SINGAPORE 2015 ESMO ASIA
ESMO ASIA 2015
18-21 DECEMBER, SINGAPORE

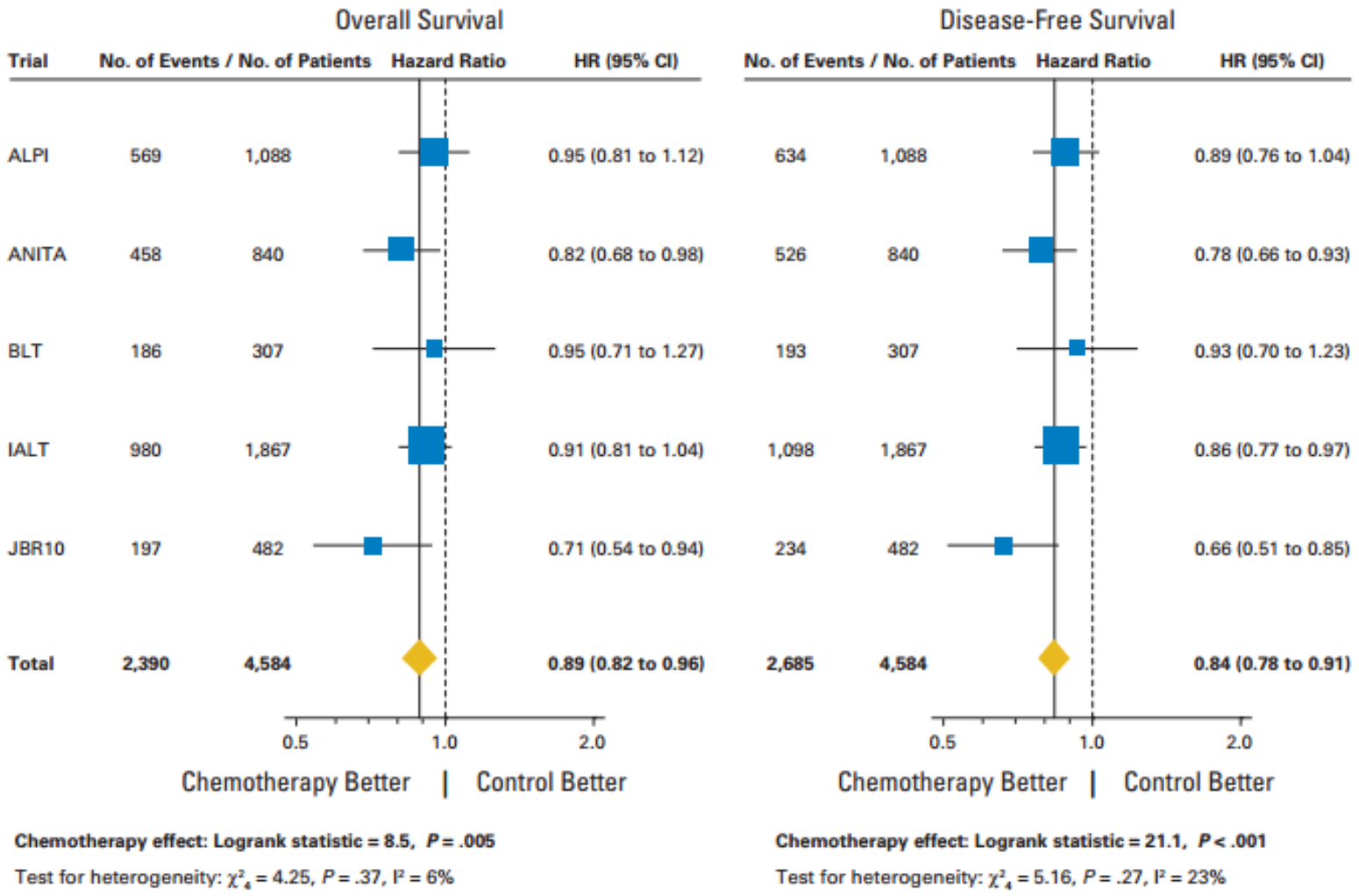
Highlights of 2015
Thoracic Cancers

Caicun Zhou

Shanghai Pulmonary Hospital, Tongji University, Shanghai, China

- Chemotherapy
- Targeted therapy
- Immunotherapy
- Other

Lung Adjuvant Cisplatin Evaluation: A Pooled Analysis by the LACE Collaborative Group



Pignon JP, et al. J Clin Oncol 2008 Jul 20;26(21):3552-9.

Randomized Phase III Trial of Adjuvant Chemotherapy with or without Bevacizumab in Resected NSCLC: Results of E1505

- Study objective
  - To evaluate the addition of bevacizumab to adjuvant chemotherapy in early stage resected NSCLC

Key patient inclusion criteria

- Resected
- Stage IB (≥4cm)–IIIA
- 6–12 weeks post-op
- No prior chemotherapy
- ECOG PS 0–1

(n=1,501)

R 1:1

Stratification

- Cisplatin doublet, stage, histology, gender

ARM A (n=749): Chemotherapy* x 4 cycles

ARM B (n=752): Chemotherapy* x 4 cycles + bevacizumab 15 mg/kg q3w x 1 yr

***Chemotherapy regimens q3w**

Cisplatin 75 mg/m^2 D1 combined with any of the following:

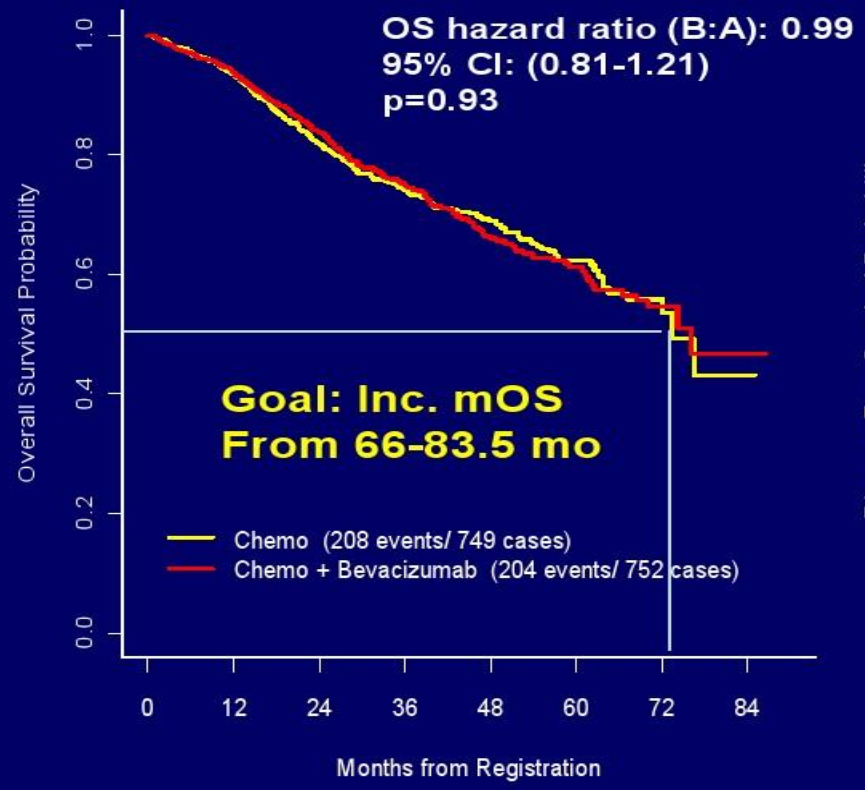
- vinorelbine 30 mg/m2 D1, 8
- docetaxel 75 mg/m2 D1
- gemcitabine 1200 mg/m2 D1, 8
- pemetrexed 500 mg/m2 D1

Primary endpoint: OS

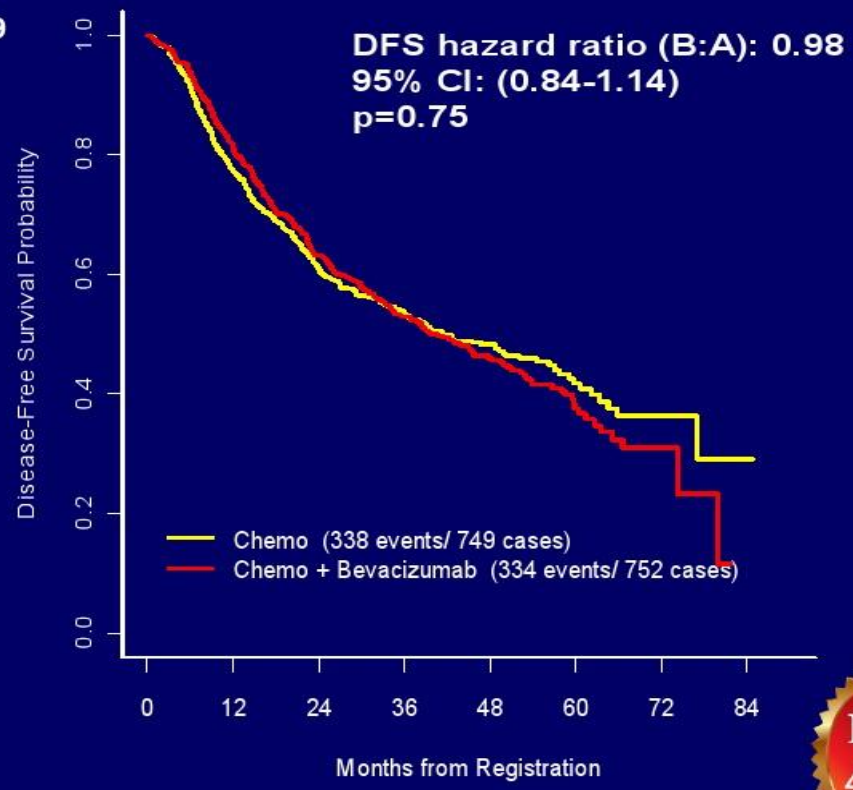
Secondary endpoints: DFS, safety

Wakelee HA, et al. J Thorac Oncol 2015; 10 (9, suppl 2); abstr PLEN04.03

Overall Survival

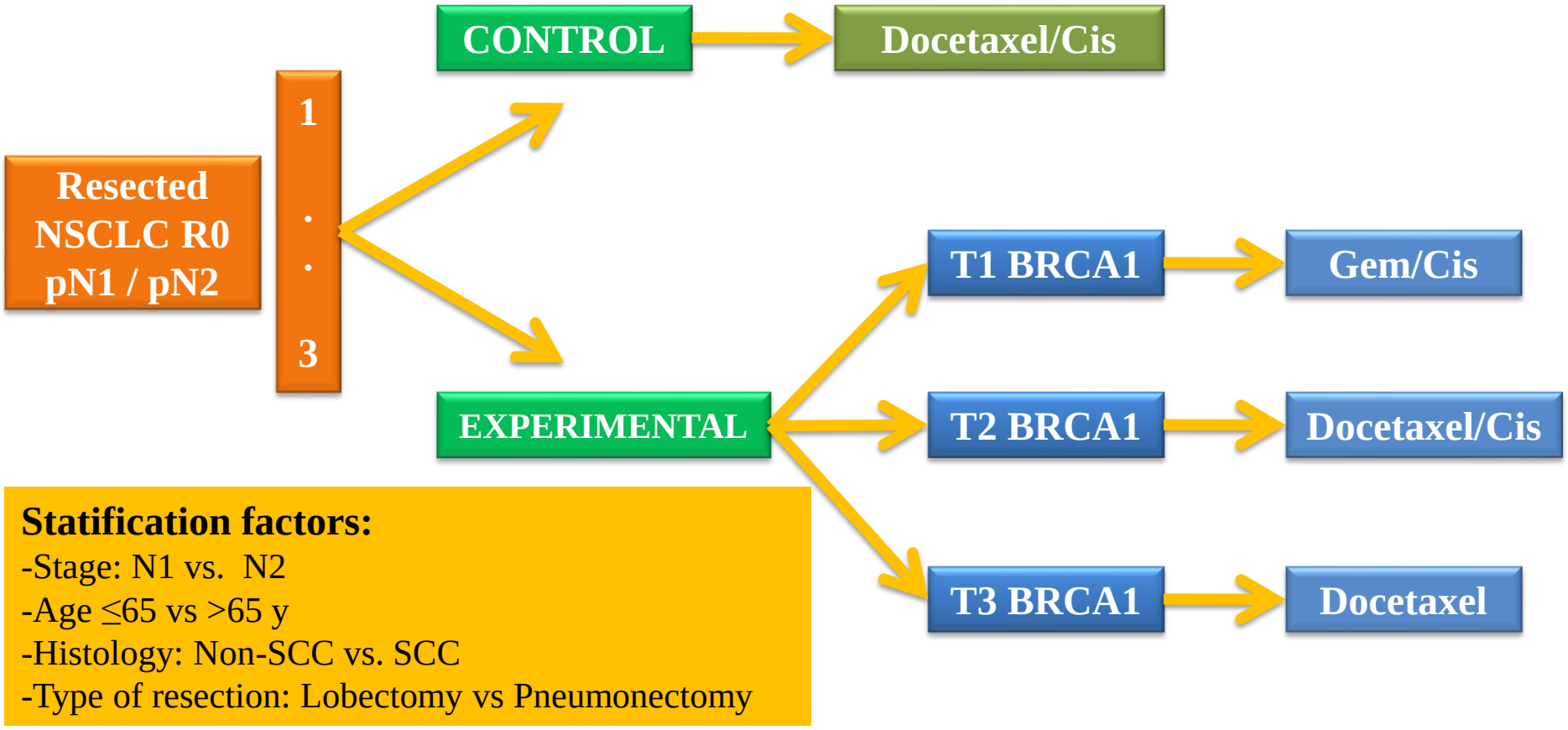


Disease Free Survival



IASLC 40 YEARS

Customized BRCA1 Adjuvant Treatment in Stage II-II NSCLC (SCAT)

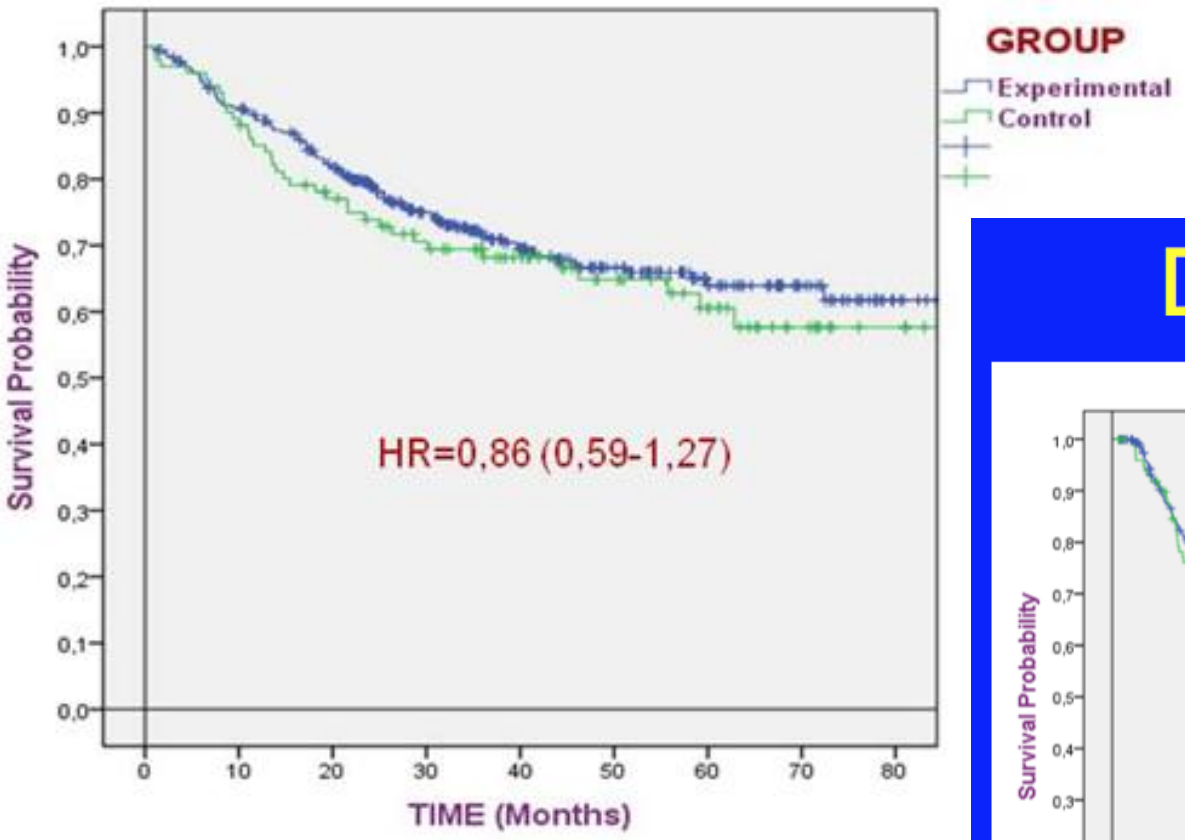


Statification factors:
-Stage: N1 vs. N2
-Age ≤65 vs >65 y
-Histology: Non-SCC vs. SCC
-Type of resection: Lobectomy vs Pneumonectomy

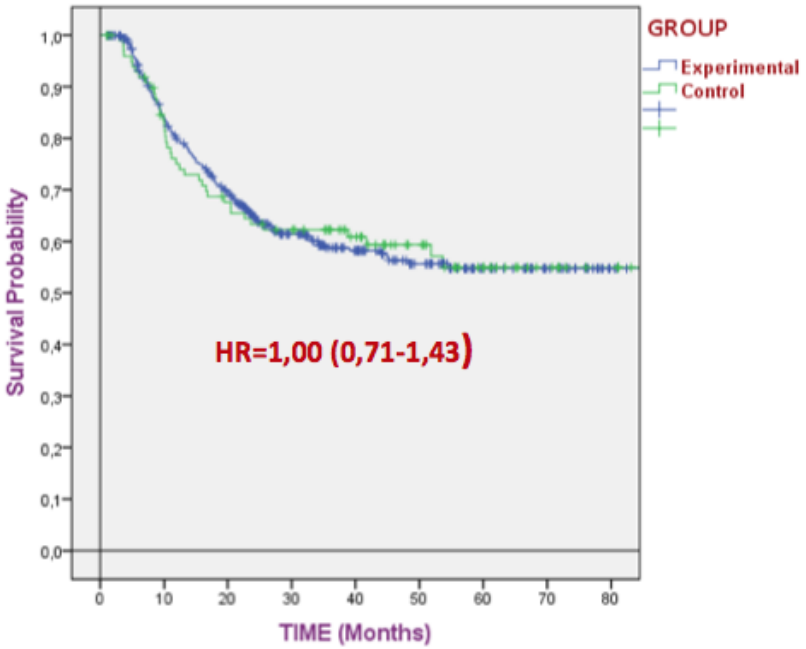
Planned number of patients : 432 (amended)
CT should be started before 8 weeks after surgery
PORT in N2 patients

Eudract: 2007-000067-15
NCTgov:00478699

Results/1 (cut-off March 15th 2015): Overall survival



DFS



Presented By Mark Socinski at 2015 ASCO Annual Meeting

Prospective Adjuvant Trials testing Biomarkers

Trial	Stage	Therapy	Marker
SWOG 0720	I	± Chemotherapy (cis/gem)	ERCC1/RRM1
ITACA	II-III	Cisplatin/Pemetrexed	ERCC1/TS
SCAT	II-IIIA	Platinum/Docetaxel	BRCA1
MAGRIT	IB-IIIA	MAGE A3 Vaccine	MAGE-A3
TASTE	II-IIIA	Erlotinib vs CDDP Pem	ERCC1/EGFR mut
RADIANT	IB-IIIA	Erlotinib vs Placebo	EGFR FISH or IHC+
SELECT	I and I N0	Erlotinib	EGFR mutation
GACT	II-IIIA N+	Gefitinib vs CDDP Vinorelbine	EGFR mutation

Nedaplatin plus docetaxel versus cisplatin plus docetaxel for advanced or relapsed squamous cell carcinoma of the lung(WJOG 5208L): a randomized,open label, phase 3 trial

- Study objective:
  - To determine the efficacy and safety of the combination of nedaplatin + docetaxel vs. cisplatin + docetaxel in patients with advanced or relapsed squamous cell carcinoma of the lung

Key patient inclusion criteria
- 20–74 years of age
- Stage IIIb/IV squamous cell carcinoma of the lung or recurrence
- Chemotherapy-naïve
- ECOG PS 0–1

(N=350)

R 1:1

Up to 6 cycles of:
Nedaplatin 100 mg/m^2 IV Q3W +
Docetaxel 60 mg/m^2 IV Q3W
(n=175)

Stratification
- Stage (IIIb, IV, or recurrent, gender, institution)

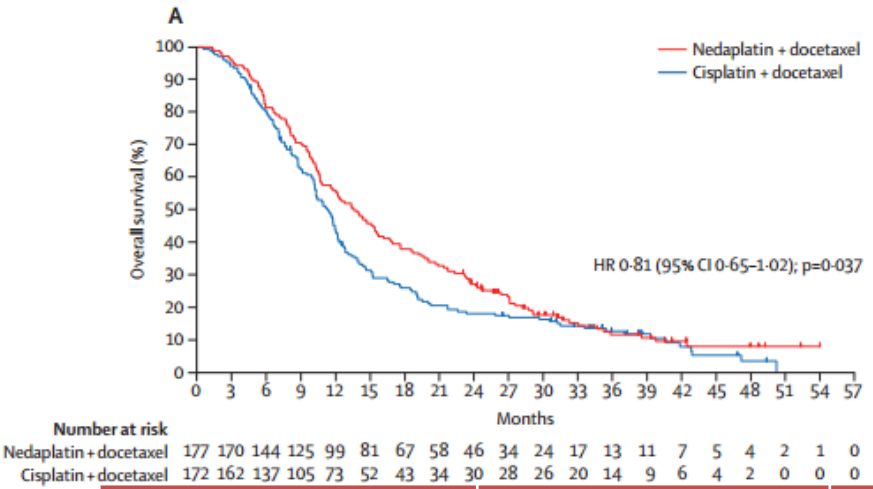
Up to 6 cycles of:
Cisplatin 80 mg/m^2 IV Q3W +
Docetaxel 60 mg/m^2 IV Q3W
(n=175)

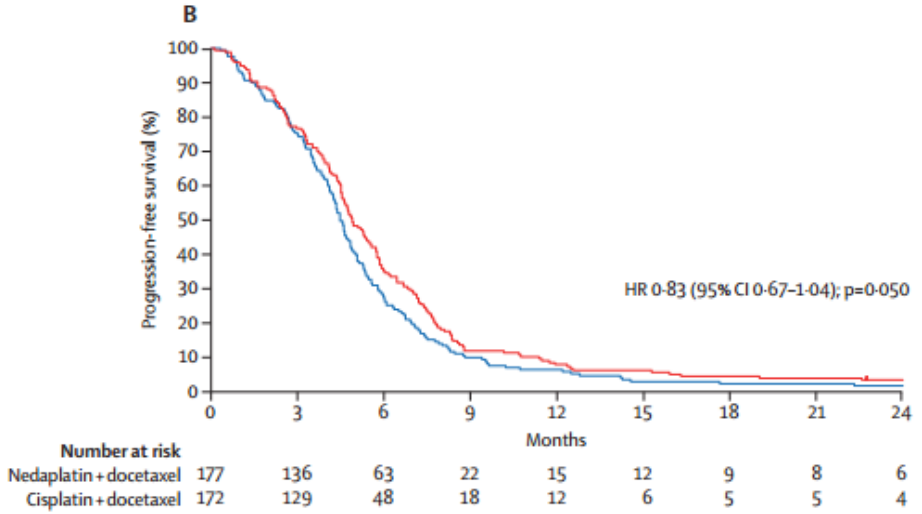
Primary endpoint
- OS

Secondary endpoints
- PFS, RR, and AEs

Shukuya T, et al. Lancet Oncol 2015 Oct 27. pii: S1470-2045(15)00305-8.

OS and PFS





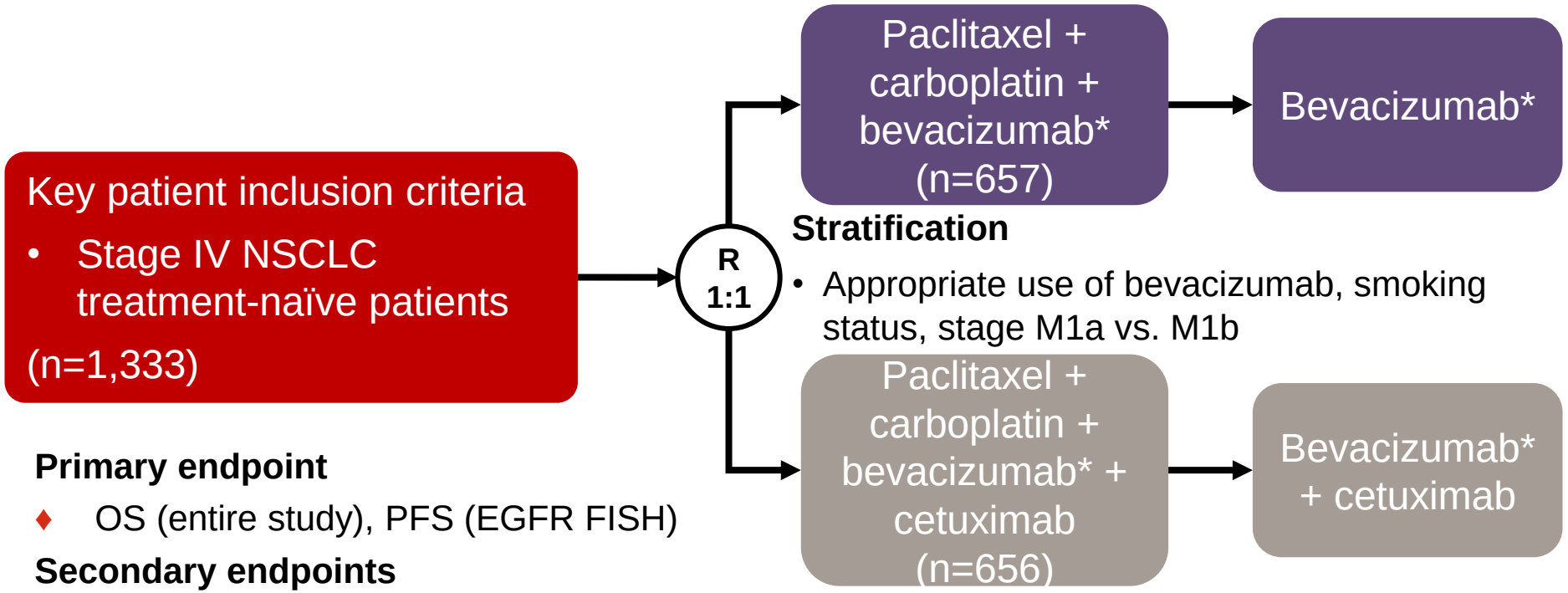
Efficacy Outcomes	Nedaplatin + Docetaxel (n=177)	Cisplatin + Docetaxel (n=172)	HR (90% CI)	P-value
OS, months	13.6	11.4	0.81 (0.67, 0.98)	0.037
PFS, months	4.9	4.5	0.83 (0.69, 1.00)	0.050
ORR	55.8%	53.0%	NA	0.663
Nausea[a]	4.0%	13.4%	NA	
Fatigue[a]	3.4%	10.9%	NA	
Thrombocytopenia[a]	9.0%	0%	NA	
Neutropenia[a]	82.5%	70.3%	NA	

[a]Gr 3 or more AEs

Shukuya T, et al. Lancet Oncol 2015 Oct 27. pii: S1470-2045(15)00305-8.

A Randomized, Phase III Study Comparing Carboplatin/Paclitaxel or Carboplatin/Paclitaxel/Bevacizumab with or without Concurrent Cetuximab in Patients with Advanced NSCLC: SWOG S0819

- Study objective
  - To evaluate the effect of adding cetuximab to carboplatin/paclitaxel or carboplatin/paclitaxel/bevacizumab in patients with advanced NSCLC



Primary endpoint

- OS (entire study), PFS (EGFR FISH)

Secondary endpoints

- OS and PFS by bevacizumab appropriate, safety

Herbst R, et al. J Thorac Oncol 2015; 10 (9, suppl 2) abstr PLEN04.01

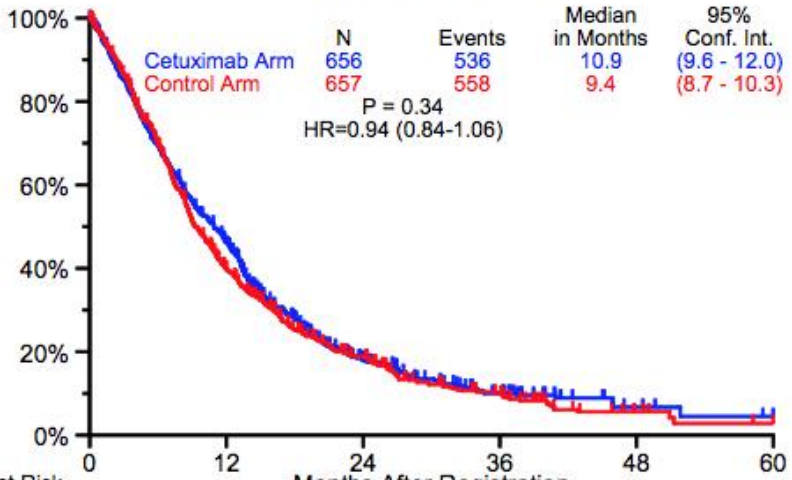
Key Results

IASLC
INTERNATIONAL ASSOCIATION FOR THE STUDY OF LUNG CANCER

16TH WORLD CONFERENCE ON LUNG CANCER
SEPTEMBER 6–9, 2015 • DENVER, COLORADO, USA

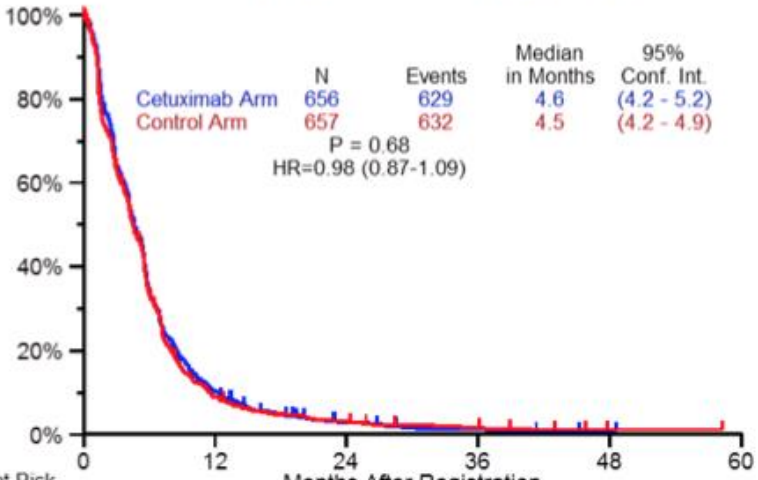
S0819 RESULTS: ENTIRE STUDY POPULATION

Overall Survival



Patients at Risk											
Cetuximab Arm	656	446	287	153	76	48	28	11	5	2	1
Control Arm	657	448	246	141	94	50	36	13	6	2	1

Progression Free Survival



Patients at Risk											
Cetuximab Arm	656	217	66	29	11	5	4	2	1	0	0
Control Arm	657	215	56	30	19	11	8	4	1	1	0

3612: **A Randomized, Phase III Study Comparing Carboplatin/Paclitaxel or Carboplatin/Paclitaxel/Bevacizumab with or without Concurrent Cetuximab in Patients with Advanced Non-Small Cell Lung Cancer (NSCLC): SWOG S0819 – R. Herbst**

Herbst R, et al. J Thorac Oncol 2015; 10 (9, suppl 2) abstr PLEN04.01

- Chemotherapy
- Targeted therapy
- Immunotherapy
- Other

First line EGFR TKI vs chemotherapy in EGFR mut+ NSCLC

	ORR		PFS		OS	
Trial	**TKI**	**Chemo**	**TKI**	**Chemo**	**TKI**	**Chemo**
IPASS Mut+	**71.2**	**47.3**	**9.5**	**6.3**	**21.6**	**21.9**
First-Signal	**84.6**	**37.5**	**8.4**	**6.7**	**30.6**	**26.5**
WJTOG	**62.1**	**32.2**	**9.2**	**6.3**	**30.9**	**NR**
NEJ002	**73.7**	**30.7**	**10.8**	**5.4**	**27.7**	**26.6**
OPTIMAL	**83**	**36**	**13.7**	**4.6**	**22.6**	**28.8**
EURTAC	**58**	**15**	**9.7**	**5.2**	**19.3**	**19.5**
LUX-Lung3	**58.1**	**22.6**	**11.1**	**6.9**	**NR**	**NR**
LUX-Lung6	**66.9**	**23**	**11**	**5.6**	**NR**	**NR**

LUX-Lung 7

Study design

- Stage IIIB/IV adenocarcinoma of the lung
- *EGFR* mutation (Del19 and/or L858R) in the tumor tissue*
- No prior treatment for advanced/ metastatic disease
- ECOG PS 0/1

1:1

Stratified by
- Mutation type (Del19/L858R)
- Brain metastases (present/absent)

Afatinib 40 mg once daily†

Gefitinib 250 mg once daily

Primary endpoints:
- PFS (independent)
- TTF
- OS

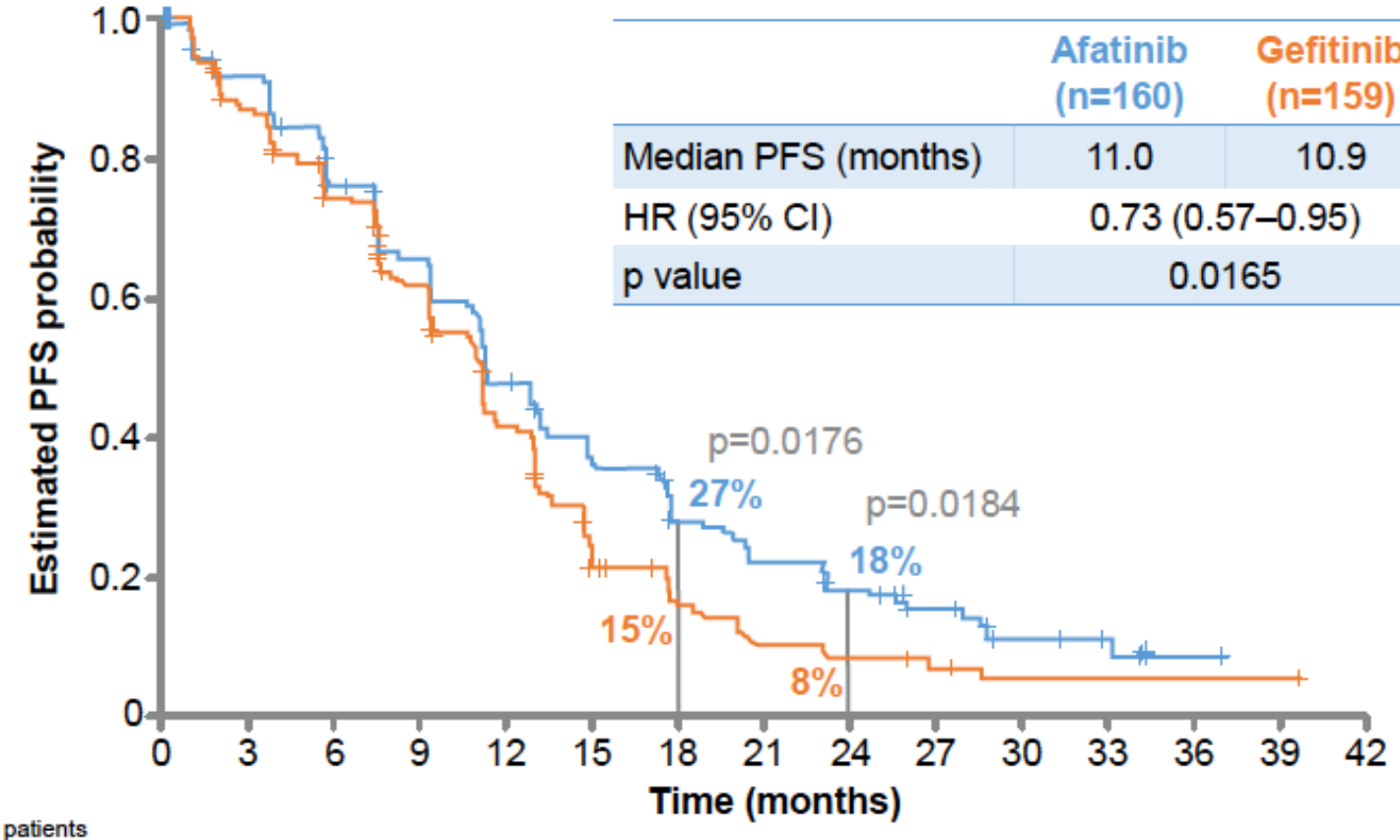
Secondary endpoints:
- ORR
- Time to response
- Duration of response
- Duration of disease control
- Tumor shrinkage
- HRQoL
- Safety

- Treatment beyond progression allowed if deemed beneficial by investigator
- RECIST assessment performed at Weeks 4, 8 and every 8 weeks thereafter until Week 64, and every 12 weeks thereafter

*Central or local test
†Dose modification to 50, 30, 20 mg permitted in line with prescribing information

ECOG PS, Eastern Oncology Cooperative Group performance status; HRQoL, health-related quality of life; ORR, objective response rate; OS, overall survival; PFS, progression-free survival; RECIST, Response Evaluation Criteria In Solid Tumors; TTF, time to treatment failure

PFS by independent review



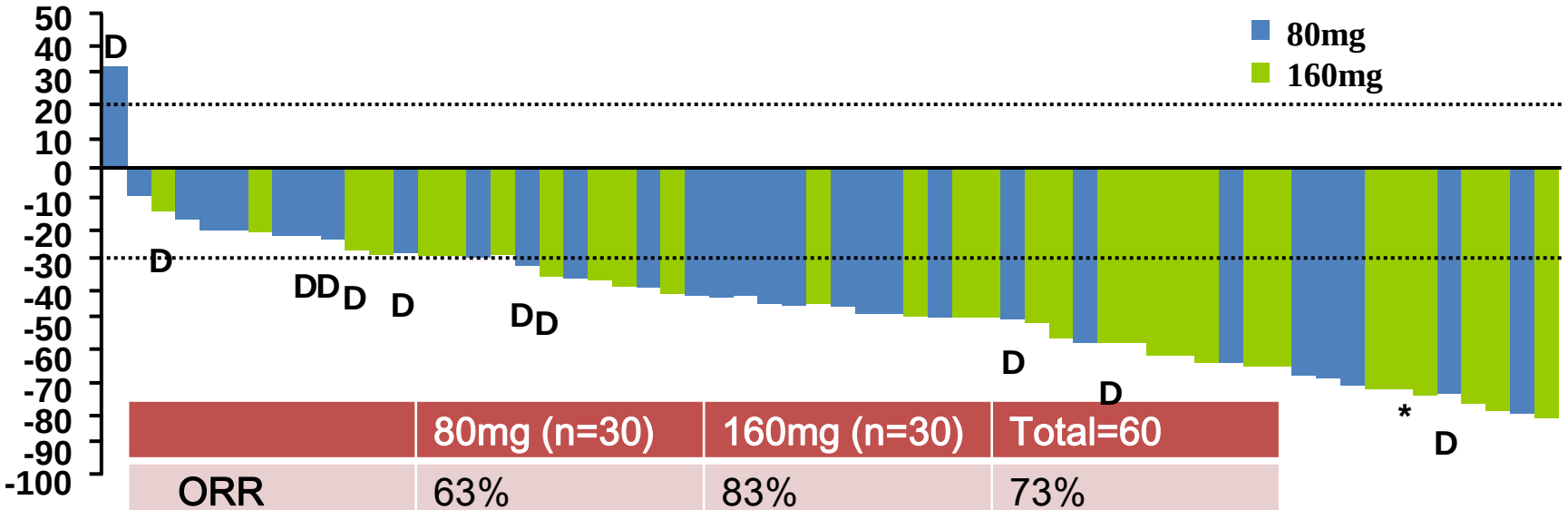
	Afatinib (n=160)	Gefitinib (n=159)
Median PFS (months)	11.0	10.9
HR (95% CI)	0.73 (0.57–0.95)	
p value	0.0165	

No. of patients															
Afatinib	160	142	112	94	67	47	34	27	21	13	6	3	1	0	0
Gefitinib	159	132	106	83	52	22	14	9	7	5	3	3	1	1	0

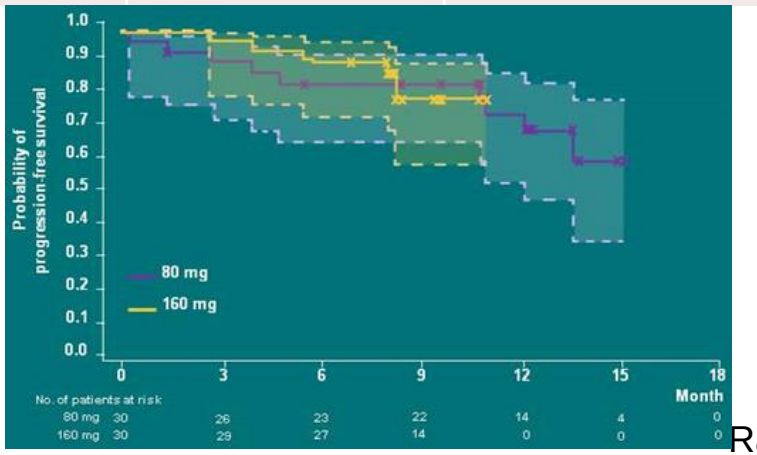
Survival Summary of 3rd generation EGFR-TKIs

Study	Drugs	Population	N	ORR	DCR	PFS
Phase I study	AZD9291	Pre-treated T790M +	127	61%	95%	9.6
AURA study Phase II extension cohort	AZD9291	Pre-treated T790M +	201	61%	91%	NR
AURA2 Phase II Study	AZD9291	Pre-treated T790M +	210	71%	92%	8.6
Phase I study	CO1686	Pre-treated T790M +	46	59%	93%	13.1
Phase I/II study	HM61713	Pre-treated T790M +	34	58.8% (dose>650 mg)	97.1% (dose>650 mg)	NR

AZD9291, a mutant-selective EGFR inhibitor, as first-line treatment for EGFR-mutation (+) NSCLC: Results from a phase 1 expansion cohort



	80mg (n=30)	160mg (n=30)	Total=60
ORR	63%	83%	73%
DCR	93%	100%	97%



Ramalingam SS, et al. ASCO 2015 abstr 8000

How to improve efficacy of EGFR TKI

- Plus chemotherapy

  FASTACT II EGFR mutant

  PFS: 16.8 months in Chemo+erlotinib

  6.9 months in Chemo+placebo

  NEJ 005: Concurrent vs Sequential combination

  PFS: 18.3 months in concurrent

  15.3 months in sequential

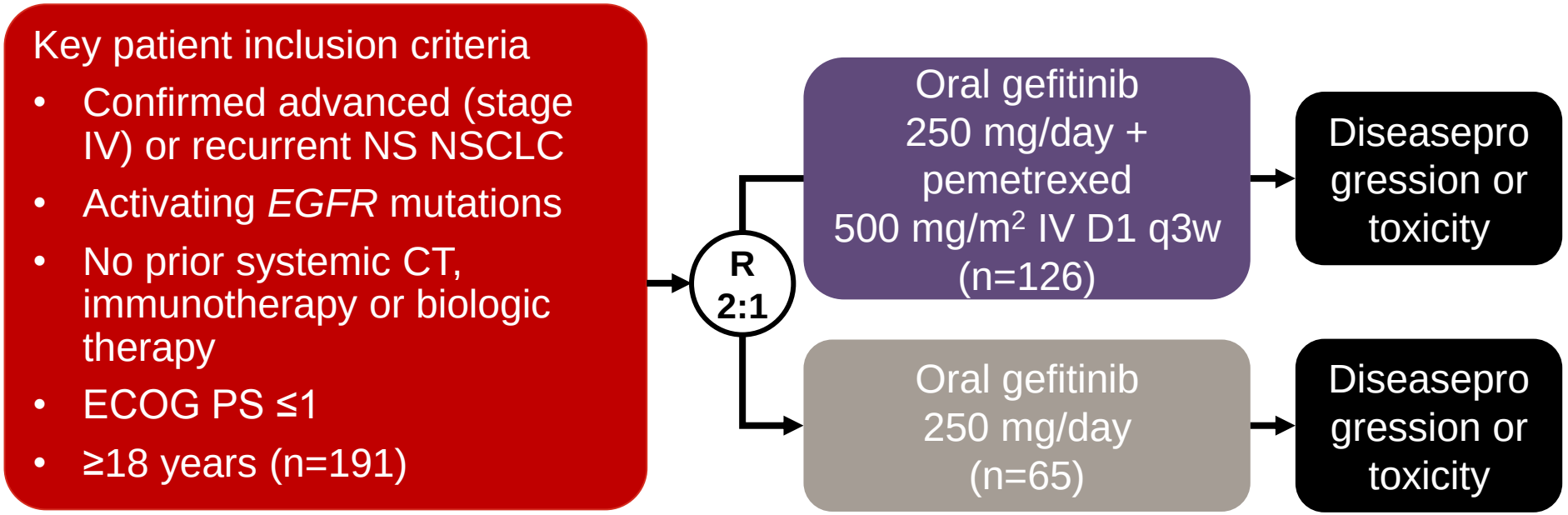
- Plus bevacizumab

  PFS: 16.0 months in Beva + erlotinib

  9.7 months in erlotinib

Randomized Trial of Gefitinib with and without Pemetrexed as First-Line Therapy in East-Asian Patients with Advanced NS NSCLC with EGFR Mutations

- Study objective
  - To evaluate whether the addition of pemetrexed to gefitinib prolongs PFS in treatment-naïve East-Asian patients with advanced non-squamous NSCLC with activating *EGFR* mutations



Primary endpoint

- PFS

Secondary endpoints

- OS, ORR, DOR, QoL, safety

Cheng Y, et al. J Thorac Oncol 2015; 10 (9, suppl 2): abstr ORAL17.02

Key Results

Outcome	Gefitinib + pemetrexed	Gefitinib	HR (95%CI); p-value
Median PFS, months	15.8	10.9	0.68 (0.48, 0.96); p=0.029*
PFS: Exon 19 deletion	17.1	11.1	0.67 (0.43, 1.05); p=0.078*
PFS: Exon 21 point mutation	12.6	10.9	0.58 (0.33, 1.01) p=0.054*
Median DOR, months	15.4	11.3	0.74 (0.50, 1.08); p=0.122
ORR, %	80.2	73.8	p=0.358
≥1 TEAE, %	93.7	92.3	
≥1 Grade 3/4 TEAE, %	40.5	18.5	
≥1 SAE, %	8.7	1.5	
≥1			
Dis			
Ge AE			

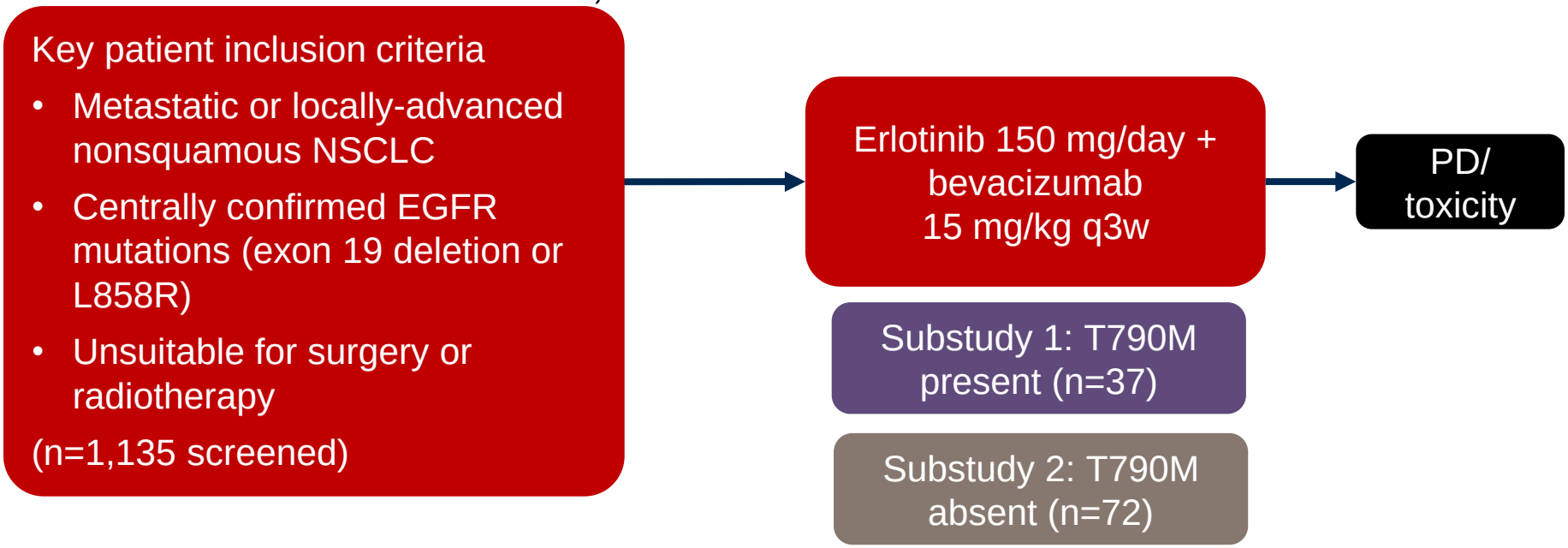
- First-line gefitinib + pemetrexed prolonged PFS vs. gefitinib for East-Asian patients with EGFR mutation-positive NS NSCLC
- First-line gefitinib + pemetrexed was associated with an acceptable safety profile

*2-sided p-value

Cheng Y, et al. J Thorac Oncol 2015; 10 (9, suppl 2): abstr ORAL17.02

BELIEF trial: Phase II trial of erlotinib (E) and bevacizumab (B) in patients with advanced NSCLC with activating EGFR mutations with and without T790M mutation.

- Study objective
  - To estimate PFS in patients with nonsquamous NSCLC with or without EGFR T790M mutation, treated with first-line bevacizumab and erlotinib



Primary endpoint

- PFS

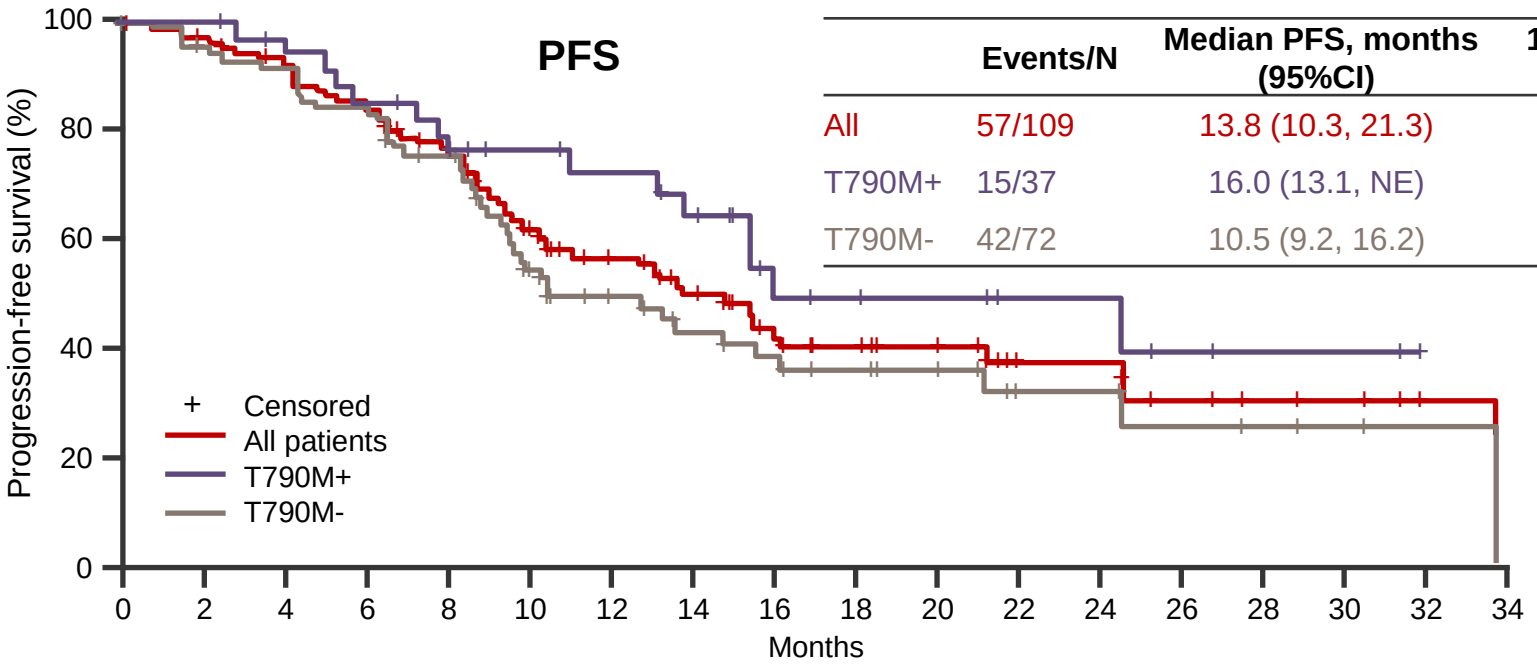
Secondary endpoints

- Safety, correlation of PFS with mutations

Stahel RA, et al. Ann Oncol 2015; 26 (suppl 6); abstr 3BA

Key results

- Erlotinib + bevacizumab had a toxicity profile consistent with previous experience
- With the exception of a single patient, tumor shrinkage was seen in all cases
- CR was observed in 8.1% of T790+ patients and 5.6% of T790- patients
- PR was seen in 62.2% and 73.6%, respectively

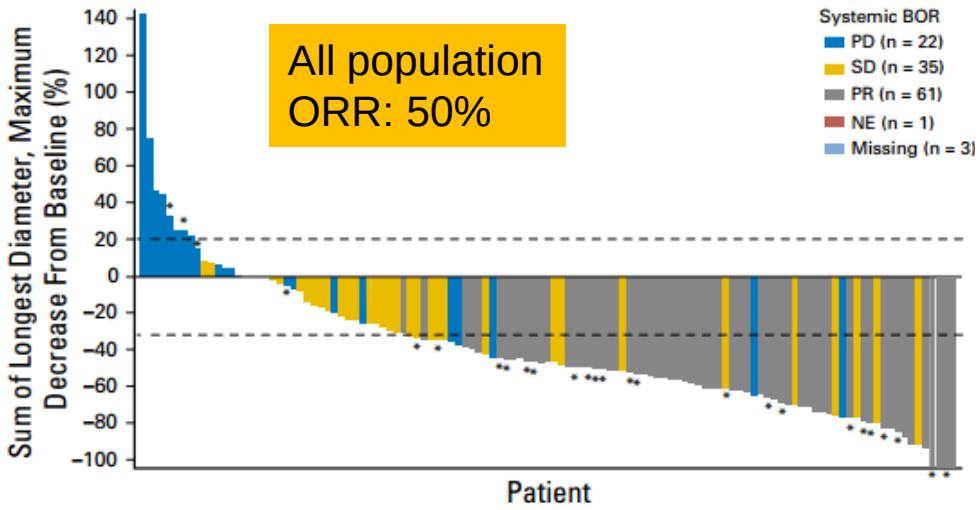


	Events/N	Median PFS, months (95%CI)	12-month PFS, % (95%CI)
All	57/109	13.8 (10.3, 21.3)	56.7 (46.0, 66.0)
T790M+	15/37	16.0 (13.1, NE)	72.4 (53.4, 84.7)
T790M-	42/72	10.5 (9.2, 16.2)	49.4 (36.6, 61.0)

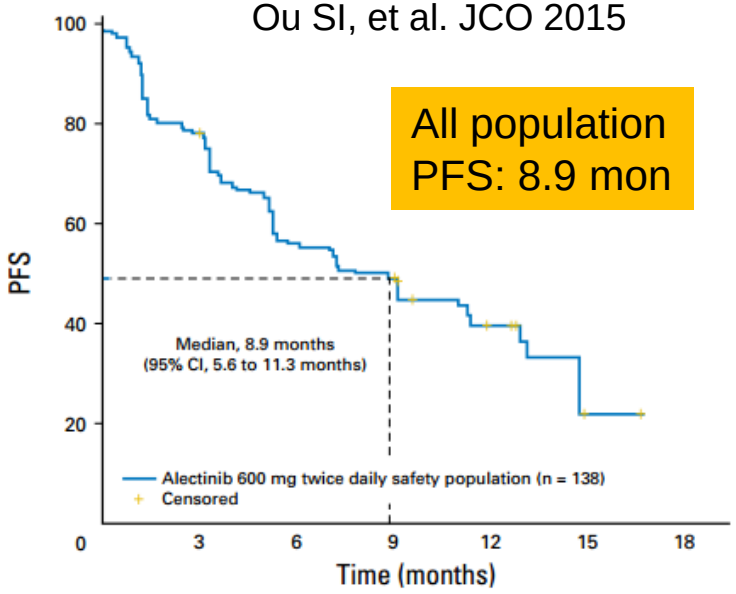
Stahel RA, et al. Ann Oncol 2015; 26 (suppl 6); abstr 3BA

Alectinib in Crizotinib-Refractory ALK-Rearranged NSCLC: A Phase II Global Study.

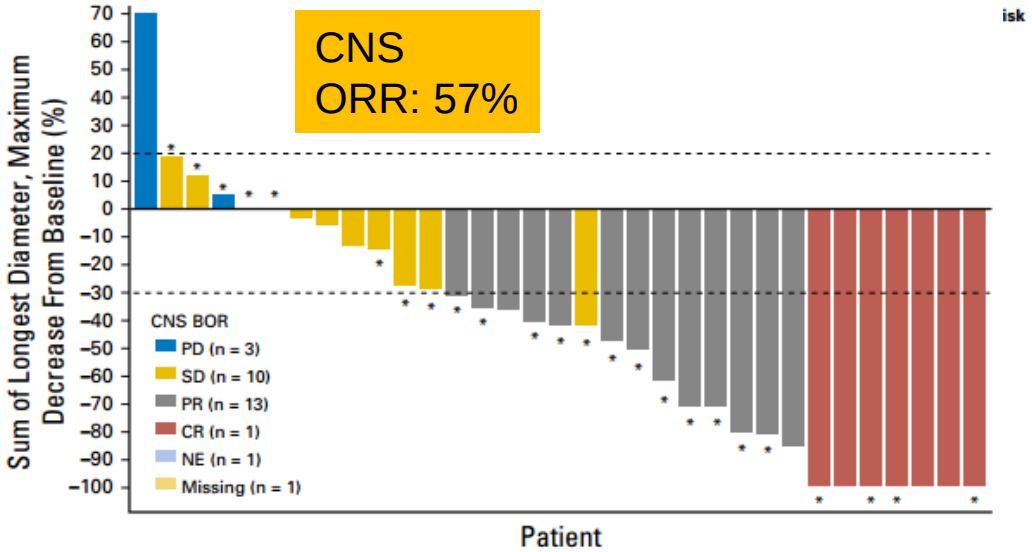
Ou SI, et al. JCO 2015



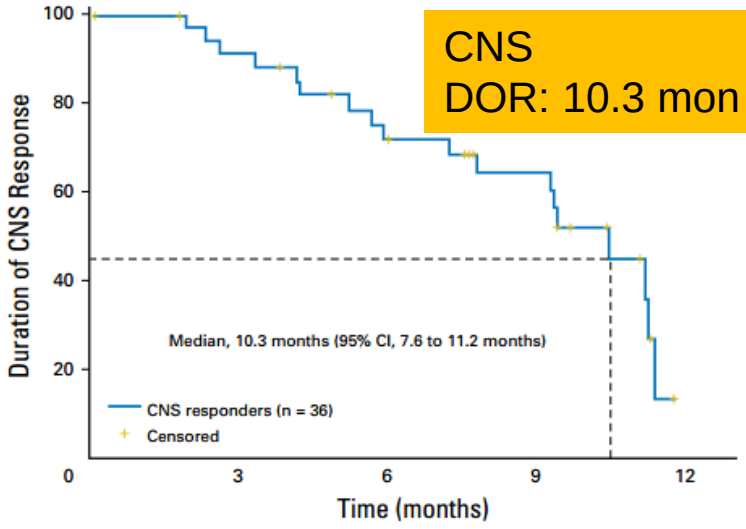
All population
ORR: 50%



All population
PFS: 8.9 mon



CNS
ORR: 57%

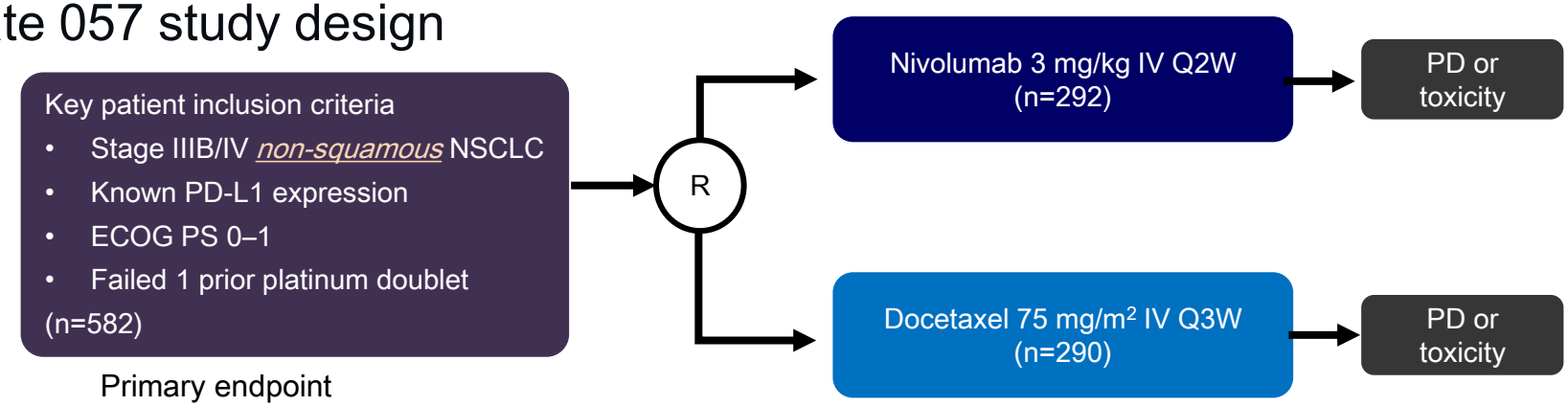


CNS
DOR: 10.3 mon

- Chemotherapy
- Targeted therapy
- Immunotherapy
- Other

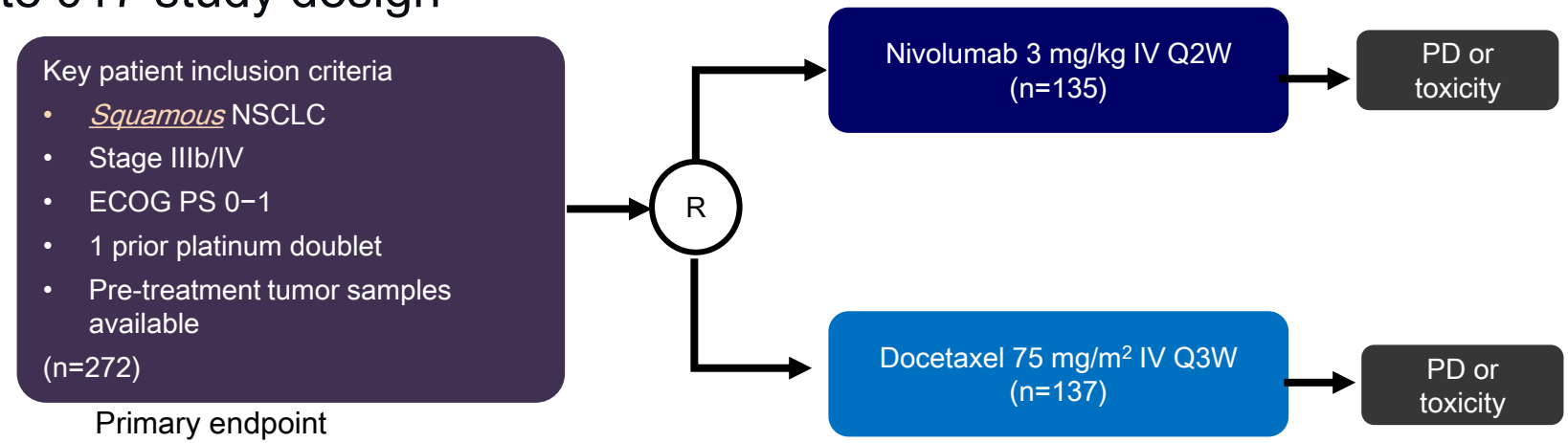
Nivolumab

CheckMate 057 study design



Primary endpoint
- OS

CheckMate 017 study design

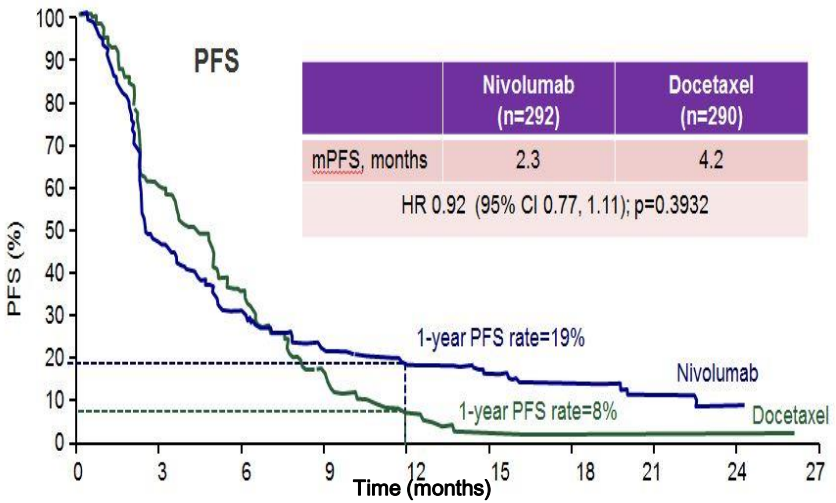


Primary endpoint
- OS

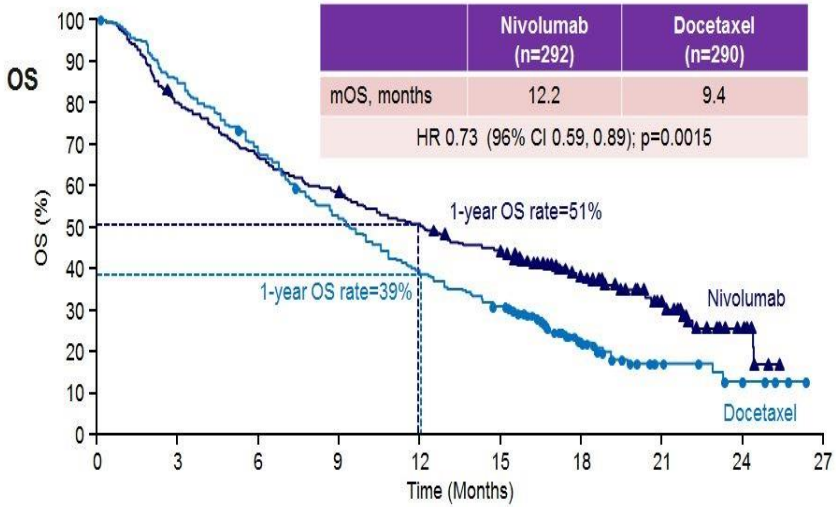
Borghaei H, et al. N Engl J Med. 2015 Jul 9;373(2):123-35.

Brahmer J, et al. N Engl J Med. 2015 Jul 9;373(2):123-35.

CheckMate 057
non-SQ



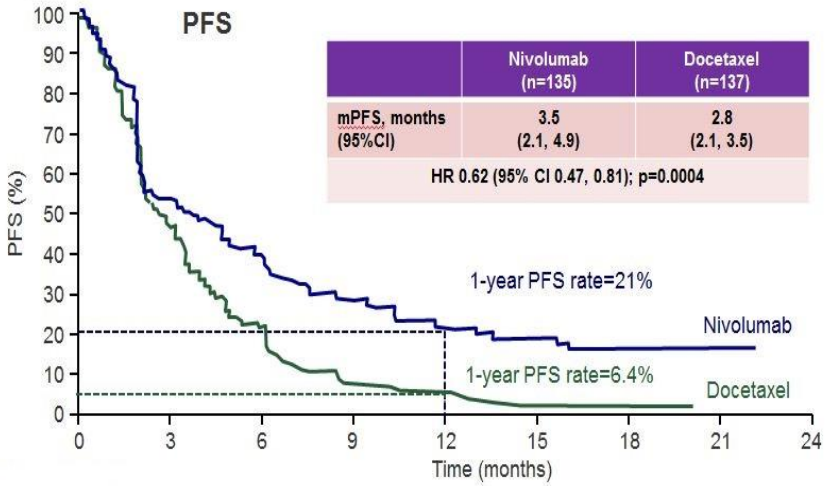
	Nivolumab (n=292)	Docetaxel (n=290)
mPFS, months	2.3	4.2
HR 0.92 (95% CI 0.77, 1.11); p=0.3932		



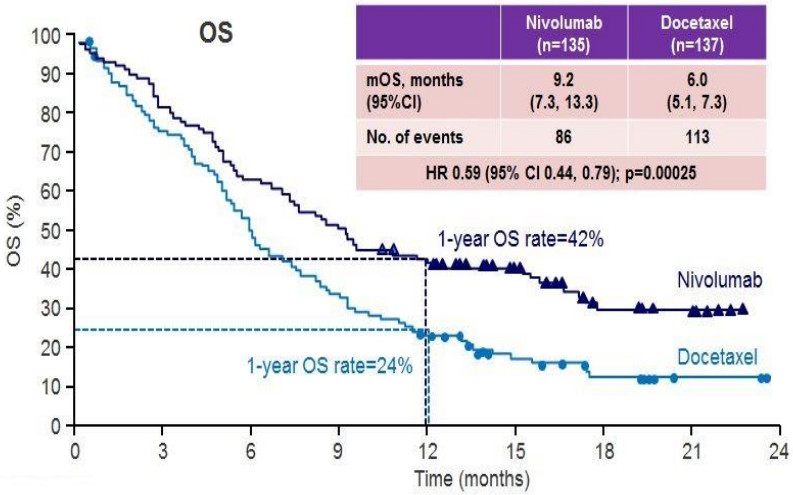
	Nivolumab (n=292)	Docetaxel (n=290)
mOS, months	12.2	9.4
HR 0.73 (96% CI 0.59, 0.89); p=0.0015		

Borghaei H, et al. N Engl J Med. 2015 Jul 9;373(2):123-35.

CheckMate 017
SQ



	Nivolumab (n=135)	Docetaxel (n=137)
mPFS, months (95%CI)	3.5 (2.1, 4.9)	2.8 (2.1, 3.5)
HR 0.62 (95% CI 0.47, 0.81); p=0.0004		

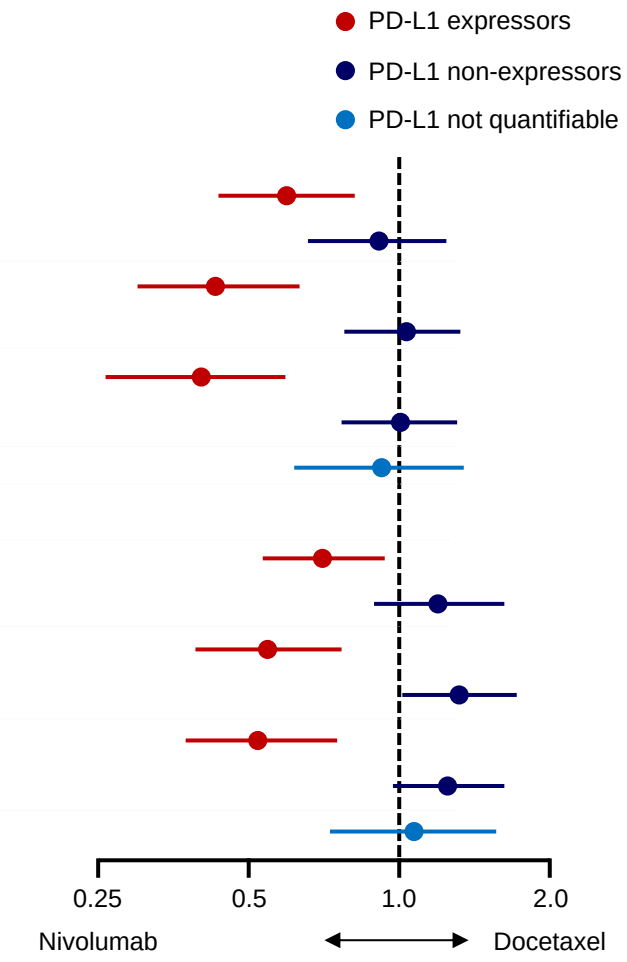


	Nivolumab (n=135)	Docetaxel (n=137)
mOS, months (95%CI)	9.2 (7.3, 13.3)	6.0 (5.1, 7.3)
No. of events	86	113
HR 0.59 (95% CI 0.44, 0.79); p=0.00025		

Brahmer J, et al. N Engl J Med. 2015 Jul 9;373(2):123-35.

CheckMate 057 Key Results

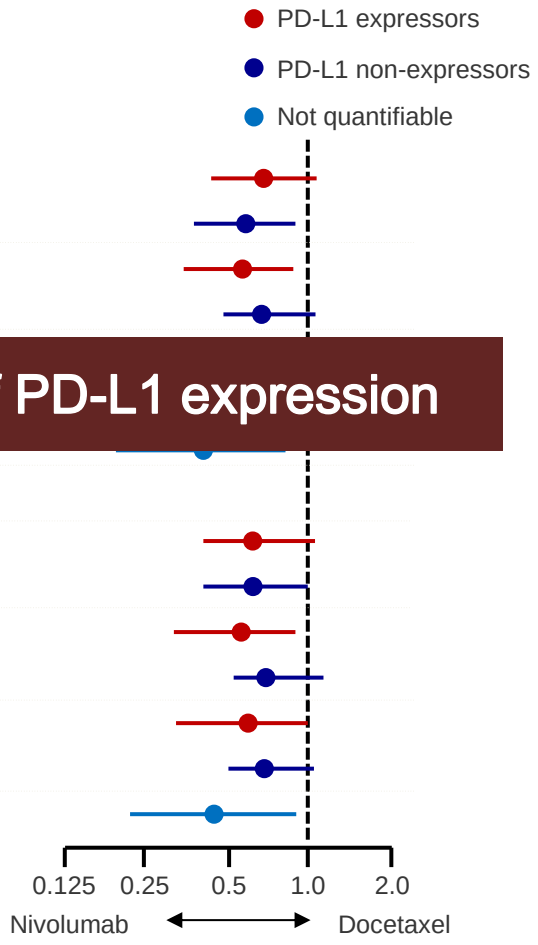
PD-L1 Expression Level	Nivolumab n	Docetaxel n	Unstratisfied HR (95% CI)	Interaction p-value*
OS				
≥1%	123	123	0.59 (0.43, 0.82)	0.0646
<1%	108	101	0.90 (0.66, 1.24)	
≥5%	95	86	0.43 (0.30, 0.63)	0.0004
<5%	136	138	1.01 (0.77, 1.34)	
≥10%	86	79	0.40 (0.26, 0.59)	0.0002
<10%	145	145	1.00 (0.76, 1.31)	
Not quantifiable at baseline	61	66	0.91 (0.61, 1.35)	
PFS				
≥1%	123	123	0.70 (0.53, 0.94)	0.0227
<1%	108	101	1.19 (0.88, 1.61)	
≥5%	95	86	0.54 (0.39, 0.76)	<0.0001
<5%	136	138	1.31 (1.01, 1.71)	
≥10%	86	79	0.52 (0.37, 0.75)	0.0002
<10%	145	145	1.24 (0.96, 1.61)	
Not quantifiable at baseline	61	66	1.06 (0.73, 1.56)	



CheckMate 017 Key Results

PD-L1 Expression	Patients n		Unstratisfied HR (95%CI)	Interaction p-value*
	Nivolumab	Docetaxel		
OS				
≥1%	63	56	0.69 (0.45, 1.05)	0.56
<1%	54	52	0.58 (0.37, 0.92)	
≥5%	42	39	0.53 (0.31, 0.89)	0.47
<5%	75	69	0.70 (0.47, 1.02)	
Not quantifiable	18	29	0.39 (0.19, 0.82)	
PFS				
≥1%	63	56	0.67 (0.44, 1.01)	0.70
<1%	54	52	0.66 (0.43, 1.00)	
≥5%	42	39	0.54 (0.32, 0.90)	0.16
<5%	75	69	0.75 (0.52, 1.08)	
≥10%	36	33	0.58 (0.33, 1.02)	0.35
<10%	81	75	0.70 (0.49, 0.99)	
Not quantifiable	18	29	0.45 (0.23, 0.89)	

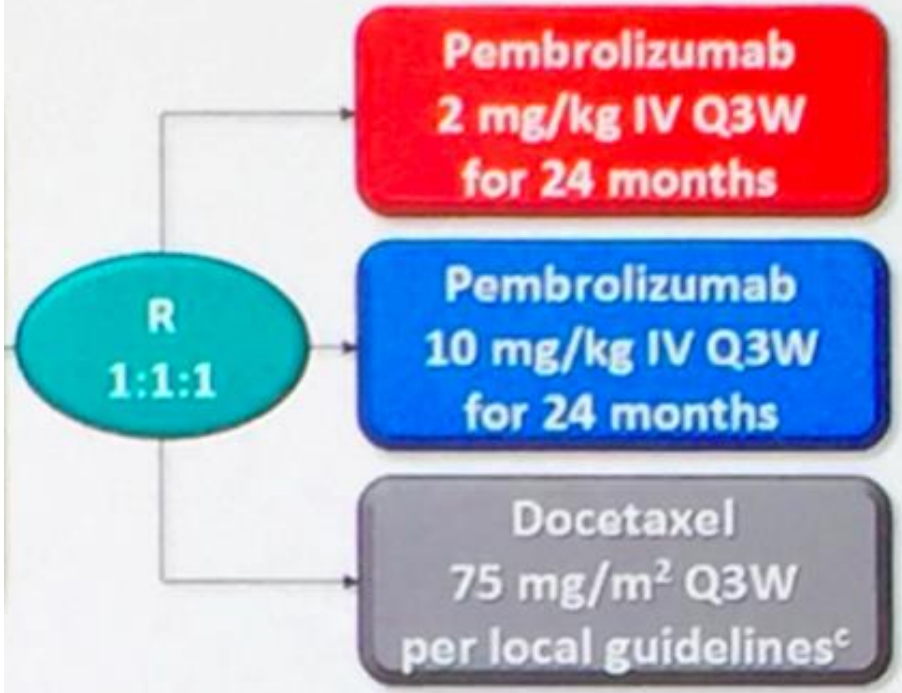
Survival benefit with nivolumab was independent of PD-L1 expression



KEYNOTE-010 Study Design

Patients

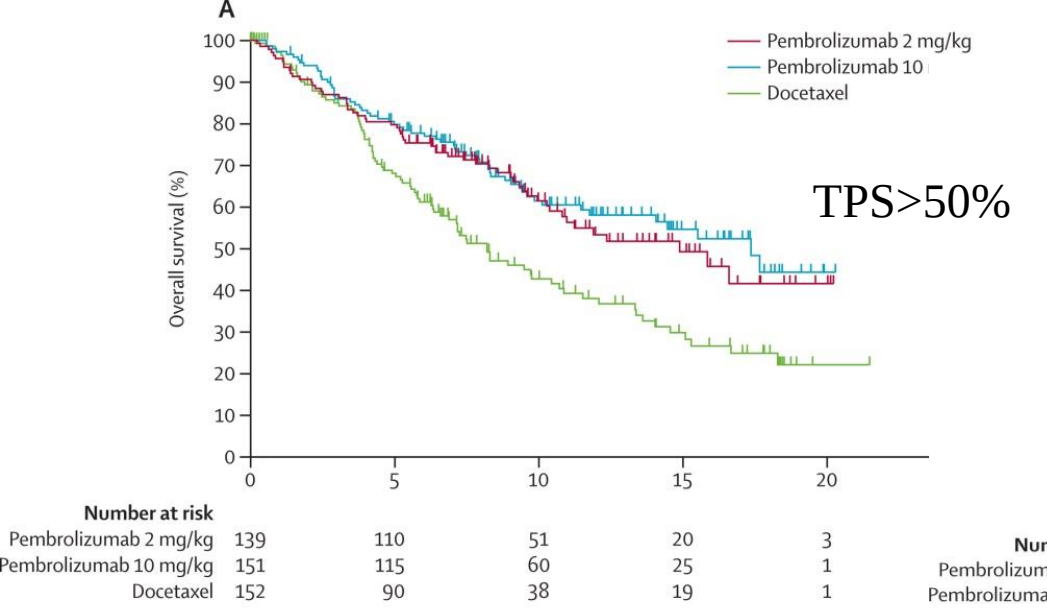
Advanced NSCLC
Confirmed PD after ≥1line of chemotherapy
No active brain metastasis
ECOG PS 0-1
PD-L1 TPS ≥1%
No serious autoimmune disease
No ILD or pneumonitis requiring systemic steriods



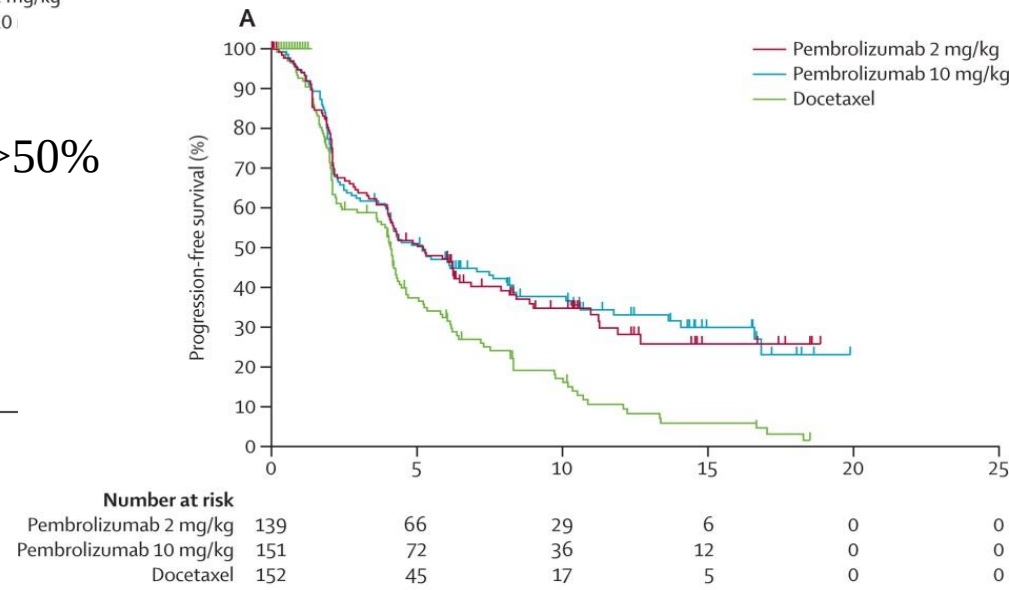
Stratification factors;
ECOG PS (0 vs 1)
Region (East Asia vs non-East Asia)
PD-L1 status (TPS≥50% vs 1-49%

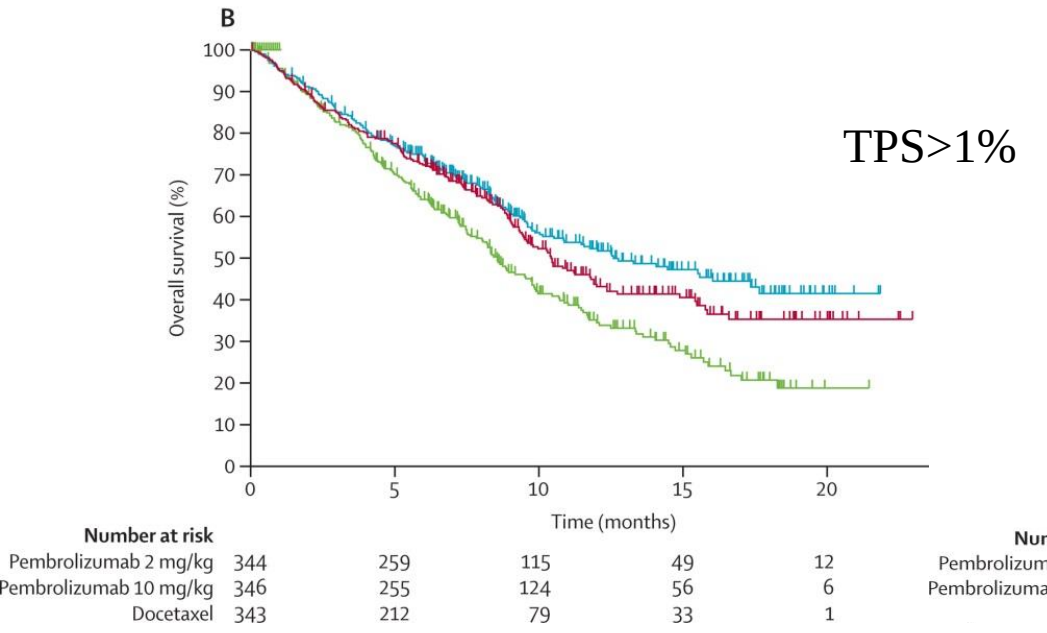
Endpoints in the TPS≥50% stratum and TPS ≥1% population
Primary: PFS and OS
Secondary: ORR, duration of response , safety

ClinicalTrials.gov, NCT01905657.
[a]Prior therapy must have included ≥2 cycles of platinum-doublet chemotherapy. An appropriate tyrosine kinase inhibitor was required for patients whose tumors had an *EGFR* sensitizing mutation or an *ALK* translocation.
[b]Added after 441 patients enrolled based on results from KEYNOTE-001 (Garon EB et al. *N Engl J Med*. 2015;372:2018-28).
[c]Patients received the maximum number of cycles permitted by the local regulatory authority.

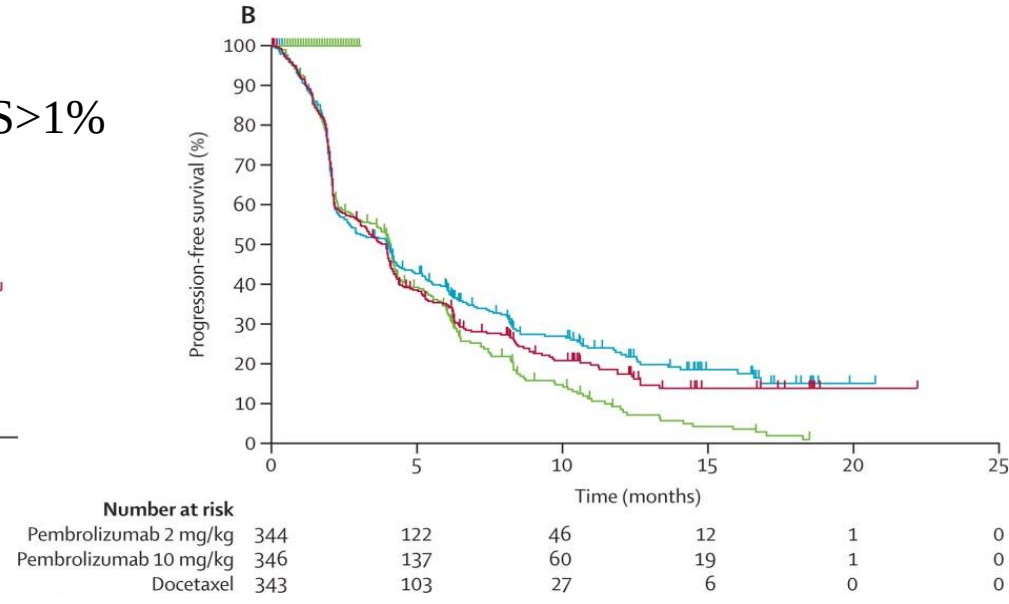

A
Pembrolizumab 2 mg/kg
Pembrolizumab 10
Docetaxel
Overall survival (%)
100
90
80
70
60
50
40
30
20
10
0
0
5
10
15
20
Number at risk
Pembrolizumab 2 mg/kg 139 110 51 20 3
Pembrolizumab 10 mg/kg 151 115 60 25 1
Docetaxel 152 90 38 19 1

TPS>50%


A
Pembrolizumab 2 mg/kg
Pembrolizumab 10 mg/kg
Docetaxel
Progression-free survival (%)
100
90
80
70
60
50
40
30
20
10
0
0
5
10
15
20
25
Number at risk
Pembrolizumab 2 mg/kg 139 66 29 6 0 0
Pembrolizumab 10 mg/kg 151 72 36 12 0 0
Docetaxel 152 45 17 5 0 0

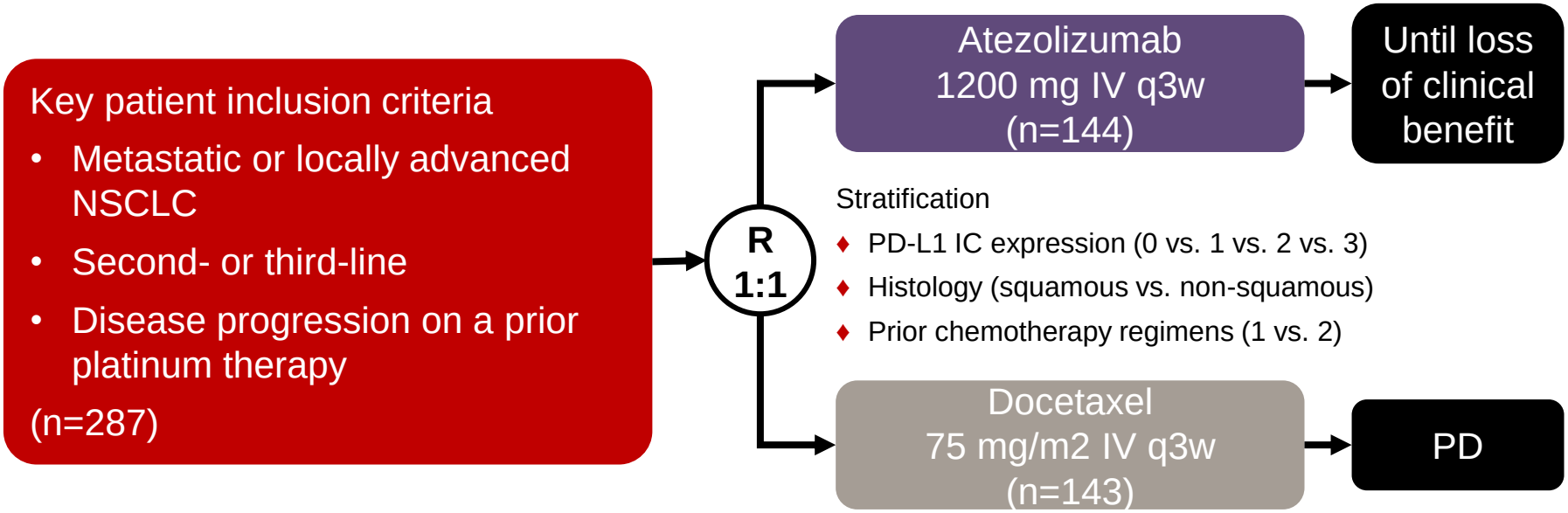

B
Overall survival (%)
100
90
80
70
60
50
40
30
20
10
0
0
5
10
15
20
Time (months)
Number at risk
Pembrolizumab 2 mg/kg 344 259 115 49 12
Pembrolizumab 10 mg/kg 346 255 124 56 6
Docetaxel 343 212 79 33 1

TPS>1%


B
Progression-free survival (%)
100
90
80
70
60
50
40
30
20
10
0
0
5
10
15
20
25
Time (months)
Number at risk
Pembrolizumab 2 mg/kg 344 122 46 12 1 0
Pembrolizumab 10 mg/kg 346 137 60 19 1 0
Docetaxel 343 103 27 6 0 0

Atezolizumab monotherapy vs docetaxel in 2L/3L NSCLC: Primary analyses for efficacy, safety and predictive biomarkers from a randomized phase II study (POPLAR)

- **Study objective**
  - To examine the efficacy and safety of atezolizumab in patients with advanced NSCLC



Primary endpoint

- OS in ITT and PD-L1 expression subgroups

Secondary endpoints

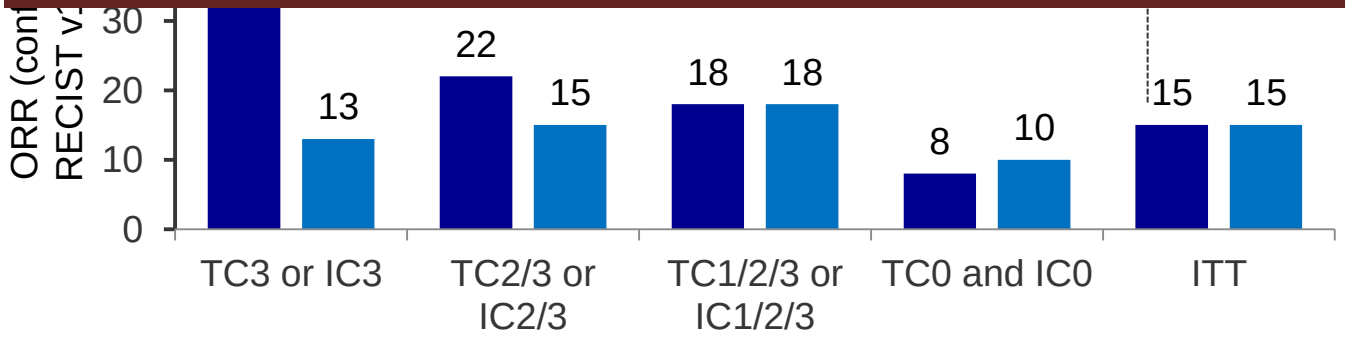
- PFS, ORR and DOR in ITT and PD-L1 expression subgroups, safety

Vansteenkiste J, et al. Ann Oncol 2015; 26 (suppl 6); abstr 14LBA

Key Results

- Patients with higher PD-L1 expression had better outcomes with atezolizumab than with docetaxel
- Atezolizumab was well tolerated with fewer treatment-related Grade 3/4 AEs (12% atezolizumab; 39% docetaxel) despite a longer treatment duration (3.7 vs. 2.1 months)

Atezolizumab was associated with significant improvements in OS in the ITT population (12.6 months versus 9.7 months, HR 0.73 [95%CI 0.53, 0.99], p=0.040)



Spira et al. J Clin Oncol 2015; 33 (suppl): abstr 8010

- Chemotherapy
- Targeted therapy
- Immunotherapy
- Other

Bevacizumab 15mg/kg plus cisplatin-pemetrexed (CP) triplet versus CP doublet in Malignant Pleural Mesothelioma (MPM): Results of the IFCT-GFPC-0701 MAPS randomized phase 3 trial

- Study objective
  - To determine whether the addition of bevacizumab to cisplatin-pemetrexed improves survival in patients with MPM

Key patient inclusion criteria

- Histologically proven MPM
- No prior chemo
- No cardiovascular comorbidities
- ECOG PS 0–2
- (n=448)

R 1:1

(ARM A) Six 21-day cycles of: Pemetrexed 500 mg/m^2 D1 + cisplatin 75 mg/m^2 D1 → Surveillance

(ARM B) Six 21-day cycles of: Pemetrexed 500 mg/m^2 D1 + Cisplatin 75 mg/m^2 D1 + Bevacizumab 15 mg/kg D1 → Maintenance Bevacizumab 15 mg/kg D1 Q21D until PD or toxicity

Stratification

- Histology (epitheloid vs. sarcomatoid/mixed), center, ECOG PS (0–1 vs. 2), smoking status

Primary endpoint

- OS

Secondary endpoints

- PFS, QoL, biomarkers, pharmacoeconomic outcomes

Zalcman et al. J Clin Oncol 2015; 33 (suppl): abstr 7500

Key results

	BEV+CIS-PEM	CIS-PEM
Median OS, months	18.82	16.07
HR (95%CI); p-value	0.76 (0.61, 0.94); p=0.015	
Median PFS, months	9.59	7.48
[illegible]	[illegible]	[illegible]
Grade 3–4 haematological toxicities	47.5	49.5
Grade 3 proteinuria	3.1	0
Grade 3 hypertension	23	0
Grade 3–4 arterial thrombotic events	2.7	0

Adding bevacizumab to pemetrexed + cisplatin significantly increased PFS (2 months) and OS (2.75 months) and with manageable increase of toxicity

Scherpereel A, et al. J Thorac Oncol 2015; 10 (9, suppl 2; abstr ORAL11.01)

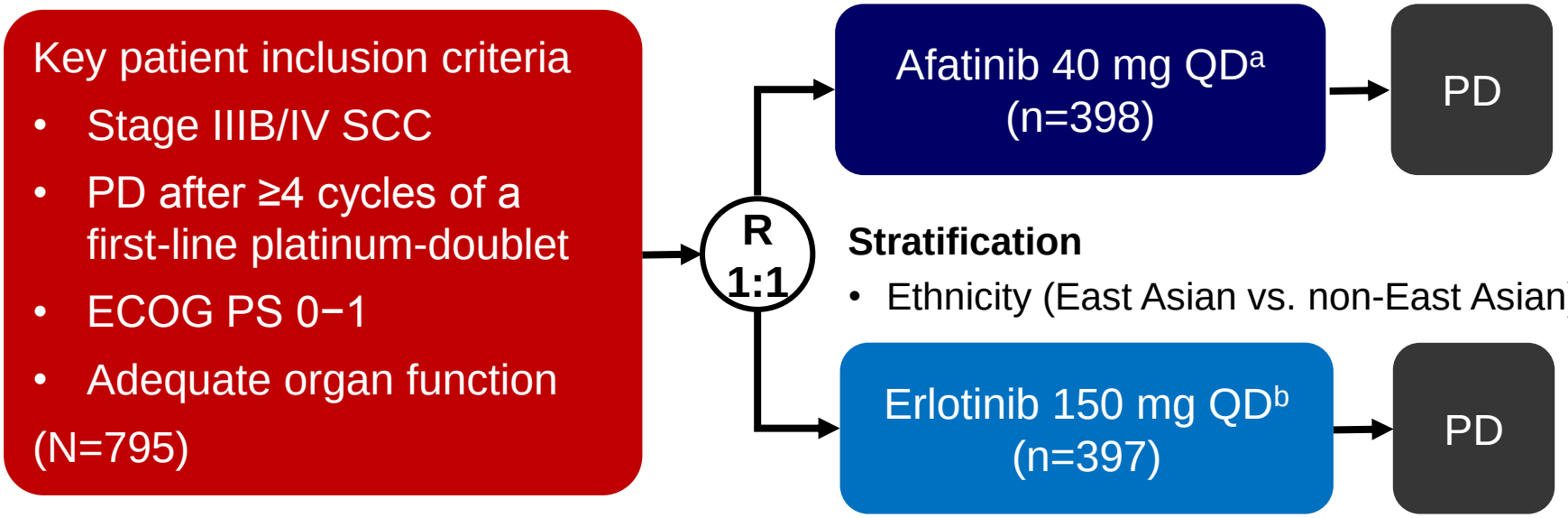
Conclusions

- Nedaplatin + docetaxel improves PFS and OS in advanced or relapsed SQCC
- Afatinib is slightly superior to gefitinib in 1nd-line treatment for EGFR mutant lung cancer
- 3rd generation EGFR TKIs have demonstrated a encouraging clinical benefit in T790M (+) NSCLC
- EGFR-TKI; plus pemetrexed or bevacizumab showed promising efficacy in EGFR (+) patients
- PD1 and PD-L1 inhibitor improve OS for NSCLC compared with docetaxel
- The triplet pemetrexed, cisplatin, and bevacizumab is a new 1st line treatment paradigm for pleural mesothelioma

Thank you!

Afatinib versus erlotinib as second-line treatment of patients with advanced squamous cell carcinoma of the lung (LUX-Lung 8): an open-label randomized controlled phase 3 trial.

- Study objective:
  - To compare the efficacy and safety of afatinib, an irreversible ErbB family blocker, and erlotinib, a reversible EGFR TKI, in patients with squamous cell lung carcinoma



Primary endpoint

- PFS

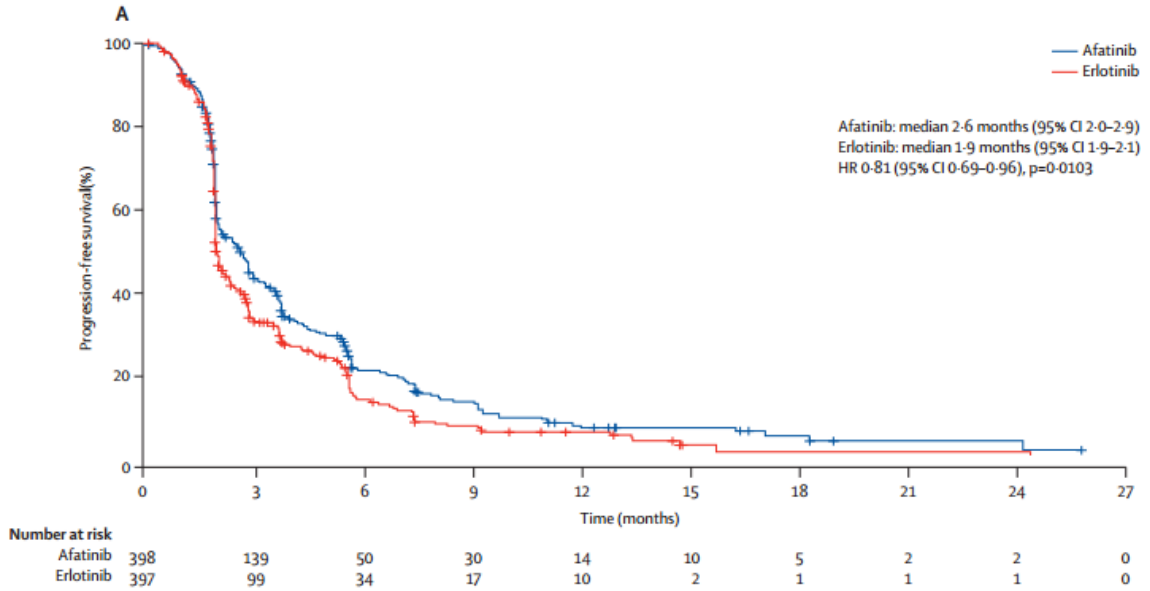
Secondary endpoints

- OS, ORR, DCR, tumor shrinkage, patient reported outcomes, safety

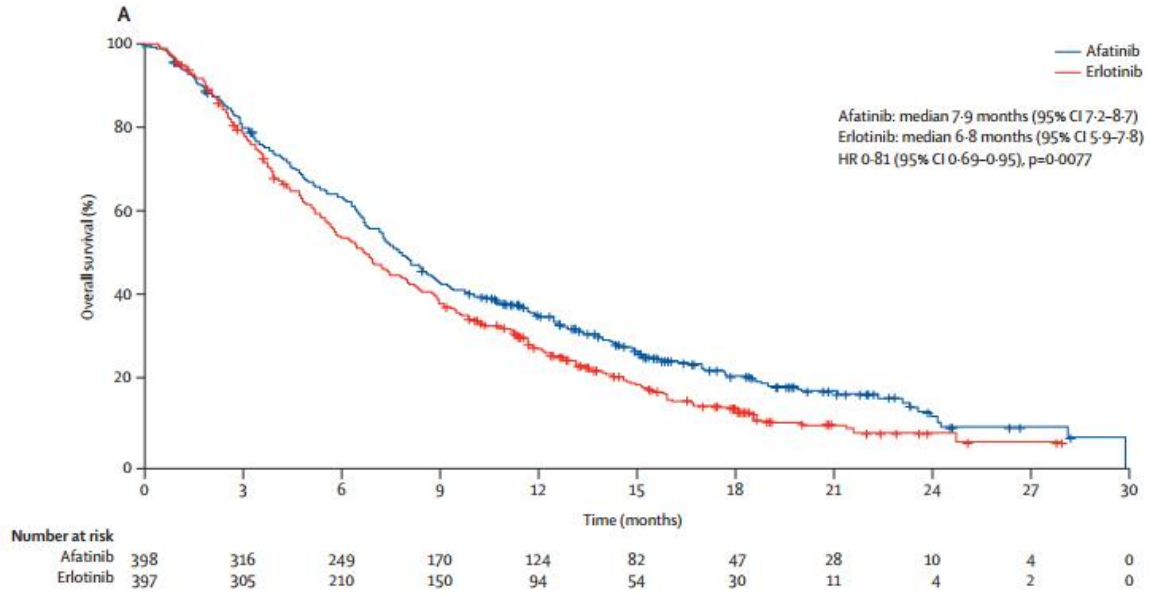
[a]dose escalation/reduction permitted;
[b]dose reduction permitted

Soria et al. Lancet Oncol 2015 Aug;16(8):897-907.

PFS and OS



	Afatinib n=398	Erlotinib n=397
Median PFS, months (95% CI)	2.6 (2.0, 2.9)	1.9 (1.9, 2.1)
HR (95% CI)	0.81 (0.69, 0.96)	
p-value	0.0103	



	Afatinib n=398	Erlotinib n=397
Median OS, months (95% CI)	7.9 (7.2, 8.7)	6.8 (5.9, 7.8)
HR (95% CI)	0.81 (0.69, 0.95)	
p-value	0.0077	