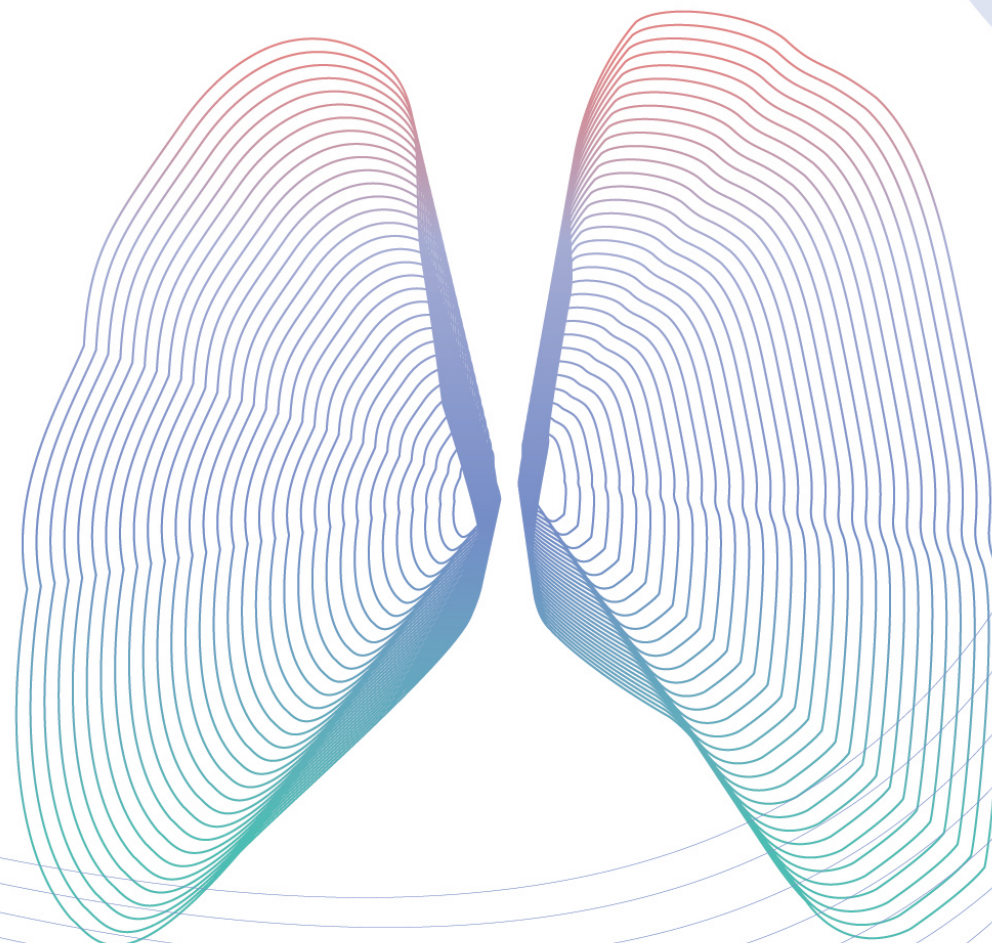


# 3ª Jornada sobre **Cáncer** de **Pulmón** y **Oncología** **Torácica** del **País Vasco**

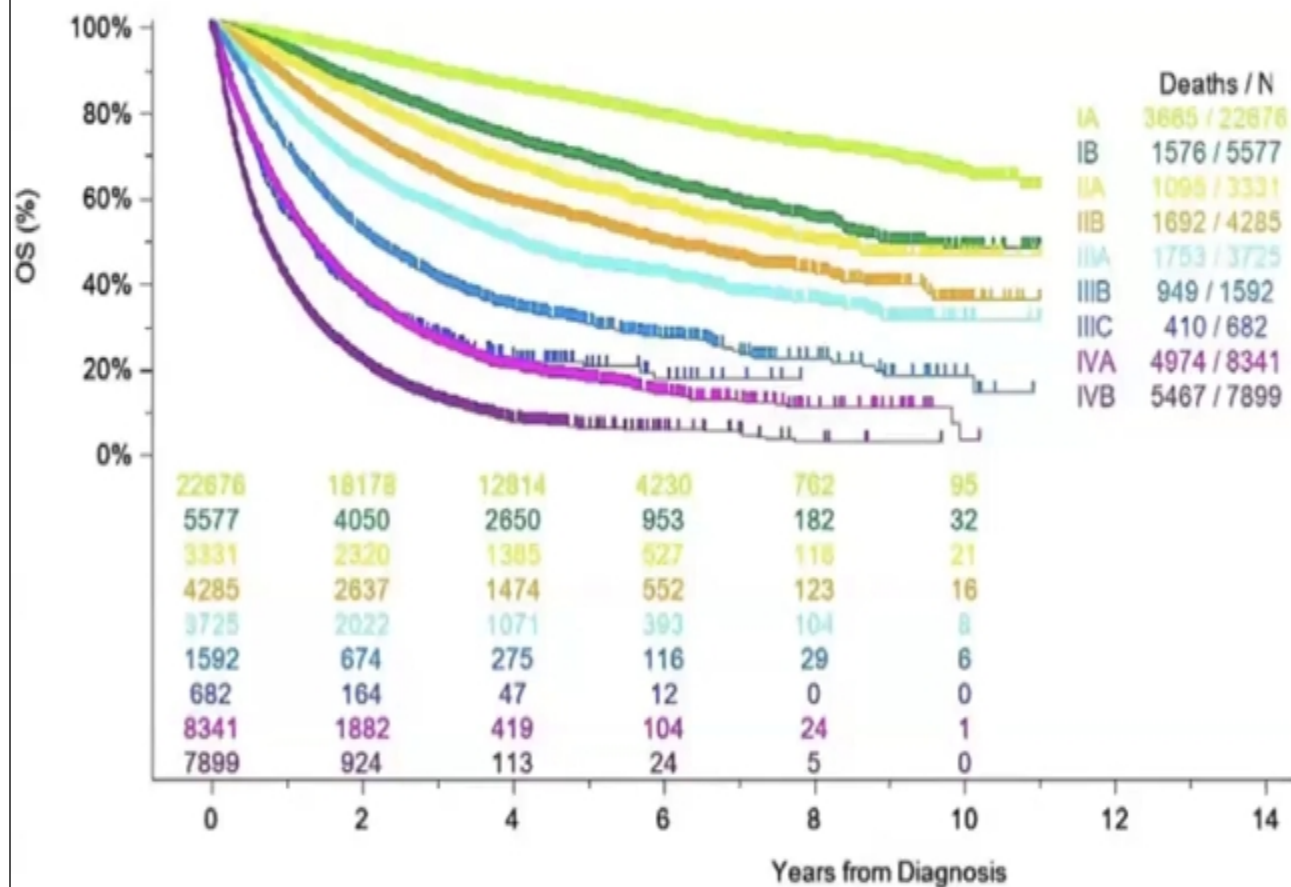
**VITORIA-GASTEIZ** 20 de abril de 2026

**ESTADIOS PRECOCES:**  
**EVIDENCIA DE LA**  
**QUIMIO- INMUNOTERAPIA**  
**NEOADYUVANTE**



Maitane Nuño.  
Hospital Universitario Basurto: Oncología  
Médica

### Overall Survival by Stage (per AJCC 9<sup>th</sup>)<sup>1</sup>



Stage	Median OS (years)	5y OS (%)
IA	NR	82%
IB	9	69%
IIA	8	62%
IIB	5.8	54%
IIIA	4	44%
IIIB	2.1	31%
IIIC	1.3	21%
IVA	1.3	18%
IVB	0.7	7%

## TNM 8ª Ed

- > 4 cms: T2b Estadio IIA
- T3N0: 5-7 cms o que invadan pleura parietal, pericardio, nervio frénico, nódulos en mismo lóbulo, pared torácica (incluido sulcus superior): Estadio IIB
- N2:
- < 5 cms - N2 → Estadio IIIA
- T3-T4 N2 → Estadio IIIB

## TNM 9ª Ed

- > 4 cms: T2b Estadio IIA
- T3N0 : 5-7 cms o que invadan pleura parietal, pericardio, pared torácica, nervio frénico o **azigos, raíces nerviosas torácicos (ej. T1-T2)- ganglio estrellado (o cervicotoracico)**, nódulos en mismo lóbulo: Estadio IIB
- **T2-T3N2a** → Estadio IIIA
- **T2-T3 N2b** → Estadio IIIB

# EVALUACIÓN DE OPERABILIDAD Y RESECABILIDAD:

Diagnóstico adecuado : Estadificación, estudio preoperatorio, y clasificación molecular + equipo multidisciplinario

Table 1. Work-up for diagnosis and staging		
	Mandatory	Optional
General	Medical history <sup>a</sup> Physical examination <sup>a</sup> Assessing comorbidity PS	
Imaging	CT thorax and upper abdomen <sup>a</sup> PET-CT <sup>a</sup> MRI brain <sup>c</sup>	X-ray thorax <sup>b</sup> Bone scintigraphy Contrast-enhanced CT brain
Laboratory	Blood cell counts Renal function Liver enzymes	Bone parameters <sup>d</sup>
Cardiopulmonary function	FVC, FEV1, DLCO ECG If indicated: CPET	Ejection fraction, CAG
Tissue procurement	Bronchoscopy <sup>e,f</sup> EBUS/EUS mediastinal nodes <sup>a</sup> CT-guided biopsy	Mediastinoscopy
Genomic profiling	EGFR mutation status	ALK fusion status
Other biomarkers	PD-L1 expression (for unresectable NSCLC)	PD-L1 expression (for completely resected NSCLC)

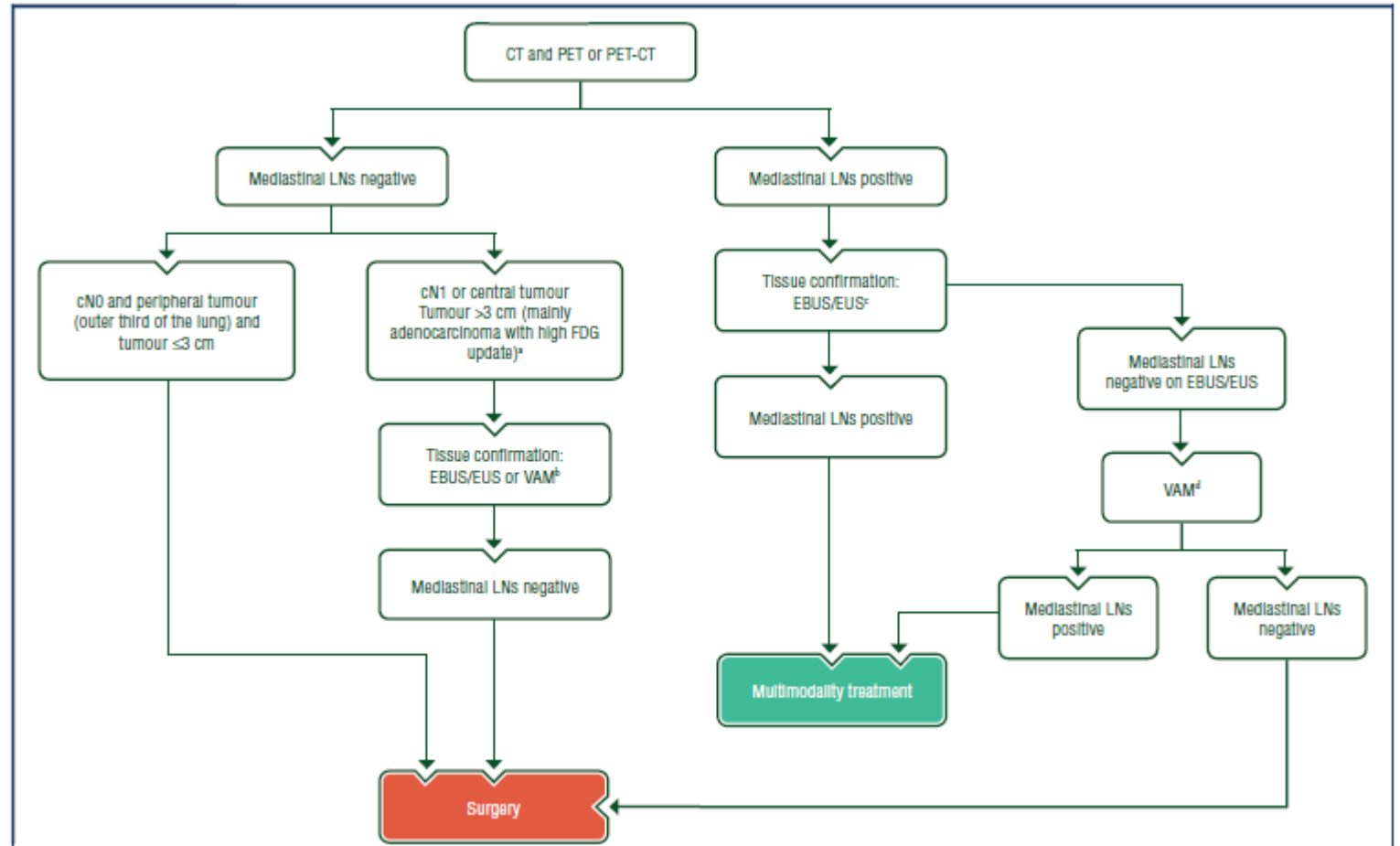


Figure 1. Suggested algorithm for locoregional lymph node staging in patients with non-metastatic NSCLC.

# Resectable NSCLC

## Neoadjuvant

## Perioperative

## Adjuvant

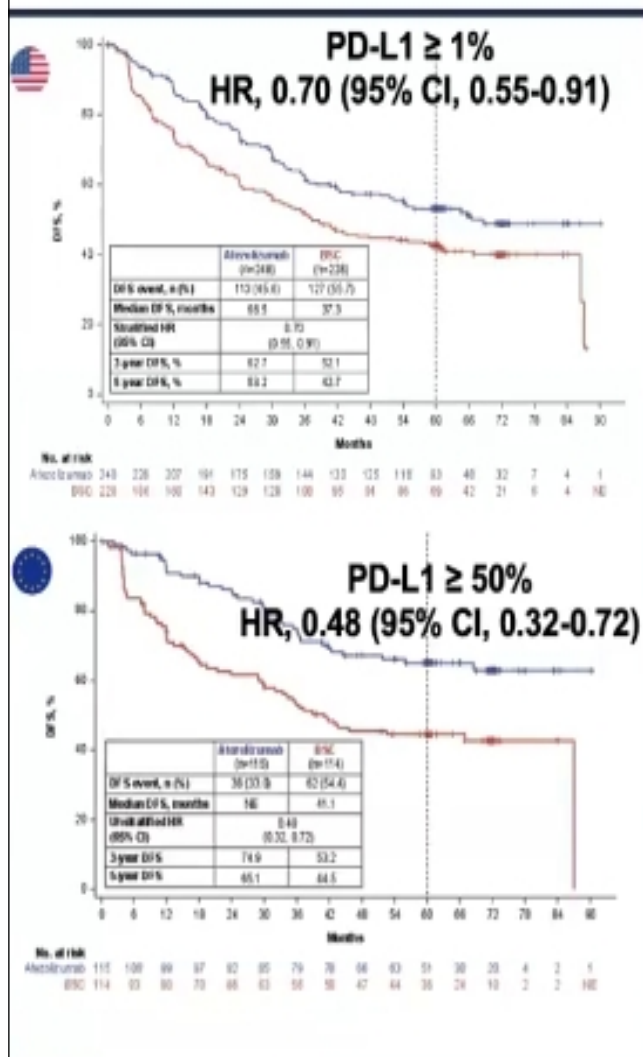
Neoadjuvant			Perioperative			Adjuvant		
Trial	Regimen	PCD*	Trial	Regimen	PCD*	Trial	Regimen	PCD
CheckMate 816 <sup>1†</sup>	Nivolumab + chemo	Apr 2021	AEGEAN <sup>2</sup>	Durvalumab + chemo → Durvalumab	Apr 2023	IMpower010 <sup>10†</sup>	Atezolizumab	Jun 2021
			NEOTORCH <sup>3</sup> (China only)	Toripalimab + chemo ☐ Toripalimab + chemo followed by toripalimab	Apr 2023	KEYNOTE-091 <sup>11†</sup>	Pembrolizumab	Mar 2022
			KEYNOTE-671 <sup>4</sup>	Pembrolizumab + chemo → Pembrolizumab	Jun 2023	CCTC BR31 <sup>12‡</sup>	Durvalumab	Apr 2025
			CheckMate 77T <sup>5</sup>	Nivolumab + chemo → Nivolumab	Oct 2023	ANVIL <sup>13,14</sup>	Nivolumab	Dec 2025
			IMpower030 <sup>6,7</sup>	Atezolizumab + chemo → Atezolizumab	Jan 2025	NADIM-ADJUVANT <sup>15</sup>	Nivolumab + chemo	Apr 2030
			RATIONALE-315 <sup>8,9</sup>	Tislelizumab + chemo → tislelizumab	Jun 2025			

 EU approval

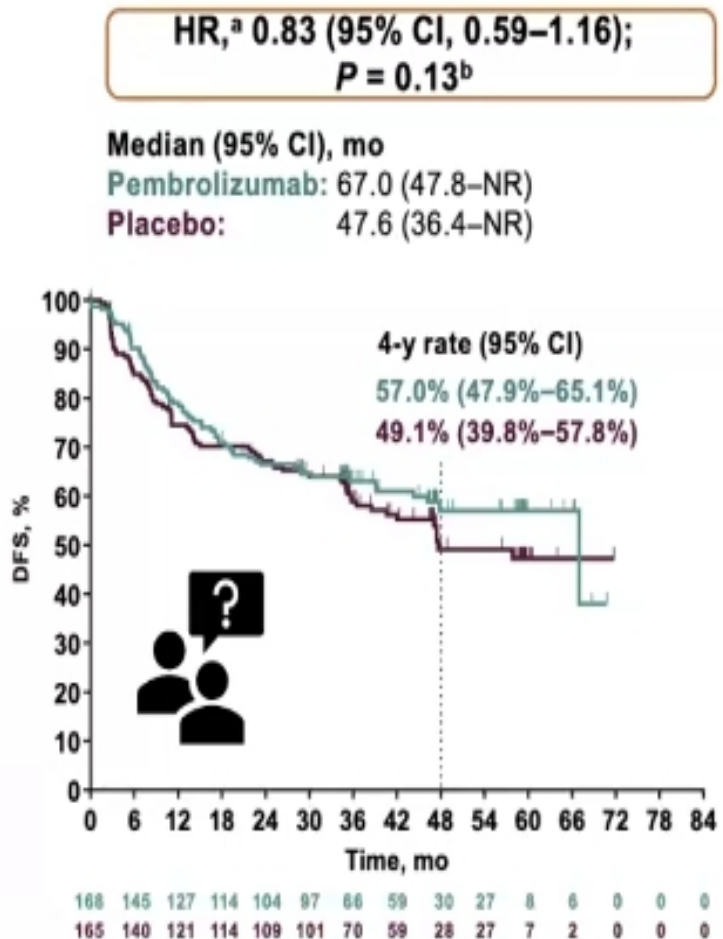
 US approval

 Data readout available

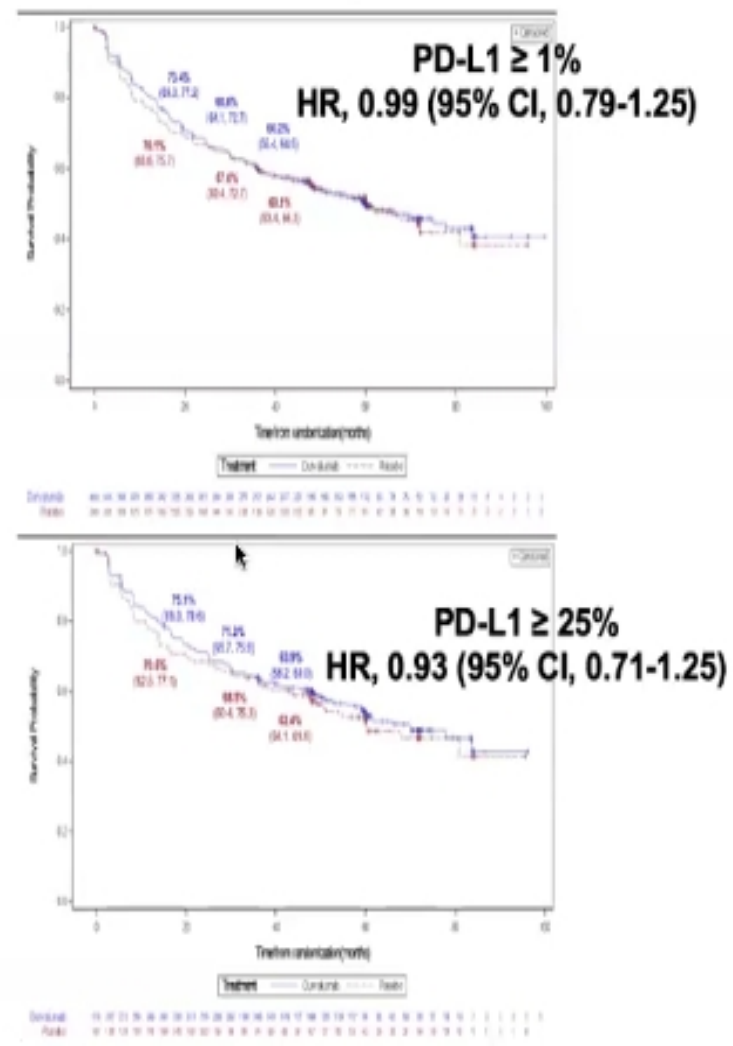
## IMpower010 (PD-L1+)



## KEYNOTE-091 (PD-L1 ≥ 50%)

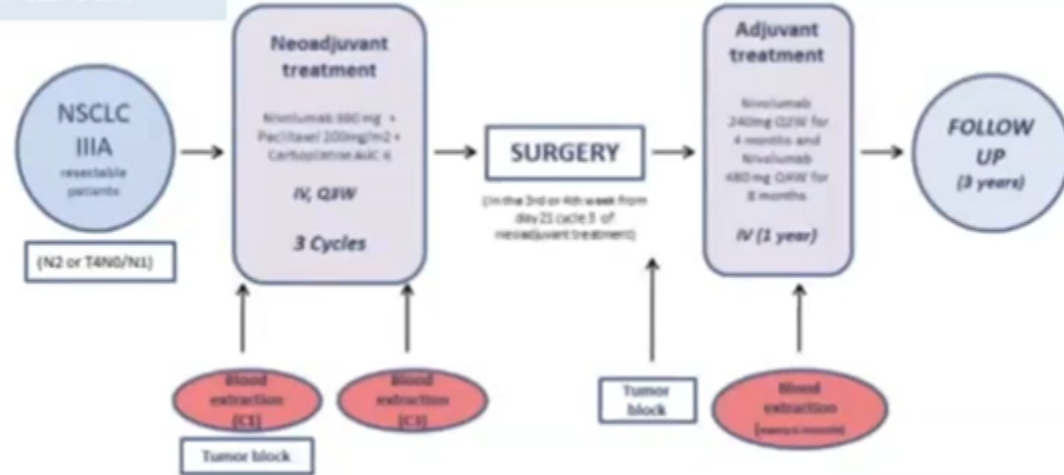


## LINC-BR.31 (PD-L1+)

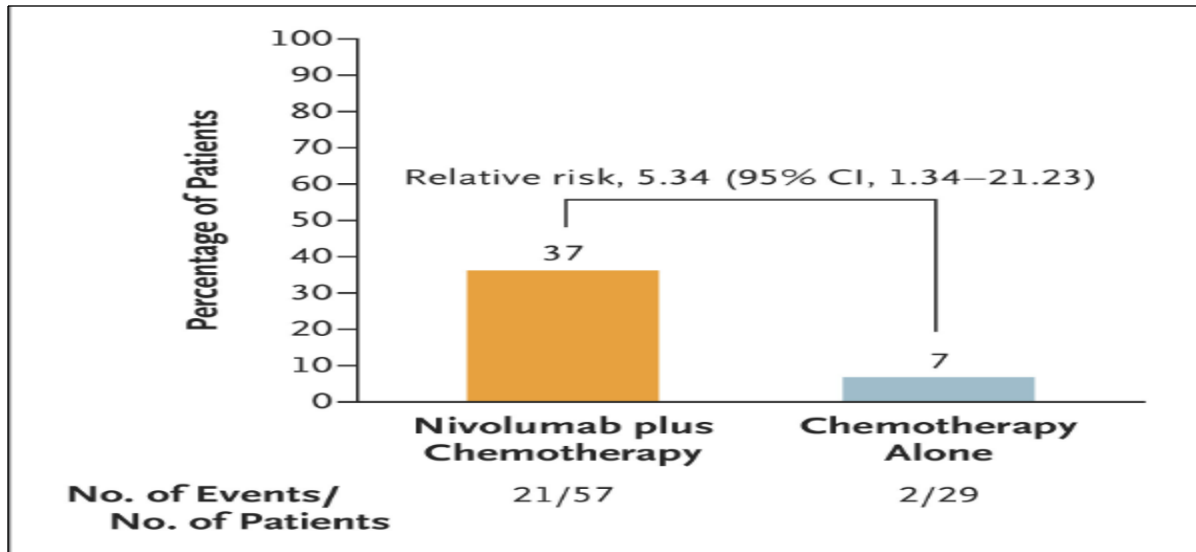
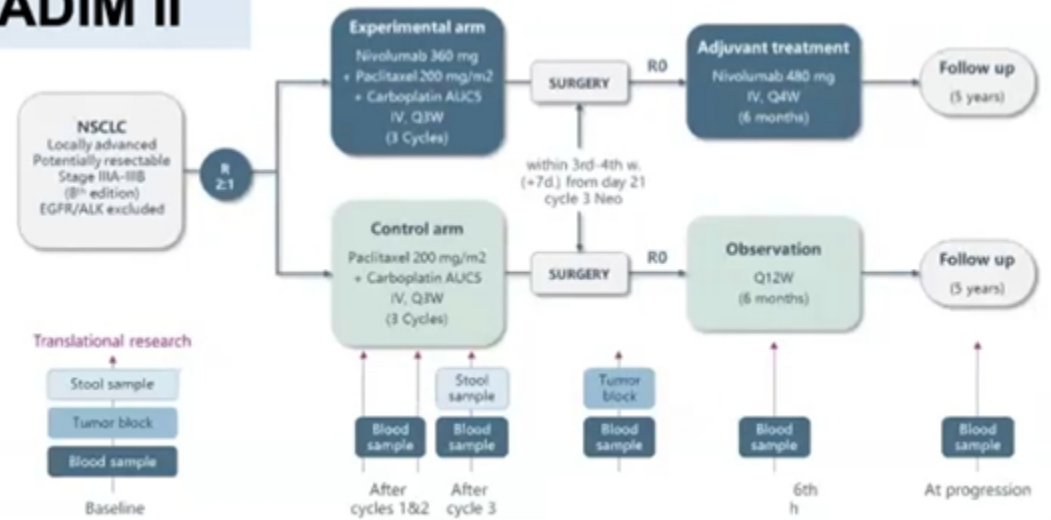


# ESTADIO IIIA-IIIIB

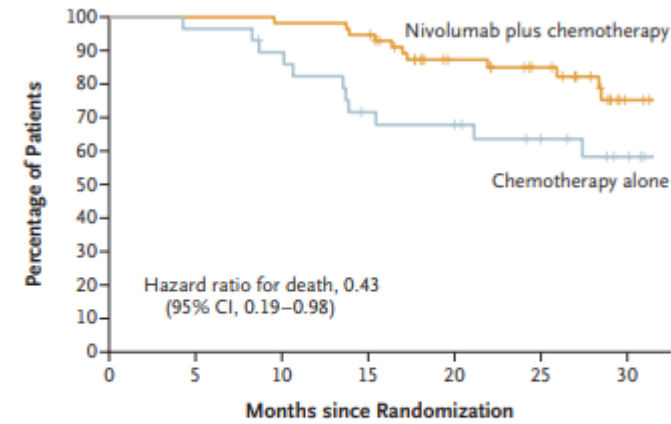
## NADIM



## NADIM II



### B Overall Survival



No. at Risk

Time (Months)	0	5	10	15	20	25	30
Nivolumab plus chemotherapy	57	57	56	54	38	32	15
Chemotherapy alone	29	28	25	19	17	13	9

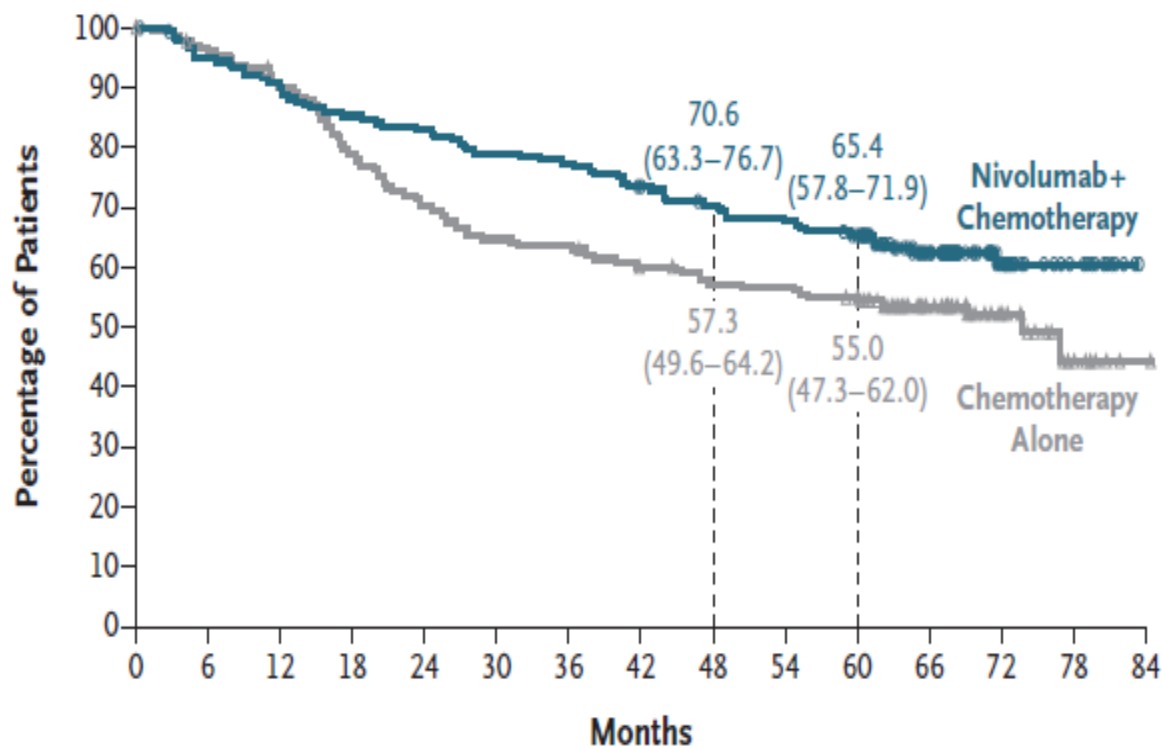
Figure 2. Kaplan–Meier Curves for Progression-free Survival and Overall Survival (Intention-to-Treat Population).

# Checkmate 816

- Estadio IB a IIIA 7<sup>a</sup> ed TNm
- EGFR, ALK negativos
- 3 ciclos neoadyuvantes con nivolumab + doblete de platino vs quimioterapia
- Respuesta completa patológica (pCR) 24 % vs 2%
- Supervivencia libre de enfermedad (SLE) 31.6 meses (95% [CI], 30.2 to not reached) Nivolumab + quimioterapia vs 20,8 meses ( HR 0.63; P = 0.005).

Subgroup	No. of Patients	Event-free Survival (95% CI)		Unstratified Hazard Ratio for Disease Progression, Disease Recurrence, or Death (95% CI)
		Nivolumab plus chemotherapy (N=179)	Chemotherapy alone (N=179)	
Overall	358	31.6 (30.2–NR)	20.8 (14.0–26.7)	0.63 (0.45–0.87)
Age				
<65 yr	176	NR (31.6–NR)	20.8 (14.0–NR)	0.57 (0.35–0.93)
≥65 yr	182	30.2 (23.4–NR)	18.4 (10.6–31.8)	0.70 (0.45–1.08)
Sex				
Male	255	30.6 (20.0–NR)	16.9 (13.8–24.9)	0.68 (0.47–0.98)
Female	103	NR (30.5–NR)	31.8 (13.9–NR)	0.46 (0.22–0.96)
Geographic region				
North America	91	NR (25.1–NR)	NR (12.8–NR)	0.78 (0.38–1.62)
Europe	66	31.6 (13.4–NR)	21.1 (10.2–NR)	0.80 (0.36–1.77)
Asia	177	NR (30.2–NR)	16.5 (10.8–22.7)	0.45 (0.29–0.71)
ECOG performance-status score				
0	241	NR (30.2–NR)	22.7 (16.6–NR)	0.61 (0.41–0.91)
1	117	30.5 (14.6–NR)	14.0 (9.8–26.2)	0.71 (0.41–1.21)
Disease stage at baseline				
IB or II	127	NR (27.8–NR)	NR (16.8–NR)	0.87 (0.48–1.56)
IIIA	228	31.6 (26.6–NR)	15.7 (10.8–22.7)	0.54 (0.37–0.80)
Histologic type of tumor				
Squamous	182	30.6 (20.0–NR)	22.7 (11.5–NR)	0.77 (0.49–1.22)
Nonsquamous	176	NR (27.8–NR)	19.6 (13.8–26.2)	0.50 (0.32–0.79)
Smoking status				
Current or former smoker	318	31.6 (30.2–NR)	22.4 (15.7–NR)	0.68 (0.48–0.96)
Never smoked	39	NR (5.6–NR)	10.4 (7.7–20.8)	0.33 (0.13–0.87)
PD-L1 expression level				
<1%	155	25.1 (14.6–NR)	18.4 (13.9–26.2)	0.85 (0.54–1.32)
≥1%	178	NR (NR–NR)	21.1 (11.5–NR)	0.41 (0.24–0.70)
1–49%	98	NR (27.8–NR)	26.7 (11.5–NR)	0.58 (0.30–1.12)
≥50%	80	NR (NR–NR)	19.6 (8.2–NR)	0.24 (0.10–0.61)

**A Overall Survival**



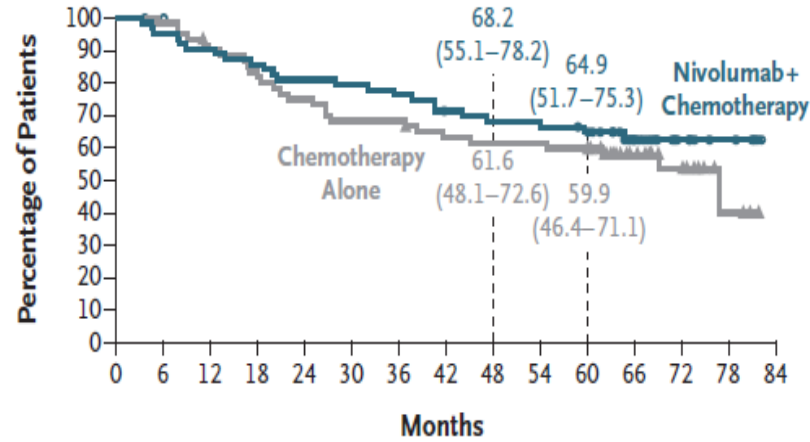
	Median Overall Survival (95% CI) mo
<b>Nivolumab+Chemotherapy (N=179)</b>	NR (NR–NR)
<b>Chemotherapy Alone (N=179)</b>	73.7 (47.3–NR)

Hazard ratio for death, 0.72 (95% CI, 0.523–0.998)  
P=0.048

**No. at Risk**

Nivolumab+chemo-therapy	179	168	159	151	147	140	137	129	122	117	111	67	29	9	0
Chemotherapy alone	179	170	159	139	124	114	112	104	98	97	91	58	29	6	1

**A Overall Survival in Patients with Baseline Disease Stage IB to II**



**Median Overall Survival (95% CI)**  
*mo*

**Nivolumab+Chemotherapy (N=65)** NR (64.7–NR)

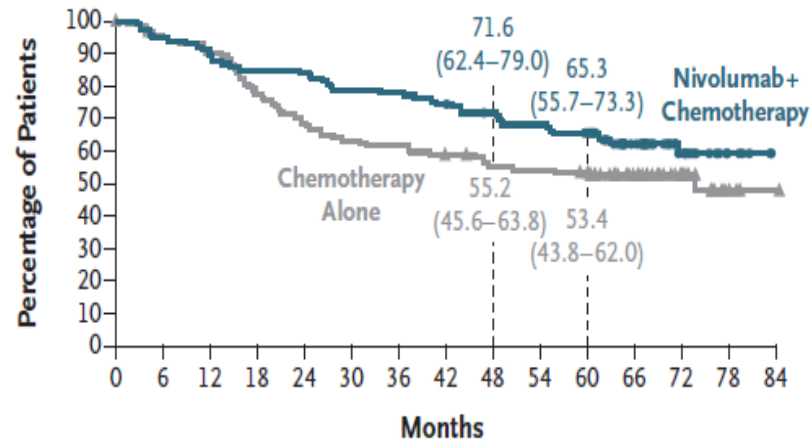
**Chemotherapy Alone (N=61)** 76.8 (41.6–NR)

Hazard ratio for death, 0.77 (95% CI, 0.44–1.35)

**No. at Risk**

Nivolumab+chemotherapy	65	60	57	54	51	50	48	44	42	41	39	21	11	4	0
Chemotherapy alone	61	60	54	50	45	41	41	37	36	36	34	20	12	3	0

**B Overall Survival in Patients with Baseline Disease Stage IIIA**



**Median Overall Survival (95% CI)**  
*mo*

**Nivolumab+Chemotherapy (N=113)** NR (71.6–NR)

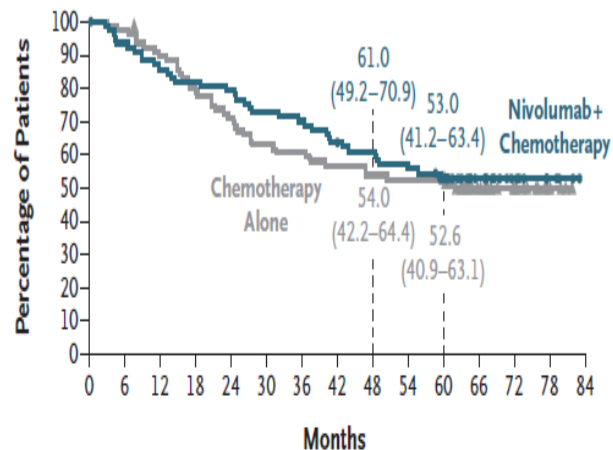
**Chemotherapy Alone (N=116)** 73.7 (39.8–NR)

Hazard ratio for death, 0.70 (95% CI, 0.47–1.05)

**No. at Risk**

Nivolumab+chemotherapy	113	107	101	96	95	89	88	84	79	75	71	46	18	5	0
Chemotherapy alone	116	108	103	88	78	72	70	66	61	60	57	38	17	3	1

**C Overall Survival in Patients with Tumor PD-L1 Expression <1%**

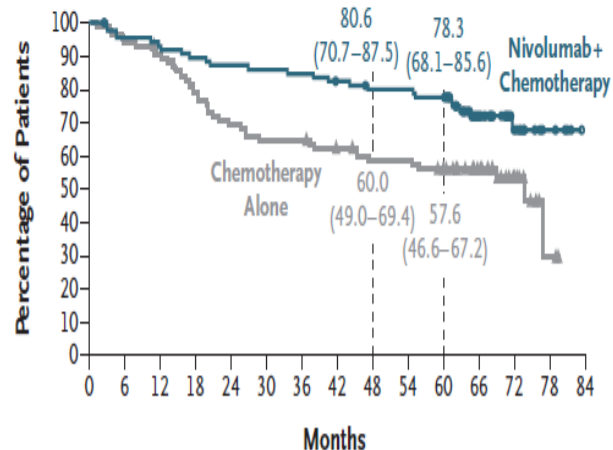


**Median Overall Survival (95% CI)**  
*mo*  
**Nivolumab+Chemotherapy (N=78)** NR (43.8–NR)  
**Chemotherapy Alone (N=77)** 61.8 (31.2–NR)  
 Hazard ratio for death, 0.89 (95% CI, 0.57–1.41)

**No. at Risk**

Nivolumab+chemotherapy	78	72	66	63	61	56	54	49	46	42	38	23	12	4	0
Chemotherapy alone	77	74	68	61	54	48	46	43	41	40	39	23	13	3	0

**D Overall Survival in Patients with Tumor PD-L1 Expression ≥1%**

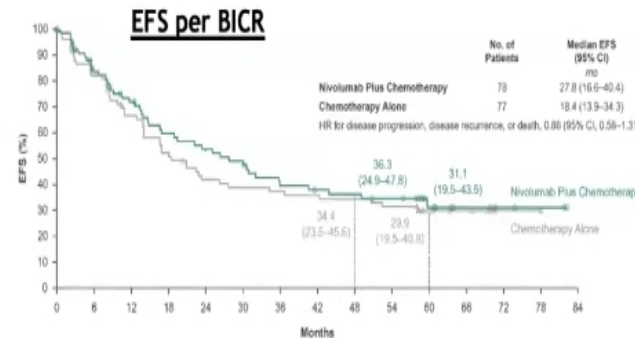
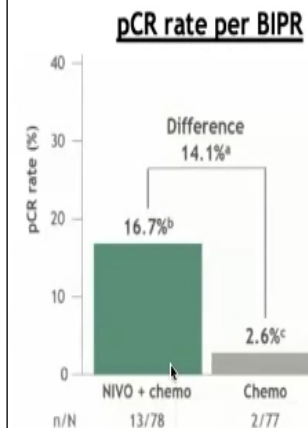


**Median Overall Survival (95% CI)**  
*mo*  
**Nivolumab+Chemotherapy (N=89)** NR (NR–NR)  
**Chemotherapy Alone (N=89)** 73.7 (47.3–NR)  
 Hazard ratio for death, 0.51 (95% CI, 0.31–0.84)

**No. at Risk**

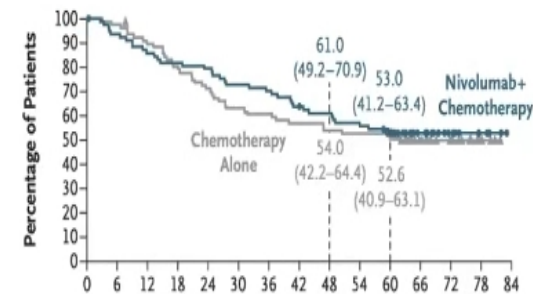
Nivolumab+chemotherapy	89	84	82	79	77	76	75	72	69	69	67	40	16	5	0
Chemotherapy alone	89	84	80	70	62	58	58	54	50	50	46	31	15	2	0

**Subgroup analysis for PD-L1 < 1%**

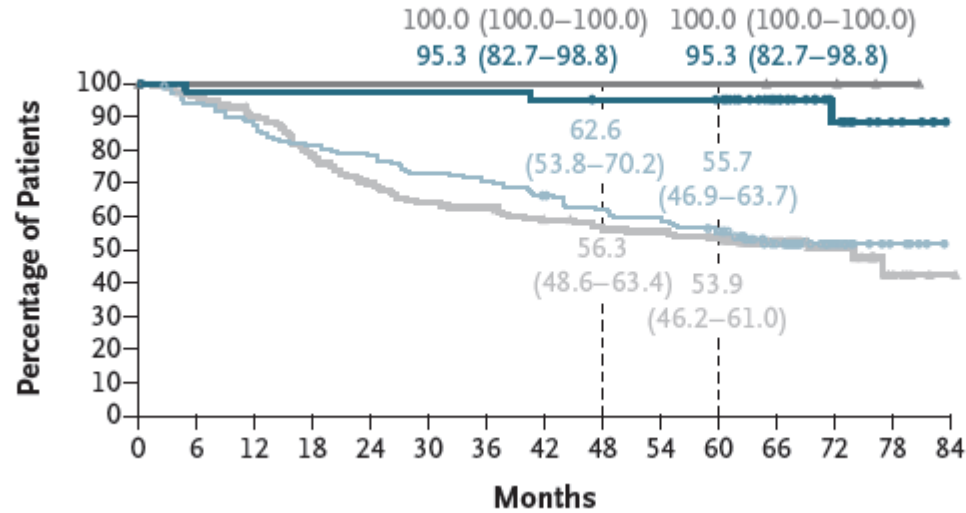


No. at Risk																				
Nivolumab Plus Chemotherapy	78	58	40	39	35	32	25	22	21	19	9	5	3	2	0					
Chemotherapy Alone	77	60	46	36	28	26	25	24	23	21	10	7	1	0	0					

**OS**



### Overall Survival in Patients with or without a Pathological Complete Response (pCR)



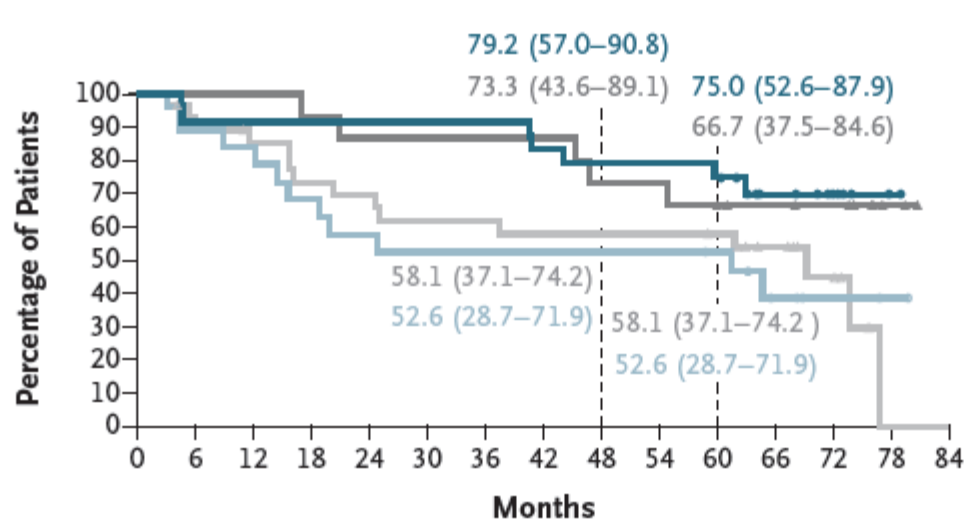
**Median Overall Survival (95% CI)**  
mo

**Nivolumab+Chemotherapy**  
 — pCR (N=43) NR (NR-NR)  
 — No pCR (N=136) NR (53.9-NR)

Hazard ratio for death,  
0.11 (0.04-0.36)

**Chemotherapy Alone**  
 — pCR (N=4) NR (NR-NR)  
 — No pCR (N=175) 73.7 (46.7-NR)

### Overall Survival in Patients with or without Circulating Tumor DNA (ctDNA) Clearance



**Median Overall Survival (95% CI)**  
mo

**Nivolumab+Chemotherapy**  
 — ctDNA clearance (N=24) NR (62.9-NR)  
 — No ctDNA clearance (N=19) 61.5 (14.5-NR)

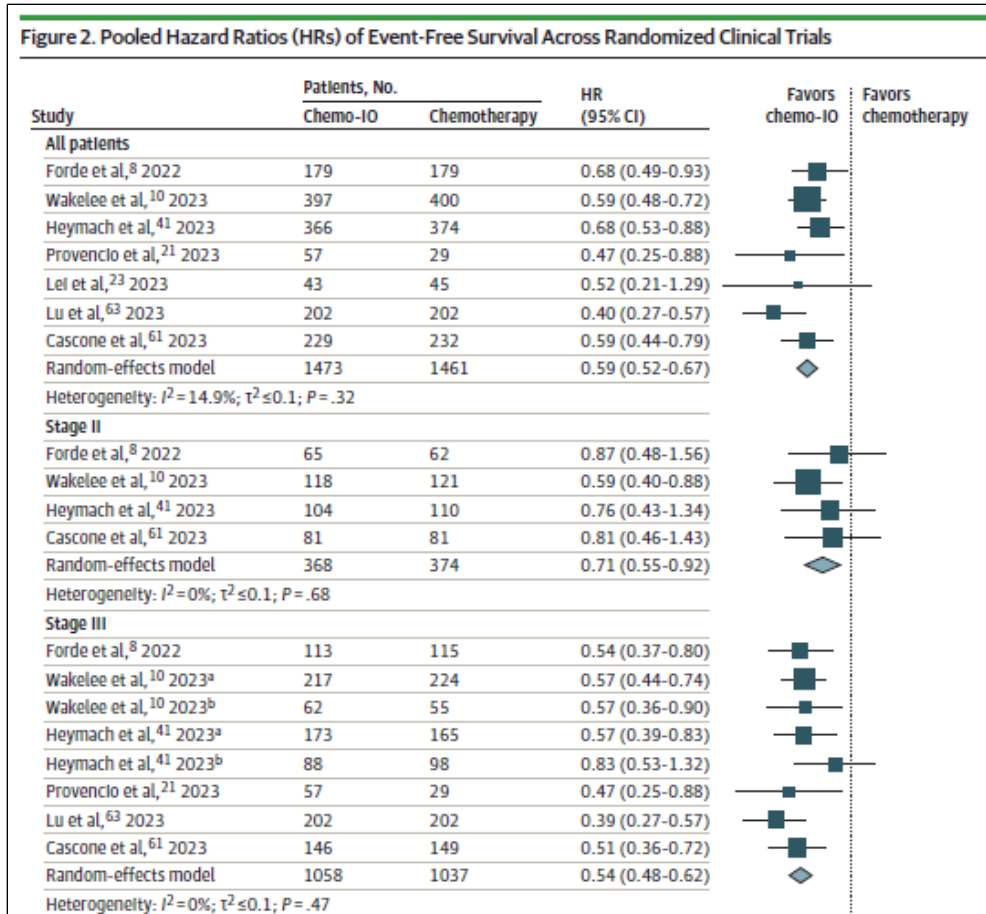
Hazard ratio for death,  
0.38 (0.15-1.00)

**Chemotherapy Alone**  
 — ctDNA clearance (N=15) NR (45.3-NR)  
 — No ctDNA clearance (N=28) 69.2 (20.2-NR)

Hazard ratio for death,  
0.39 (0.14-1.11)

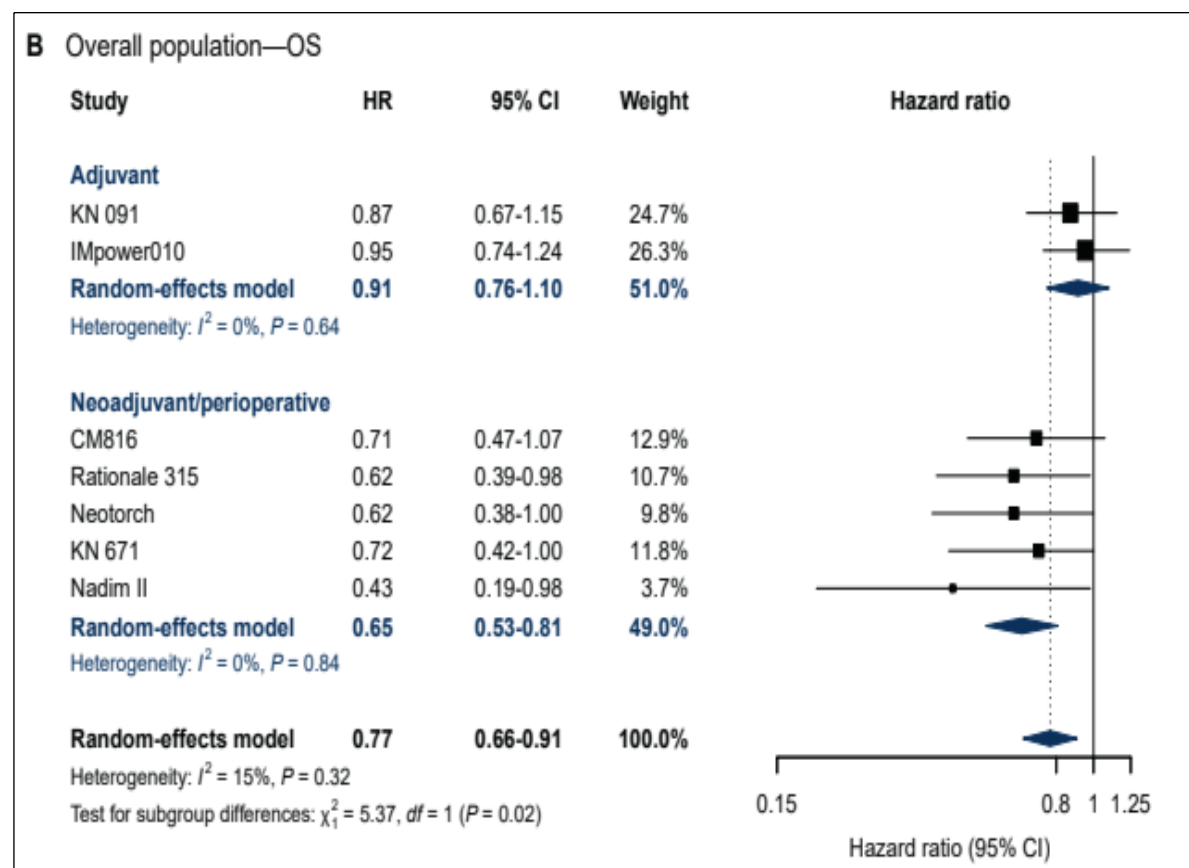
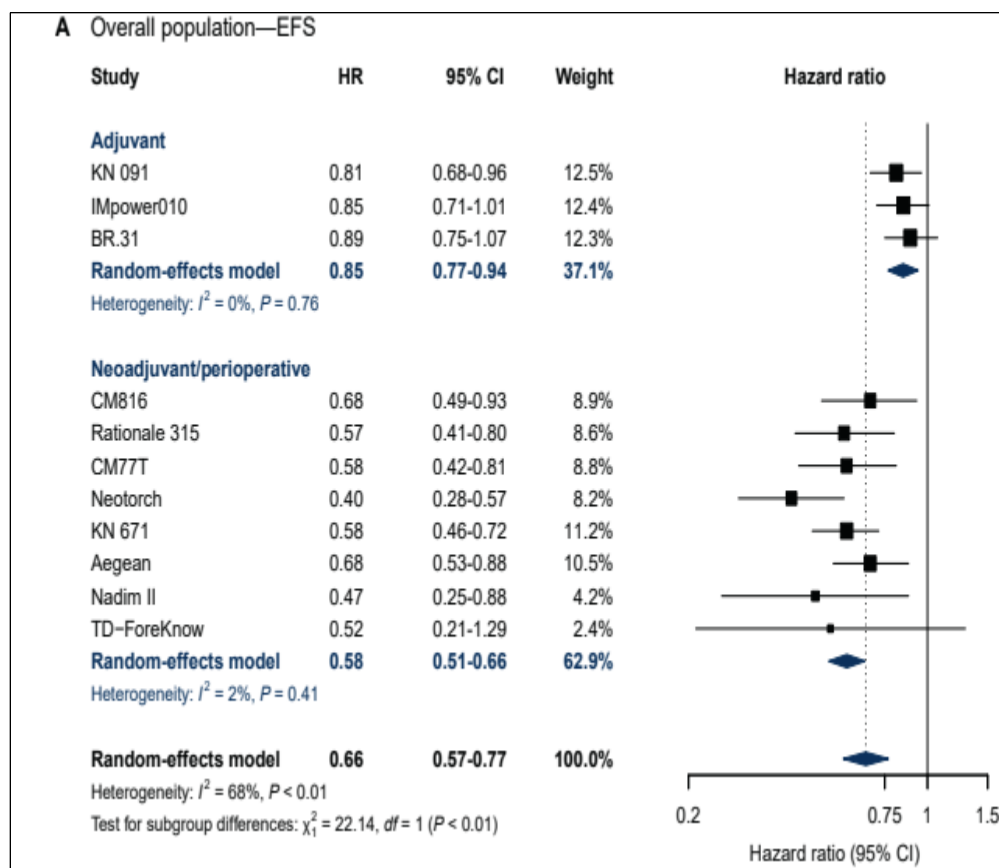
# Neoadjuvant Chemoimmunotherapy for NSCLC A Systematic Review and Meta-Analysis

- 43 estudios total: 8 randomizados
- Respuesta patológica mayor (MPR) y pCR favorable a quimio-inmunoterapia neoadyuvantes
- SG HR 0.65; 95%CI, 0.54-0.79
- PD L1 en las 3 categorías: SLE Beneficio favorable a quimio-inmunoterapia neoadyuvante HR 0.74; 95% CI, 0.62-0.89
  - ✓ SG restringida a PD L1 mayor o igual a 1%



# Immunotherapy for resectable NSCLC: neoadjuvant/perioperative followed by surgery over surgery followed by adjuvant. Systematic review and meta-analysis with subgroup analyses

G. Rossi<sup>1</sup> · L. Barcellini<sup>2,3</sup> · M. Tagliamento<sup>2,3</sup> · F. Spagnolo<sup>1,6</sup> · L. Del Mastro<sup>2,3</sup> · C. Genova<sup>2,3</sup> ... Show more



### A Stage II—EFS

Study	HR	95% CI	Weight
<b>Adjuvant</b>			
KN 091	0.70	0.55-0.91	27.0%
IMpower010	0.77	0.35-1.69	4.2%
BR.31	0.95	0.74-1.21	27.8%
<b>Random-effects model</b>	<b>0.81</b>	<b>0.63-1.05</b>	<b>58.9%</b>

Heterogeneity:  $I^2 = 31\%$ ,  $P = 0.23$

#### Neoadjuvant/perioperative

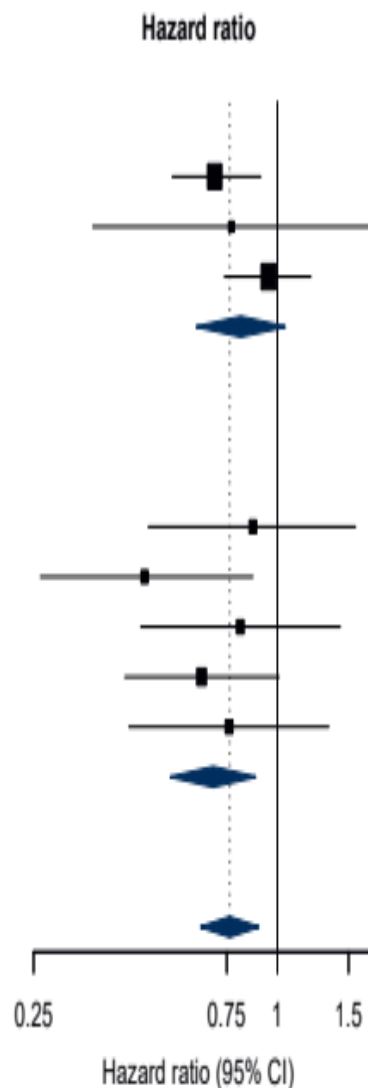
CM816	0.87	0.48-1.56	7.1%
Rationale 315	0.47	0.26-0.87	6.8%
CM77T	0.81	0.46-1.43	7.6%
KN 671	0.65	0.42-1.01	11.9%
Aegean	0.76	0.43-1.34	7.6%
<b>Random-effects model</b>	<b>0.69</b>	<b>0.54-0.88</b>	<b>41.1%</b>

Heterogeneity:  $I^2 = 0\%$ ,  $P = 0.62$

<b>Random-effects model</b>	<b>0.76</b>	<b>0.65-0.90</b>	<b>100.0%</b>
-----------------------------	-------------	------------------	---------------

Heterogeneity:  $I^2 = 0\%$ ,  $P = 0.46$

Test for subgroup differences:  $\chi^2 = 0.77$ ,  $df = 1$  ( $P = 0.38$ )



### PD-L1 < 1%—EFS

Study	HR	95% CI	Weight
<b>Adjuvant</b>			
KN 091	0.78	0.58-1.03	18.8%
IMpower010	0.97	0.72-1.31	17.1%
BR.31	0.81	0.60-1.11	16.2%
<b>Random-effects model</b>	<b>0.85</b>	<b>0.71-1.01</b>	<b>51.9%</b>

Heterogeneity:  $I^2 = 0\%$ ,  $P = 0.55$

#### Neoadjuvant/perioperative

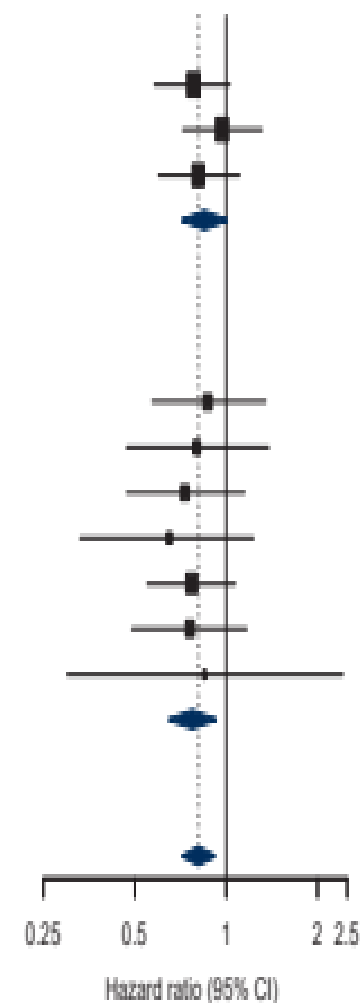
CM816	0.87	0.57-1.35	8.2%
Rationale 315	0.80	0.47-1.38	5.3%
CM77T	0.73	0.47-1.15	7.7%
Neotorch	0.65	0.33-1.23	3.5%
KN 671	0.77	0.55-1.07	13.8%
Aegean	0.78	0.49-1.17	8.1%
Nadim II	0.85	0.30-2.42	1.4%
<b>Random-effects model</b>	<b>0.77</b>	<b>0.65-0.93</b>	<b>48.1%</b>

Heterogeneity:  $I^2 = 0\%$ ,  $P = 1.00$

<b>Random-effects model</b>	<b>0.81</b>	<b>0.72-0.92</b>	<b>100.0%</b>
-----------------------------	-------------	------------------	---------------

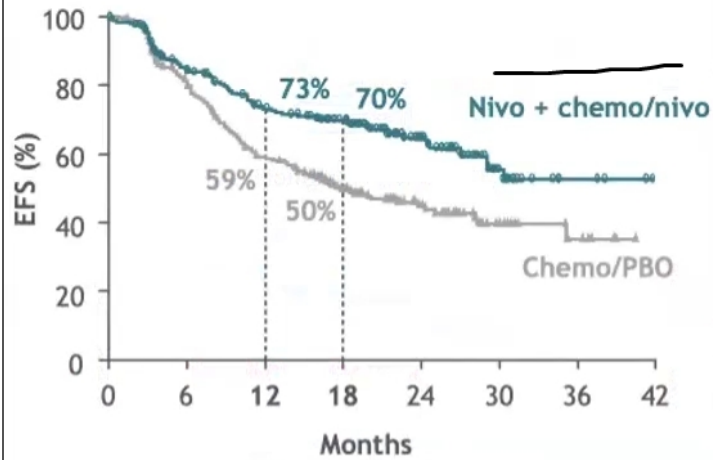
Heterogeneity:  $I^2 = 0\%$ ,  $P = 0.98$

Test for subgroup differences:  $\chi^2 = 0.53$ ,  $df = 1$  ( $P = 0.47$ )



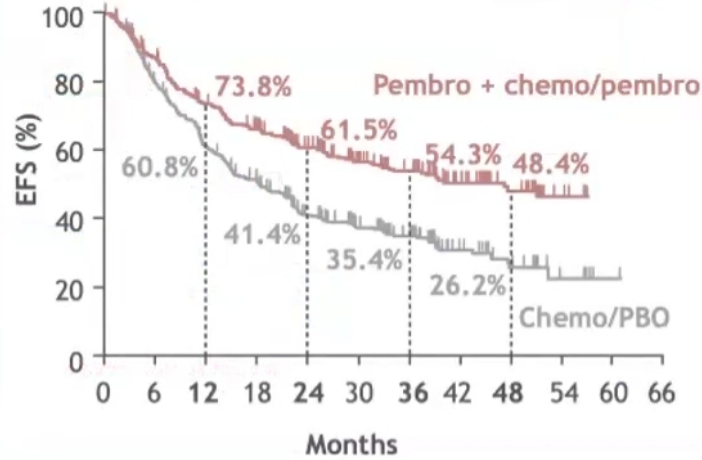
### CheckMate 77T<sup>1,2</sup>

	Nivo + chemo/nivo (n=229)	Chemo/PBO (n=232)
Median EFS, mo	NR	18.4
HR (97.36% CI)*	0.58 (0.42-0.81)	



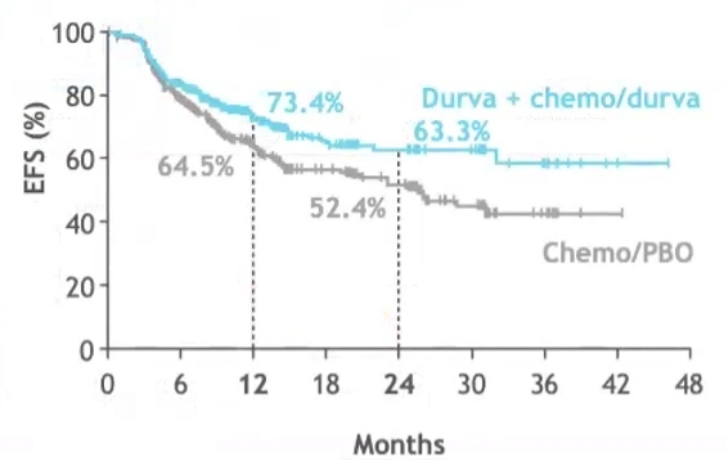
### KEYNOTE-671<sup>3,4</sup>

	Pembro + chemo/pembro (n=397)	Chemo/PBO (n=400)
Median EFS, mo	47.2	18.3
HR (95% CI)	0.59 (0.48-0.72)	



### AEGEAN<sup>5,6</sup>

	Durva + chemo/durva (n=366)	Chemo/PBO (n=374)
Median EFS, mo	NR	25.9
HR (95% CI)	0.68 (0.53-0.88)	



Cascone et al. NEJM 2024; Wakelee et al. NEJM 2023; Heymach et al. NEJM 2023.

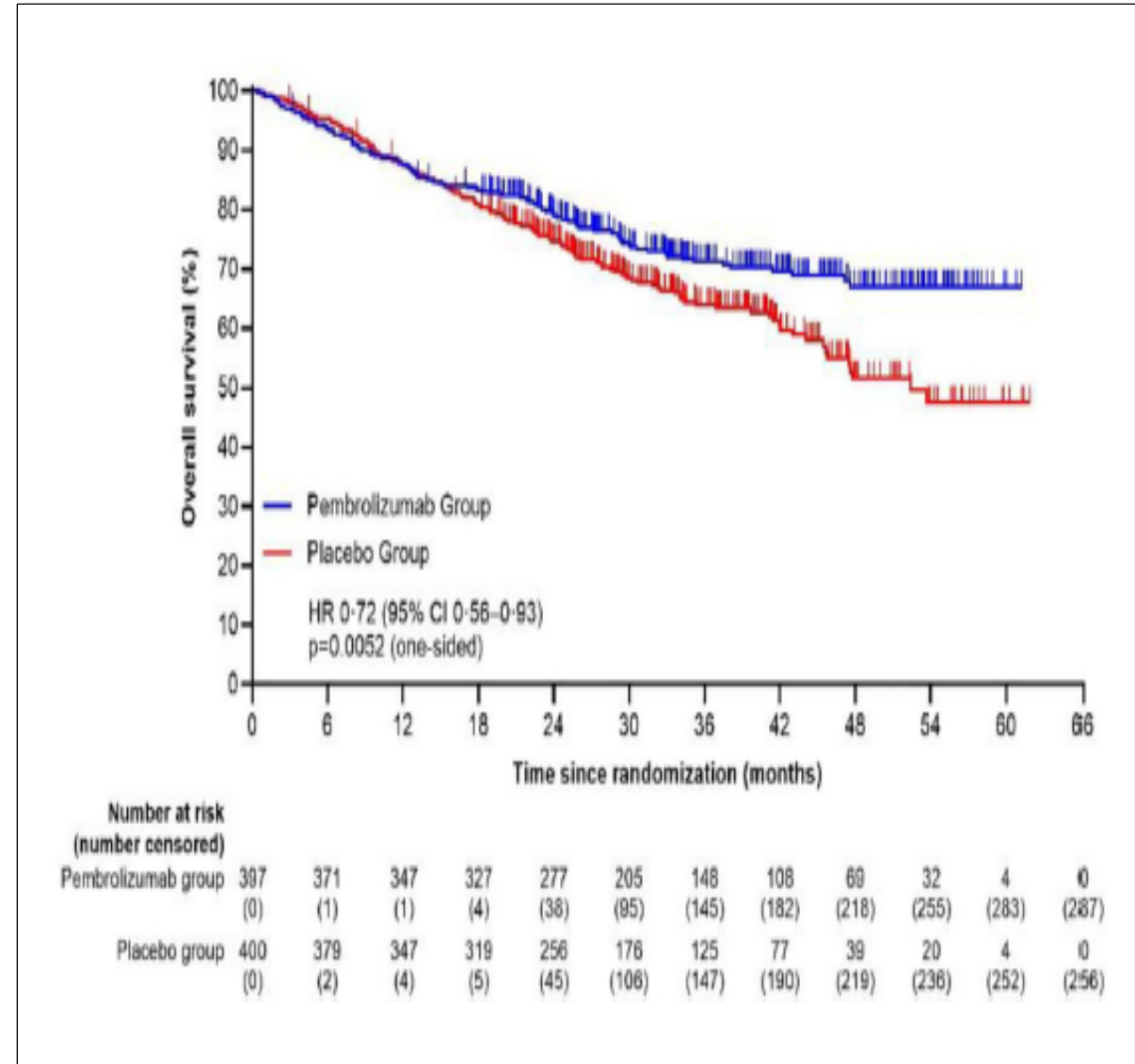
# Keynote 671

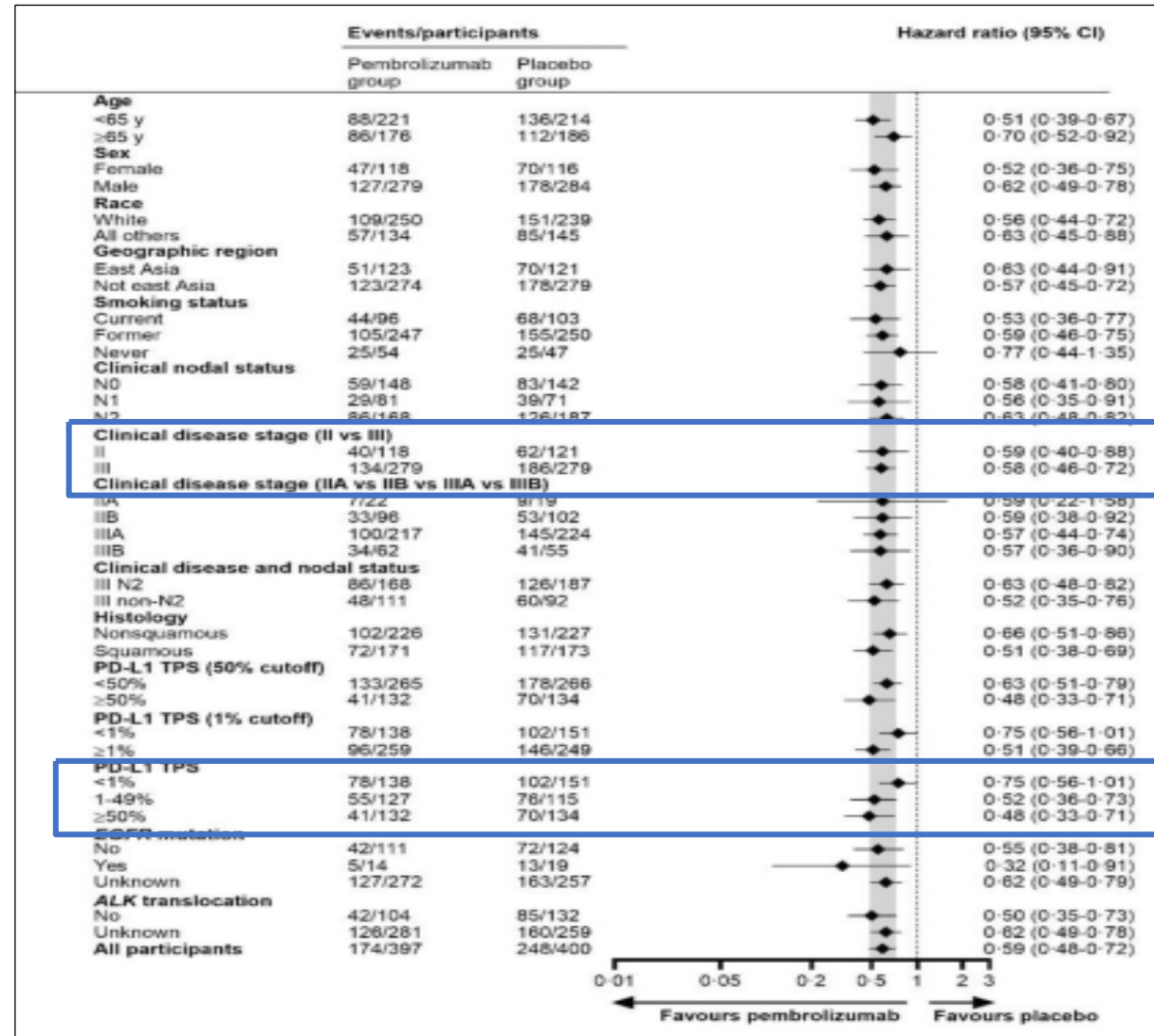
-ESTADIO II-IIIB 8<sup>a</sup> ed TNM

-Pembrolizumab neoadyuvante + doblete de cisplatino x 4 ciclos y posterior adyuvancia con pembrolizumab x 13 ciclos vs doblete de quimioterapia neoadyuvante

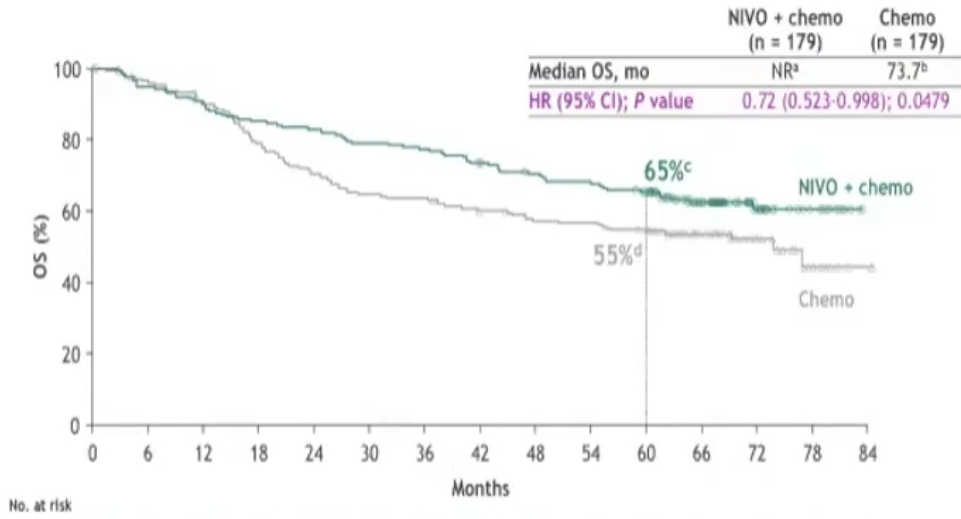
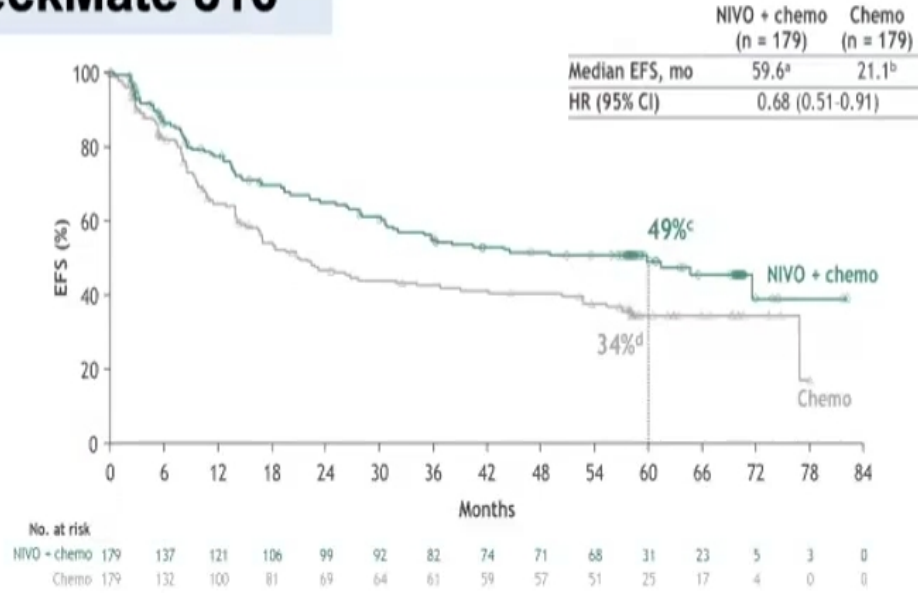
-Diferencia EFS 19% (HR 0,58) comparado con quimioterapia

-pCR 18,1 vs 4% con placebo p < 0,0001

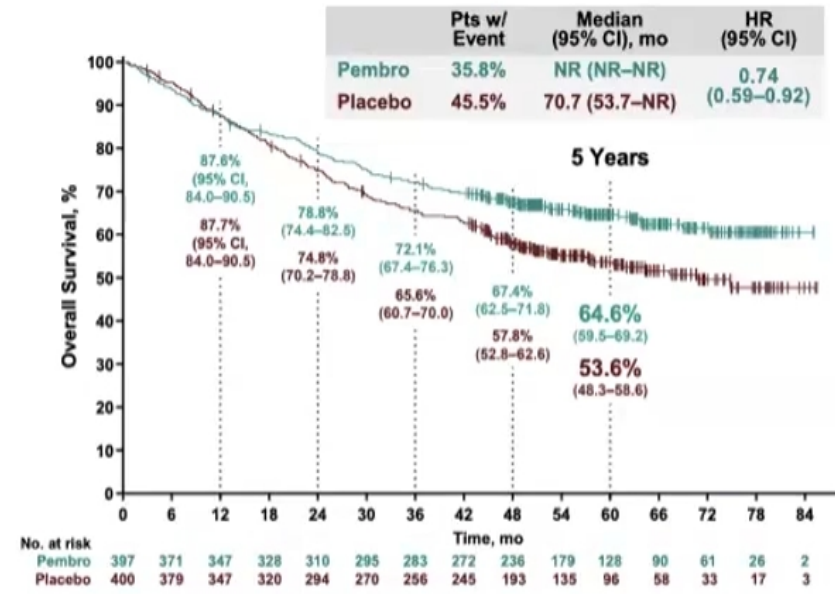
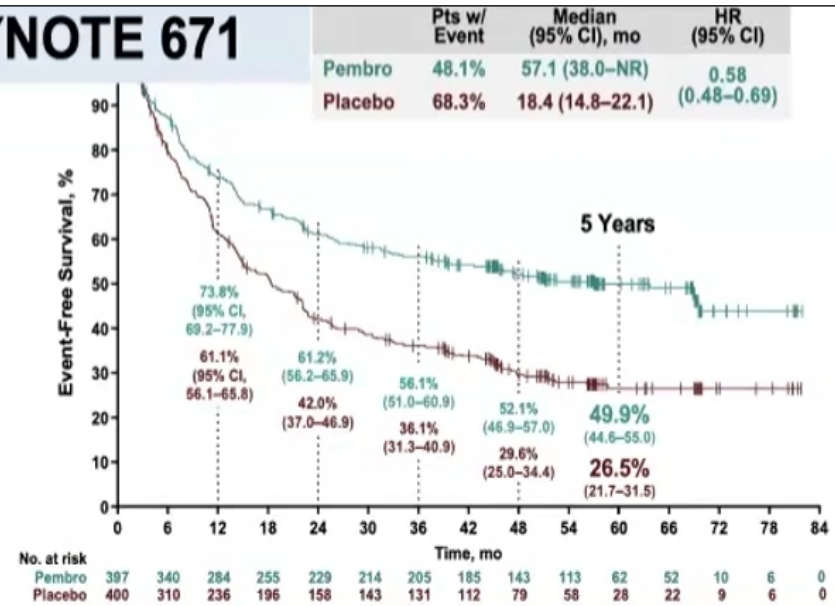




# CheckMate 816



# KEYNOTE 671



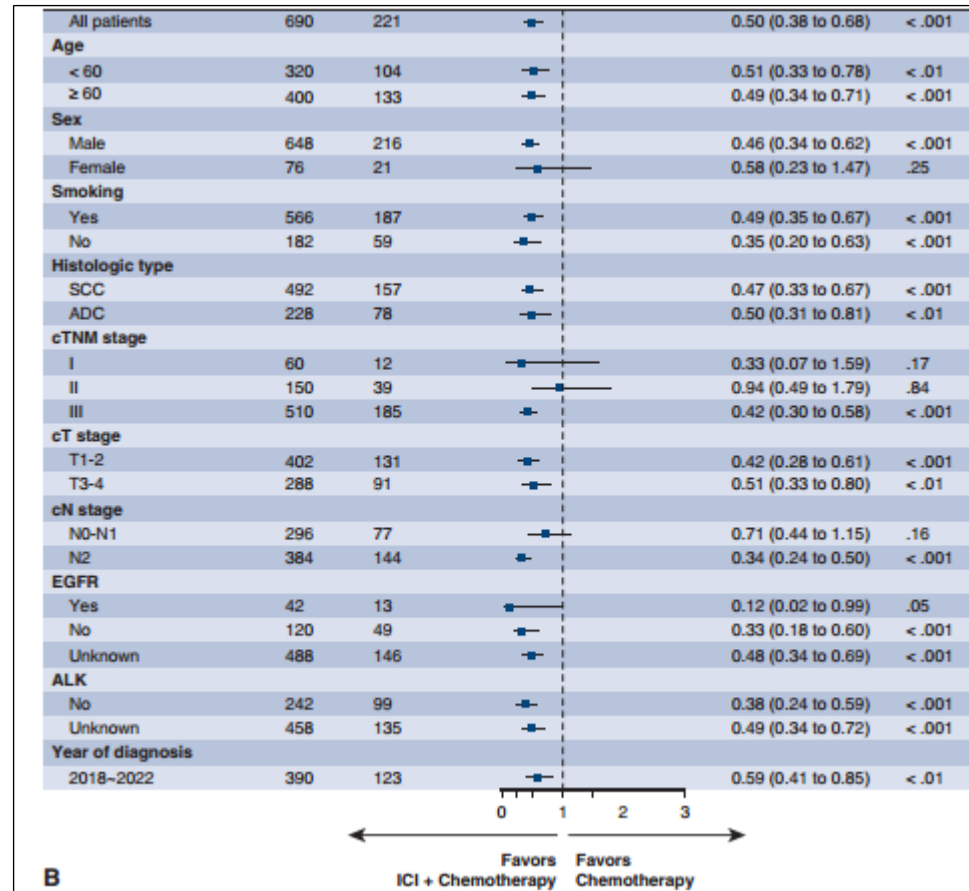
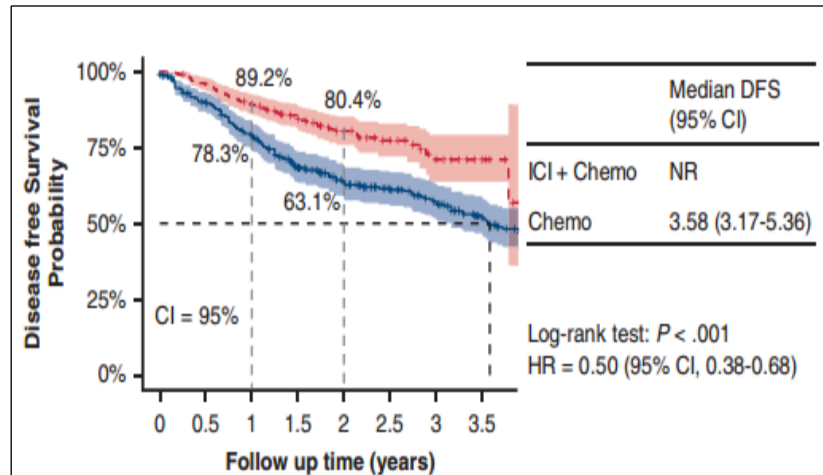
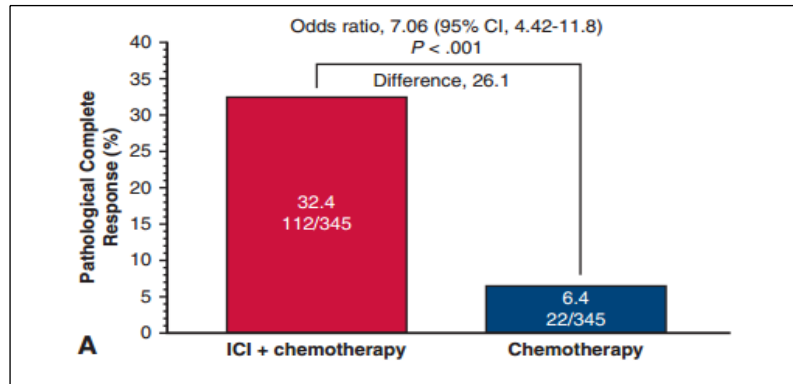
## The Society of Thoracic Surgeons Expert Consensus on the Multidisciplinary Management and Resectability of Locally Advanced Non-small Cell Lung Cancer

- T2b/T3N0 (4-7 cms): Quimio-inmunoterapia neoadyuvante se prefiere sobre adyuvancia, particularmente si PD L1 +
- Datos son menos claros con tamaño 4-5 cms → No consenso si tratamiento sistémico antes o después de cirugía
- Si N1 única o multiple N1: Quimio-inmunoterapia neoadyuvante se prefiere sobre adyuvancia, particularmente si PD L1 +
  - ✓ Tener en cuenta que N1 multiple es más probable que esconda N2

## The Society of Thoracic Surgeons Expert Consensus on the Multidisciplinary Management and Resectability of Locally Advanced Non-small Cell Lung Cancer

- T4 N0 - N1: Heterogeneo
  - ✓ > 7cms o nódulos satélites en diferentes lóbulos
  - ✓ Invasión diafragma, mediastino, nervio recurrente, cuerpos vertebrales o carina
- Buena estadificación mediastino -  
Discusión amplia en Comité de Tumores
- Checkmate 816
  - ✓ Mejor tasas de R0, regresión tumoral y pCR

# Treatment patterns and clinical outcomes of patients with resectable non-small cell lung cancer receiving neoadjuvant immunochemotherapy: A large-scale, multicenter, real-world study (NeoR-World)

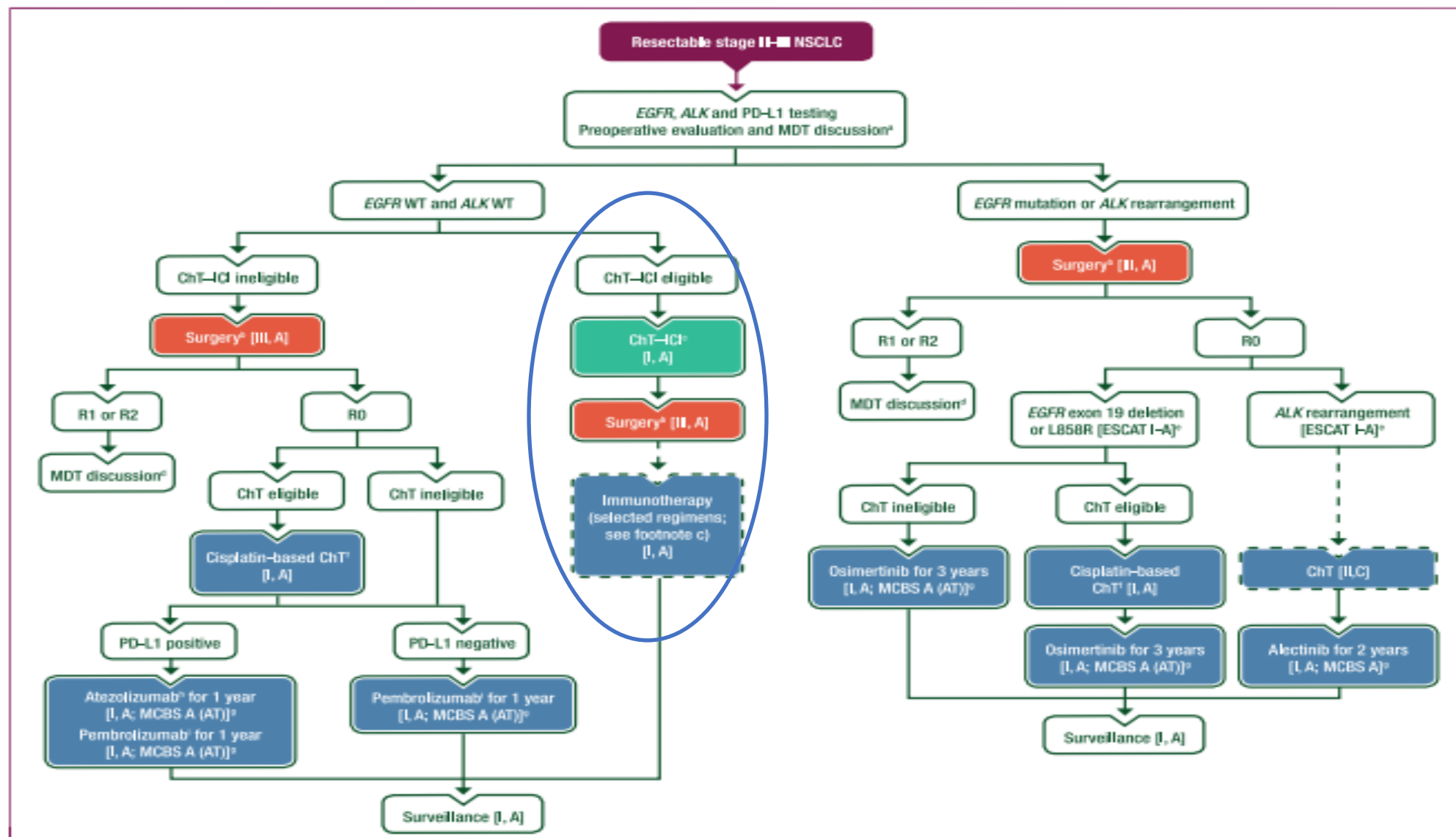


## Real-world outcomes of neoadjuvant chemoimmunotherapy in patients with nonsmall cell lung cancer: Predictors of surgery, pathologic complete response, and event-free survival

🔗 This article relates to: [↘](#)

[Alissa J. Cooper MD](#) ✉, [Edoardo Garbo MD](#), [Andrea Arfe PhD](#), [Michael Conroy MB, BCh](#), [Bao Narek Shaverdian MD](#), [Matthew Bott MD](#), [Teresa Gorria MD](#), [Federica Pecci MD](#) ... [See all authors](#) [↘](#)

- 115 pacientes
- 63% estadio III.
- 77% completaba 3 ciclos de quimio-inmunoterapia
- 78% cirugía
- 17% pCR, 30% MPR
- PD L1 > 50% predictor de pCR (OR 12; p= 0,007)
- DFS no alcanzada

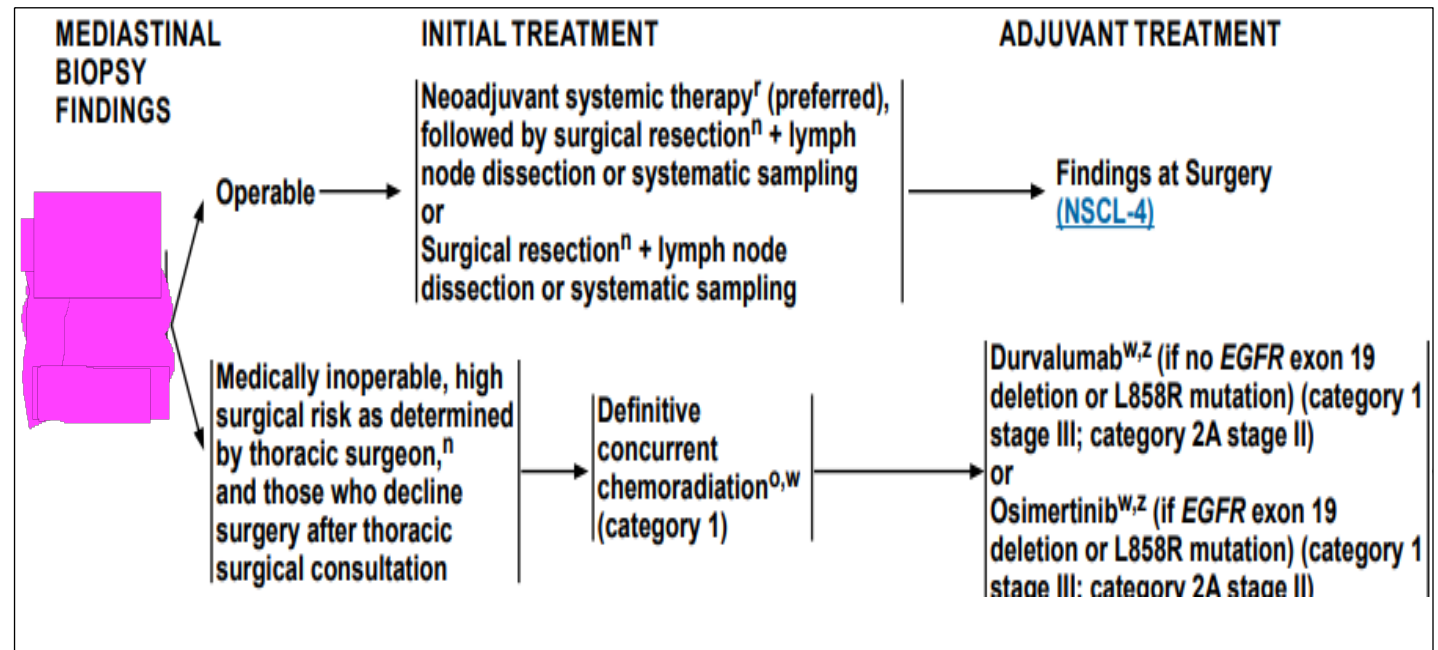
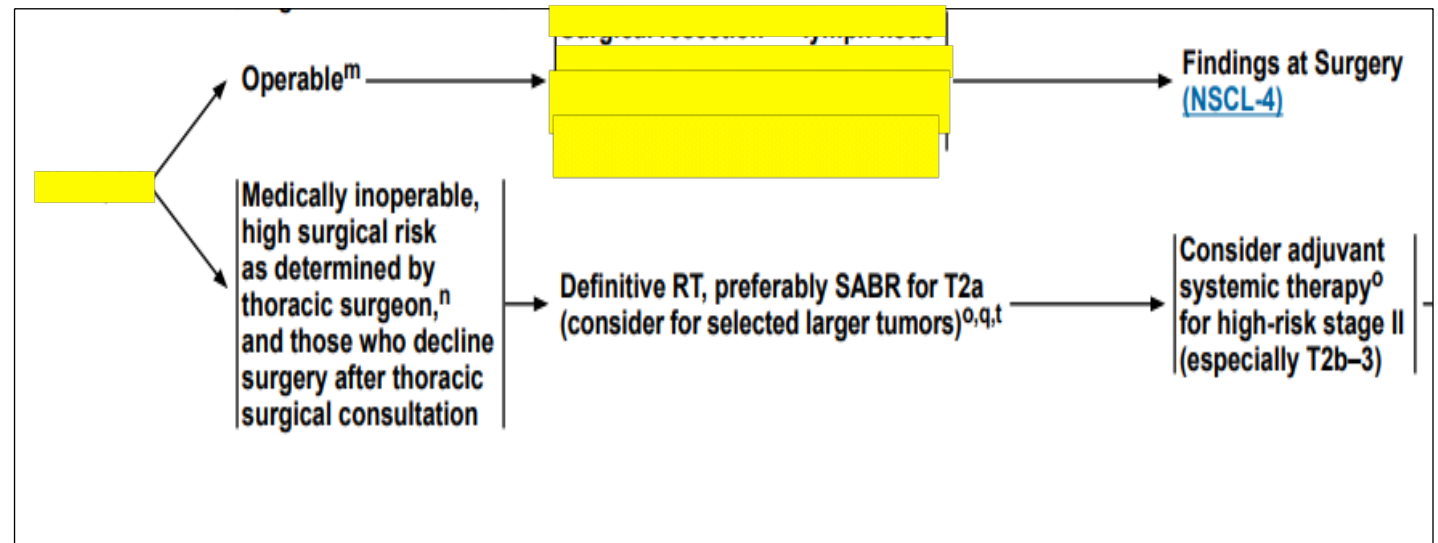


**Figure 2. Management of resectable stage II-III NSCLC.**

Tumores mayor o igual a 4 cms o N1. Sin mutación EGFR ni Fusión ALK

3 estrategias con categoría 1:

1. Nivolumab + doblete de platino 3 ciclos (carbo-Paclitaxel / Cisplatino-Docetaxel / Cisplatino-Pemetrexed (no escamoso) / Cisplatino-Gemcitabina (escamoso))
2. Pembrolizumab + Doblete de quimioterapia con Cisplatino 4 ciclos
3. Durvalumab + doblete de platino 3 ciclos



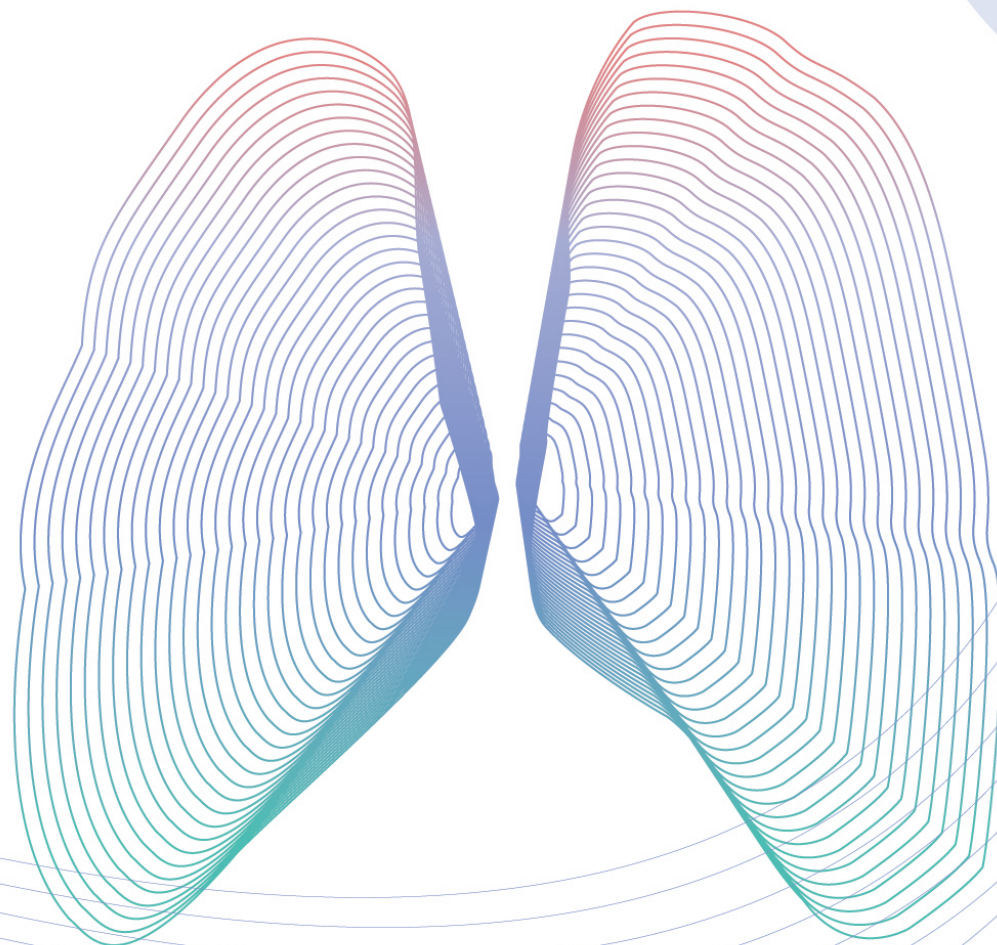
# CONCLUSIONES

- Datos más consistentes con Neoadyuvancia que de adyuvancia.
- Combinación de quimio e inmunoterapia neoadyuvante - con o sin tratamiento adyuvante posterior: Es preferible para la mayoría de los pacientes con N1 o N2 o mayores de 4 cms (Estadio IIA 8-9<sup>a</sup> ed) (PD L1 > 1%)
- Importante discusión en Comité de Tumores torácicos; Inclusión en ensayos clínicos (de-escalar o intensificar tratamiento)
- Necesario definir qué pacientes se benefician sólo de neoadyuvancia o continuar inmunoterapia tras cirugía (por ej: pCR vs tumor residual viable / persistente ctDNA / toxicidad inmunomediada – ECOG

# 3<sup>a</sup> Jornada sobre **Cáncer** de **Pulmón** y **Oncología** **Torácica** del **País Vasco**

**VITORIA-GASTEIZ** 20 de abril de 2026

# GRACIAS

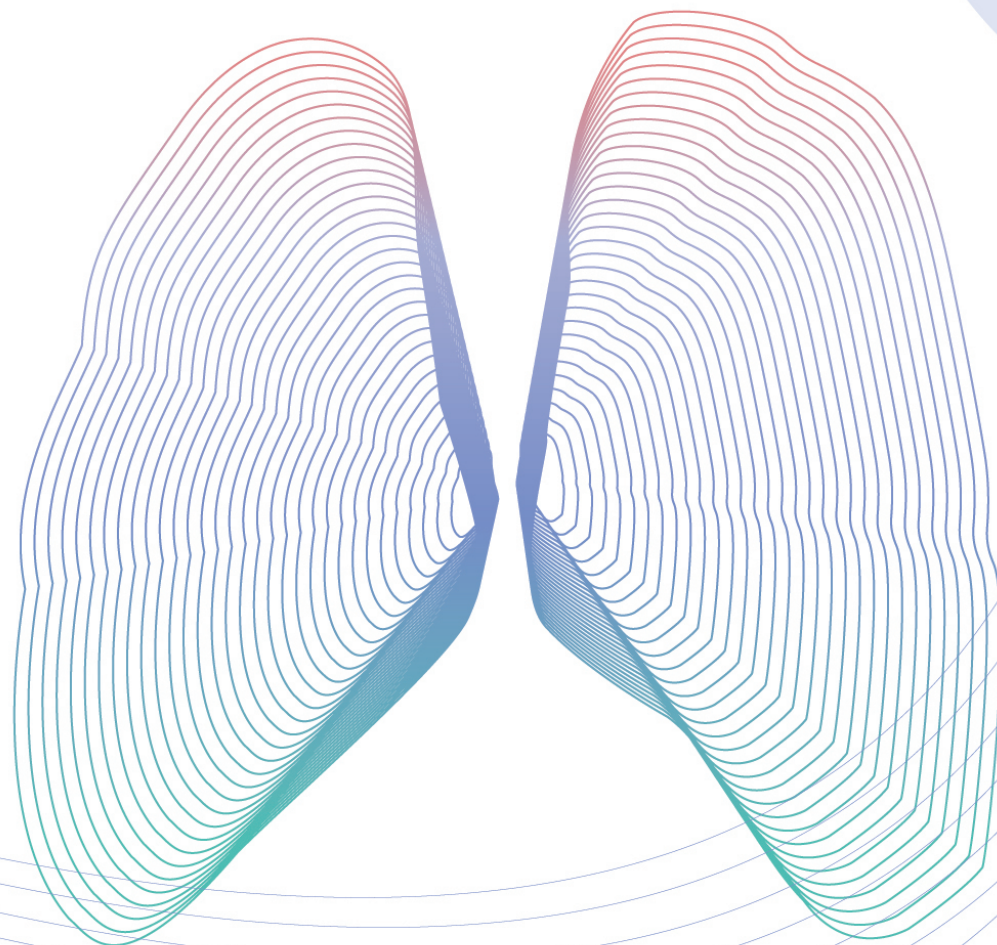


Maitane Nuño.  
Hospital Universitario Basurto: Oncología  
Médica

# 3<sup>a</sup> Jornada sobre **Cáncer** de **Pulmón** y **Oncología** **Torácica** del **País Vasco**

VITORIA-GASTEIZ 20 de abril de 2026

# GRACIAS



Maitane Nuño.  
Hospital Universitario Basurto: Oncología  
Médica