Remission duration after frontline treatment	
	Primary refractory (N=27)	Relapsed (N=34)	Primary refractory (N=27)		Relapsed (N=34)	
	n (%)	n (%)	1st line PR or SD (N=10)	PD at 1st line EOT (N=17)	Relapse >1 year (N=15)	Relapse ≤1 year (N=19)
Response			n (%)	n (%)	n (%)	n (%)
Objective Response	18 (67)	32 (94)	8 (80)	10 (59)	13 (87)	19 (100)
Complete response	13 (48)	24 (71)	7 (70)	6 (35)	11 (73)	13 (68)
Partial response	5 (19)	8 (24)	1 (10)	4 (24)	2 (13)	6 (32)
Stable disease	3 (11)	2 (6)	1 (10)	1 (6)	2 (13)	0
Progressive disease	5 (19)	0	1 (10)	4 (24)	0	0
Not evaluable	1 (4)	0	0	1 (6)	0	0

Abbreviations: EOT, end of treatment; PR, partial response; SD, stable disease

	Age		Disease stage at initial diagnosis		Potential IrAEs (exluding IRRs)	
	<65 years (N=57)	≥65 years (N=4)	I-II (N=36)	III-IV (N=24)	IrAE (N=51)	No IrAE (N=10)
Response	n (%)	n (%)	n (%)	n (%)	n (%)	n (%)
Objective Response	46 (81)	4 (100)	30 (83)	19 (79)	45 (88)	5 (50)
Complete response	36 (63)	1 (25)	25 (69)	11 (46)	34 (67)	3 (30)
Partial response	10 (18)	3 (75)	5 (14)	8 (33)	11 (22)	2 (20)
Stable disease	5 (9)	0	5 (14)	0	4 (8)	1 (10)
Progressive disease	5 (9)	0	1 (3)	4 (17)	2 (4)	3 (30)
Not evaluable	1 (2)	0	1 (4)	0	0	1 (10)

Abbreviations: IrAE, immune related adverse event; IRR, infusion-related reaction

Table S2. Best clinical response subset analyses (efficacy evaluable patients, n=60)

	Disease status relative to frontline treatment		Refractory status to frontline treatment		Remission duration after frontline treatment	
		Relapsed (N=34)	Primary refractory (N=26)		Relapsed (N=34)	
Response	Primary refractory (N=26) n (%)	n (%)	1st line PR or SD (N=10) n (%)	PD at 1st line EOT (N=16) n (%)	Relapsed >1 year (N=15) n (%)	Relapsed ≤1 year (N=19) n (%)
Objective Response	18 (69)	32 (94)	8 (80)	10 (63)	13 (87)	19 (100)
Complete response	13 (50)	24 (71)	7 (70)	6 (38)	11 (73)	13 (68)
Partial response	5 (19)	8 (24)	1 10)	4 (25)	2 (13)	6 (32)
Stable disease	3 (12)	2 (6)	1 (10)	1 (6)	2 (13)	0
Progressive disease	5 (19)	0	1 (10)	5 (31)	0	0

Abbreviations: EOT, end of treatment; PR, partial response; SD, stable disease

	Age		Disease stage at initial diagnosis		Potential IrAEs (exluding IRRs)	
Response	<65 years (N=56) n (%)	≥65 years (N=4) n (%)	I-II (N=36) n (%)	III-IV (N=23) n (%)	IrAE (N=51) n (%)	No IrAE (N=9) n (%)
Objective Response	46 (82)	4 (100)	30 (83)	19 (83)	49 (89)	1 (20)
Complete response	36 (64)	1 (25)	25 (69)	11 (48)	34 (67)	3 (33)
Partial response	10 (18)	3 (75)	5 (14)	8 (35)	11 (22)	2 (22)
Stable disease	5 (9)	0	5 (14)	0	4 (8)	1 (11)
Progressive disease	5 (9)	0	1 (3)	4 (17)	2 (4)	3 (33)

Abbreviations: IrAE, immune related adverse event; IRR, infusion-related reaction

Table S3. Subsequent Salvage Regiments after EOT (n=17)

Subject	Best response at EOT	Salvage therapy	Best response after salvage therapy	Received ASCT	Best response after ASCT
1	PD	ICE x2	PR	Y	NE
2	PD	ICE x2	PD	N	-
2	PD	Vinblastine	PD	N	-
2	PD	Gemcitabine, navelbine, dioxin	NE	N	-
3	PD	ICE	CR	Y	CR
4	CR	Gemcitabine, vinorelbine, bendamustine	CR	Y	-
5	CR	Bendamustine	CR	N	CR
5	CR	Brentuximab vedotin	CR	Y	CR
6	PR	ICE	PR	Y	-
7	SD	ICE, etoposide, ifosfamide, mesna, carboplatin, filgrastim	PR	Y	PR
8	PR	ICE	CR	Y	CR
9	SD	ICE	CR	Y	NE
10	PR	ICE	CR	Y	CR
11	PR	Nivolumab	PR	N	-
12	PR	Gemcitabine, oxaliplatin	CR	N	-
13	PR	Carboplatin, gemcitabine, decadron	NE	Y	PR
13	PR	Gemcitabine, oxaliplatin	PD	Y	PR
13	PR	Brentuximab vedotin	NE	Y	PR
13	PR	ICE	PR	Y	PR
14	PD	Bendamustine	PD	N	-
14	PD	ICE	PD	N	-
14	PD	cyclophosphamide, vincristine, procarbazine, prednisone	PD	N	-
14	PD	Dexamethasone	NE	N	-
14	PD	Gemcitabine, vinorelbine, doxorubicin		N	-
15	SD	Brentuximab vedotin	NE	Y	-
16	PD	ICE	PR	N	-
17	SD	ICE	CR	Y	CR

Abbreviations: ASCT, autologous stem cell transplant; ICE, ifosfamide, carboplatin, etoposide; CR, complete response; EOT, end of treatment; NE, not evaluable; PD, progressive disease; PR, partial response; SD, stable disease

Table S4. Infusion-related reactions (n=61)

	BV n (%)	Nivo n (%)
Cycle 1		
Grade 1	5 (8)	0
Grade 2	0	4 (7)
Grade 3	0	0
Cycle 2		
Grade 1	5 (8)	1 (2)
Grade 2	14 (23)	2 (3)
Grade 3	2 (3)	0
Cycle 3		
Grade 1	1 (2)	0
Grade 2	5 (8)	0
Grade 3	0	0
Cycle 4		
Grade 1	0	0
Grade 2	2 (3)	0
Grade 3	0	0

Abbreviations: BV, brentuximab vedotin; Nivo, nivolumab
More than one IRR may be reported for a single dose, Grade is the maxium grade of IRR reported for a dose.