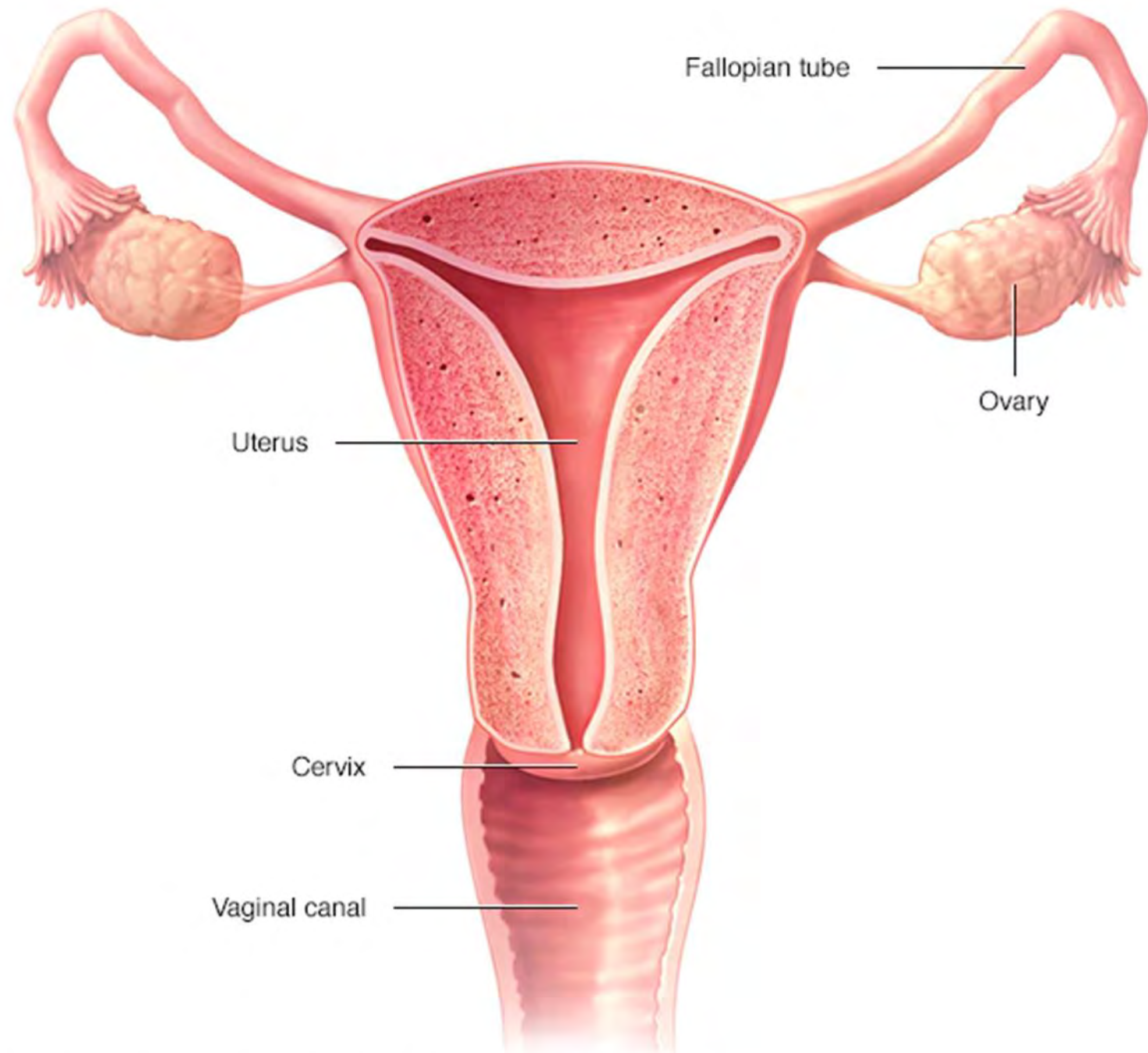


ESMO 2024: Updates on gynecological malignancies

Gerardo Colon-Otero, M.D.
Professor of Medicine
Mayo Clinic College of Medicine
Jacksonville, Florida

February 2025



ESMO 2024

Barcelona, Spain
September 2024



CONTENT

- **OVARIAN**

- PRIMA (Annals of Oncology)

- **ENDOMETRIAL**

- PEMBROLIZUMAB ADJUVANT (KEYNOTE B-21) (Annals)

- **CERVICAL**

- KEYNOTE A18 OS DATA (Lancet)
- INTERLACE QOL DATA (Lancet)

- **GENERAL**

- ADC: Trastuzumab deruxtecan breast cancer (Nature Med)

OVARIAN CANCER: PRIMA



Annals of Oncology

Available online 14 September 2024

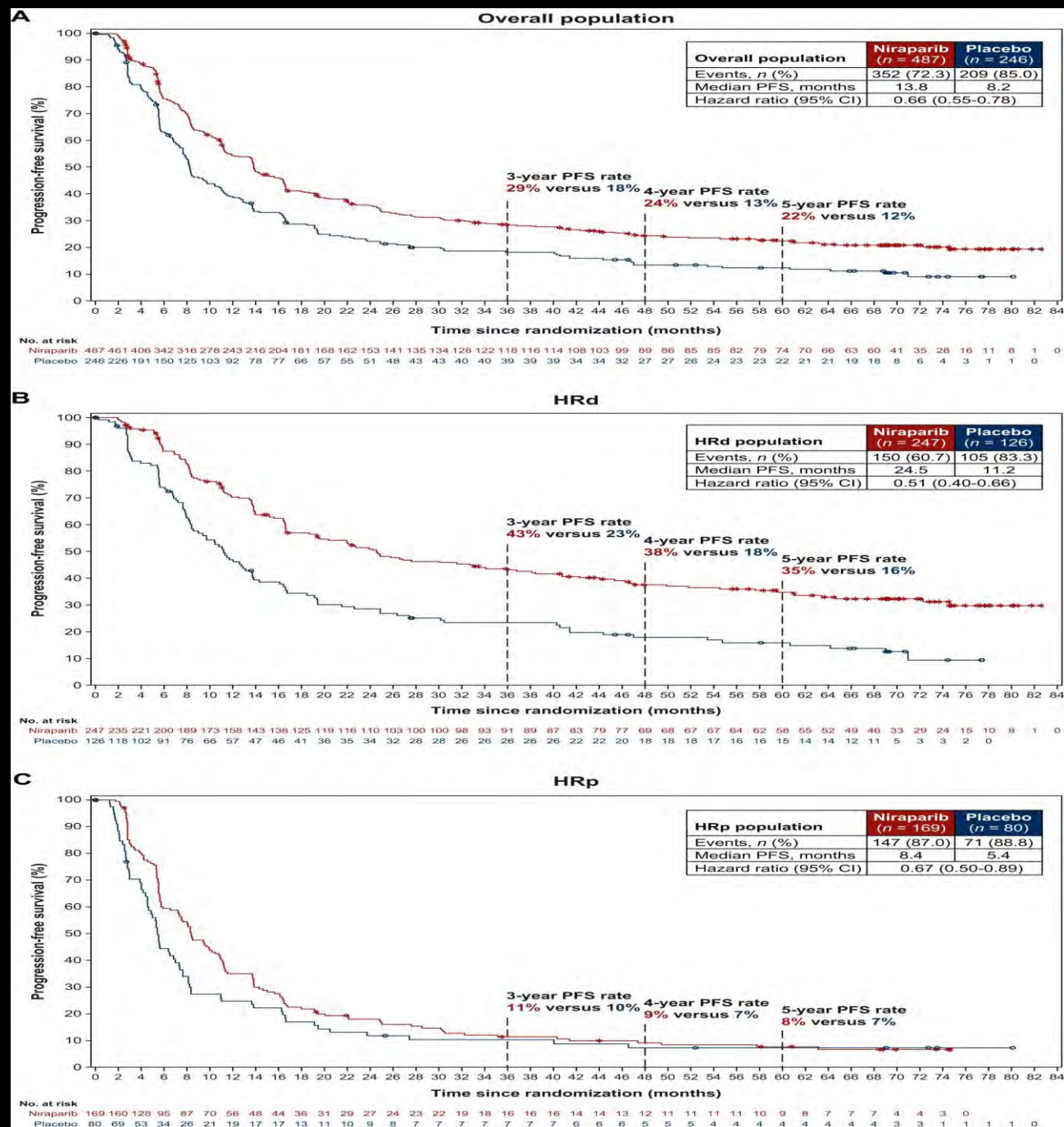
In Press, Corrected Proof [? What's this?](#)

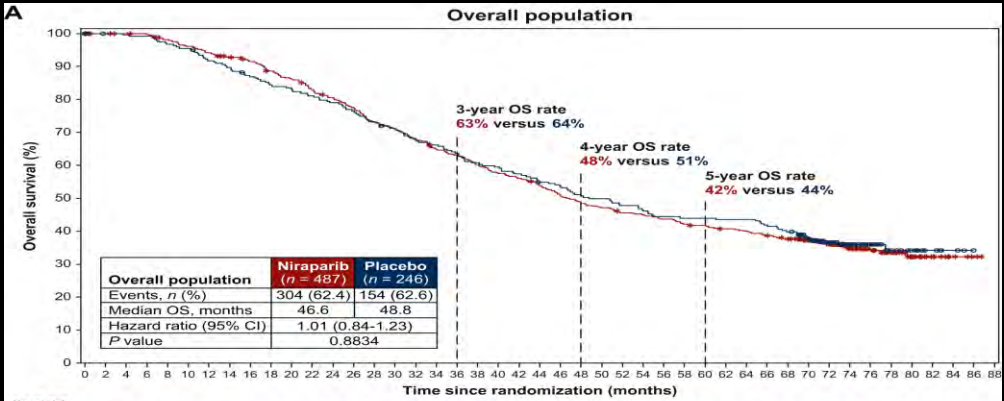


Original article

Niraparib first-line maintenance therapy in patients with newly diagnosed advanced ovarian cancer: final overall survival results from the PRIMA/ENGOT-OV26/GOG-3012 trial ☆

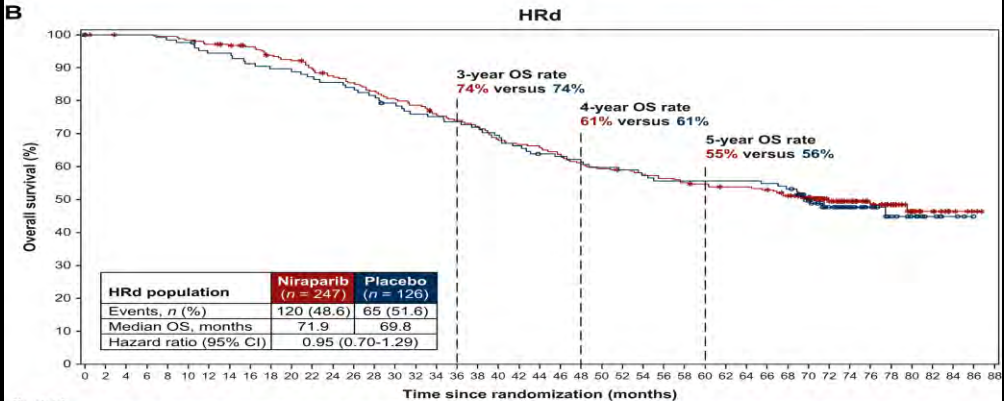
B.J. Monk ^{1 2}  , M.P. Barretina-Ginesta ^{3 4}, B. Pothuri ^{1 5}, I. Vergote ^{6 7}, W. Graybill ⁸, M.R. Mirza ^{9 10}, C.C. McCormick ^{11 †}, D. Lorusso ^{12 13 ‡}, R.G. Moore ¹⁴, G. Freyer ¹⁵, R.E. O'Cearbhaill ^{1 16 17}, F. Heitz ^{18 19 20 ¶}, D.M. O'Malley ²¹, A. Redondo ²², M.S. Shahin ²³, C. Vulsteke ^{24 25}, W.H. Bradley ²⁶, C.A. Haslund ^{10 27}, D.M. Chase ²⁸, C. Pisano ^{13 29} ...
A. González-Martín ^{4 41}





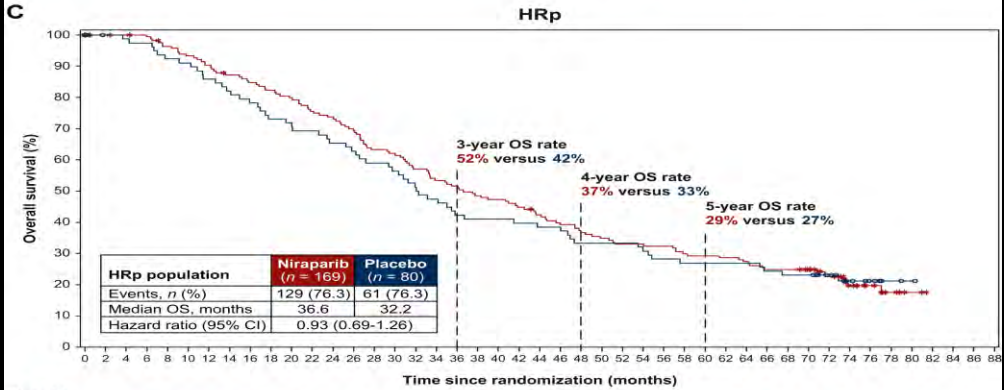
No. at risk

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Niraparib	487	484	482	480	470	460	451	441	432	418	406	390	378	363	343	334	318	303	294	281	268	261	250	236	227	219	211	208	202	195	192	186	183	177	170	153	115	84	57	39	23	11	5	2	0
Placebo	246	244	243	242	236	233	223	218	210	204	201	196	191	185	177	171	163	159	153	146	143	138	131	128	121	119	114	111	106	105	105	104	104	100	95	83	62	41	26	17	11	6	3	0	



No. at risk

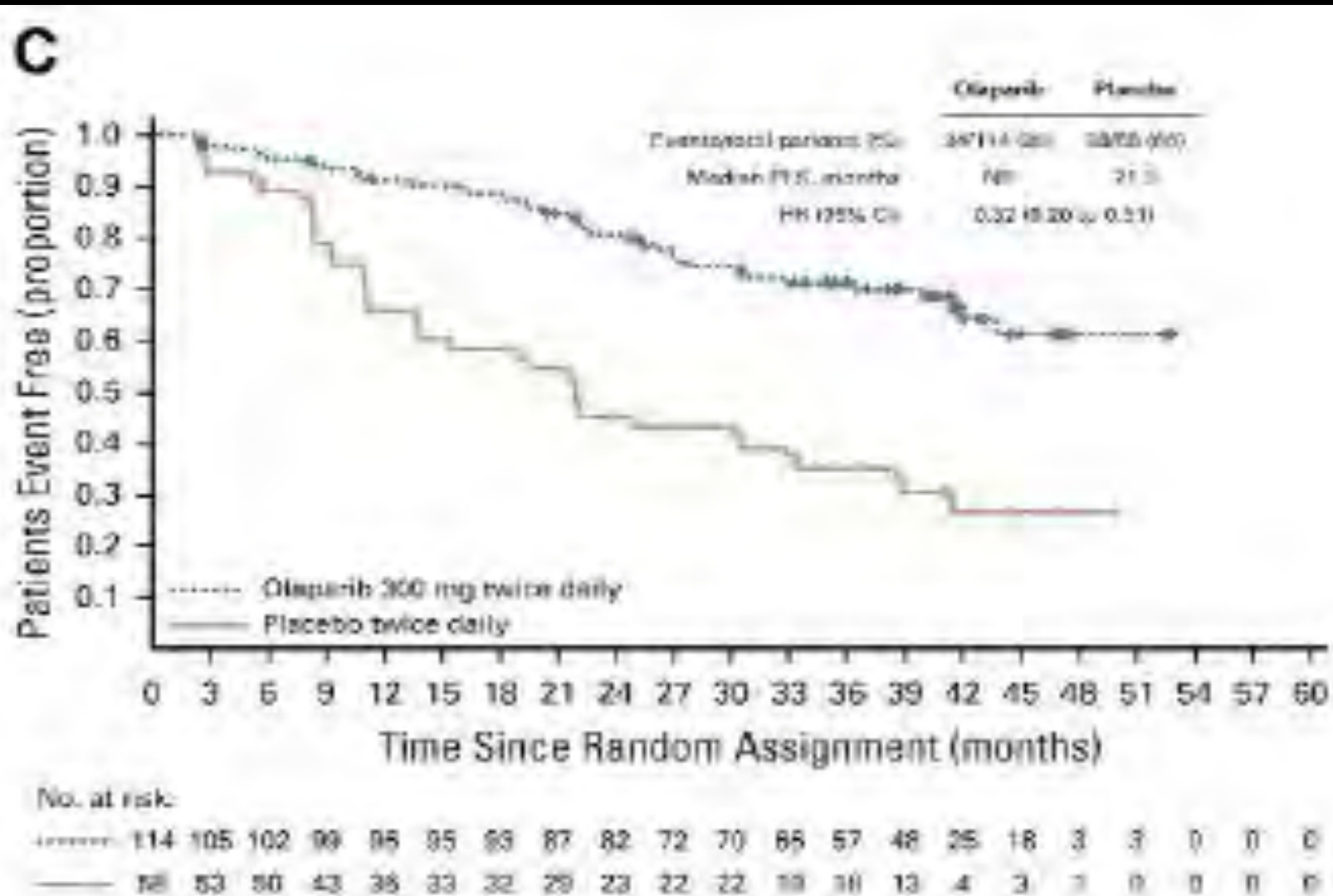
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Niraparib	247	246	245	245	244	241	238	235	231	224	220	213	207	202	196	191	186	178	173	169	169	158	154	149	143	139	137	134	131	128	126	123	123	121	115	104	75	59	43	31	19	11	5	2	0
Placebo	126	126	126	126	124	123	118	118	114	112	111	109	107	105	102	98	94	93	91	89	86	82	78	77	75	73	72	70	68	68	68	68	68	67	65	54	40	28	20	14	10	6	3	0	



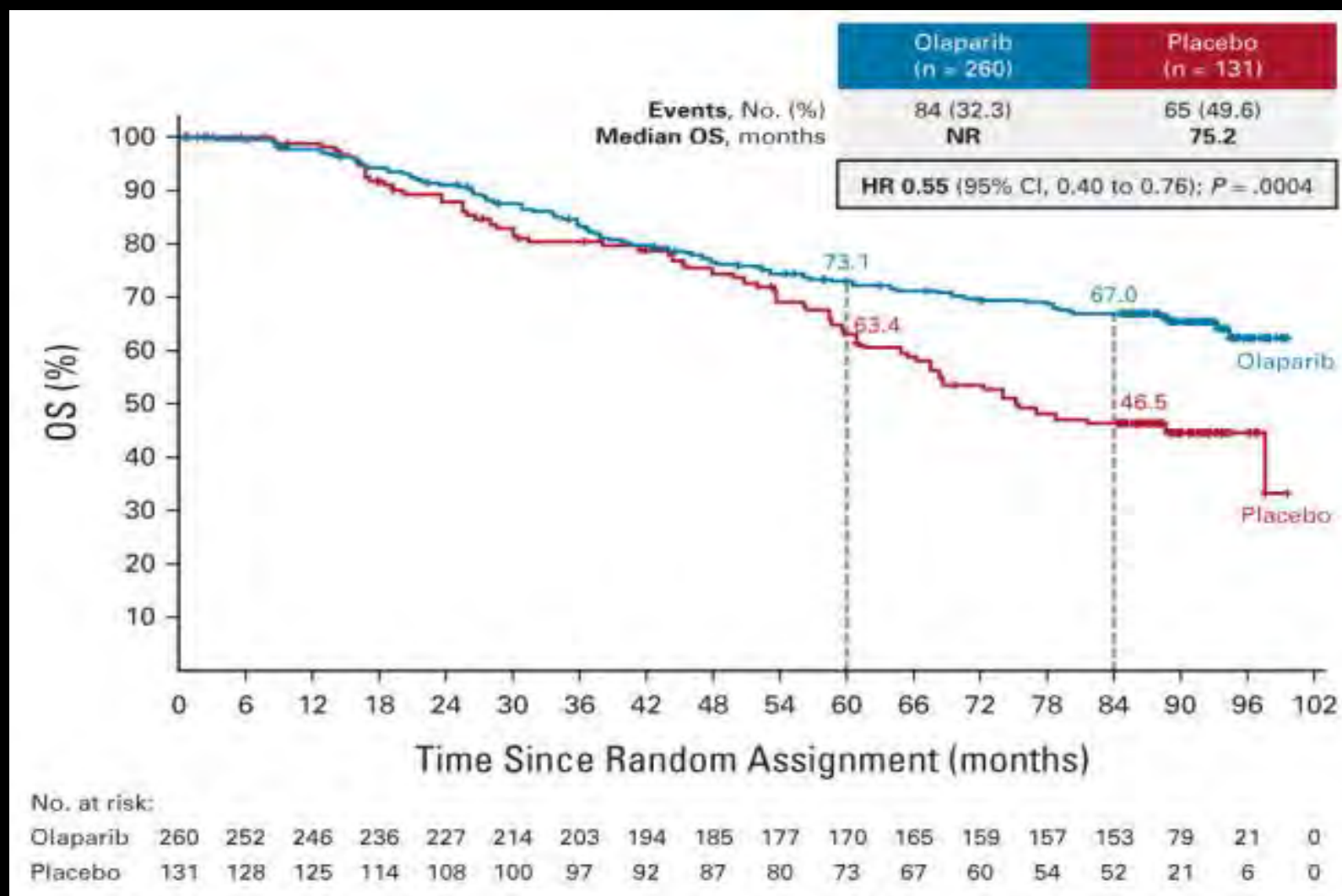
No. at risk

	0	2	4	6	8	10	12	14	16	18	20	22	24	26	28	30	32	34	36	38	40	42	44	46	48	50	52	54	56	58	60	62	64	66	68	70	72	74	76	78	80	82	84	86	88
Niraparib	169	167	166	164	158	153	148	142	136	134	130	123	120	113	103	101	93	87	84	79	77	73	68	63	60	56	53	53	52	48	47	46	44	40	40	37	29	18	10	5	2	0			
Placebo	80	78	77	76	72	71	67	64	61	57	56	54	51	49	46	44	40	37	33	32	32	31	30	30	26	26	25	22	21	21	21	21	19	18	18	14	9	5	2	1	0				

SOLO 1: PFS



SOLO1 OS data JCO 2023

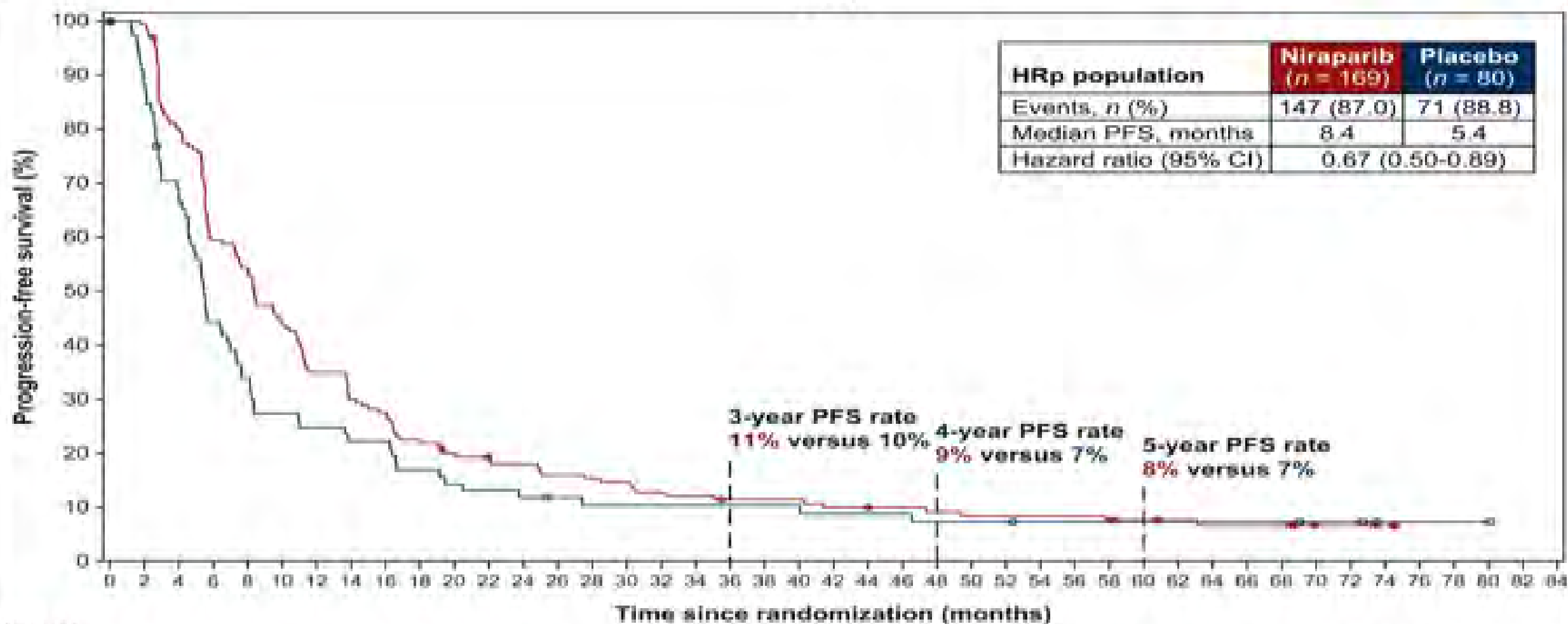


OVARIAN CANCER : PRIMA

- “Taken together, the long-term data support the benefit of niraparib first-line maintenance therapy in patients with newly diagnosed advanced OC regardless of HRD status.”

C

HRp



HRp population	Niraparib (n = 169)	Placebo (n = 80)
Events, n (%)	147 (87.0)	71 (88.8)
Median PFS, months	8.4	5.4
Hazard ratio (95% CI)	0.67 (0.50-0.89)	

No. 11 risk

Majority	150	100	120	80	87	70	64	40	84	35	34	29	27	24	23	22	18	18	16	16	10	14	14	12	11	11	11	11	10	9	8	7	7	7	4	4	3	3		
Plurality	340	60	53	34	26	21	19	12	12	13	11	10	9	8	7	7	7	7	7	7	6	6	6	6	6	6	4	4	4	4	4	4	4	4	3	3	1	1	1	1

Phase III Randomized Trial of 12 Versus 3 Months of Maintenance Paclitaxel in Patients With Advanced Ovarian Cancer After Complete Response to Platinum and Paclitaxel-Based Chemotherapy: A Southwest Oncology Group and Gynecologic Oncology Group Trial

By Maurie Markman, P.Y. Liu, Sharon Wilczynski, Bradley Monk, Larry J. Copeland, Ronald D. Alvarez, Caroline Jiang, and David Alberts

Purpose: To determine whether continuing paclitaxel for an extended time period in women with advanced ovarian cancer who had achieved a clinically defined complete response to a platinum/paclitaxel-based chemotherapy could prolong subsequent progression-free survival (PFS) and affect ultimate survival.

Patients and Methods: Patients were randomly assigned to either three or 12 cycles of single-agent paclitaxel administered every 28 days and were then followed up for progression-free and overall survival.

Results: As of September 6, 2001, 277 patients (262 assessable) had entered the trial, with a total of 54 PFS events having developed among 222 patients with follow-up data. With the exception of peripheral neuropathy, there were no major differences in toxicity between the regimens. The median PFS was 21 and 28 months in the three-cycle and 12-cycle paclitaxel arms, respectively. One-sided *P* values from

an unadjusted log-rank test and an adjusted Cox model analysis (for stratification factors) were .0035 and .0023, respectively, both in favor of the 12-cycle arm. The Cox model-adjusted three-cycle versus the 12-cycle progression hazard ratio was estimated to be 2.31 (99% confidence interval, 1.08 to 4.94). With a protocol-specified early termination boundary of *P* = .005, these findings led the Southwest Oncology Group Data Safety Monitoring Committee to discontinue the trial. As of the date of study closure, there was no difference in overall survival between the treatment arms.

Conclusion: Twelve cycles of single-agent paclitaxel administered to women with advanced ovarian cancer who attain a clinically defined complete response to initial platinum/paclitaxel-based chemotherapy significantly prolongs the duration of PFS.

J Clin Oncol 21:2460-2465. © 2003 by American Society of Clinical Oncology.

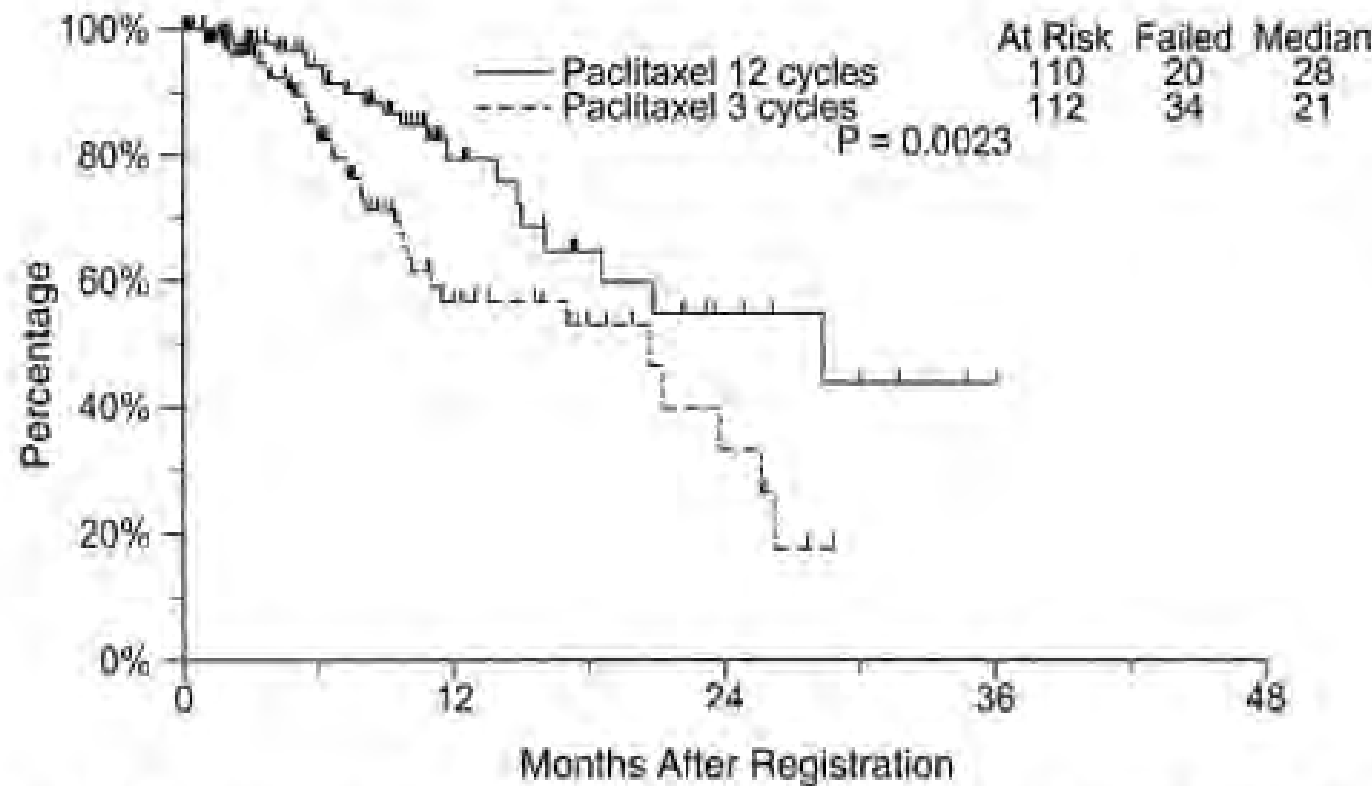


Fig 1. Progression-free survival of 222 assessable patients treated with either three monthly cycles or 12 monthly cycles of single-agent paclitaxel as consolidation therapy of stages III/IV advanced ovarian cancer after the attainment of a clinically defined complete response.

ENDOMETRIAL: PEMBROLIZUMAB ADJUVANTLY: KEYNOTE B21

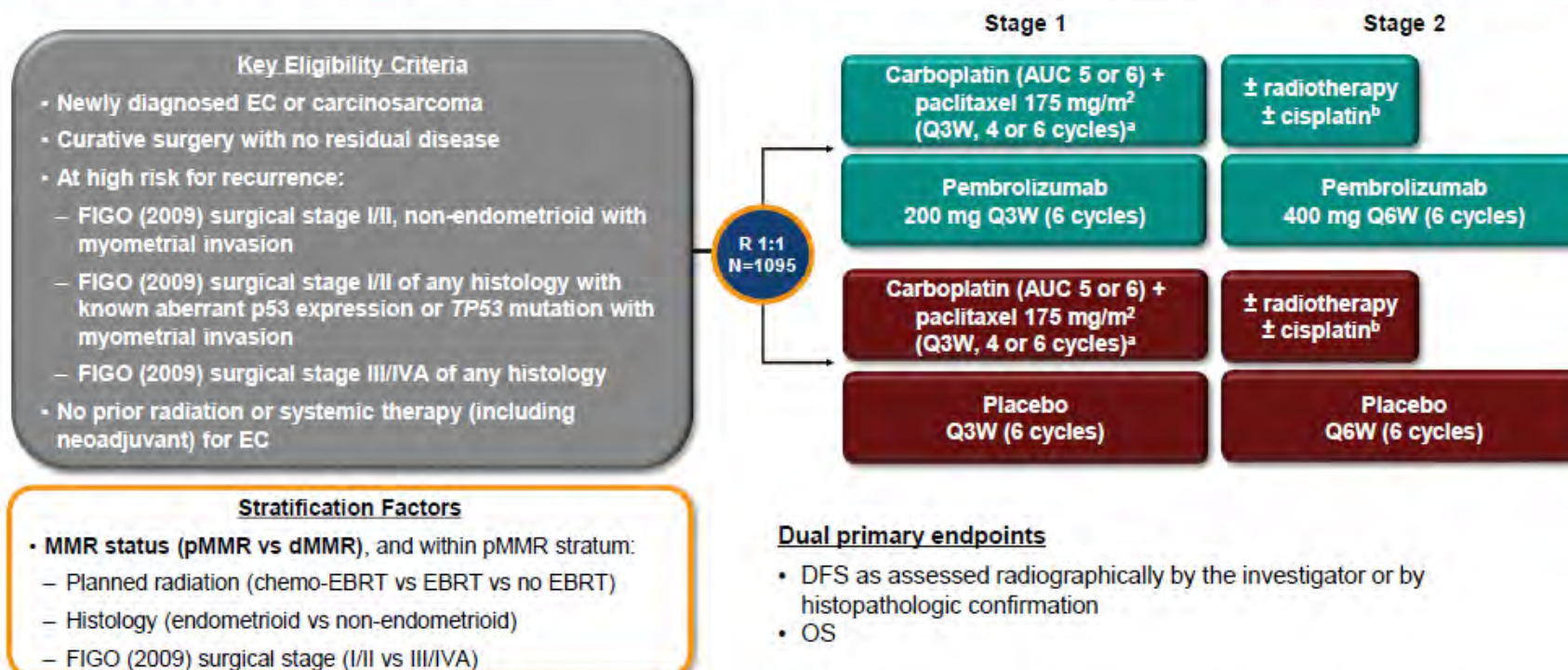
ENGOT-EN11/GOG-3053/KEYNOTE-B21: A Phase 3 Study of Pembrolizumab or Placebo in Combination With Adjuvant Chemotherapy With or Without Radiotherapy in Patients With Newly Diagnosed, High-Risk Endometrial Cancer

Toon Van Gorp,¹ Lukáš Rob,² Weiguo Lv,³ Floor Backes,⁴ Fırat Ortaç,⁵ Kosei Hasegawa,⁶ Sakari Hietanen,⁷ Antonella Savarese,⁸ Annouschka Laenen,⁹ Yong Man Kim,¹⁰ Lubomir Bodnar,¹¹ Maria-Pilar Barretina-Ginesta,¹² Lucy Gilbert,¹³ Bhavana Pothuri,¹⁴ Xiaojun Chen,¹⁵ Jasmine Lichfield,¹⁶ Wei Wang,¹⁷ Robert Orlowski,¹⁸ Alain Lortholary,¹⁹ Brian Slomovitz²⁰

¹University Hospital Leuven, Leuven Cancer Institute, Leuven, Belgium; and BGOG; ²3rd Faculty Medicine Charles University and Faculty Hospital Kralovske Vinohrady, Prague, Czech Republic; and CEEGOG; ³Zhejiang University, Hangzhou, Zhejiang, China; ⁴Ohio State University and James Cancer Hospital, Columbus, OH, USA; and GOG; ⁵Ankara University School of Medicine, Ankara, Turkey; and TRSGO; ⁶Saitama Medical University, Hidaka, Saitama Prefecture, Japan; ⁷Turku University Hospital and University of Turku, Turku, Finland; TYKS Cancer Centre, FICAN West, Organization of EU Cancer Institutes, Finland; and NSGO-CTU; ⁸IRCCS - Istituto Nazionale Tumori

ENDOMETRIAL: PEMBROLIZUMAB ADJUVANTLY: KEYNOTE B21

ENGOT-EN11/GOG-3053/KEYNOTE-B21 Study Design



^aChemotherapy was administered for 4 cycles in patients planned to receive chemoradiotherapy and 6 cycles for all other patients, including those planned for radiotherapy without radiosensitizing cisplatin.

^bRadiotherapy was optional at the discretion of the investigator, and cisplatin may have been given with EBRT as radiosensitizer; radiotherapy was started within 6 weeks after completion of carboplatin and paclitaxel (radiation may have been initiated during Stage 1 or Stage 2 depending on the number of cycles of chemotherapy that were administered).

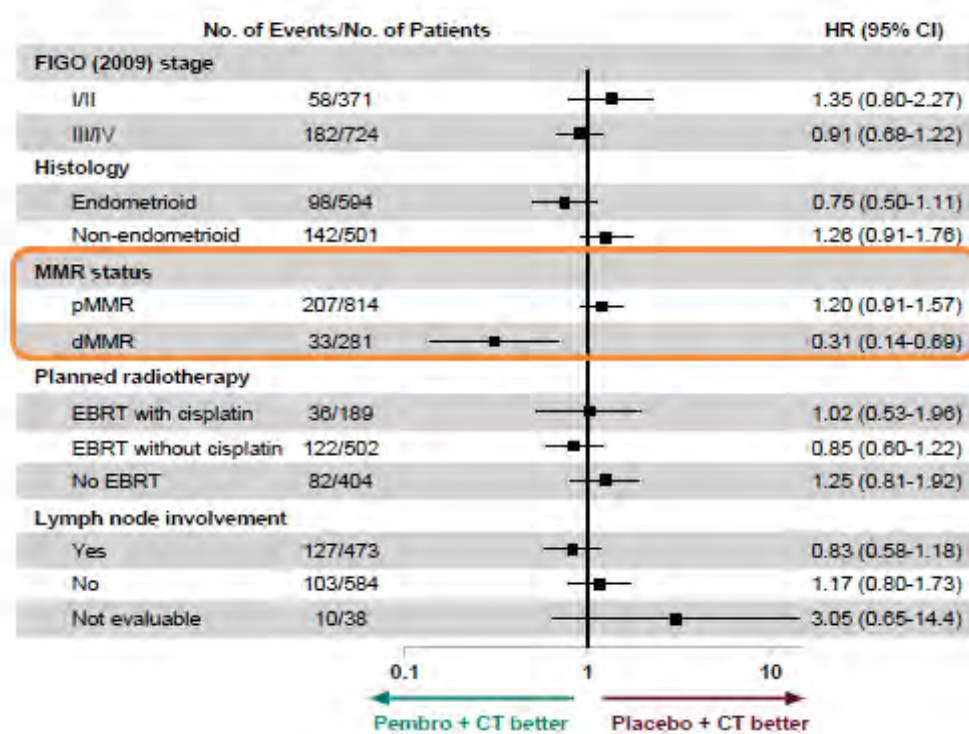
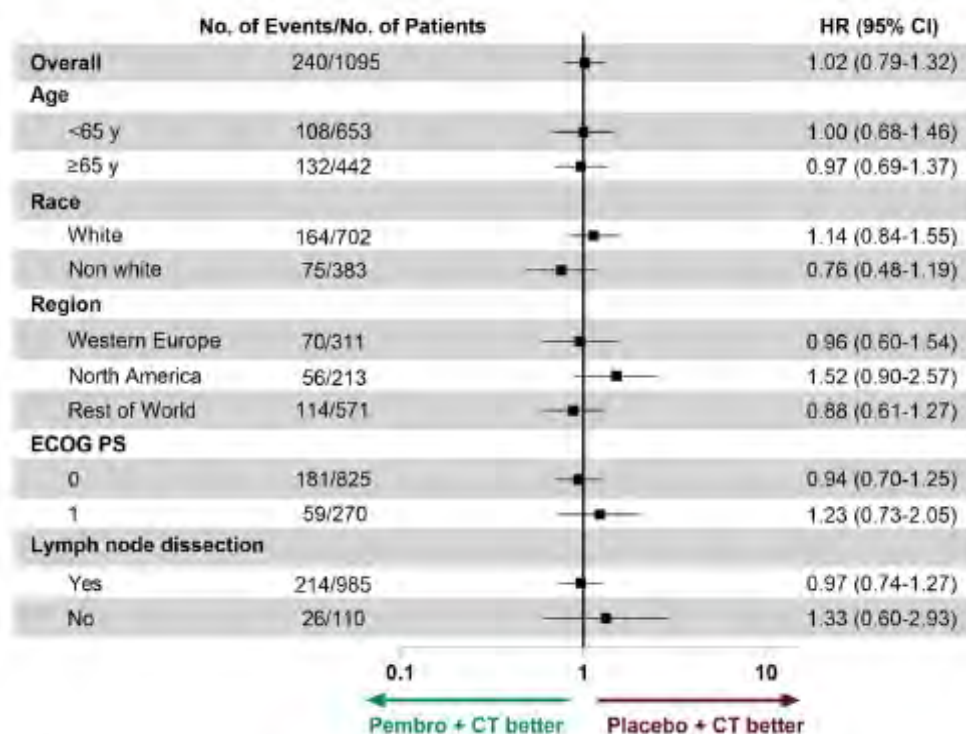
ENDOMETRIAL: PEMBROLIZUMAB ADJUVANTLY: KEYNOTE B21

Characteristic	Pembro + Chemo (n = 545)	Placebo + Chemo (n = 550)
Age, median (range), y	62 (29–95)	62 (27–89)
ECOG PS 0	409 (75%)	416 (76%)
Race		
White	315 (58%)	362 (66%)
Asian	189 (35%)	157 (29%)
Multiple	23 (4%)	10 (2%)
Black or African American	11 (2%)	13 (2%)
American Indian or Alaska Native	2 (<1%)	3 (<1%)
Missing	5 (<1%)	5 (<1%)
Lymph node dissection	483 (89%)	502 (91%)
Lymph node status		
Lymph node involvement	223 (41%)	250 (45%)
No lymph node involvement	300 (55%)	284 (52%)
Not evaluable	22 (4%)	16 (3%)
MMR status at study entry		
dMMR	141 (26%)	140 (25%)
pMMR	404 (74%)	410 (75%)

Characteristic	Pembro + Chemo (n = 545)	Placebo + Chemo (n = 550)
FIGO 2009 stage at study entry		
IA/B	146 (27%)	144 (26%)
II	40 (7%)	41 (7%)
IIIA	109 (20%)	94 (17%)
IIIB	20 (4%)	19 (3%)
IIIC1	144 (26%)	169 (31%)
IIIC2	78 (14%)	81 (15%)
IVA/B ^a	8 (1%)	2 (<1%)
Planned radiation therapy at study entry		
EBRT ^b with cisplatin	94 (17%)	95 (17%)
EBRT ^b without cisplatin	256 (47%)	246 (45%)
Brachytherapy only	49 (9%)	52 (9%)
No EBRT or brachytherapy	146 (27%)	157 (29%)
Histology subtype		
Endometrioid	297 (54%)	297 (54%)
Non-endometrioid	248 (46%)	253 (46%)

ENDOMETRIAL: PEMBROLIZUMAB ADJUVANTLY: KEYNOTE B21

DFS^a in Protocol-Specified Subgroups: ITT Population



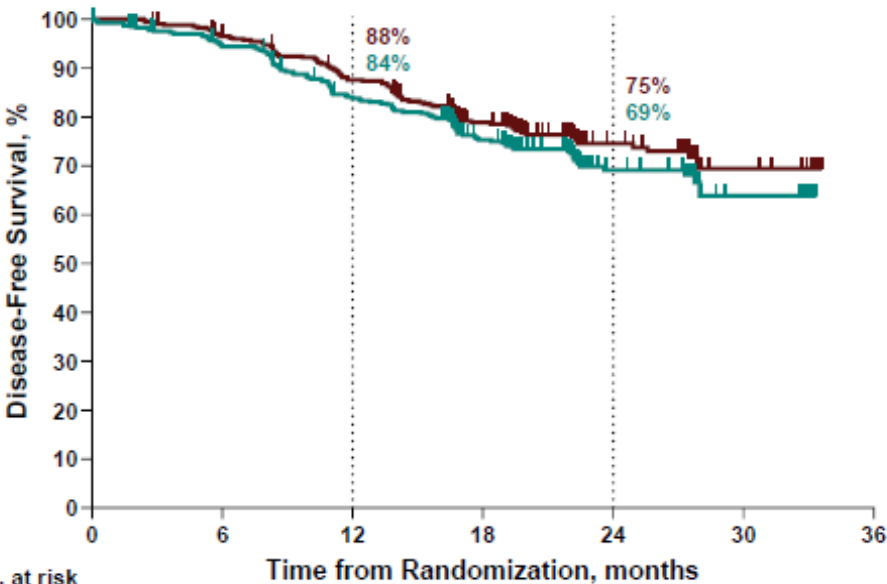
^aDFS was defined as the time from randomization to local or distant recurrence of EC (assessed radiographically by the investigator or by histopathologic confirmation) or death from any cause. Data cutoff date: March 4, 2024.

ENDOMETRIAL: PEMBROLIZUMAB ADJUVANTLY: KEYNOTE B-21

Pembrolizumab Plus Chemotherapy Improved DFS^a in dMMR Subgroup

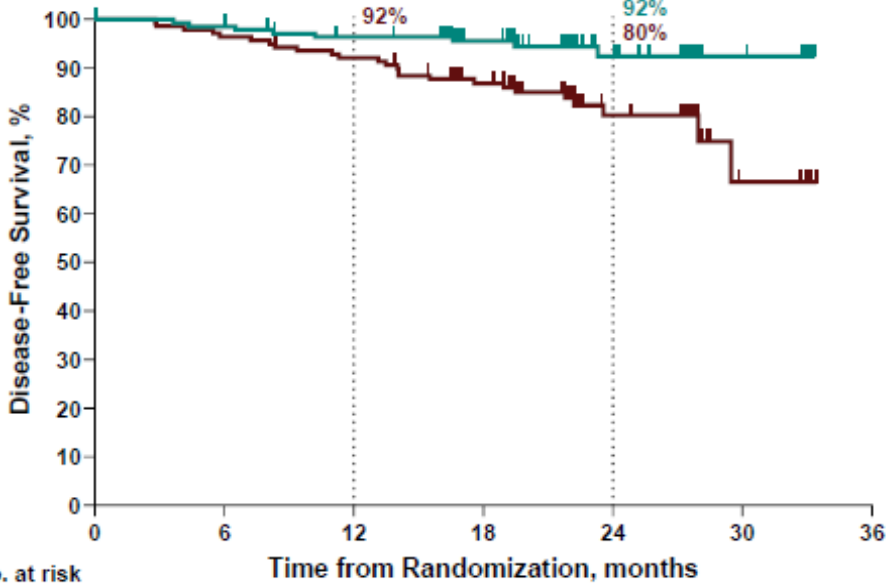
pMMR Subgroup

	Events, n (%)	Median (95% CI), mo	HR (95% CI)
Pembro + CT	111 (27)	NR (NR–NR)	1.20 (0.91–1.57)
Placebo + CT	96 (23)	NR (NR–NR)	



dMMR Subgroup

	Events, n (%)	Median (95% CI), mo	HR (95% CI)
Pembro + CT	8 (6)	NR (NR–NR)	0.31 (0.14–0.69)
Placebo + CT	25 (18)	NR (29.5–NR)	



^aDFS was defined as the time from randomization to local or distant recurrence of EC (assessed radiographically by the investigator or by histopathologic confirmation) or death from any cause. Data cutoff date: March 4, 2024.

CERVICAL CANCER: KEYNOTE A18



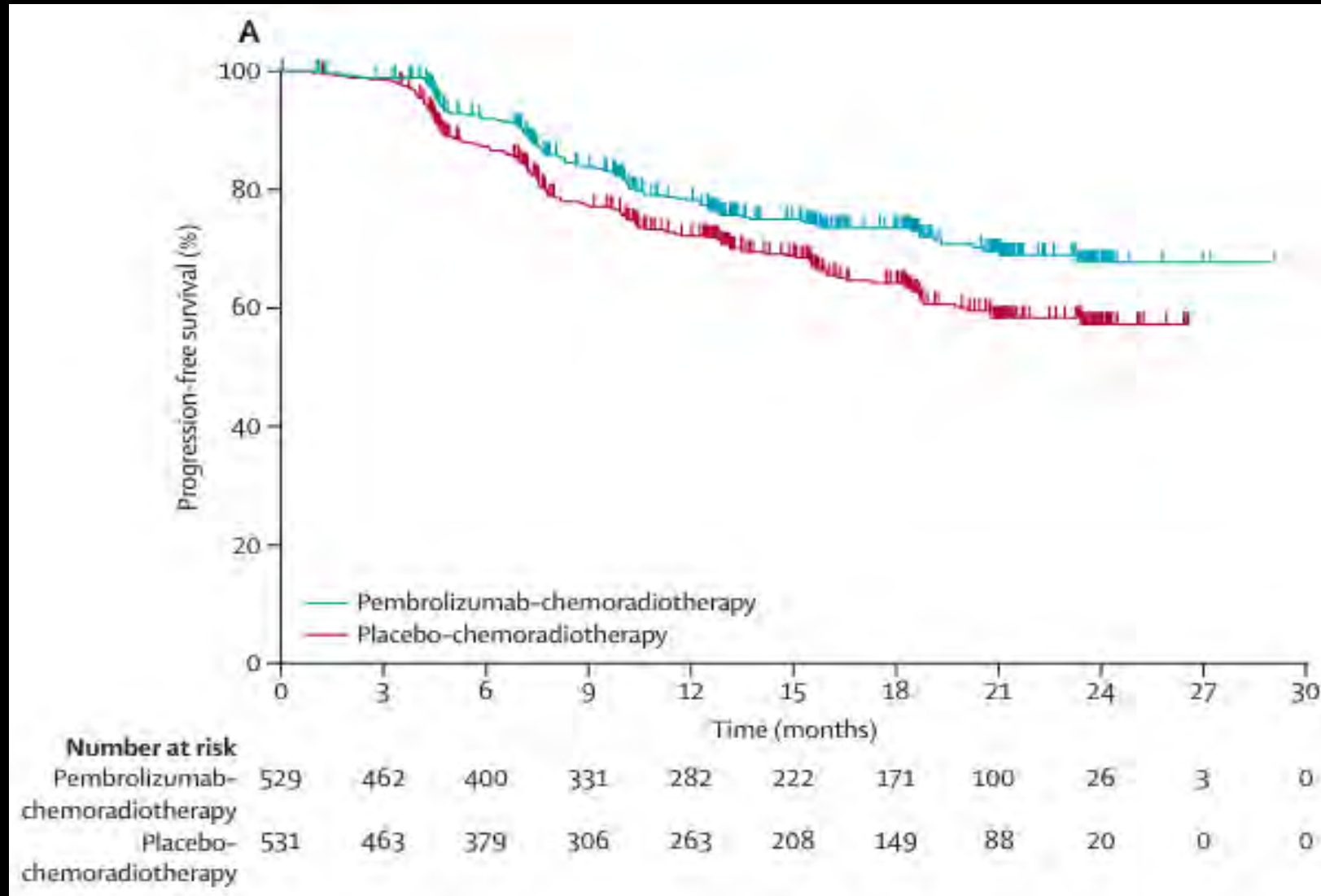
Pembrolizumab or placebo with chemoradiotherapy followed by pembrolizumab or placebo for newly diagnosed, high-risk, locally advanced cervical cancer (ENGOT-cx11/GOG-3047/KEYNOTE-A18): a randomised, double-blind, phase 3 clinical trial

Domenica Lorusso, Yang Xiang, Kosei Hasegawa, Giovanni Scambia, Manuel Leiva, Pier Ramos-Elias, Alejandro Acevedo, Vladyslav Sukhin, Noelle Cloven, Andrea J Pereira de Santana Gomes, Fernando Contreras Mejía, Ari Reiss, Ali Ayhan, Jung-Yun Lee, Valeriya Saevets, Flora Zagouri, Lucy Gilbert, Jalid Sehoul, Ekkasit Tharavichitkul, Kristina Lindemann, Roberta Lazzari, Chih-Long Chang, Rudolf Lampé, Hong Zhu, Ana Oaknin, Melissa Christiaens, Stephan Polterauer, Tomoka Usami, Kan Li, Karin Yamada, Sarper Toker, Stephen M Keefe, Sandro Pignata, Linda R Duska*, on behalf of the ENGOT-cx11/GOG-3047/KEYNOTE-A18 investigators†*

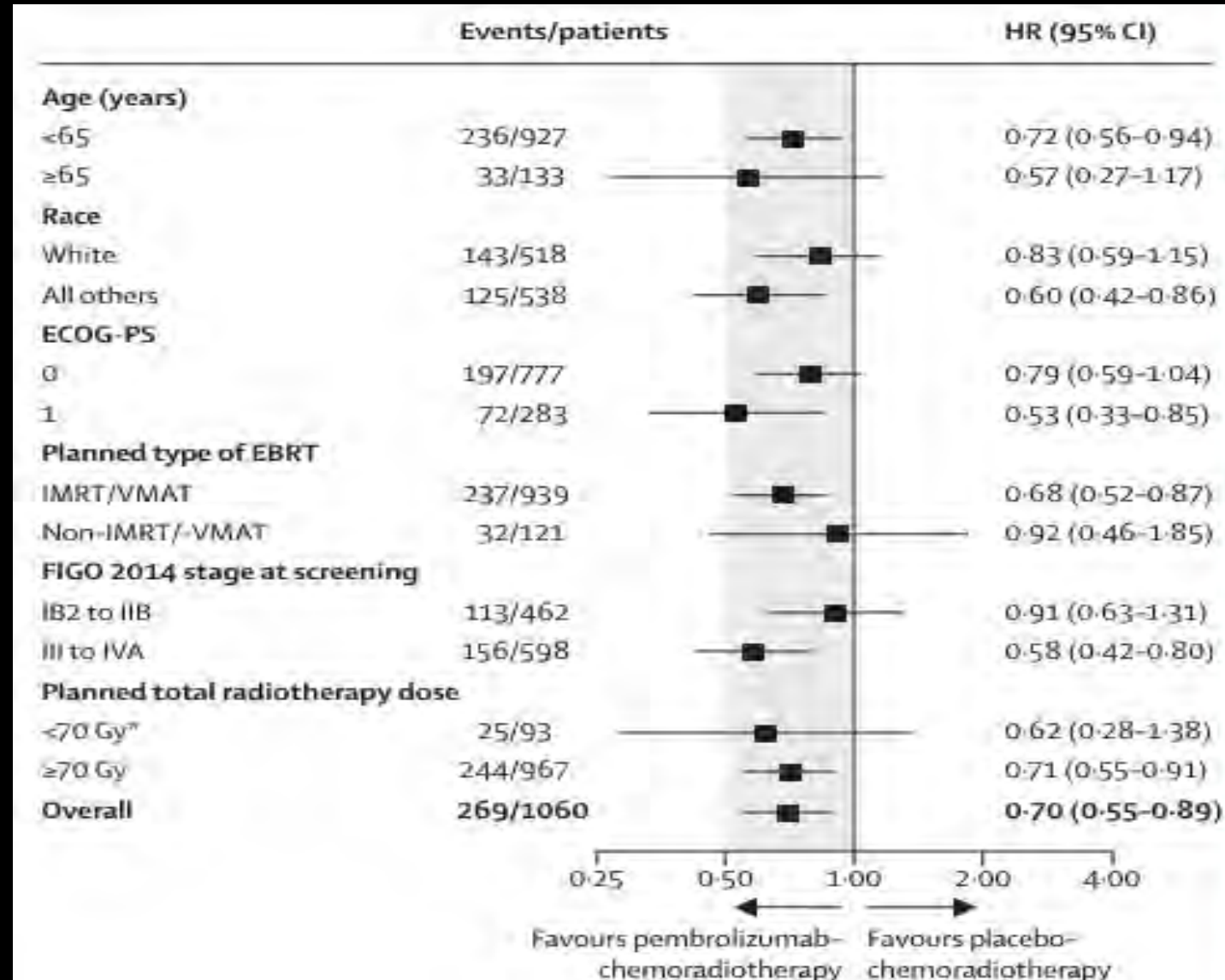
Summary

Background Pembrolizumab has shown efficacy in persistent, recurrent, or metastatic cervical cancer. The effect of *Lancet 2024; 403: 1341–50*

CERVICAL CANCER: KEYNOTE A18



CERVICAL CANCER: KEYNOTE A18



CERVICAL CANCER: KEYNOTE A18

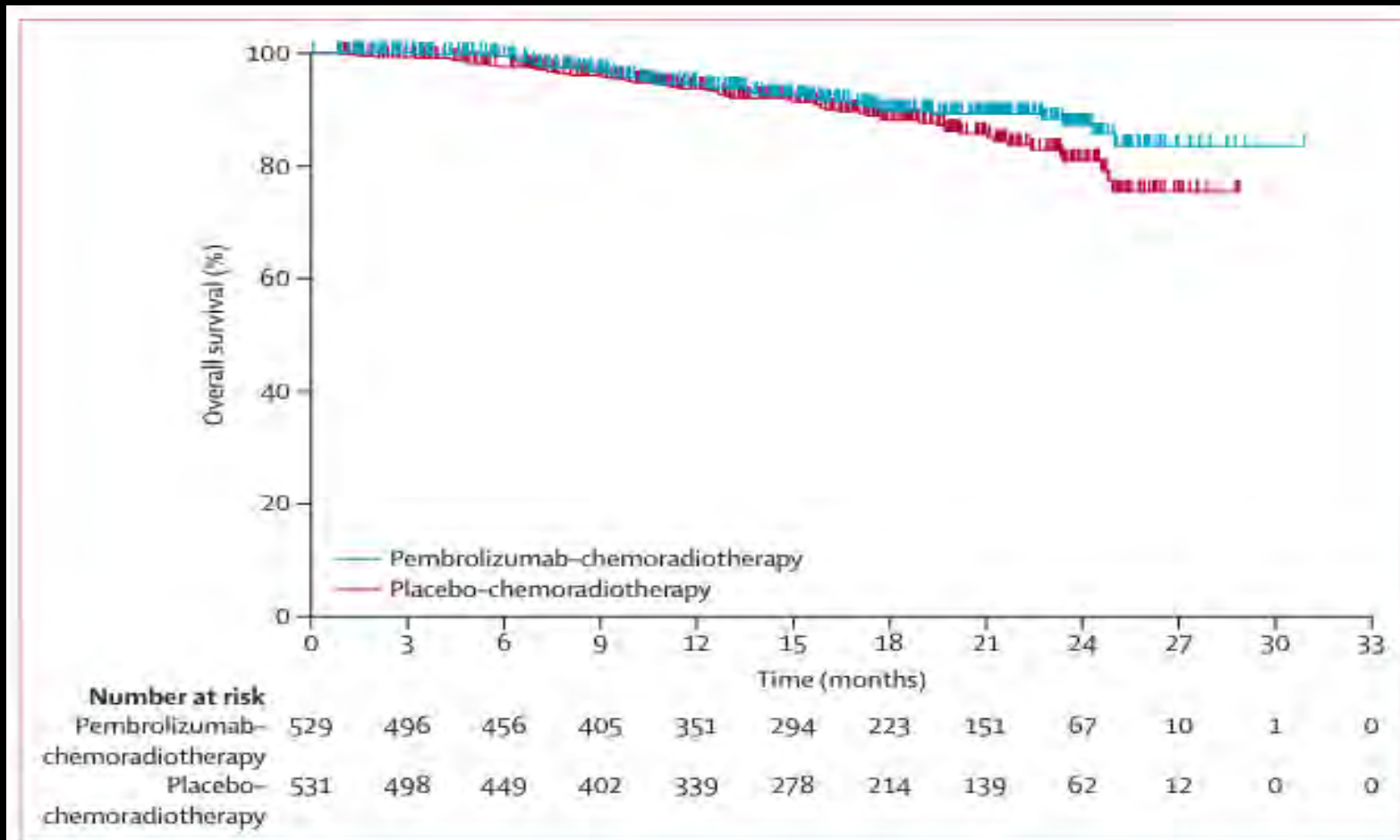


Figure 3: Overall survival

Kaplan-Meier estimates of overall survival in the intention-to-treat population. Tick marks indicate censoring of data.

Induction chemotherapy followed by standard chemoradiotherapy versus standard chemoradiotherapy alone in patients with locally advanced cervical cancer (GCIG INTERLACE): an international, multicentre, randomised phase 3 trial

Mary McCormack, Gemma Eminowicz, Dolores Gallardo, Patricia Diez, Laura Farrelly, Christopher Kent, Emma Hudson, Miguel Panades, Tony Mathew, Anjana Anand, Majca Persic, Jennifer Forrest, Rajanee Bhana, Nicholas Reed, Anne Drake, Madhavi Adusumalli, Asima Mukhopadhyay, Margaret King, Karen Whitmarsh, John McGrane, Nicoletta Calombo, Choi Mak, Ranajit Mandal, Rahul Roy Chowdhury, Gabriela Alamilla-García, Adriana Chávez-Blanco, Hilary Stobart, Amanda Feeney, Simran Vaja, Anne-Marie Hacker, Allan Hackshaw, Jonathan Andrew Ledermann, on behalf of the INTERLACE investigators*



INTERLACE Trial Design



Key eligibility criteria

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

RT = Radiotherapy

3D-Conformal = 3D conformal radiotherapy

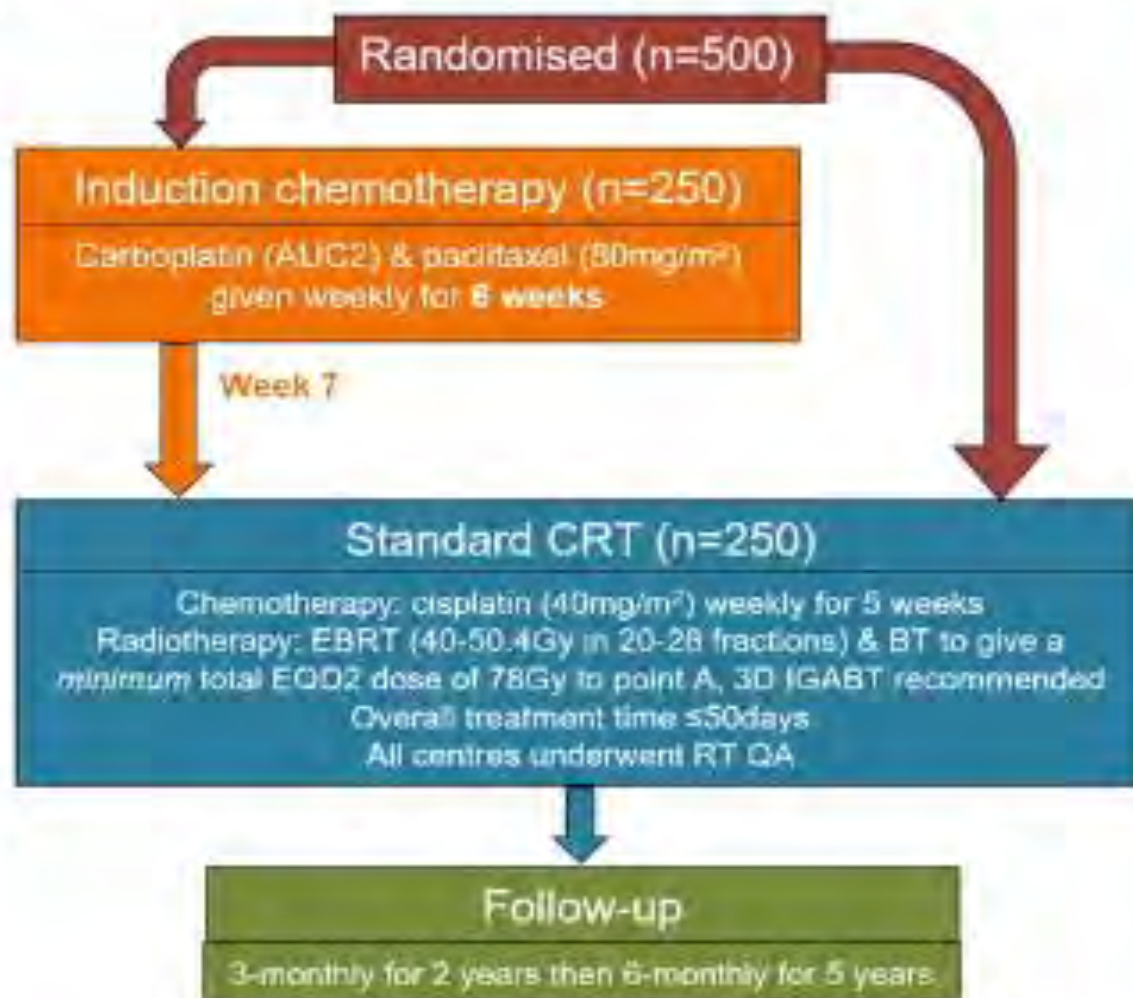
IMRT = Intensity modulated radiotherapy

EBRT = External beam radiotherapy

BT = Brachytherapy

IGABT = Image-guided adaptive brachytherapy

RT QA = Radiotherapy quality assurance



Stratified by

- Site
- Stage
- Nodal status
- 3D-Conformal v IMRT EBRT
- 2D v 3D BT
- Tumour size
- SCC v other

Primary endpoints

- PFS
- OS

Secondary endpoints

- Adverse events
- Pattern of relapse
- QOL
- Time to subsequent treatment

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)

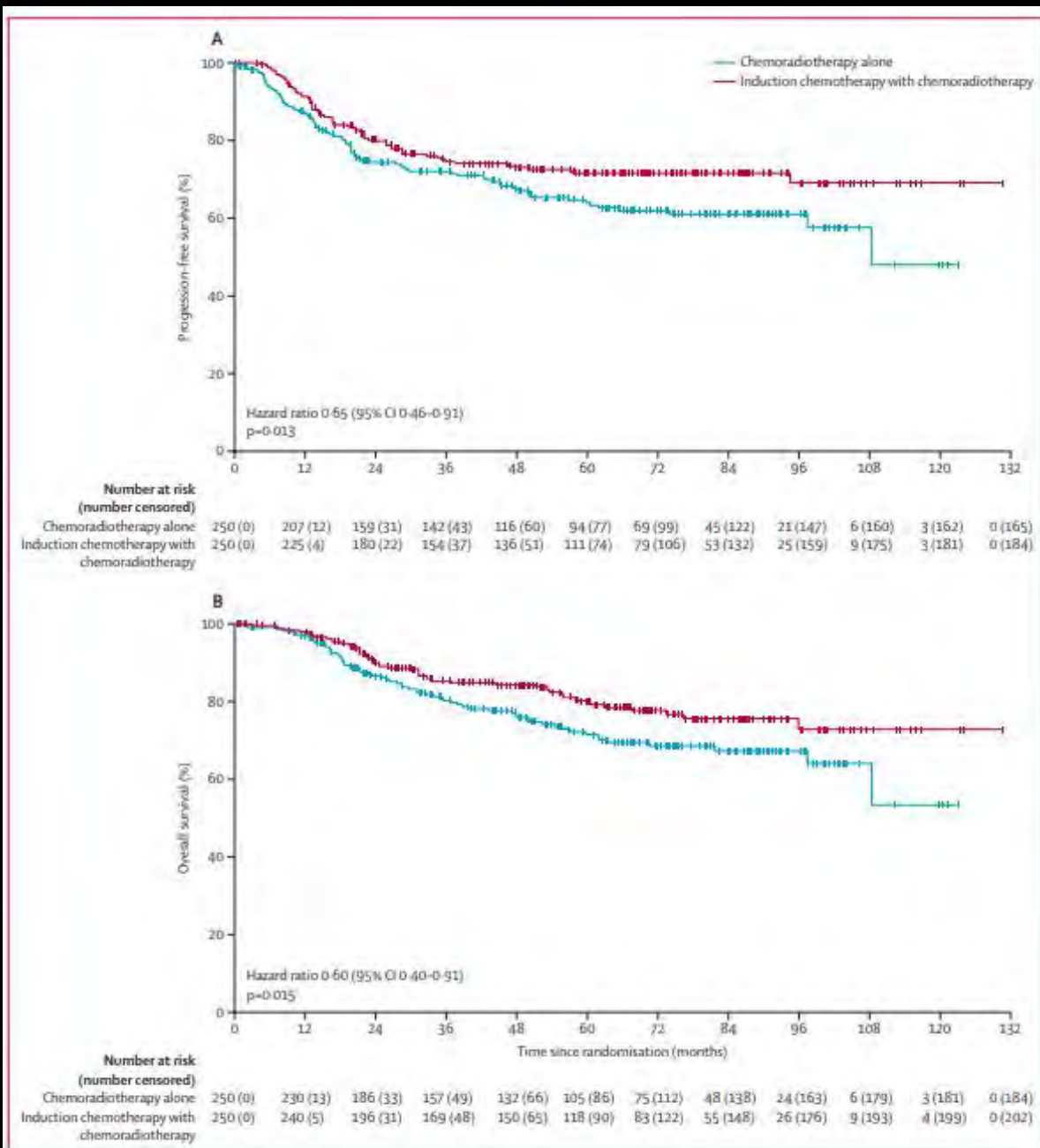
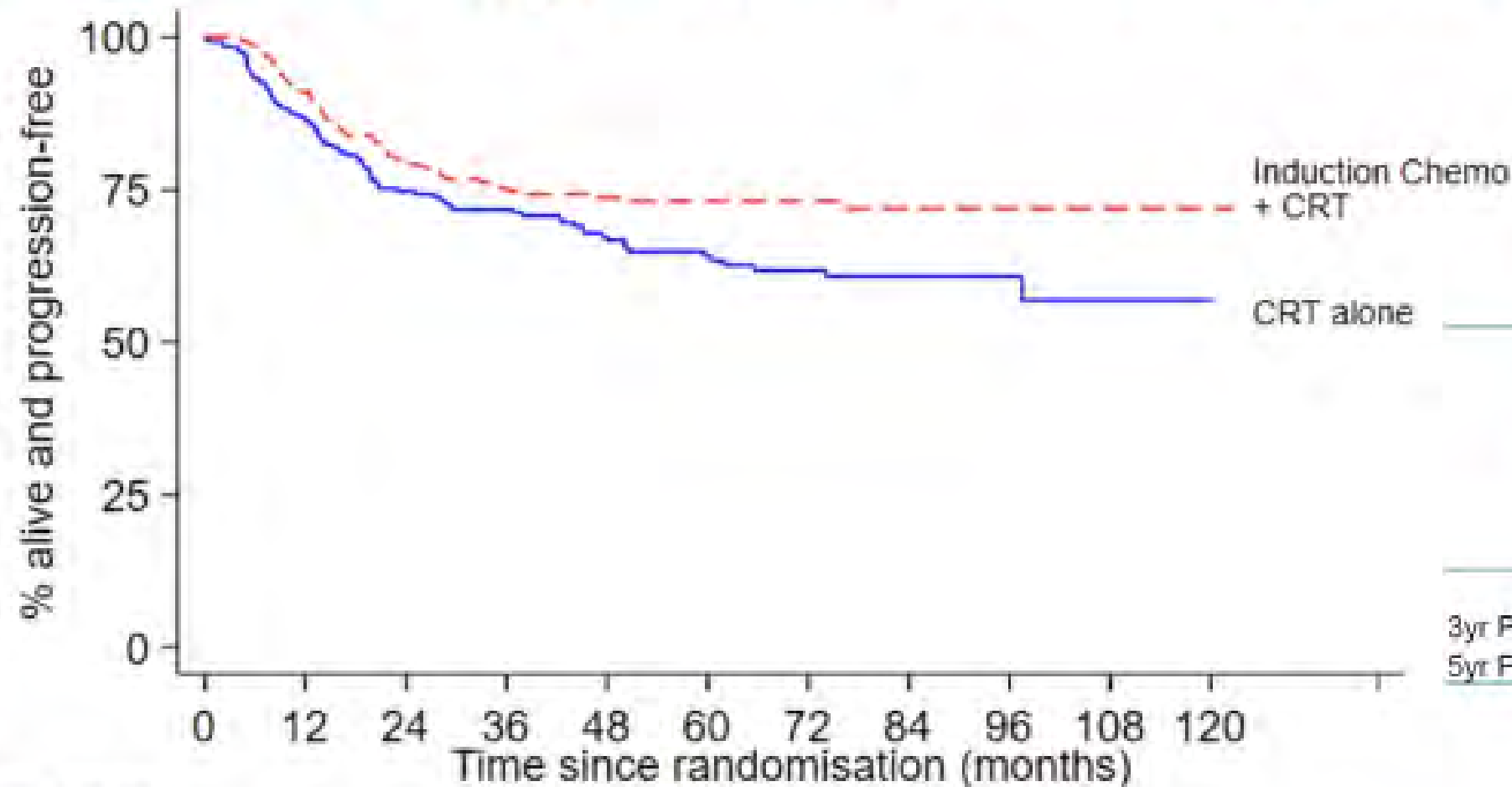


Figure 2: Kaplan-Meier estimates of progression-free survival (A) and overall survival (B)

INTERLACE Progression-Free Survival (median FU 64m)

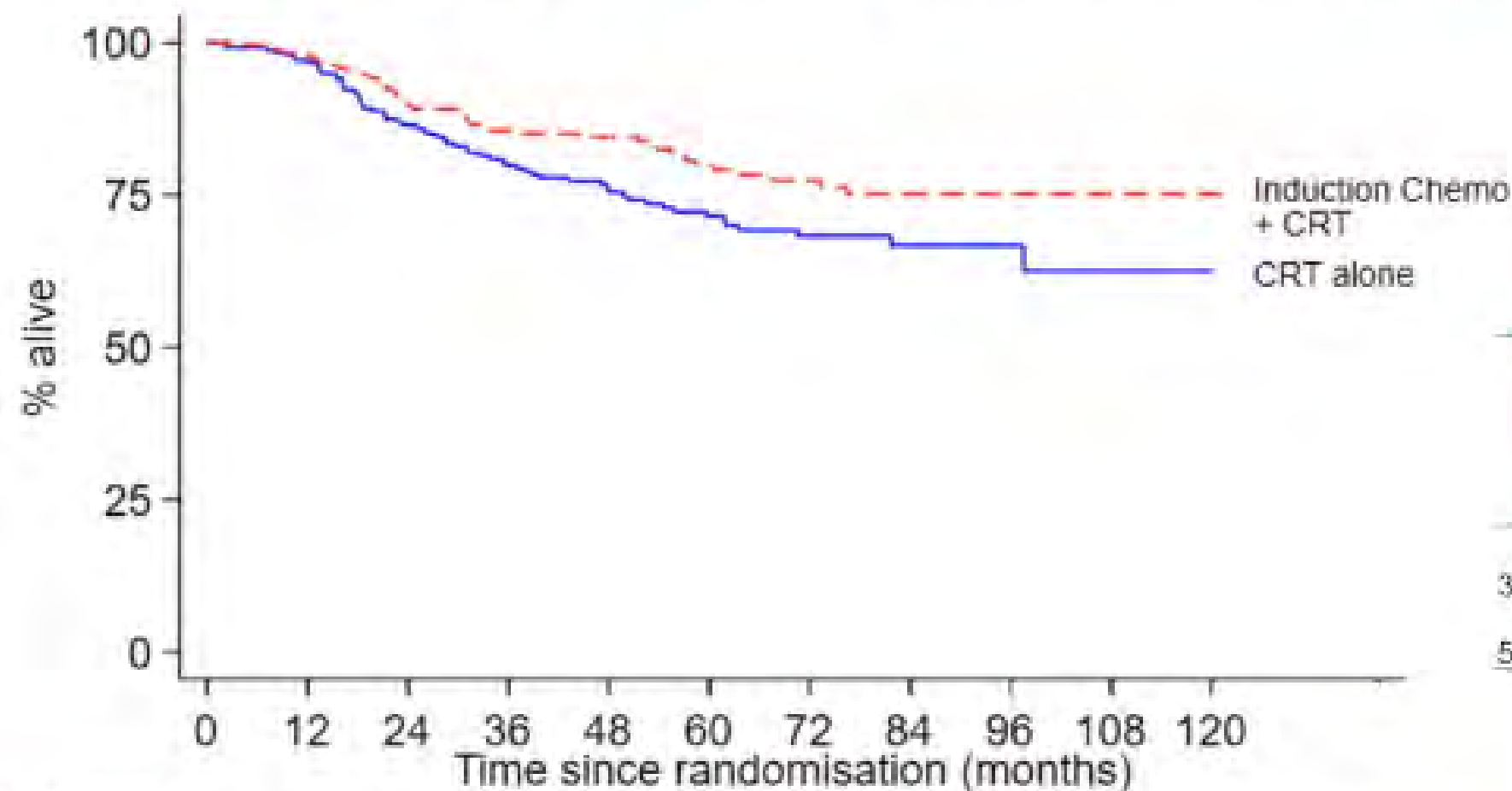


146 PFS events
HR 0.65; 95% CI: 0.46 - 0.91
P=0.013

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

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

INTERLACE Overall Survival (median FU 64m)



109 deaths
HR 0.61; 95% CI: 0.40-0.91
P=0.04

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

Number at risk:											
CRT alone	250	228	181	154	124	99	67	39	16	5	1
Induction Chemo + CRT	250	236	195	168	146	111	75	42	19	8	1

Patterns of Relapse

	CRT alone (n=250)	Induction Chemo + CRT (n=250)
No. of patients (%)		
Local/pelvic	21 (8)	26 (10)
Local/pelvic & distant	20 (8)	14 (6)
Distant	30 (12)	16 (6)
Total local/pelvic relapses	41 (16)	40 (16)
Total distant relapses	50 (20)	30 (12)

CONCLUSIONS



GCIG
GYNECOLOGIC
CANCER INSTITUTE



CANCER
RESEARCH
UK

CANCER
TRIALS
CENTRE

MARY MCCORMACK
UCL

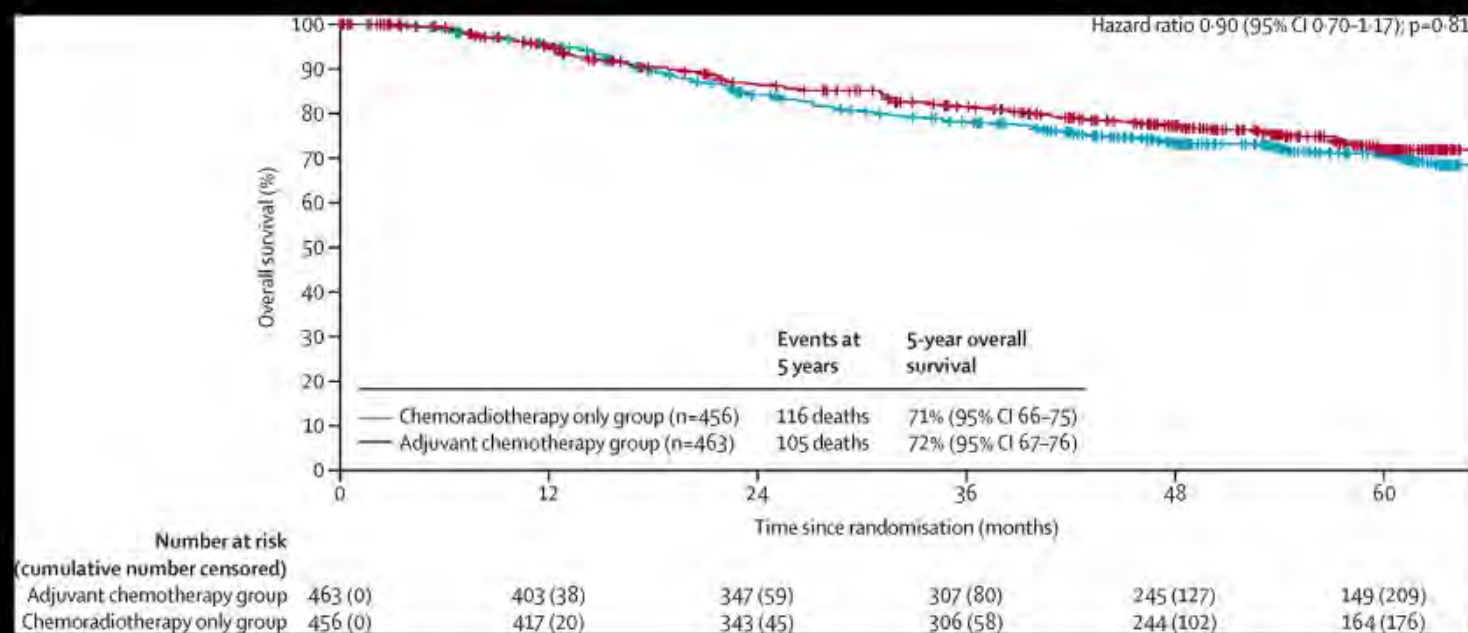
- Induction chemotherapy prior to chemoradiation led to a 9% improvement in PFS rate and an 8% improvement in OS rate at 5 years.

PFS : HR 0.65 (95%CI: 0.46-0.91) $p=0.013$

OS : HR 0.61 (95%CI: 0.40-0.91) $p=0.04$ Follow up continues

- Adherence to standard chemoradiation was high in both arms and reflected best clinical practice.
- OS in the standard CRT arm is similar to that in the recent published literature.
- As anticipated haematological toxicity was greater in the IC/CRT arm but this did not compromise the delivery of radiotherapy.
- Induction chemotherapy with weekly paclitaxel and carboplatin before CRT should be considered the new standard in locally advanced cervical cancer and is feasible across diverse healthcare settings.

Lancet Oncology 2023: OUTBACK Trial



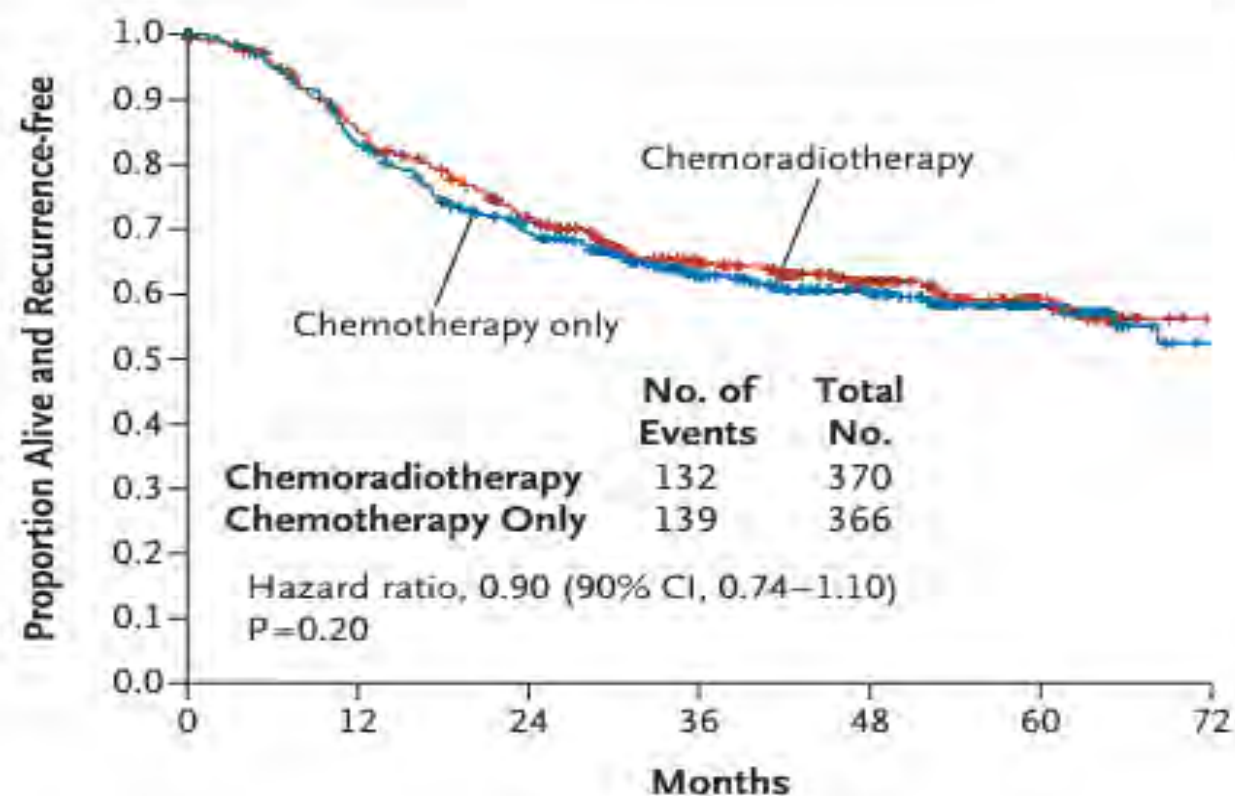
THE NEW ENGLAND JOURNAL of MEDICINE

ORIGINAL ARTICLE

Adjuvant Chemotherapy plus Radiation for Locally Advanced Endometrial Cancer

Daniela Matei, M.D., Virginia Filiaci, Ph.D., Marcus E. Randall, M.D.,
David Mutch, M.D., Margaret M. Sternhoff, M.D., Paul A. DiSilvestro, M.D.,
Katherine M. Moxley, M.D., Yong M. Kim, M.D., Ph.D., Matthew A. Powell, M.D.,
David M. O'Malley, M.D., Nick M. Spirtos, M.D., William Small, Jr., M.D.,
Krishnansu S. Tewari, M.D., William E. Richards, M.D., John Nakayama, M.D.,
Ursula A. Matulonis, M.D., Helen Q. Huang, M.S., and David S. Miller, M.D.

GOG 258



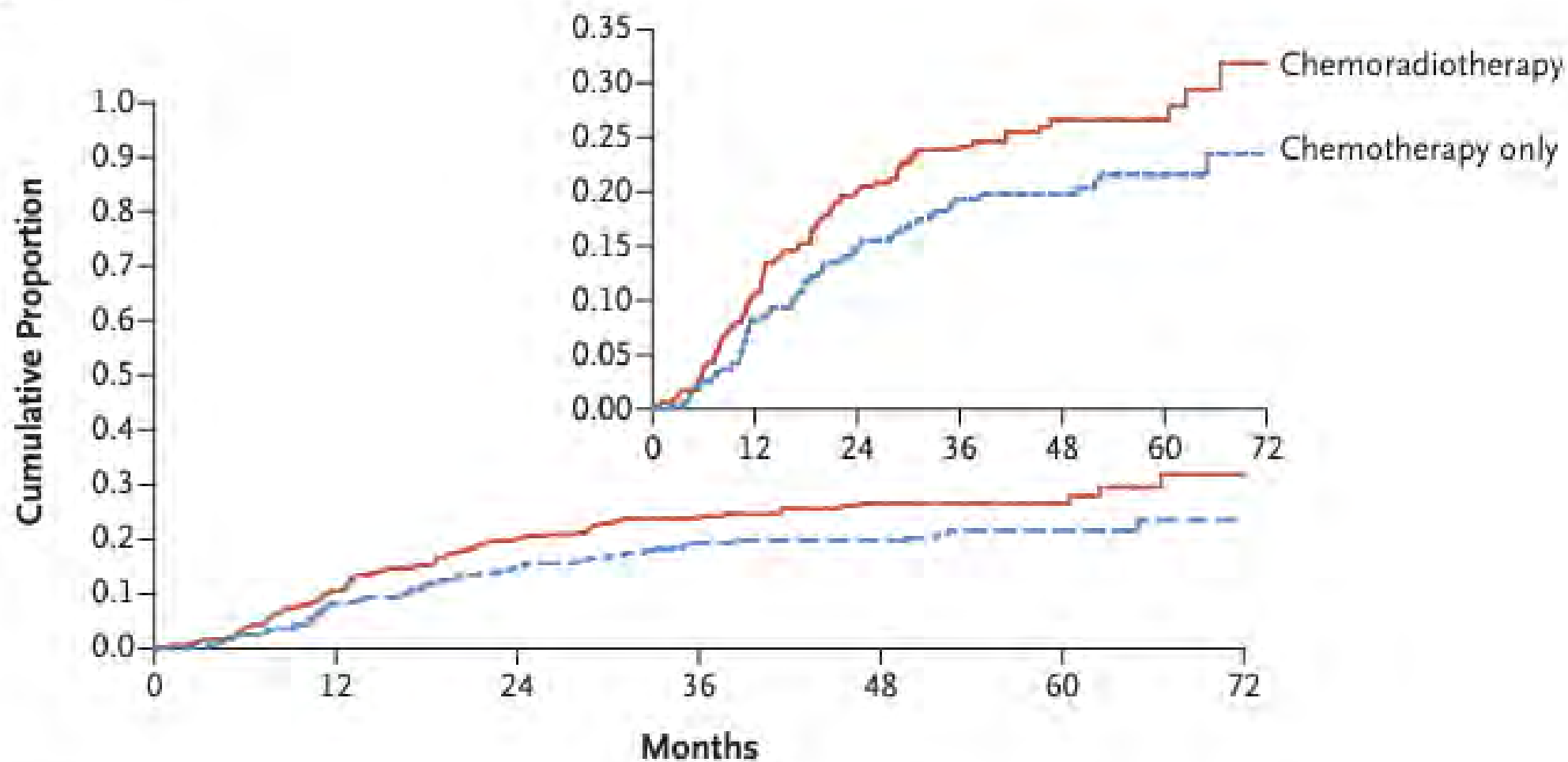
No. at Risk

Chemoradiotherapy	370	295	235	164	103	45	19
Chemotherapy only	366	293	230	159	113	55	17

Figure 1. Relapse-free Survival.

Tick marks indicate censored data.

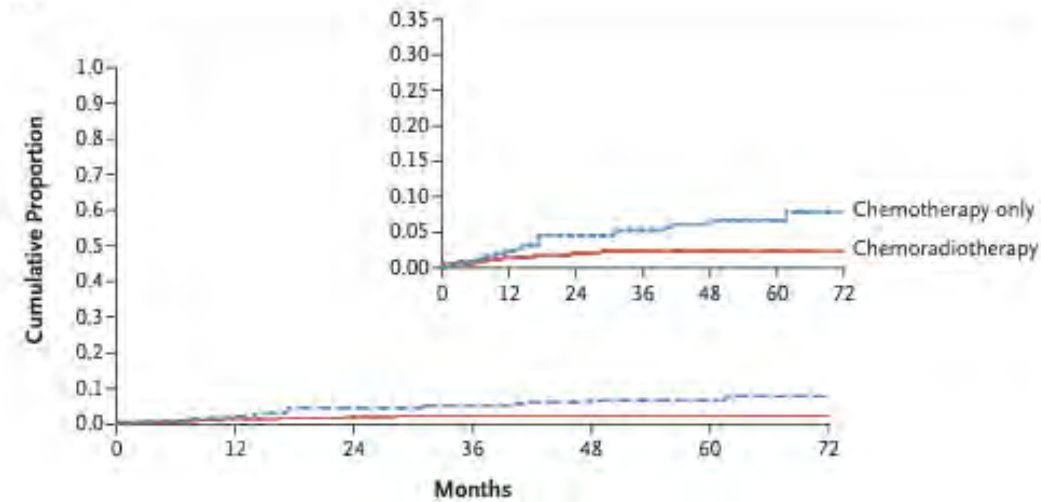
C Distant Recurrence



No. at Risk

Chemoradiotherapy	370	302	249	175	111	51	20
Chemotherapy only	366	316	263	186	132	62	22

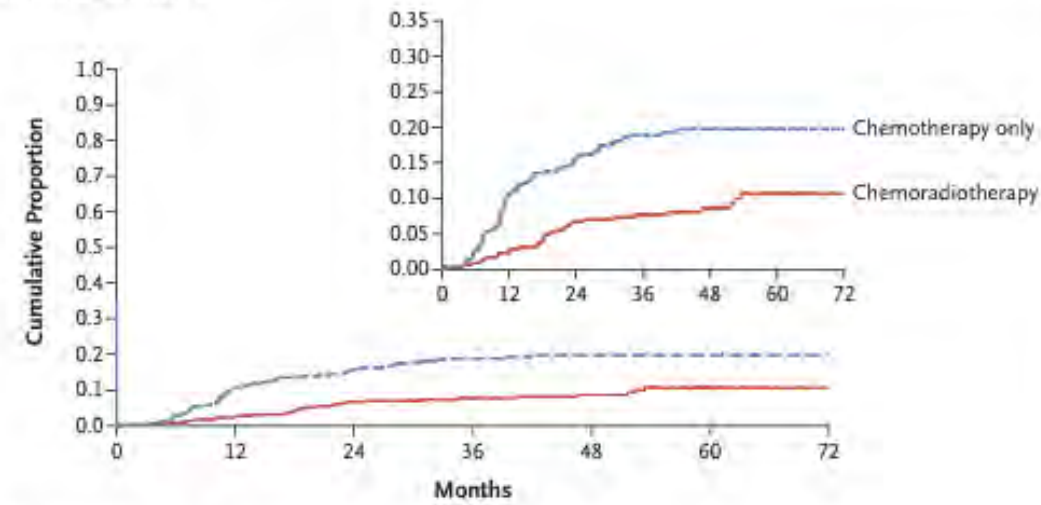
A Vaginal Recurrence



No. at Risk

Chemoradiotherapy	370	321	282	202	125	57	24
Chemotherapy only	366	330	281	207	137	66	24

B Pelvic or Paraaortic Node Recurrence

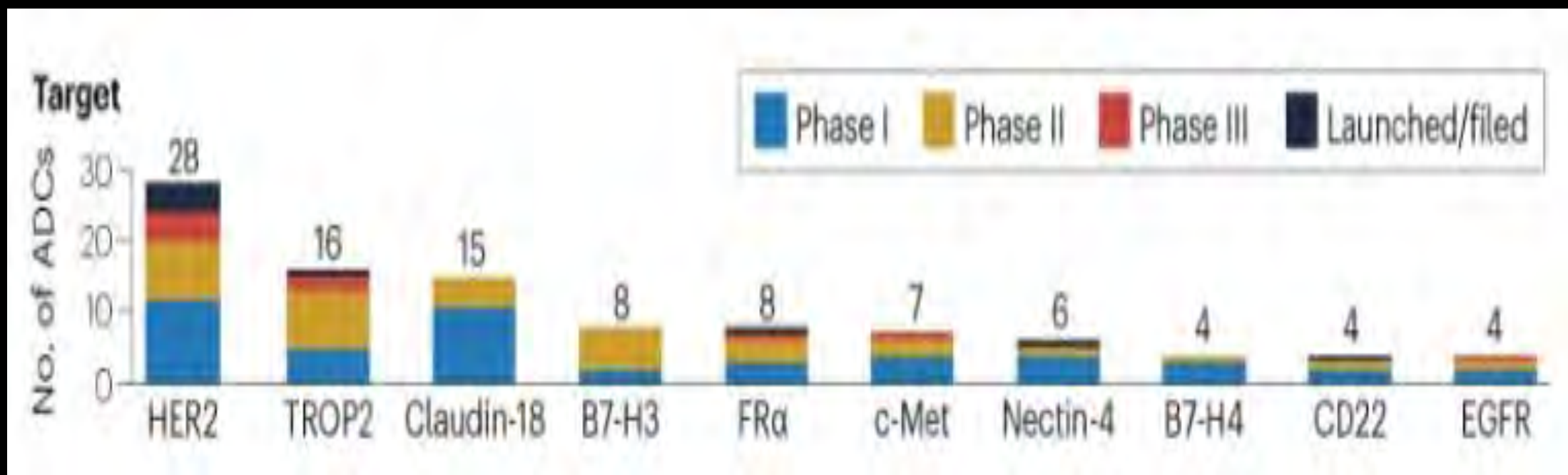


No. at Risk

Chemoradiotherapy	370	320	271	196	120	54	23
Chemotherapy only	366	306	259	184	130	64	23

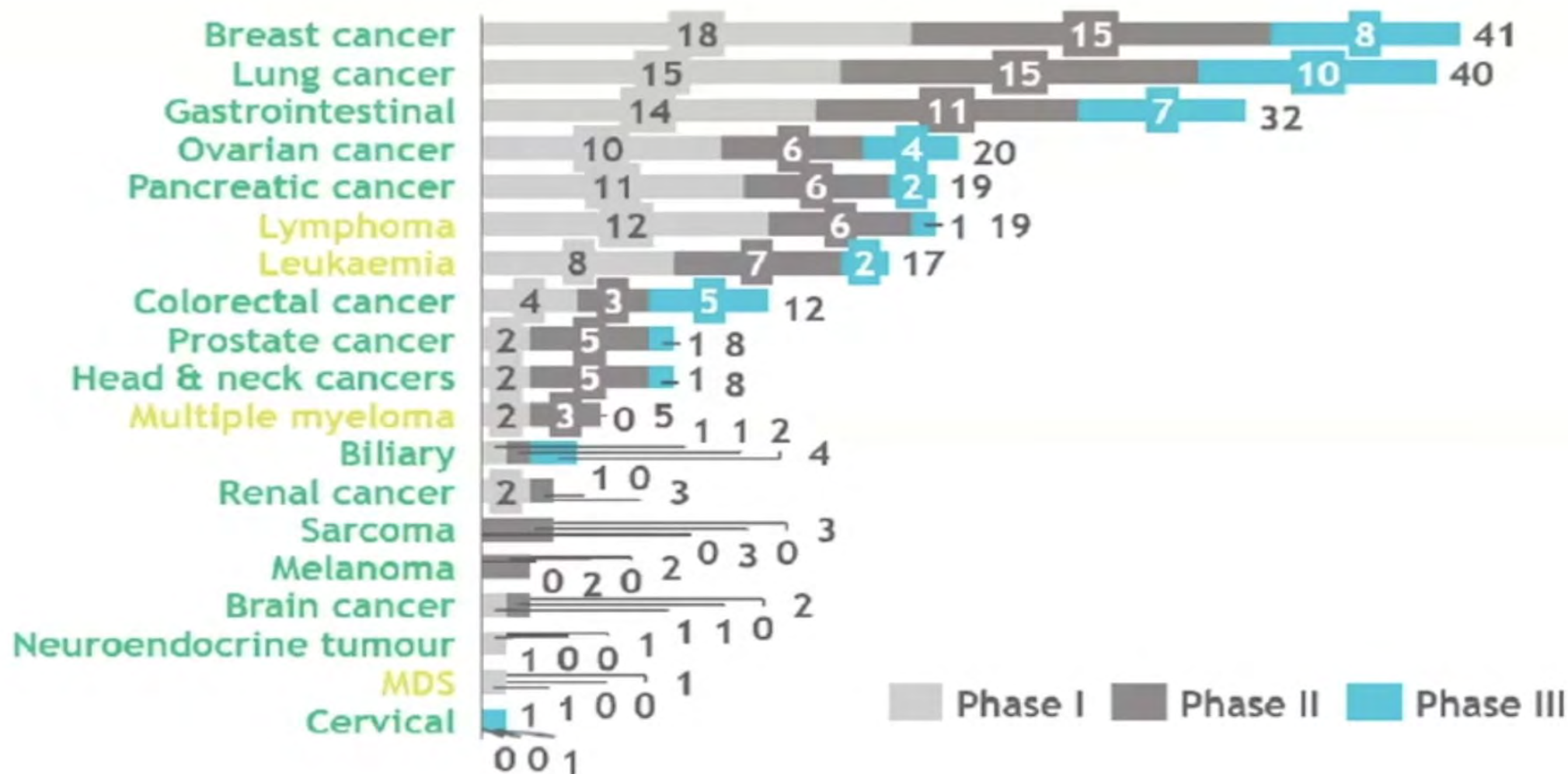
ADCs in Development 2024

Flynt et al Nature Reviews Drug Discovery , April 16, 2024



ADCs in Development 2024

Flynt et al Nature Reviews Drug Discovery , April 16, 2024



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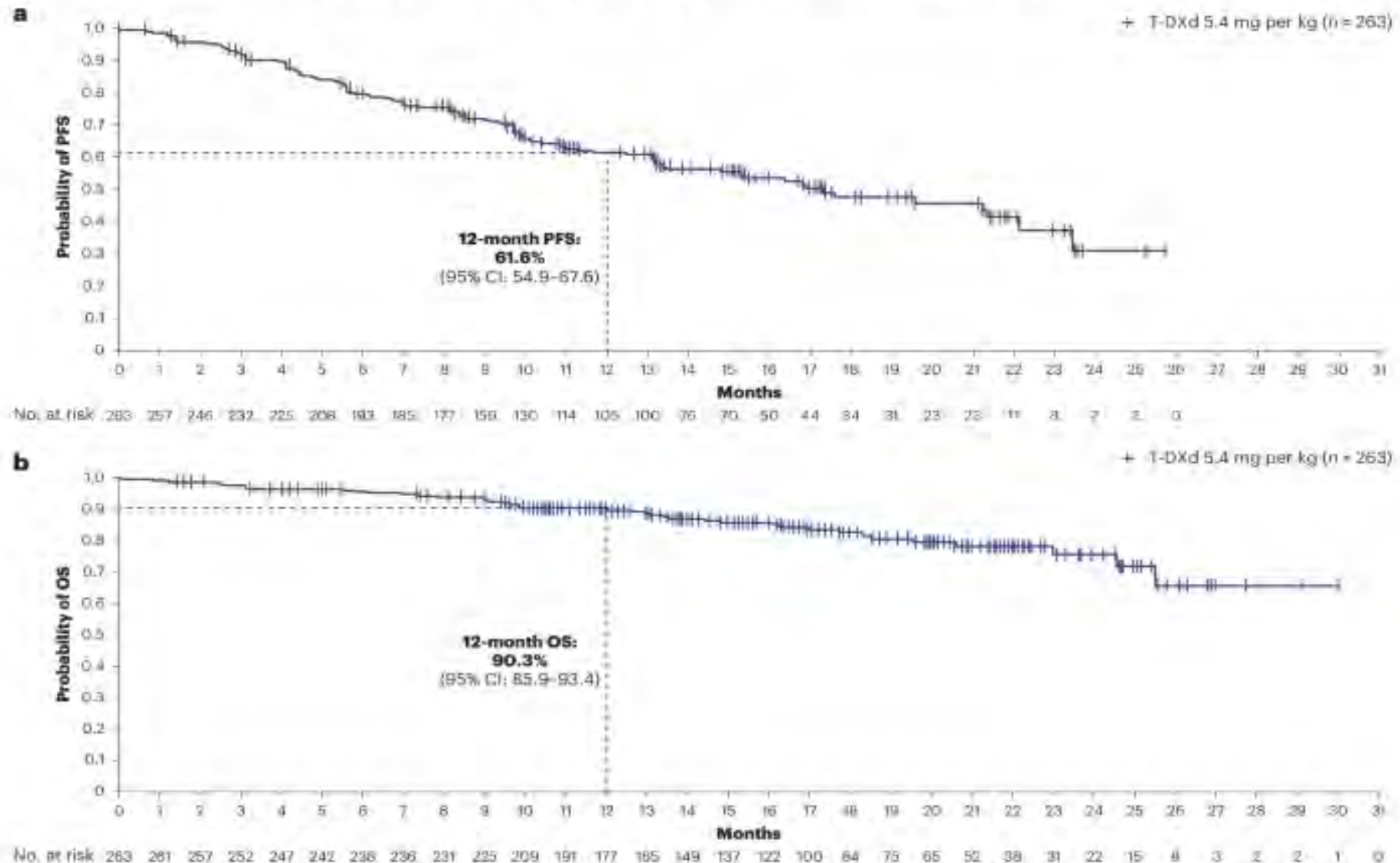
Article | [Open access](#) | Published: 13 September 2024

Trastuzumab deruxtecan in HER2-positive advanced breast cancer with or without brain metastases: a phase 3b/4 trial

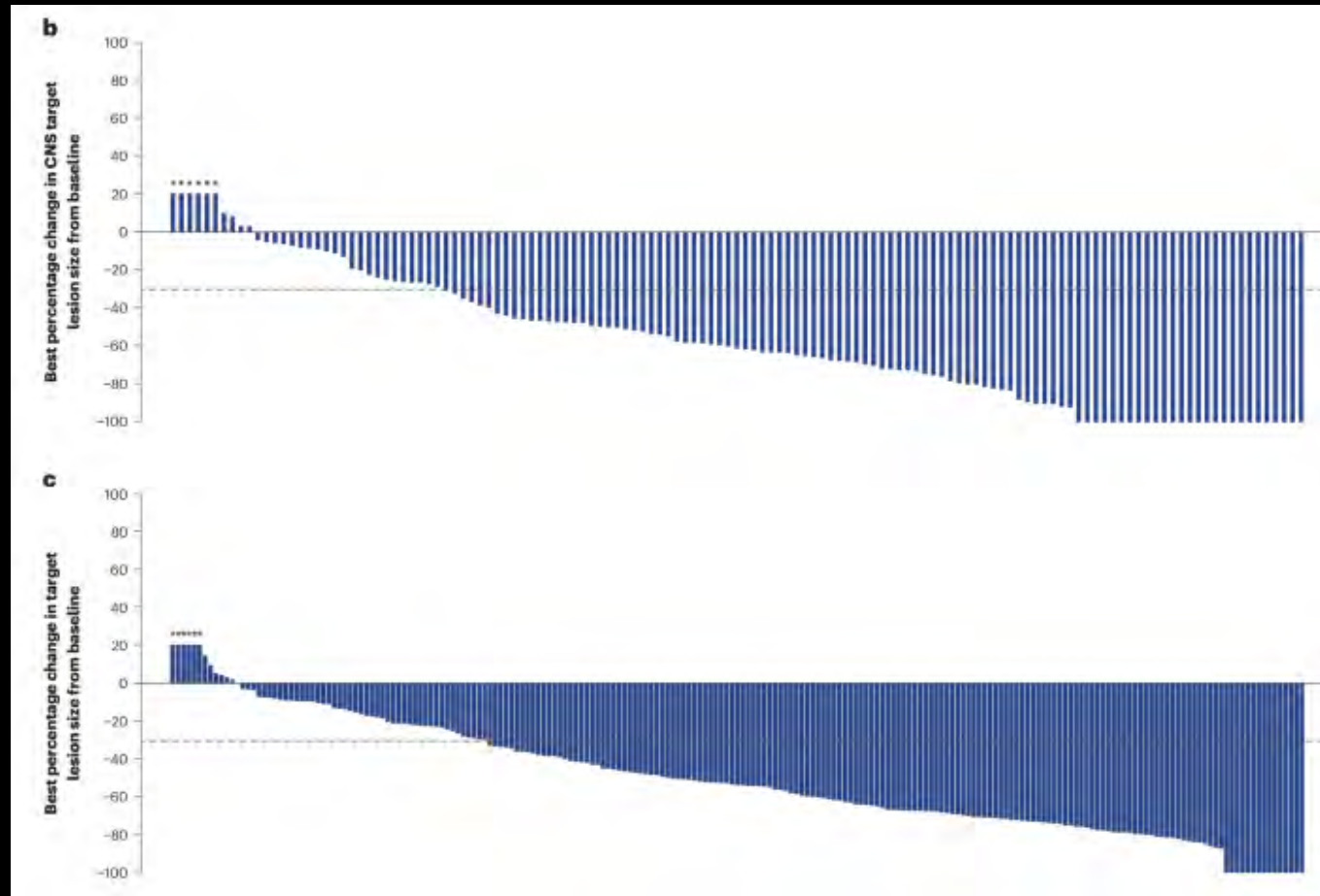
[Nadia Harbeck](#) , [Eva Ciruelos](#), [Guy Jerusalem](#), [Volkmar Müller](#), [Naoki Niikura](#), [Giuseppe Viale](#), [Rupert Bartsch](#), [Christian Kurzeder](#), [Michaela J. Higgins](#), [Roisin M. Connolly](#), [Sally Baron-Hay](#), [María Gión](#), [Valentina Guarneri](#), [Giampaolo Bianchini](#), [Hans Wildiers](#), [Santiago Escrivá-de-Romaní](#), [Manoj Prahladan](#), [Helen Bridge](#), [Nataliya Kuptsova-Clarkson](#), [Nana Scotto](#), [Sunil Verma](#), [Nancy U. Lin](#) & the DESTINY-Breast12 study group

[Nature Medicine](#) (2024) | [Cite this article](#)

Fig. 2: Kaplan–Meier analysis of key efficacy endpoints in patients with baseline BMs.



Nature Medicine 2024- ESMO 2024

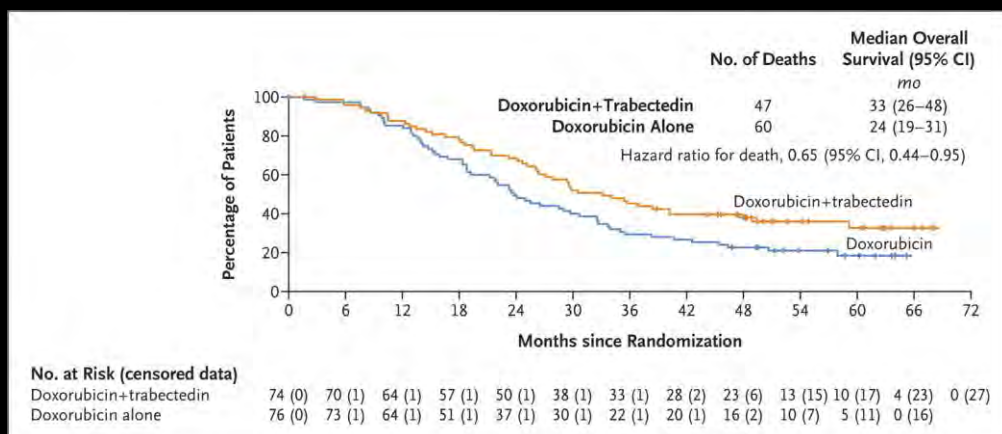


CONCLUSIONS (5)

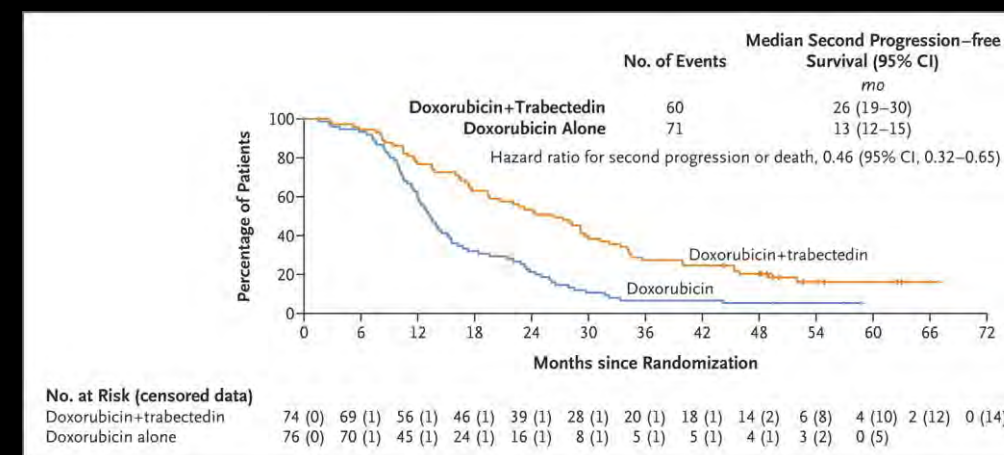
- No clinically significant benefit in 3y DFS nor OS from niraparib in HRP patients (PRIMA)
- Pembrolizumab is of benefit in adjuvant treatment of dMMR endometrial cancer (KEYNOTE B-21)
- OS benefit of pembrolizumab added to CRT in cervical cancer (KEYNOTE A-18)
- Possible benefit of upfront chemotherapy in cervical cancer prior to CRT (INTERLACE)
- Trastuzumab deruxtecan is very active in brain metastasis (breast cancer)

Pautier et al: NEJM September 2024

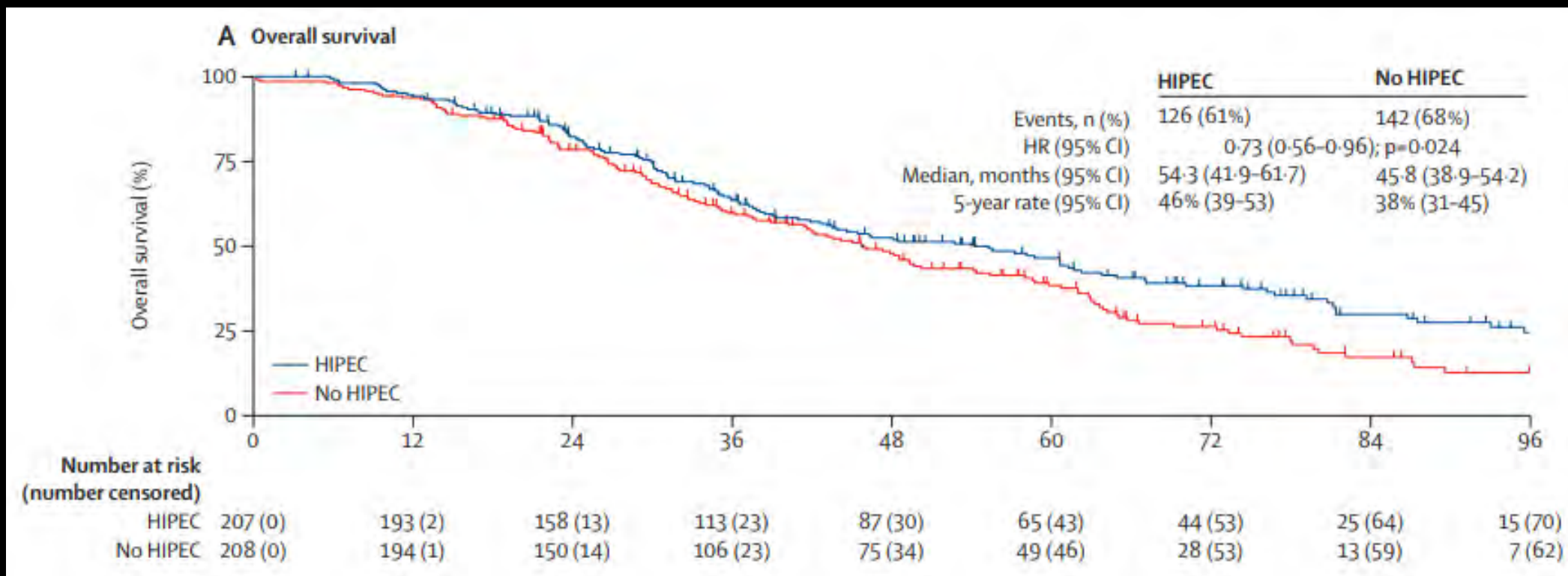
OVERALL SURVIVAL



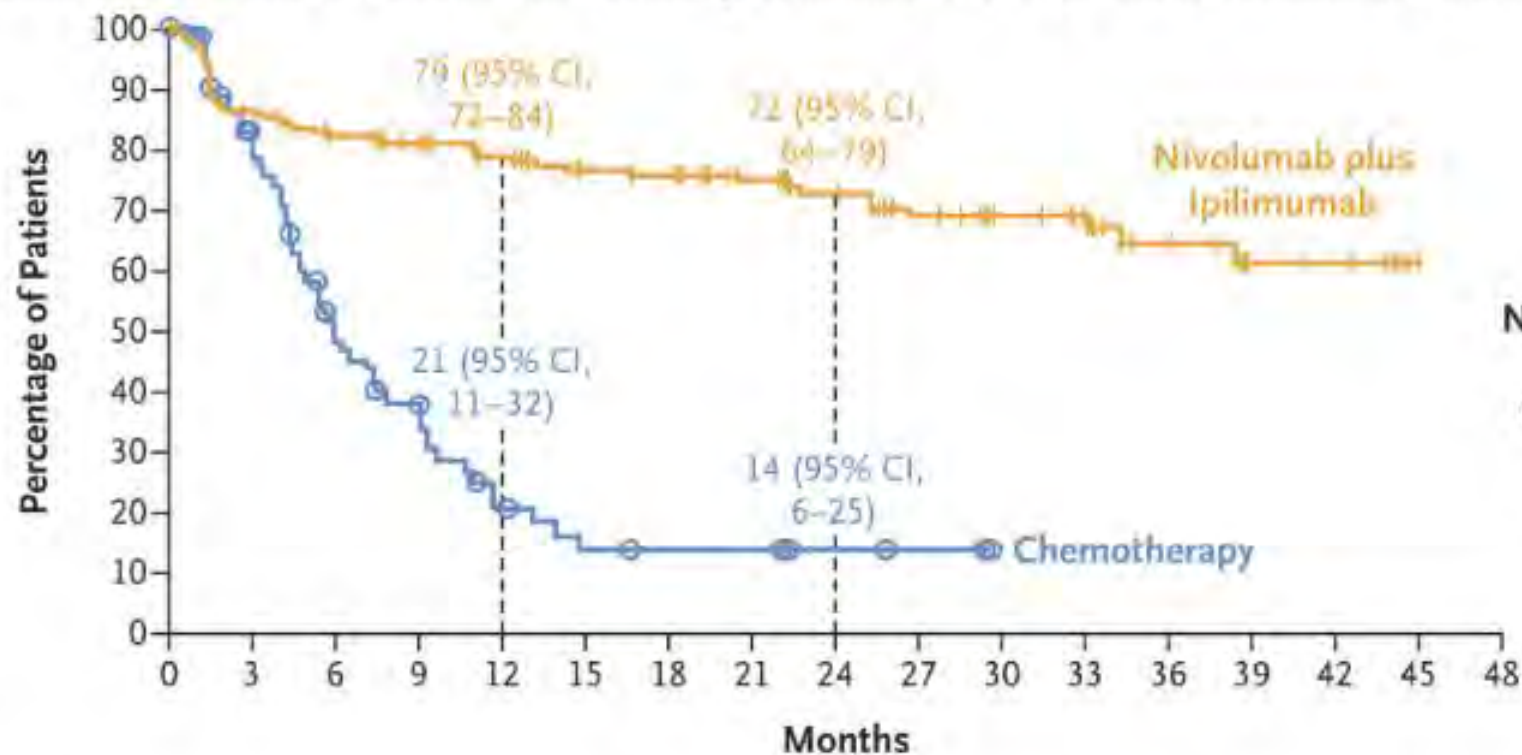
PROGRESSION FREE SURVIVAL



LANCET ONCOLOGY November 2024



A Progression-free Survival in Patients with Centrally Confirmed MSI-H or dMMR Metastatic Colorectal Cancer



	No. of Events/ No. of Patients	Median Progression-free Survival (95% CI) mo
Nivolumab plus Ipilimumab	48/171	NR (38.4–NE)
Chemotherapy	52/84	5.9 (4.4–7.8)

Adjusted difference in restricted mean survival time at 24 mo, 10.6 mo (95% CI, 8.4–12.9)
 $P < 0.001$ with the use of a two-sided stratified log-rank test

No. at Risk

Nivolumab plus ipilimumab	171	144	132	122	108	95	92	77	64	53	42	37	22	10	9	1	0
Chemotherapy	84	53	29	20	10	6	5	5	3	2	0	0	0	0	0	0	0

**Thank You for your
attention!**



