



Latest Molecular-Driven Clinical Trial Data in Front-Line Advanced Endometrial Cancer

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Declaration of Interest

- Honoraria: AstraZeneca, Clovis, Genmab, Immunogen, Merck, Roche, Tesaro/GSK, PharmaMar
- Consulting or Advisory Role: AstraZeneca, Clovis Oncology, GSK, MSD, Immunogen, Genmab, Amgen, Seagen, PharmaMar, AstraZeneca, Merck Serono, Seagen, Genmab, Oncoinvest, Corcept, Sutro
- Speakers' Bureau: AstraZeneca, Clovis Oncology, GSK, MSD, PharmaMar
- Research Funding: Clovis (Inst), Merck (Inst), PharmaMar (Inst), Tesaro/GSK (Inst)
- Expert Testimony: Clovis
- Travel, Accommodations, Expenses: AstraZeneca, Clovis, PharmaMar, Roche, Tesaro

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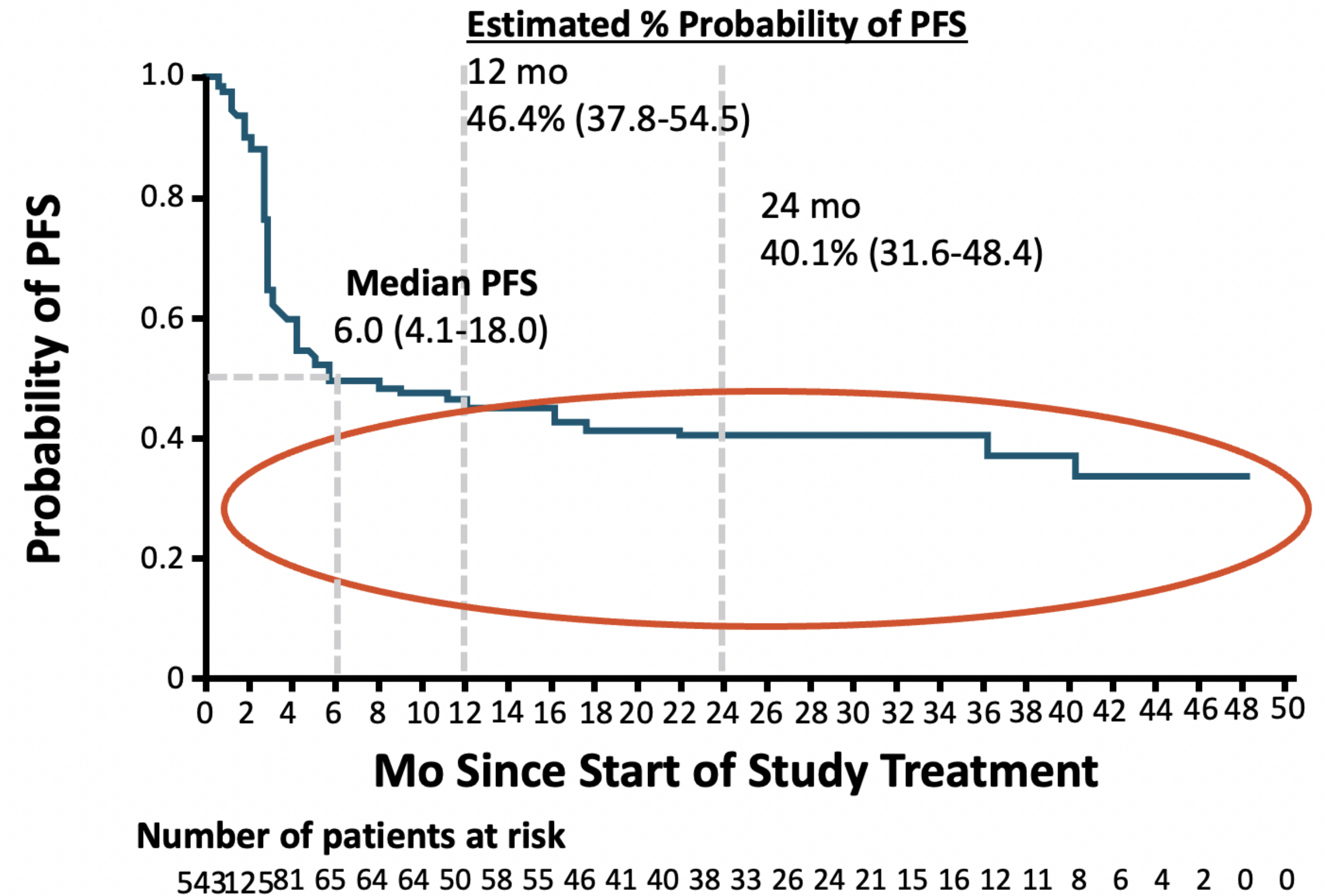
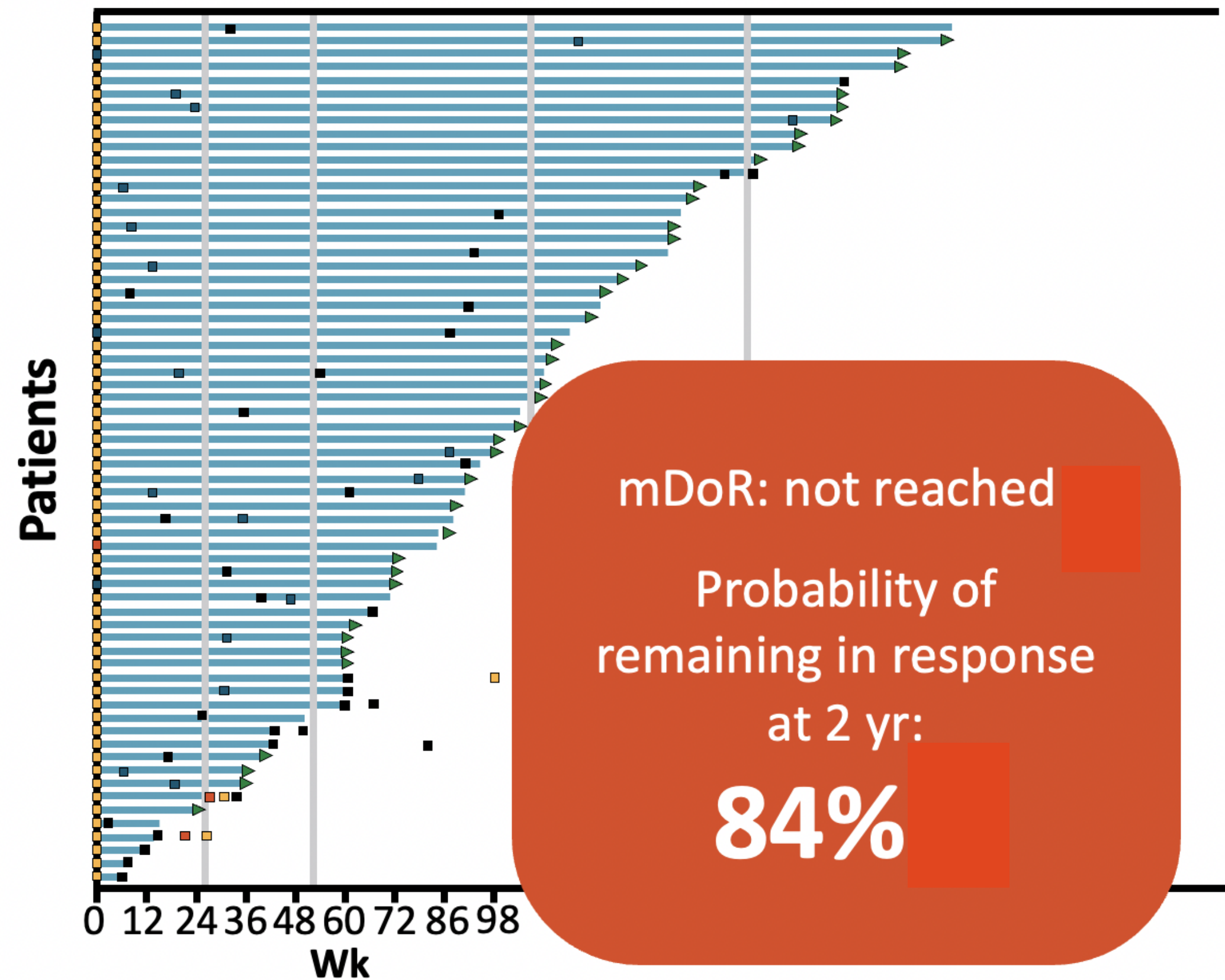
Recurrent Endometrial Cancer: Data for approved single-agent immunotherapies

Parameter	KEYNOTE-158 ¹ : Pembrolizumab in MSI-H EC Cohorts D + K (n = 99)	GARNET ² : Dostarlimab	
		Cohort A1 [†] MMRd EC (n = 106*)	Cohort A2 [†] pMMR EC (n = 142) ²
ORR, % (95% CI)	48 (37-60)	43.4 (33.8-53.4)	13.4 (8.3-20.1)
Best overall response n (%)			
▪ CR	11 (14)	11 (10.4)	3 (2.1)
▪ PR	27 (34)	35 (33.0)	16 (11.3)
▪ SD	14 (18)	13 (12.3)	31 (21.8)
▪ PD	23 (29)	39 (36.8)	77 (54.2)
Median DoR, mo (range)	NR (2.9-49.7+)	NR	NR

*3 patients were not evaluable for a response. †Median follow-up time for cohort A1 was 13.8 mo (9.5-22.1) and cohort A2 was 11.5 mo (11.0-25.1).

Immune-Checkpoint Inhibitor in Biomarker-Selected EC Following Platinum: Phase I GARNET Study

dMMR/MSI-H EC Cohort

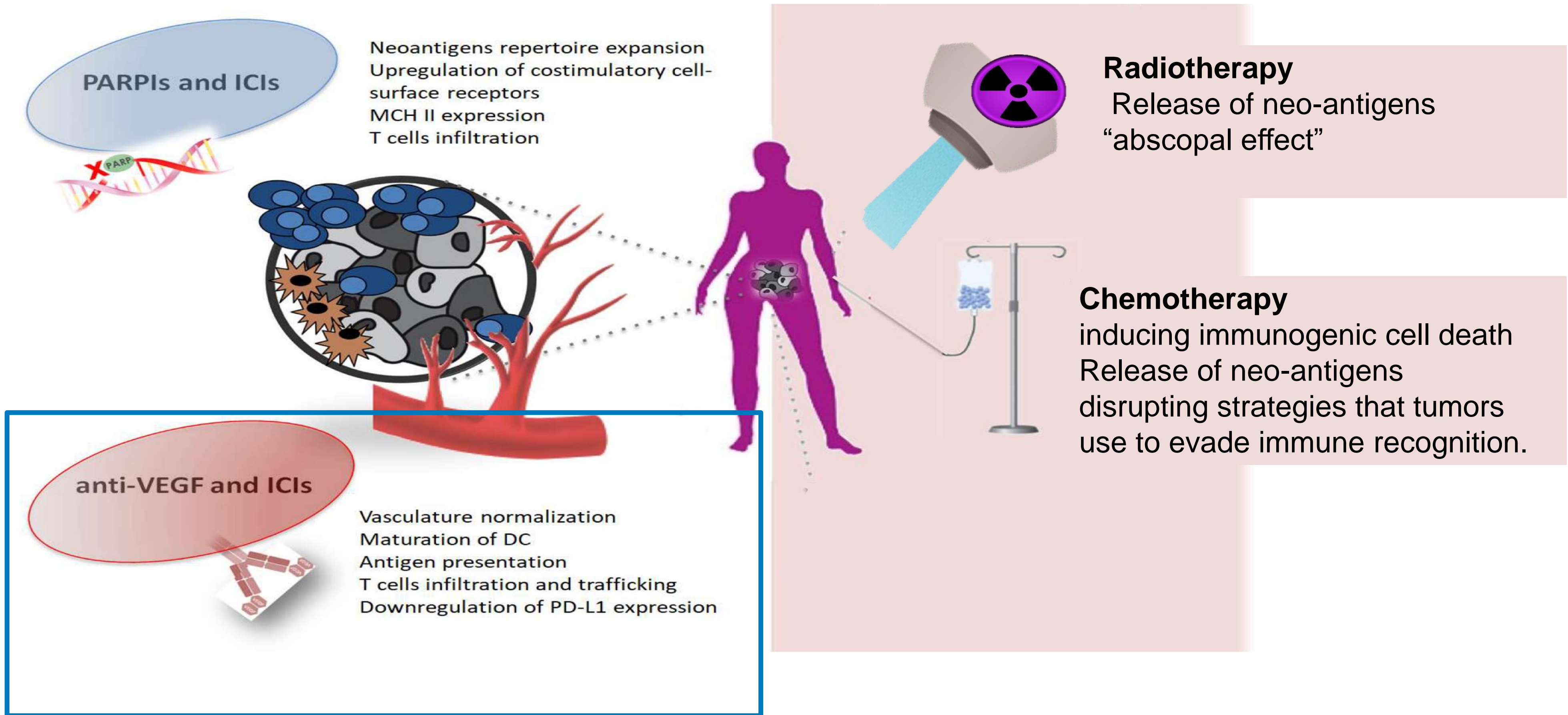


Historical Response to Anti-PD-1 Therapy pMMR/MSS Disease

Parameter	KEYNOTE-028 ¹	NCT01375842 ²	GARNET ³	NCT02912572 ⁴	PHAEDRA ⁵
Treatment	Pembrolizumab	Atezolizumab	Dostarlimab	Avelumab	Durvalumab
Phase	Ib	Ia	I/II	II	II
Cohort	Previously treated or metastatic PD-L1+ EC	Incurable or metastatic EC	Previously treated recurrent/advanced pMMR EC	pMMR recurrent EC	Recurrent pMMR EC
Patients, n	23	15	142	16	35
ORR, %	13*	13†	13.4	6	3
mPFS	1.8 mo	1.4 mo	--	1.9 mo	--
mOS	NR	9.6 mo	--	6.6 mo	--

Immunotherapy Combination

Leveraging ICI's Activity

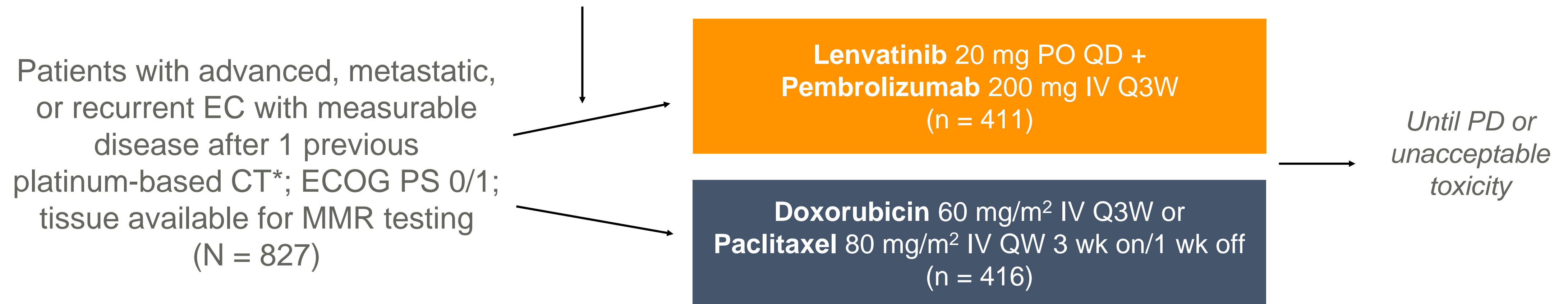


Study 309/KEYNOTE-775: Lenvatinib + Pembrolizumab After Platinum in Advanced EC

- Confirmatory, randomized, open-label phase III study

Stratified by MMR status (pMMR vs dMMR), within pMMR by region, ECOG PS 0 vs 1, prior history of pelvic radiation

FDA Accelerated Approval September 2019
FDA Priority Review May 2021
For patients with endometrial cancer who are not MSI-H or dMMR

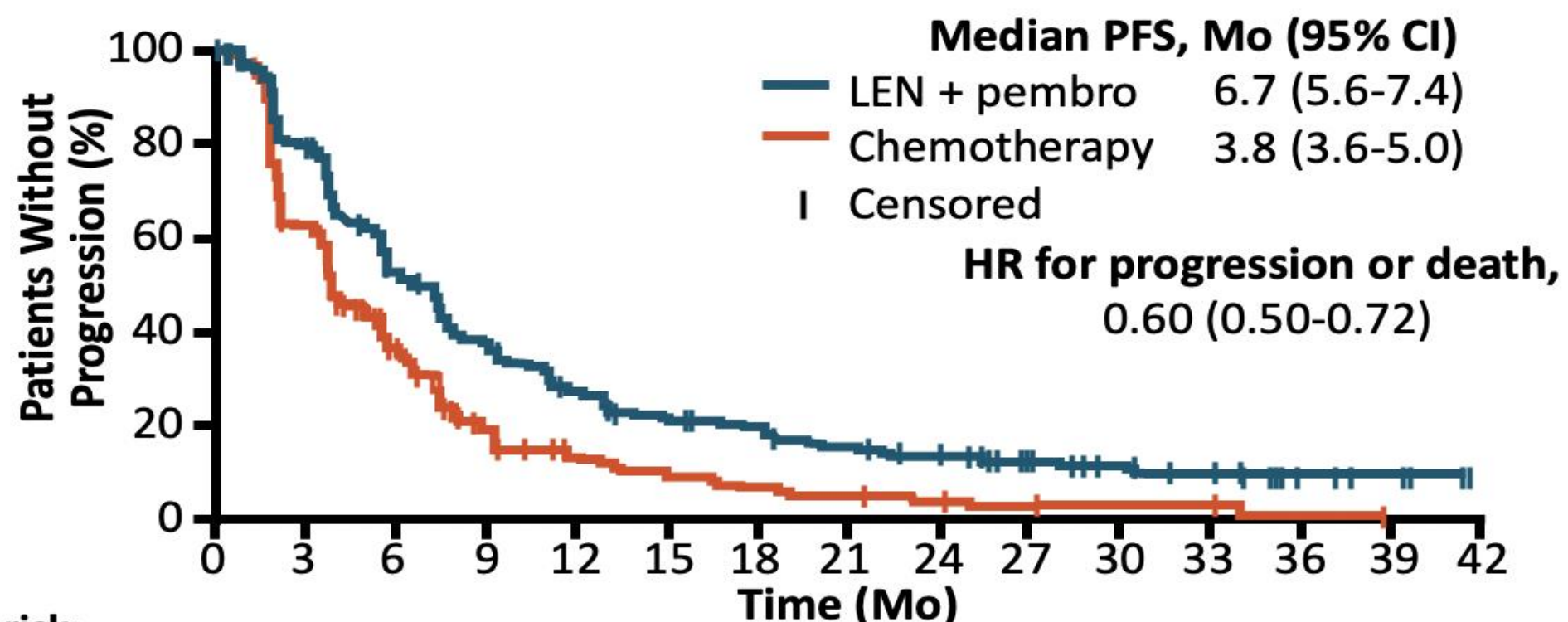


Primary endpoints: PFS by BICR, OS

- Secondary endpoints: ORR, health-related quality of life, pharmacokinetics, safety
- Key exploratory endpoint: DoR

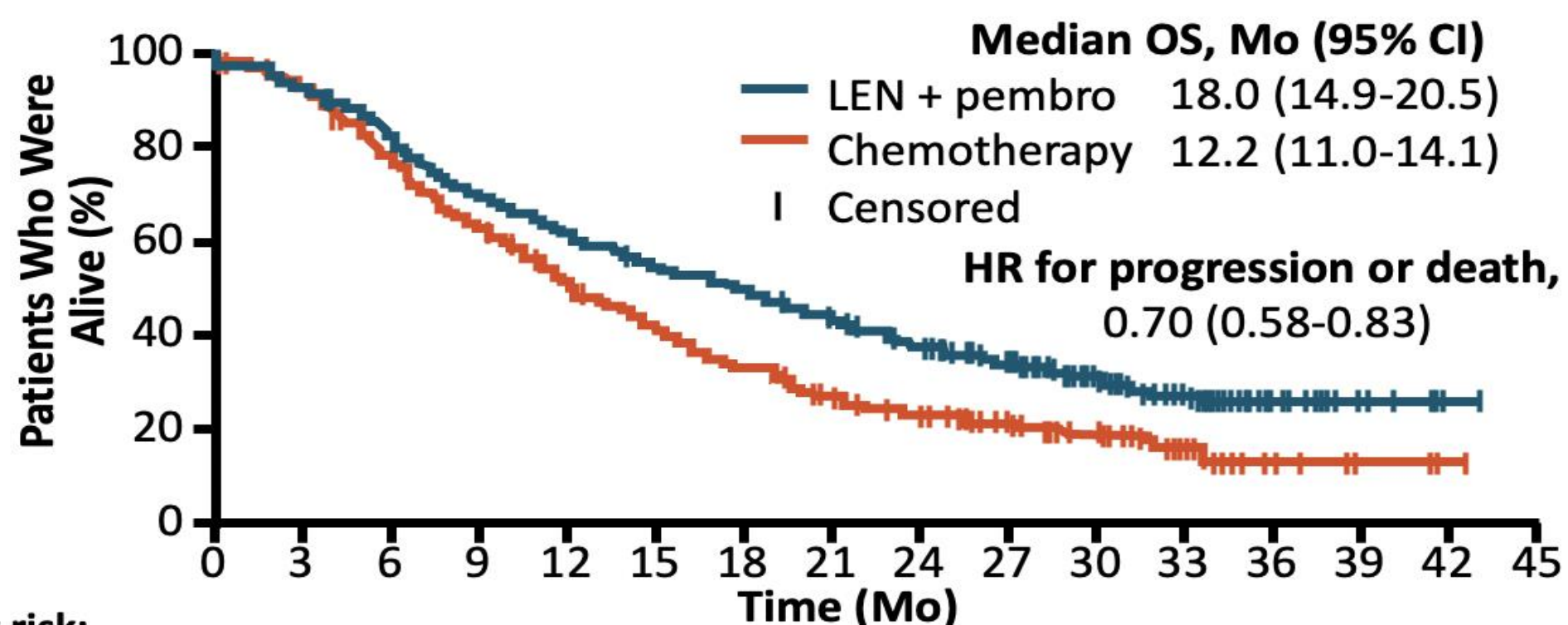
Study 309/KEYNOTE-775: PFS and OS Benefit

pMMR



No. at risk:

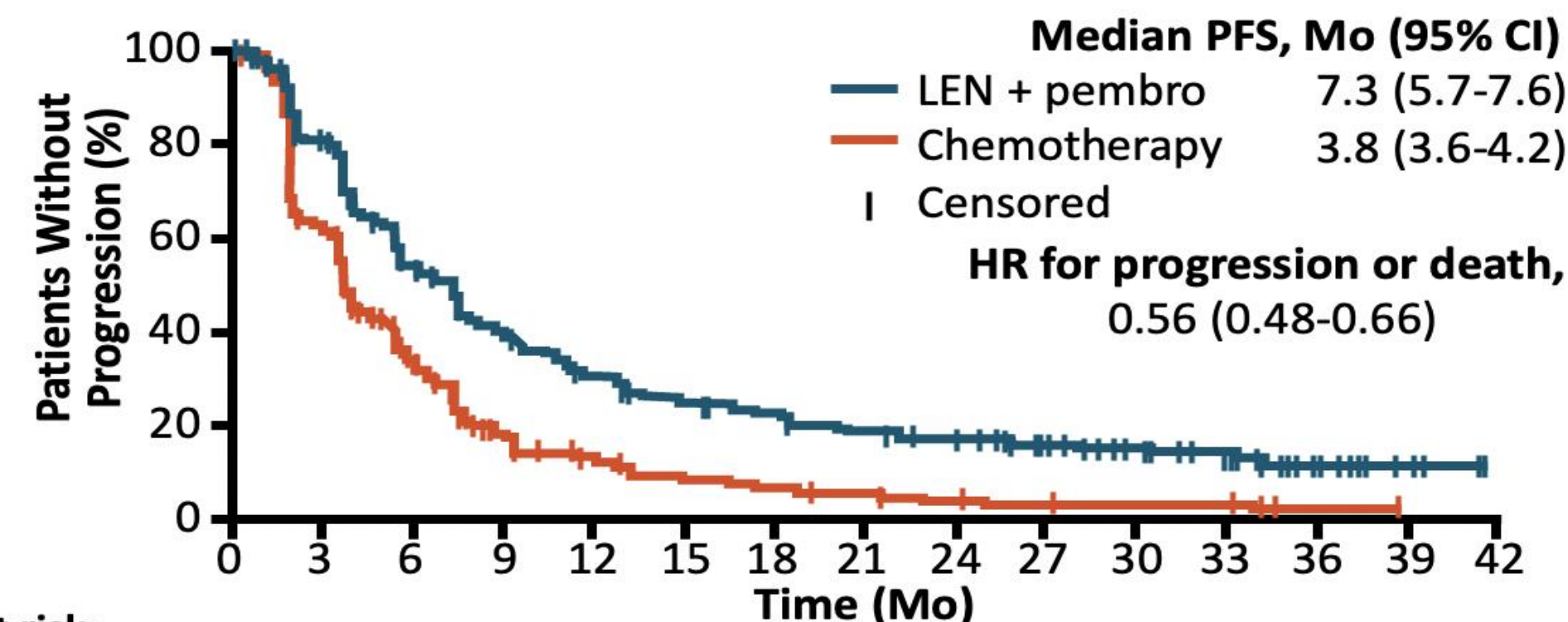
LEN + pembro	346	265	166	116	80	61	55	43	36	24	18	14	6	4	0
Chemotherapy	351	177	83	38	23	16	12	9	6	4	3	3	1	0	0



No. at risk:

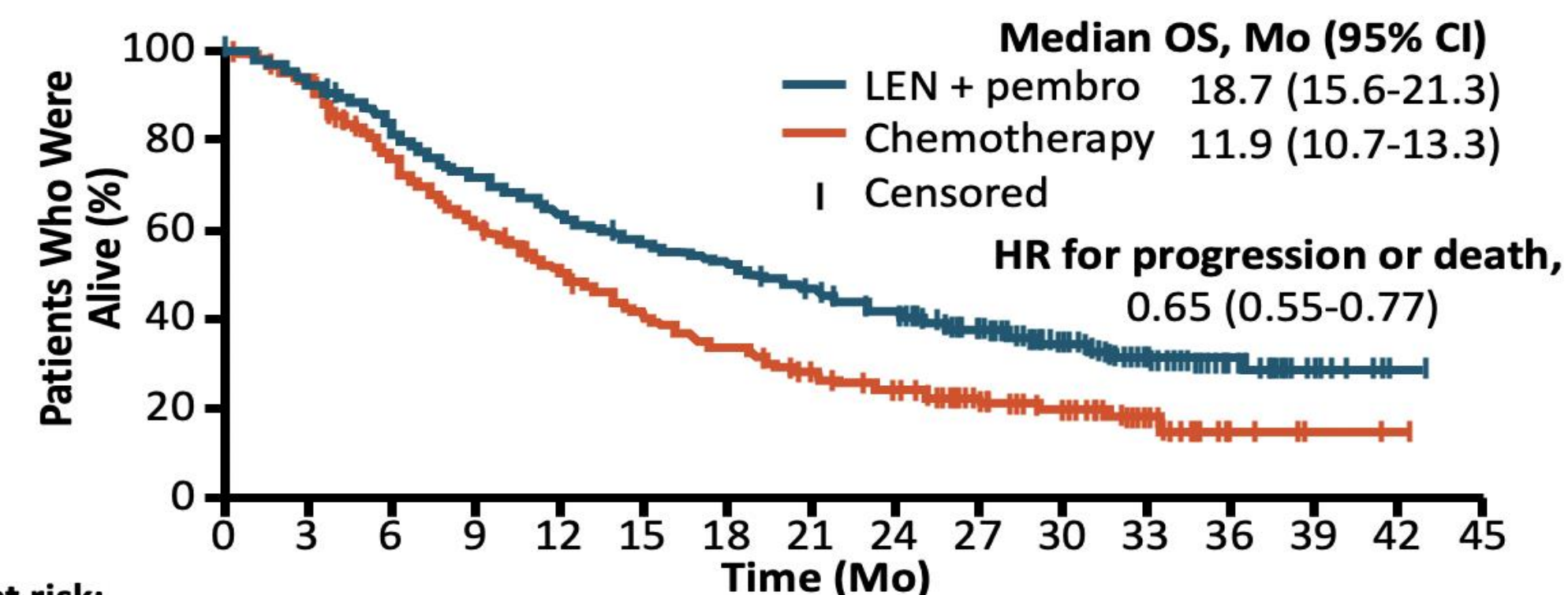
LEN + pembro	346	322	285	242	214	188	171	148	124	95	65	41	20	7	2
Chemotherapy	351	324	267	217	171	138	111	86	71	53	40	21	6	3	1

All Comers



No. at risk:

LEN + pembro	411	317	203	148	109	87	79	65	57	45	35	23	10	4	0
Chemotherapy	416	214	95	43	27	19	15	11	8	6	5	5	1	0	0



No. at risk:

LEN + pembro	411	383	337	292	258	229	211	186	160	125	91	58	30	10	2
Chemotherapy	416	378	305	246	196	158	129	104	84	64	49	28	6	3	1

Treatment Exposure, Safety, and Discontinuation in All Comers

	LEN + PEMBRO (n = 406)	TPC (n = 388)
Median duration of treatment, days (range)	231 (1-817)	104.5 (1-785)
Patients with any TEAEs (%)	99.8	99.5
Grade ≥ 3	88.9	72.7
Patients with any TEAEs leading to dose reductions (%) ^a	66.5	12.9
Patients with any grade TEAEs leading to discontinuation (%) ^b		
LEN ^c	30.8	--
Pembro ^c	18.7	--
LEN + pembro	14.0	--
Patients with any grade TEAEs leading to interruption (%) ^b		
LEN ^c	69.2	27.1
Pembro ^c	58.6	--
LEN + pembro	50.0	--
LEN + pembro	30.8	--

Study 309/KEYNOTE-775: TEAEs

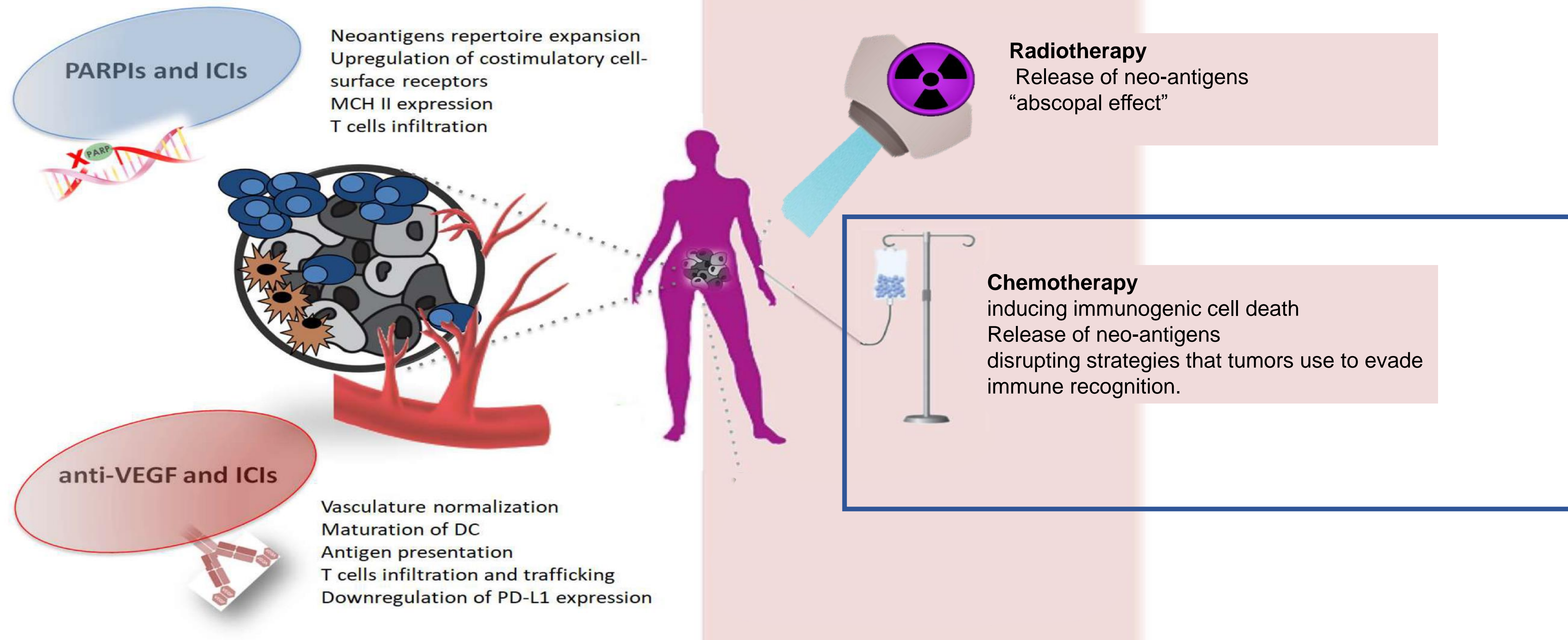
TEAE, %	Lenvatinib + Pembrolizumab (n = 406)		Doxorubicin or Paclitaxel (n = 388)	
	Any Grade	Grade $\geq 3^*$	Any Grade	Grade $\geq 3^*$
Hypertension	65.0	39.2	5.2	2.6
Hypothyroidism	58.9	1.5	0.8	0
Diarrhea	55.7	8.1	20.4	2.1
Nausea	51.7	3.4	46.4	1.3
Decreased appetite	46.6	7.6	21.4	0.5
Vomiting	37.7	3.0	21.1	2.6
Weight decrease	35.5	10.8	5.9	0.3
Fatigue	34.0	5.4	27.6	3.1
Arthralgia	32.3	1.7	8.0	0

TEAE, %	Lenvatinib + Pembrolizumab (n = 406)		Doxorubicin or Paclitaxel (n = 388)	
	Any Grade	Grade $\geq 3^*$	Any Grade	Grade $\geq 3^*$
Proteinuria	30.5	5.2	3.4	0.3
Constipation	28.3	0.7	24.5	0.5
Anemia	28.1	6.9	48.7	15.5
UTI	27.6	4.2	10.3	1.0
Headache	26.4	0.5	9.0	0.3
Neutropenia	9.1	2.0	34.0	26.0
Alopecia	5.9	0	30.9	0.3


*In the lenvatinib and pembrolizumab arm, 6.4% of patients suffered grade 5 AEs, and 5.2% of patients in the TPC arm suffered grade 5 AEs.

ICIs in unselected EC population

Combination approaches to enhance ICIs efficacy



Clinically Significant Data




ENGOT European Network of Gynaecological Oncological Trial groups
NSGO-CTU Nordic Society of Gynaecological Oncology - Clinical Trial Unit
GOG FOUNDATION

Dostarlimab in Combination with Chemotherapy for the Treatment of Primary Advanced or Recurrent Endometrial Cancer: a Placebo-Controlled Randomized Phase 3 Trial (ENGOT-EN6-NSGO/GOG-3031/RUBY)

Mansoor R. Mirza,¹ Dana Chase,² Brian Slomovitz,³ René DePont Christensen,⁴ Zoltán Novák,⁵ Destin Black,⁶ Lucy Gilbert,⁷ Sudarshan Sharma,⁸ Giorgio Valabrega,⁹ Lisa M. Landrum,¹⁰ Lars C. Hanker,¹¹ Ashley Stuckey,¹² Ingrid Boere,¹³ Michael A. Gold,¹⁴ Sarah E. Gill,¹⁵ Bradley J. Monk,¹⁶ Zangdong He,¹⁷ Shadi Stevens,¹⁸ Robert L. Coleman,¹⁹ Matthew A. Powell²⁰

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ANNUAL MEETING ON WOMEN'S CANCER TAMPA, FL - 2023



Pembrolizumab Versus Placebo in Addition to Carboplatin and Paclitaxel for Measurable Stage III or IVA, Stage IVB, or Recurrent Endometrial Cancer: The Phase 3, NRG GY018 Study

Ramez N. Eskander, MD, Michael W. Sill, PhD, Lindsey Beffa, MD, Richard G. Moore, MD, Joanie Mayer Hope, MD, Fernanda B. Musa, MD, Robert Mannel, MD, Mark S. Shahin, MD, Guilherme H. Cantuaria, MD, Eugenia Girda, MD, Cara Mathews, MD, Juraj Kavecansky, MD, Charles A. Leath, III, MD, MSPH, Lilian T. Gien, MD, Emily M. Hinchcliff, MD, MPH, Shashikant B. Lele, MD, Lisa M. Landrum, MD, Floor Backes, MD, Roisin E. O'Ceirbhail, MD, Tareq Al Baghdadi, MD, Emily K. Hill, MD, Premal H. Thaker, MD, MS, Veena Susan John, MD, Stephen Welch, MD, Amanda N Fader, MD, Matthew A. Powell, MD, Carol Aghajanian, MD

ANNUAL MEETING ON WOMEN'S CANCER TAMPA, FL - 2023

Dr. Mirza presents RUBY Part 1 data¹

Dr. Eskander presents GY018 data²

July 31, 2023: Dostarlimab + chemotherapy approved as 1L treatment for dMMR/MSI-H EC (US)¹

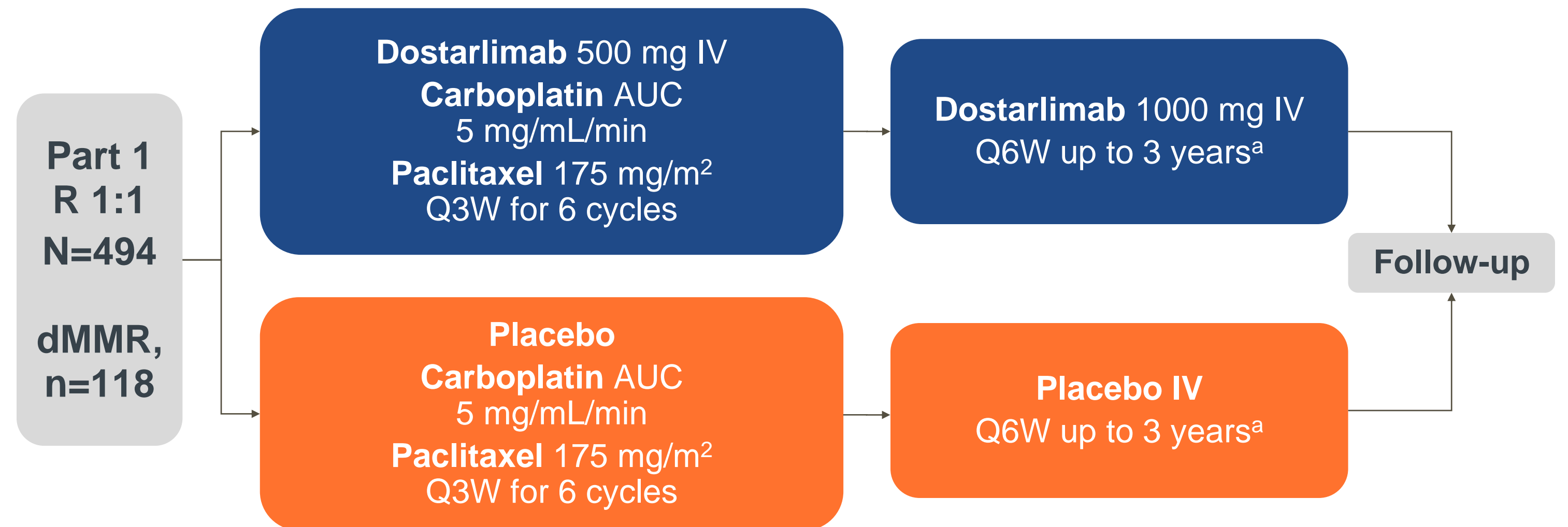
RUBY Part 1 | ENGOT-en6 | GOG-3031¹

Eligible patients

- Histologically or cytologically proven EC with recurrent or advanced disease
- Stage III or IV disease or first recurrence of EC with low potential for cure by use of radiation therapy or surgery alone or in combination
 - Carcinosarcoma, clear cell, serous, or mixed histology
- Naive to systemic therapy or systemic anticancer therapy and recurrence or PD ≥6 months after completing treatment
- ECOG PS 0 or 1
- Adequate organ function

Stratification

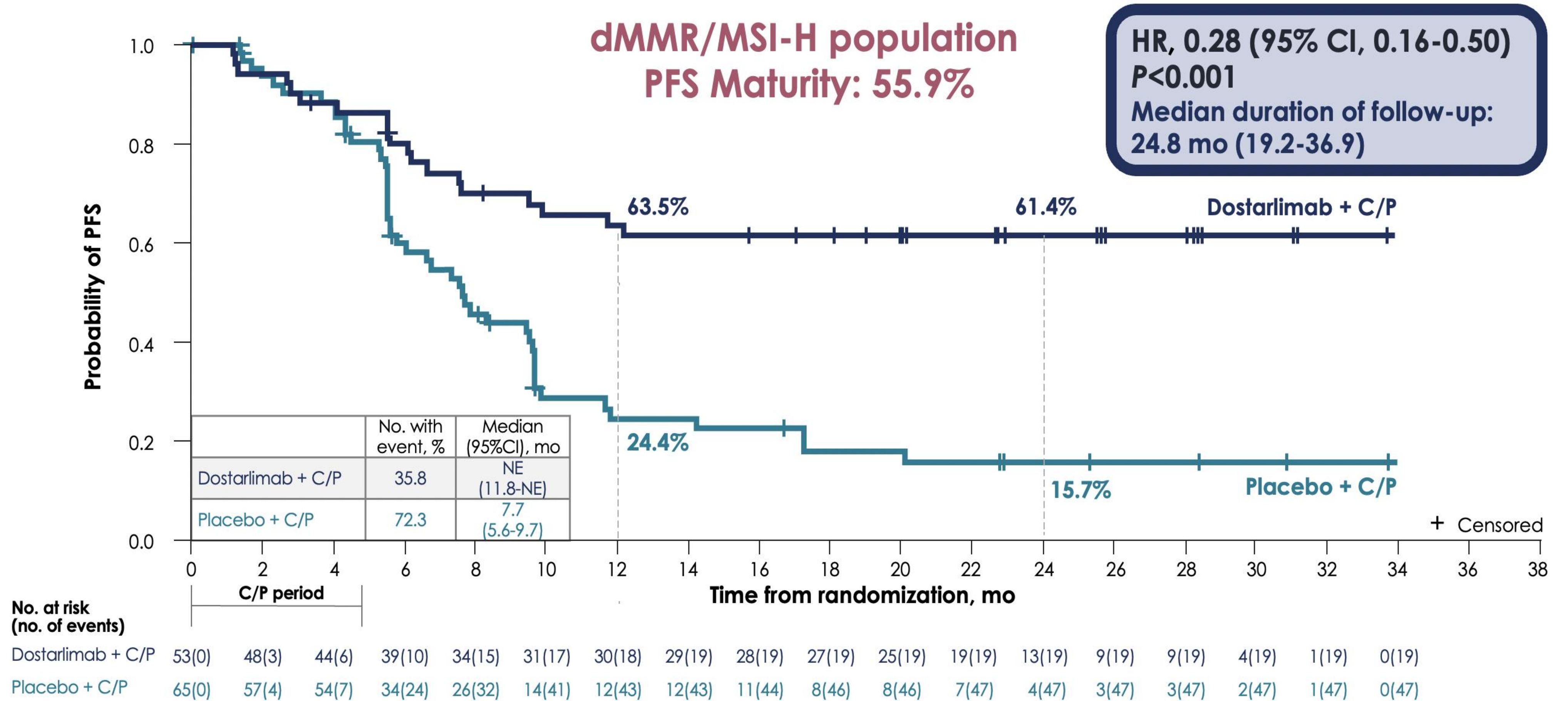
- MMR/MSI status
- Prior radiotherapy
- Disease status



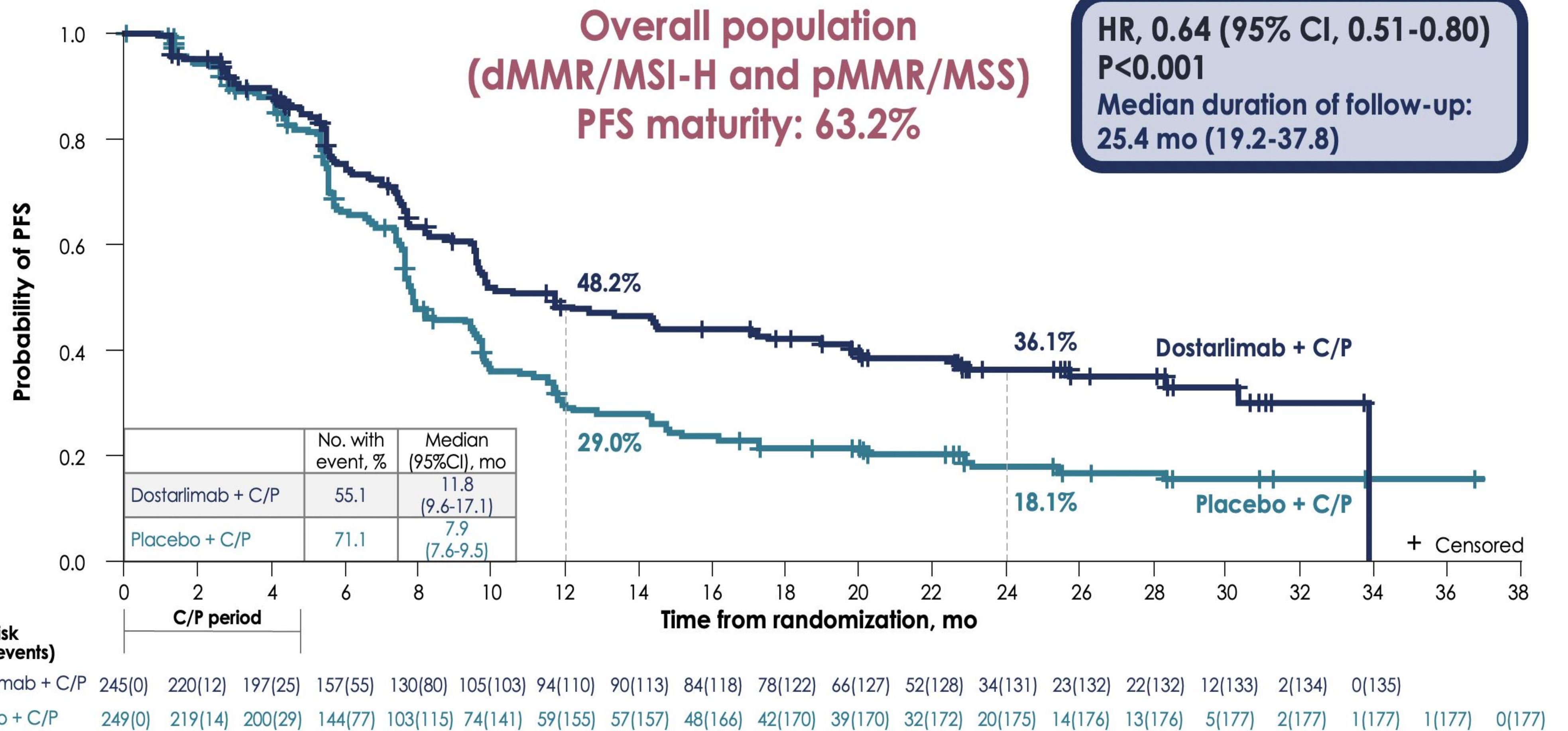
Primary end points: PFS (IA), OS

Secondary end points: PFS (BICR), PFS2, ORR/
DOR/DCR, QOL, PK and immunogenicity, safety

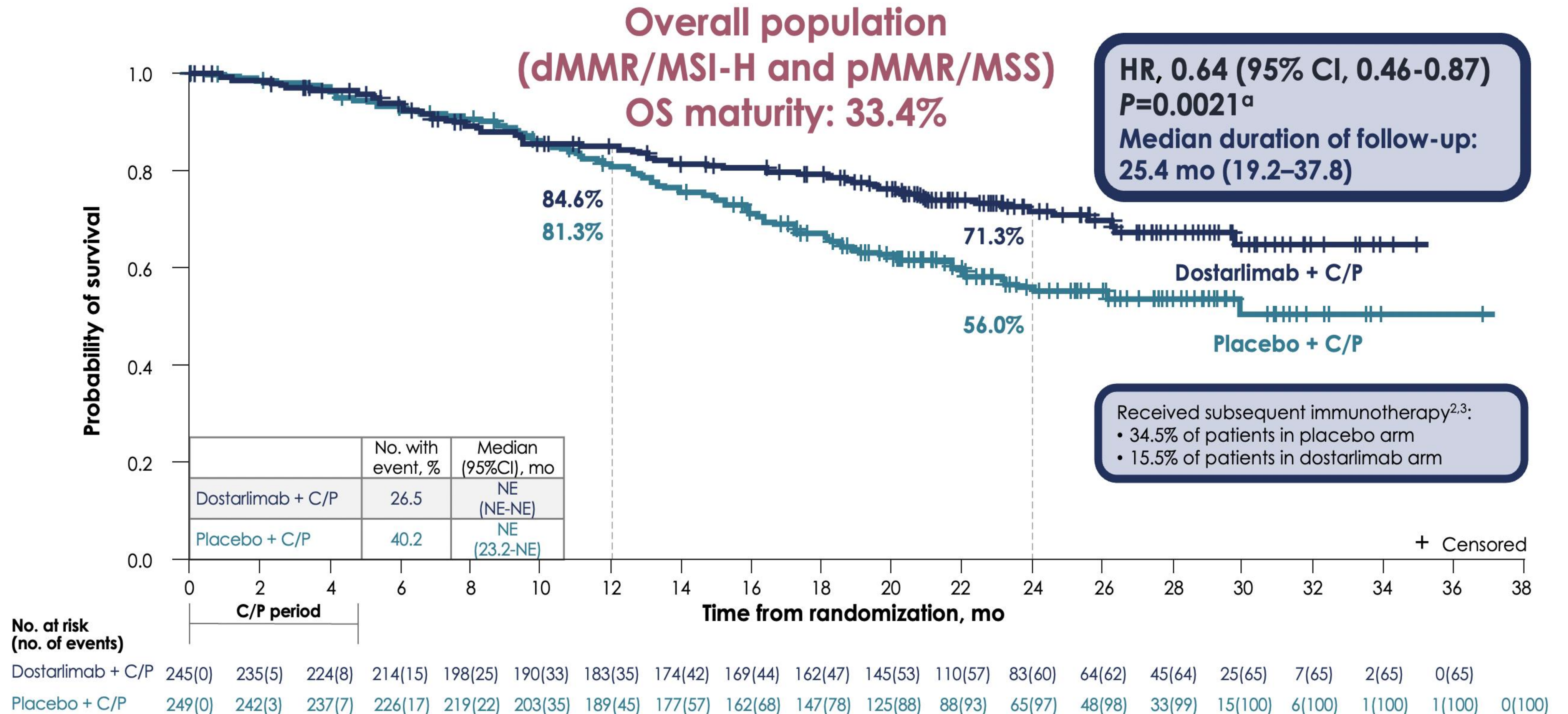
RUBY Part 1 | ENGOT-en6 | GOG-3031¹



RUBY Part 1 | ENGOT-en6 | GOG-3031¹

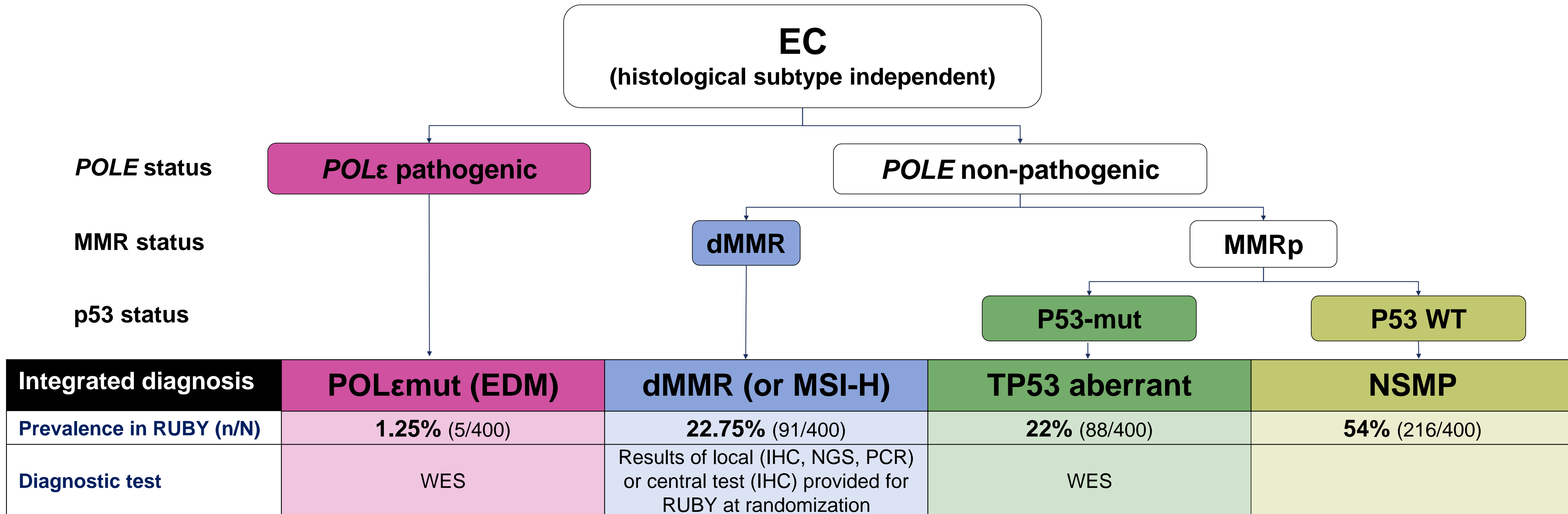


RUBY Part 1 | ENGOT-en6 | GOG-3031¹



RUBY Molecular Classification Algorithm

In RUBY Part 1, molecular classification was performed for all participants with WES results – 400 of 494 patients

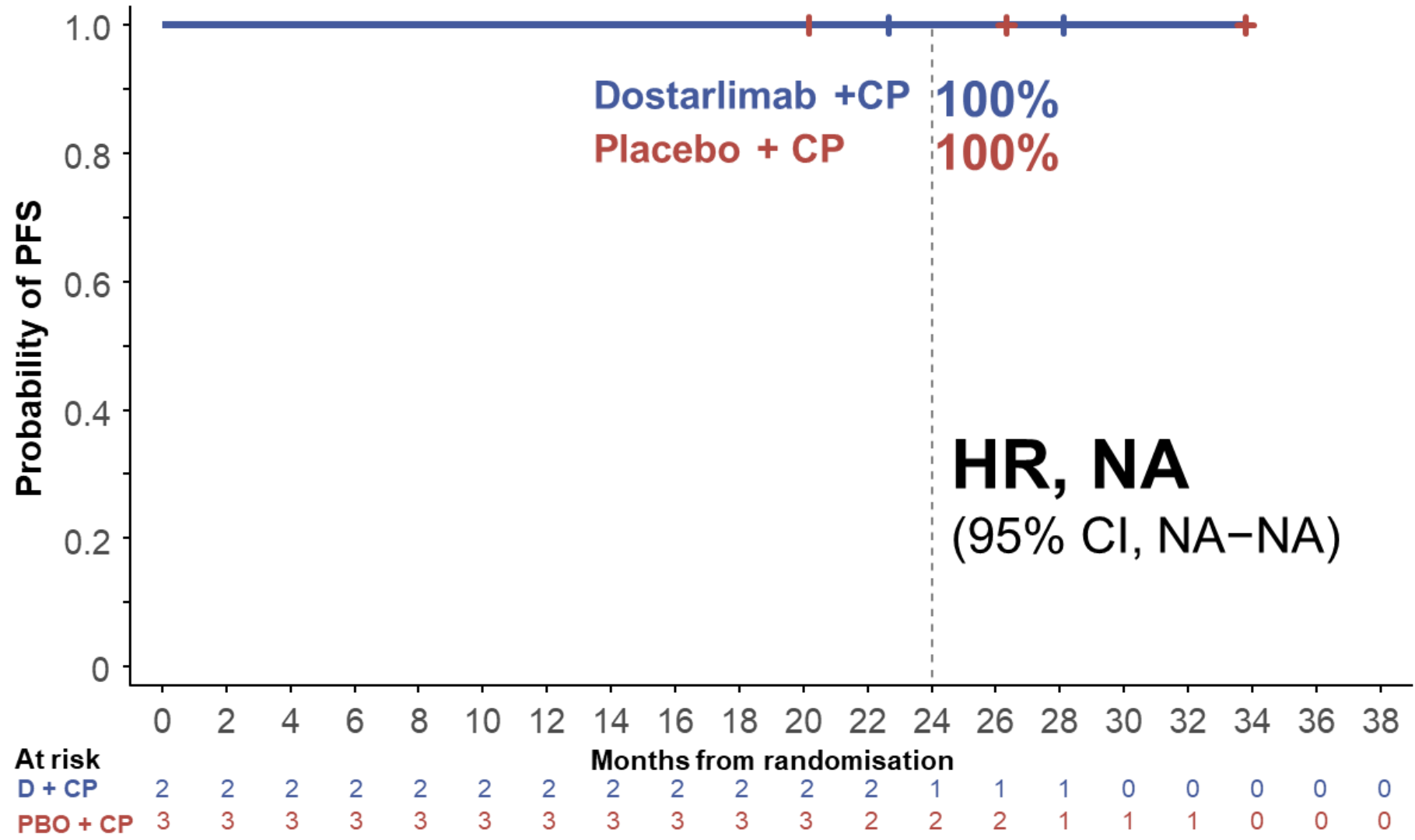


Efficacy per molecular classification was an exploratory analysis.

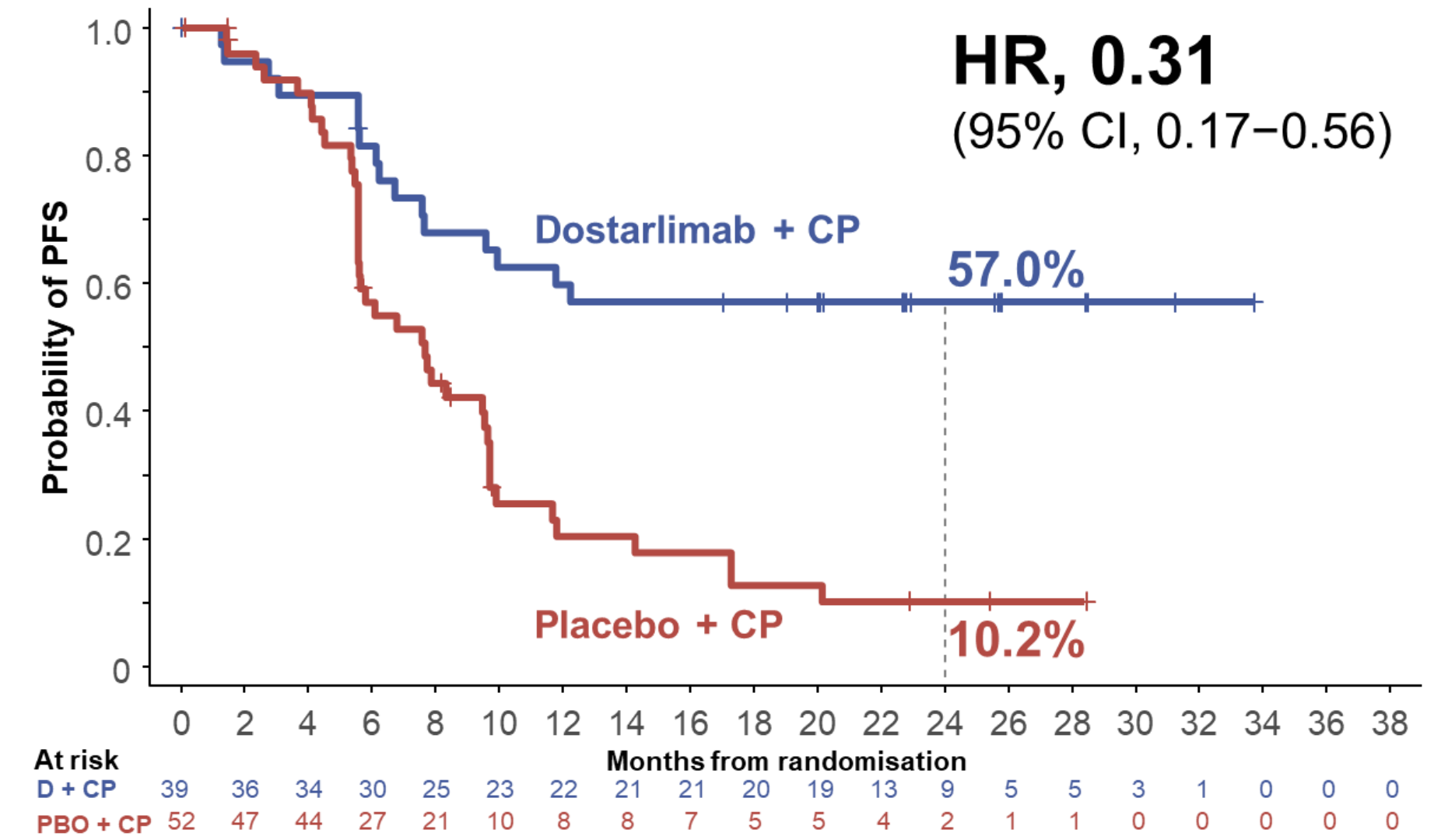
dMMR, mismatch repair deficient; IHC, immunohistochemistry; MMRp, mismatch repair proficient; MSI-H, microsatellite instability-high; mut, mutated; NGS, next generation sequencing; NSMP, no specific molecular profile; PCR, polymerase chain reaction; POLE, polymerase epsilon; SCNA, somatic copy number alterations; TIL, tumor-infiltrating lymphocytes; TLS, tertiary lymphoid structures; TP53, tumor protein 53; WES, whole exome DNA sequencing; WT, wild type.

PFS According to Molecular Subgroup

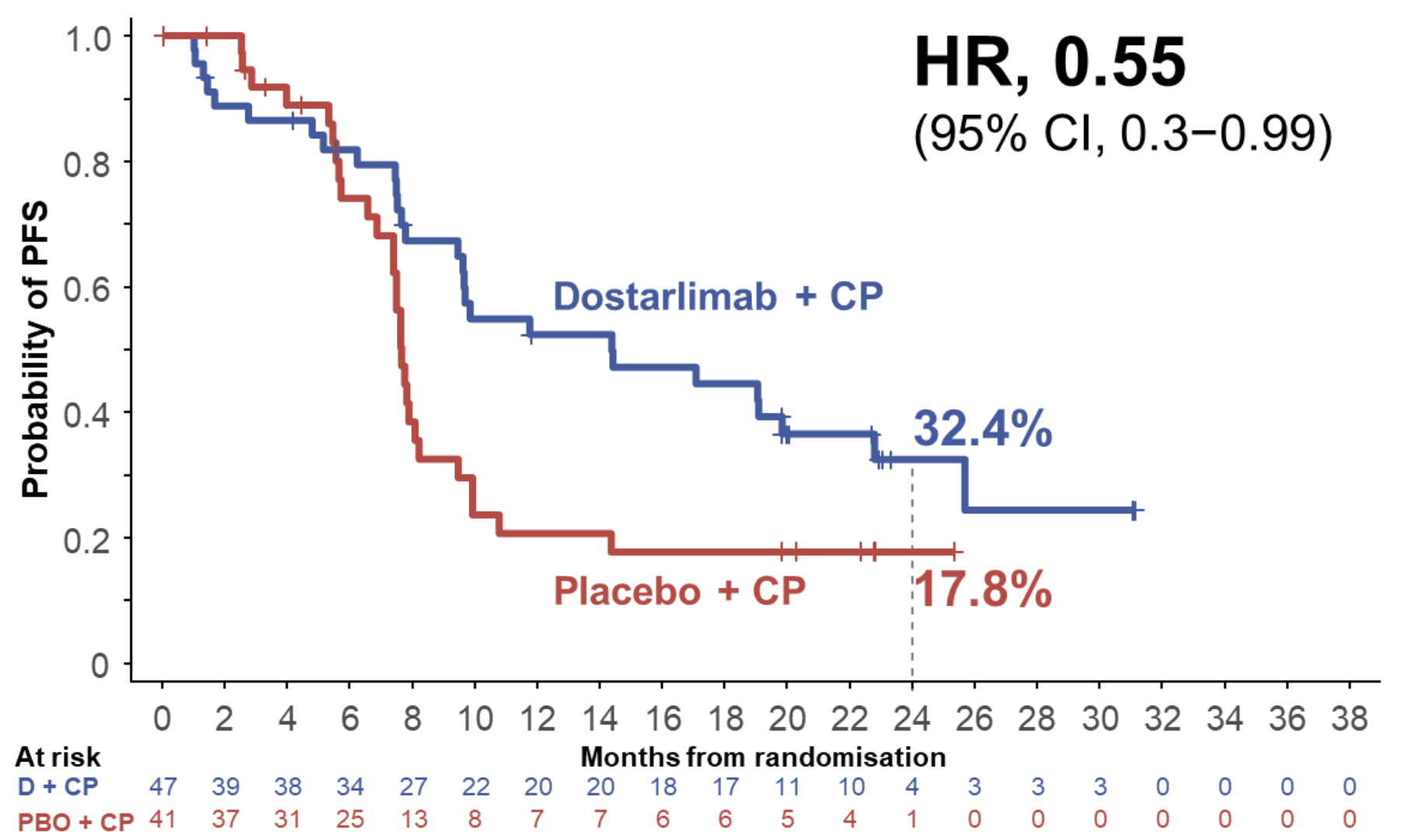
POLε mut



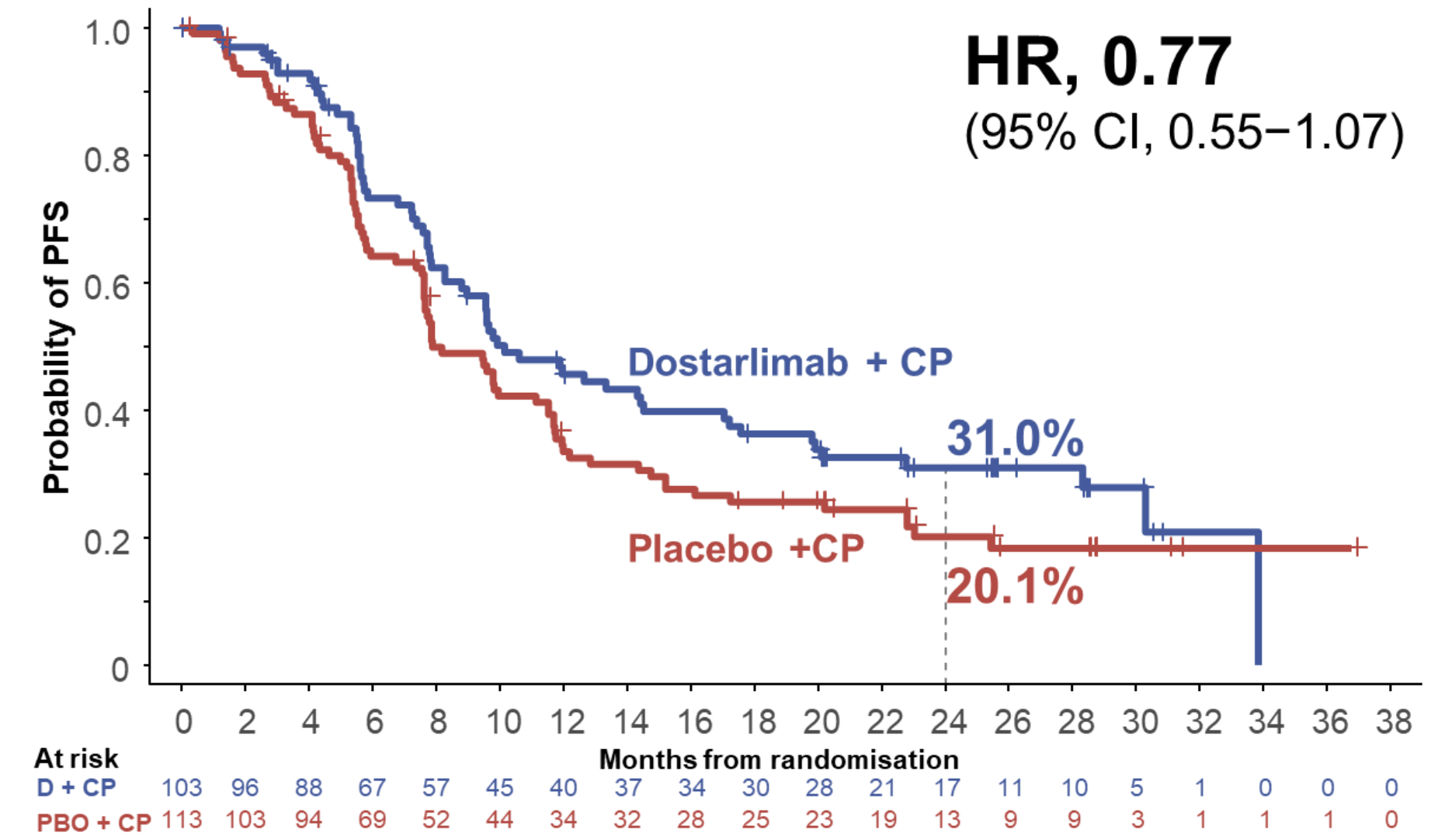
dMMR/MSI-H



TP53 mut



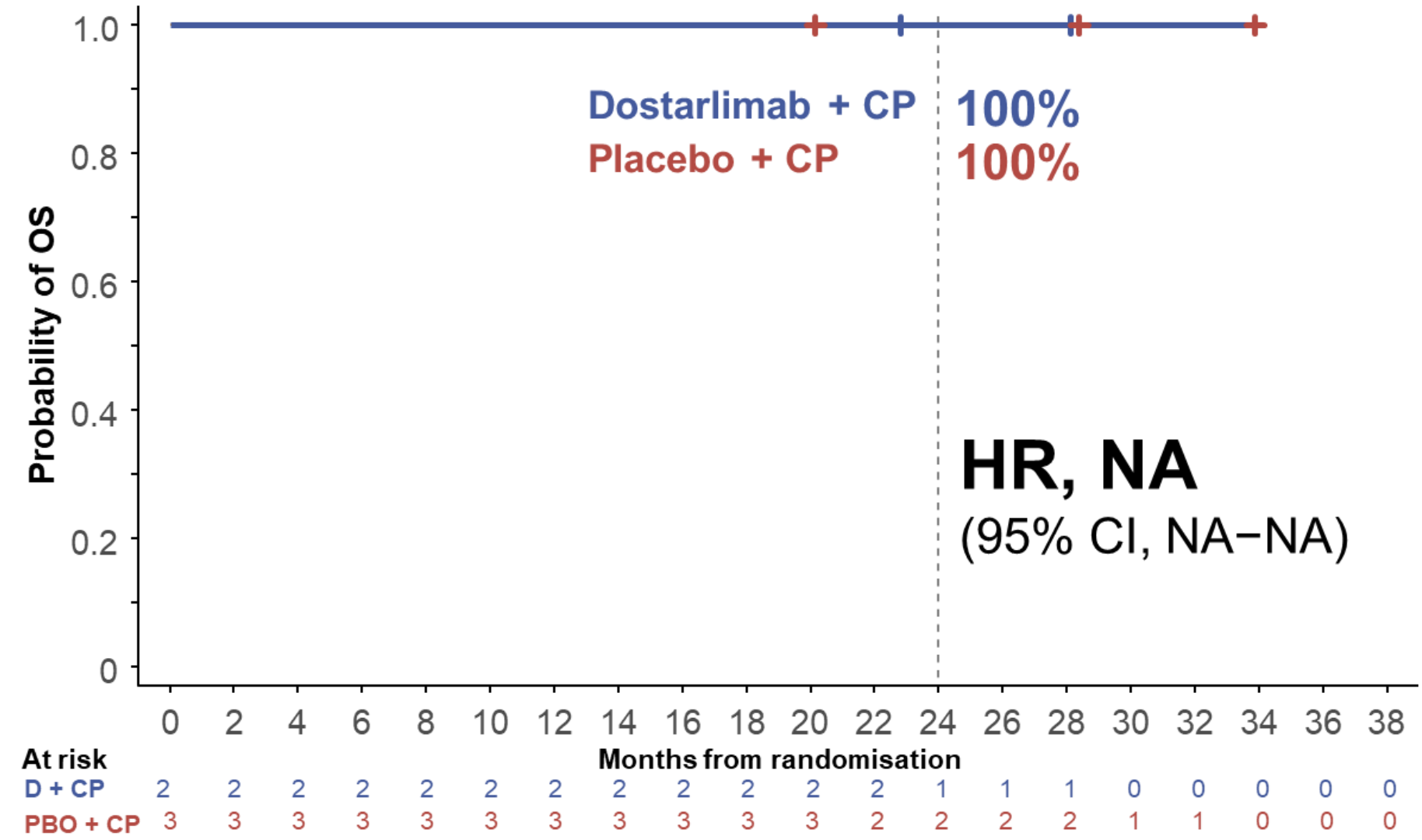
NSMP



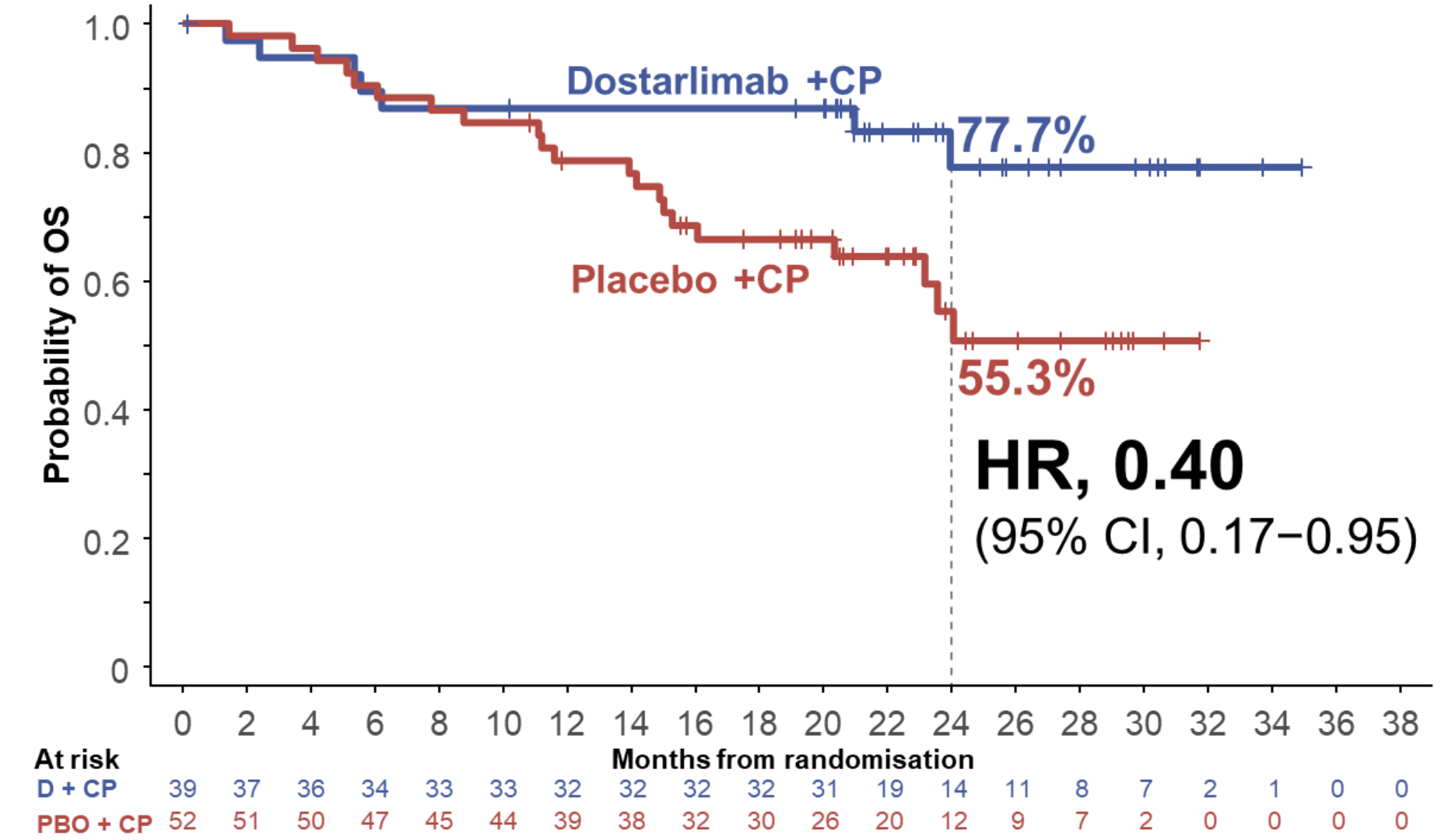
Data based on exploratory analysis based on 400 patients from the RUBY trial with known molecular classification with whole exome sequencing. CP, carboplatin-paclitaxel; D, dostarlimab; dMMR, mismatch repair deficient; HR, hazard ratio; MSI-H, microsatellite instability-high; mut, mutated; NR, not reached; NSMP, no specific molecular profile; OS, overall survival; PBO, placebo; POLε, polymerase epsilon; TP53, tumor protein 53.

OS According to Molecular Subgroup

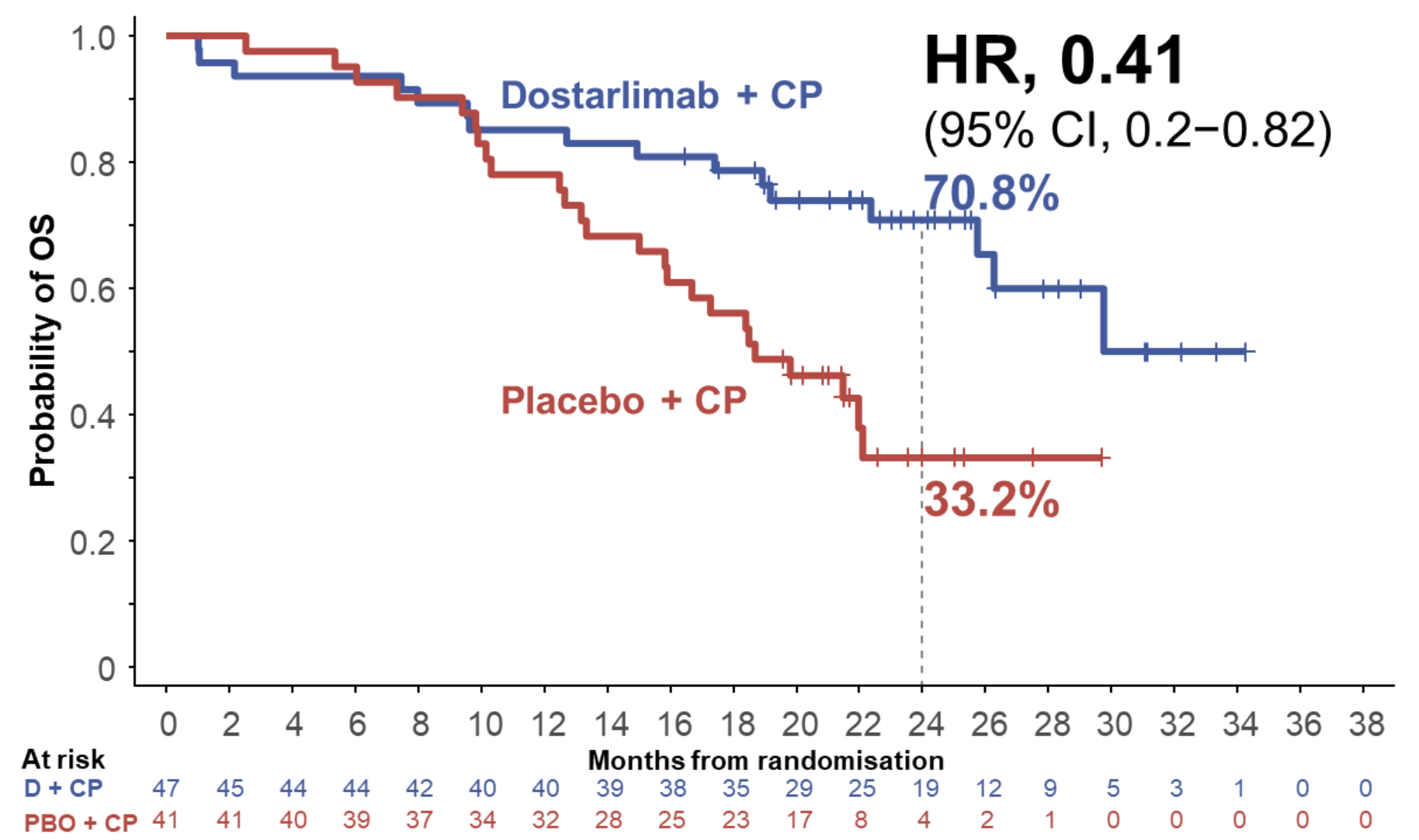
POLε mut



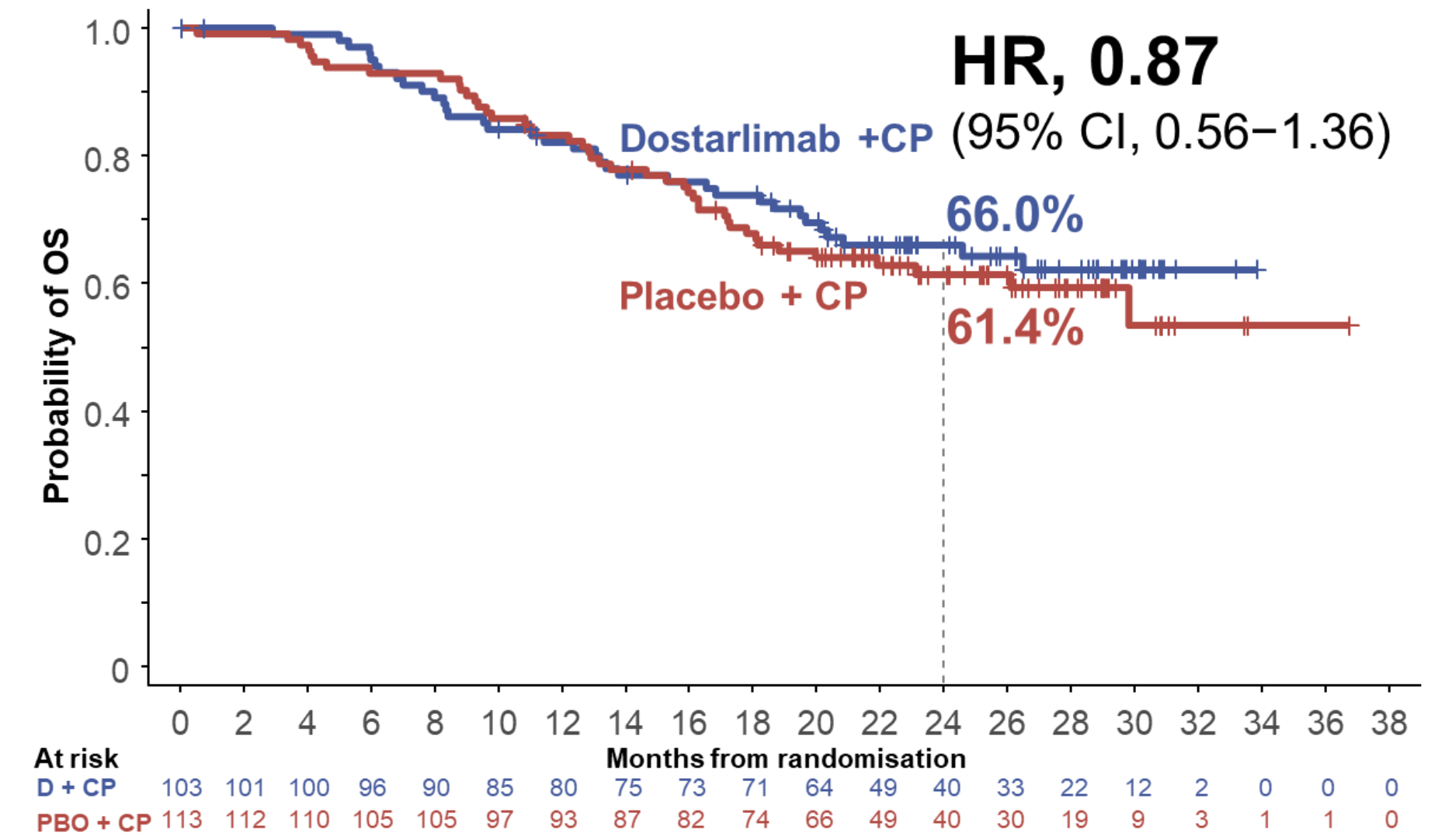
dMMR/MSI-H



TP53 mut



NSMP



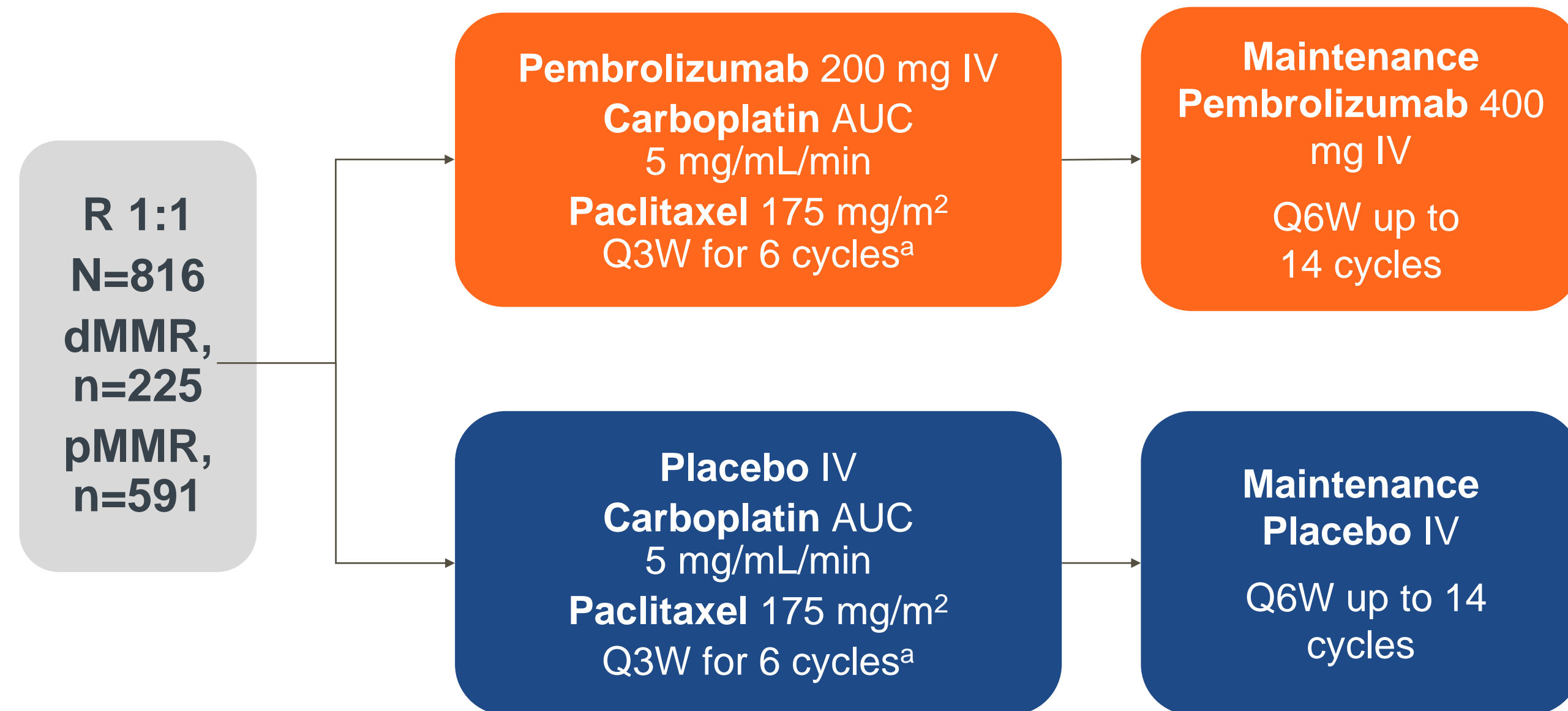
GY018 | KEYNOTE-868¹

Eligible patients

- Histologically confirmed recurrent or advanced (stage III, IVA, or IVB) EC
- ECOG PS of 0-2
- Results of institutional MMR IHC testing
- Submission of tumor specimens for centralized MMR IHC testing
- No prior chemotherapy treatment for EC
- Prior adjuvant chemotherapy allowed if completed ≥ 12 months before enrollment

Stratification

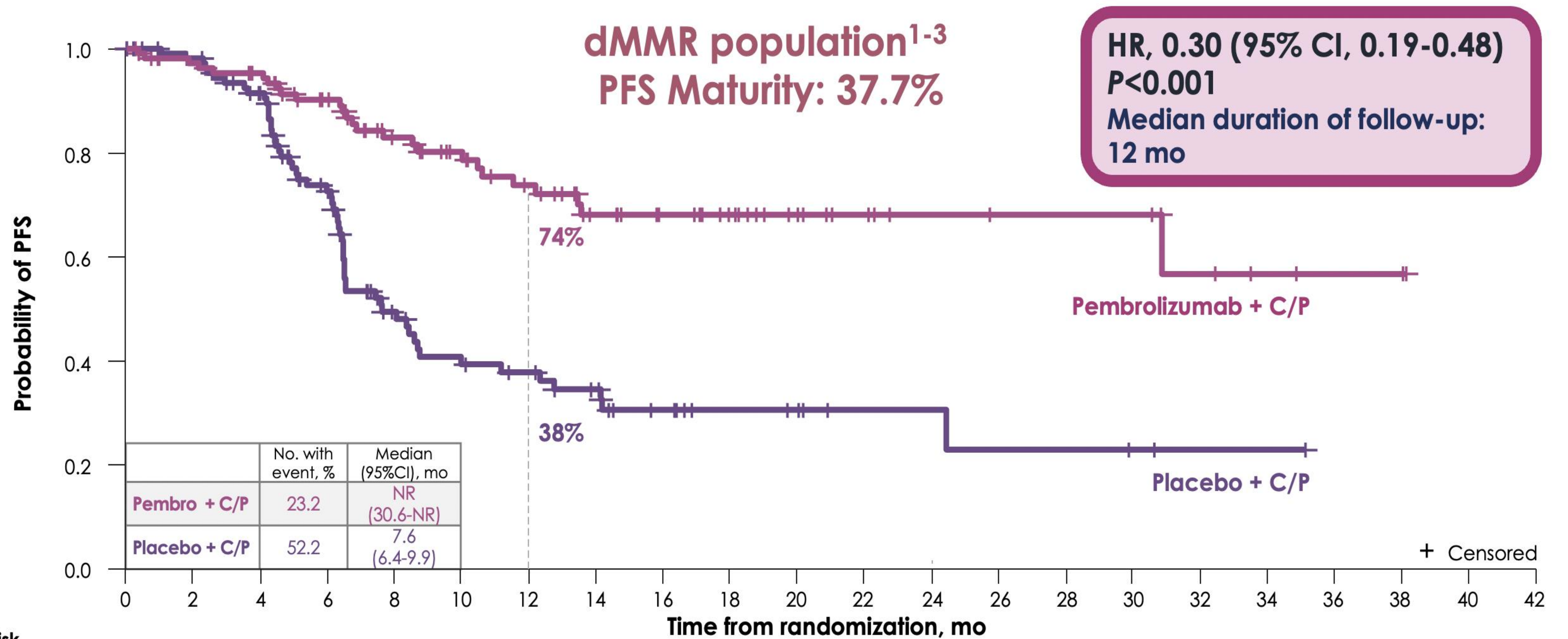
- MMR status
- ECOG PS (0, 1 or 2)
- Prior chemotherapy (yes/no)



Primary end point: PFS (IA)

Secondary end points: AEs, ORR, DOR, OS, QOL, concordance between institutional MMR IHC and centralized MMR IHC

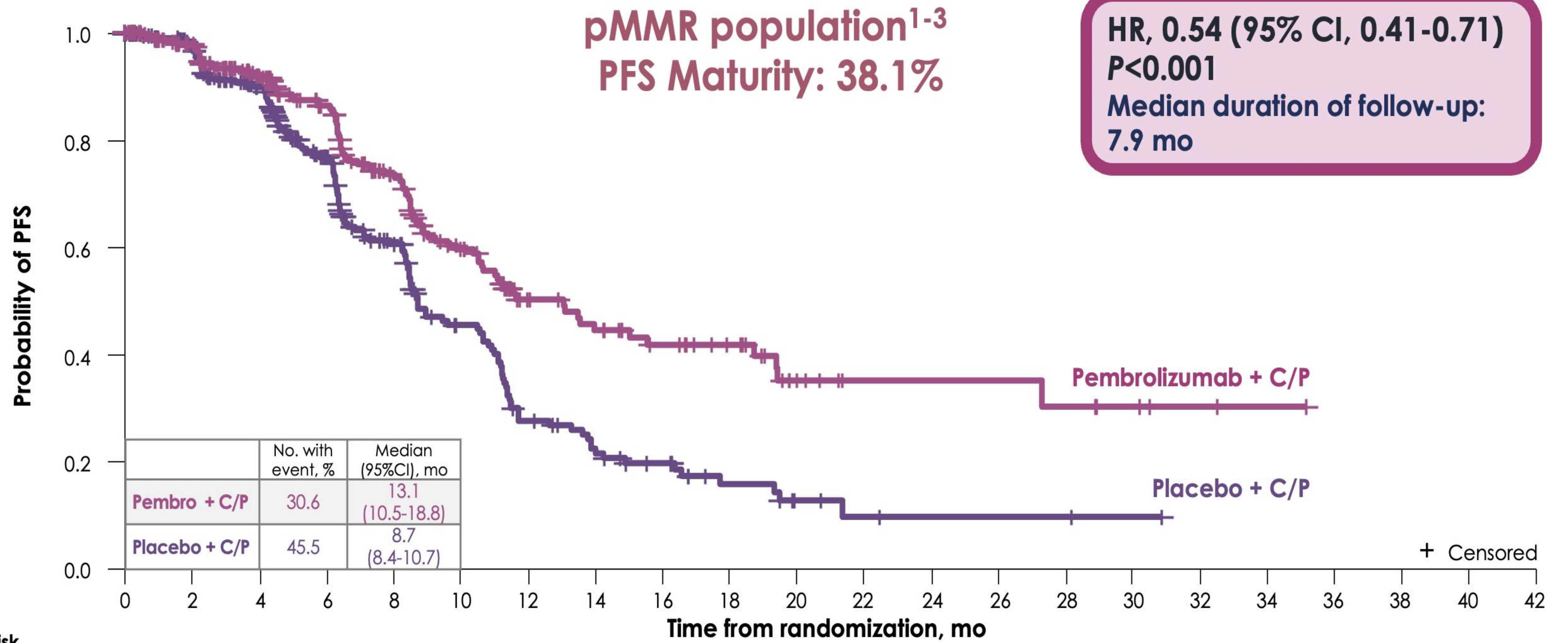
GY018 | KEYNOTE-868¹



No. at risk
(no. of events)

Placebo + C/P	113(2)	62(24)	24(35)	8(47)	4(51)	2(52)	0(54)
Pembro + C/P	112(1)	80(22)	44(46)	22(65)	9(78)	8(79)	2(84)

GY018 | KEYNOTE-868¹

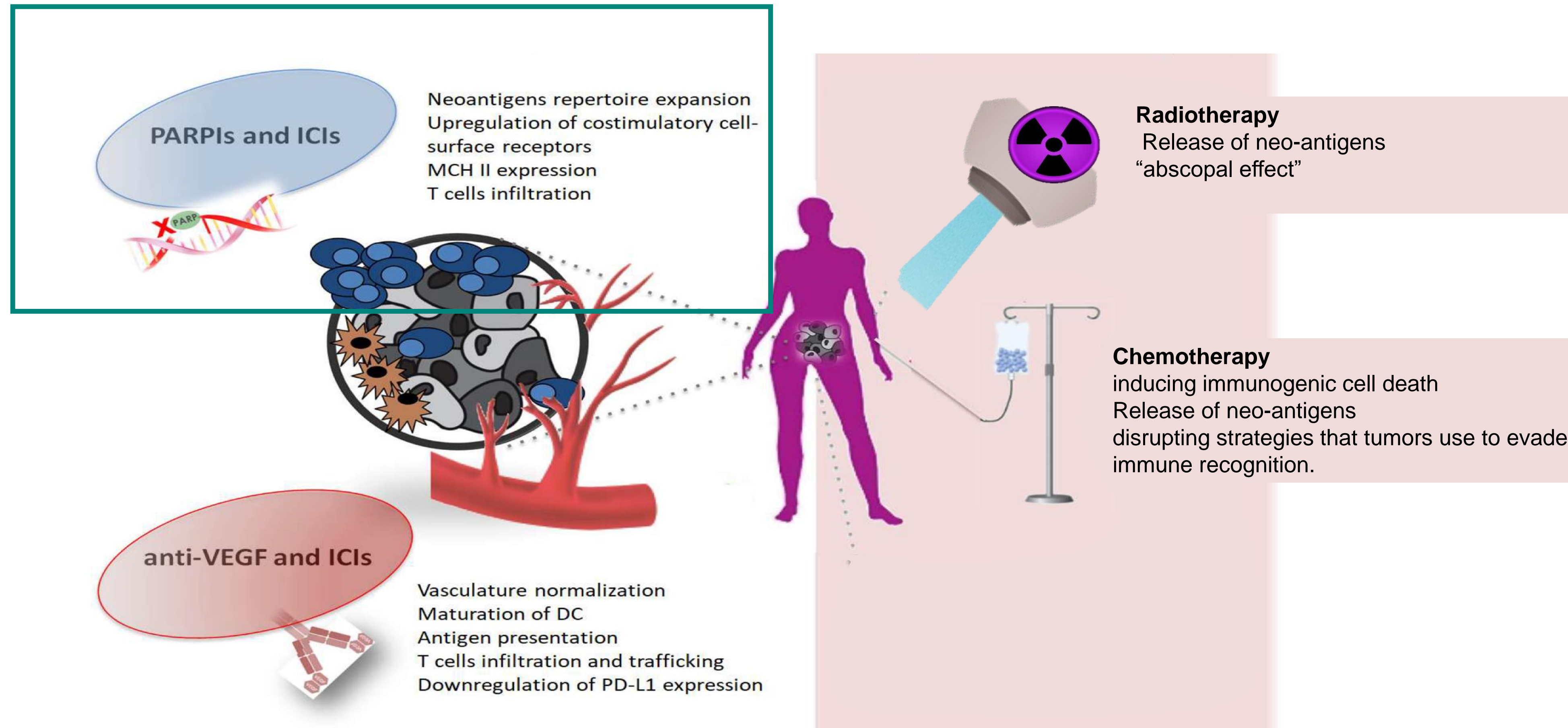


No. at risk (no. of events)

Placebo + C/P	292(14)	129(115)	33(141)	10(152)	2(157)	1 (158)	0(159)
Pembro + C/P	290(15)	150(112)	45(167)	20(185)	7(195)	3(198)	0(201)

ICIs in unselected EC population

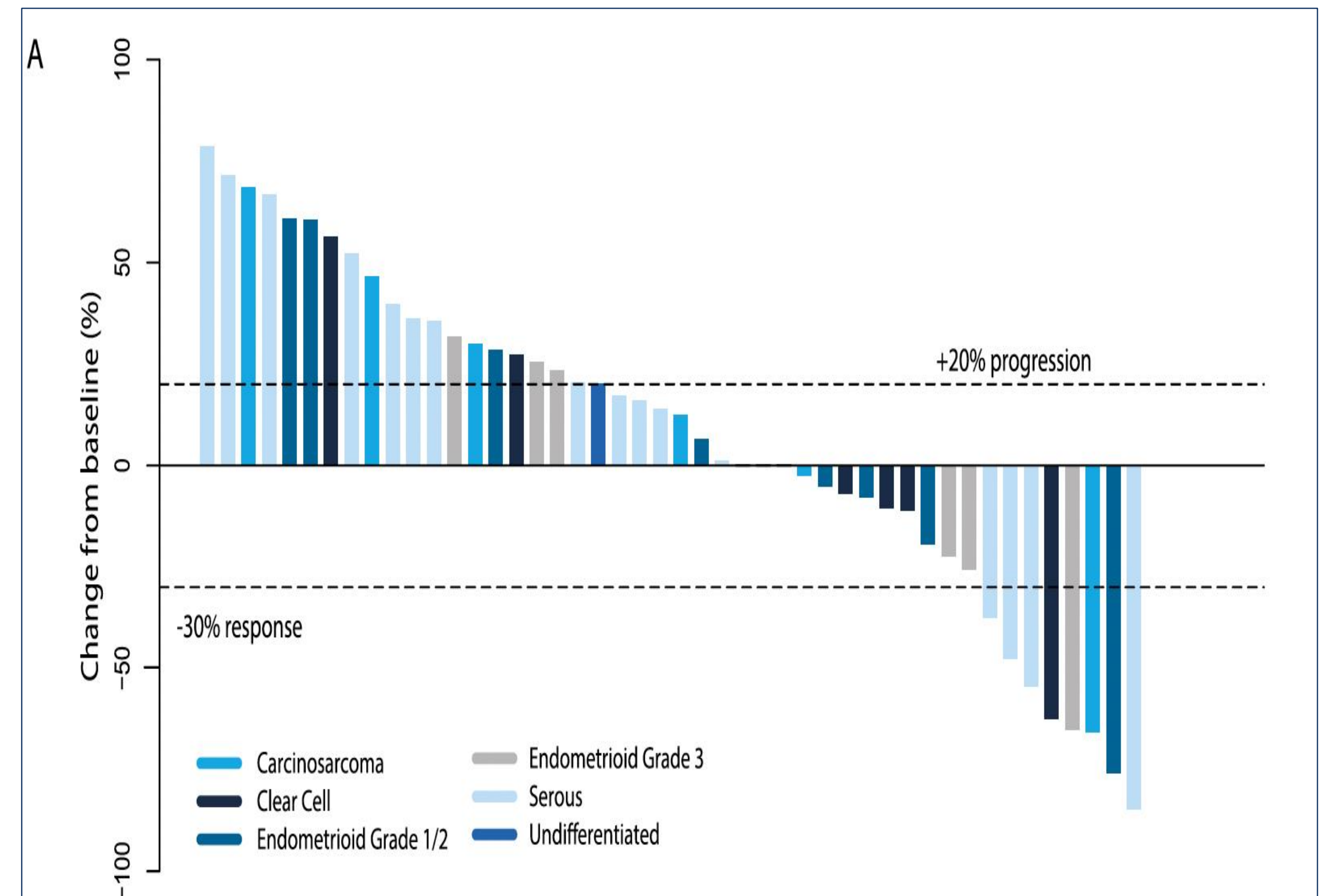
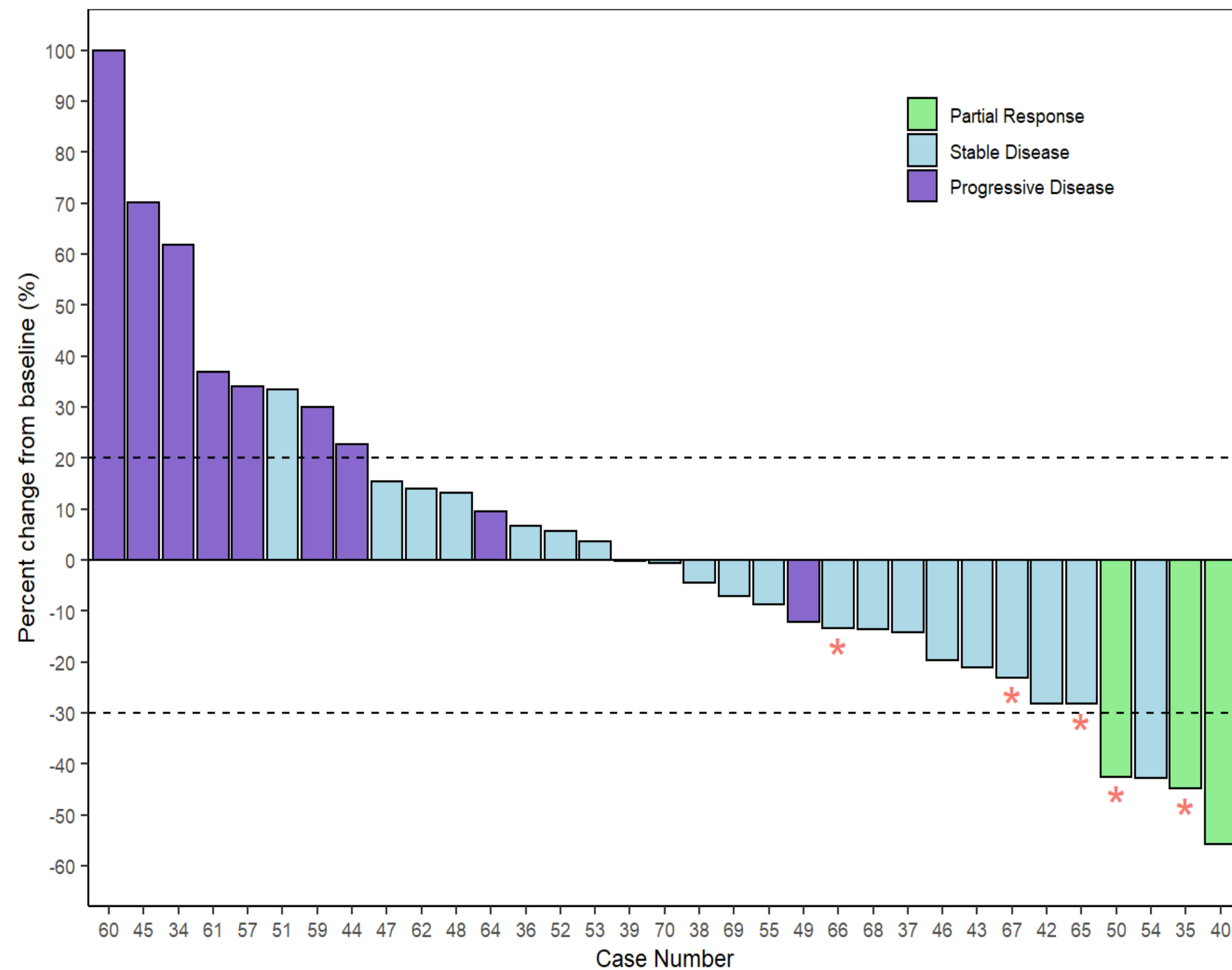
Combination approaches to enhance ICIs efficacy



ICI's Activity and PARP inhibitors: Combination Approaches

- Phase 2: Talazoparib 1mg PO daily and Avelumab 10 mg/kg IV every 2 weeks in N= 35 previously pretreated recurrent MSS EC patients.

- Phase 2 DOMEK trial: Durvalumab 1500 mg i.v. every 4weeks and Olaparib 300mg/12h in N=50 previously pretreated recurrent (20%dMMR) EC patients.

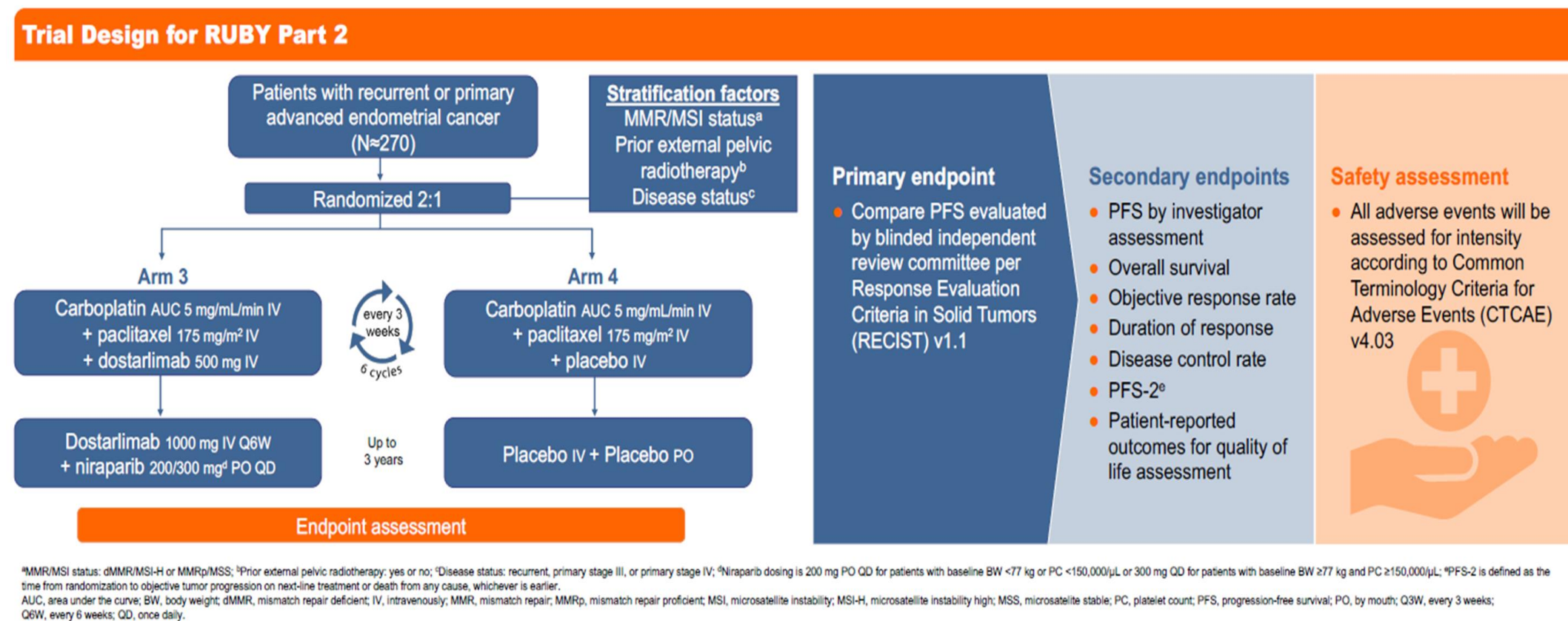


PARPis plus ICIs in advanced Endometrial Cancer

Ongoing phase III randomized trials

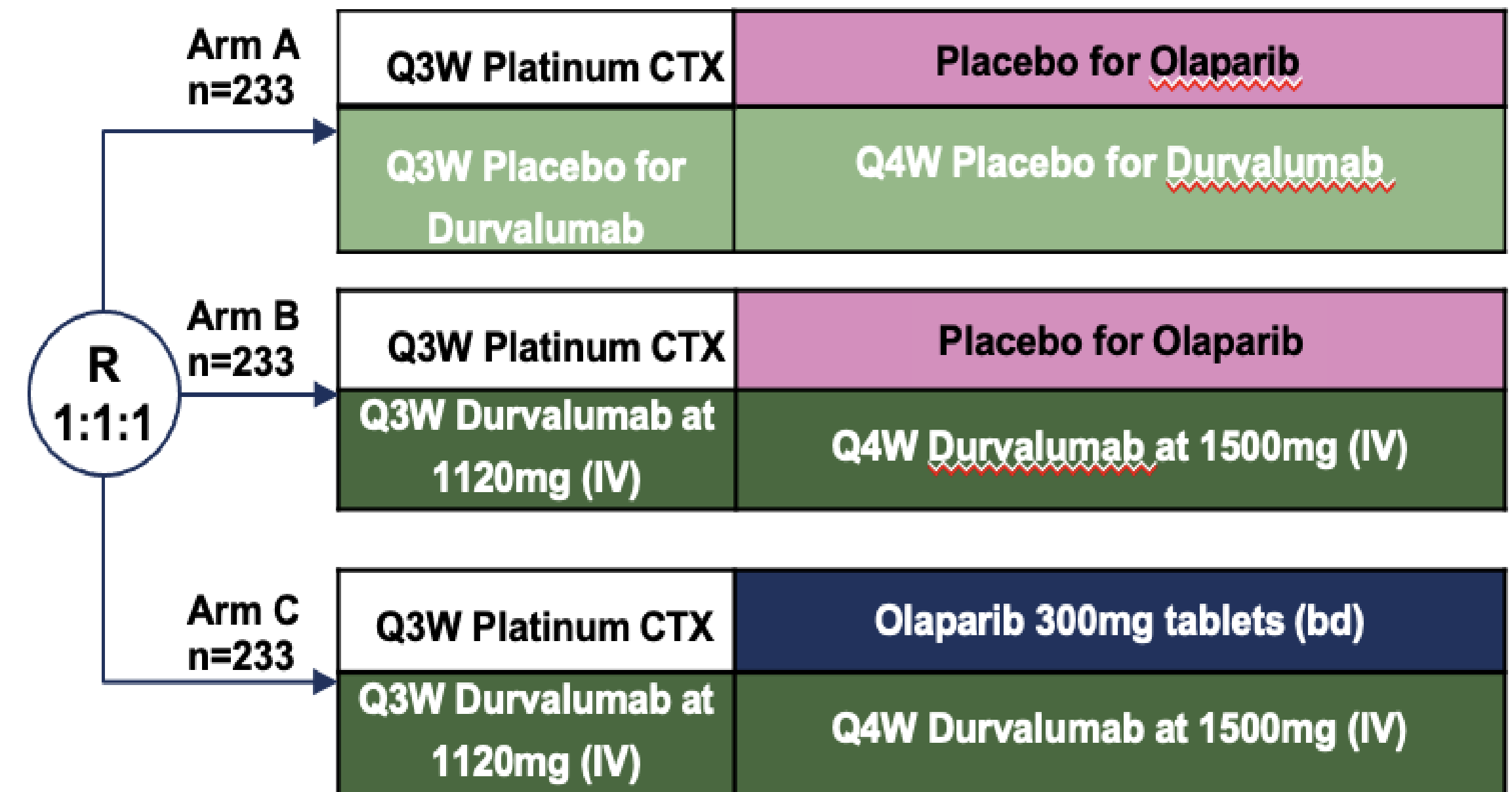
RUBY trial: Study design

Multicenter Phase 3 study that will evaluate the efficacy and safety of DOSTARLIMAB + carboplatin-paclitaxel followed by DOSTARLIMAB + NIRAPARIB

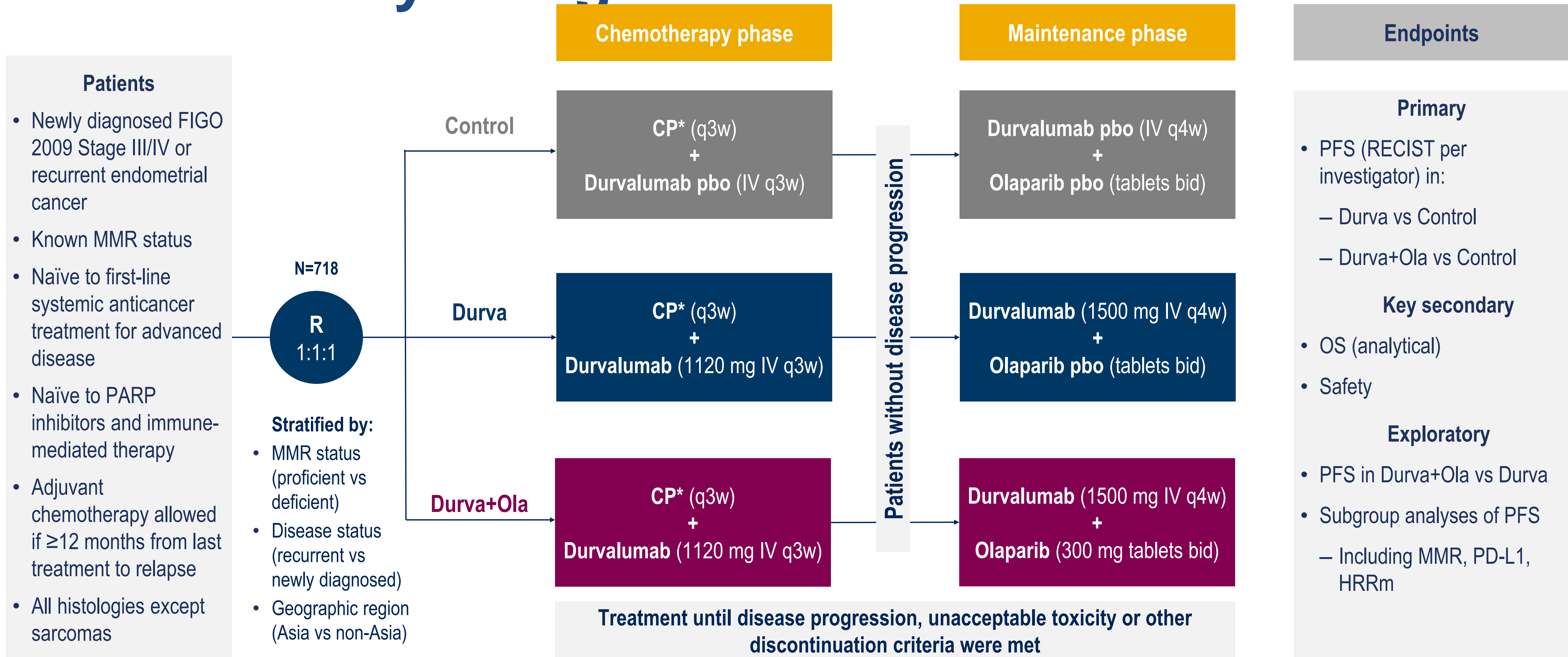


DUO-E trial: Study design

Multicenter Phase 3 study that will evaluate the efficacy and safety of DURVALUMAB + carboplatin-paclitaxel followed by DURVALUMAB + OLAPARIB or DURVALUMAB or OLAPARIB



DUO-E study design



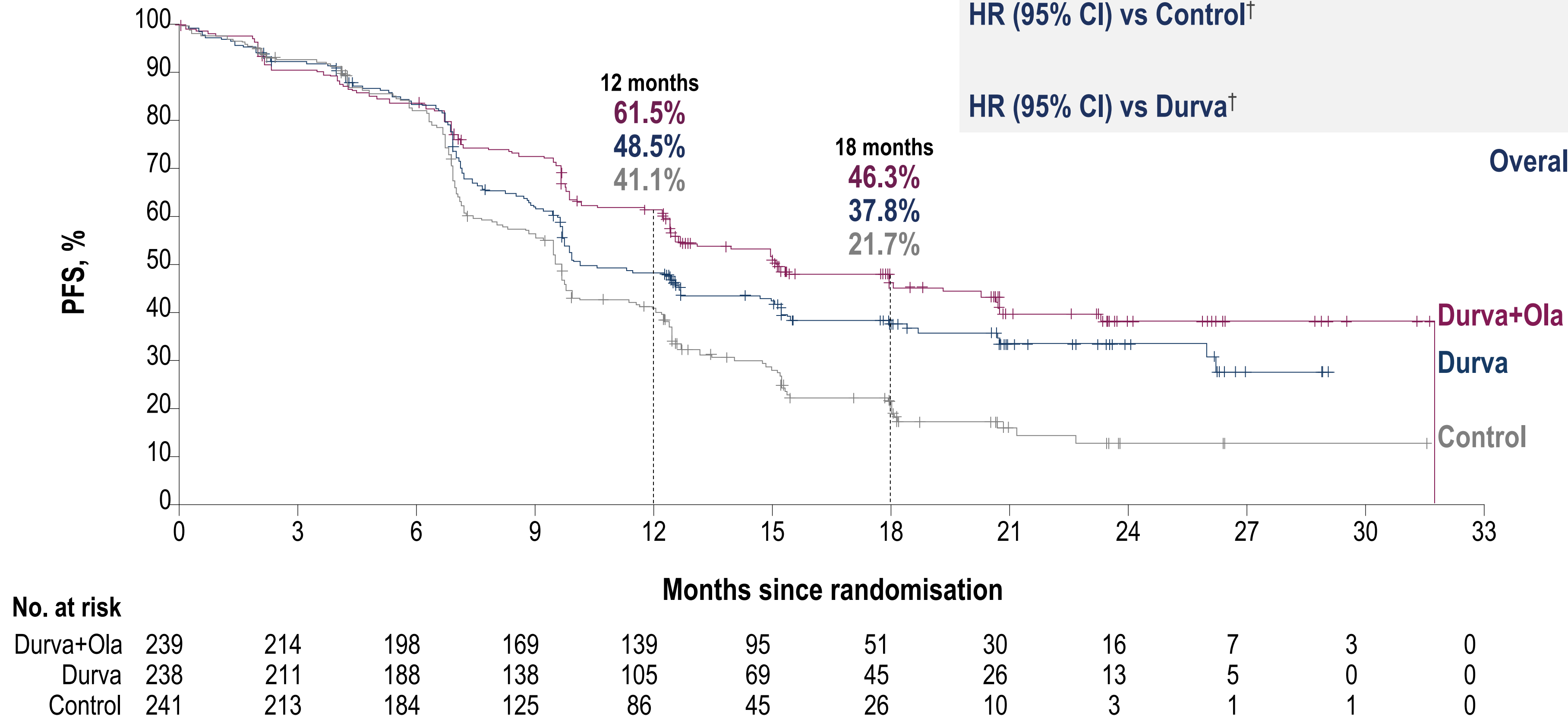
*Six cycles of carboplatin at an area under the concentration–time curve of 5 or 6 mg per mL/min and paclitaxel 175 mg/m².
bid, twice daily; CP, carboplatin/paclitaxel; durva, durvalumab; FIGO, International Federation of Gynaecology and Obstetrics; IV, intravenously; ola, olaparib; pbo, placebo; q3(4)w, every 3(4) weeks; R, randomisation; RECIST, Response Evaluation Criteria for Solid Tumours.

PFS: ITT population

Primary endpoint

	Control (N=241)	Durva (N=238)	Durva+Ola (N=239)
Events, n (%)	173 (71.8)	139 (58.4)	126 (52.7)
Median PFS (95% CI),* months	9.6 (9.0–9.9)	10.2 (9.7–14.7)	15.1 (12.6–20.7)
HR (95% CI) vs Control†		0.71 (0.57–0.89); P=0.003	0.55 (0.43–0.69); P<0.0001
HR (95% CI) vs Durva‡			0.78 (0.61–0.99)

Overall data maturity 61.0%

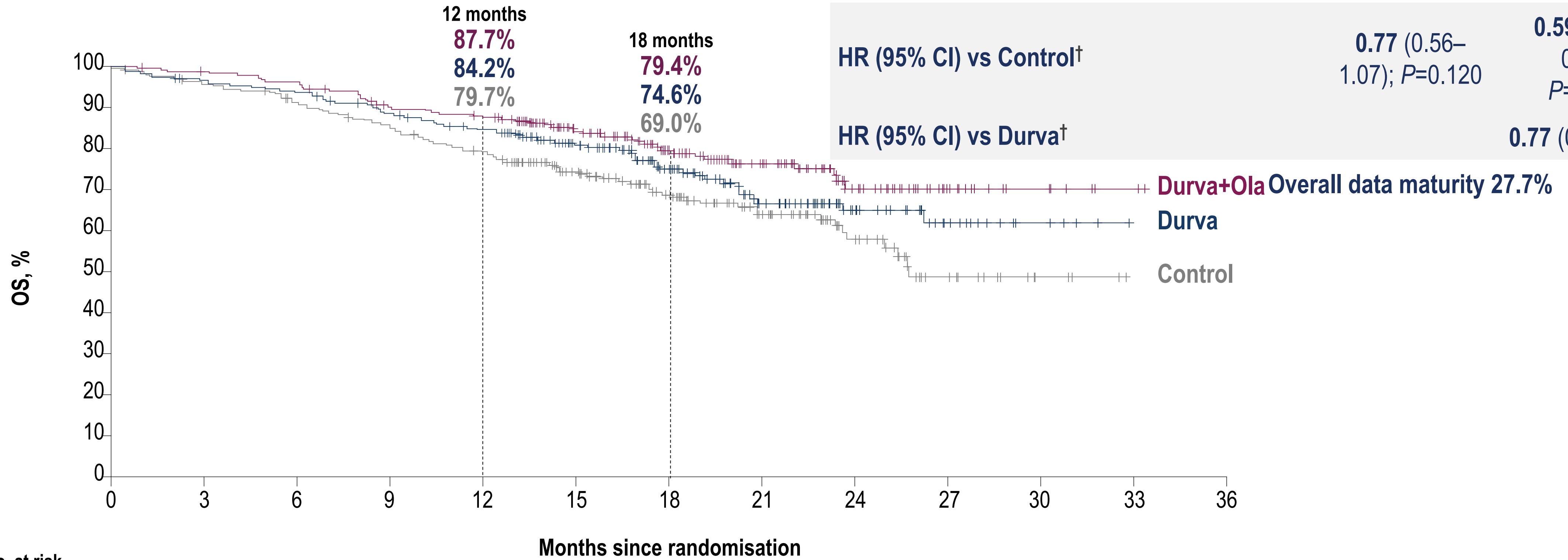


The median (range) duration of follow-up for PFS was 12.6 (0.0–31.6), 15.4 (0.0–29.1), and 15.4 (0.0–31.7) months in censored patients for the Control, Durva, and Durva+Ola arms, respectively. PFS rates were estimated by the KM method. *CI for median PFS is derived based on the Brookmeyer–Crowley method; †The primary PFS analysis for each comparison was performed separately. The HR and CI were estimated from a Cox proportional hazards model stratified by MMR and disease status. The CI was calculated using a profile likelihood approach. The P value was calculated using a log-rank test stratified by MMR and disease status. HR, hazard; ITT, intent-to-treat; KM, Kaplan–Meier.

OS: ITT population

Secondary endpoint; interim analysis

	Control (N=241)	Durva (N=238)	Durva+Ola (N=239)
Events, n (%)	82 (34.0)	65 (27.3)	52 (21.8)
Median OS (95% CI),* months	25.9 (23.9–NR)	NR (NR–NR)	NR (NR–NR)
HR (95% CI) vs Control†		0.77 (0.56–1.07); P=0.120	0.59 (0.42–0.83); P=0.003
HR (95% CI) vs Durva†			0.77 (0.53–1.10)



No. at risk	Months since randomisation												
	0	3	6	9	12	15	18	21	24	27	30	33	36
Durva+Ola	239	233	227	208	202	152	109	77	38	18	8	2	0
Durva	238	227	221	205	192	147	105	64	34	17	6	0	0
Control	241	229	215	201	185	136	104	69	35	15	4	0	0

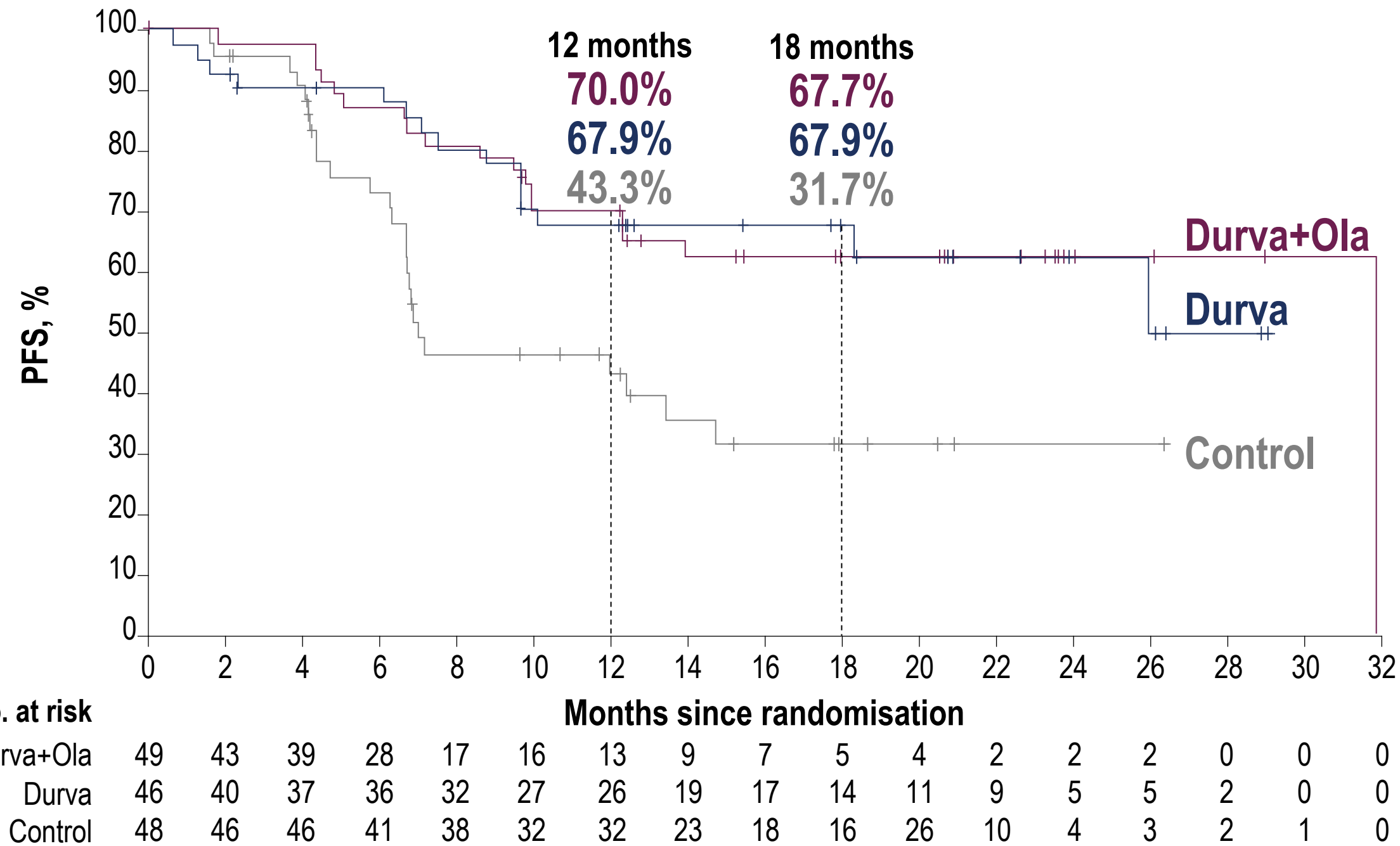
The median (range) duration of follow-up for OS was 18.6 (0.5–32.9), 18.4 (2.1–33.0), and 18.7 (1.1–33.4) months in censored patients for the Control, Durva, and Durva+Ola arms, respectively. OS rates were estimated by the KM method. *CI for median OS is derived based on the Brookmeyer–Crowley method; †The HRs were estimated from an unstratified Cox proportional hazards model. The CI was calculated using a profile likelihood approach. P values were calculated using an unstratified log-rank test. P values failed to reach statistical significance.

NR, not reached.

Subgroup analysis of PFS by MMR status

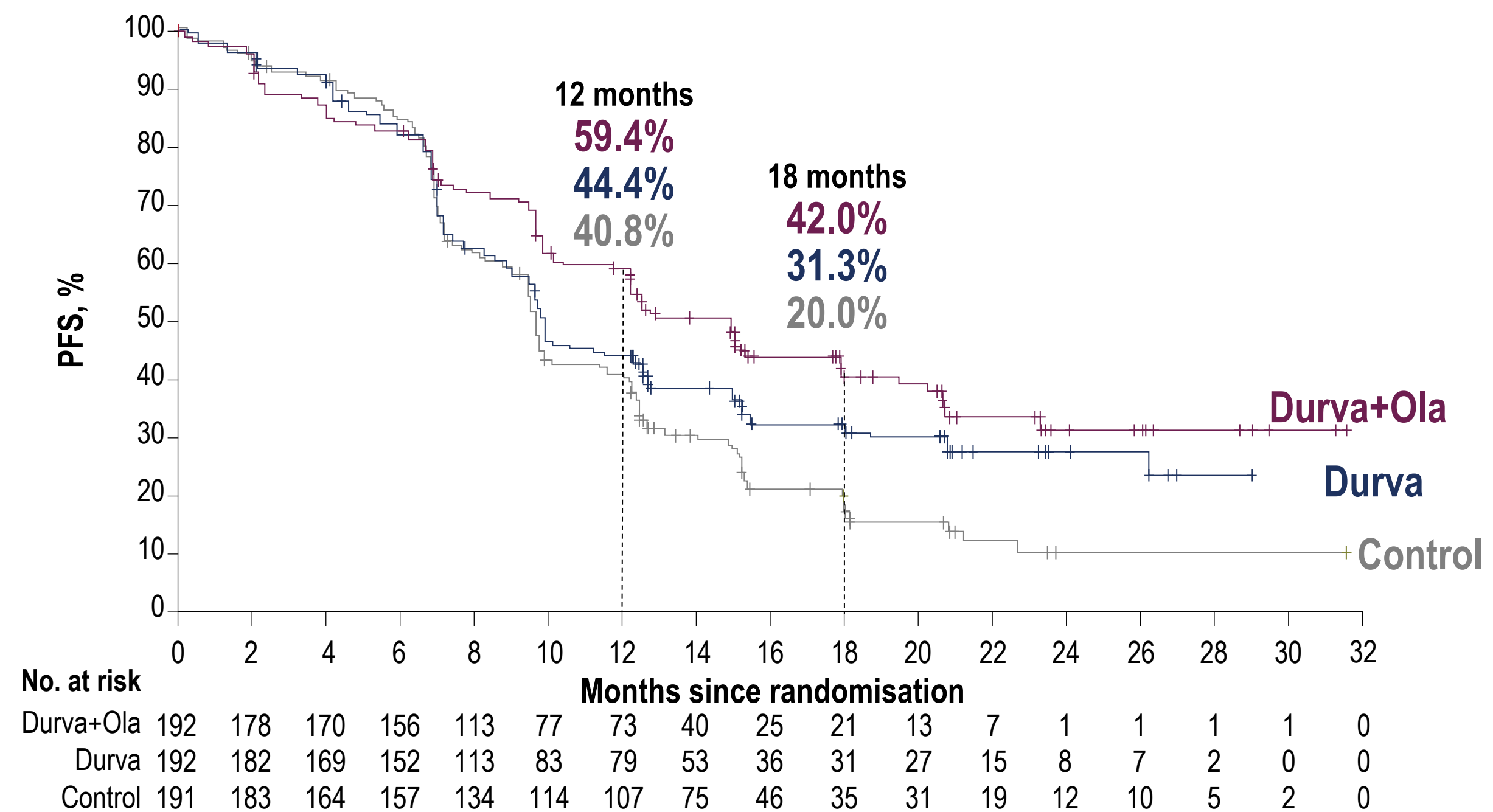
Prespecified exploratory analysis

dMMR (20% of population)



No. at risk	Months since randomisation																
	0	2	4	6	8	10	12	14	16	18	20	22	24	26	28	30	32
Durva+Ola	49	43	39	28	17	16	13	9	7	5	4	2	2	2	0	0	0
Durva	46	40	37	36	32	27	26	19	17	14	11	9	5	5	2	0	0
Control	48	46	46	41	38	32	32	23	18	16	26	10	4	3	2	1	0

pMMR (80% of population)



No. at risk	Months since randomisation																
	0	2	4	6	8	10	12	14	16	18	20	22	24	26	28	30	32
Durva+Ola	192	178	170	156	113	77	73	40	25	21	13	7	1	1	1	1	0
Durva	192	182	169	152	113	83	79	53	36	31	27	15	8	7	2	0	0
Control	191	183	164	157	134	114	107	75	46	35	31	19	12	10	5	2	0

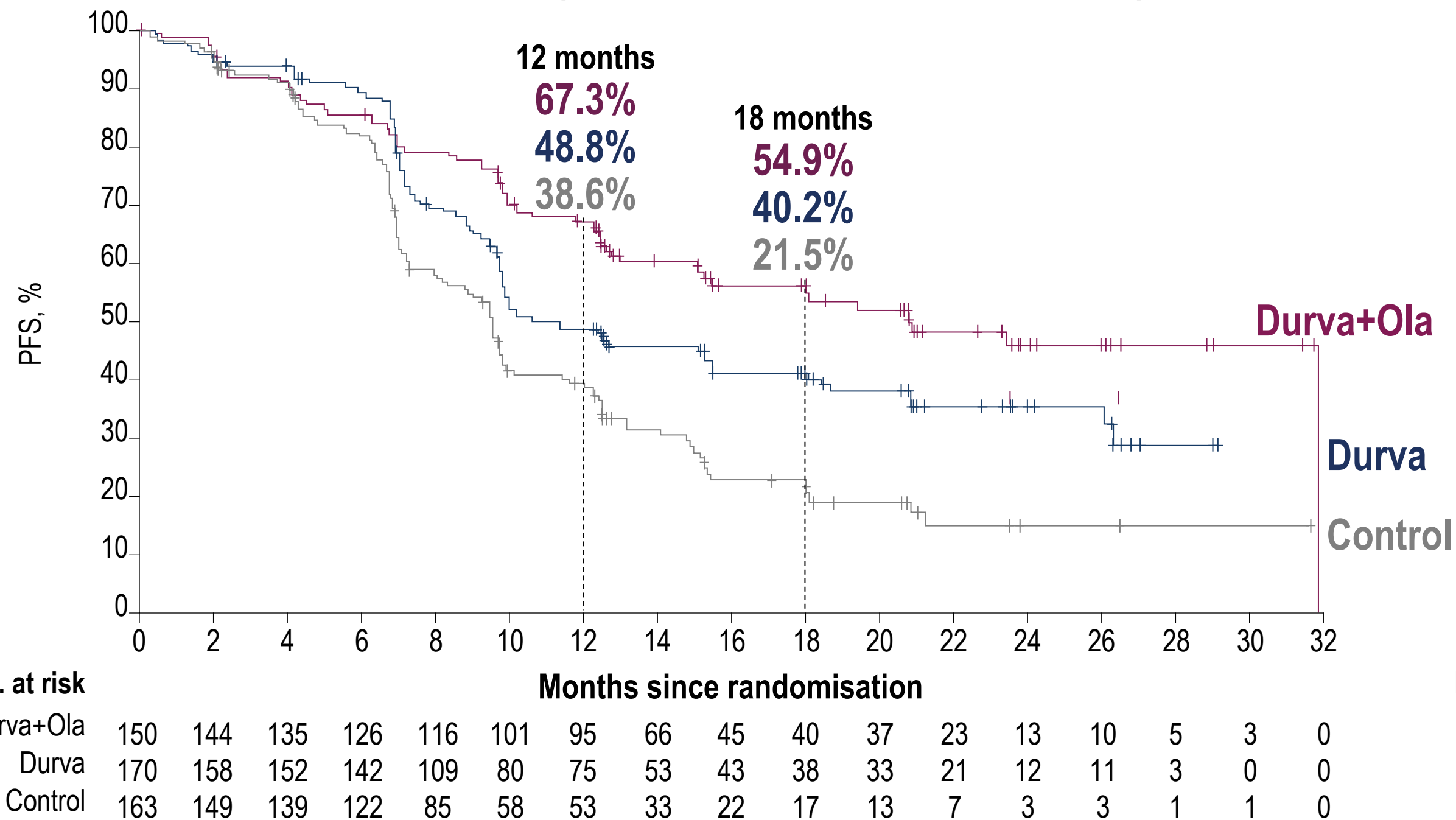
	Control (N=49)	Durva (N=46)	Durva+Ola (N=48)
Events, n (%)	25 (51.0)	15 (32.6)	18 (37.5)
Median PFS (95% CI),* months	7.0 (6.7–14.8)	NR (NR–NR)	31.8 (12.4–NR)
HR (95% CI) vs Control†		0.42 (0.22–0.80)	0.41 (0.21–0.75)
HR (95% CI) vs Durva†			0.97 (0.49–1.98)

	Control (N=192)	Durva (N=192)	Durva+Ola (N=191)
Events, n (%)	148 (77.1)	124 (64.6)	108 (56.5)
Median PFS (95% CI),* months	9.7 (9.2–10.1)	9.9 (9.4–12.5)	15.0 (12.4–18.0)
HR (95% CI) vs Control†		0.77 (0.60–0.97)	0.57 (0.44–0.73)
HR (95% CI) vs Durva†			0.76 (0.59–0.99)

Subgroup analysis of PFS by PD-L1 status

Prespecified exploratory analysis

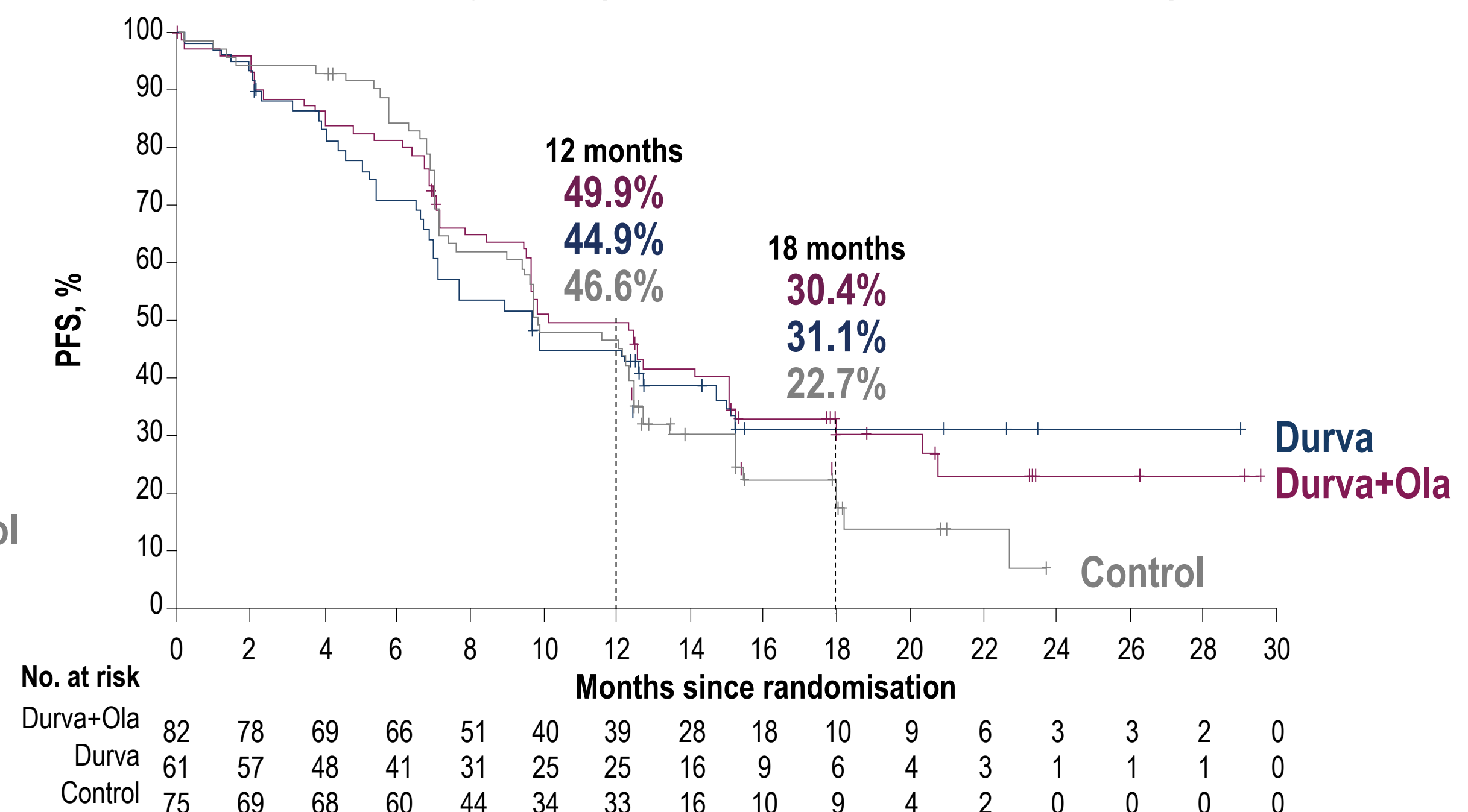
PD-L1 positive (TAP \geq 1%; 69% of population)



No. at risk	Months since randomisation																
	0	2	4	6	8	10	12	14	16	18	20	22	24	26	28	30	32
Durva+Ola	150	144	135	126	116	101	95	66	45	40	37	23	13	10	5	3	0
Durva	170	158	152	142	109	80	75	53	43	38	33	21	12	11	3	0	0
Control	163	149	139	122	85	58	53	33	22	17	13	7	3	3	1	1	0

	Control (N=163)	Durva (N=170)	Durva+Ola (N=150)
Events, n (%)	114 (69.9)	97 (57.1)	68 (45.3)
Median PFS (95% CI),* months	9.5	11.3	20.8
HR (95% CI) vs Control [†]		0.63 (0.48–0.83)	0.42 (0.31–0.57)
HR (95% CI) vs Durva [†]			0.67 (0.49–0.91)

PD-L1 negative (TAP<1%; 31% of population)



No. at risk	Months since randomisation															
	0	2	4	6	8	10	12	14	16	18	20	22	24	26	28	30
Durva+Ola	82	78	69	66	51	40	39	28	18	10	9	6	3	3	2	0
Durva	61	57	48	41	31	25	25	16	9	6	4	3	1	1	1	0
Control	75	69	68	60	44	34	33	16	10	9	4	2	0	0	0	0

	Control (N=75)	Durva (N=61)	Durva+Ola (N=82)
Events, n (%)	57 (76.0)	38 (62.3)	55 (67.1)
Median PFS (95% CI),* months	9.9	9.7	10.1
HR (95% CI) vs Control [†]		0.89 (0.59–1.34)	0.80 (0.55–1.16)
HR (95% CI) vs Durva [†]			0.93 (0.61–1.41)