Society for Immunotherapy of Cancer

Advances in Cancer Immunotherapy™

Results of Extended Follow-Up for Approved Agents

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Disclosures

- Consulting Fees:

Amgen, Roche, Bayer, Sanofi, BMS, Lilly, Novartis, EISAI, AstraZeneca, Merck, Incyte, Ipsen, PierreFabre, MSD, Sirtex, BTG, Servier, Terumo.

- I will be discussing non-FDA approved indications during my presentation.

Results of Extended Follow-Up for Approved Agents

Gastric/esophageal cancer

- CHECKMATE-577
- CHECKMATE-649
- KEYNOTE-590

Hepatocellular Carcinoma

- CHECKMATE-469
- KEYNOTE-240
- IMBRAVE-150

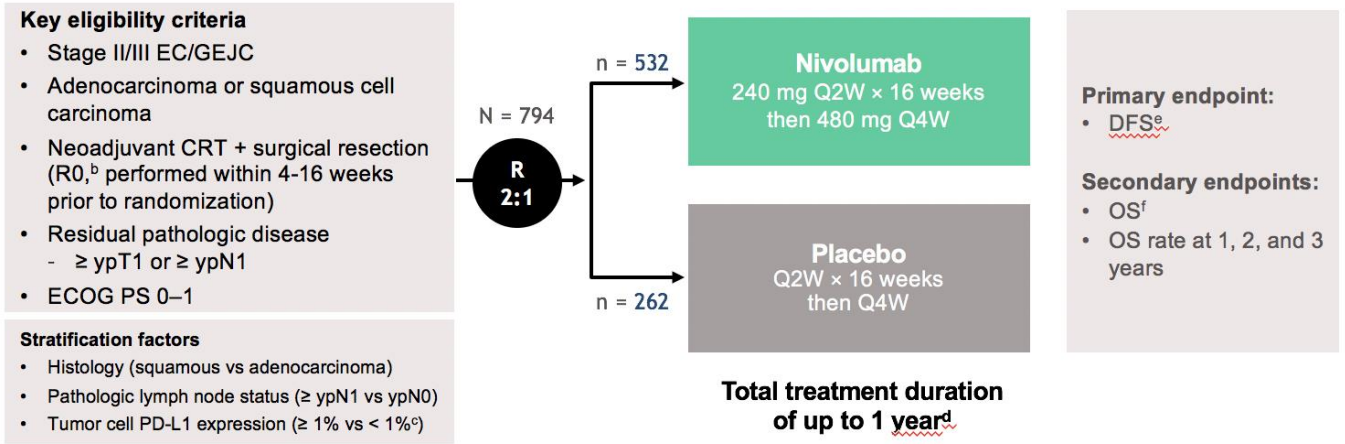
MSI Colon-Cancer

- KEYNOTE-177

Adjuvant nivolumab in resected esophageal or gastroesophageal junction cancer following neoadjuvant chemoradiation therapy: first results of the CheckMate 577 study

Ronan J. Kelly,[1] Jaffer A. Ajani,[2] Jaroslaw Kuzdzal,[3] Thomas Zander,[4] Eric Van Cutsem,[5] Guillaume Piessen,[6] Guillermo Mendez,[7] Josephine Feliciano,[8] Satoru Motoyama,[9] Astrid Lièvre,[10] Hope Uronis,[11] Elena Elimova,[12] Cecile Grootscholten,[13] Karen Geboes,[14] Jenny Zhang,[15] Lili Zhu,[15] Ming Lei,[15] Kaoru Kondo,[15] James M. Cleary,[16] Markus Moehler[17]

- CheckMate 577 is a global, phase 3, randomized, double-blind, placebo-controlled trial[a]



- Median follow-up was 24.4 months (range, 6.2–44.9)[g]
- Geographical regions: Europe (38%), US and Canada (32%), Asia (13%), rest of the world (16%)

CHECKMATE-577: Baseline Characteristics

	Nivolumab (n = 532)	Placebo (n = 262)
Median age (range), years	62 (26-82)	61 (26-86)
Male, %	84	85
Race,[a] %		
White	81	82
Asian	16	13
ECOG PS, %		
0	58	60
1	42	40
Disease stage at initial diagnosis, %		
II	34	38
III	66	62
Tumor location, %		
EC	59	58
GEJC	41	42
Histology,[b] %		
Squamous cell carcinoma	29	29
Adenocarcinoma	71	71
Pathologic lymph node status ≥ ypN1, %	57	58
Tumor cell PD-L1 expression,[c,d] %		
≥ 1%	17	15
< 1%	70	75
Time from complete resection to randomization, %		
< 10 weeks	34	28
≥ 10 weeks	66	72

	Nivolumab[a] (n = 532)	Placebo[a] (n = 260)
Median duration of treatment (range), months	10.8 (< 0.1-14.2)	9.0 (< 0.1-15.0)
Discontinued treatment, n (%)[b]	532 (100)	260 (100)
Reasons for treatment discontinuation, n (%)		
Treatment completion	259 (49)	115 (44)
Disease progression	149 (28)	114 (44)
AEs related to treatment	57 (11)	8 (3)
AEs not related to treatment	16 (3)	9 (3)
Patient request	42 (8)	9 (3)
Other[c]	9 (2)	5 (2)

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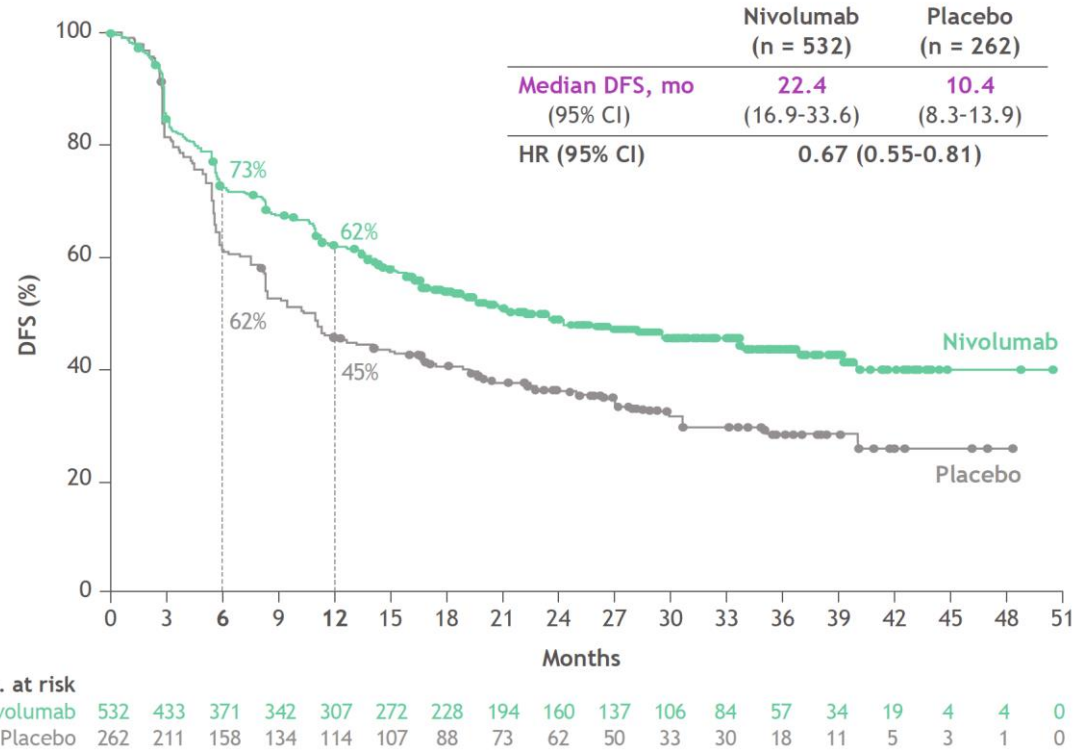
CHECKMATE-577: 14 Months Follow-up

Disease-free survival

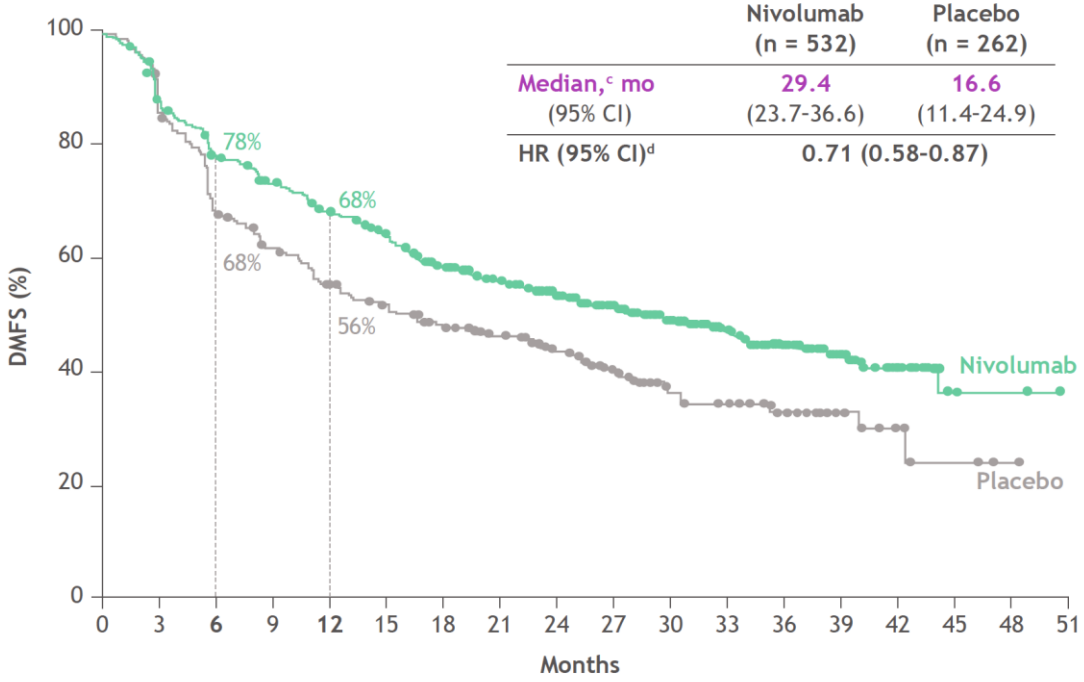


	Nivolumab (n = 532)	Placebo (n = 262)
Median DFS, mo (95% CI)	22.4 (16.9-33.6)	10.4 (8.3-13.9)
HR (95% CI)	0.67 (0.55-0.81)	

No. at risk

Nivolumab	532	433	371	342	307	272	228	194	160	137	106	84	57	34	19	4	4	0
Placebo	262	211	158	134	114	107	88	73	62	50	33	30	18	11	5	3	1	0

Distant metastasis free survival



	Nivolumab (n = 532)	Placebo (n = 262)
Median,[c] mo (95% CI)	29.4 (23.7-36.6)	16.6 (11.4-24.9)
HR (95% CI)[d]	0.71 (0.58-0.87)	

No. at risk

Nivolumab	532	453	400	369	339	307	252	219	181	157	123	93	61	38	22	6	5	0
Placebo	262	222	175	156	136	124	102	88	74	58	38	34	21	12	6	3	1	0

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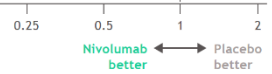
CHECKMATE-577: 14 Months Follow-up

Subgroup	Median DFS, mo		Unstratified HR	Unstratified HR (95% CI)
	Nivolumab	Placebo		
Overall (N = 794)	22.4	10.4	0.68	
Age, years				
< 65 (n = 507)	25.1	9.3	0.63	
≥ 65 (n = 287)	19.4	13.9	0.79	
Sex				
Male (n = 671)	21.3	10.3	0.70	
Female (n = 123)	29.3	11.0	0.62	
Race				
White (n = 648)	21.3	10.8	0.69	
Asian (n = 117)	29.7	9.7	0.71	
ECOG PS				
0 (n = 464)	26.6	11.1	0.71	
1 (n = 330)	18.5	9.3	0.64	
Tumor location at initial diagnosis				
Esophagus (n = 465)	23.4	8.3	0.61	
Gastroesophageal junction (n = 329)	21.4	16.8	0.80	
Histologic type				
Adenocarcinoma (n = 563)	19.6	10.4	0.73	
Squamous cell carcinoma (n = 230)	29.7	10.6	0.60	
Tumor cell PD-L1 expression[a]				
≥ 1% (n = 129)	28.3	10.2	0.68	
< 1% (n = 567)	20.8	11.0	0.70	
Indeterminate/nonevaluable (n = 98)	26.6	9.9	0.64	
PD-L1 CPS[a,b]				
≥ 5 (n = 371)	29.3	8.5	0.60	
< 5 (n = 295)	15.3	11.1	0.85	
Indeterminate/nonevaluable/NR (n = 128)	26.6	10.8	0.64	
Pathologic lymph node status				
ypN0 (n = 337)	Not reached	27.0	0.71	
≥ ypN1 (n = 457)	14.8	7.6	0.65	
Pathological tumor status[c]				
ypT0[d] (n = 45)	34.0	5.2	0.40	
ypT1 or ypT2 (n = 311)	29.3	9.2	0.59	
ypT3 or ypT4 (n = 436)	18.5	11.5	0.80	
Time from complete resection to randomization				
< 10 weeks (n = 256)	24.0	12.7	0.85	
≥ 10 weeks (n = 538)	21.3	9.3	0.63	



CONCLUSION: in long-term follow-up clear advantage for nivolumab with regard to

- DFS (HR .67) and
- DFS free of distant metastases (HR .71)

Advantage across all subgroups:

- Especially SCC (HR 0.6 vs 0.73)
- Tumors with CPS >/=5 (HR .60 vs .85).

Nivolumab plus chemotherapy or ipilimumab vs chemotherapy as first-line treatment for advanced gastric cancer/gastroesophageal junction cancer/ esophageal adenocarcinoma: CheckMate 649 study

Yelena Y. Janjigian,[1] Jaffer A. Ajani,[2] Markus Moehler,[3] Marcelo Garrido,[4] Carlos Gallardo,[5] Lin Shen,[6] Kensei Yamaguchi,[7] Lucjan Wyrwicz,[8] Tomasz Skoczylas,[9] Arinilda Bragagnoli,[10] Tianshu Liu,[11] Mustapha Tehfe,[12] Elena Elimova,[13] Mingshun Li,[14] Valerie Poulart,[14] Ming Lei,[14] Kaoru Kondo,[14] Kohei Shitara[15]

Key eligibility criteria
- Previously untreated, unresectable, advanced or metastatic gastric/GEJ/ esophageal adenocarcinoma
- No known HER2-positive status
- ECOG PS 0-1

Stratification factors
- Tumor cell PD-L1 expression (≥ 1% vs < 1%[a])
- Region (Asia vs United States/Canada vs ROW)
- ECOG PS (0 vs 1)
- Chemo (XELOX vs FOLFOX)

R 1:1:1[b]
N = 2031

n = 789: **NIVO 360 mg + XELOX Q3W or NIVO 240 mg + FOLFOX Q2W[d,e]**

n = 833[c]: **XELOX Q3W or FOLFOX Q2W[d,e]**

n = 409: **NIVO (1 mg/kg) + IPI (3 mg/kg) Q3W × 4 then NIVO 240 mg Q2W[e]**

Dual primary endpoints

NIVO + chemo vs chemo
- **OS and PFS** per BICR (PD-L1 CPS ≥ 5)

Hierarchically tested secondary efficacy endpoints

NIVO + chemo vs chemo
- **OS** (PD-L1 CPS ≥ 1, all randomized)

NIVO + IPI vs chemo
- **OS** (PD-L1 CPS ≥ 5, all randomized)

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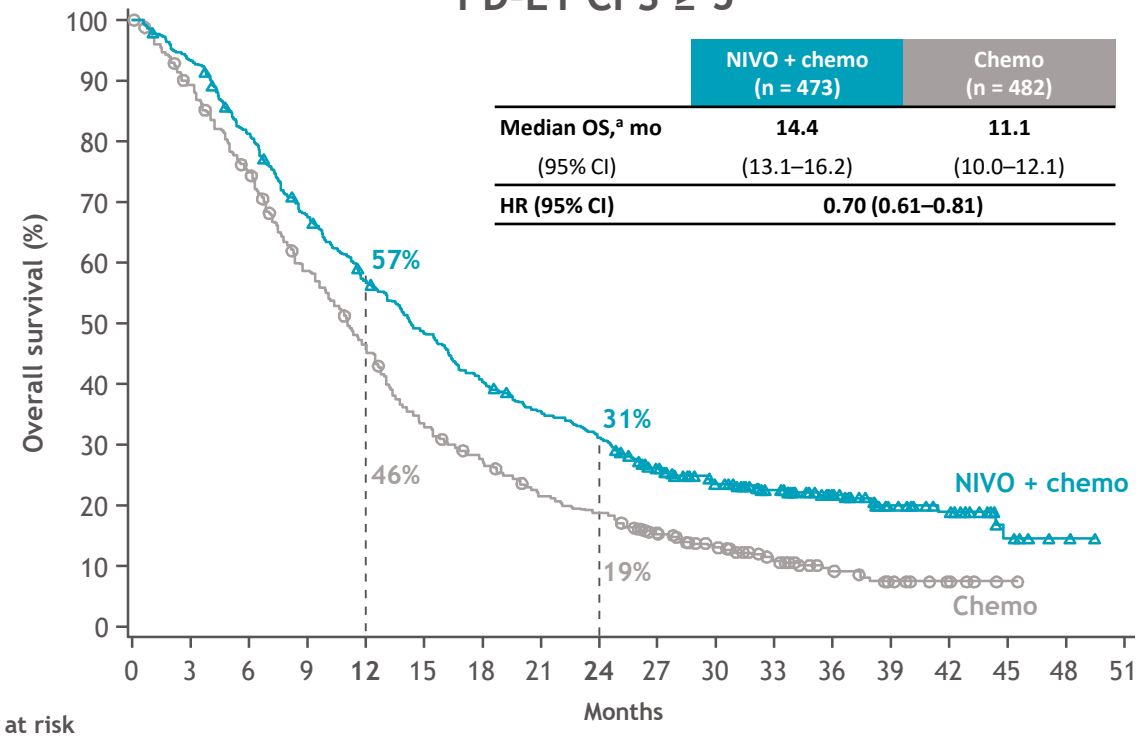
CHECKMATE-649: Baseline Characteristics

All randomized[a]	NIVO + chemo (n = 789)[b]	Chemo (n = 792)[b]	NIVO + IPI (n = 409)[c]	Chemo (n = 404)[c]
Median age (range), years	62 (54-69)	61 (53-68)	62 (22-84)	61 (23-90)
Male	68	71	68	69
Non-Asian/Asian	76/24	76/24	70/30	70/30
ECOG PS 1	59	57	53	53
Primary tumor location				
GC	70	70	69	70
GEJC	17	16	20	18
EAC	13	14	11	12
Metastatic disease	96	95	96	96
Liver metastases	38	40	36	40
Signet ring cell carcinoma	18	17	17	21
PD-L1 CPS ≥ 5[d]	60	61	58	60
Tumor cell PD-L1 ≥ 1%[d]	16	16	17	17
MSI status[e]				
MSS	88	86	87	85
MSI-high	3	3	3	2
FOLFOX/XELOX received on study[f]	54/46	53/47	NA	47/53

CHECKMATE-649: 24 Monats Follow-up

PD-L1 CPS ≥ 5

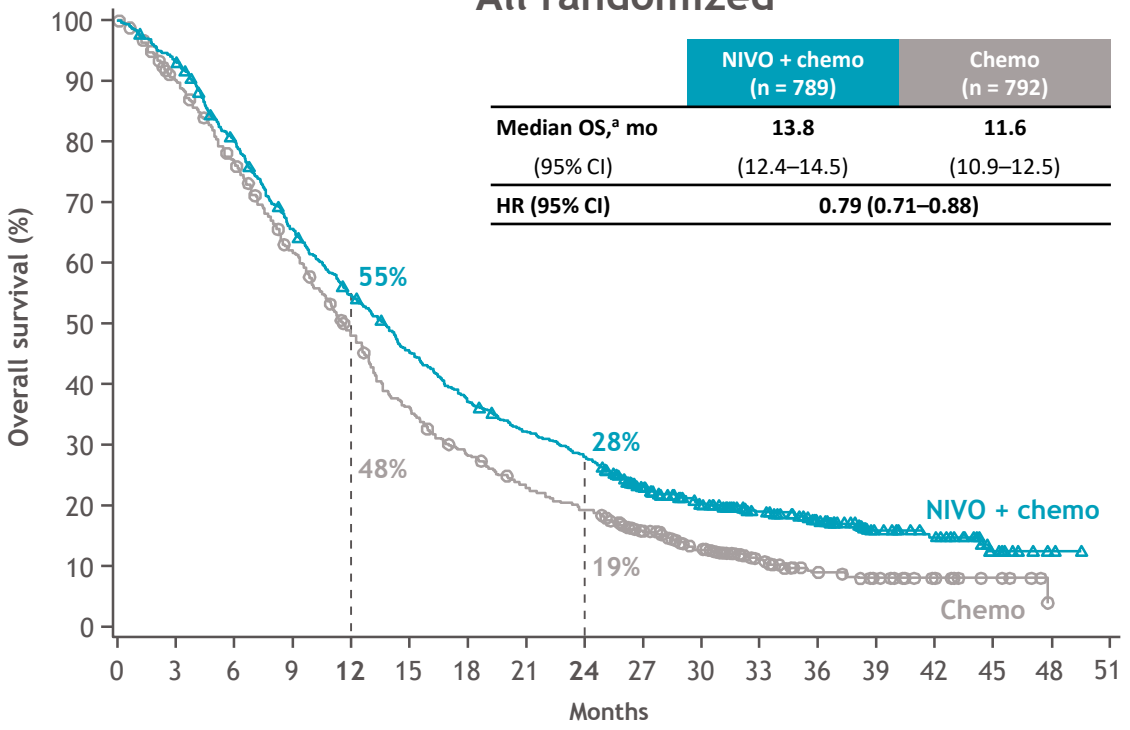


	NIVO + chemo (n = 473)	Chemo (n = 482)
Median OS,[a] mo	14.4	11.1
(95% CI)	(13.1–16.2)	(10.0–12.1)
HR (95% CI)	0.70 (0.61–0.81)	

No. at risk

NIVO + chemo	473	440	380	315	263	223	187	161	141	107	81	61	43	26	19	6	2	0
Chemo	482	424	353	275	215	154	125	97	83	62	46	31	18	11	6	1	0	0

All randomized



	NIVO + chemo (n = 789)	Chemo (n = 792)
Median OS,[a] mo	13.8	11.6
(95% CI)	(12.4–14.5)	(10.9–12.5)
HR (95% CI)	0.79 (0.71–0.88)	

NIVO + chemo	789	733	624	508	422	349	287	246	212	156	115	84	57	33	25	9	2	0
Chemo	792	701	591	475	364	273	215	170	144	103	72	46	28	20	12	6	0	0

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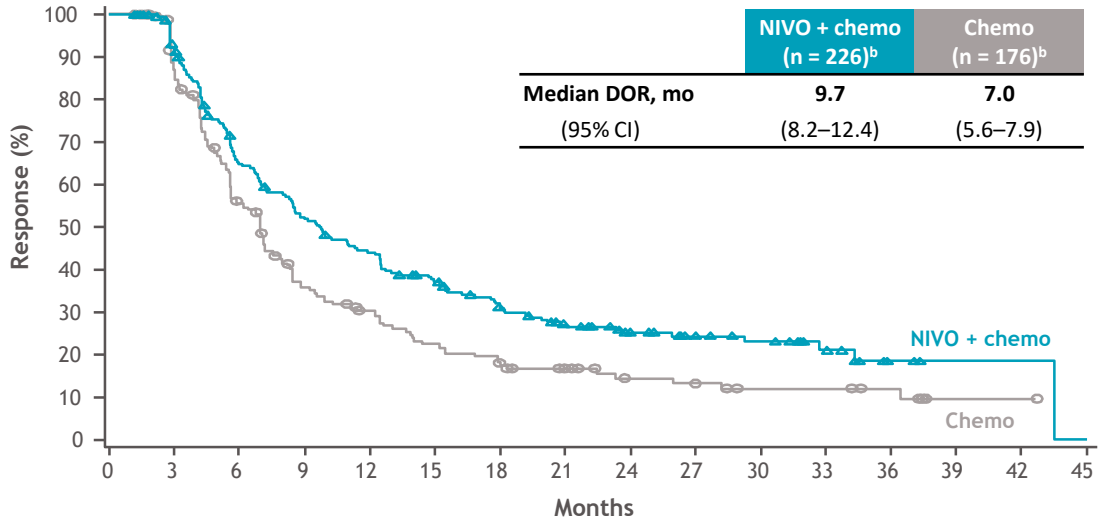
CHECKMATE-649: 24 Monats Follow-up

PD-L1 CPS ≥ 5

Response per BICR	NIVO + chemo (n = 378)[a]	Chemo (n = 390)[a]
ORR, % (95% CI)	**60 (55–65)**	**45 (40–50)**
CR	13	7
PR	47	38
SD	28	34
PD	7	11



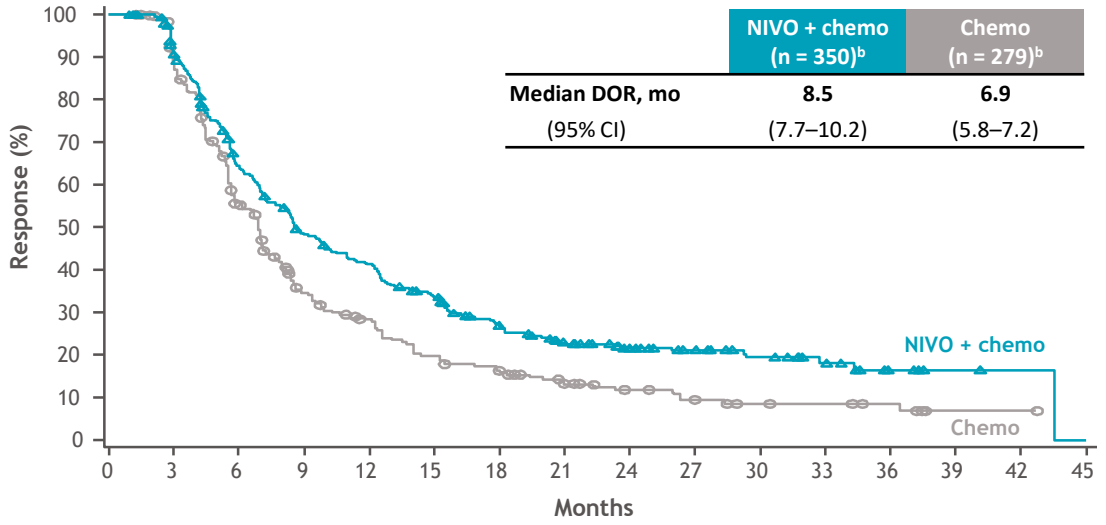
	NIVO + chemo (n = 226)[b]	Chemo (n = 176)[b]
Median DOR, mo	**9.7**	**7.0**
(95% CI)	(8.2–12.4)	(5.6–7.9)

No. at risk

NIVO + chemo	226	196	135	107	90	73	58	45	34	25	20	10	3	1	1	0
Chemo	176	142	87	53	42	31	24	19	12	11	7	7	5	1	1	0

All randomized

Response per BICR	NIVO + chemo (n = 603)[a]	Chemo (n = 607)[a]
ORR, % (95% CI)	**58 (54–62)**	**46 (42–50)**
CR	11	6
PR	47	40
SD	29	33
PD	7	10



	NIVO + chemo (n = 350)[b]	Chemo (n = 279)[b]
Median DOR, mo	**8.5**	**6.9**
(95% CI)	(7.7–10.2)	(5.8–7.2)

350	302	206	152	129	102	75	58	44	32	24	13	5	2	1	0
279	232	138	78	60	42	33	23	16	12	8	7	5	1	1	0

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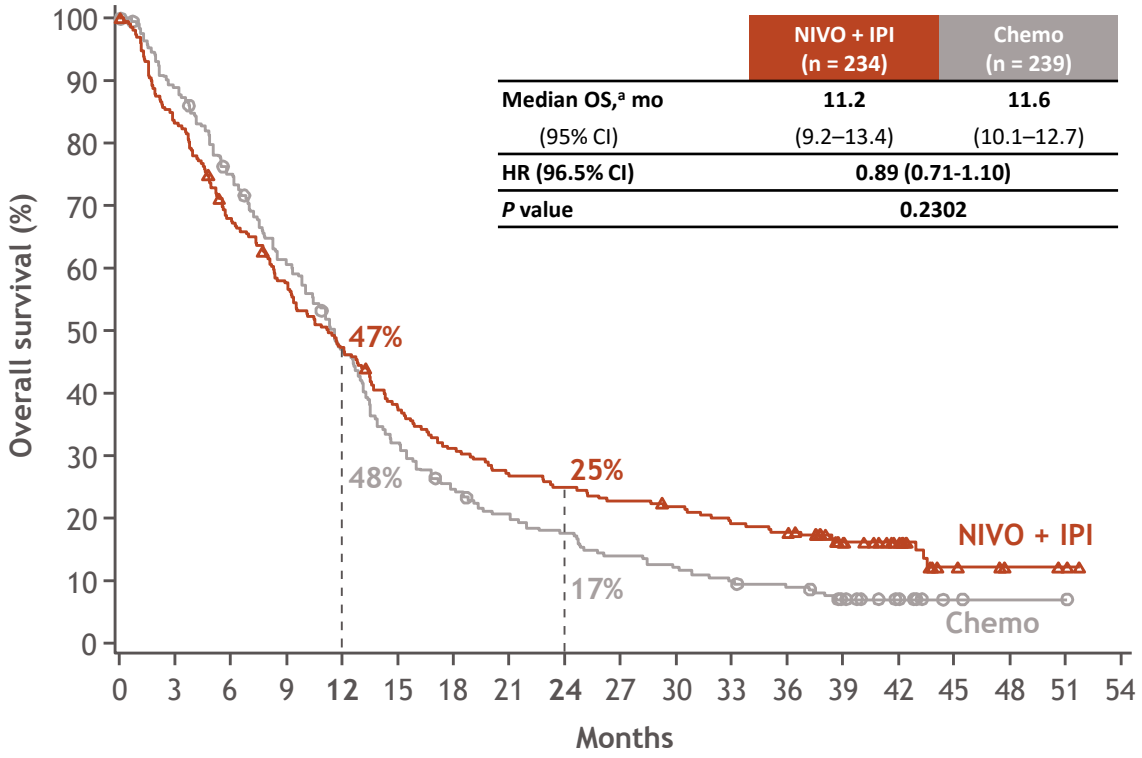
CHECKMATE-649: 35 Months Follow-up

PD-L1 CPS ≥ 5

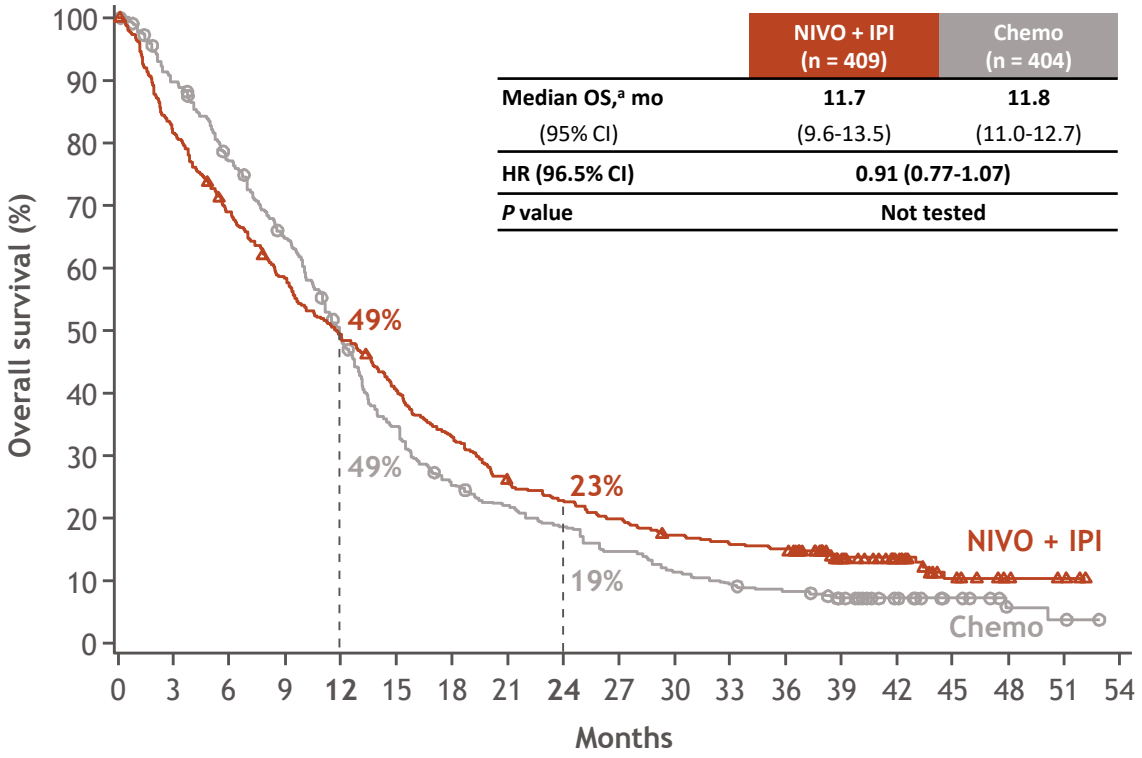


	NIVO + IPI (n = 234)	Chemo (n = 239)
Median OS,[a] mo	11.2	11.6
(95% CI)	(9.2–13.4)	(10.1–12.7)
HR (96.5% CI)	0.89 (0.71-1.10)	
P value	0.2302	

No. at risk

NIVO + IPI	234	193	156	131	106	85	70	60	56	51	48	42	39	25	18	6	3	2	0
Chemo	239	211	176	143	110	74	56	45	39	31	27	22	19	12	7	2	1	1	0

All randomized



	NIVO + IPI (n = 409)	Chemo (n = 404)
Median OS,[a] mo	11.7	11.8
(95% CI)	(9.6-13.5)	(11.0-12.7)
HR (96.5% CI)	0.91 (0.77-1.07)	
P value	Not tested	

NIVO + IPI	409	332	279	235	197	162	132	102	90	79	68	62	59	36	25	10	5	3	0
Chemo	404	359	305	255	189	134	98	84	71	56	43	36	31	23	15	9	3	2	0

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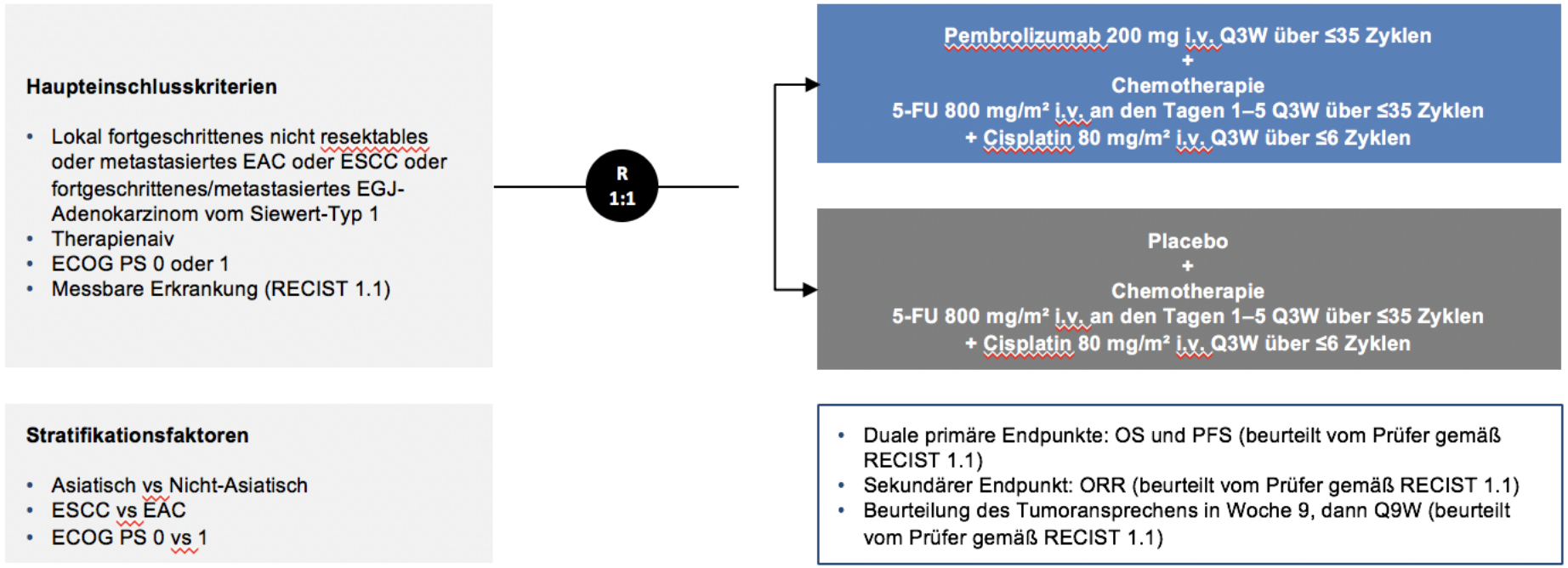
CHECKMATE-649: Conclusion

- NIVO + chemo continued to demonstrate improvement in OS, PFS, and objective responses vs chemo in previously untreated patients with advanced GC/GEJC/EAC with an additional 12-month follow-up
  - Clinically meaningful long-term OS and PFS benefit with sustained separation of the KM curves
  - Higher ORR and more durable responses
  - Deepening of response with additional complete responses with longer follow-up
- NIVO + IPI did not significantly improve OS vs chemo in patients with PD-L1 CPS ≥ 5
- No new safety signals were identified with NIVO + chemo or NIVO + IPI
- Longer follow-up data for NIVO + chemo further support its use as a new standard 1L treatment in patients with advanced GC/GEJC/EAC

Pembrolizumab plus chemotherapy versus chemotherapy alone for first-line treatment of advanced oesophageal cancer (KEYNOTE-590): a randomised, placebo-controlled, phase 3 study

*Jong-Mu Sun, Lin Shen, Manish A Shah, Peter Enzinger, Antoine Adenis, Toshihiko Doi, Takashi Kojima, Jean-Philippe Metges, Zhigang Li, Sung-Bae Kim, Byoung Chul Cho, Wasat Mansoor, Shau-Hsuan Li, Patrapim Sunpaweravong, Maria Alsina Maqueda, Eray Goekkurt, Hiroki Hara, Luis Antunes, Christos Fountzilas, Akihito Tsuji, Victor Castro Oliden, Qi Liu, Sukrut Shah, Pooja Bhagia, Ken Kato, on behalf of the KEYNOTE-590 Investigators**



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KEYNOTE-590

Characteristic, n (%)[a]	Pembrolizumab + chemotherapy n=373
Median age, years (range)	64.0 (28–94)
≥65 years	172 (46.0)
Male sex	306 (82.0)
Asia region	196 (52.5)
ECOG PS 1	223 (59.8)
Metastatic disease	344 (92.2)
Unresectable/locally advanced	29 (7.8)
SCC	274 (73.5)
AC	99 (26.5)
Oesophageal	58 (15.5)
Gastro-oesophageal junction	41 (11.0)
PD-L1 CPS ≥10[b]	186 (49.9)

26.5%

	Pembrolizumab plus chemotherapy group (n=373)	Placebo plus chemotherapy group (n=376)
Age, years		
Median (range)	64 (28–94)	62 (27–89)
≥65	172 (46%)	150 (40%)
Sex		
Female	67 (18%)	57 (15%)
Male	306 (82%)	319 (85%)
Asia region*	196 (53%)	197 (52%)
Race		
Asian	201 (54%)	199 (53%)
White	139 (37%)	139 (37%)
Missing	14 (4%)	15 (4%)
Native American	9 (2%)	12 (3%)
African American	5 (1%)	2 (1%)
Other†	5 (1%)	9 (2%)
ECOG performance status		
0	149 (40%)	150 (40%)
1	223 (60%)	225 (60%)
2	1 (<1%)	1 (<1%)
Oesophageal squamous cell carcinoma	274 (73%)	274 (73%)
Adenocarcinoma	99 (27%)	102 (27%)
Oesophageal adenocarcinoma	58 (16%)	52 (14%)
Siewert type 1 gastro-oesophageal junction adenocarcinoma‡	41 (11%)	50 (13%)
Disease status		
Metastatic	344 (92%)	339 (90%)
Unresectable locally advanced	29 (8%)	37 (10%)
PD-L1 CPS ≥10	186 (50%)	197 (52%)
Oesophageal squamous cell	143 (38%)	143 (38%)
Adenocarcinoma	43 (12%)	54 (14%)
PD-L1 CPS <10	175 (47%)	172 (46%)
Oesophageal squamous cell carcinoma	121 (32%)	126 (34%)
Adenocarcinoma	54 (14%)	46 (12%)
missing		

Data are n (%) unless otherwise stated. ECOG=Eastern Cooperative Oncology Group. CPS=combined positive score. *Countries in the Asia region include China, Hong Kong, Japan, South Korea, and Taiwan. †Other includes patients with multiple ethnicities. ‡58 patients were HER2-negative, 1 patient was HER2-positive, and 32 had unknown HER2 status.

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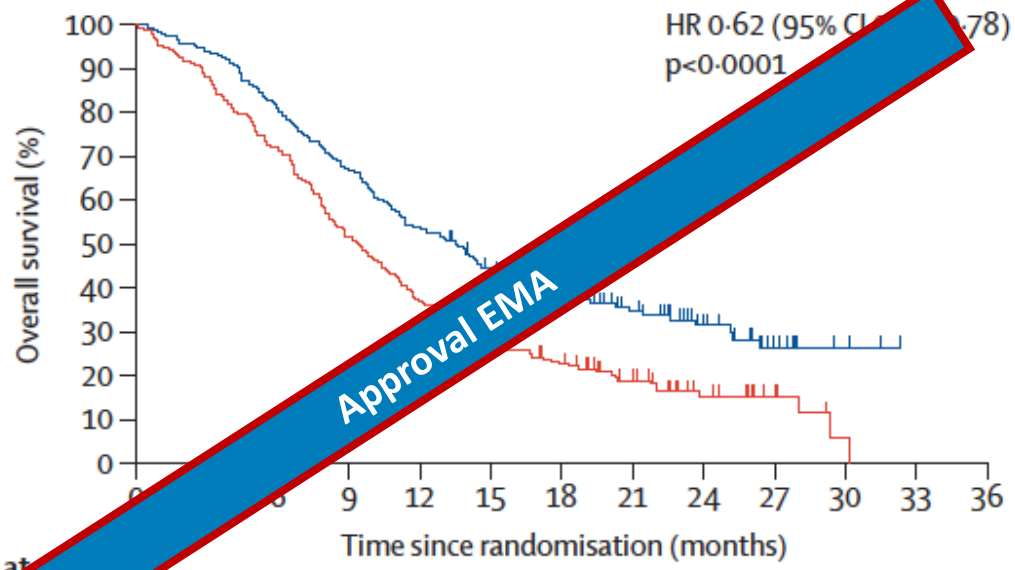
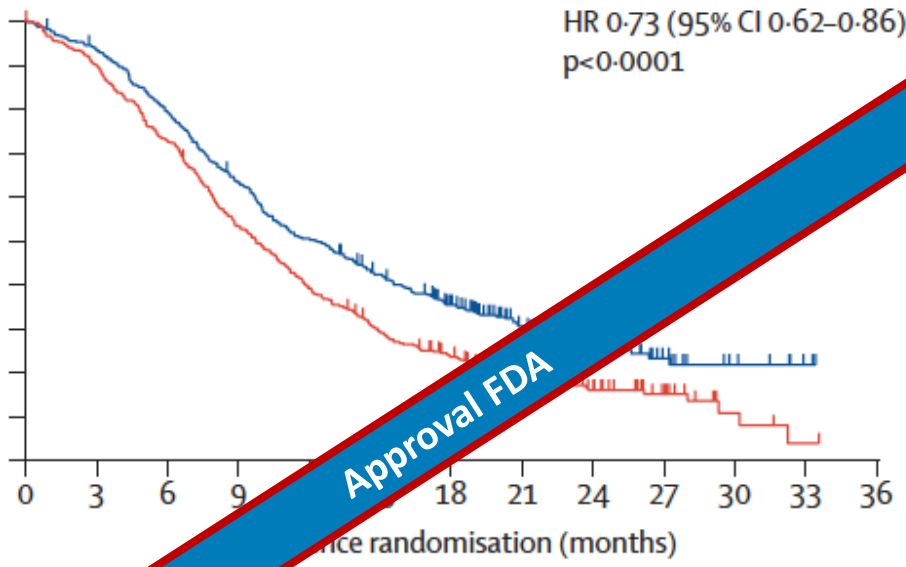
Kato et al, LBA8, ESMO 2020
Sun et al, Lancet. 2021 Aug 28;398(10302):759-771

CHECKMATE-590: 24 Months Follow-up

Patients with CPS ≥10



Alle randomized patients



Approval EMA

Approval FDA

Number at (number																								
Pembr plus hemothe py group	186 (0)	175 (0)	151 (0)	125 (0)	100 (0)	79 (4)	66 (9)	40 (28)	23 (42)	10 (52)	4 (58)	0 (58)	0 (58)			235 (2)	187 (3)	151 (3)	118 (9)	68 (17)	36 (54)	17 (81)	7 (95)	2 (104)	0 (109)	(111)
Placebo plus hemotherapy group	197 (0)	174 (0)	142 (0)	102 (0)	73 (0)	55 (1)	42 (3)	28 (11)	13 (22)	6 (29)	1 (32)	0 (32)	(32)	(0)	338 (1)	274 (1)	200 (2)	147 (2)	108 (5)	82 (11)	51 (28)	28 (44)	15 (56)	4 (65)	1 (66)	0 (67)

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Sun et al, Lancet. 2021 Aug 28;398(10302):759-771

Results of Extended Follow-Up for Approved Agents

Gastric/esophageal cancer

- CHECKMATE-577
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Hepatocellular Carcinoma

- CHECKMATE-469
- KEYNOTE-240
- IMBRAVE-150

MSI Colon-Cancer

- KEYNOTE-177

ESMO WORLD CONGRESS ON Gastrointestinal Cancer | 2020 VIRTUAL

CheckMate 459: long-term survival outcomes with nivolumab versus sorafenib as first-line treatment in patients with advanced hepatocellular carcinoma

Key eligibility criteria

- Histologically confirmed aHCC not eligible for surgical and/or LRT; or progressive disease after surgical and/or LRT
- Child-Pugh class A
- ECOG PS 0 or 1
- Systemic therapy naive

Stratification factors

- Etiology (HCV vs non-HCV)
- Vascular invasion and/or extrahepatic spread (present vs absent)
- Geography (Asia vs non-Asia)

R 1:1

N = 743

NIVO
240 mg IV Q2W
n = 371

SOR
400 mg po BID
n = 372

Unacceptable toxicity or disease progression

Primary objective
- OS

Secondary objective
- ORR
- PFS
- Efficacy by PD-L1 status

Exploratory objective
- HRQOL using FACT-Hep

- **Patient randomization:** January 2016–May 2017

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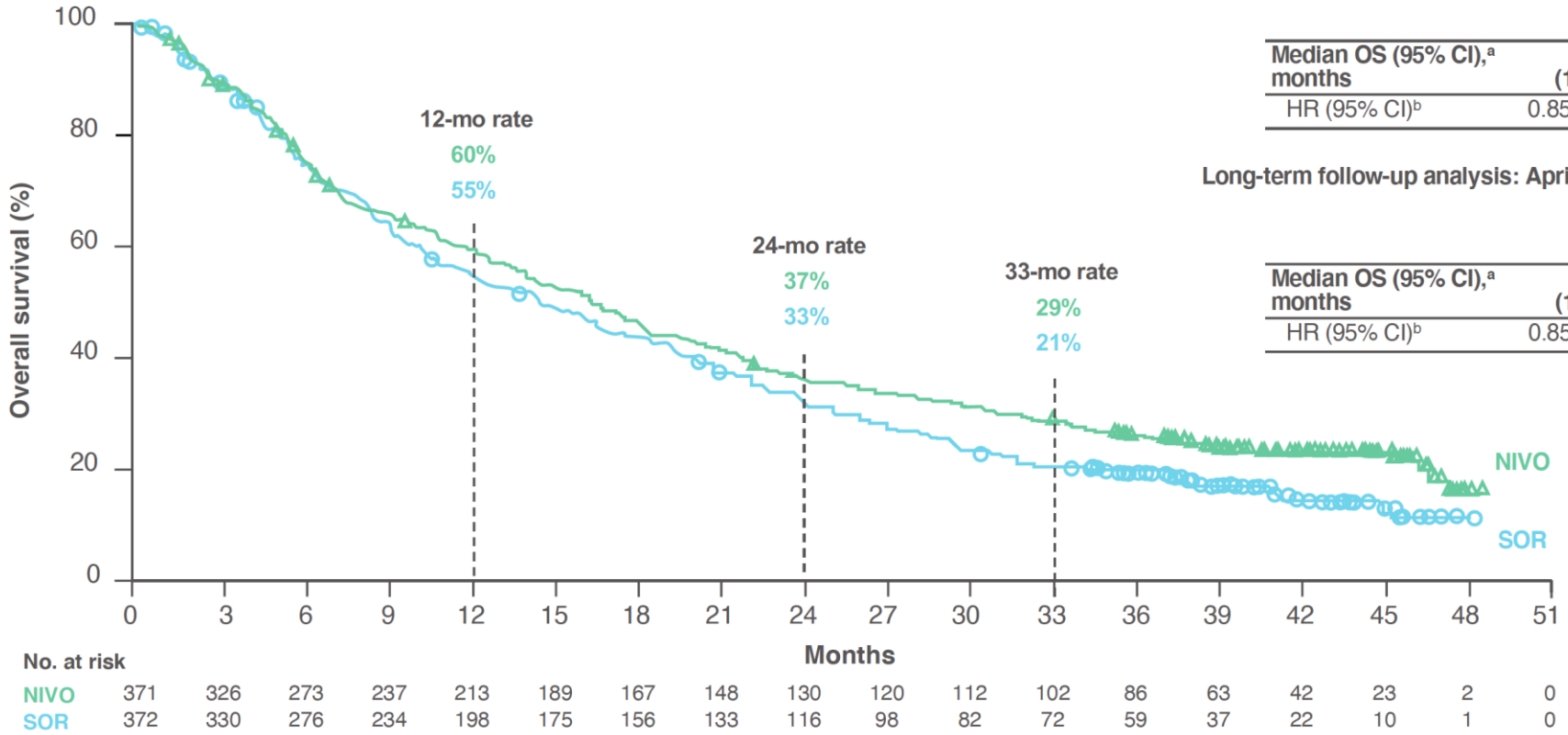
CHECKMATE-459: 34 Months Follow-up

Overall survival



Primary analysis: June 2019 DBL

	NIVO n = 371	SOR n = 372
Median OS (95% CI),[a] months	16.4 (13.9–18.4)	14.7 (11.9–17.2)
HR (95% CI)[b]	0.85 (0.72–1.02); *P* value[c] = 0.0752	

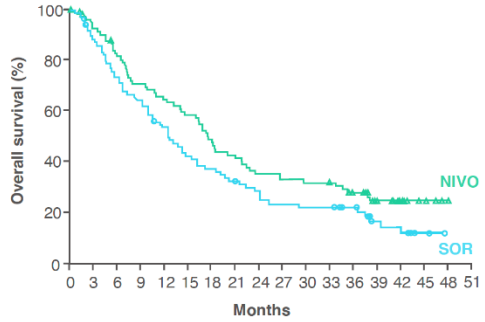
Long-term follow-up analysis: April 2020 DBL[d]

	NIVO n = 371	SOR n = 372
Median OS (95% CI),[a] months	16.4 (14.0–18.5)	14.8 (12.1–17.3)
HR (95% CI)[b]	0.85 (0.72–1.00); *P* value[c] = 0.0522	

CHECKMATE-459: 34 Months Follow-up

HCV[a]

	NIVO n = 87	SOR n = 86
Median OS (95% CI), months	17.5 (13.9–21.9)	12.7 (9.9–16.2)
HR (95% CI)	0.72 (0.51–1.02)	

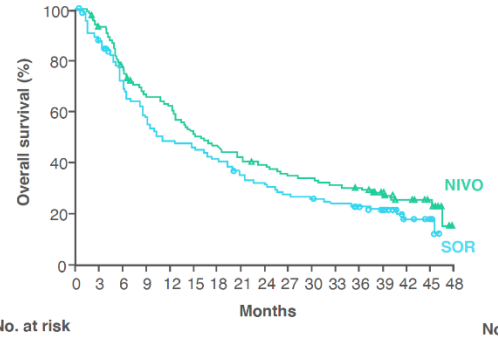


No. at risk

NIVO	87	77	67	58	53	48	40	34	29	27	26	25	20	13	8	4	1	0
SOR	86	74	61	54	43	34	30	25	22	18	17	17	14	7	5	2	0	0

HBV[a]

	NIVO n = 116	SOR n = 117
Median OS (95% CI), months	16.1 (12.5–21.3)	10.4 (8.5–17.3)
HR (95% CI)	0.79 (0.59–1.07)	

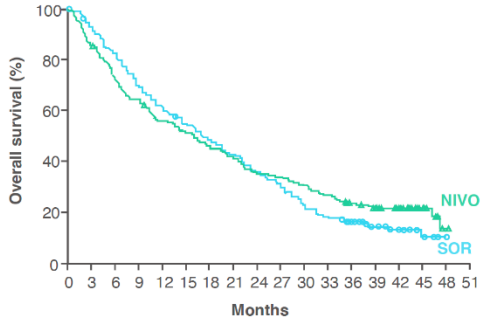


No. at risk

NIVO	116	106	86	72	68	56	51	46	42	37	36	33	31	21	14	9	0
SOR	117	101	77	63	53	50	45	37	33	29	27	24	21	17	8	4	0

Uninfected

	NIVO n = 168	SOR n = 168
Median OS (95% CI), months	16.0 (10.8–20.2)	17.4 (13.7–21.3)
HR (95% CI)	0.91 (0.72–1.16)	

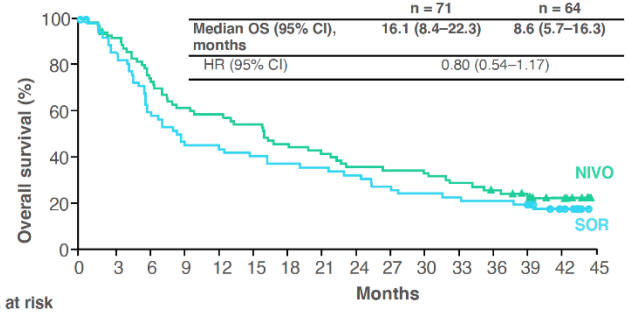


No. at risk

NIVO	168	143	120	107	92	85	76	68	59	56	50	44	35	29	20	10	1	0
SOR	168	154	137	116	101	90	80	70	60	50	37	30	23	13	9	4	1	0

Tumor cell PD-L1 expression ≥ 1%[a]

	NIVO n = 71	SOR n = 64
Median OS (95% CI), months	16.1 (8.4–22.3)	8.6 (5.7–16.3)
HR (95% CI)	0.80 (0.54–1.17)	

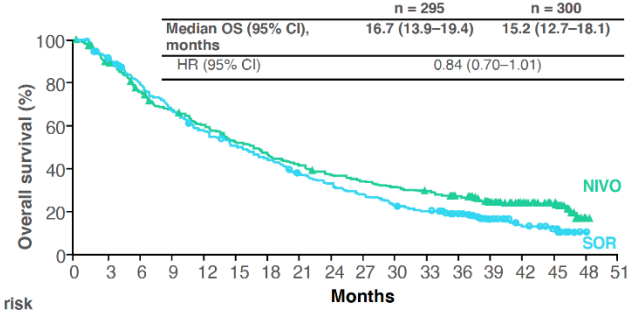


No. at risk

NIVO	71	64	53	43	41	38	32	29	25	24	23	20	16	12	8	0
SOR	64	53	37	29	28	25	23	22	20	17	15	14	13	12	7	0

Tumor cell PD-L1 expression < 1%[a]

	NIVO n = 295	SOR n = 300
Median OS (95% CI), months	16.7 (13.9–19.4)	15.2 (12.7–18.1)
HR (95% CI)	0.84 (0.70–1.01)	



No. at risk

NIVO	295	257	216	190	169	148	133	117	104	95	88	81	69	50	34	23	2	0
SOR	300	271	233	199	165	145	128	106	93	78	65	56	45	25	15	10	1	0

Conclusion: NIVO demonstrate a clinically meaningful benefit as first-line therapy in advanced HCC

Benefit with NIVO was observed regardless of PD-L1 status or viral etiology

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Pembrolizumab Versus Placebo in Patients W Advanced Hepatocellular Carcinoma Previously Treated With Sorafenib: Updated Data From the Randomized, Phase 3 KEYNOTE-240 Study

Philippe Merle,[1] Julien Edeline,[2] Mohamed Bouattour,[3] Ann-Lii Cheng,[4] Stephen L. Chan,[5] Thomas Yau,[6] Marcelo Garrido,[7] Jennifer Knox,[8] Bruno Daniele,[9] Andrew X. Zhu,[10] Valeriy Breder,[11] Ho Yeong Lim,[12] Sadahisa Ogasawara,[13] Abby B. Siegel,[14] Ahmadur Rahman,[14,a] Ziwen Wei,[14] Richard S. Finn[15]

Key Eligibility Criteria

- Pathologically/radiographically confirmed HCC
- Progression on/intolerance to sorafenib
- Child Pugh class A
- BCLC stage B/C
- ECOG PS 0-1
- Measurable disease per RECIST v1.1
- Main portal vein invasion was excluded

Stratification Factors

- Geographic region (Asia w/o Japan vs non-Asia w/Japan)
- Macrovascular invasion (Y vs N)
- AFP level (≥200 vs <200 ng/mL)

Randomized 2:1
N = 413

Pembrolizumab
200 mg Q3W + BSC

Saline-placebo
Q3W + BSC

- **Enrollment May 31, 2016 – November 23, 2017**

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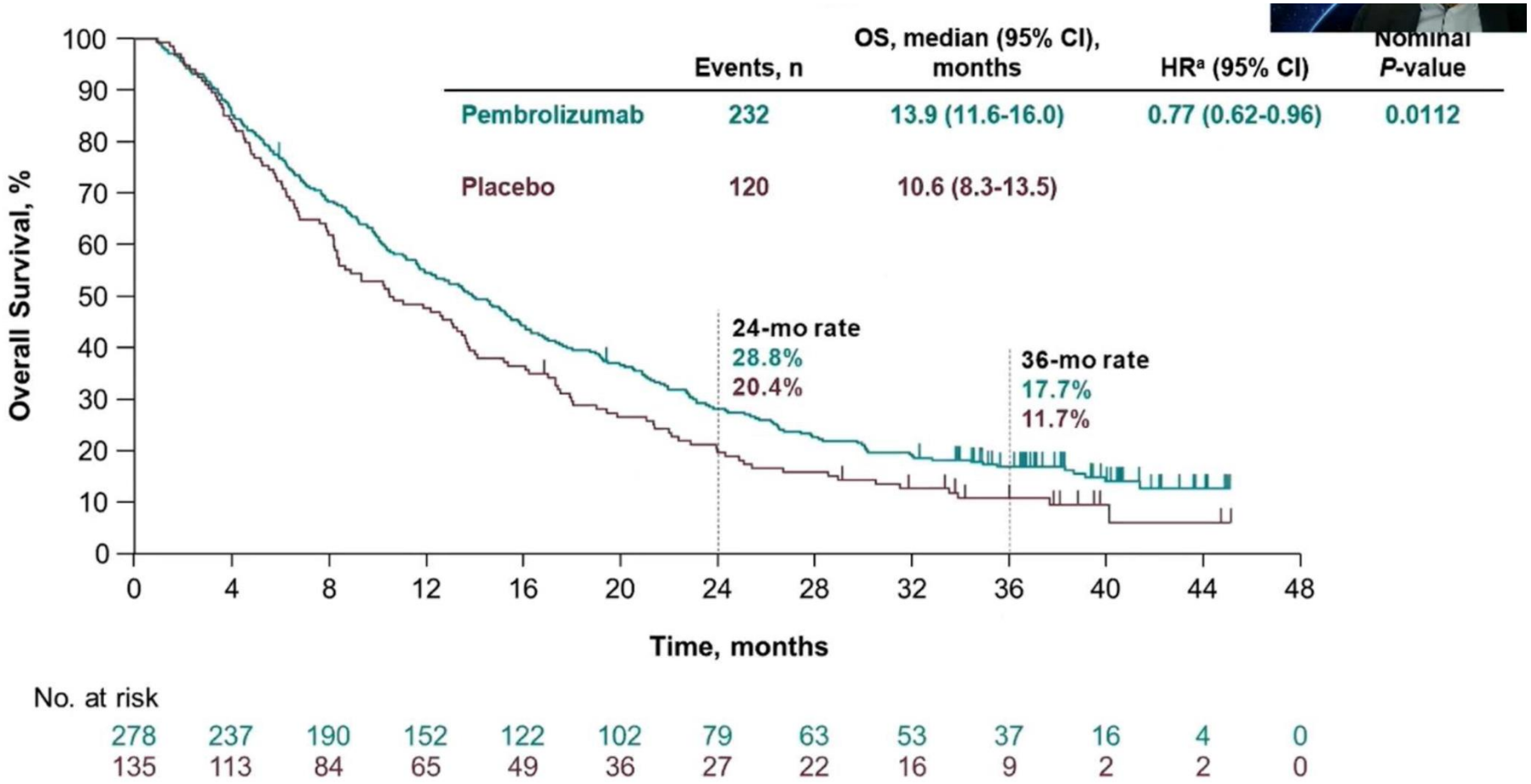
KEYNOTE-240: 40 Months Follow-up



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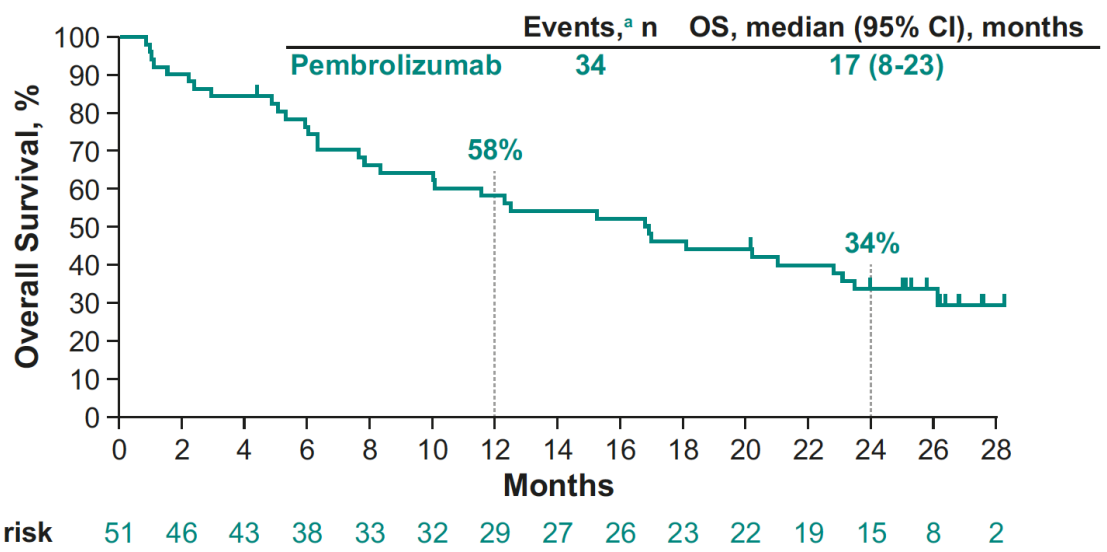
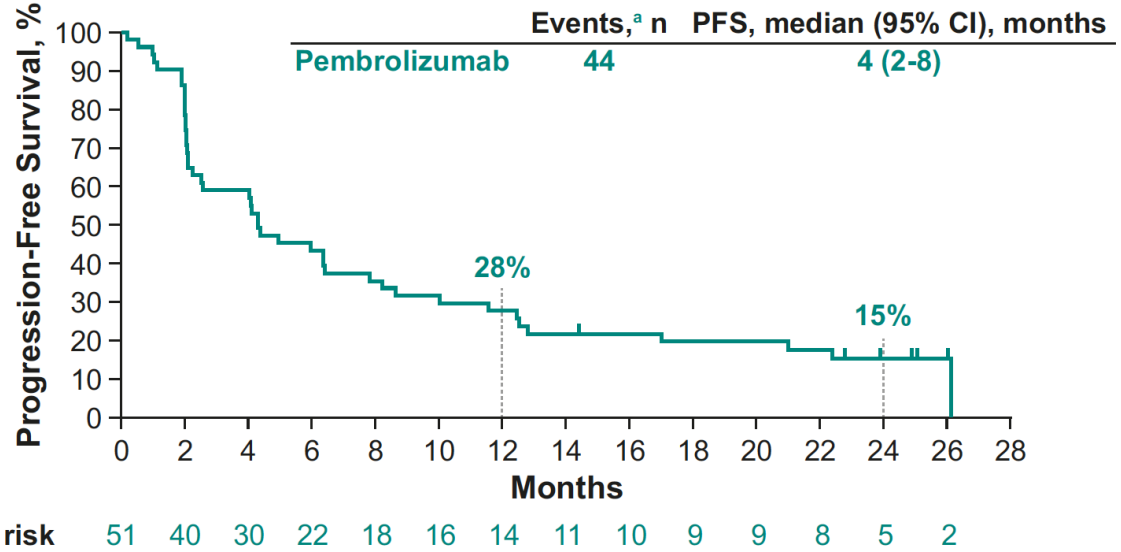
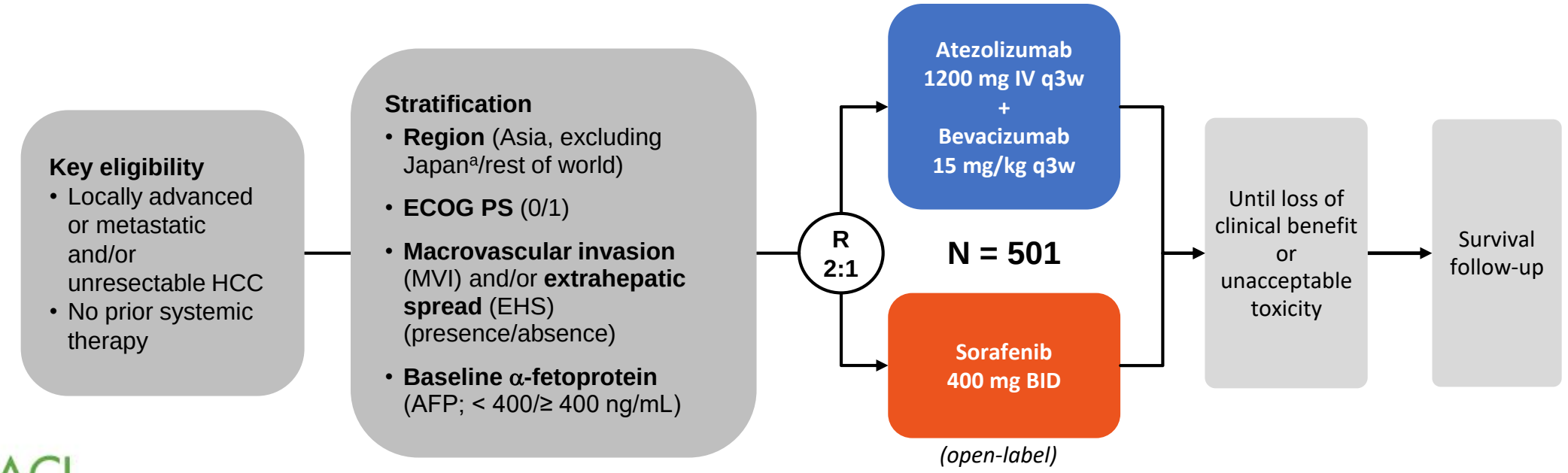
KEYNOTE-224: 27 Months Follow-up





IMbrave150: updated overall survival data from a global, randomized, open-label Phase III study of atezolizumab + bevacizumab vs sorafenib in patients with unresectable hepatocellular carcinoma

Finn RS,[1] Qin S,[2] Ikeda M,[3] Galle PR,[4] Ducreux M,[5] Kim T-Y,[6] Lim HY,[7] Kudo M,[8] Breder V,[9] Merle P,[10] Kaseb A,[11] Li D,[12] Verret W,[13] Shao H,[14] Liu J,[14] Li L,[14] Zhu AX,[15] Cheng AL[16]



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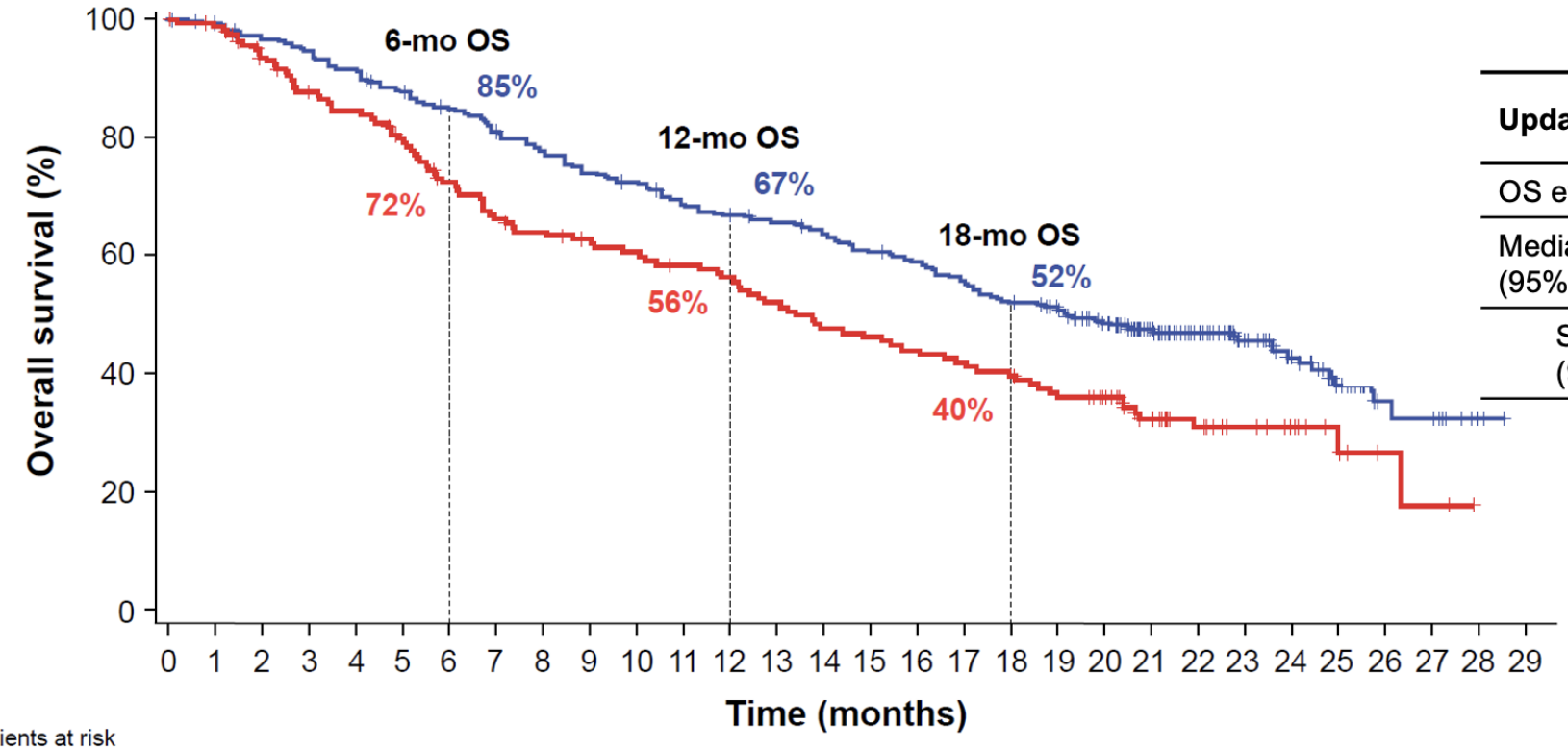
IMBRAVE-150: 15,6 Months Follow-up

	Updated analysis[a]			
	RECIST 1.1		HCC mRECIST	
	Atezo + Bev (n = 326)	Sorafenib (n = 159)	Atezo + Bev (n = 325)	Sorafenib (n = 158)
Confirmed ORR (95% CI), %	**30 (25, 35)**	**11 (7, 17)**	**35 (30, 41)**	**14 (9, 20)**
CR, n (%)	25 (8)	1 (< 1)	39 (12)	4 (3)
PR, n (%)	72 (22)	17 (11)	76 (23)	18 (11)
SD, n (%)	144 (44)	69 (43)	121 (37)	65 (41)
DCR, n (%)	241 (74)	87 (55)	236 (73)	87 (55)
PD, n (%)	63 (19)	40 (25)	65 (20)	40 (25)
Ongoing response, n (%)	54 (56)	5 (28)	58 (50)	6 (27)
Median DOR (95% CI), mo[b]	**18.1 (14.6, NE)**	**14.9 (4.9, 17.0)**	**16.3 (13.1, 21.4)**	**12.6 (6.1, 17.7)**

IMBRAVE-150: 15,6 Months Follow-up



No. of patients at risk

Atezo + Bev	336	329	320	312	302	288	276	263	252	240	233	221	214	209	202	192	186	175	164	156	134	105	80	57	42	24	12	11	2	NE
Sorafenib	165	158	144	133	128	119	106	96	92	88	85	81	78	72	66	64	61	58	55	49	44	32	24	18	12	7	3	2	NE	NE

Updated OS	Atezo + Bev (n = 336)	Sorafenib (n = 165)
OS events, n (%)	180 (54)	100 (61)
Median OS, mo (95% CI)	**19.2** (17.0, 23.7)	**13.4** (11.4, 16.9)
Stratified HR (95% CI)[a]	**0.66** (0.52, 0.85) *P* = 0.0009[b]	

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Results of Extended Follow-Up for Approved Agents

Gastric/esophageal cancer

- CHECKMATE-577
- CHECKMATE-649
- KEYNOTE-590

Hepatocellular Carcinoma

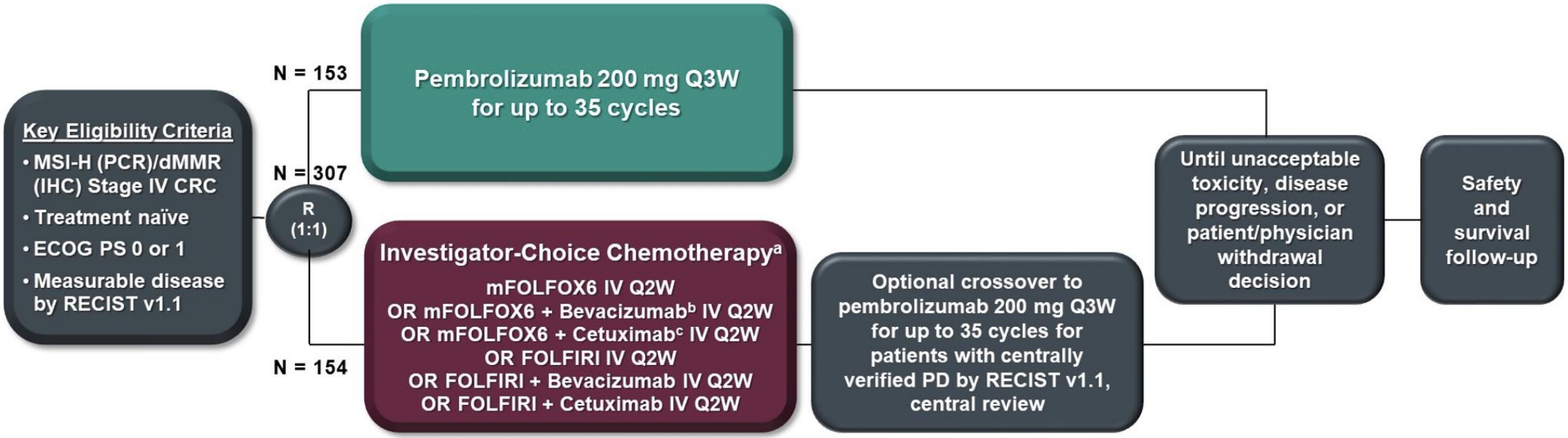
- CHECKMATE-469
- KEYNOTE-240
- IMBRAVE-150

MSI Colon-Cancer

- KEYNOTE-177

Final Overall Survival for the Phase 3 KN177 Study: Pembrolizumab Versus Chemotherapy in Microsatellite Instability-High/Mismatch Repair Deficient (MSI-H/dMMR) Metastatic Colorectal Cancer (mCRC)

Thierry André,[1] Kai-Keen Shiu,[2] Tae Won Kim,[3] Benny Vittrup Jensen,[4] Lars Henrik Jensen,[5] Cornelis Punt,[6] Denis Smith,[7] Rocio Garcia-Carbonero,[8] Julia Alcaide-Garcia,[9] Peter Gibbs,[10] Christelle de la Fouchardiere,[11] Fernando Rivera,[12] Elena Elez,[13] Johanna Bendell,[14] Dung T. Le,[15] Takayuki Yoshino,[16] Wenyan Zhong,[17] David Fogelman,[18] Patricia Marinello,[18] Luis A. Diaz Jr[19]



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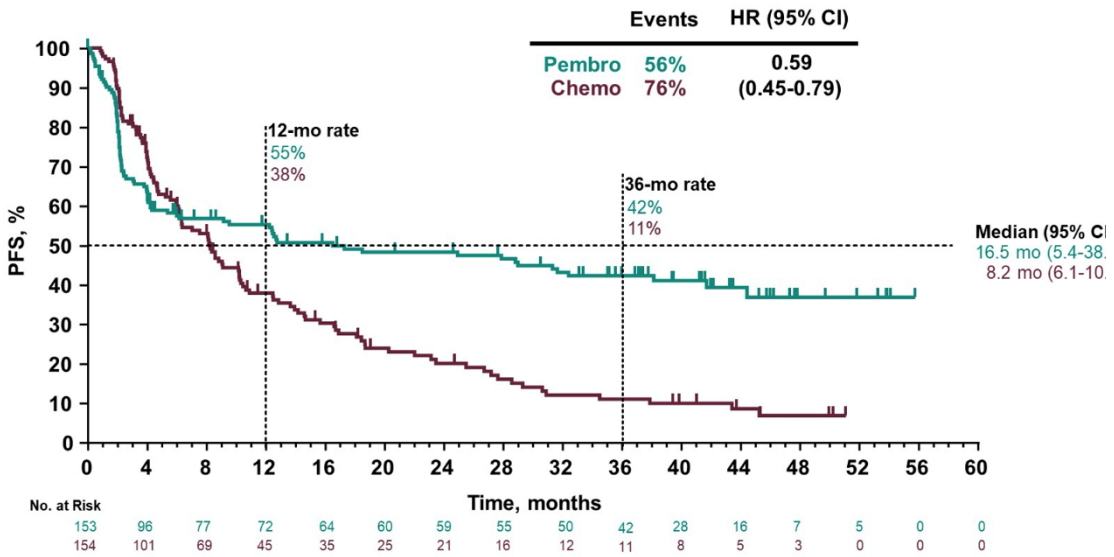
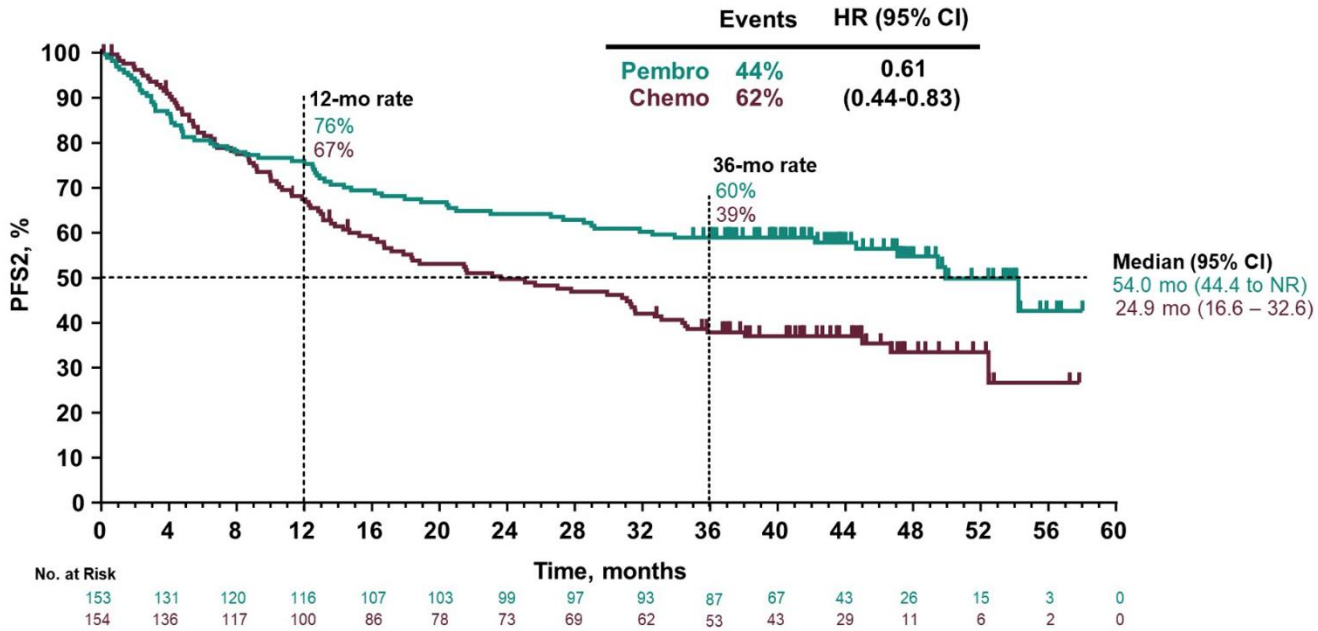
KEYNOTE-177: 44 Months Follow-up

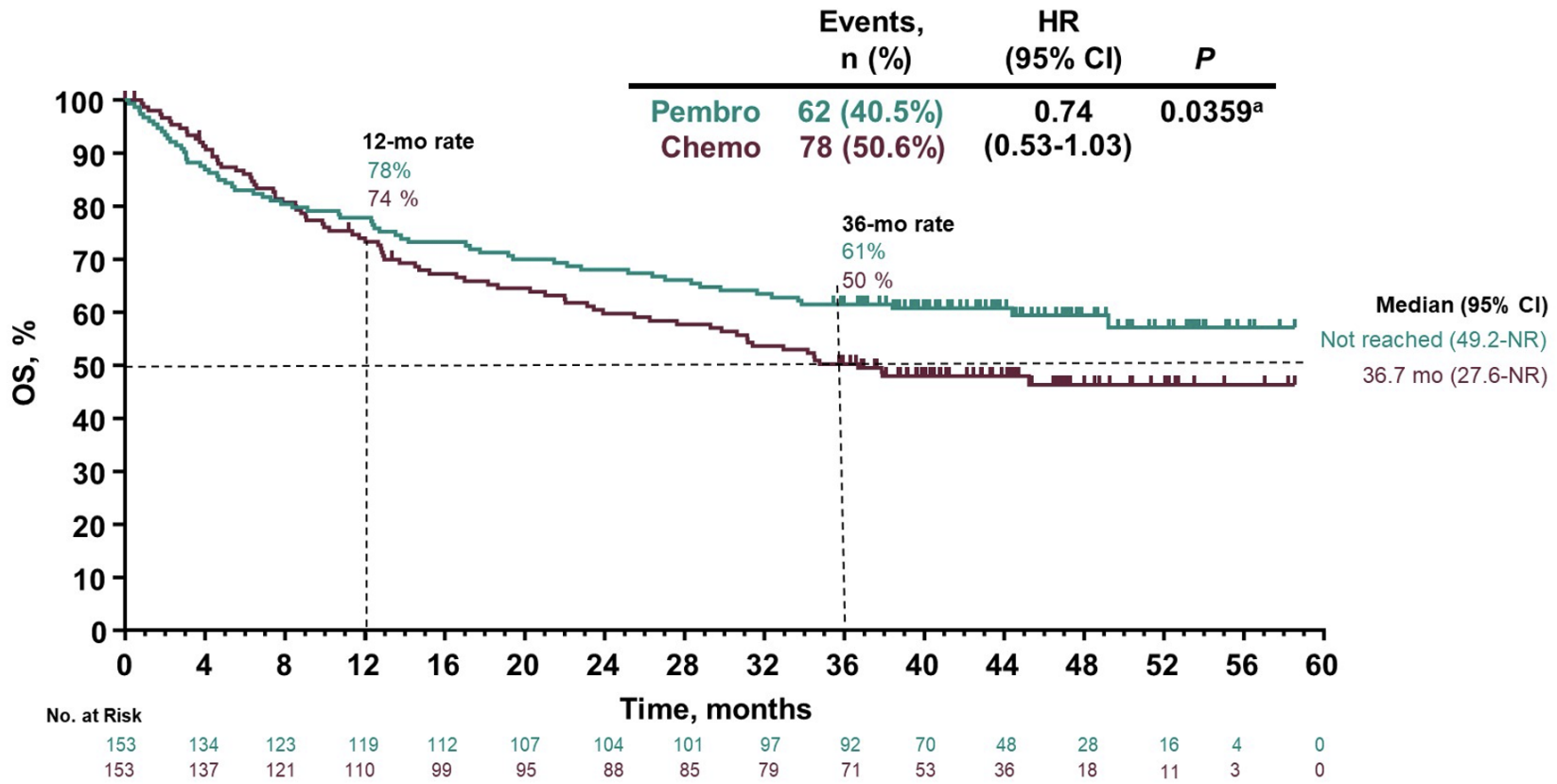
PFS



PFS2



KEYNOTE-177: 44 Months Follow-up



60% cross over in chemo arm

NIVOLUMAB PLUS LOW-DOSE IPILIMUMAB IN PREVIOUSLY TREATED PATIENTS WITH MICROSATELLITE INSTABILITY-HIGH/ MISMATCH REPAIR-DEFICIENT METASTATIC COLORECTAL CANCER: 4-YEAR FOLLOW-UP FROM CHECKMATE 142

Thierry André,[1] Sara Lonardi,[2] Ka Yeung Mark Wong,[3] Heinz-Josef Lenz,[4] Fabio Gelsomino,[5] Massimo Aglietta,[6] Michael A. Morse,[7] Eric Van Cutsem,[8] Ray McDermott,[9] Andrew Hill,[10] Michael B. Sawyer,[11] Alain Hendlisz,[12] Bart Neyns,[13] Sandzhar Abdullaev,[14] Arteid Memaj,[14] Ming Lei,[14] Scott Kopetz,[15] Michael Overman[15]

ESMO WORLD CONGRESS ON Gastrointestinal Cancer 2021

- Histologically confirmed metastatic/recurrent CRC
- MSI-H/dMMR per local laboratory
- ≥ 1 prior line of therapy

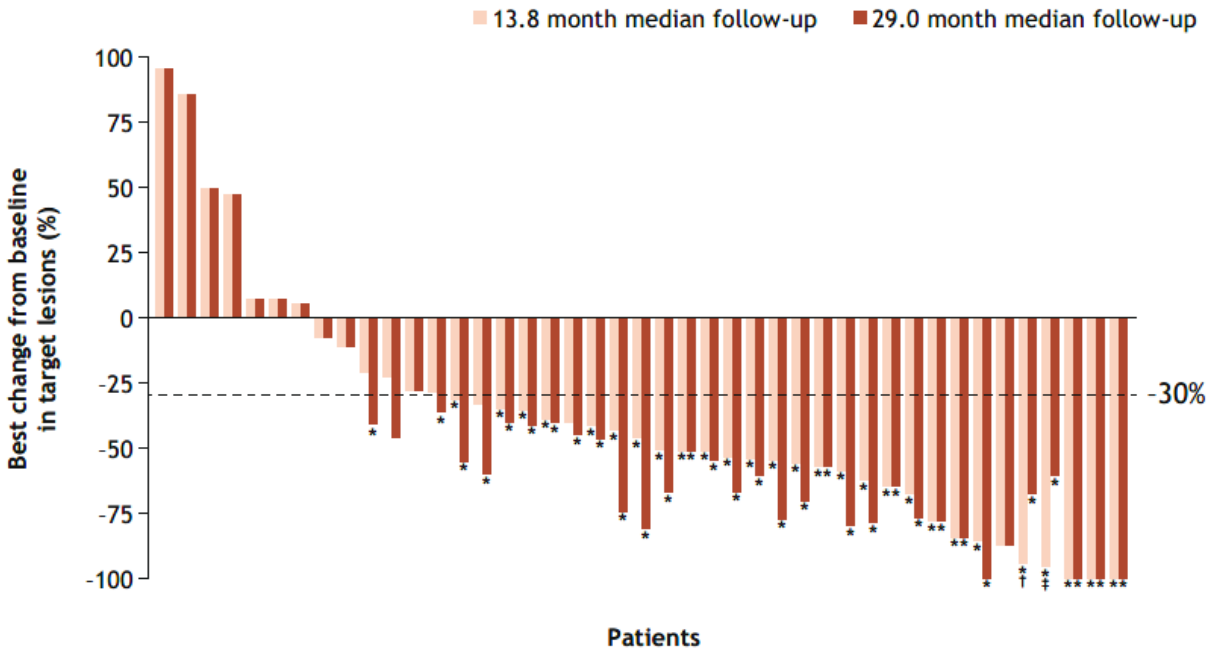
N = 119 →

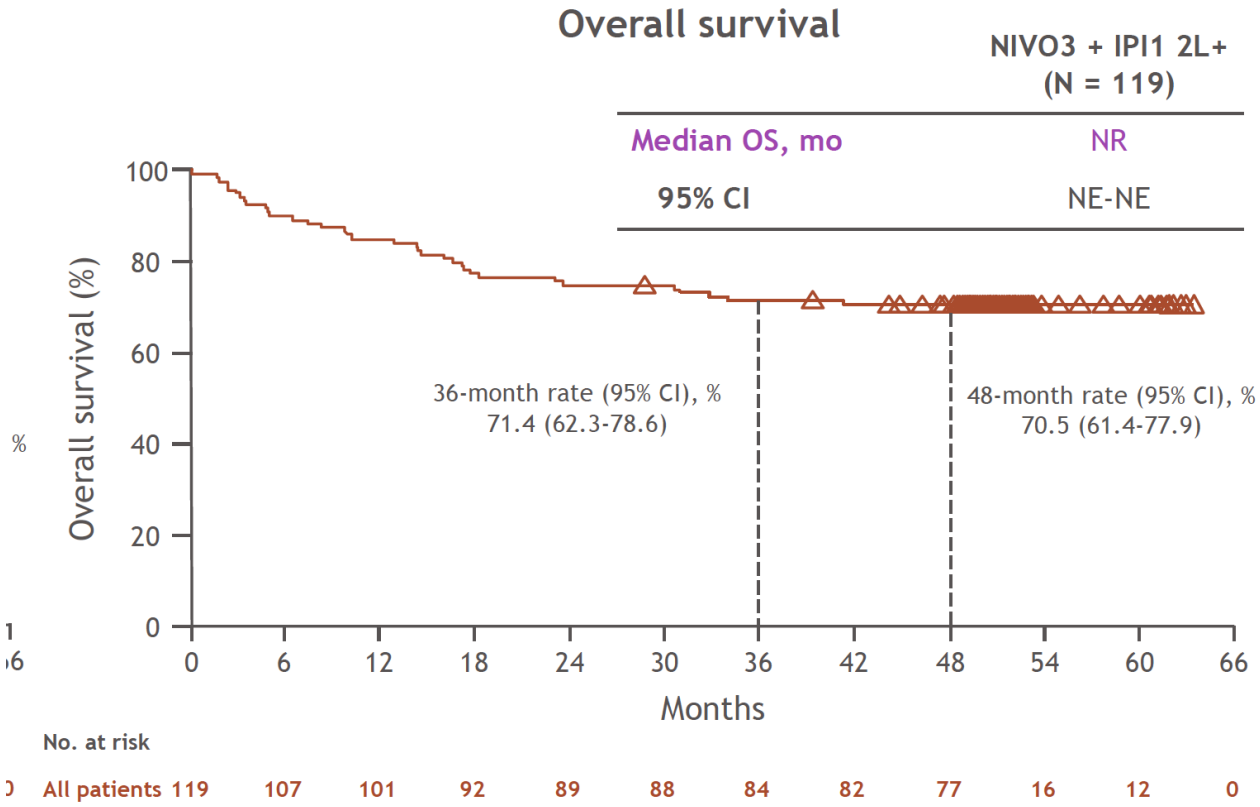
NIVO3 + IPI1 Q3W (4 doses, then NIVO3 Q2W)[b]

Primary endpoint:
ORR per investigator assessment (RECIST v1.1)

Other key endpoints:
ORR per BICR, DCR,[c] DOR, PFS, OS, and safety

CHECKMATE-142: 39/50 Months Follow-up





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vogela@me.com

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