

Patrik Palacka

Genitourinárne karcinómy

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Vyhlásenie o konflikte záujmov autora

Nemám potenciálny konflikt záujmov vo vzťahu k tejto prednáške

Forma finančného prepojenia	Spoločnosť
Participácia na klinických štúdiách/firemnom grante	
Nepeňažné plnenie (v zmysle zákona)	
Prednášajúci	
Akcionár	
Konzultant/odborný poradca	
Ostatné príjmy (špecifikovať)	

Prezentáciu podporila
agentúra

We Make Media Slovakia s.r.o.

Karcinóm prostaty

PROSPER Study Design

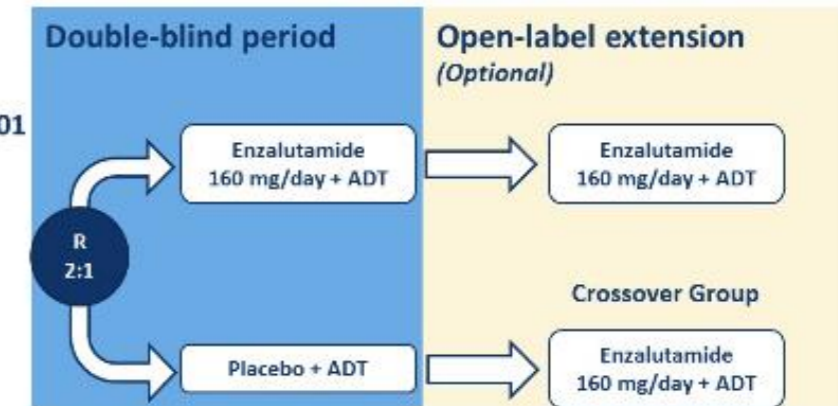
Key Eligibility Criteria

- nmCRPC (central review)
- Rising PSA despite castrate testosterone level (≤ 50 ng/dL)
- Baseline PSA ≥ 2 ng/mL
- PSA doubling time ≤ 10 months

Stratification

- PSA doubling time (< 6 mo vs 6-10 mo)
- Baseline use of bone-targeting agent (Y/N)

N = 1401



Primary endpoint

- MFS (defined as time from randomization to radiographic progression or death within 112 days of treatment discontinuation without evidence of radiographic progression)

ADT, androgen deprivation therapy; MFS, metastasis-free survival; nmCRPC, nonmetastatic castration-resistant prostate cancer; OS, overall indomization.

Secondary endpoints

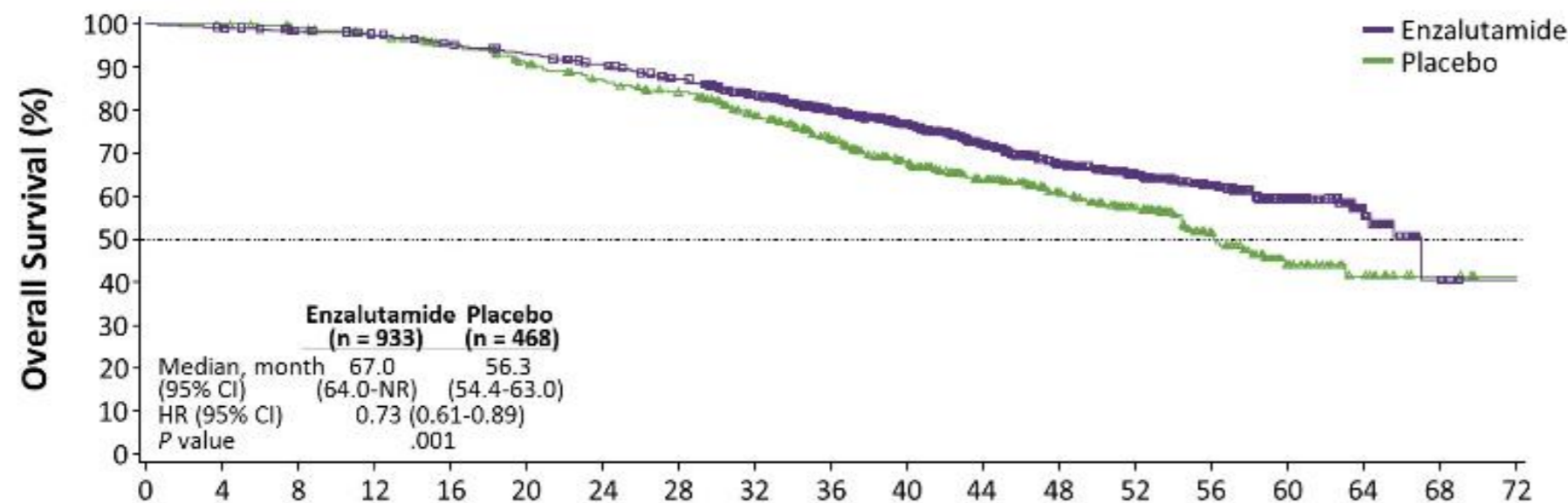
- OS
- Time to PSA progression
- Safety
- PSA response
- Quality of life

Updated Overall Survival Results From PROSPER: A Phase 3, Randomized, Double-Blind, Placebo-Controlled Study of Enzalutamide in Men With Nonmetastatic Castration-Resistant Prostate Cancer

Cora N. Sternberg,¹ Karim Fizazi,² Fred Saad,³ Neal D. Shore,⁴ Ugo De Giorgi,⁵ David F. Penson,⁶ Ubirajara Ferreira,⁷ Petro Ivashchenko,⁸ Eleni Efstathiou,⁹ Katarzyna Madziarska,¹⁰ Michael Kolinsky,¹¹ Daniel I. G. Cubero,¹² Bettina Noerby,¹³ Fabian Zohren,¹⁴ Xun Lin,¹⁴ Katharina Modelska,¹⁵ Jennifer Sugg,¹⁶ Joyce Steinberg,¹⁶ Maha Hussain¹⁷

PROSPER Final Overall Survival Analysis

Enzalutamide was associated with a statistically significant 27% reduction in the risk of death



	0	4	8	12	16	20	24	28	32	36	40	44	48	52	56	60	64	68	72
Enzalutamide	933	926	910	897	874	850	822	782	700	608	517	424	327	244	169	89	33	4	0
Placebo	468	467	459	444	428	404	381	363	321	274	219	177	140	106	64	30	16	3	0

CI, confidence interval; HR, hazard ratio; NR, not reached.

Cora N Sternberg, et al. ASCO@2020. Abstract 5515.

PROSPER Subsequent Antineoplastic Therapy

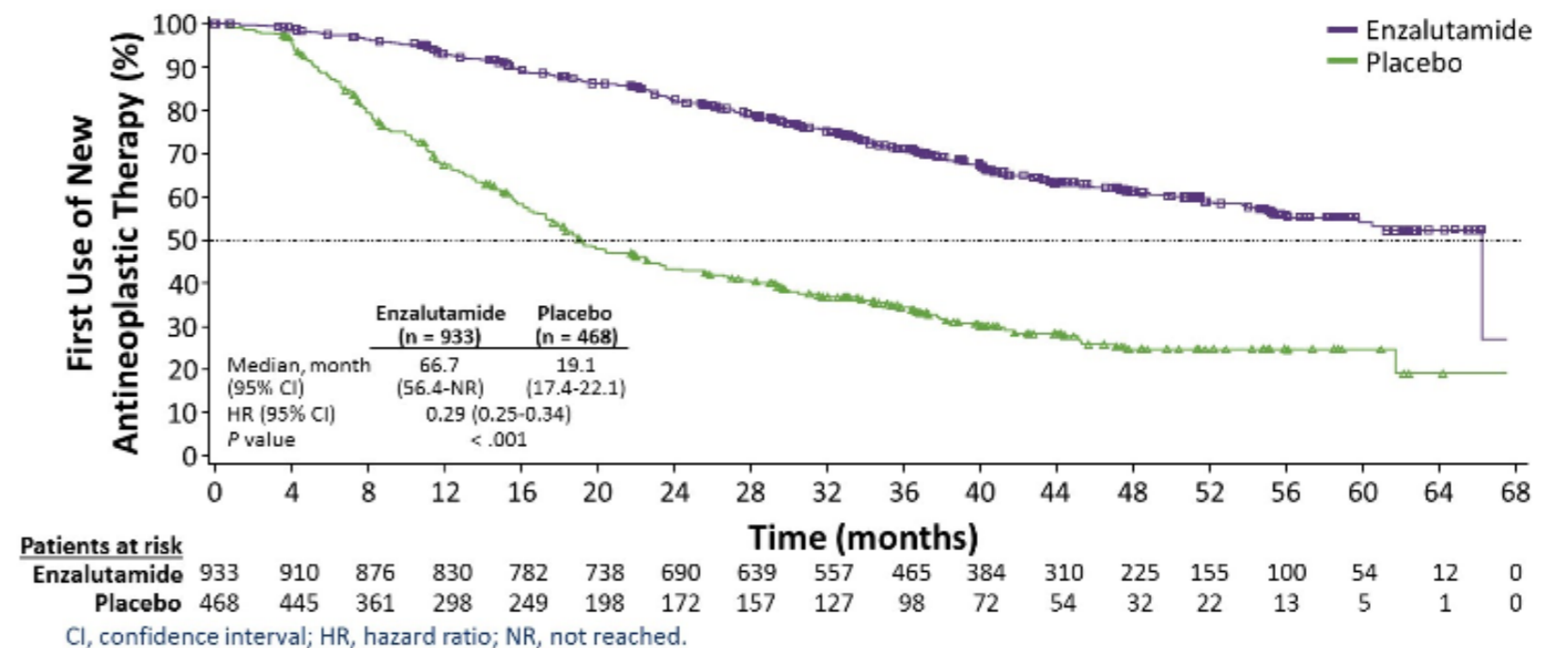
	Enzalutamide Group (n = 930)	Placebo Group (n = 465)
Patients taking ≥ 1 antineoplastic therapy after treatment discontinuation*	33%	65%
Subsequent therapies used by ≥ 5% of patients in any treatment group†		
Abiraterone acetate	49%	59%
Docetaxel	60%	47%
Enzalutamide‡	14%	36%
Cabazitaxel	15%	16%
Bicalutamide	9%	14%

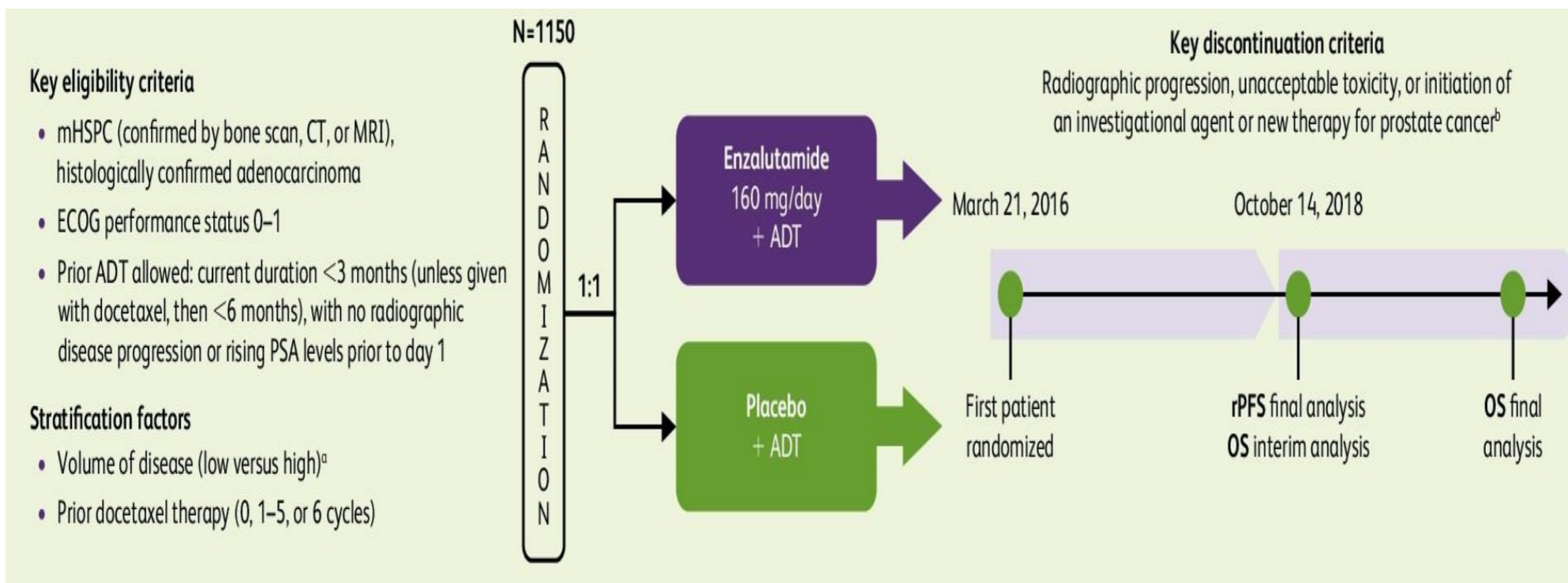
*Percentages based on the total number of patients in each treatment group.

†Percentages based on the number of patients who received ≥ 1 antineoplastic therapy after treatment discontinuation.

‡Does not include the 87 patients who were randomized to placebo and received enzalutamide in the open-label extension.

PROSPER Time to First Use of Subsequent Antineoplastic Therapy



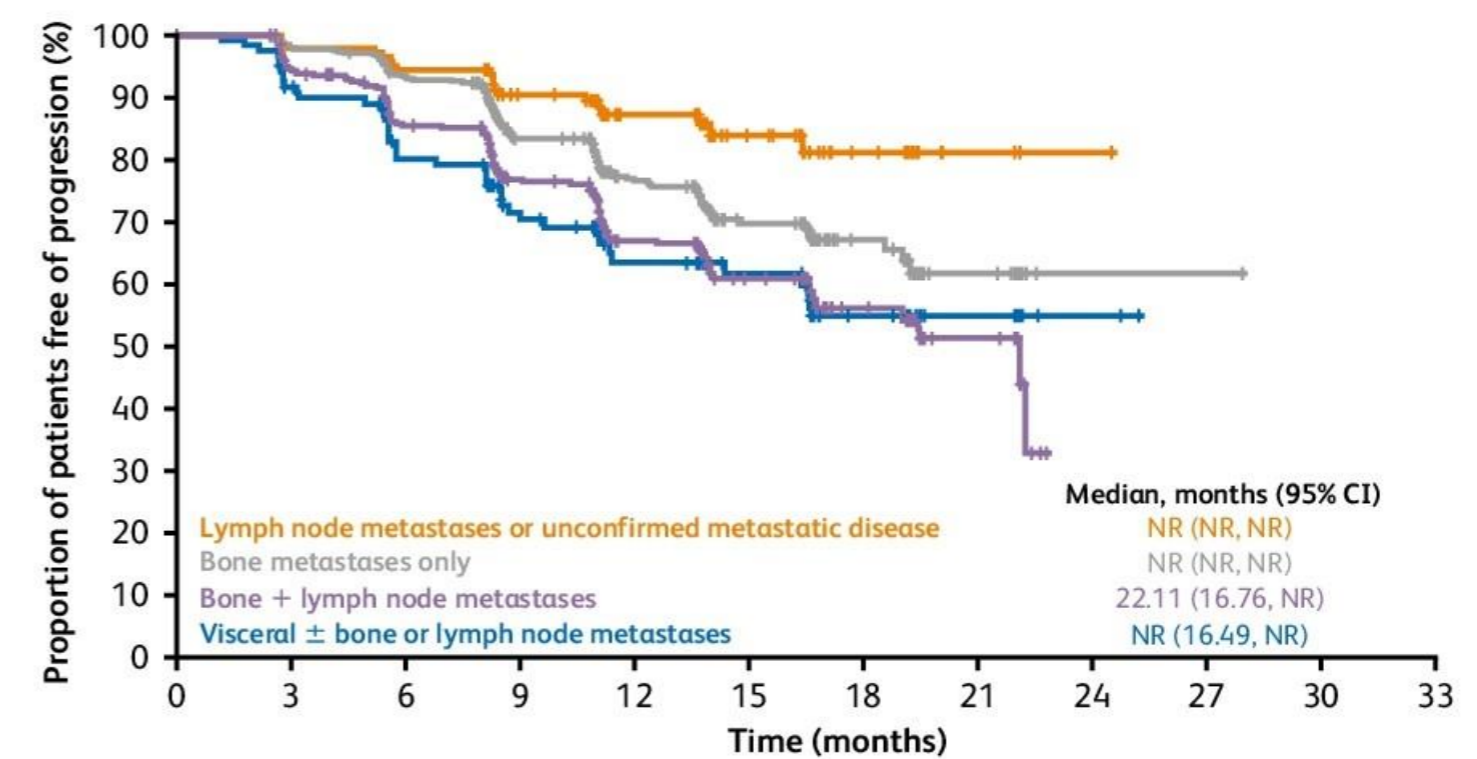


Efficacy of Enzalutamide + Androgen Deprivation Therapy in Metastatic Hormone-Sensitive Prostate Cancer by Pattern of Metastatic Spread: ARCHES *Post Hoc* Analyses

Neal D. Shore,¹ Andrew J. Armstrong,² Russell Z. Szmulewitz,³ Daniel P. Petrylak,⁴ Jeffrey Holzbeierlein,⁵ Arnaud Villiers,⁶ Arun Azad,^{7,*} Antonio Alcaraz,⁸ Boris Alekseev,⁹ Taro Iguchi,¹⁰ Francisco Gomez-Veiga,¹¹ Brad Rosbrook,¹² Ho-Jin Lee,¹³ Gabriel P. Haas,¹³ Arnulf Stenzl¹⁴

- ARCHES (NCT02677896): multinational, Phase 3, randomized, double-blind, placebo-controlled trial (**Figure 1**)

Figure 3. Kaplan-Meier of rPFS in the Overall Population by Pattern of Metastatic Spread



No. at risk

—	154	138	132	99	64	34	14	3	1	0	0	0
—	513	467	437	318	209	111	40	11	1	1	0	0
—	351	315	279	203	130	71	31	11	0	0	0	0
—	128	107	90	64	44	34	16	8	2	0	0	0

CI=confidence interval; NR=not reached; rPFS=radiographic progression-free survival.

A randomised phase II trial of ¹⁷⁷Lu-PSMA-617 (Lu-PSMA) theranostic versus cabazitaxel in metastatic castration resistant prostate cancer (mCRPC) progressing after docetaxel: Initial results

TheraP (ANZUP 1603)

Michael Hofman, Louise Emmett, Shahneen Sandhu, Amir Iravani, Anthony Joshua, Jeffrey Goh, David Pattison, Hsiang Tan, Ian Kirkwood, Siobhan Ng, Roslyn Francis, Craig Gedye, Natalie Rutherford, Alison Zhang, Margaret McJannett, Martin Stockler, John Violet, Scott Williams, Andrew Martin, Ian Davis

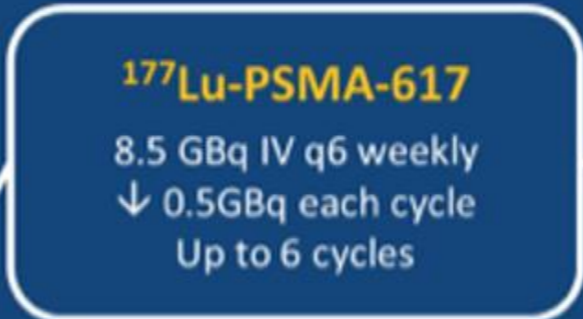
Aim: To determine the activity and safety of ¹⁷⁷Lu-PSMA vs cabazitaxel

KEY ELIGIBILITY

- mCRPC post docetaxel suitable for cabazitaxel
- Progressive disease with rising PSA and PSA ≥ 20 ng/mL

⁶⁸Ga-PSMA + ¹⁸F-FDG PET/CT

- PSMA SUVmax > 20 at any site
- Measurable sites SUVmax > 10
- **No FDG positive/PSMA negative sites of disease**
- Centrally reviewed

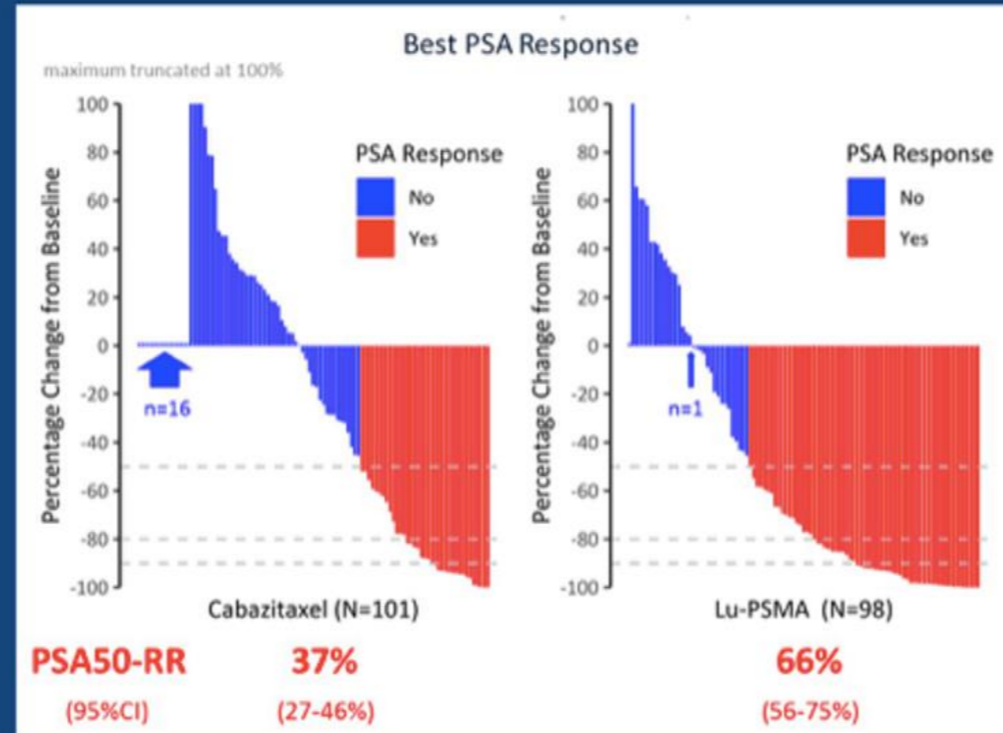


200 men 1:1 randomisation
11 sites in Australia
Stratified by:
• Disease burden (>20 sites vs ≤ 20 sites)
• Prior enzalutamide or abiraterone
• Study site



80% power to detect a true absolute difference of 20% in the PSA response rate (from 40% to 60%), with a 2-sided type 1 error of 5% and allowance of 3% for missing data.

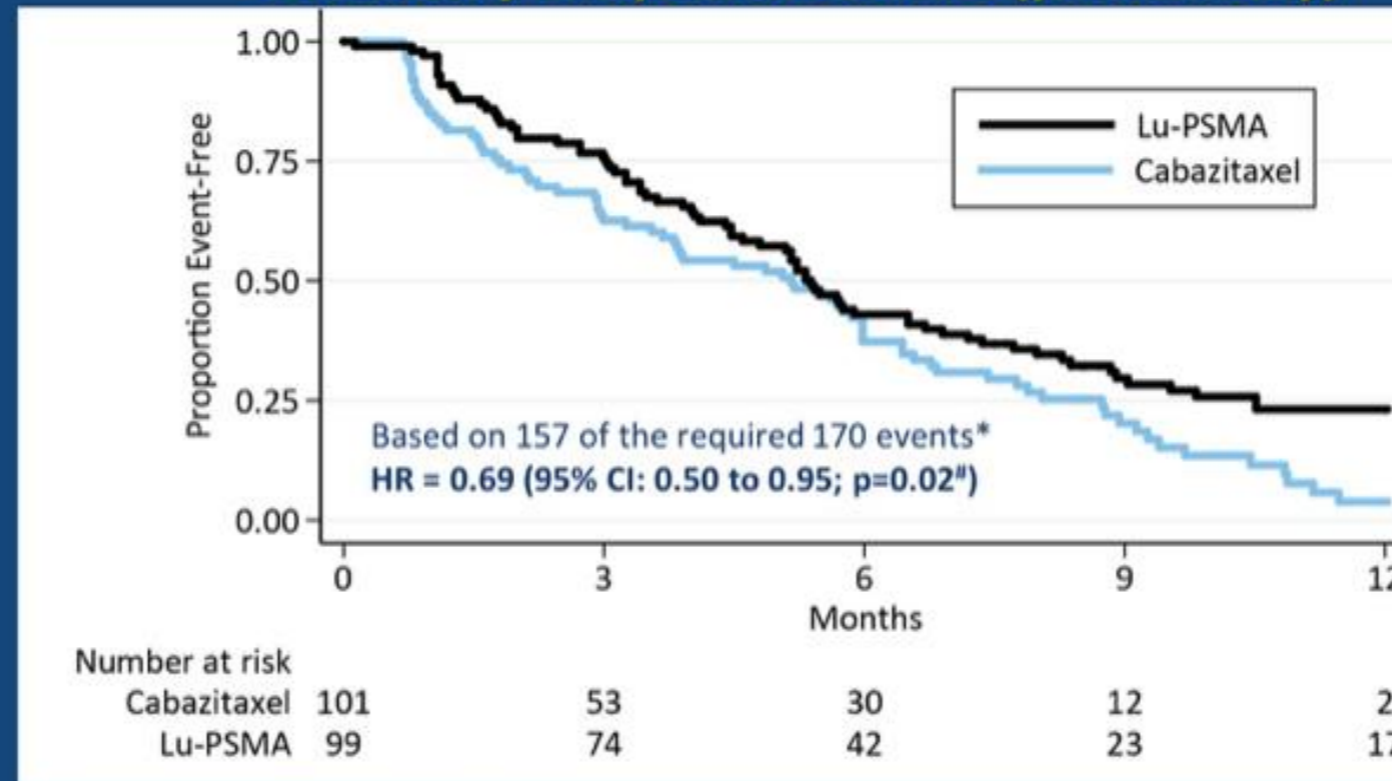
Primary endpoint: PSA \geq 50% response (PSA50-RR)



Lu-PSMA: 29% absolute (95% CI 16%-42%; p<0.0001) greater PSA50-RR compared to cabazitaxel

For sensitivity analysis per-protocol, the difference was 23% (95% CI 9%-37%; p=0.0016)

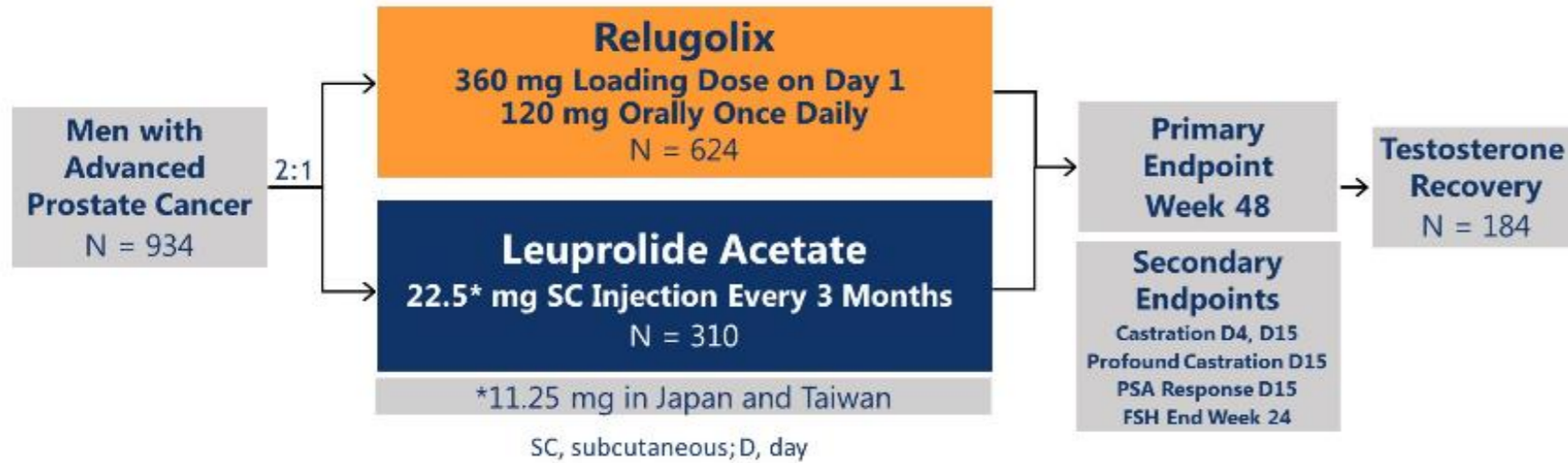
Secondary endpoint: PSA PFS (preliminary)



* Primary analysis at 170 events (as per SAP)
 # p<0.0027 is required to trigger rejection of null hypothesis prior to planned primary analysis at 170 events (as per SAP)
 There have been 71 deaths in total.

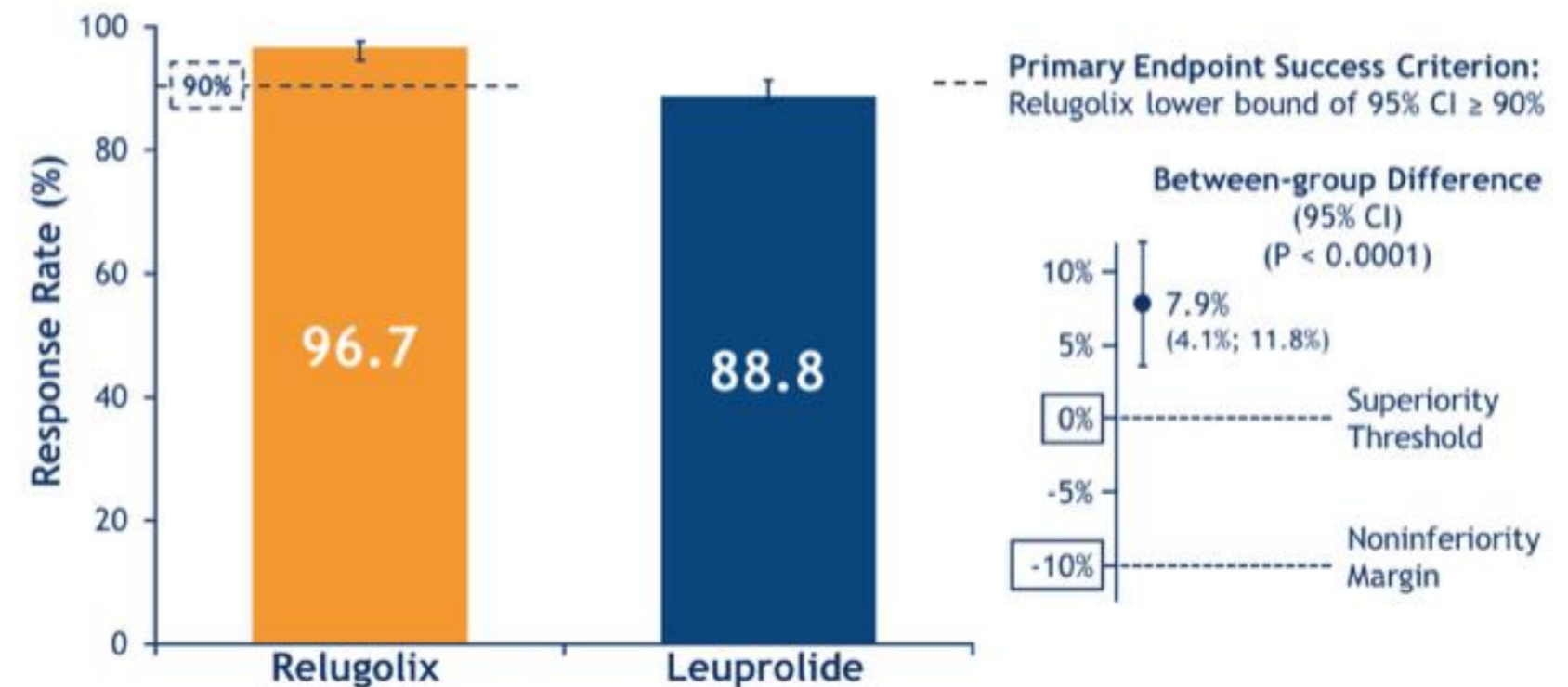
Phase 3 HERO Study Design

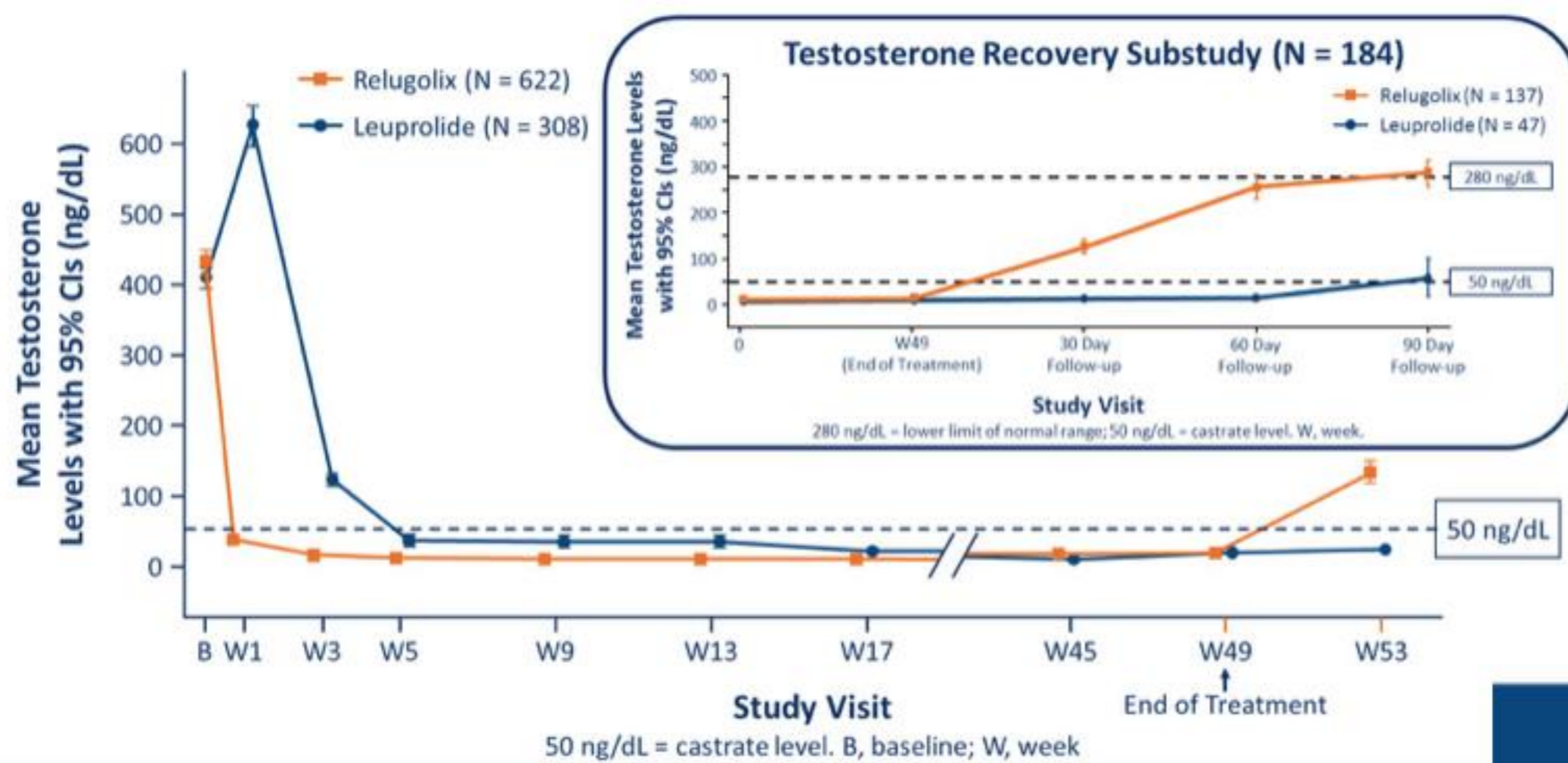
- A multinational phase 3 randomized, open-label, parallel group study to evaluate the safety and efficacy of relugolix in men with advanced prostate cancer
- **Primary Endpoint:** Sustained castration through 48 weeks (< 50 ng/dL)



Primary Endpoint – Sustained Castration

Key Secondary Endpoint – Noninferiority to Leuprolide





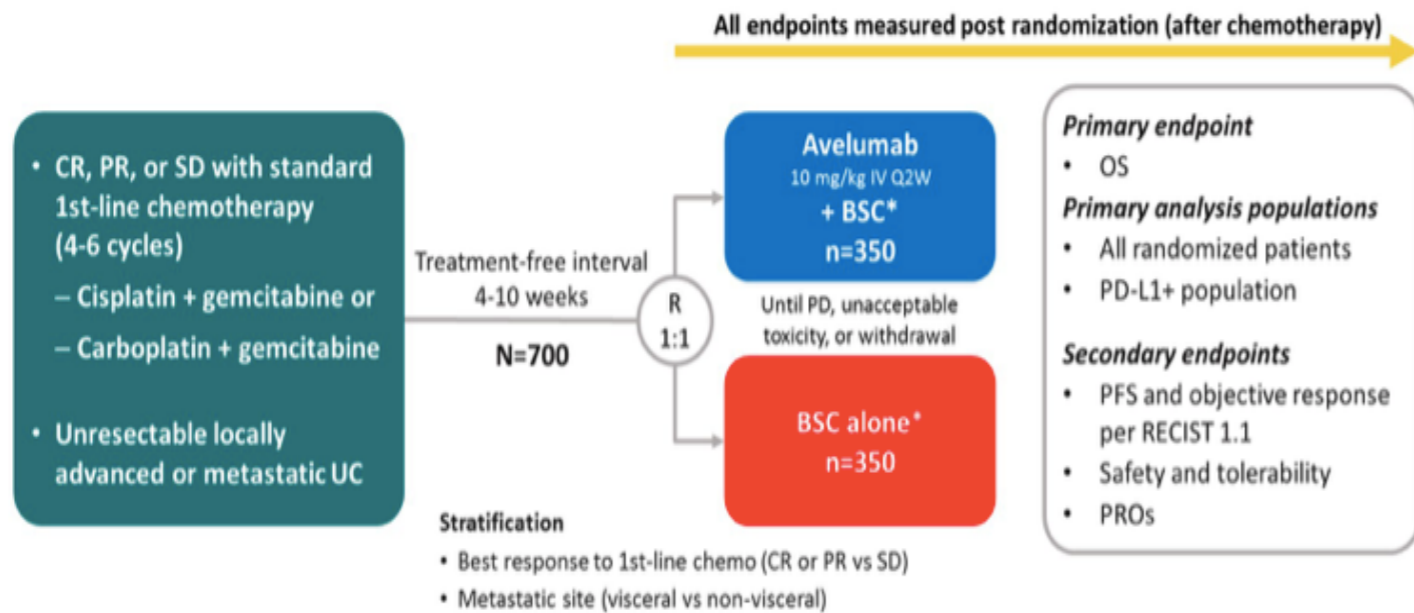
	Relugolix (N = 622)	Leuprolide (N = 308)
Adverse Cardiovascular Events	3.9%	7.1%
Major Adverse Cardiovascular Events (MACE)	2.9%	6.2%
Ischemic Heart Disease	2.4%	1.6%

History of MACE	Yes		No	
	Relugolix	Leuprolide	Relugolix	Leuprolide
N (%)	84 (13.5%)	45 (14.6%)	538 (86.5%)	263 (85.4%)
MACE	3.6%	17.8%	2.8%	4.2%
Odds Ratio Leuprolide vs Relugolix (95% confidence interval)	5.8 (1.5, 23.3)		1.5 (0.7, 3.4)	

MACE = non-fatal myocardial infarction + non-fatal stroke + all-cause mortality

Urotelové karcinómy

JAVELIN Bladder 100 study design (NCT02603432)

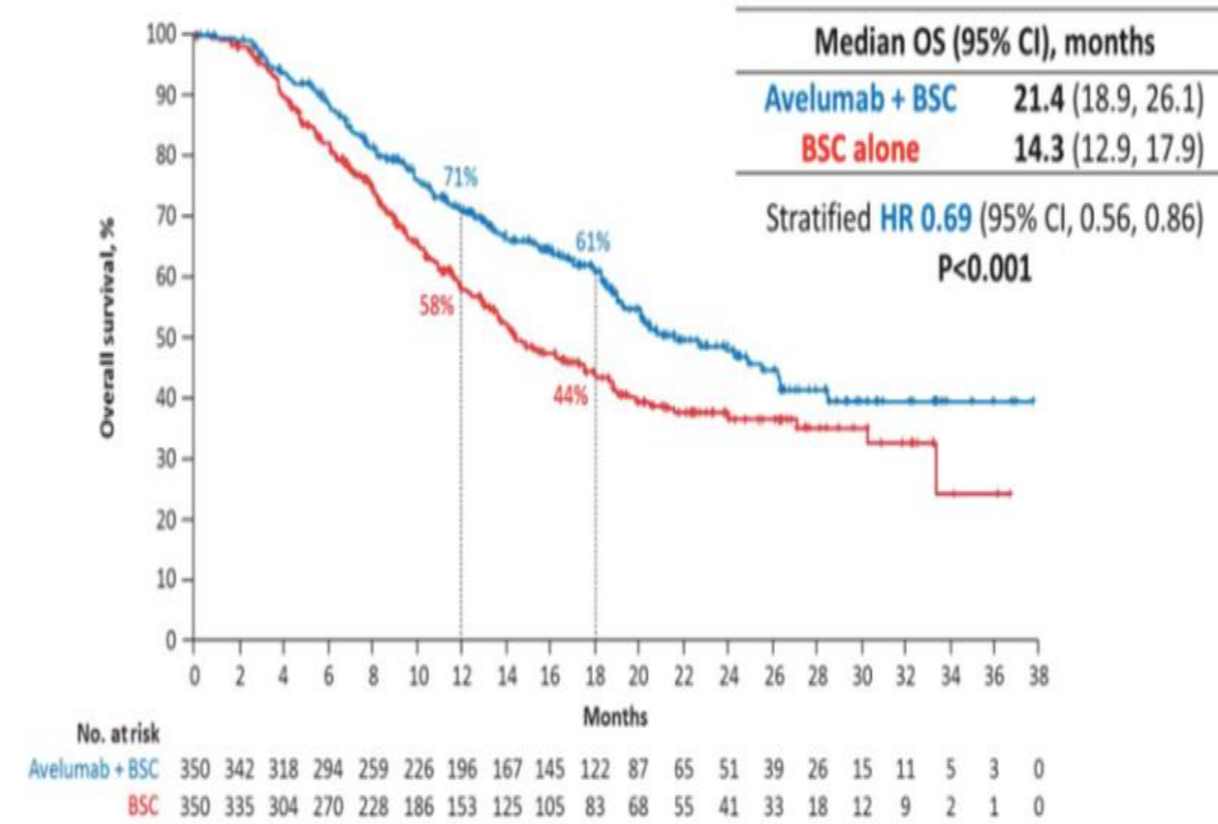


PD-L1+ status was defined as PD-L1 expression in $\geq 25\%$ of tumor cells or in $\geq 25\%$ or 100% of tumor-associated immune cells if the percentage of immune cells was $>1\%$ or $\leq 1\%$, respectively, using the Ventana SP263 assay; 358 patients (51%) had a PD-L1-positive tumor

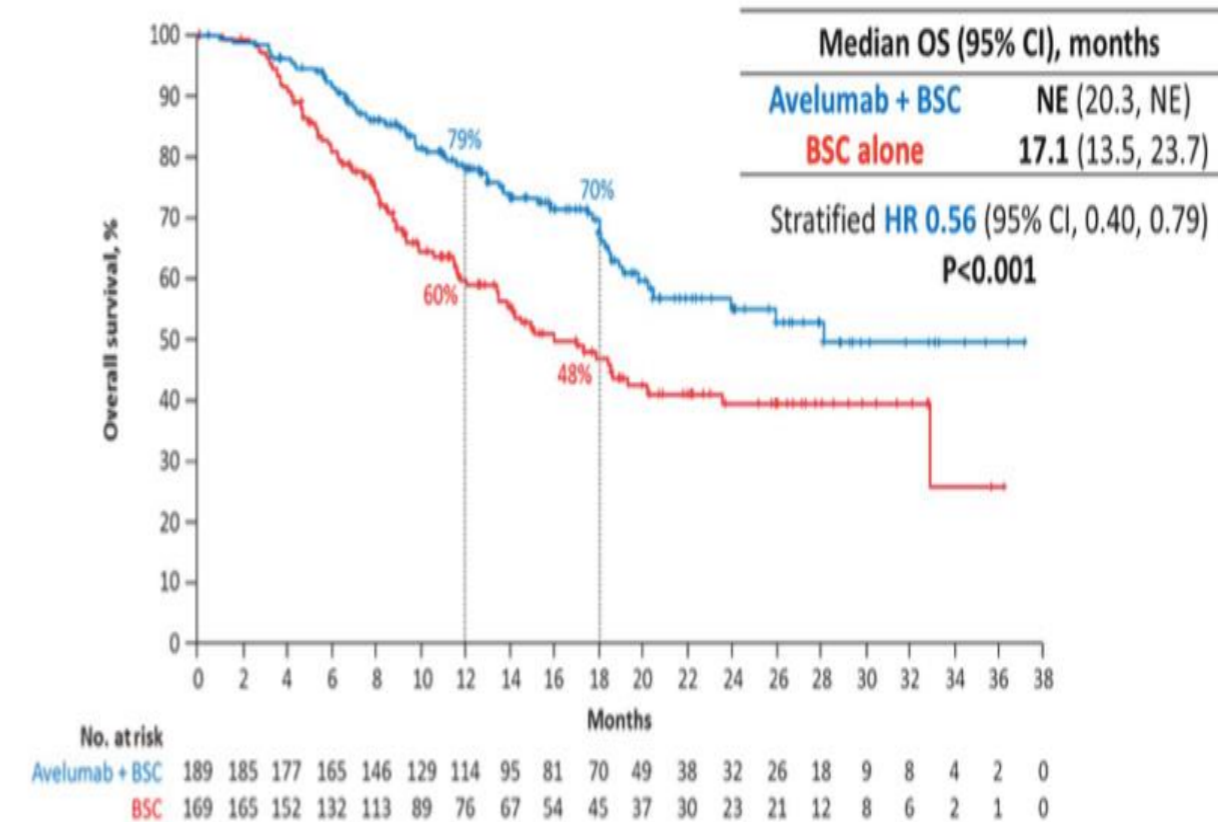
BSC, best supportive care; CR, complete response; IV, intravenous; PR, partial response; PRO, patient reported outcome; Q2W, every 2 weeks; R, randomization; RECIST 1.1, Response Evaluation Criteria in Solid Tumors version 1.1; SD, stable disease

*BSC (eg, antibiotics, nutritional support, hydration, or pain management) was administered per local practice based on patient needs and clinical judgment; other systemic antitumor therapy was not permitted, but palliative local radiotherapy for isolated lesions was acceptable

OS in the overall population

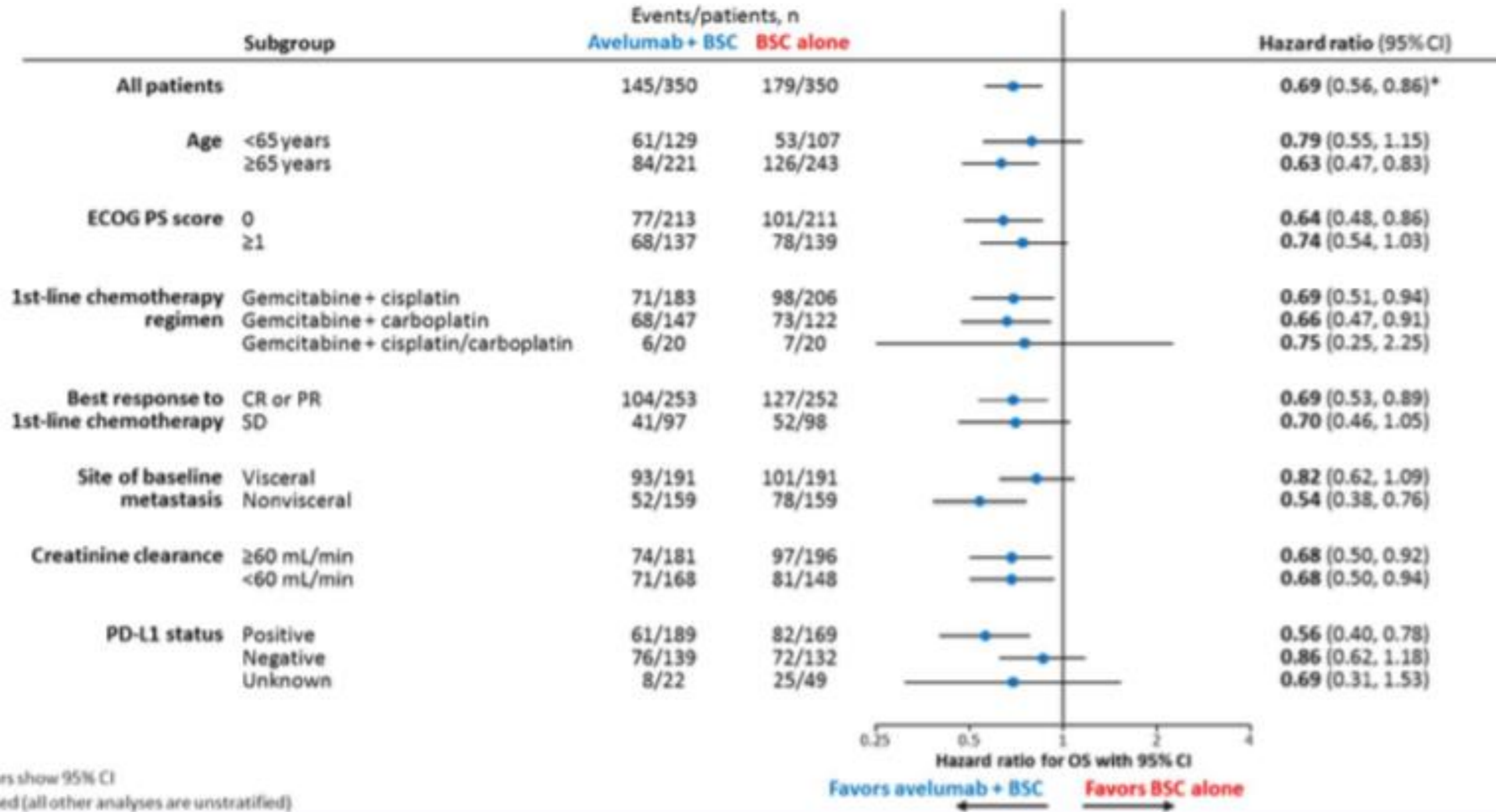


OS in the PD-L1+ population

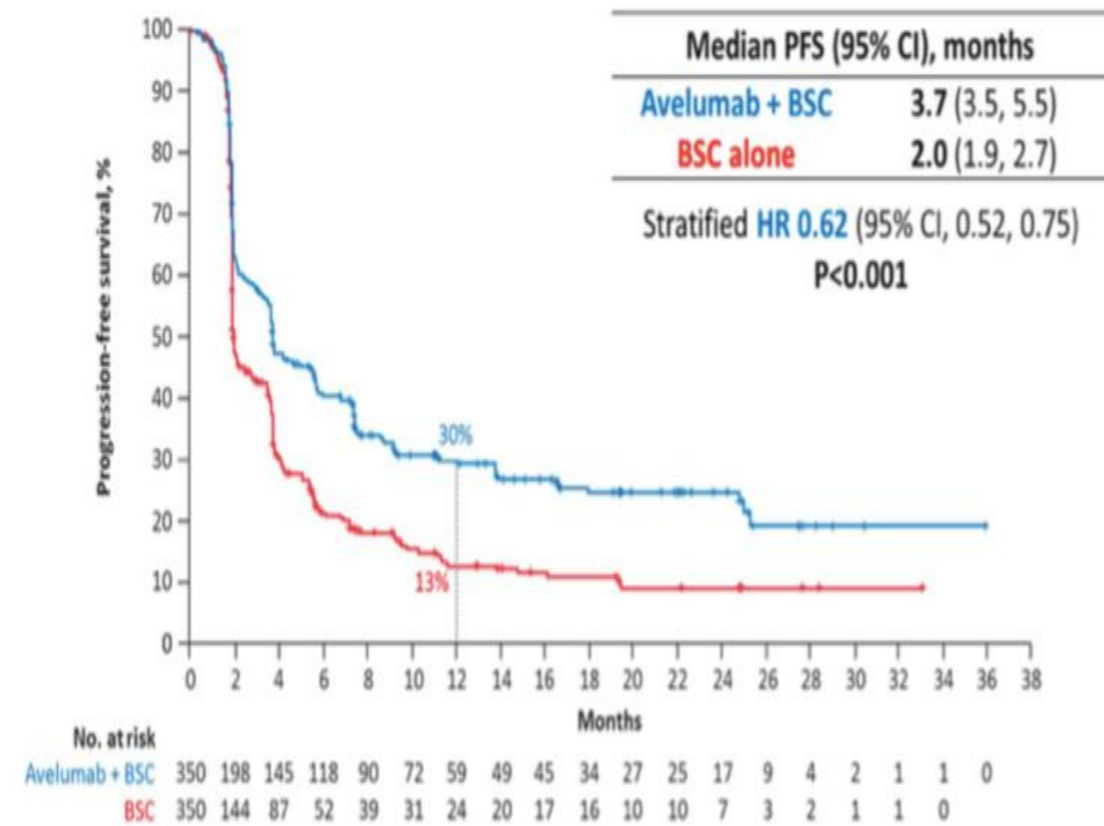


OS was measured post randomization (after chemotherapy); the OS analysis crossed the prespecified efficacy boundary based on the alpha-spending function (P < 0.0014). NE, not estimable

Subgroup analysis of OS in the overall population

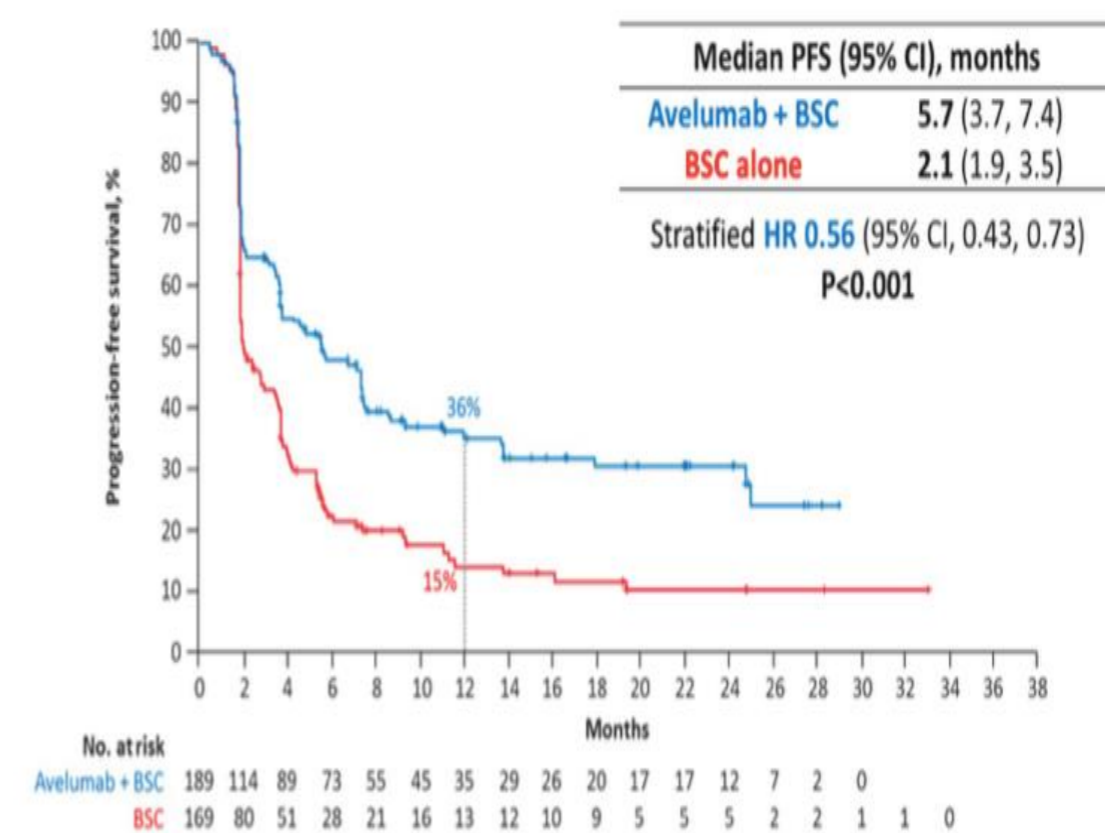


PFS by independent radiology review in the overall population



PFS was measured post randomization (from end of chemotherapy)

PFS by independent radiology review in the PD-L1+ population



PFS was measured post randomization (from end of chemotherapy)

Confirmed objective response

Response to maintenance therapy post randomization

	Overall population		PD-L1+ population	
	Avelumab + BSC (N=350)	BSC alone (N=350)	Avelumab + BSC (N=189)	BSC alone (N=169)
ORR, %	9.7	1.4	13.8	1.2
(95% CI)	(6.8, 13.3)	(0.5, 3.3)	(9.2, 19.5)	(0.1, 4.2)
Stratified odds ratio (95% CI)	7.464 (2.824, 24.445)		12.699 (3.160, 114.115)	
Best overall response, %				
Complete response	6.0	0.9	9.5	0.6
Partial response	3.7	0.6	4.2	0.6
Stable disease	12.6	13.1	10.1	13.6
Non-CR/non-PD	18.9	12.9	20.1	13.0
Progressive disease	37.1	48.3	31.2	48.5
Not evaluable*	21.7	24.3	24.9	23.7
Disease control, %†	41.1	27.4	43.9	27.8

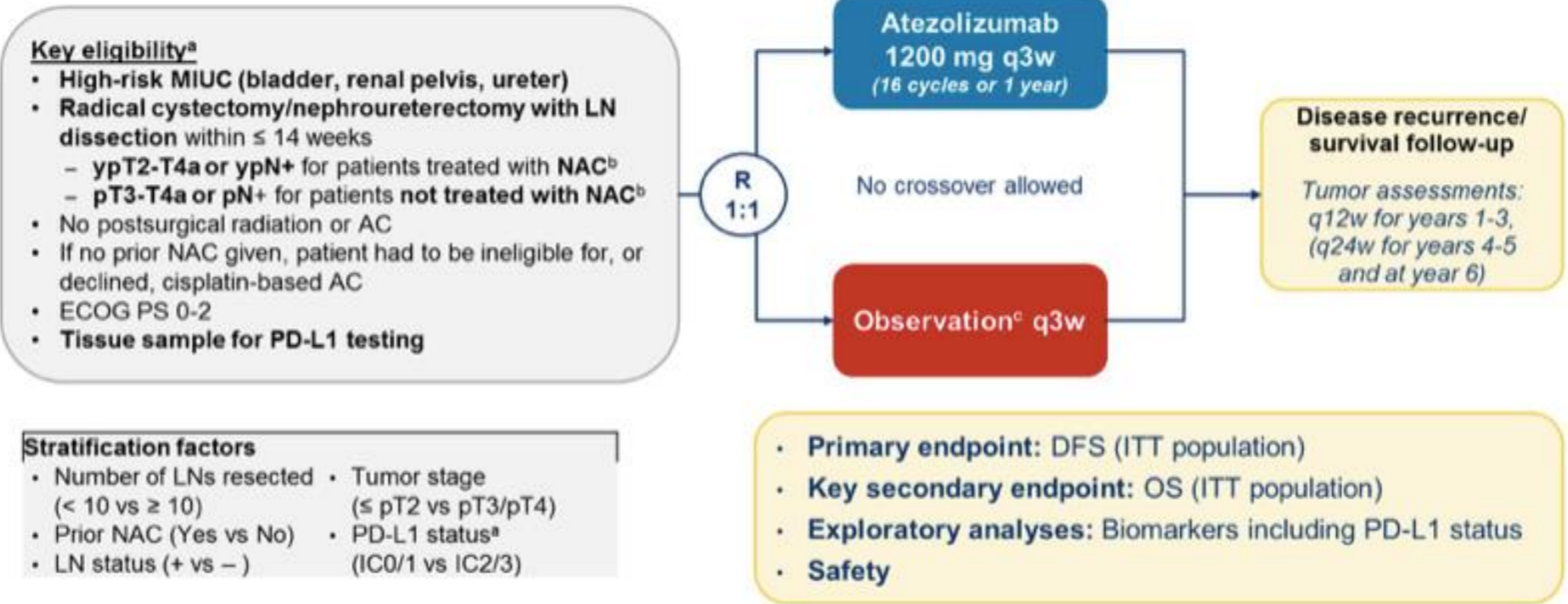
PD, progressive disease

Objective response was assessed by independent radiology review; in patients with a CR after chemotherapy, best overall response was not evaluable if no evidence of disease at baseline was maintained after randomization, or PD if disease progression occurred after randomization

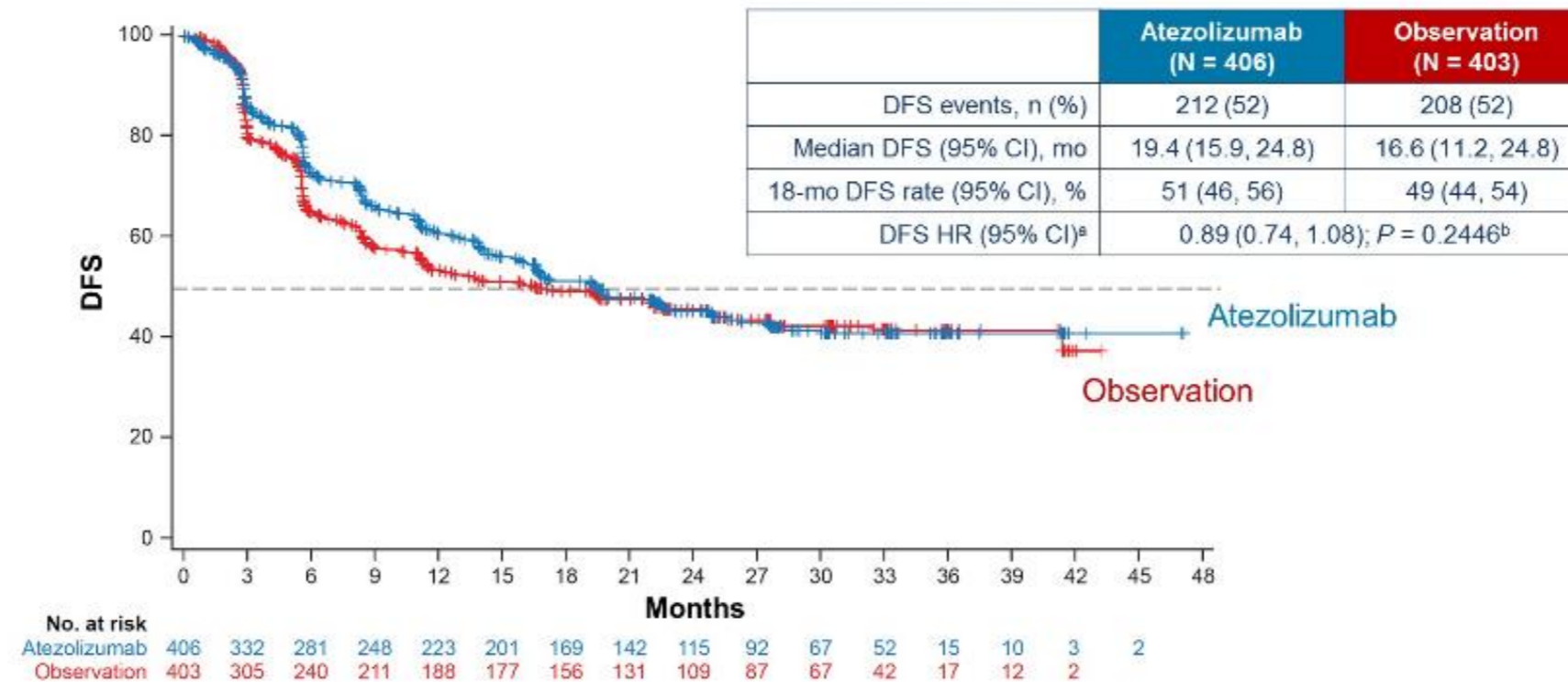
*Reasons for not evaluable included no evidence of disease at baseline; no post-baseline assessments; SD <6 weeks after randomization; PD >12 weeks after randomization; new anticancer therapy started before first post-baseline assessment; or all post-baseline assessments have objective response of not evaluable

†Patients with a best overall response of CR, PR, SD, or non-CR/non-PD

IMvigor010 Study Design



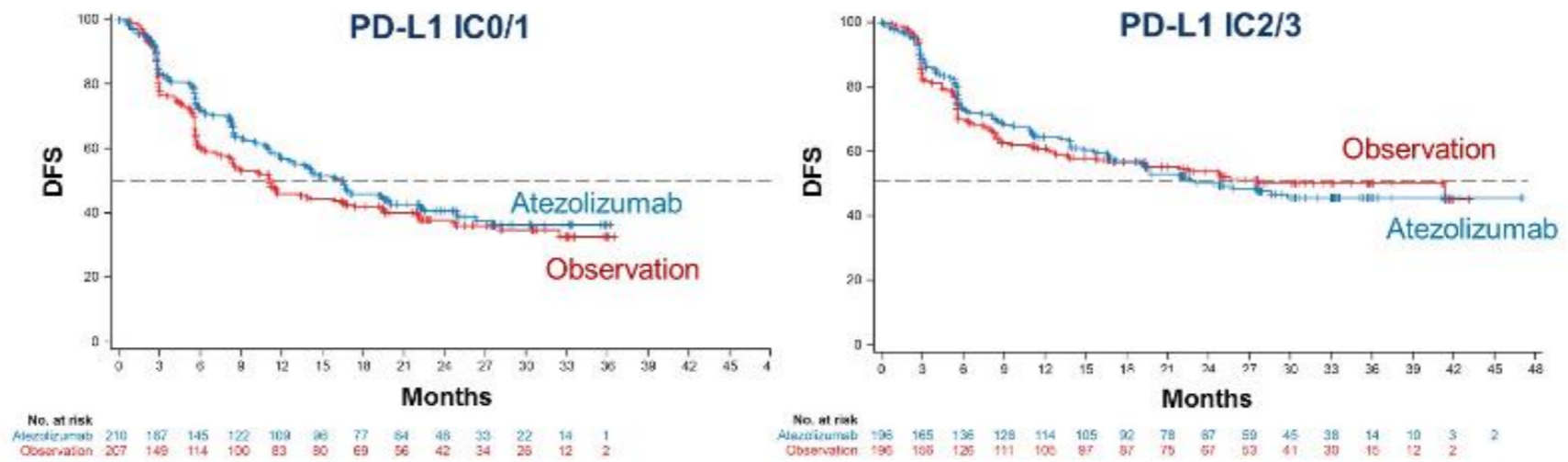
DFS in ITT Population



Data cutoff: November 30, 2019. Median follow-up: 21.9 mo. ^a Stratified by post-resection tumor stage, nodal status and PD-L1 status. ^b 2-sided.

Maha HA Hussain, et al.
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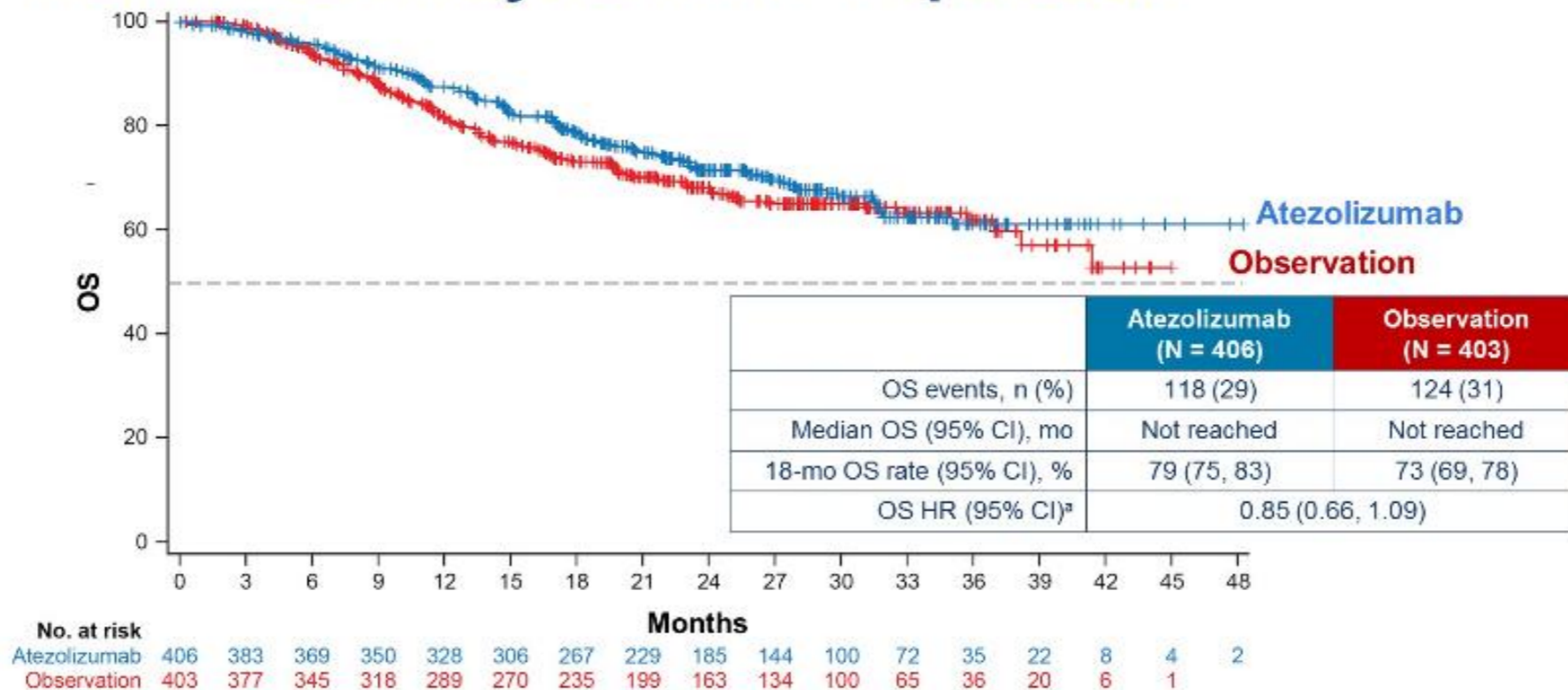
DFS by PD-L1 Status



	Atezolizumab (n = 210)	Observation (n = 207)
DFS events, n (%)	118 (56)	120 (58)
HR (95% CI) ^a	0.81 (0.63, 1.05)	

	Atezolizumab (n = 196)	Observation (n = 196)
DFS events, n (%)	94 (48)	88 (45)
HR (95% CI) ^a	1.01 (0.75, 1.35)	

Interim OS Analysis in ITT Population



Data cutoff: November 30, 2019. Median follow-up: 21.9 mo. Most common subsequent non-protocol therapies included immunotherapy (9% in atezolizumab arm vs 21% in observation arm), chemotherapy (27% vs 25%) and targeted therapy (5% vs 2%). ^a OS results are shown for descriptive purposes only. HR stratified by tumor stage, nodal status and PD-L1 status.

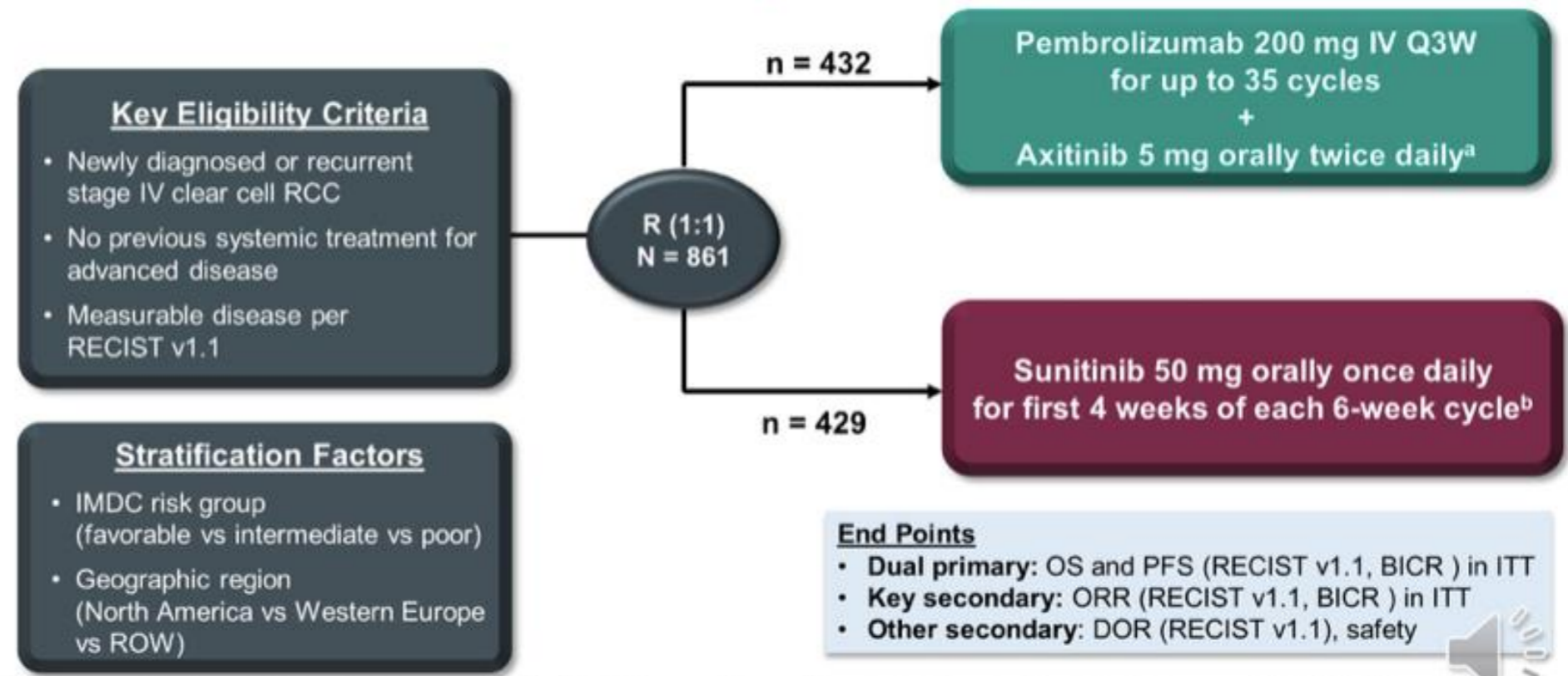
Renálny karcinóm

KEYNOTE-426 Study Design

Pembrolizumab Plus Axitinib Versus Sunitinib as First-Line Therapy for Advanced Renal Cell Carcinoma: Updated Analysis of KEYNOTE-426

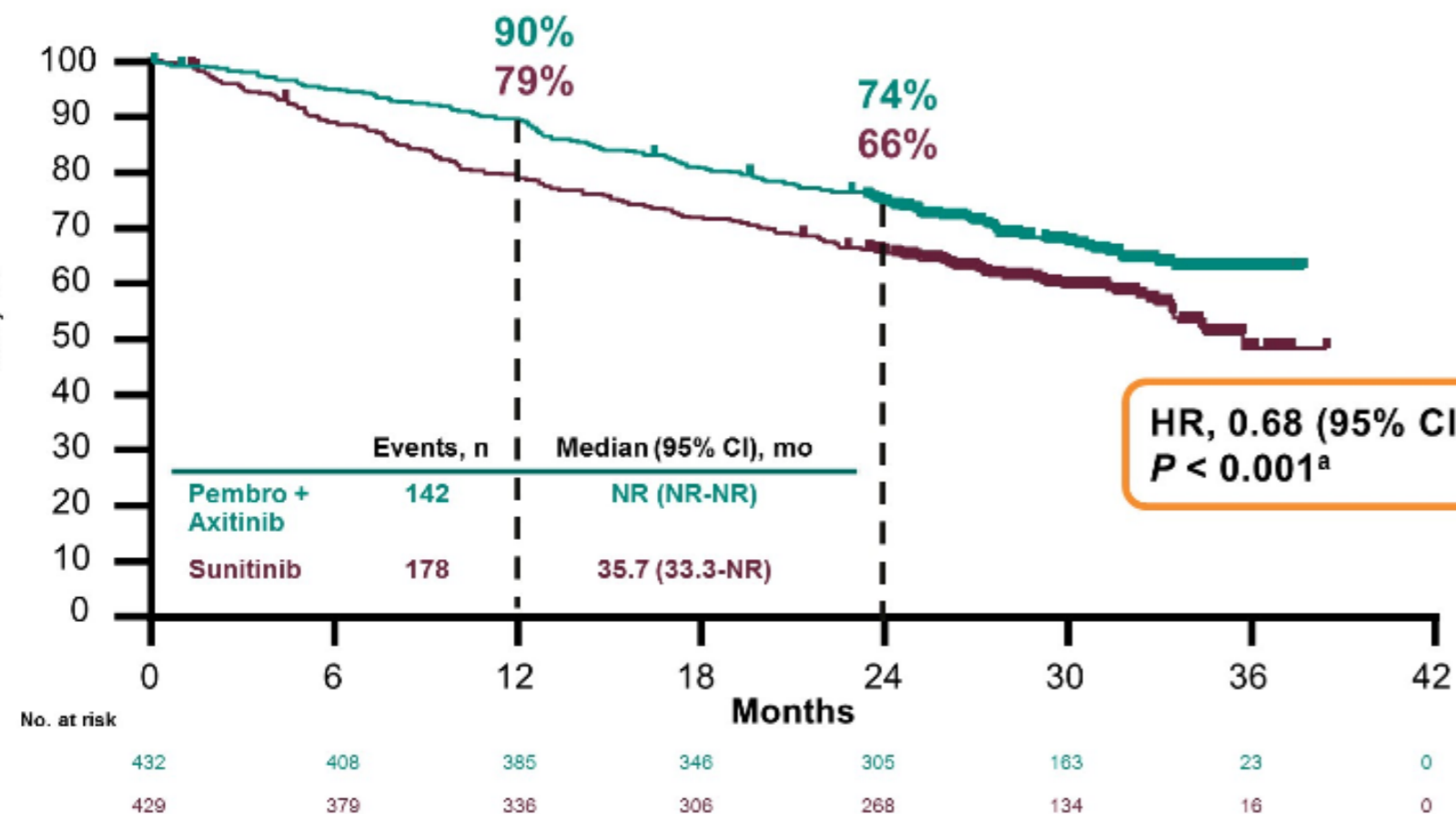
E. R. Plimack¹; B. I. Rini²; V. Stus³; R. Gafanov⁴; T. Waddell⁵; D. Nosov⁶; F. Pouliot⁷; D. Soulières⁸; B. Melichar⁹; I. Vynnychenko¹⁰; S. J. Azevedo¹¹; D. Borchiellini¹²; R. S. McDermott¹³; J. Bedke¹⁴; S. Tamada¹⁵; L. Yin¹⁶; M. Chen¹⁶; L. R. Molife¹⁷; M. B. Atkins¹⁸; T. Powles¹⁹

¹Fox Chase Cancer Center, Philadelphia, PA, USA; ²Cleveland Clinic Taussig Cancer Institute, Cleveland, OH, USA (currently at Vanderbilt-Ingram Cancer Center, Nashville, TN, USA); ³Dnipropetrovsk Medical Academy of Ministry of Health of Ukraine, Dnipro, Ukraine; ⁴Russian Scientific Center of Roentgenoradiology, Moscow, Russia; ⁵The Christie NHS Foundation Trust, Manchester, United Kingdom; ⁶Central Clinical Hospital With Outpatient Clinic, Moscow, Russia; ⁷CHU of Quebec and Laval University, Quebec City, QC, Canada; ⁸Centre Hospitalier de l'Université de Montréal, Montréal, QC, Canada; ⁹Palacky University Medical School and Teaching Hospital, Olomouc, Czech Republic; ¹⁰Sumy State University, Sumy Regional Oncology Center, Sumy, Ukraine; ¹¹Hospital de Clínicas de Porto Alegre, Porto Alegre, Brazil; ¹²Centre Antoine Lacassagne, Université Côte d'Azur, Nice, France; ¹³Adelaide and Meath Hospital and University College Dublin, Dublin, Ireland; ¹⁴Eberhard-Karls University Tübingen, Tübingen, Germany; ¹⁵Osaka City University Hospital, Osaka, Japan; ¹⁶Merck & Co., Inc., Kenilworth, NJ, USA; ¹⁷MSD UK, London, United Kingdom; ¹⁸Georgetown Lombardi Comprehensive Cancer Center, Washington, DC, USA; ¹⁹Barts Health NHS Trust and the Royal Free NHS Foundation Trust, Barts Cancer

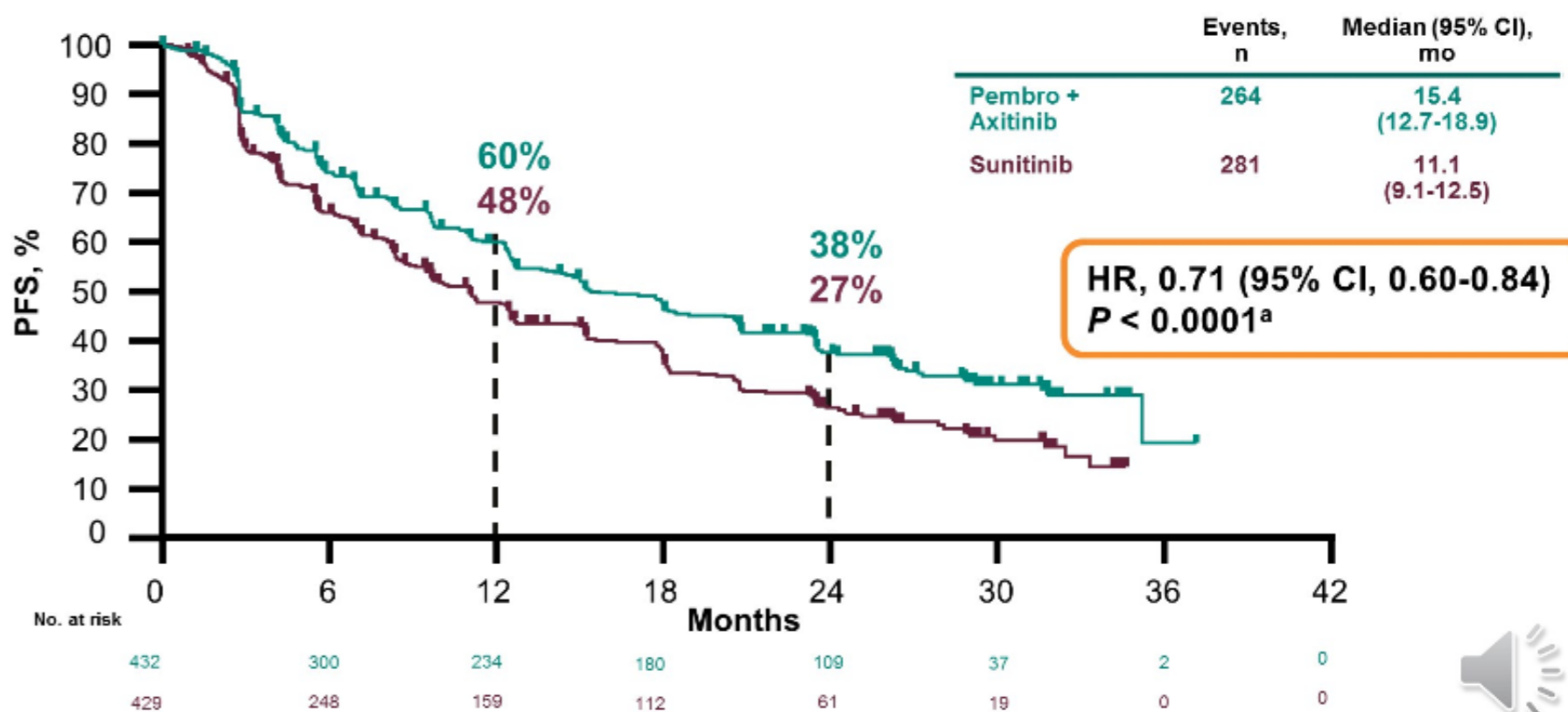


n (%)	Pembrolizumab + Axitinib n = 312	Sunitinib n = 349
Received any subsequent therapy	170 (54.5)	242 (69.3)
By type of treatment		
Any PD-1/PD-L1 inhibitor	25 (8.0)	169 (48.4)
Any VEGF/VEGFR inhibitor	153 (49.0)	159 (45.6)
Other	47 (15.1)	54 (15.5)

OS in the ITT Population

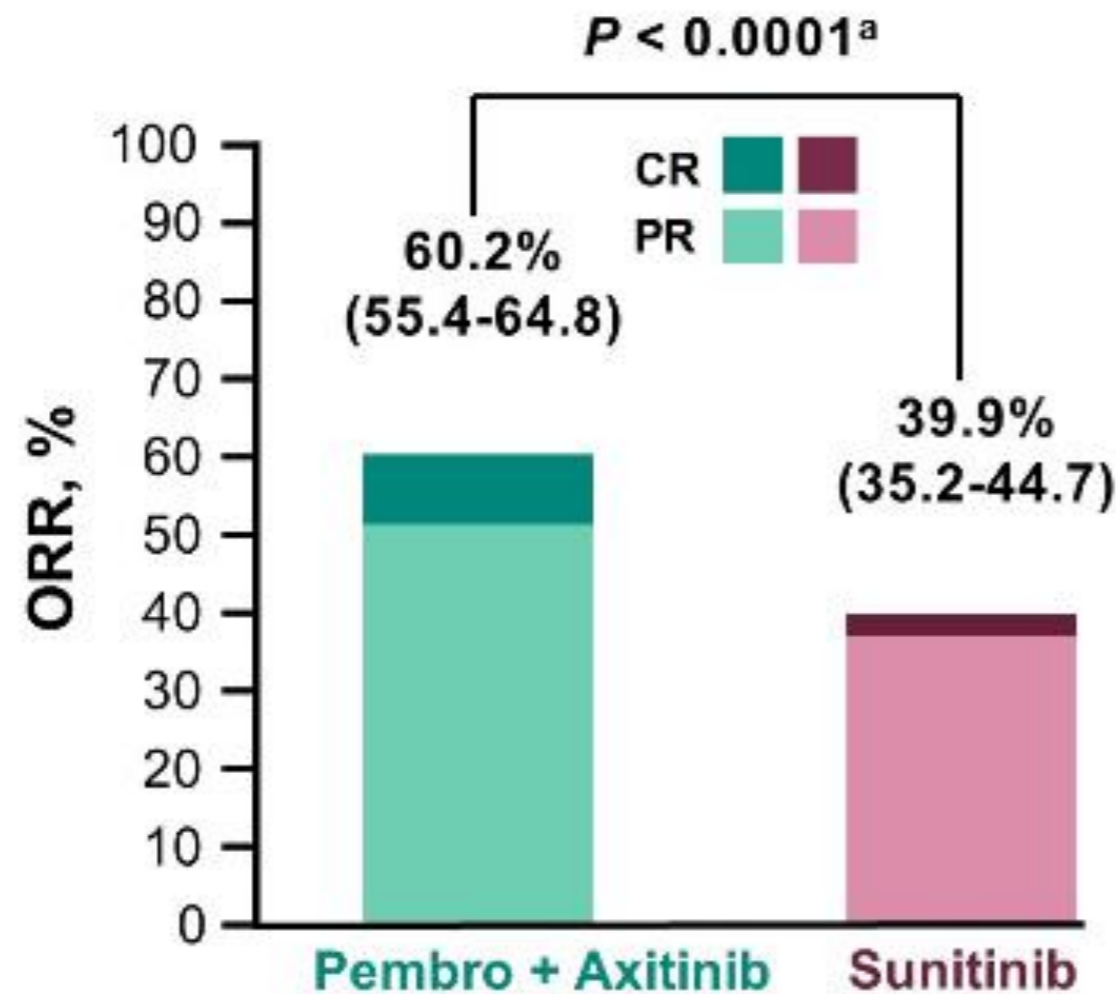


PFS in the ITT Population



Elizabeth R Plimack, et al. ASCO © 2020.
Abstract 5001.

Percento objektívnych odpovedí (ITT populácia)



	Pembro + Axitinib n = 432	Sunitinib n = 429
Best response, n (%)		
CR	38 (8.8)	13 (3.0)
PR	222 (51.4)	158 (36.8)
SD	100 (23.1)	150 (35.0)
PD	49 (11.3)	74 (17.2)
NE ^b	16 (3.7)	28 (6.5)
NA ^c	7 (1.6)	6 (1.4)
Duration of response, median (range), mo		
	23.5 (1.4+ to 34.5+)	15.9 (2.3 to 31.8+)

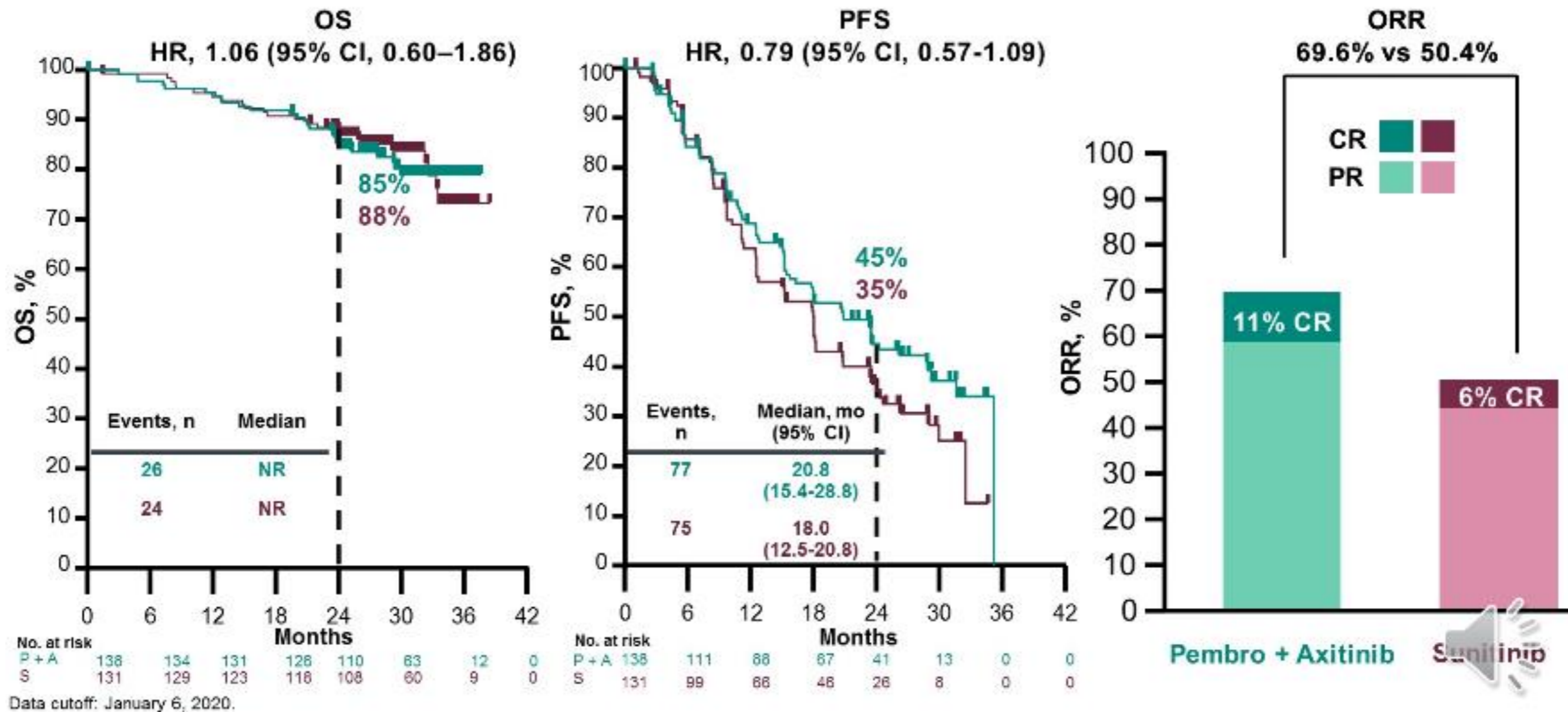
^aBecause superiority of pembrolizumab + axitinib was shown at the first interim analysis, no alpha was allocated to confirmed objective response; only nominal *P* values are reported. ^bPostbaseline assessment available but not evaluable (ie, all postbaseline assessments with insufficient data for assessment of response per RECIST v1.1 or CR/PR/SD <6 weeks from randomization).

^cNo postbaseline assessment available for response evaluation; + indicates an ongoing response at time of last disease assessment. Data cutoff: January 6, 2020.



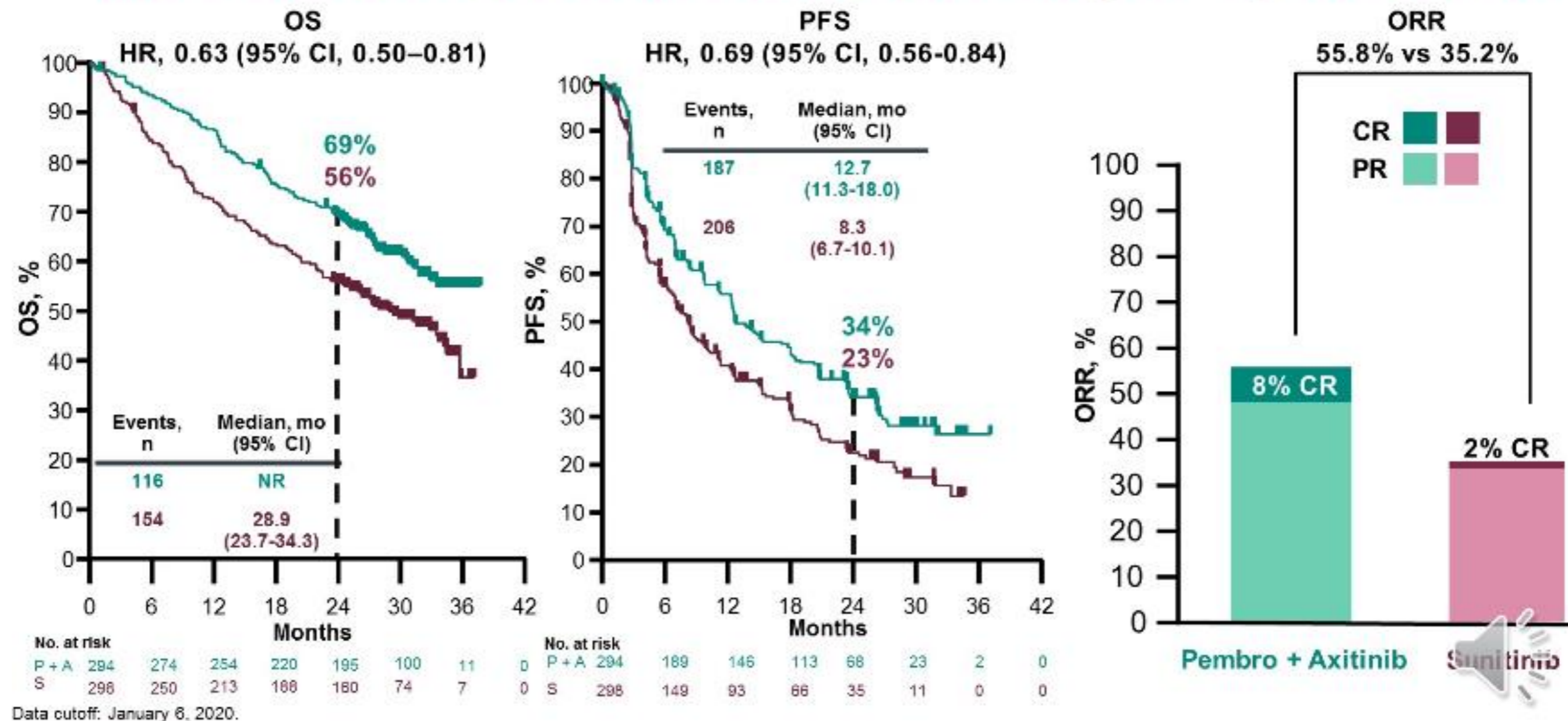
Výsledky podľa prognostických skupín

IMDC Favorable Risk: OS, PFS, and ORR



Výsledky podľa prognostických skupín

IMDC Intermediate/Poor Risk: OS, PFS, and ORR



Phase II Study of Nivolumab and Salvage Nivolumab + Ipilimumab in Treatment-Naïve Patients with Advanced Renal Cell Carcinoma (HCRN GU16-260)

Michael B. Atkins¹, Opeyemi A. Jegede², Naomi B. Haas³, David F. McDermott⁴, Mehmet A. Bilen⁵, Charles G. Drake⁶, Jeffrey A. Sosman⁷, Robert Alter⁸, Elizabeth R. Plimack⁹, Brian Rini¹⁰, Michael Hurwitz¹¹, David Peace¹², Sabina Signoretti¹³, Catherine J. Wu², Paul J. Catalano², Hans Hammers¹⁴

¹Georgetown-Lombardi Comprehensive Cancer Center, Washington, DC; ²Dana Farber Cancer Institute, Boston, MA; ³University of Pennsylvania Abramson Cancer Center, Philadelphia, PA; ⁴Beth Israel Deaconess Medical Center, Boston, MA; ⁵Winship Cancer Institute of Emory University, Atlanta, GA; ⁶Columbia Herbert Irving Comprehensive Cancer Center, New York, NY; ⁷Northwestern Lurie Comprehensive Cancer Center, Chicago, IL; ⁸John Theurer Cancer Center, Hackensack, NJ; ⁹Fox Chase Cancer Center, Philadelphia, PA; ¹⁰Cleveland Clinic Taussig Cancer Institute, Cleveland, OH (currently at Vanderbilt-Ingram Cancer Center, Nashville, TN); ¹¹Yale-Smilow Comprehensive Cancer Center, New Haven, CT; ¹²University of Illinois Chicago, Chicago, IL; ¹³Brigham and Women's Hospital Boston, MA; ¹⁴University of Texas Southwestern Sammons Cancer Center, Dallas, TX.

Objective Response Rates: Nivo Monotherapy: Part A

Best Response N (%)	IMDC Risk Category (N)			Total (N= 123) N (%)
	Favor (30) N (%)	Interm (80) N (%)	Poor (12) N (%)	
CR	4 (13.3)	3 (3.8)	0	7 (5.7)
PR*	11 (36.7)	17 (21.2)	3 (25)	32 (26.0)
SD	15 (50.0)	26 (32.5)	5 (42)	46 (37.4)
PD	0	34 (42.5)	4 (33)	38 (30.9)
ORR	15/30 (50)	20/80 (25)	3/12 (25)	39/123 (31.7)
(95% CI) %	(31.3,68.7)	(16.6, 35.1)		(23.6, 40.7)

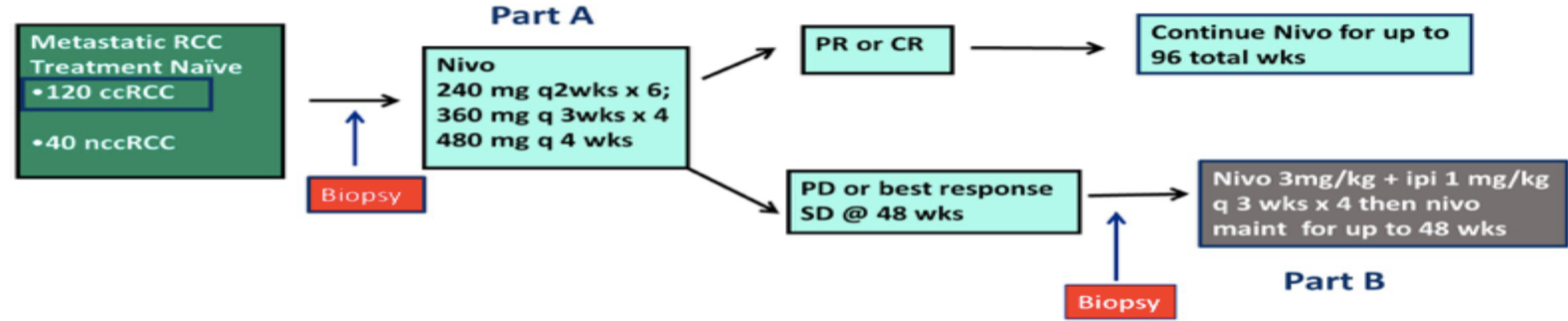
* 1 PR with missing IMDC Risk Category

ORR: 39/123 = 31.7%
95% CI (23.6, 40.7%)

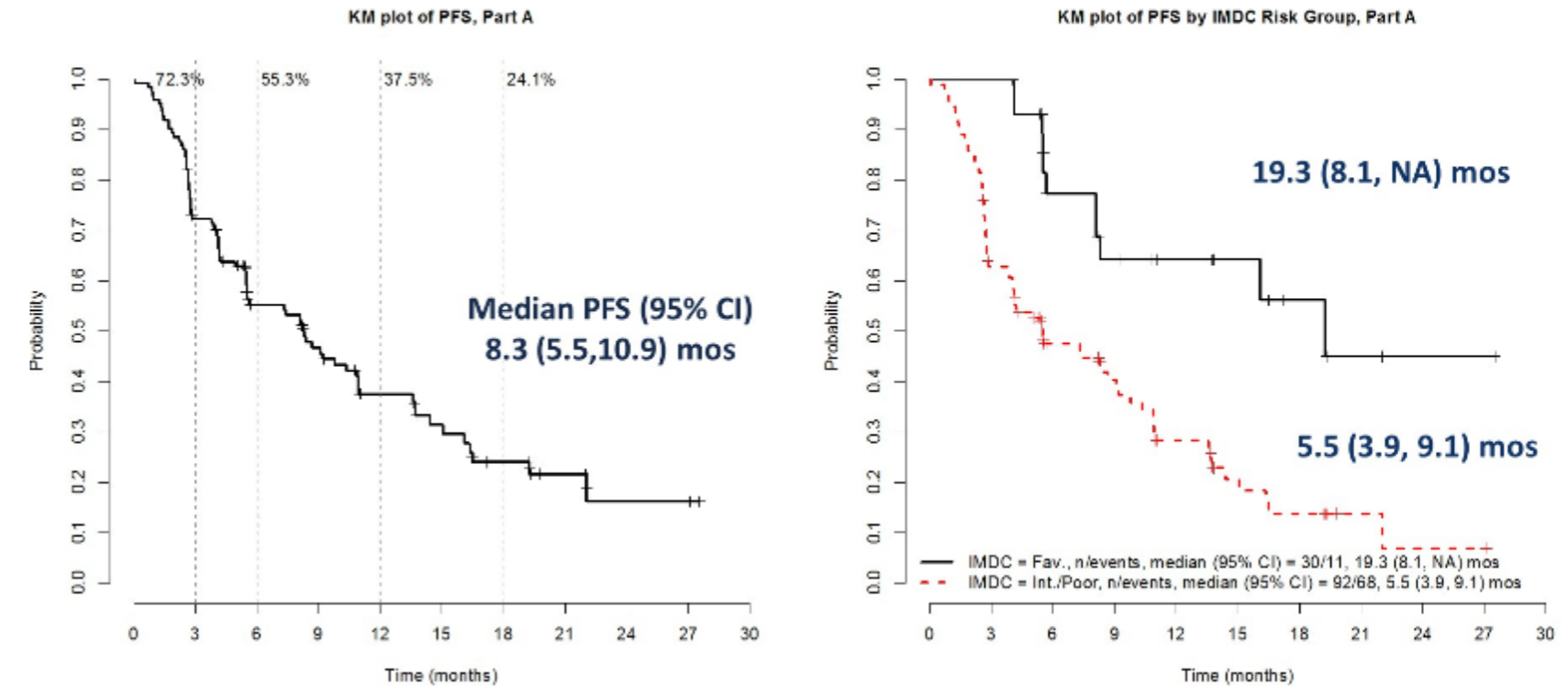
Sarcomatoid RCC ORR:
7/22 = 31.8% (all PRs)
95% CI (13.9, 54.9%)

HCRN GU16-260: Study Design

IIT at 12 sites conducted through the HCRN GU Group
Support provided by BMS (CM209-669)



Progression Free Survival: Nivo Monotherapy (Part A)



Objective Response Rates: Nivo/Ipi Salvage (Part B)

Best Response N (%)	IMDC Risk Category (N=30)			Total N (%)
	Favor (4)	Interm (24)	Poor (2)	
CR	0	0	0	0
PR	2 (50)	2 (8.3)	0	4 (13.3)
SD	1 (25)	6 (25)	0	7 (23.3)
PD	1 (25)	16 (66.7)	2 (100)	19 (63.3)

ORR: 4/30 = 13.3%
95% CI (3.8, 30.7)

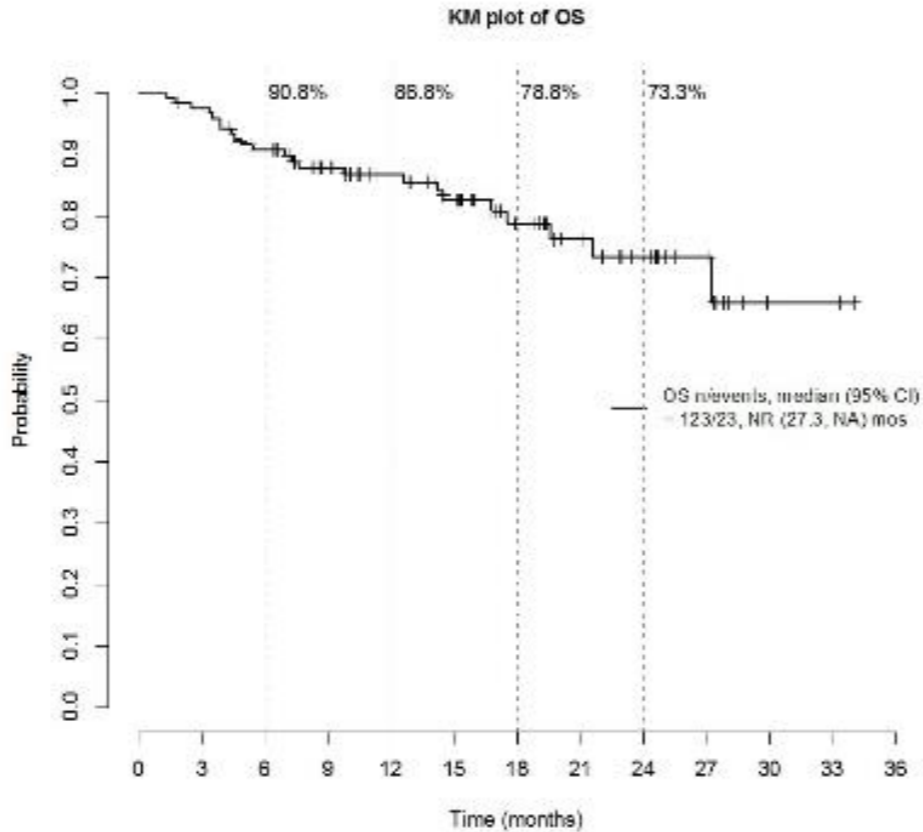
Treatment Emergent Toxicity: Nivo/Ipi Salvage (Part B)

N=30	Grade 2: N (%)	Grade ≥ 3: N (%)
Fatigue	5 (17%)	2 (7%)
Colitis/Diarrhea	2 (7%)	4 (13%)
Endocrine	2 (7%)	1 (3%)
Hepatic	0	1 (3%)
Renal	0	2 (7%)
Lipase	6 (20%)	7 (23%)
Pulmonary	1 (3%)	1 (3%)
Myositis/myocarditis	2 (7%)	1 (3%)
Skin	5 (17%)	2 (7%)

Grade ≥ 3 Toxicity
12/30 = 40%

7 of 12 ↑Lipase

Overall Survival: ccRCC



100/123 = 81% of patients remain alive

Ďakujem za pozornosť

prim. JUDr. MUDr. **Patrik Palacka**, PhD., MPH, MBA, LL.M.
II. onkologická klinika Lekárskej fakulty UK v Bratislave
Národný onkologický ústav, Klenová 1, 833 10 Bratislava 3

Email: patrik.palacka@nou.sk

Kontakt: +421-2-59378-111