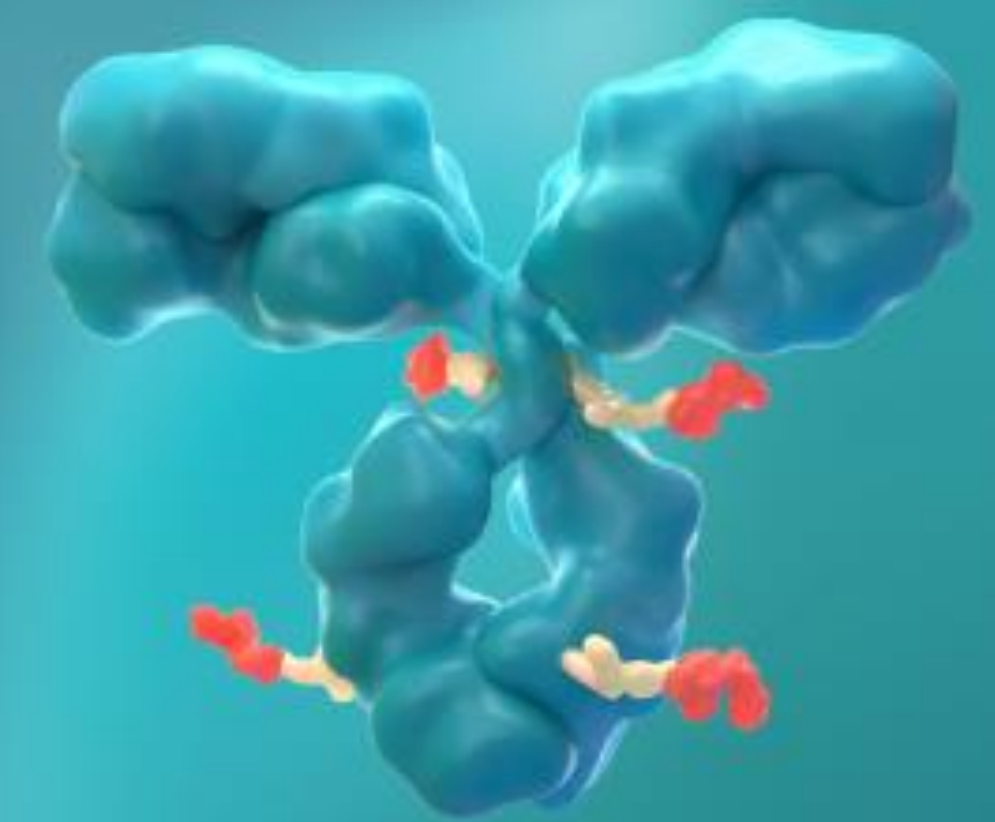




Decoding the Latest Developments in Locally Advanced and First-Line Recurrent Cervical Cancer

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Keiichi Fujiwara, MD, PhD

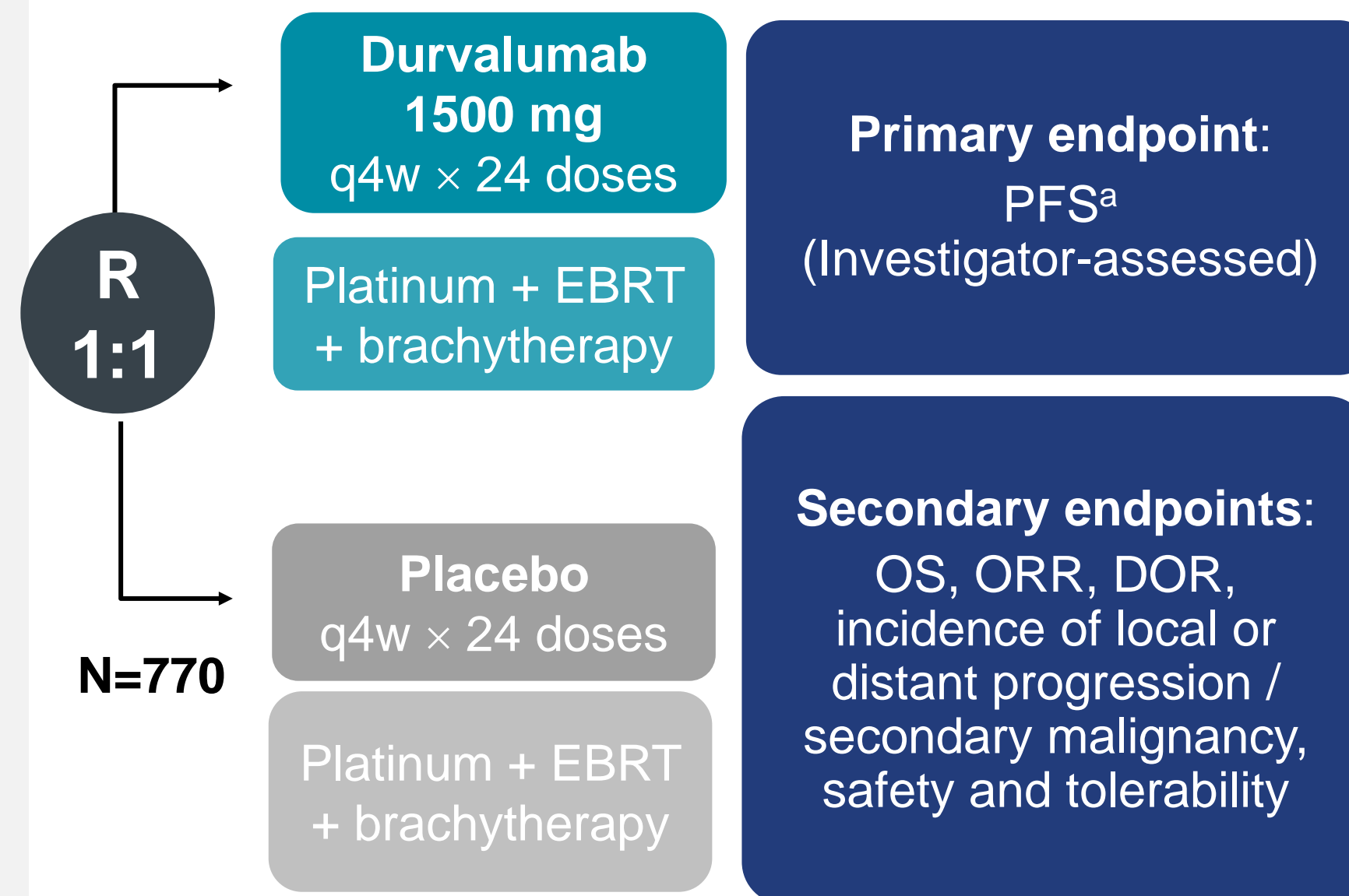


CALLA: Overview of Study

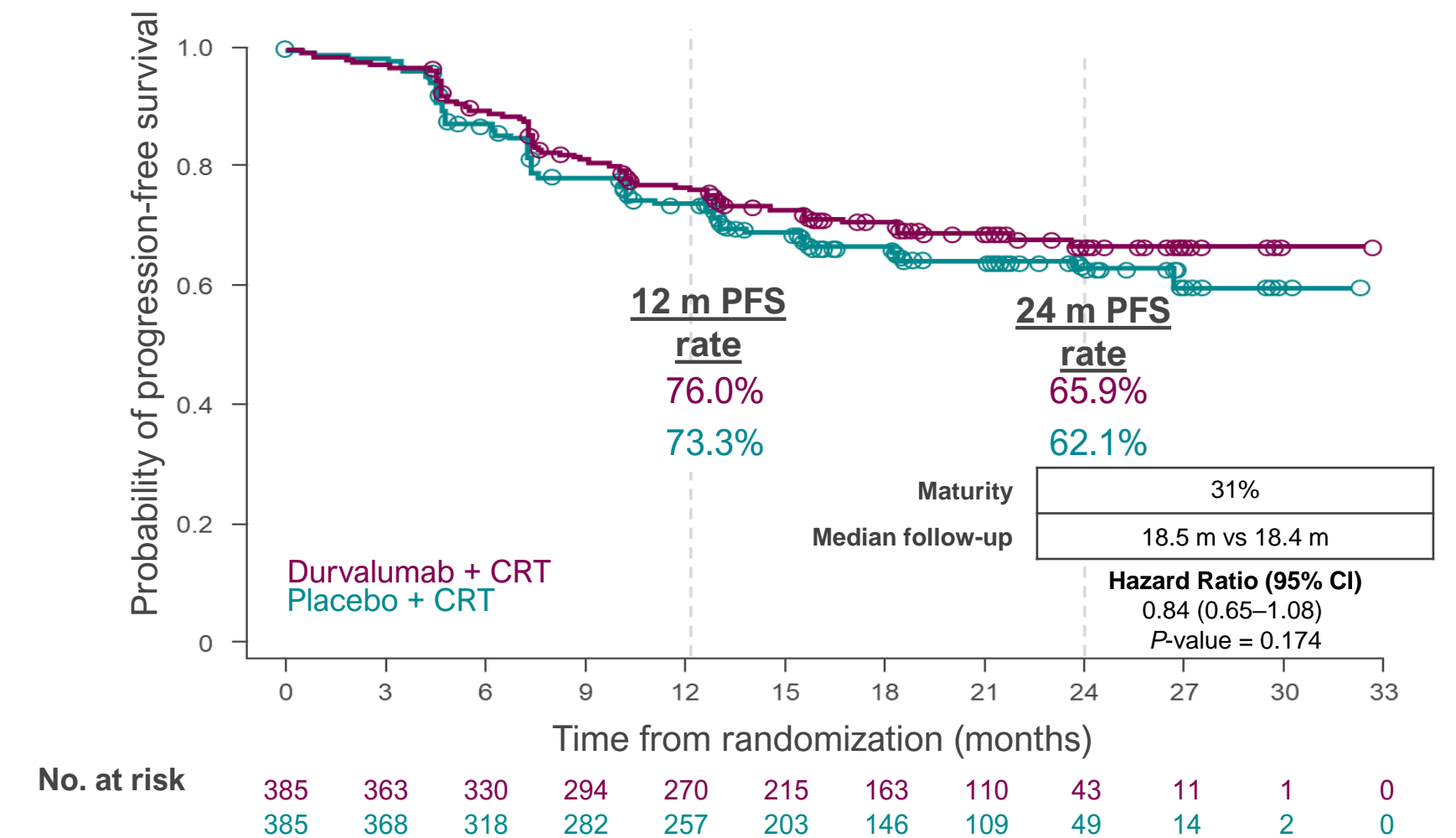
A randomized, multi-center, double-blind, placebo-controlled, global, phase III study to determine the efficacy and safety of durvalumab + chemoradiotherapy versus chemoradiotherapy alone as treatment in women with locally advanced cervical cancer¹

Eligible population²

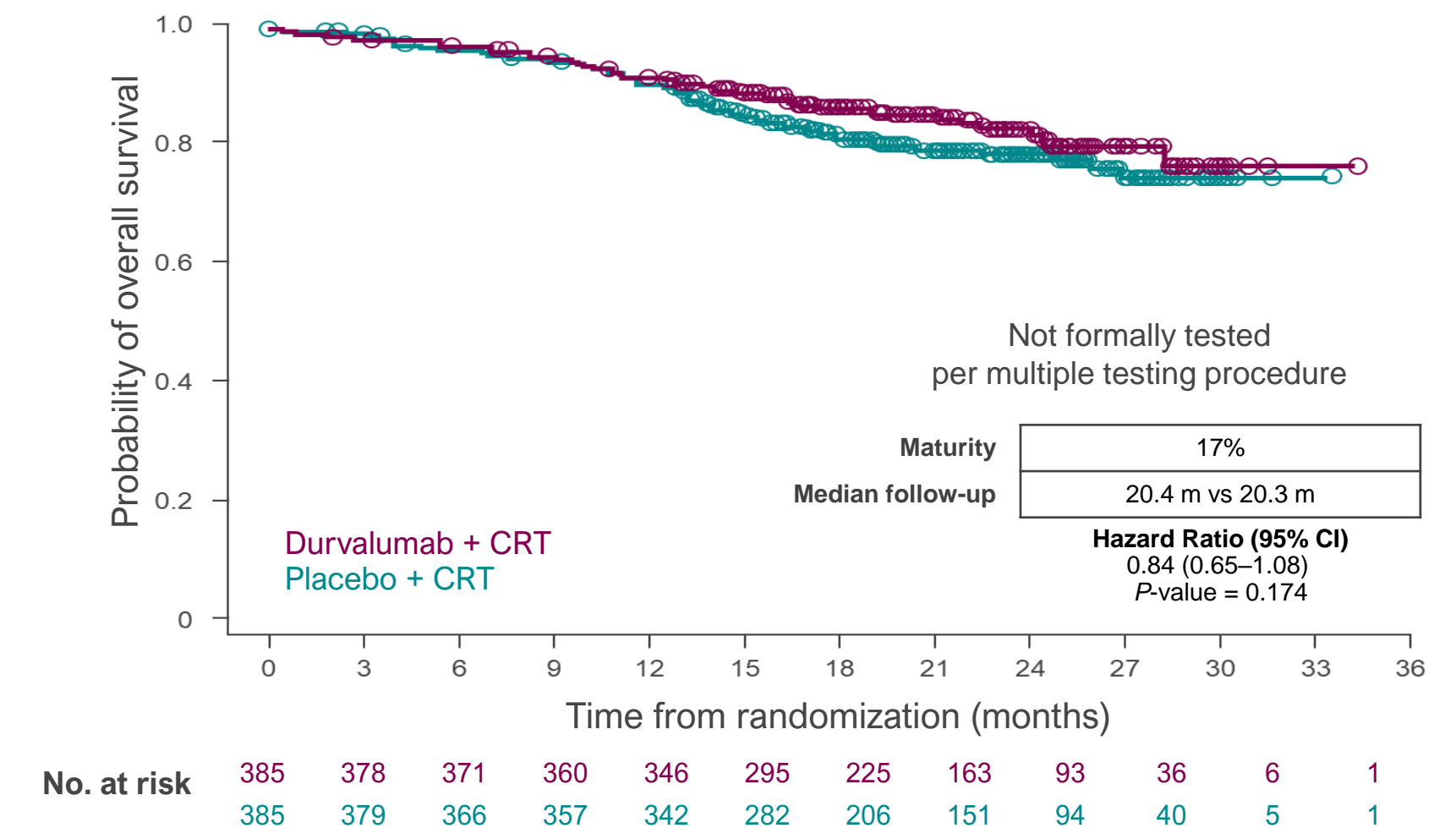
- Women aged ≥18 years
- Histologically confirmed cervical adenocarcinoma, squamous carcinoma, or adenosquamous carcinoma
- High-risk LACC (FIGO 2009)
- Stages IB2 to IIB, node positive (N≥1)
- Stages IIIA to IVA with any node (N≥0)
- WHO ECOG performance status of 0 or 1



Progression-Free Survival (primary endpoint)²



Overall Survival (secondary endpoint)²



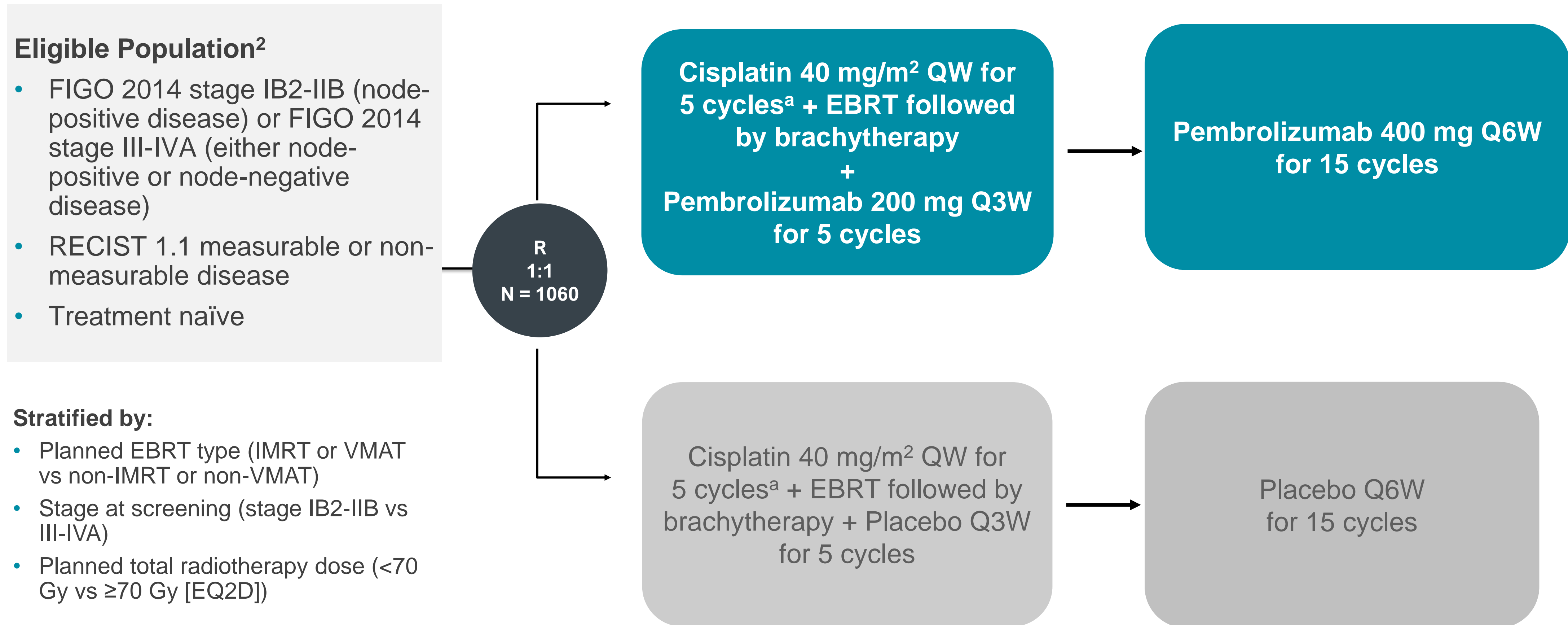
^aAccording to RECIST 1.1 or histopathologic confirmation of local tumor progression.

CI, confidence interval; CRT, chemoradiotherapy; DOR, duration of response; EBRT, external beam radiation therapy; ECOG, Eastern Cooperative Oncology Group; FIGO, International Federation of Gynecology and Obstetrics; HR, hazard ratio; LACC, locally advanced cervical cancer; m, months; ORR, objective response rate; OS, overall survival; PFS, progression-free survival; q4w, every 4 weeks; WHO, world health organization.

1. Monk B et al. Presentation #504. Presented at IGCS Annual Meeting 2022; 2. Clinicaltrials.gov. NCT03830866. Accessed October 17 2023

KEYNOTE-A18 (ENGOT-cx11/GOG-3047): Study Design

A randomized, phase 3, double-blind study of chemoradiotherapy with or without pembrolizumab for the treatment of high-risk, locally advanced cervical cancer (KEYNOTE-A18/ENGOT-cx11/GOG-3047)

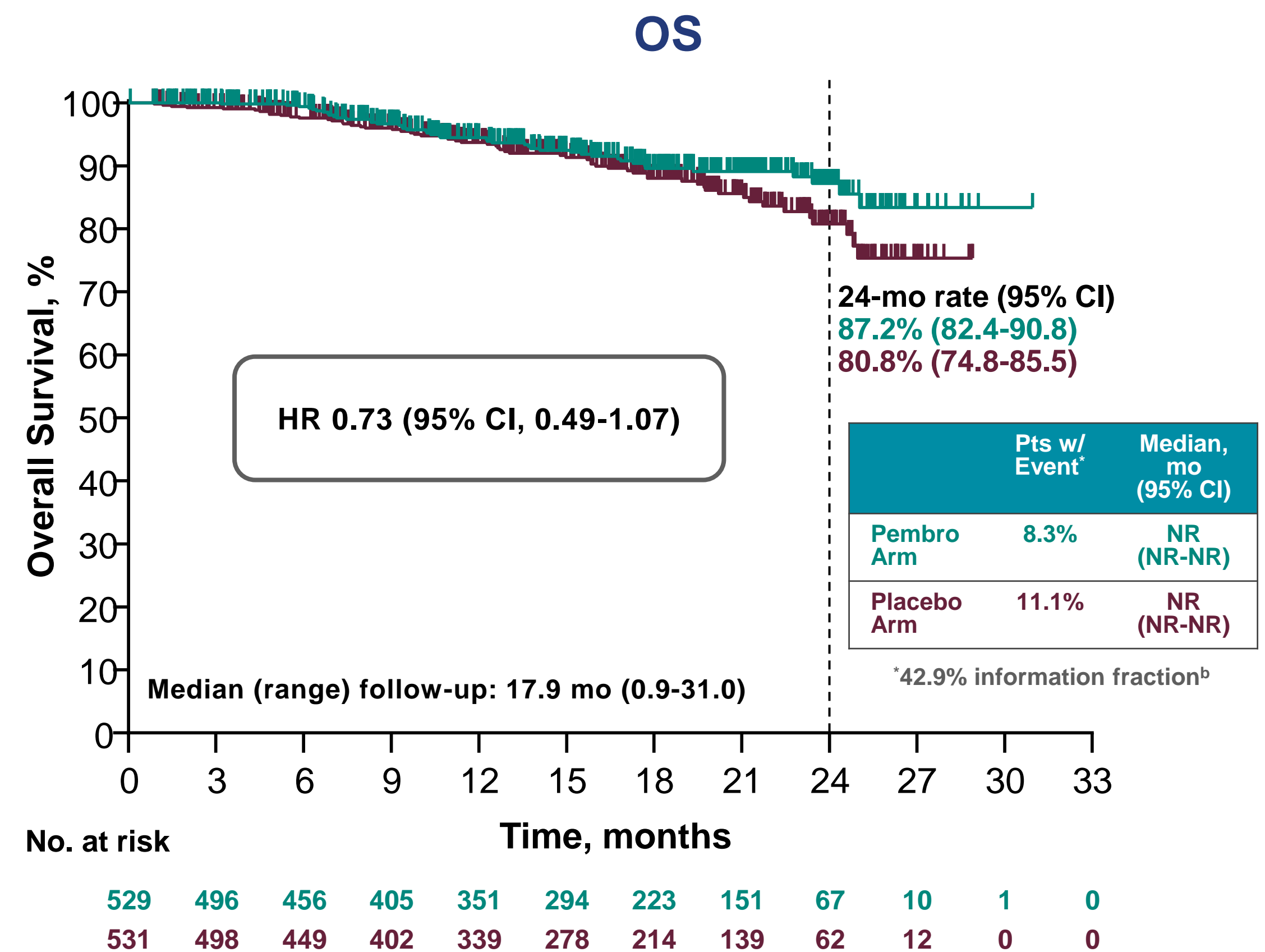
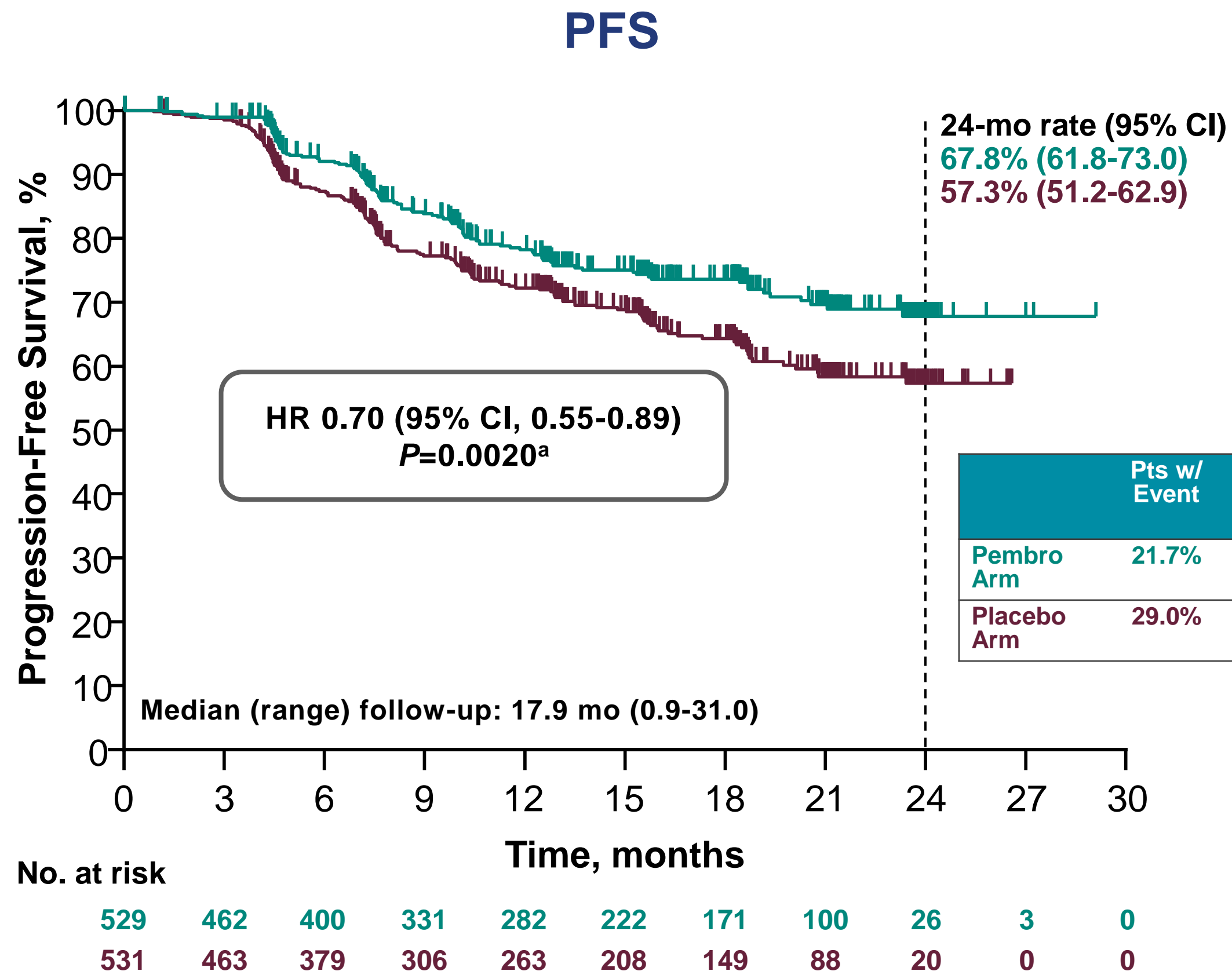


KEYNOTE-A18(ENGOT-cx11/GOG-3047): Baseline Characteristics

	Pembro Arm (N = 529)	Placebo Arm (N = 531)
Age, median (range)	49 y (22-87)	50 y (22-78)
Race ^a		
White	254 (48.0%)	264 (49.7%)
Asian	155 (29.3%)	148 (27.9%)
Multiple	78 (14.7%)	86 (16.2%)
American Indian or Alaska Native	24 (4.5%)	22 (4.1%)
Black or African American	14 (2.6%)	8 (1.5%)
Native Hawaiian or Other Pacific Islander	2 (0.4%)	1 (0.2%)
PD-L1 CPS		
<1	22 (4.2%)	28 (5.3%)
≥1	502 (94.9%)	498 (93.8%)
Missing	5 (0.9%)	5 (0.9%)
ECOG PS 1	149 (28.2%)	134 (25.2%)
Squamous cell carcinoma	433 (81.9%)	451 (84.9%)

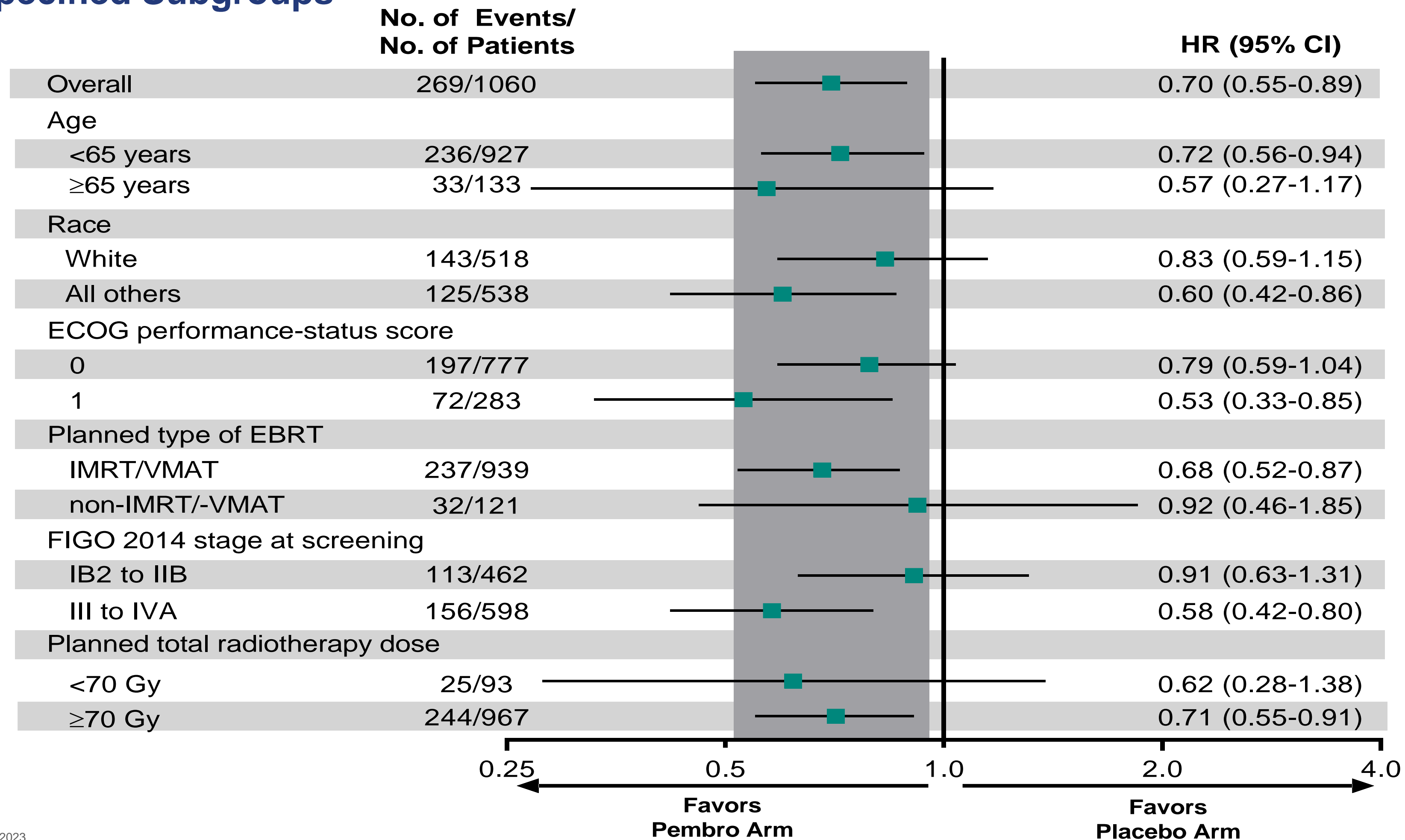
	Pembro Arm (N = 529)	Placebo Arm (N = 531)
Stage at screening (FIGO 2014 criteria)		
IB2-IIB	235 (44.4%)	227 (42.7%)
III-IVA	294 (55.6%)	304 (57.3%)
Lymph node involvement ^b		
Positive pelvic only	326 (61.6%)	324 (61.0%)
Positive para-aortic only	14 (2.6%)	10 (1.9%)
Positive pelvic and para-aortic	105 (19.8%)	104 (19.6%)
No positive pelvic or para-aortic	84 (15.9%)	93 (17.5%)
Planned type of EBRT		
IMRT or VMAT	469 (88.7%)	470 (88.5%)
Non-IMRT and non-VMAT	60 (11.3%)	61 (11.5%)
Planned total radiotherapy dose (EQD2)		
<70 Gy	47 (8.9)	46 (8.7)
≥70 Gy	482 (91.1)	485 (91.3)

KEYNOTE-A18 (ENGOT-cx11/GOG-3047): Progression-Free Survival and Overall Survival



KEYNOTE-A18 (ENGOT-cx11/GOG-3047): Treatment Exposure and Protocol-Specified Subgroups

PFS^c: Protocol-Specified Subgroups

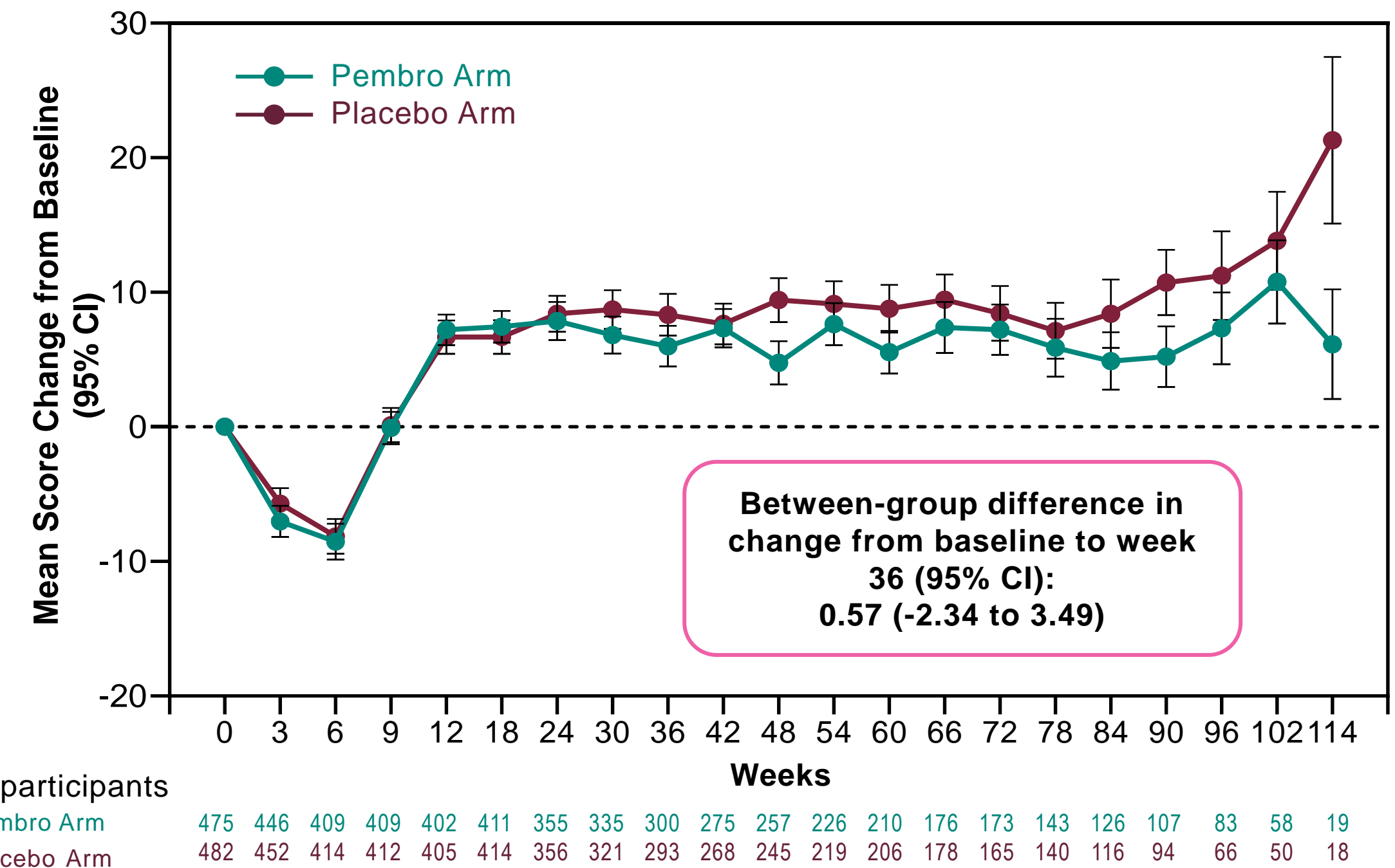


KEYNOTE-A18 (ENGOT-cx11/GOG-3047): Safety and Quality of Life

Adverse Events

	All-Cause AEs		Treatment-Related AEs ^a		Immune-Mediated AEs ^b	
	Pembro Arm (N = 528)	Placebo Arm (N = 530)	Pembro Arm (N = 528)	Placebo Arm (N = 530)	Pembro Arm (N = 528)	Placebo Arm (N = 530)
Any grade	525 (99.4%)	526 (99.2%)	507 (96.0%)	509 (96.0%)	172 (32.6%)	62 (11.7%)
Grade ≥3	394 (74.6%)	364 (68.7%)	354 (67.0%)	321 (60.6%)	22 (4.2%)	6 (1.1%)
Serious	150 (28.4%)	131 (24.7%)	91 (17.2%)	65 (12.3%)	15 (2.8%)	6 (1.1%)
Led to death	5 (0.9%)	6 (1.1%)	2 (0.4%) ^c	2 (0.4%) ^d	0	0
Led to discontinuation						
Any treatment	92 (17.4%)	75 (14.2%)	81 (15.3%)	67 (12.6%)	12 (2.3%)	2 (0.4%)
All treatment	1 (0.2%)	2 (0.4%)	0	1 (0.2%)	0	0

EORTC Quality-of-Life Core 30 (QLQ-C30)



No. of participants
 Pembro Arm
 Placebo Arm

Pembro Arm	475	446	409	409	402	411	355	335	300	275	257	226	210	176	173	143	126	107	83	58	19
Placebo Arm	482	452	414	412	405	414	356	321	293	268	245	219	206	178	165	140	116	94	66	50	18

- Compliance^e at week 36: 96.0% for both pembrolizumab and placebo arms
- Analysis population: all treated participants with ≥1 available PRO assessment
- No clinically meaningful between-group differences in changes in score from baseline to week 36 were observed for QLQ-C30 global health status/QoL or QLQ-C30 physical functioning scores

KEYNOTE-A18 (ENGOT-cx11/GOG-3047): Treatment Exposure and Protocol-Specified Subgroups

Summary of Treatment Exposure

	Pembro Arm (N = 528)	Placebo Arm (N = 530)
Total number of cycles, median (range)		
Pembro or placebo	11 (1-20)	11 (1-20)
Cisplatin ^a	5 (1-7)	5 (1-7)
Radiation therapy, median (range)^a		
Overall treatment time (days)	52 (12-139)	52 (2-166)
Within 50 days ^b , n (%)	184 (35.5%)	194 (37.2%)
Within 56 days, n (%)	386 (74.5%)	390 (74.7%)
Cervix total dose (Gy), median (range)^a		
Total cervix physical dose	76 (14-94)	76 (3-125)
Total cervix EQD2 dose	87 (14-118)	87 (3-207)

GCIG INTERLACE: Study Design

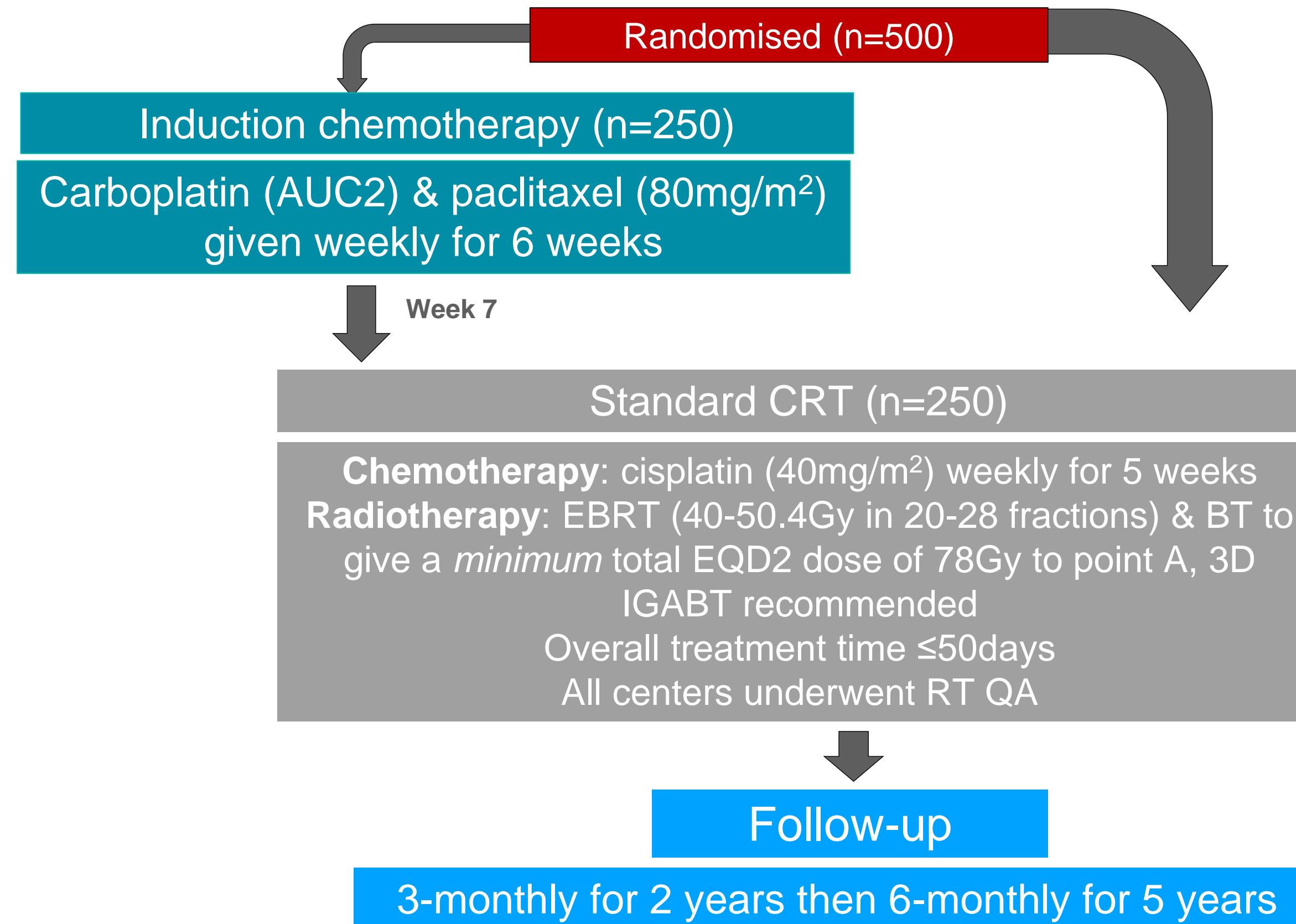
A randomised phase III trial of induction chemotherapy followed by chemoradiation compared with chemoradiation alone in locally advanced cervical cancer

Key Eligibility Criteria:^{1,2}

- Newly diagnosed histologically confirmed FIGO (2008) stage IB1 node+, IB2, II, IIIB, IVA squamous, adeno, adenosquamous cervical cancer
- No nodes above aortic bifurcation
- Adequate renal/liver and bone marrow function
- Fit for chemotherapy & radical RT
- No prior pelvic RT

Stratified by:

Site, stage, nodal status, 3D-conformal vs IMRT EBRT, 2D v 3D BT, tumour size, SCC vs other



- **Primary endpoints:**
- PFS
- OS

- **Secondary endpoints:**
- Adverse events
- Pattern of relapse
- QOL
- Time to subsequent treatment

INTERLACE: Demographics and Disease Characteristics

Demographics at Baseline

	CRT alone (n=250)	Induction Chemo + CRT (n=250)
Age, years median (range)	46 (24-78)	46 (26-78)
ECOG status	No. of patients (%)	
0	221 (88)	214 (86)
1	29 (12)	36 (14)
Country		
UK	190 (76)	190 (76)
Mexico	51 (20)	49 (20)
Italy	3 (1)	5 (2)
India	5 (2)	5 (2)
Brazil	1 (<1)	1 (<1)

Disease Characteristics at Baseline

	CRT alone (n=250)	Induction Chemo + CRT (n=250)
FIGO stage (2008)	No. of patients (%)	
IB1	2 (<1)	2 (<1)
IB2	23 (9)	19 (8)
IIA	14 (6)	17 (7)
IIB	176 (70)	178 (71)
IIIB	30 (12)	26 (10)
IVA	5 (2)	8 (3)
Cell type		
Non-squamous	45 (18)	44 (18)
Squamous	205 (82)	206 (82)
Nodal status		
Negative	142 (57)	146 (58)
Positive	108 (43)	104 (42)
Longest tumour diameter, cm median (range)	4.9 (1.8-12.8)	4.8 (1.3-13.5)

INTERLACE: Adherence to Therapy

Adherence to Cisplatin

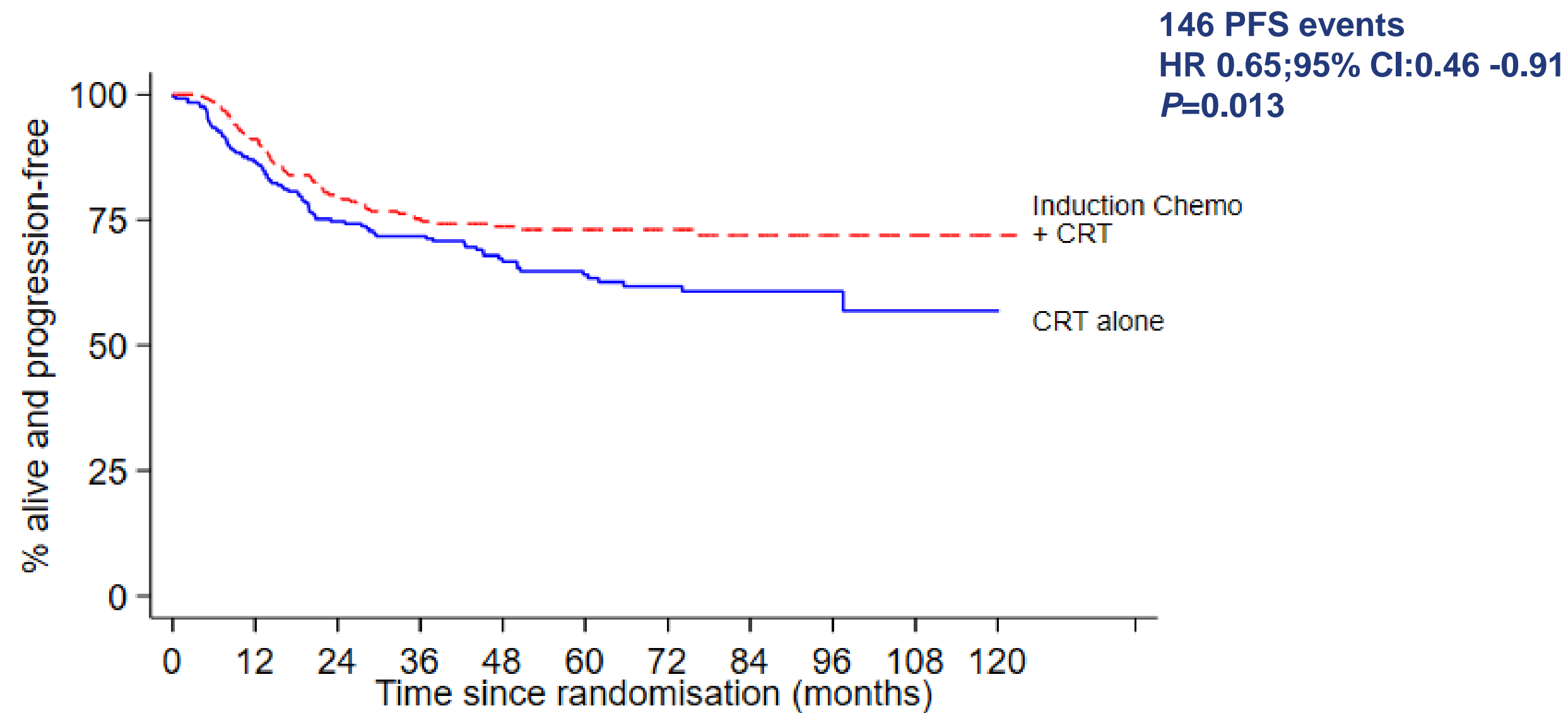
	CRT alone (n=250)	IC+ CRT (n=250)
No. of patients (%)		
Completed 5 weekly cycles	197 (79)	169 (68)
Completed at least 4 cycles	224 (90)	212 (85)
Main reasons for <5 cycles:		
Adverse events leading to discontinuation:	33 (13)	68 (27)
Haematological	4	34
Non-haematological	25	20
Both	4	14
Other	20 (8)	13 (5)

Adherence to Radiation

	CRT alone (n=250)	IC + CRT (n=250)
No. of patients (%)		
Received external beam radiotherapy	231 (92)	242 (97)
IMRT	93 (40)	102 (42)
3D conformal	138 (60)	140 (58)
Received brachytherapy	223 (97)	238 (98)
2D point A	49(22)	46 (19)
3D point A	106 (48)	120 (51)
3D HRCTV D90	68 (30)	72 (30)
Median overall treatment time days(range)	45 (37-88)	45 (36-70)

INTERLACE: Progression-Free Survival and Overall Survival

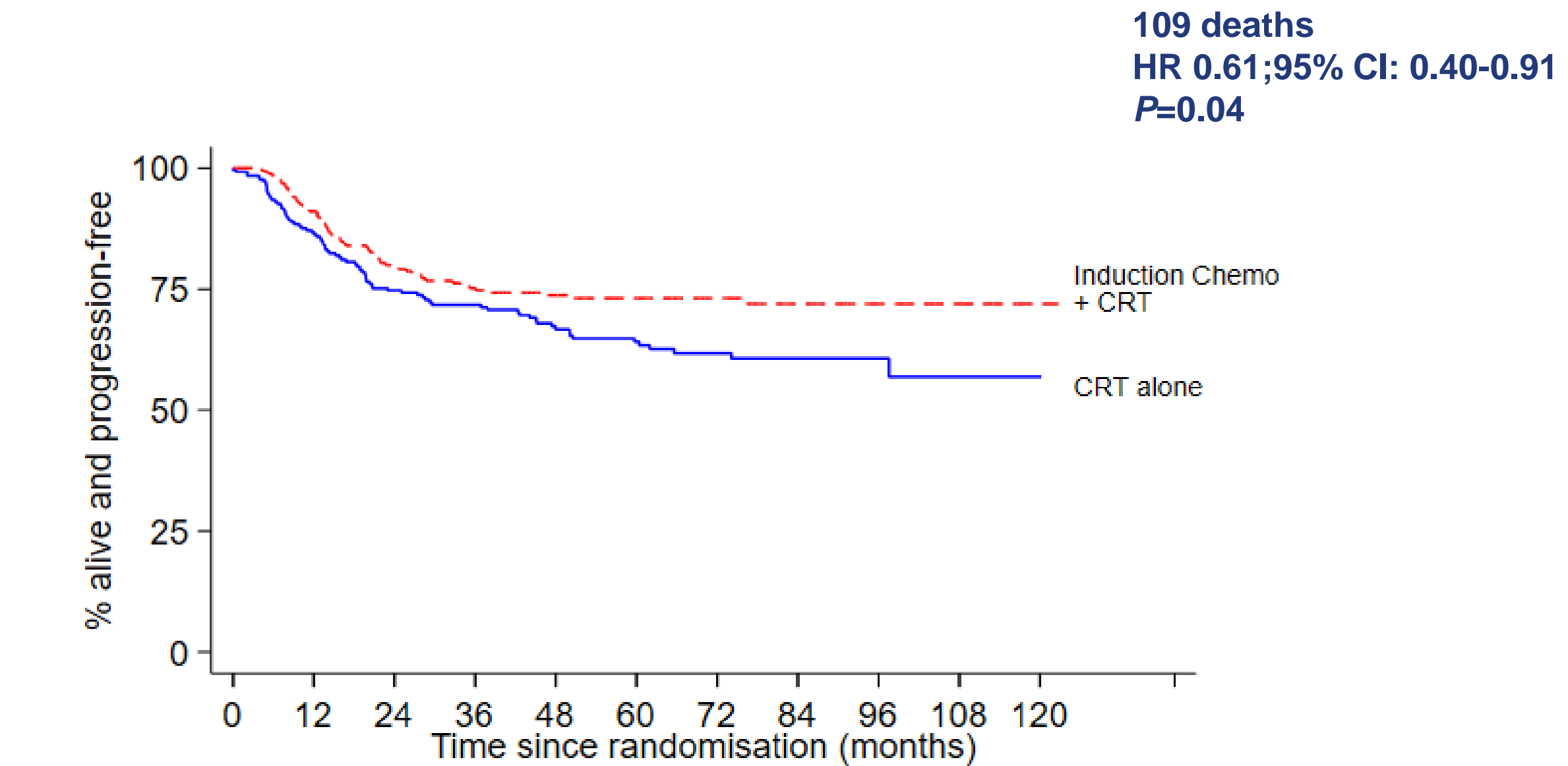
PFS (Median f/u: 64 months)



	0	12	24	36	48	60	72	84	96	108	120
Number at risk CRT alone	250	204	157	140	110	88	63	36	16	5	1
Induction Chemo + CRT	250	220	178	152	132	105	72	40	19	8	1

	Induction Chemo+ CRT (n=250)	CRT alone (n=250)
3yr PFS	75%	72%
5yr PFS	73%	64%

OS (Median f/u: 64 months)



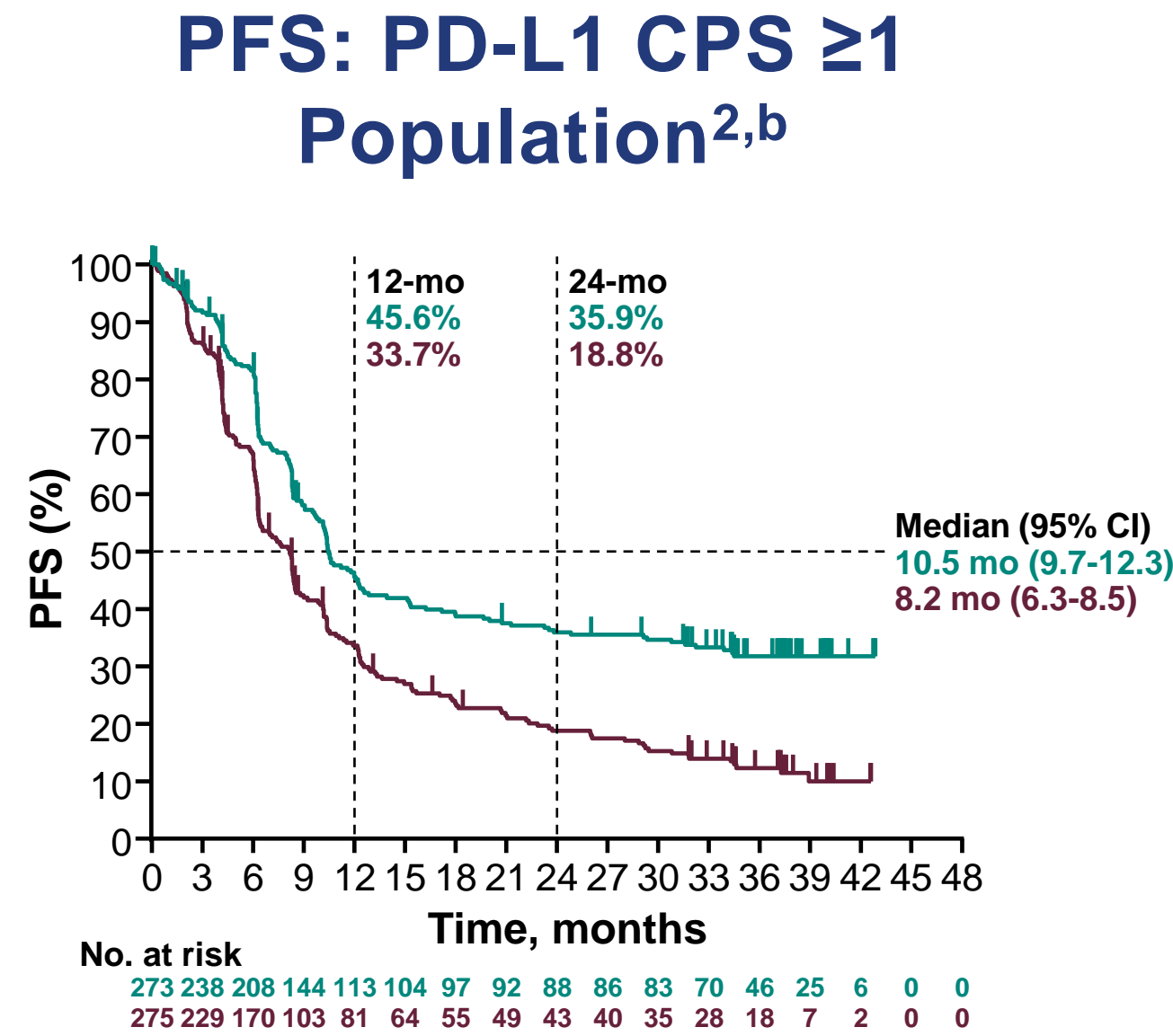
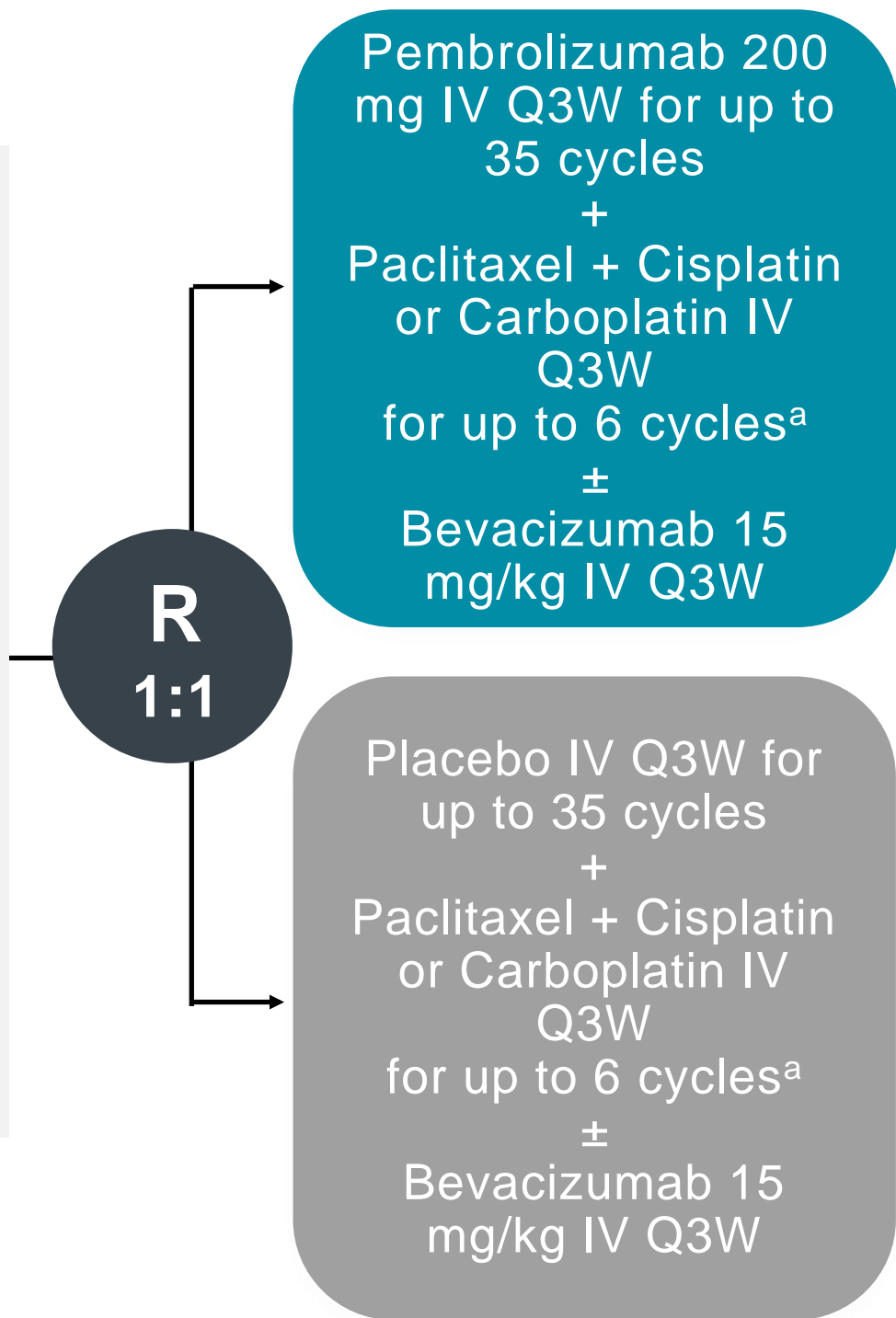
	0	12	24	36	48	60	72	84	96	108	120
Number at risk CRT alone	250	204	157	140	110	88	63	36	16	5	1
Induction Chemo + CRT	250	220	178	152	132	105	72	40	19	8	1

	Induction Chemo + CRT (n=250)	CRT alone (n=250)
3yr OS	86%	80%
5yr OS	80%	72%

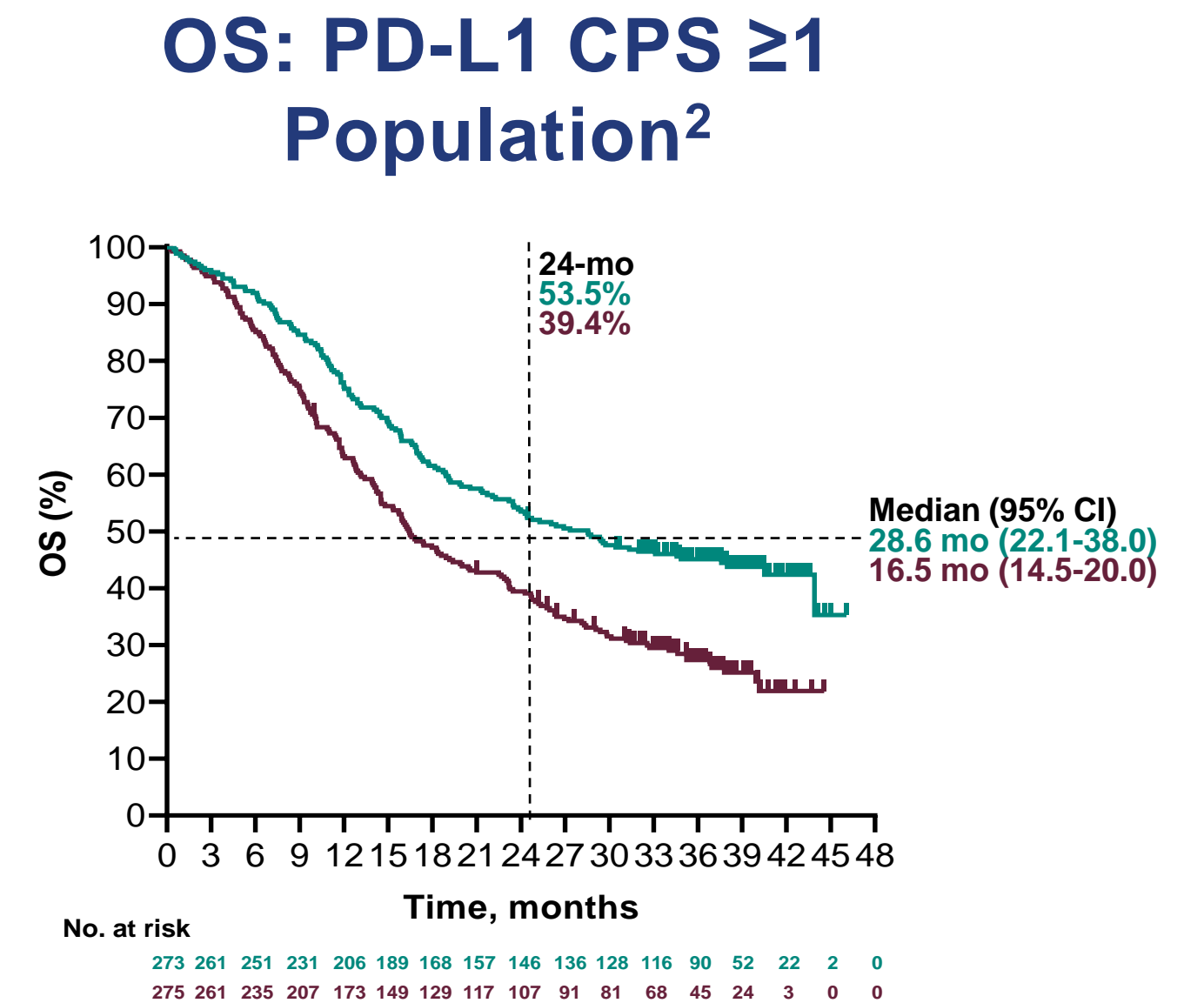
KEYNOTE-826: Study Design

A phase 3 randomized, double-blind, placebo-controlled trial of pembrolizumab (MK-3475) plus chemotherapy vs chemotherapy plus placebo for the first-line treatment of persistent, recurrent, or metastatic cervical cancer^{1,2}

- Key Eligibility Criteria:**^{1,2}
- Persistent, recurrent, or metastatic cervical cancer not amenable to curative treatment
 - No prior systemic chemotherapy (prior radiotherapy and chemoradiotherapy permitted)
 - ECOG PS 0 or 1



	Pembro arm	Placebo arm
n/N	171/273	220/275
Events	62.6%	80.0%
HR (95% CI)	0.58 (0.47-0.71)	



	Pembro arm	Placebo arm
n/N	153/273	201/275
Events	56.0%	73.1%
HR (95% CI)	0.60 (0.49-0.74)	

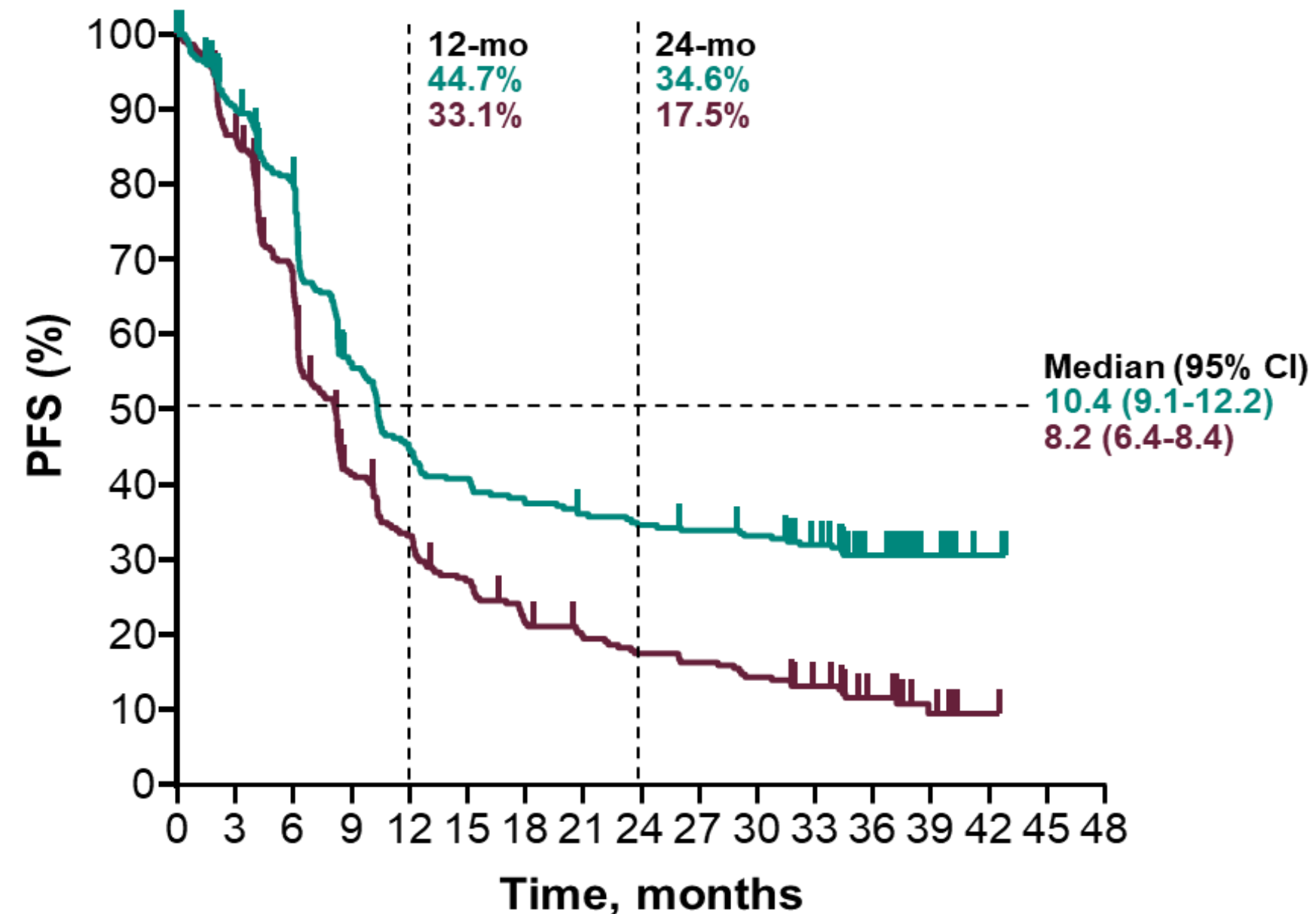
Primary Endpoints: PFS (per RECIST v1.1 by investigator), OS
Secondary Endpoints: ORR, DOR, 12-mo PFS, safety

^aPaclitaxel: 175 mg/m². Cisplatin: cisplatin 50 mg/m². Carboplatin: AUC 5 mg/mL/min. The 6-cycle limit was introduced with protocol amendment 2, although patients with ongoing clinical benefit who were tolerating chemotherapy could continue beyond 6 cycles after sponsor consultation. ^bResponse assessed per RECIST v1.1 by investigator review. Data cutoff date: October 3, 2022. CPS, combined positive score (number of PD-L1-staining cells [tumor cells, lymphocytes, macrophages] divided by the total number of viable tumor cells, multiplied by 100. CI, confidence interval; CPS, combined positive score; DOR, duration of response; ECOG, Eastern Cooperative Oncology Group; IV, intravenous; HR, hazard ratio; mo, months; ORR, objective response rate; OS, overall survival; PD-L1, programmed death-ligand-1; Pembro, pembrolizumab; PFS, progression-free survival; PS, performance status; RECIST; Response Evaluation Criteria in Solid Tumours; Q3W, every 3 weeks. 1. ClinicalTrials.gov. Accessed September 20, 2023. <https://classic.clinicaltrials.gov/ct2/show/NCT03635567>; 2. Lorusso et al. Poster # BO2-3. Presented at ESGO Annual Meeting 2023.

KEYNOTE-826: Protocol-Specified Final PFS and OS in All-Comer Population

PFS: All-Comer Population^a

	n/N	Events	HR (95% CI)
Pembro arm	195/308	63.3%	0.61
Placebo arm	248/309	80.3%	(0.50-0.74)

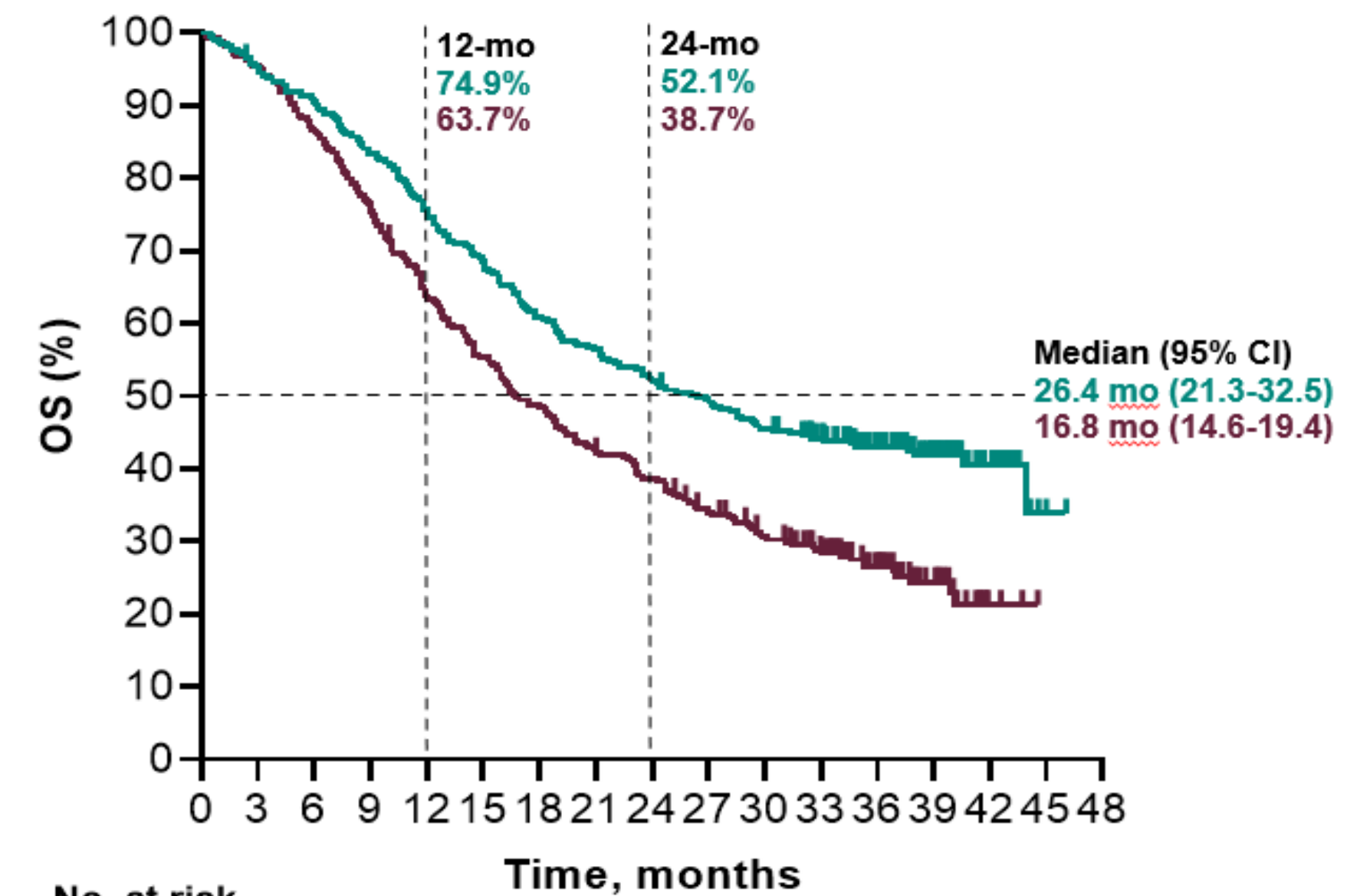


No. at risk

308	263	229	156	124	113	105	99	95	92	89	76	49	26	6	0	0
309	259	195	113	89	72	57	50	44	41	36	29	18	7	2	0	0

OS: All-Comer Population

	n/N	Events	HR (95% CI)
Pembro	178/308	57.8%	0.63
Placebo	228/309	73.8%	(0.52-0.77)



No. at risk

308	292	278	256	230	210	187	173	160	150	138	125	95	55	22	2	0
309	295	268	235	196	170	149	130	118	101	87	72	48	26	3	0	0

KEYNOTE-826: Summary of Treatment Duration and Adverse Events

Treatment Duration	Pembro Arm		Placebo Arm	
	Bev Yes	Bev No	Bev Yes	Bev No
Median, mos	13.9	6.3	9.7	5.4
Mean (SD)	16.8 (11.8)	10.3 (9.3)	13.1 (10.3)	7.1 (6.6)

Adverse Events	All-Cause AEs			
	Pembro Arm ^b (N=307)		Placebo Arm ^b (N=309)	
	Bev Yes (N=196)	Bev No (N=111)	Bev Yes (N=193)	Bev No (N=116)
Any grade	100%	98.2%	100%	98.3%
Grade ≥3	84.7%	78.4%	75.1%	75.9%
Serious	52.6%	48.6%	45.6%	37.9%
Led to death ^c	6.1%	3.6%	6.2%	2.6%
Led to discontinuation, any drug	50.0%	24.3%	36.3%	18.1%
Led to discontinuation, all drugs	6.6%	3.6%	3.6%	6.9%

Treatment-Related AEs ^a			
Pembro Arm ^b (N=307)		Placebo Arm ^b (N=309)	
Bev Yes (N=196)	Bev No (N=111)	Bev Yes (N=193)	Bev No (N=116)
97.4%	96.4%	98.4%	94.8%
74.0%	60.4%	66.8%	62.1%
33.7%	25.2%	25.9%	19.8%
0.5%	0.9%	1.6%	0.9%
40.8%	19.8%	32.6%	12.1%
3.6%	1.8%	1.0%	3.4%

BEATcc (ENGOT-Cx10/GEICO 68-C/JGOG1084/GOG-3030): Study Design and Efficacy

A randomised phase III trial of first-line atezolizumab combined with a platinum doublet and bevacizumab for metastatic (stage IVB), persistent or recurrent cervical cancer^{1,2}

Key Eligibility Criteria:^{1,2}

- Metastatic, persistent or recurrent cervical cancer not amenable to curative therapy
- GOG/ECOG PS
- No prior systemic anti-cancer therapy for R/M CC
- In patients with pelvic disease, no bladder or rectal mucosa involvement
- Available archival or fresh tumor sample for PD-L1 expression

R
1:1

N=410

Atezolizumab 1200 mg +
Bevacizumab 15 mg/kg +
Paclitaxel+ cis/carboplatin^a
all IV Q3W

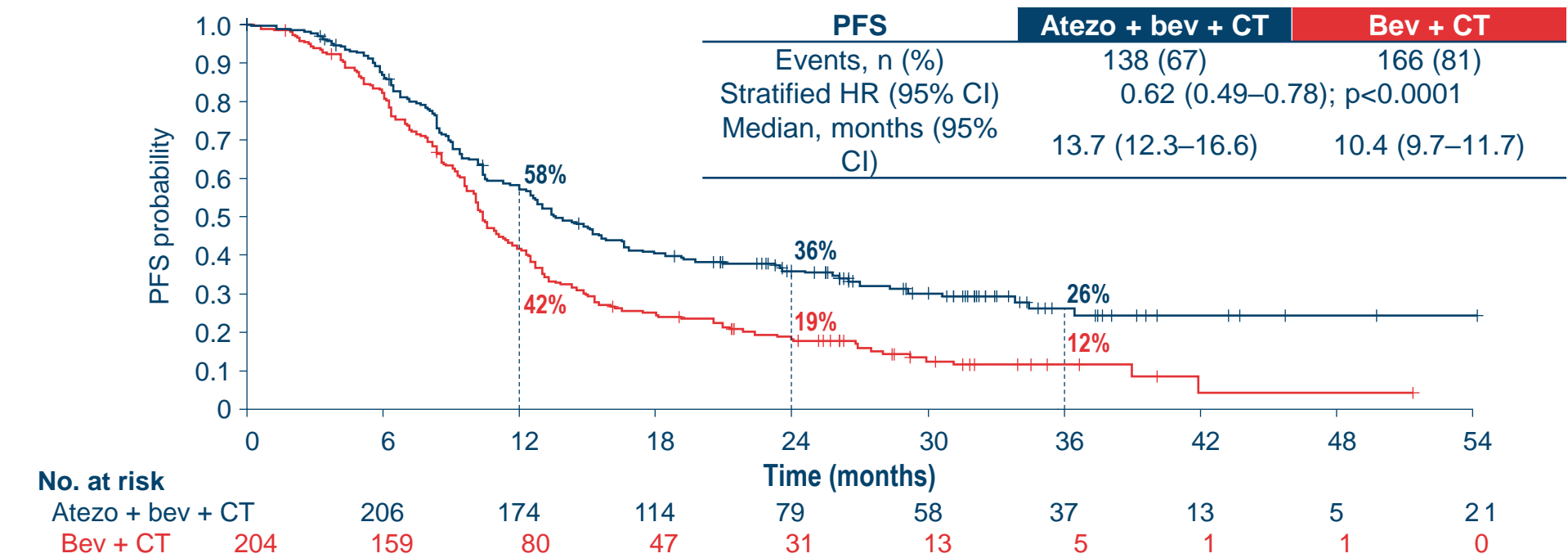
- Continued until disease progression/unacceptable toxicity

Bevacizumab 15 mg/kg +
Paclitaxel + cis/carboplatin^a
all IV Q3W

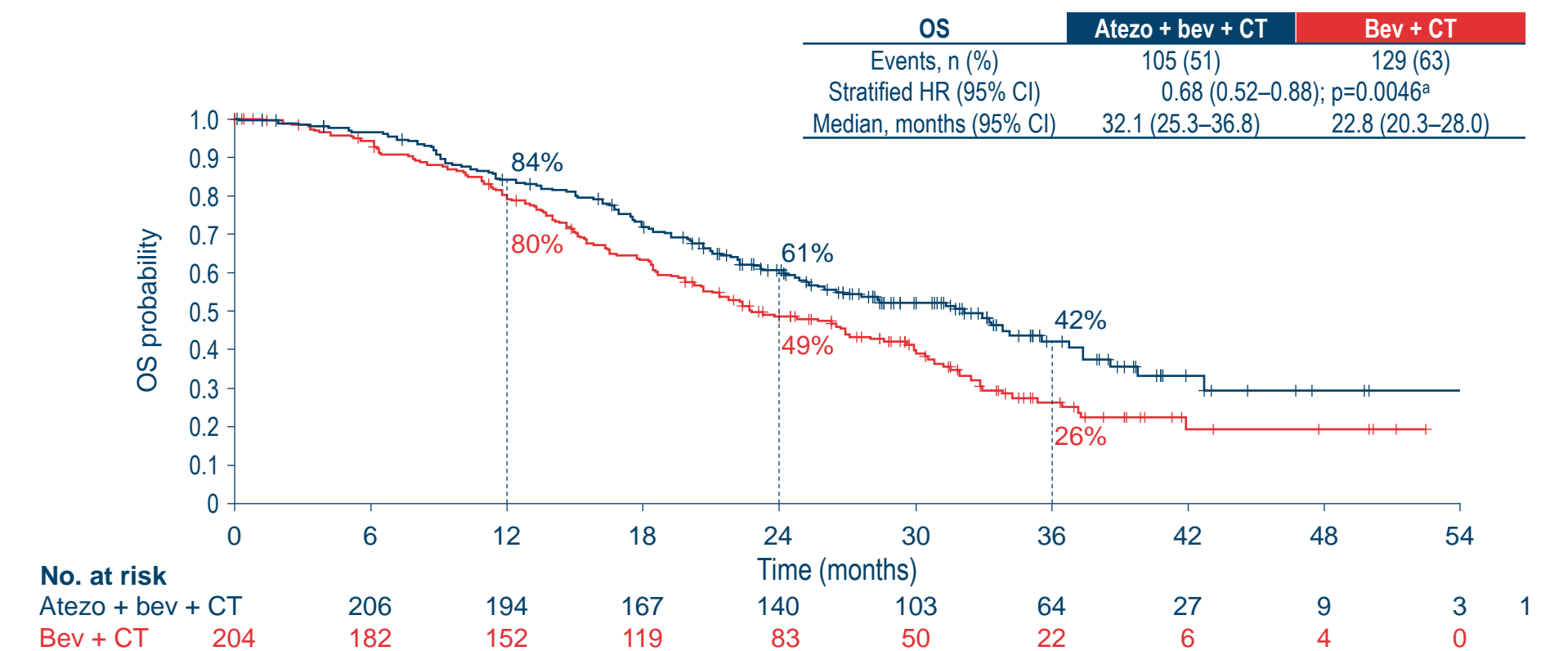
Stratified by:

- Prior concurrent chemoradiation (Y/N)
- Histology (squamous cell carcinoma vs adenocarcinoma including Adenosquamous carcinoma)
- Chemotherapy backbone

Dual primary endpoint: PFS



Dual primary endpoint: OS^c



Data cutoff: 17 July 2023 (median follow-up: 32.9 months; 95% CI, 31.2 – 34.6 months).

^aPaclitaxel 175 mg/m² day 1 + platinum (cisplatin 50 mg/m² or carboplatin AUC5) day 1; ^bcapped at 20% of the overall population. ^cInterim OS was statistically significant, crossing the boundary of P=0.0238

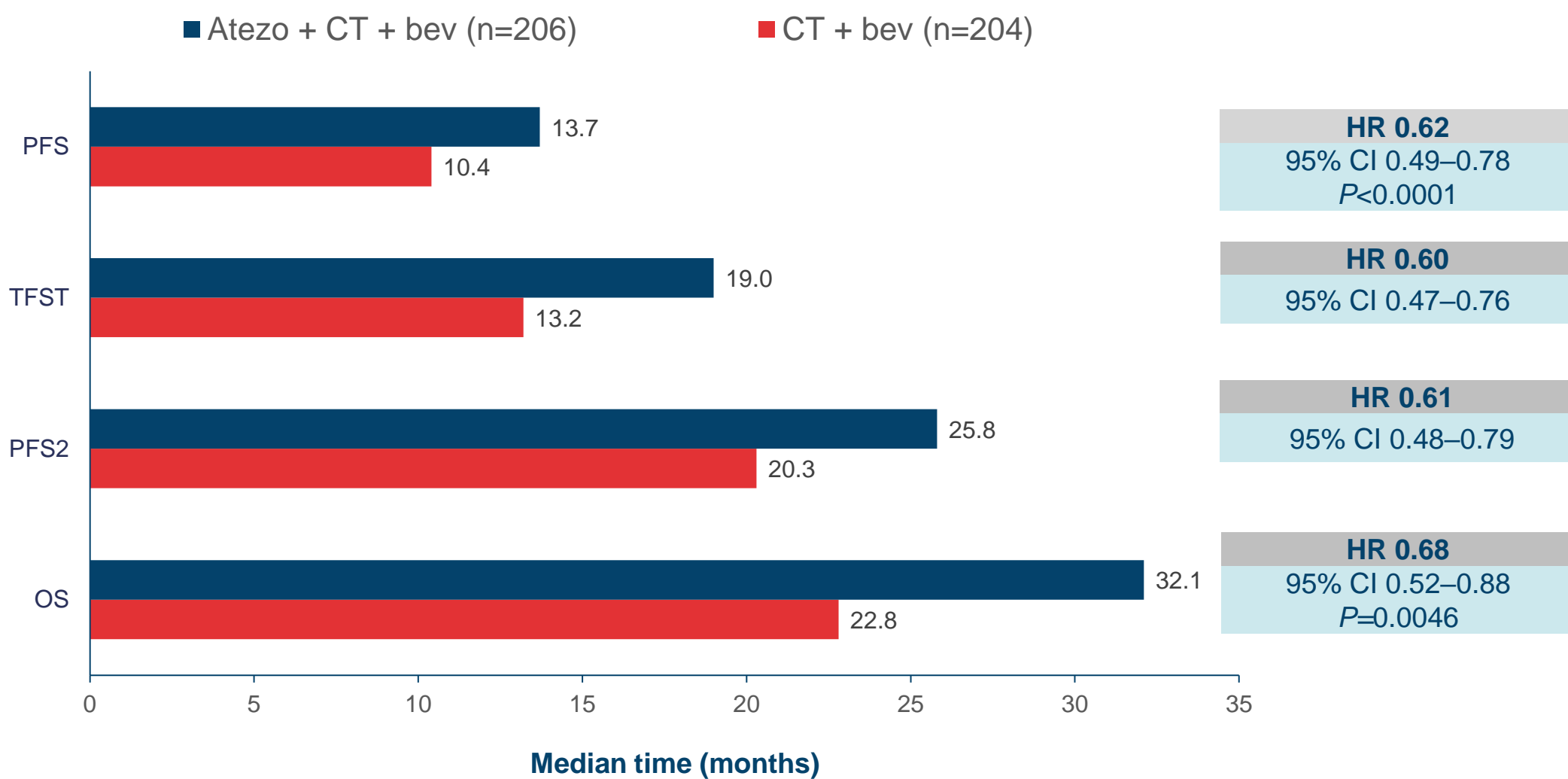
Atezo, atezolizumab, bev, bevacizumab, CR, complete response; CT, chemotherapy; DOR, duration of response; ECOG, eastern cooperative oncology group; HR, hazard ratio; ORR, objective response rate; OS, overall survival; PFS, progression – free survival; PFS2, time from randomisation to second progression or death; PS, performance status; Q3W, every 3 weeks; RECIST, response evaluation criteria in solid tumors; TFST, time from randomisation to first subsequent therapy or death; Y/N, yes/no.

1. Oaknin et al. Presented at ESMO Virtual Meeting 2023. Abstract LBA 39; 2. ClinicalTrials.gov. Accessed November 03, 2023. <https://clinicaltrials.gov/study/NCT03556839>

BEATcc (ENGOT-Cx10/GEICO 68-C/JGOG1084/GOG-3030): Efficacy and Safety

Summary of efficacy

Consistent results across primary and secondary efficacy endpoints



All cause AEs in ≥ 20% of patients in either arm

