Optimal Use of Chemotherapy with or without Biologic Therapy for Metastatic NSCLC

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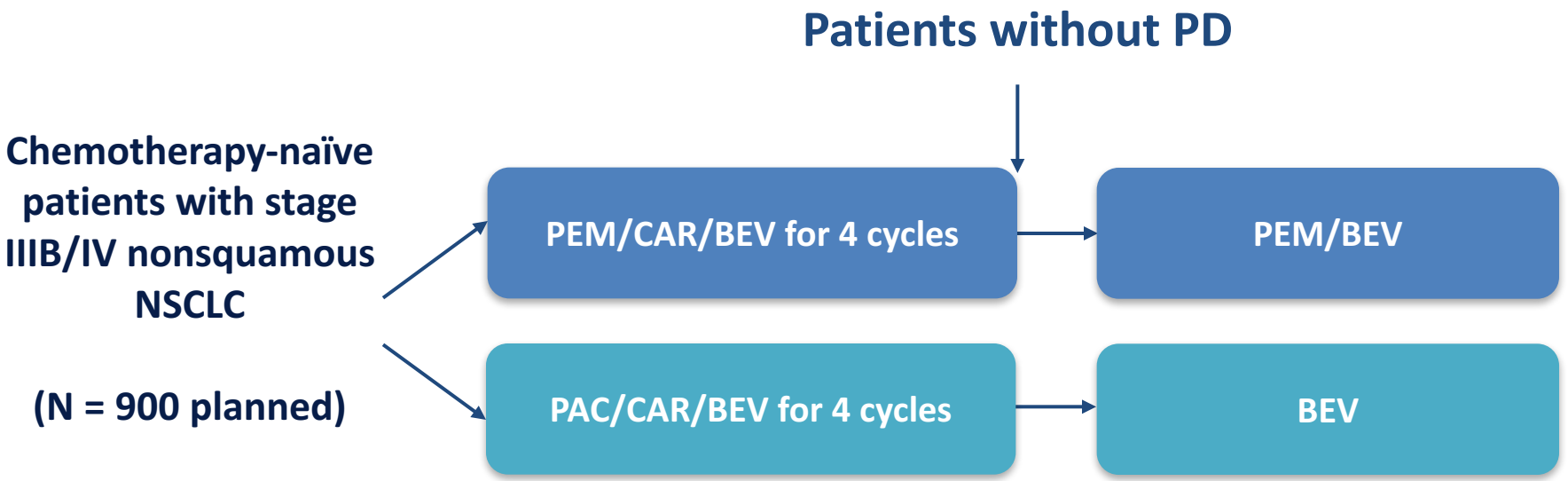
Disclosures

Advisory Committee	AbbVie Inc, Ariad Pharmaceuticals Inc, AstraZeneca Pharmaceuticals LP, Baxalta Inc, INC Research, Roche Laboratories Inc
Consulting Agreements	AbbVie Inc, Ariad Pharmaceuticals Inc, Astellas Pharma Global Development Inc, Baxalta Inc, Bristol-Myers Squibb Company, Genentech BioOncology, INC Research
Contracted Research and Speakers Bureau	AbbVie Inc, Ariad Pharmaceuticals Inc, Baxalta Inc, INC Research

PointBreak: PEM/BEV vs BEV as Maintenance in Nonsquamous NSCLC



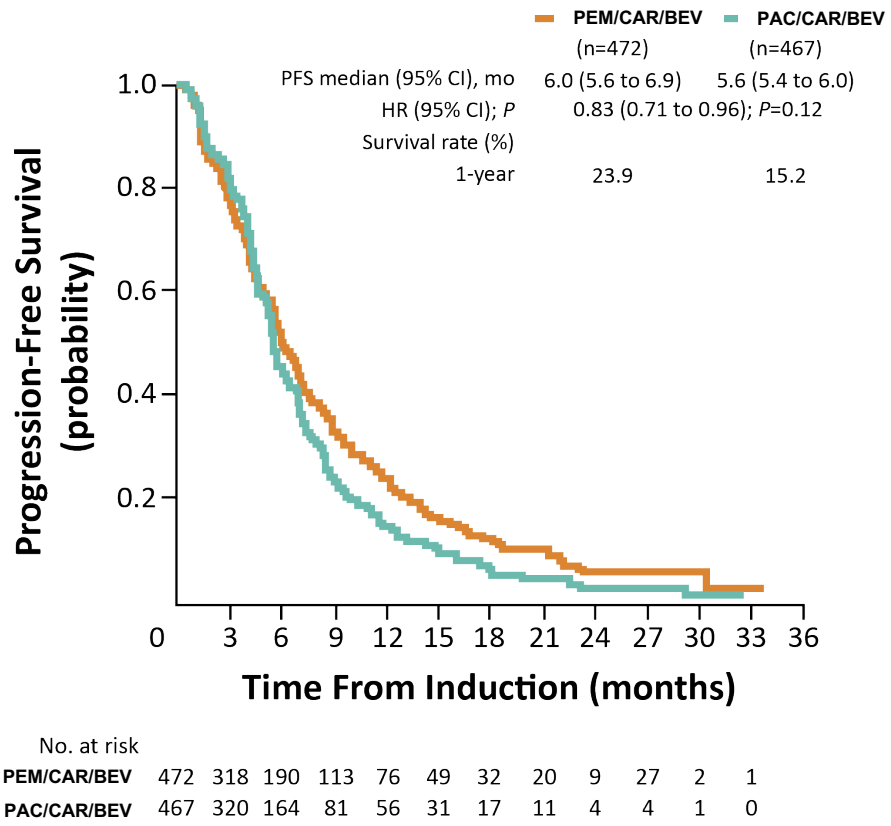
- Primary end point: OS
- Other end points: PFS, ORR, safety, QOL, PK

PEM = pemetrexed; CAR = carboplatin; BEV = bevacizumab; PAC = paclitaxel

Patel J et al. *J Clin Oncol* 2013;31:4349-57.

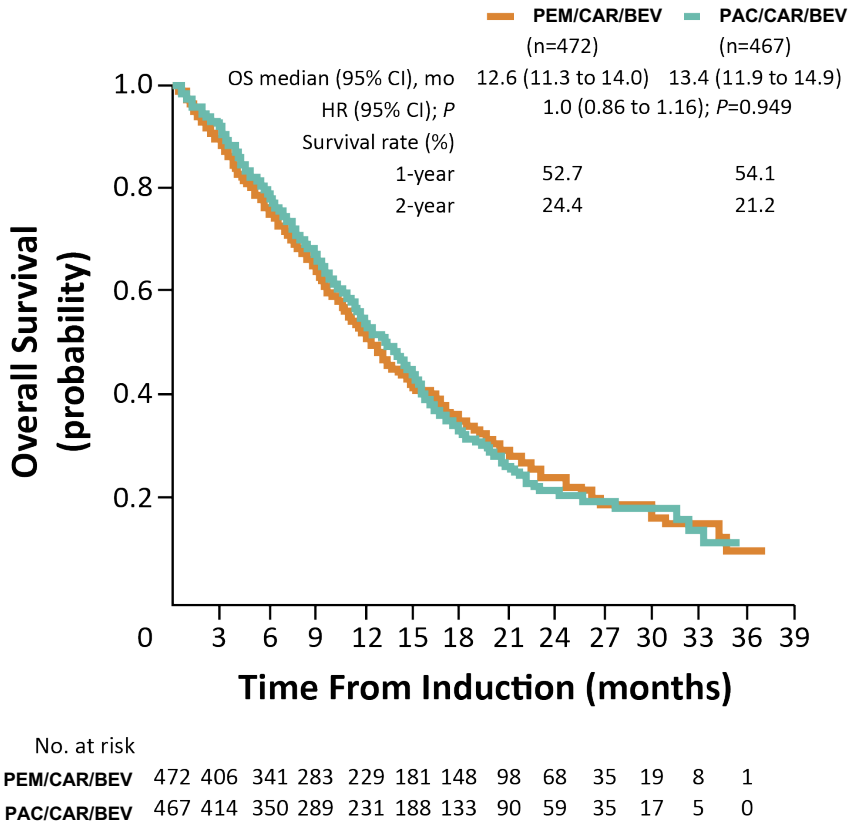
PFS and OS Results from POINTBREAK Trial

Progression-Free Survival



No. at risk												
PEM/CAR/BEV	472	318	190	113	76	49	32	20	9	27	2	1
PAC/CAR/BEV	467	320	164	81	56	31	17	11	4	4	1	0

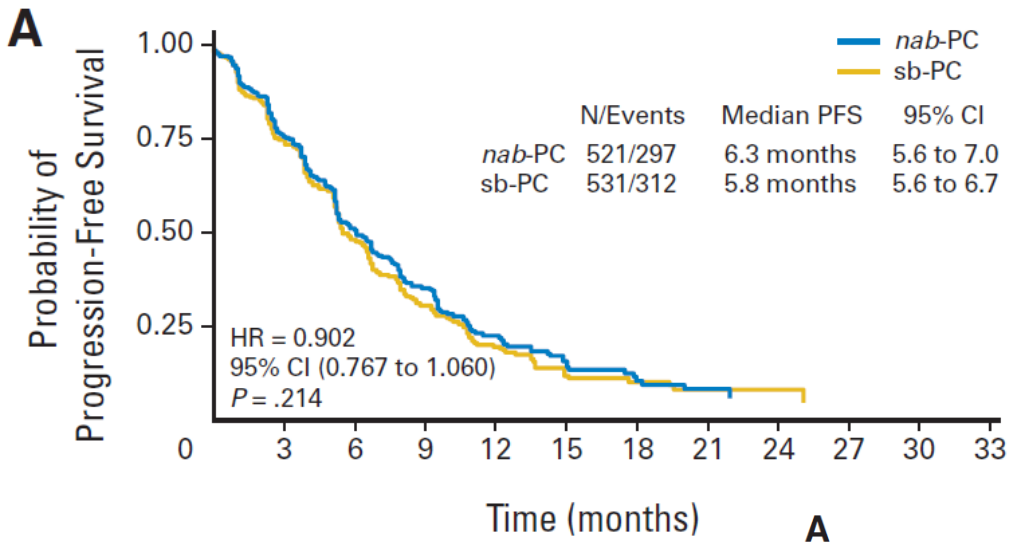
Overall Survival

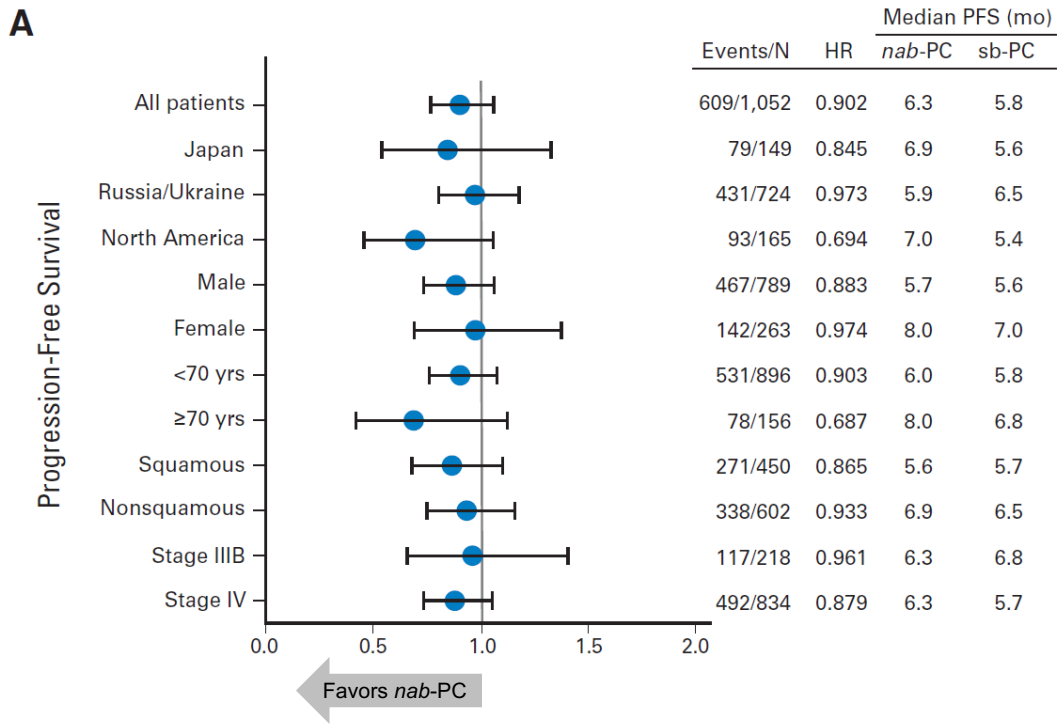


No. at risk													
PEM/CAR/BEV	472	406	341	283	229	181	148	98	68	35	19	8	1
PAC/CAR/BEV	467	414	350	289	231	188	133	90	59	35	17	5	0

Patel J et al. *J Clin Oncol* 2013;31:4349-57.

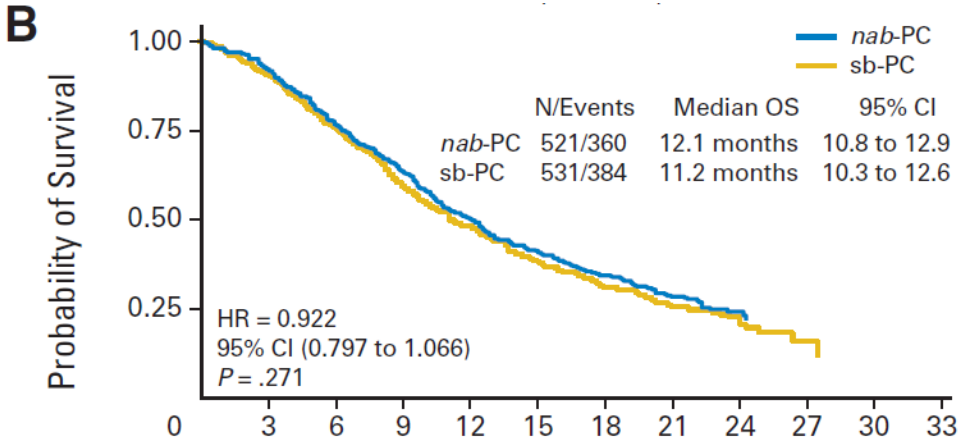
Nab Paclitaxel in Metastatic NSCLC

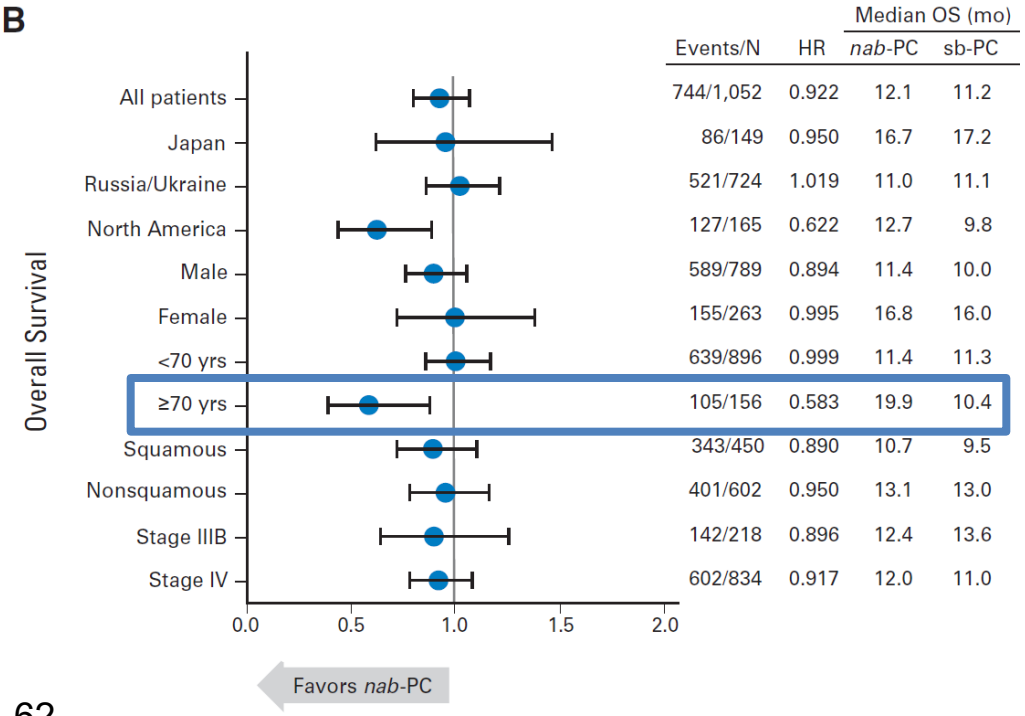




Socinski MA. *J Clin Oncol* 2012;30:2055-62.

Nab Paclitaxel in Metastatic NSCLC





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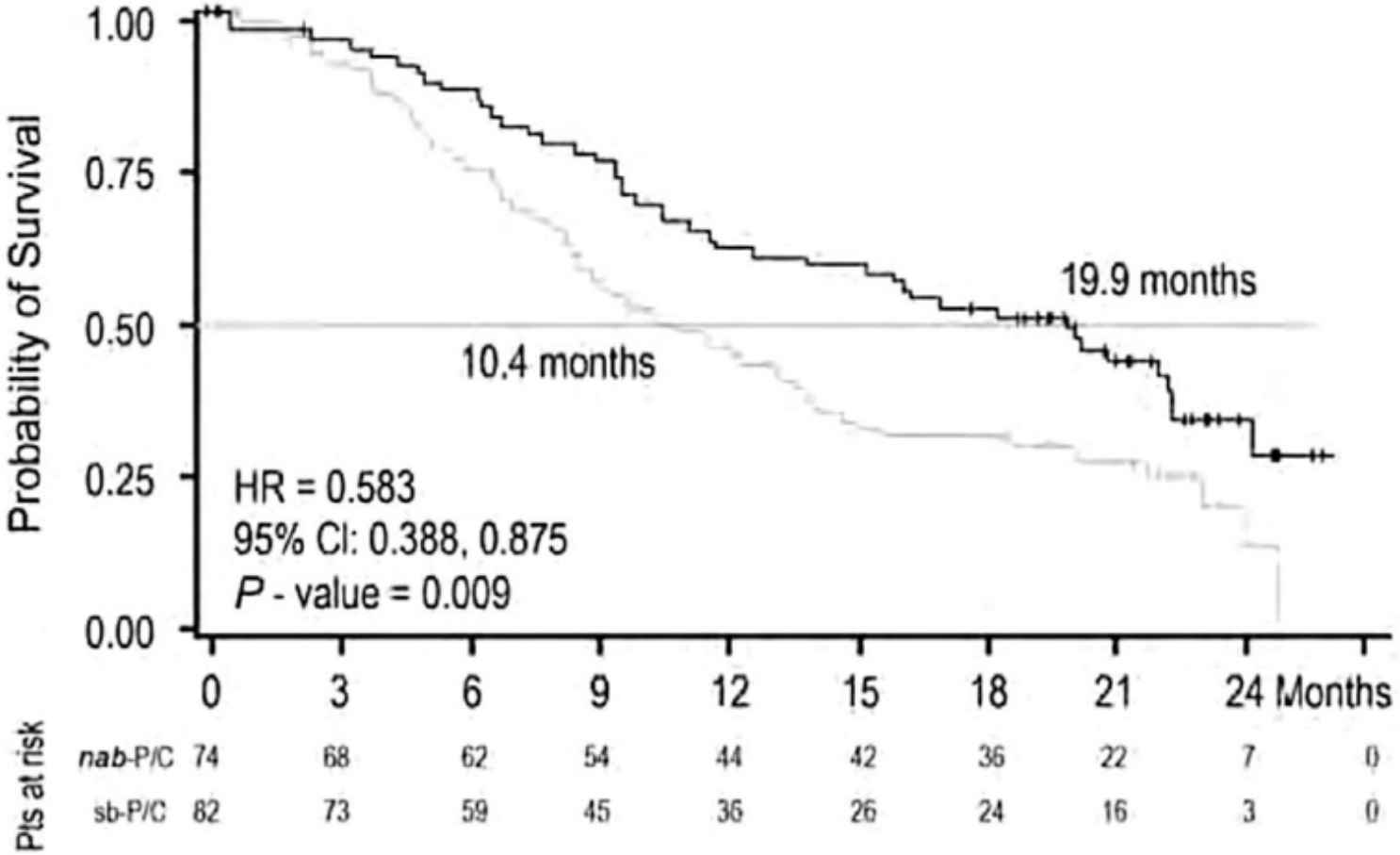
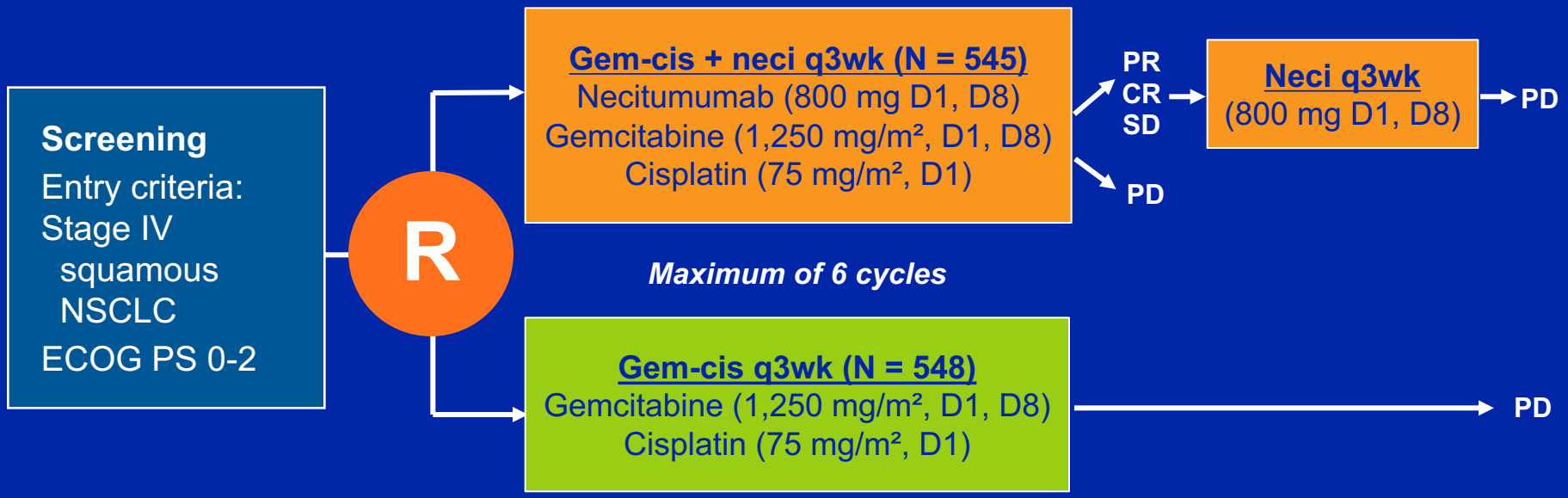
Nab Paclitaxel in Metastatic NSCLC



Villaruz LC. *Eur J Cancer* 2016;56:162-71.

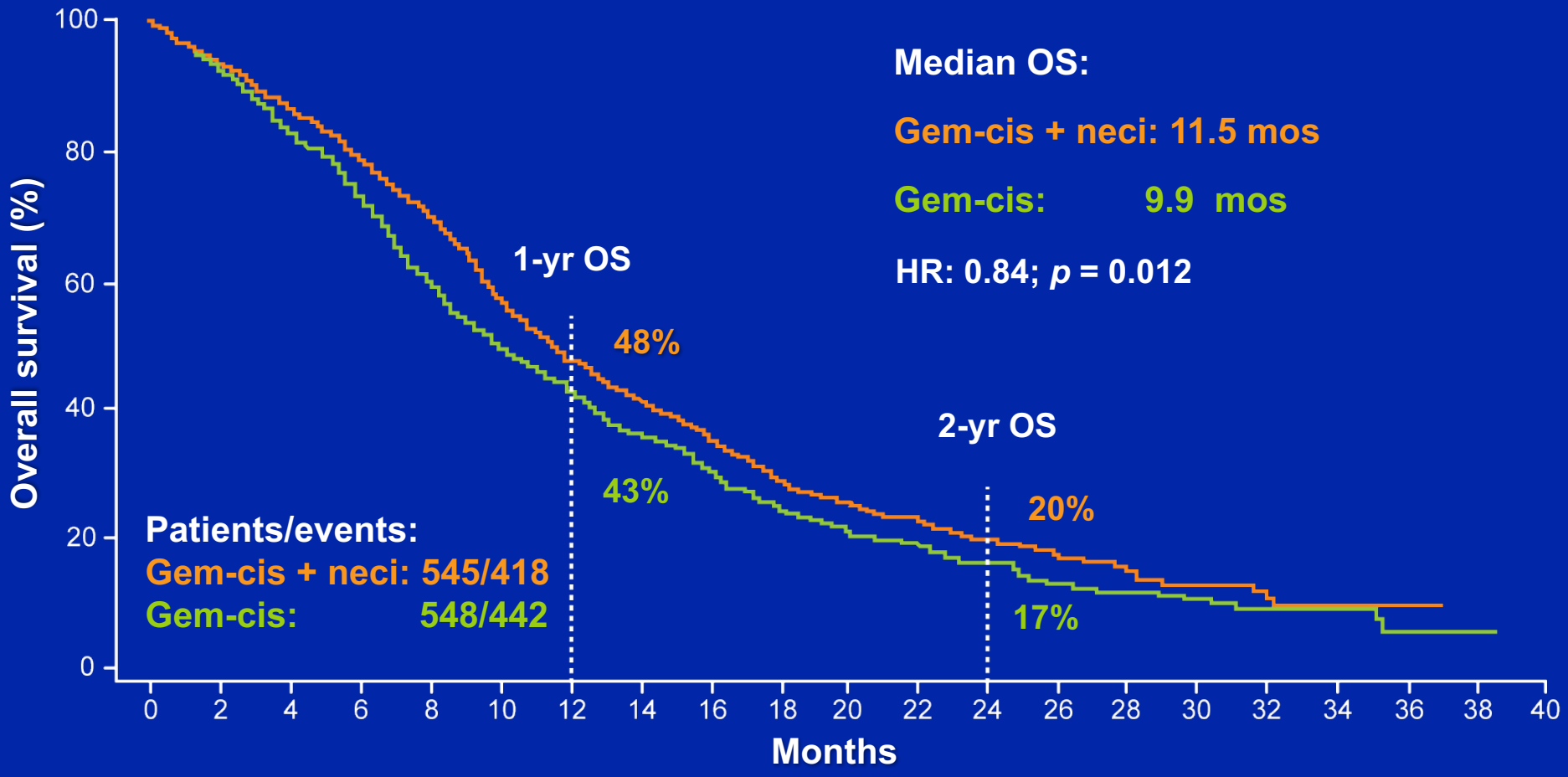
SQUIRE: Necitumumab with Cisplatin/Gemcitabine in Stage IV Squamous Carcinoma of the Lung



Primary endpoint: Overall survival

Thatcher N et al. *Lancet Oncol* 2015;16(7):763-74.

SQUIRE: Primary Outcome Overall Survival (ITT)

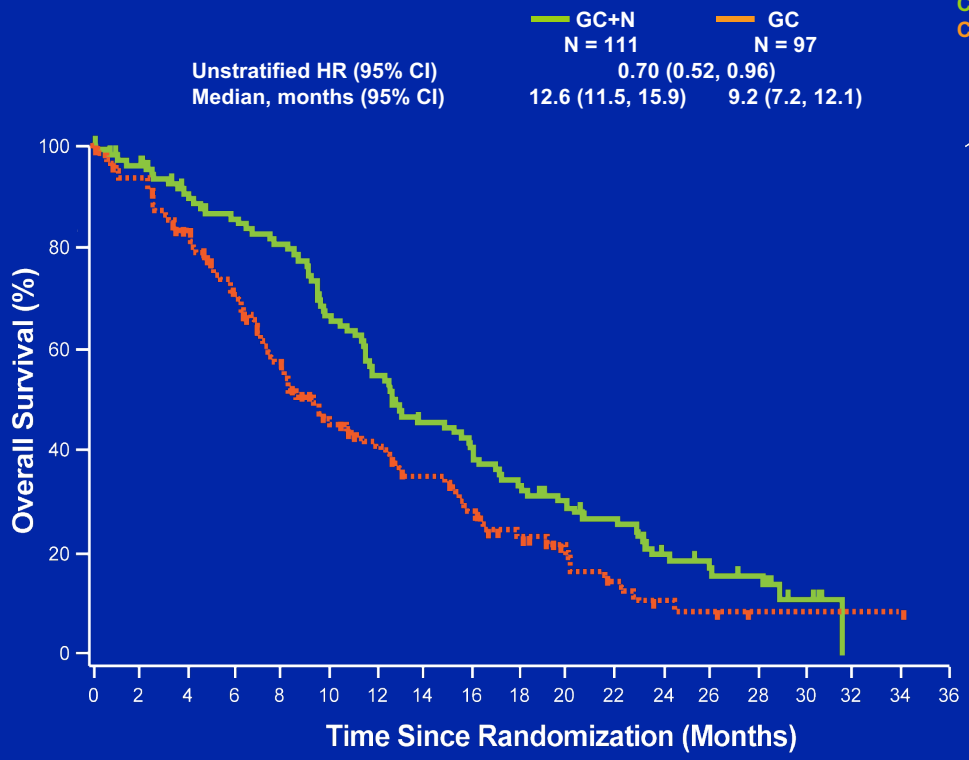


Toxicities (Gr ≥ 3) – Skin rash 7.0% vs <1%, hypomagnesemia 9.0% vs <1%, HSR 0.4% vs 0.0

Thatcher N et al. *Lancet Oncol* 2015;16(7):763-74.

Overall Survival in Patients With EGFR-Positive NSCLC

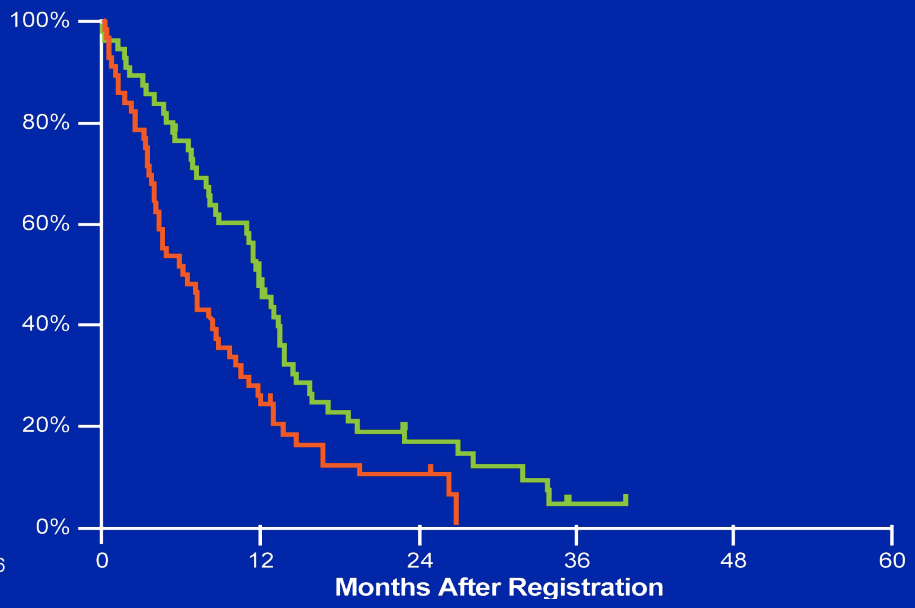
SQUIRE (EGFR FISH+)[1]



S0819 (SqCLC-EGFR FISH+)[2]

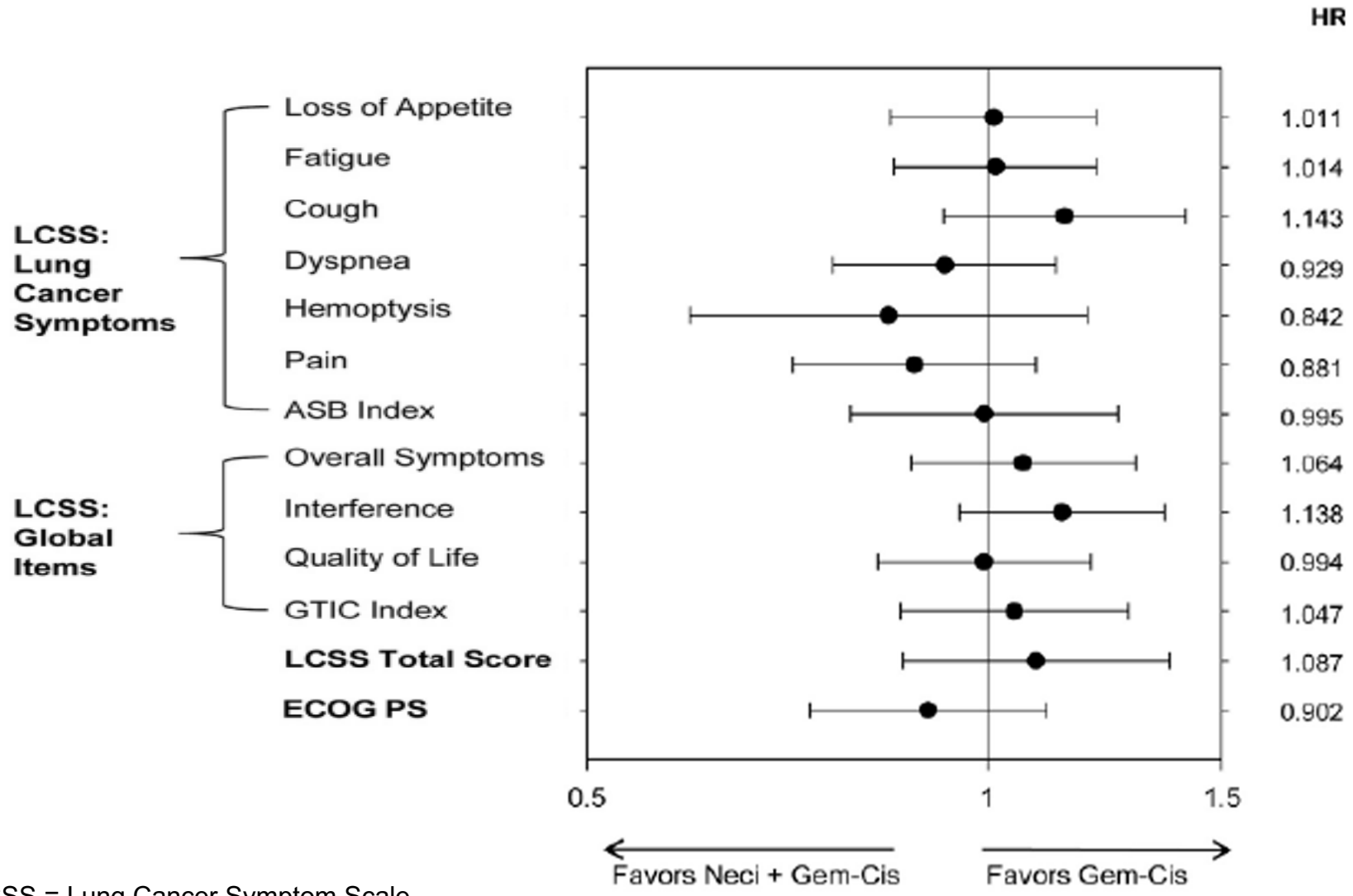
	N	Events	Median in Months	95% Conf. Int
Cetuximab Arm	55	50	11.8	(8.6 – 13.5)
Control Arm	56	52	6.4	(4.2 – 8.7)

P = 0.006
HR=0.56 (0.37-0.84)



1. Hirsch FR et al. WCLC 2015;Abstract ORAL32.05;
2. Herbst R et al. WCLC 2015;Abstract PLEN04.01

SQUIRE: Quality of Life Analysis



LCSS = Lung Cancer Symptom Scale

Reck M et al. *J Thorac Oncol* 2016;11(6):808-18.

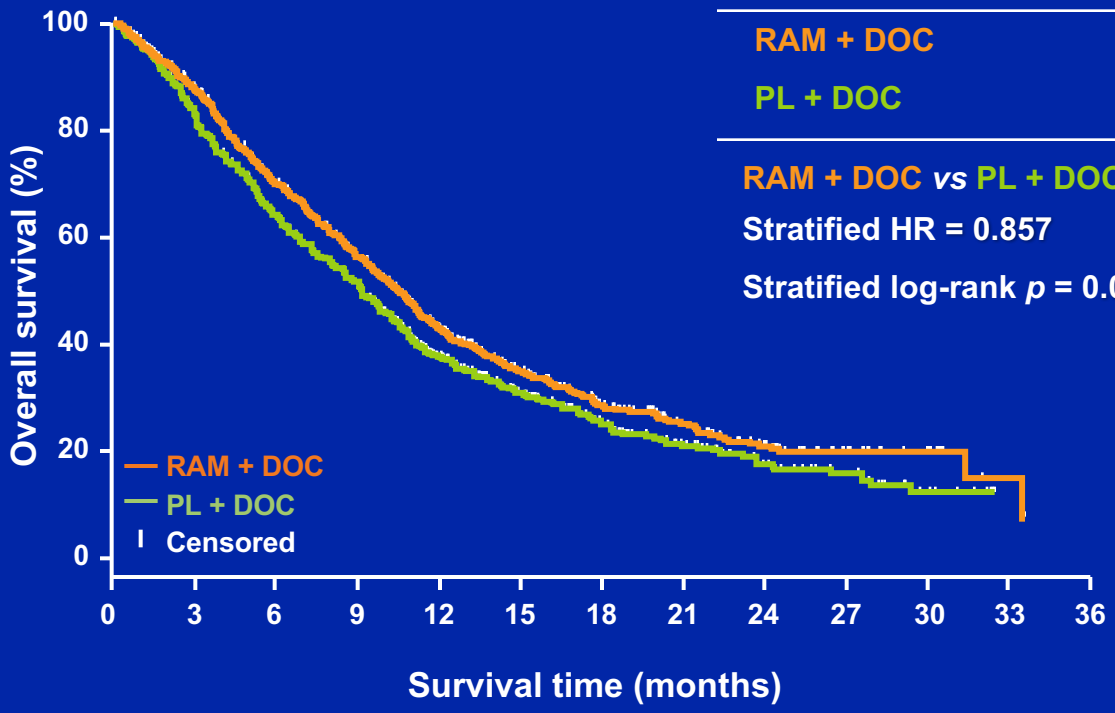
SQUIRE: Grade ≥3 Adverse Events during Chemotherapy and Continuation Phases

	Gem-Cis+Neci (N = 228)	Gem-Cis (N = 194)	Necitumumab (N = 228)
	Chemotherapy Phase		Continuation Phase
Neutropenia	33%	32%	0.4%
Febrile neutropenia	0.4%	2%	0.4%
Anemia	10%	9%	1%
Thrombocytopenia	10%	12%	0%
Fatigue	5%	4%	0.9%
Hypomagnesemia	15%	0.5%	2%
Rash	5%	0.5%	4%
Hypersensitivity/IRR	0%	0%	0%
Conjunctivitis	0%	0%	0.4%
Interstitial lung disease (pneumonitis)	0.4%	0%	0.4%
Arterial thromboembolic event	1%	0%	2%
Venous thromboembolic event	3%	1%	2%

Ciuleanu TE et al. *Proc IASLC* 2016;Abstract OA.23.02

REVEL: Docetaxel ± Ramucirumab in the Second-Line Setting

328 of 1,240 (26%) patients had squamous histology



	Median (95% CI)	Censoring rate
RAM + DOC	10.5	31.8%
PL + DOC	9.1	27.0%

RAM + DOC *vs* PL + DOC:

Stratified HR = 0.857

Stratified log-rank $p = 0.0235$

OS HR squamous subset = 0.88 (p = NS)

Toxicities (Gr ≥3): Fatigue/nausea 14 vs 10%, stomatitis 4 vs 2%

No increase in Gr 3-4 hemorrhage but Gr 1-2 hemorrhage = 26.5 vs 12.9% (largely epistaxis)

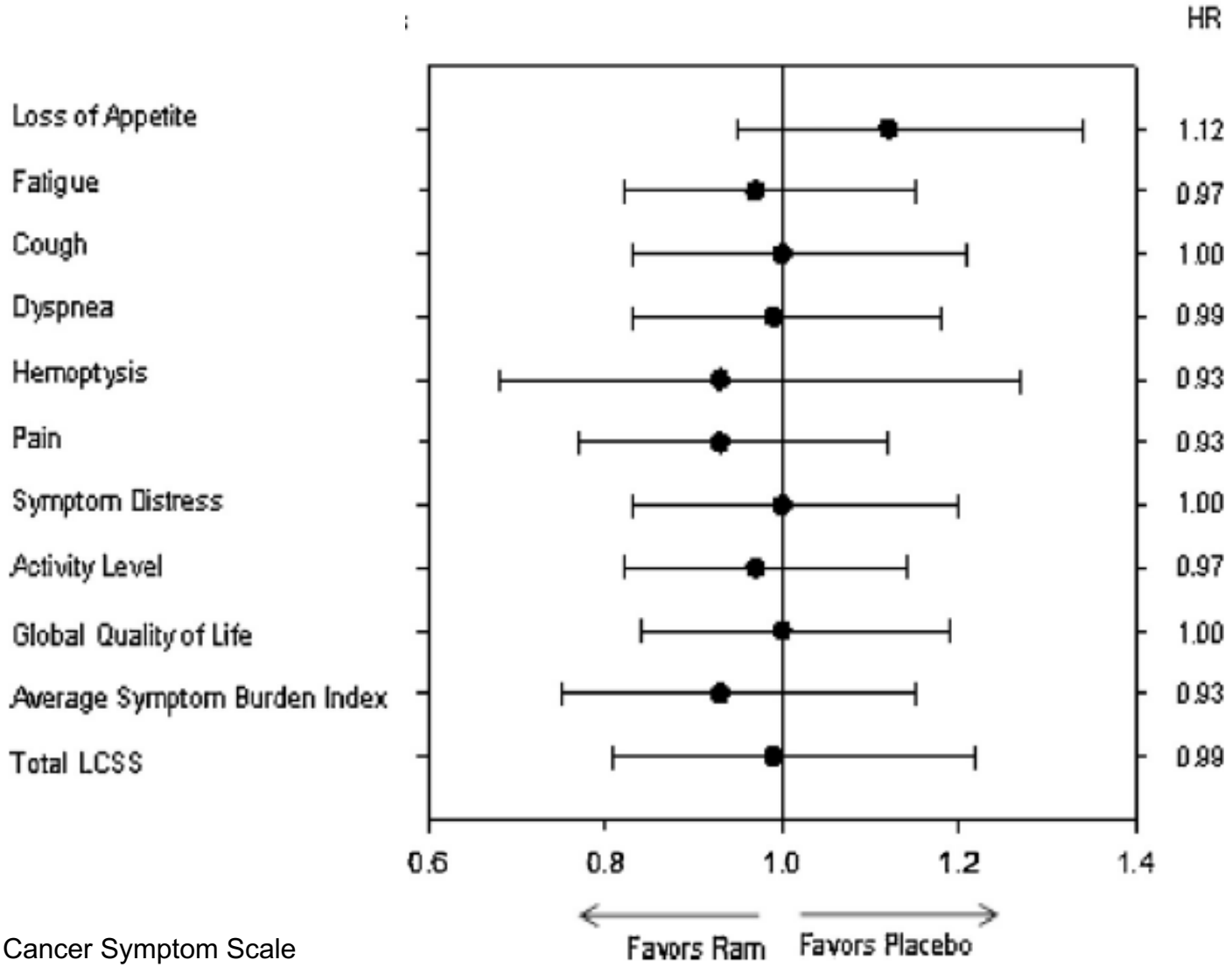
Garon EB et al. *Lancet* 2014;384(9944):665-73.

REVEL: Select Treatment-Emergent Adverse Events

	Ramucirumab + docetaxel (n = 627)		Placebo + docetaxel (n = 618)	
AEs	**Any Grade**	**Grade ≥3**	**Any Grade**	**Grade ≥3**
Fatigue	55%	14%	49%	10%
Hypertension	11%	6%	5%	2%
Neutropenia	55%	49%	45%	39%
Febrile neutropenia	16%	16%	10%	10%
Leucopenia	21%	14%	19%	12%

Garon EB et al. Lancet 2014; 384(9944):665-73.

REVEL: Quality of Life Analysis



LCSS = Lung Cancer Symptom Scale

Perol M et al. *Lung Cancer* 2016;93:95-103.

Abstracts of Interest ASCO 2017

- Progression after next line of therapy in patients enrolled in Keynote 024 (Pembro in frontline)
  - Abstract 9000- oral session Tuesday June 6 945 AM-1245 PM
- Optimal maintenance strategy based on response to induction therapy
  - Abstract 9003- oral session Tuesday June 6 945 AM-1245 PM
- Continued bevacizumab beyond progression
  - Abstract 9004-oral session Tuesday June 6 945 AM-1245 PM