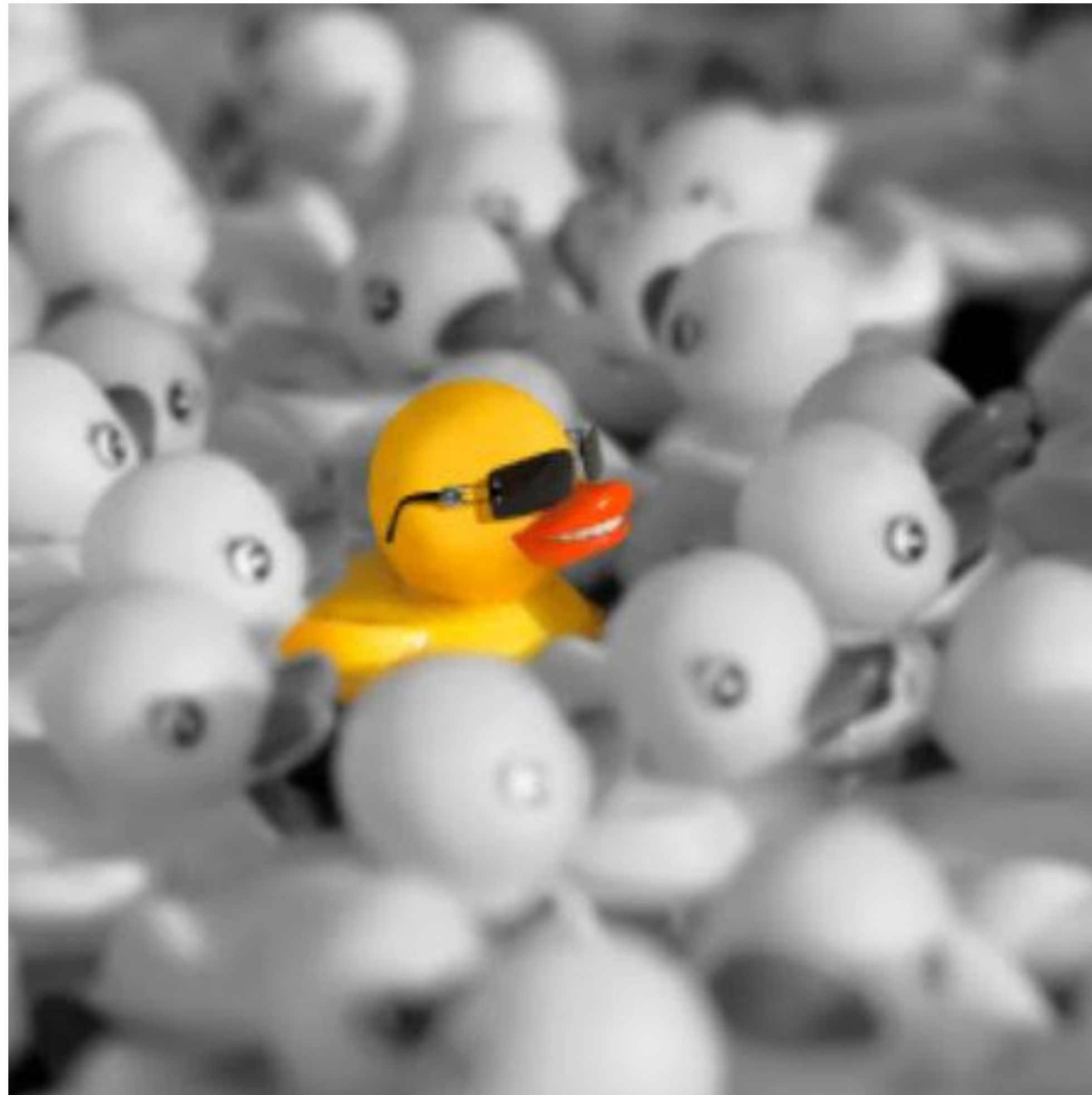


# New Operable Lung Cancer Algorithms: Nothing is What it Used to Be!

Benny Weksler, MD, MBA, FACS, FACCP  
Chief of Thoracic Surgery  
Allegheny Health Network  
Professor of Surgery  
Drexel University Medical College

# Disclosures

- AstraZeneca - Speaker and advisory board
- Merck - Speaker
- Intuitive - Proctor
- Atricare - Research grant

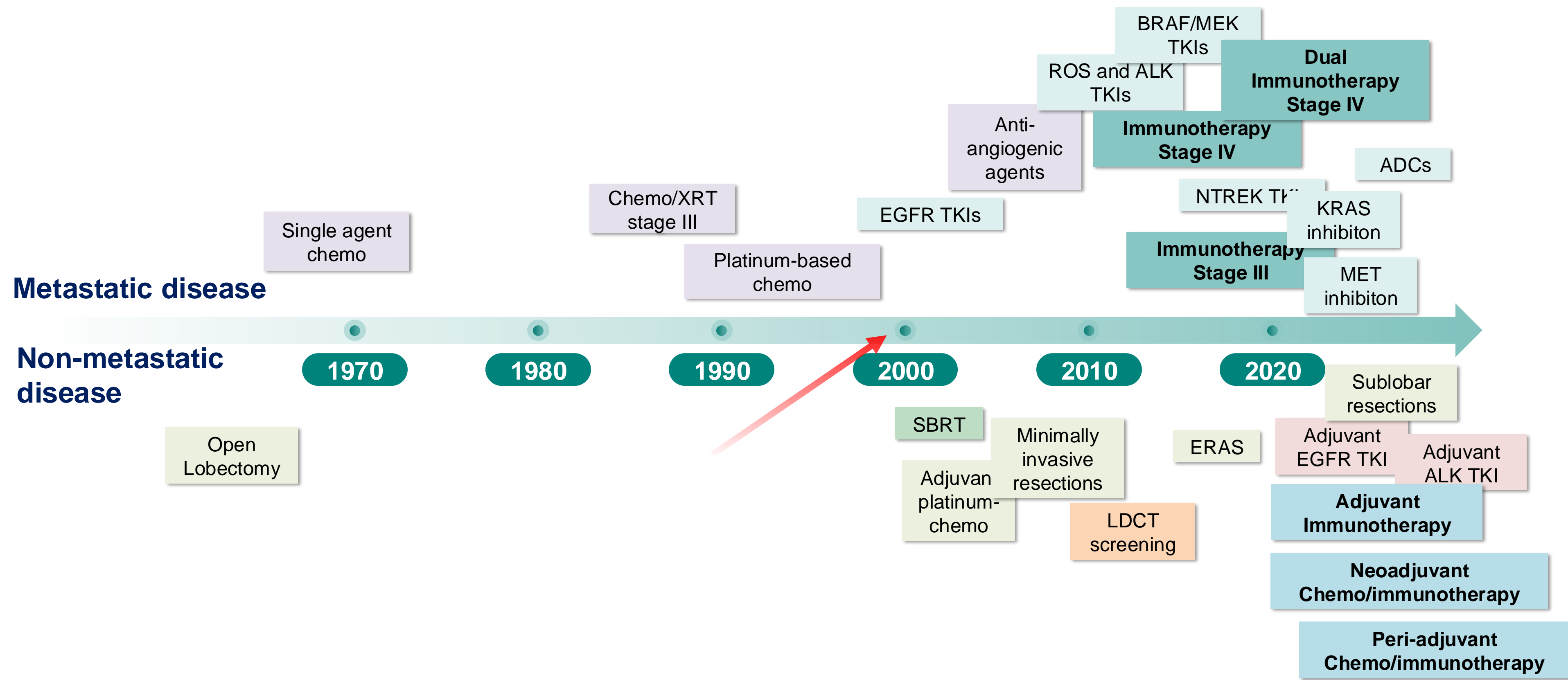






© Alan Shapiro

# Milestones in NSCLC Treatment



# US Lung Cancer Incidence and Mortality

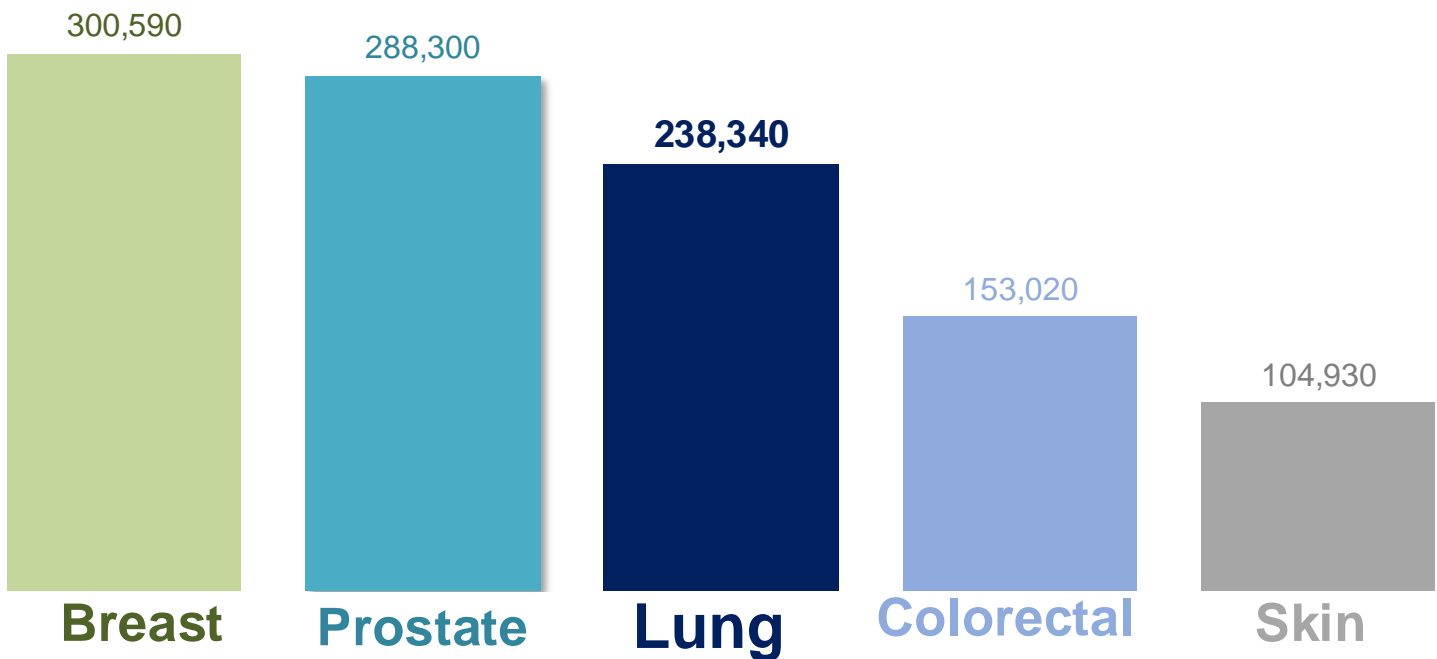


**diagnosed with lung cancer in 2023**

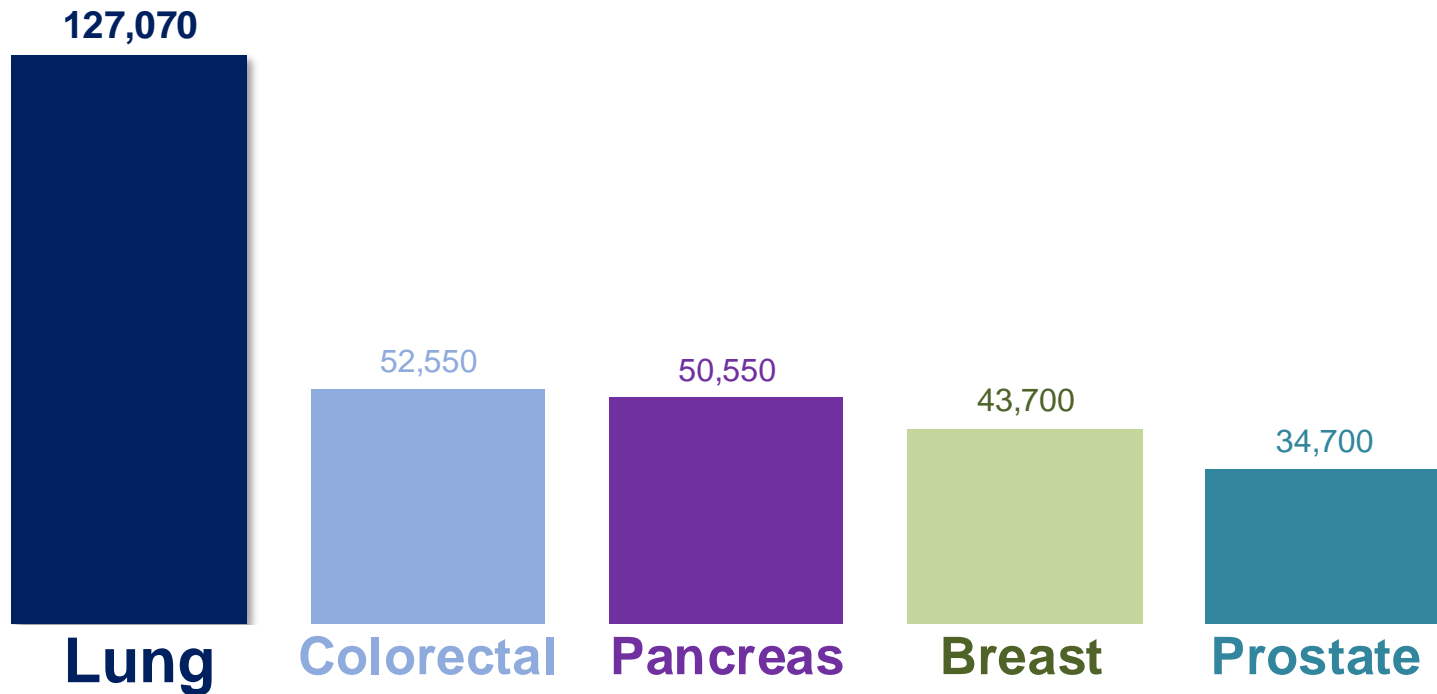


**died from lung cancer in 2023**

Estimated Cases by Tumor Type



Estimated Deaths by Tumor Type



**1 of every 4 cancer deaths is a lung cancer death**



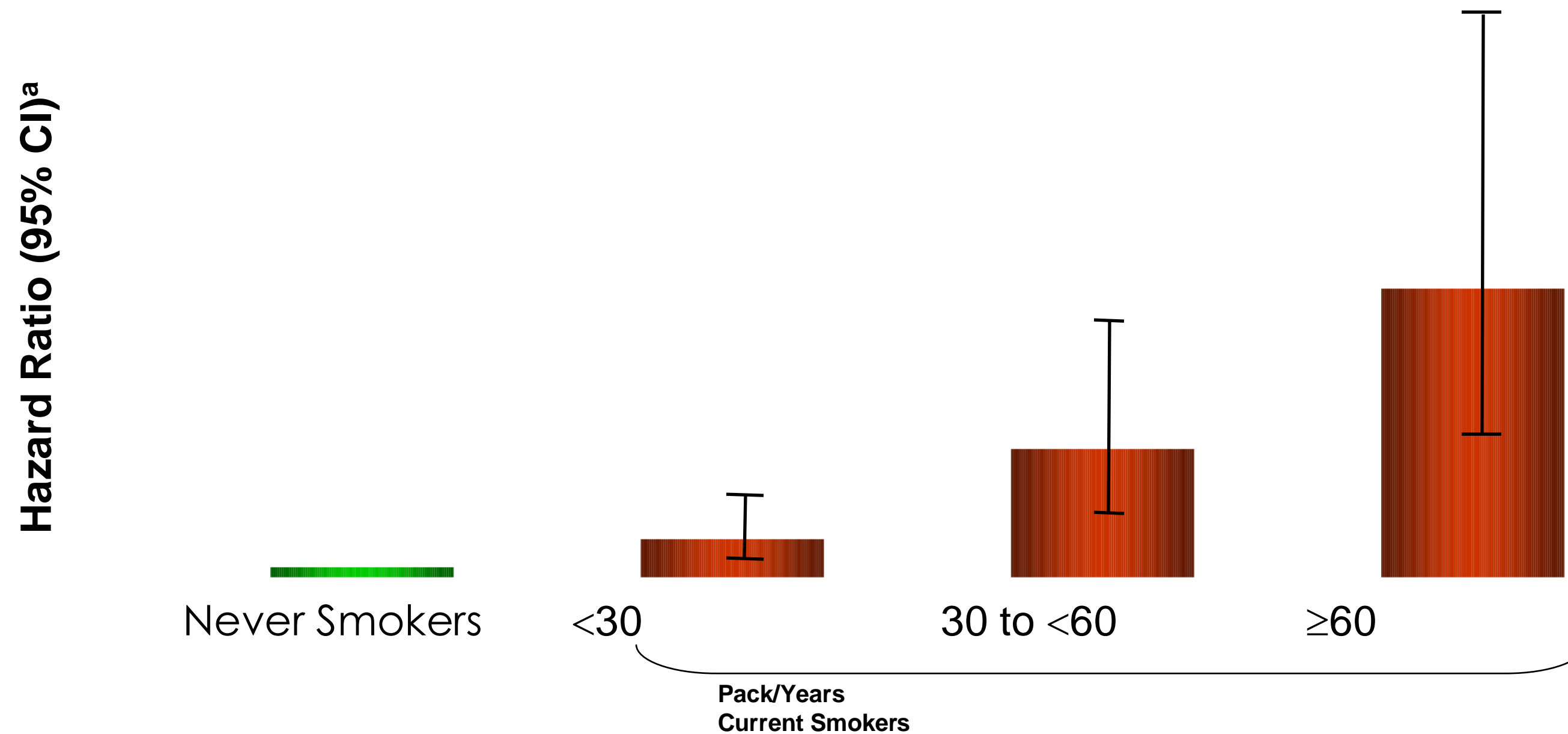
# Cancer Mortality in the US

Cancer facts and figures estimated 2024

• Site	Deaths
• 1. <u>Lung</u>	<u>125,070</u>
• 2. Colon/Rectum	53,010
• 3. Pancreas	51,750
• 4. Breast	42,780
• 5. Prostate	35,250

# RISK OF LUNG CANCER

- The risk of developing lung cancer is directly related to the amount smoked

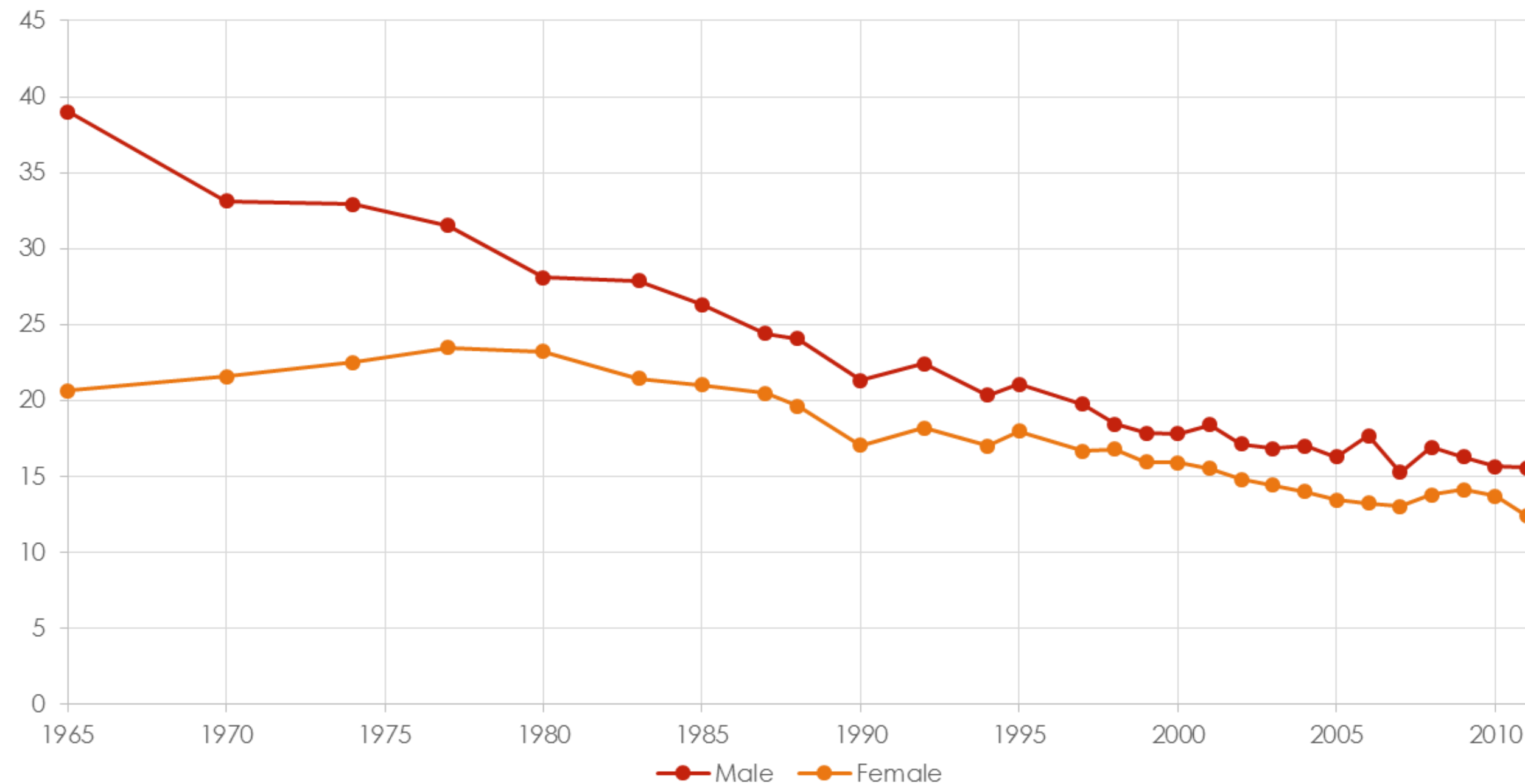


Pack/year was calculated by multiplying the average number of cigarettes smoked daily by the number of years smoked and dividing the product by 20.

<sup>a</sup>The relative likelihood of experiencing a particular event or the effect of an explanatory variable on the hazard or risk of an event.  
Mannino et al. *Arch Intern Med.* 2003;163:1475-1480.



# ANNUAL PREVALENCE OF CURRENT SMOKING AMONG ADULTS $\geq 35$ IN THE US, 1965-2011



U.S. Department of Health and Human Services (2014). The Health Consequences of Smoking—50 Years of Progress: A Report of the Surgeon General. Atlanta, U.S. Department of Health and Human Services, Centers for Disease Control and Prevention, National Center for Chronic Disease Prevention and Health Promotion, Office on Smoking and Health.





He's one of the busiest men in town. While his door may say *Office Hours 2 to 4*, he's actually on call 24 hours a day.

The doctor is a scientist, a diplomat, and a friendly sympathetic human being all in one, no matter how long and hard his schedule.

*According to a recent Nationwide survey:*  
**MORE DOCTORS SMOKE CAMELS**  
**THAN ANY OTHER CIGARETTE**

DOCTORS in every branch of medicine—113,597 in all—were queried in this nationwide study of cigarette preference. Three leading research organizations made the survey. The gist of the query was—What cigarette do you smoke, Doctor?

*The brand named most was Camel!*

The rich, full flavor and cool mildness of Camel's superb blend of costlier tobaccos seem to have the same appeal to the smoking tastes of doctors as to millions of other smokers. If you are a Camel smoker, this preference among doctors will hardly surprise you. If you're not—well, try Camels now.



Your "T-Zone" Will Tell You...

**T for Taste...**

**T for Throat...**

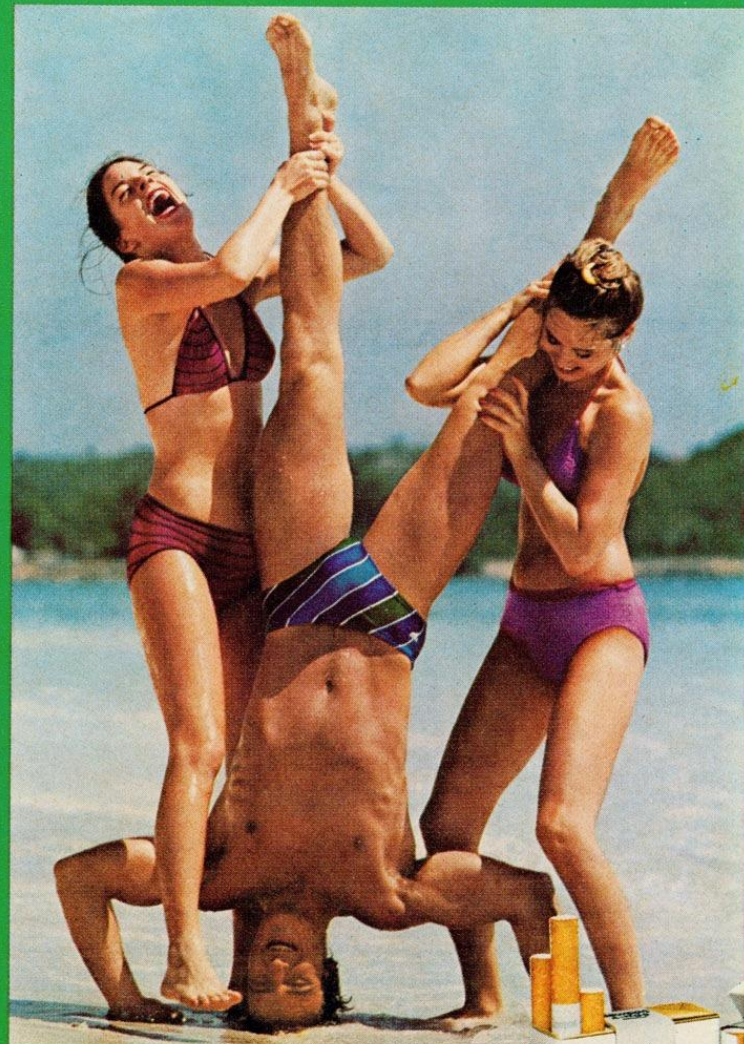
that's your proving ground for any cigarette. See if Camels don't suit your "T-Zone" to a "T."



**CAMELS** *Costlier Tobaccos*



# Alive with pleasure!



## Newport

After all,  
if smoking isn't a pleasure,  
why bother?



Warning: The Surgeon General Has Determined  
That Cigarette Smoking Is Dangerous to Your Health.

BOX: 16 mg. "tar", 1.2 mg. nicotine KINGS: 17 mg. "tar",  
1.3 mg. nicotine av. per cigarette, FTC Report December 1981.





# NICOTINE IS A WHY PEOPLE SMOKE CIGARETTES

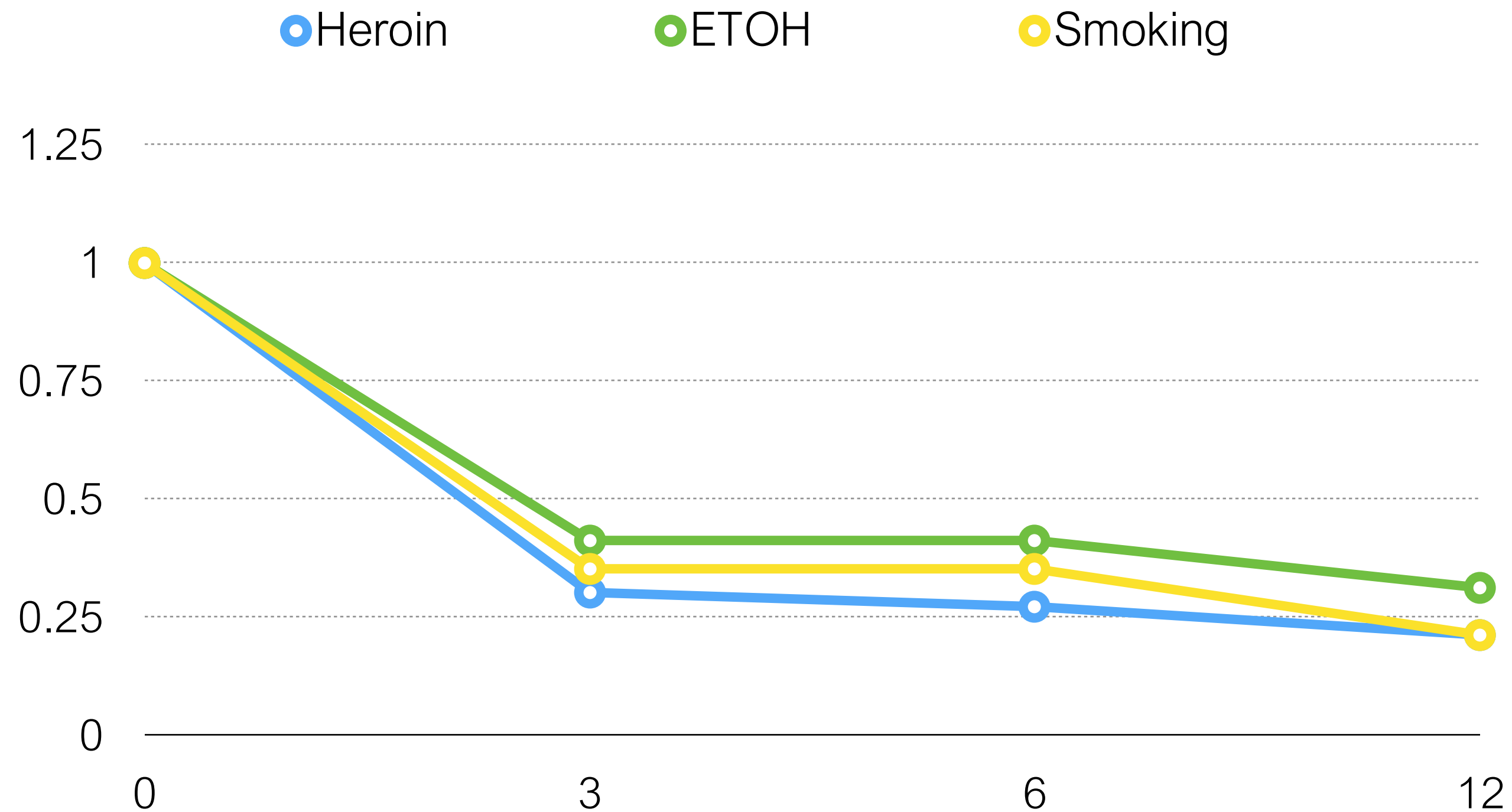
After inhaling, nicotine reaches the brain in

7-10 seconds



- “euphoria” without being “stoned”
- immediate reinforcement of drug-taking behavior
- allow moment to moment titration of dose to achieve the desired effects

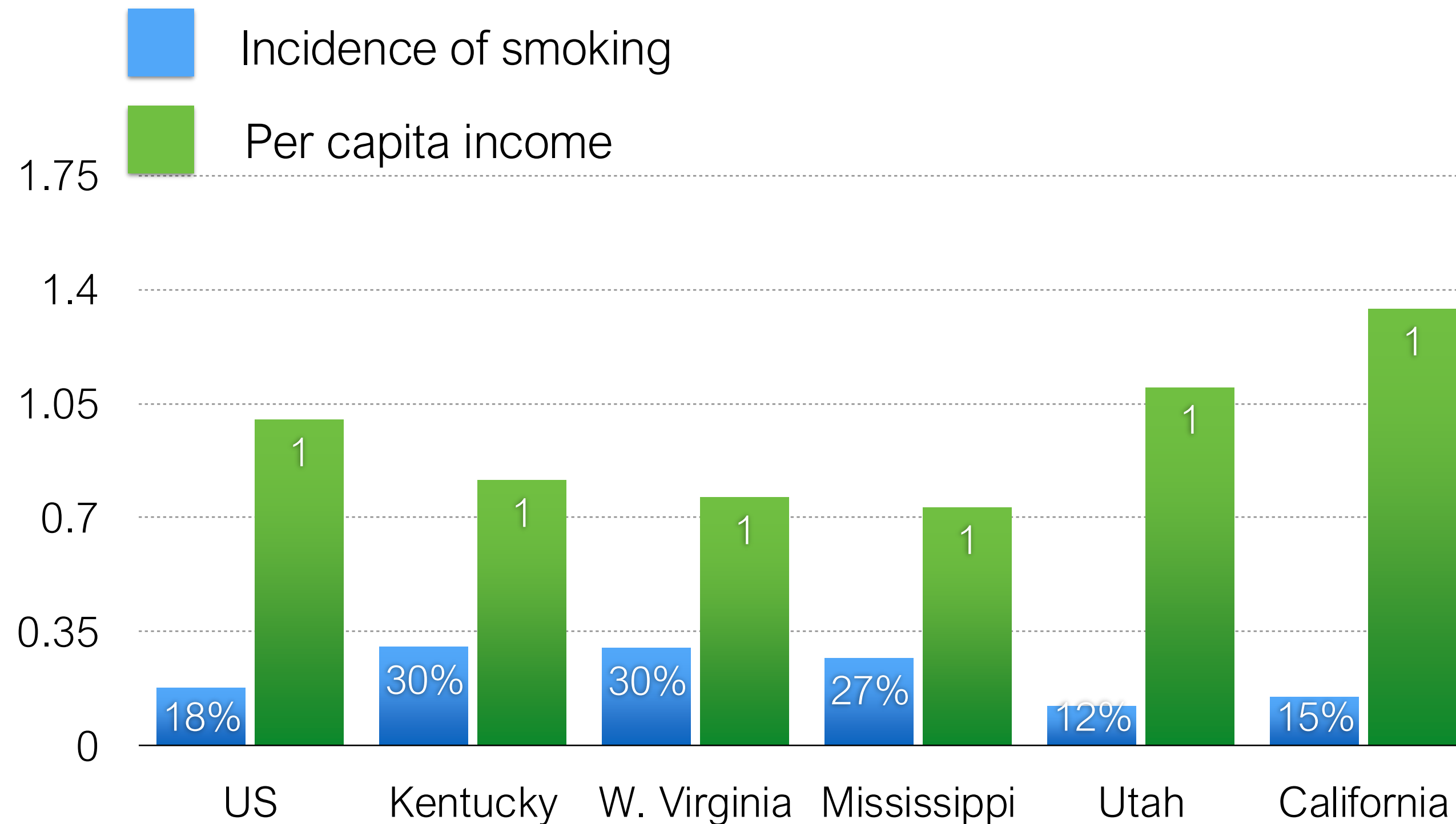
# Rate of Relapse

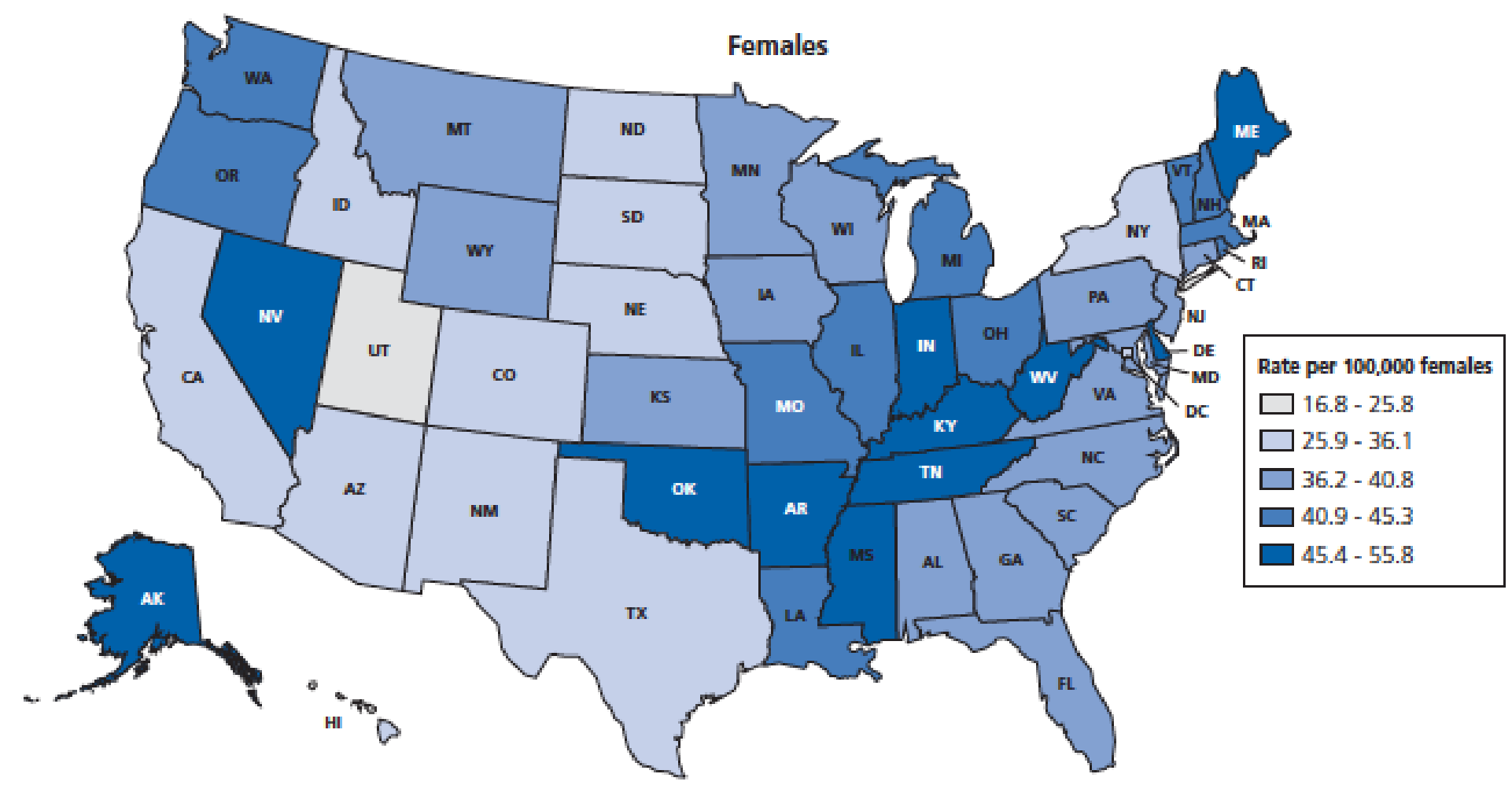
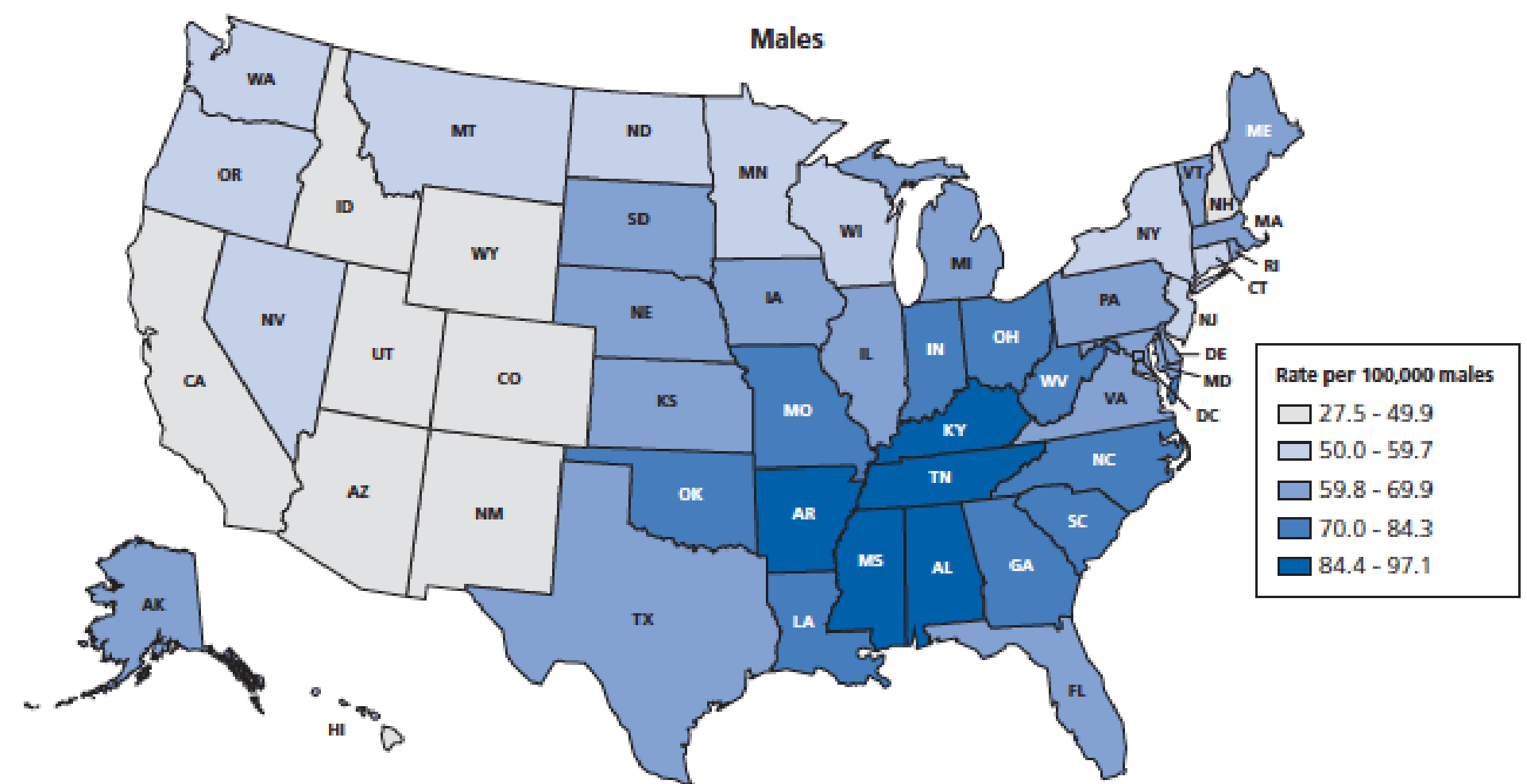


Hunt et al., 1971



# Incidence of Smoking vs Income

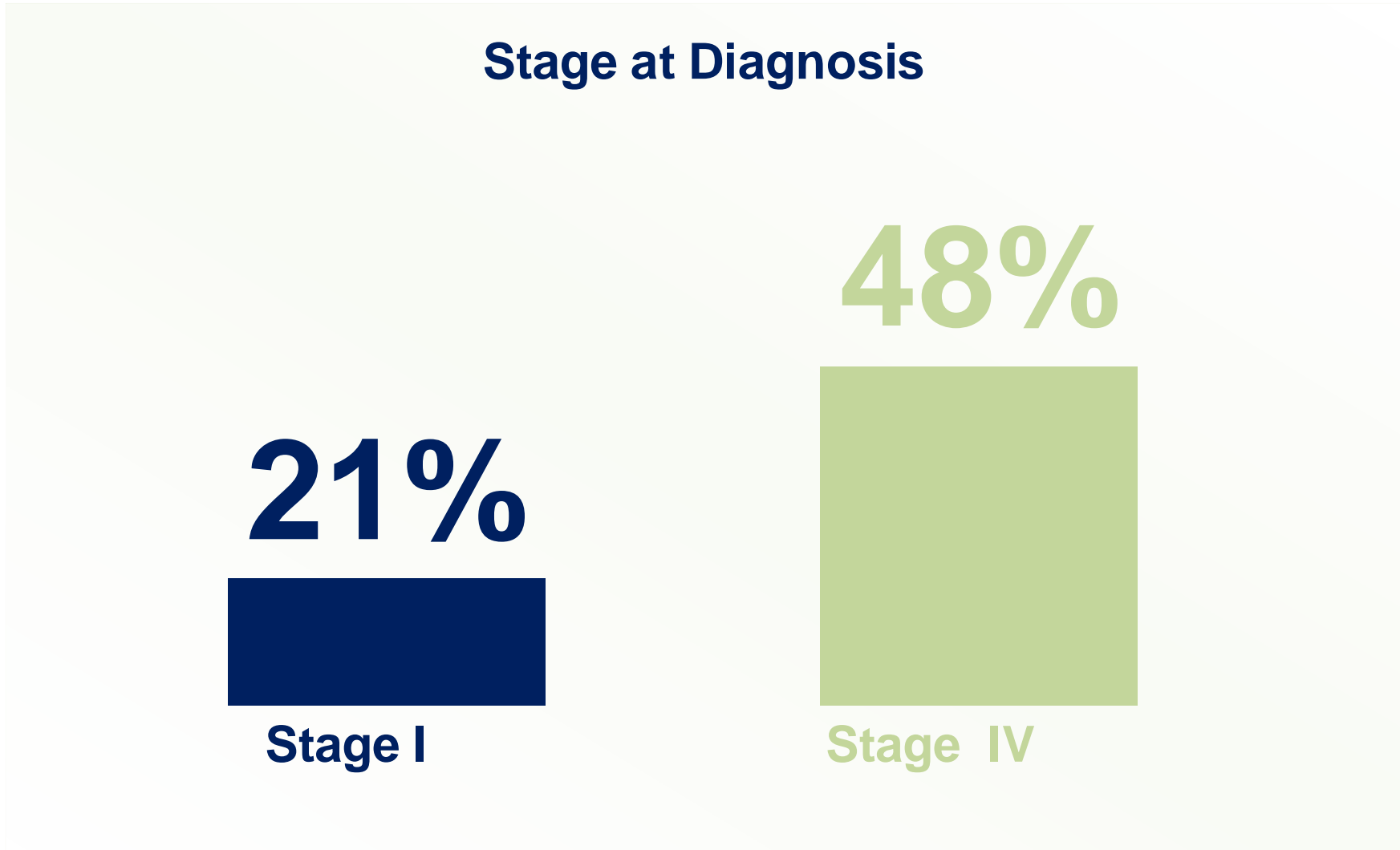




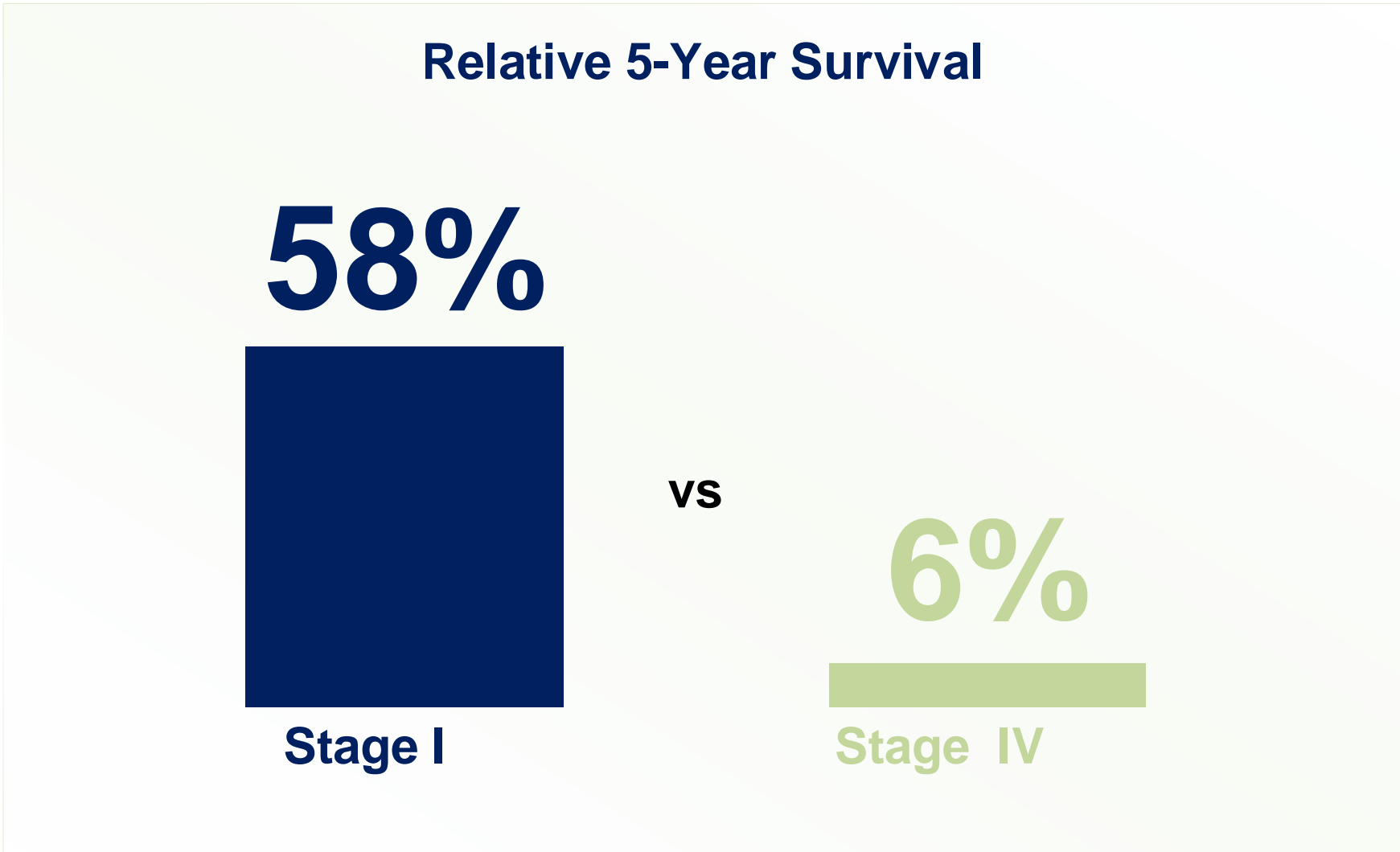
# Clinical Reasons for Poor Lung Cancer Prognosis

Two-pronged problem:

We diagnose pts too late



Treatments are ineffective



Early detection and treatment are critical  
to improving clinical outcomes in patients with lung cancer



# The New York Times

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NEW YORK, FRIDAY, NOVEMBER 5, 2010

\$2.00

## Late Edition

Today, variably cloudy showers, high 54. Tonight, partly cloudy, cooler, low 40. Tomorrow, sun mixed with clouds, cool, high 50. Weather

## The NEW ENGLAND JOURNAL of MEDICINE

ESTABLISHED IN 1812

AUGUST 4, 2011

VOL. 365 NO. 5

### Reduced Lung-Cancer Mortality with Low-Dose Computed Tomographic Screening

The National Lung Screening Trial Research Team\*

#### ABSTRACT

#### BACKGROUND

The aggressive and heterogeneous nature of lung cancer has thwarted efforts to reduce mortality from this cancer through the use of screening. The advent of low-dose helical computed tomography (CT) altered the landscape of lung-cancer screening, with studies indicating that low-dose CT detects many tumors at early stages. The National Lung Screening Trial (NLST) was conducted to determine whether screening with low-dose CT could reduce mortality from lung cancer.

#### METHODS

From August 2002 through April 2004, we enrolled 53,454 persons at high risk for lung cancer at 33 U.S. medical centers. Participants were randomly assigned to undergo three annual screenings with either low-dose CT (26,722 participants) or single-view posteroanterior chest radiography (26,732). Data were collected on cases of lung cancer and deaths from lung cancer that occurred through December 31, 2009.

#### RESULTS

The rate of adherence to screening was more than 90%. The rate of positive screening tests was 24.2% with low-dose CT and 6.9% with radiography over all three rounds. A total of 96.4% of the positive screening results in the low-dose CT group and 94.5% in the radiography group were false positive results. The incidence of

The members of the writing team (who are listed in the Appendix) assume responsibility for the integrity of the article. Address reprint requests to Dr. Christine D. Berg at the Early Detection Research Group, Division of Cancer Prevention, National Cancer Institute, 6130 Executive Blvd., Suite 3112, Bethesda, MD 20892-7346, or at bergc@mail.nih.gov.

\*A complete list of members of the National Lung Screening Trial research team is provided in the Supplementary Appendix, available at NEJM.org.

This article (10.1056/NEJMoa1102873) was published on June 29, 2011, at NEJM.org.

N Engl J Med 2011;365:395-409.  
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## A Quick Move From Tea Party To Flex Muscle

### G.O.P. Is Pressed on a Post and a Strategy

By CARL HULSE  
and DAVID M. HERSZENHORN

WASHINGTON — The incoming leadership of the new House Republican majority hardly had a chance to relish its dismantling of the Democrats before the Tea Party came calling in the form of

## SCANS CUT DEATHS BY LUNG CANCER AMONG SMOKERS

### BIG U.S.-FINANCED STUDY

20% Reduction Is Seen  
— Officials Debate  
Risks and Cost

By GARDINER HARRIS

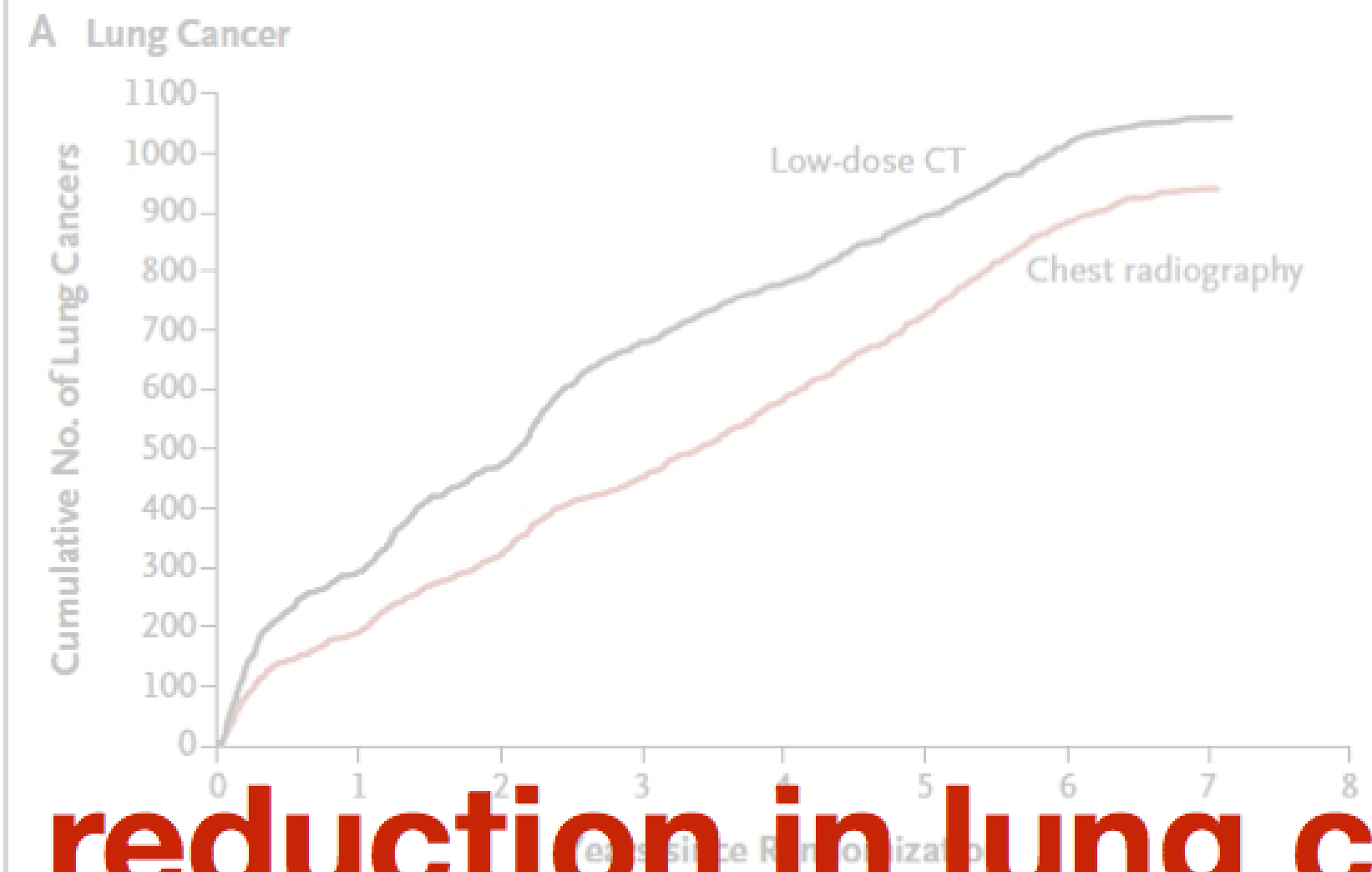


Allegheny Health Network

Allegheny General  
Hospital



**20% reduction in lung cancer mortality!!!**







# NCCN Guidelines Version 1.2025 Lung Cancer Screening

## RISK ASSESSMENT<sup>a,b,c</sup>

- Cigarette smoking history<sup>d</sup>
- Radon exposure<sup>e</sup>
- Occupational exposure<sup>f</sup>
- Cancer history<sup>g</sup>
- Family history of lung cancer in first-degree relatives
- Disease history (chronic obstructive pulmonary disease [COPD] or pulmonary fibrosis)
- Cigarette smoking exposure<sup>h</sup> (second-hand smoke)
- Risk calculator to enhance determination of risk status<sup>i,j</sup>

### Patients not eligible for lung cancer screening:

- Symptoms of lung cancer (see [NCCN Guidelines for Non-Small Cell Lung Cancer](#))
- Previous lung cancer (see [Surveillance in the NCCN Guidelines for Non-Small Cell Lung Cancer](#))
- Functional status and/or comorbidity that would prohibit curative intent treatment<sup>k</sup> (see [Principles of Surgery in the NCCN Guidelines for Non-Small Cell Lung Cancer and Principles of Radiation Therapy in the NCCN Guidelines for Non-Small Cell Lung Cancer](#))

## RISK STATUS

### High risk<sup>i,l,m</sup>

- Age  $\geq 50$  y (category 1) and
- $\geq 20$  pack-year history of smoking cigarettes (category 1) or  $\geq 20$  year history of smoking cigarettes (category 2B)

In candidates for screening, shared patient/provider decision-making is recommended, including a discussion of benefits/risks<sup>c,j</sup>

Low-dose CT (LDCT)<sup>n</sup>  
(category 1)

Screening Findings ([LCS-2](#))

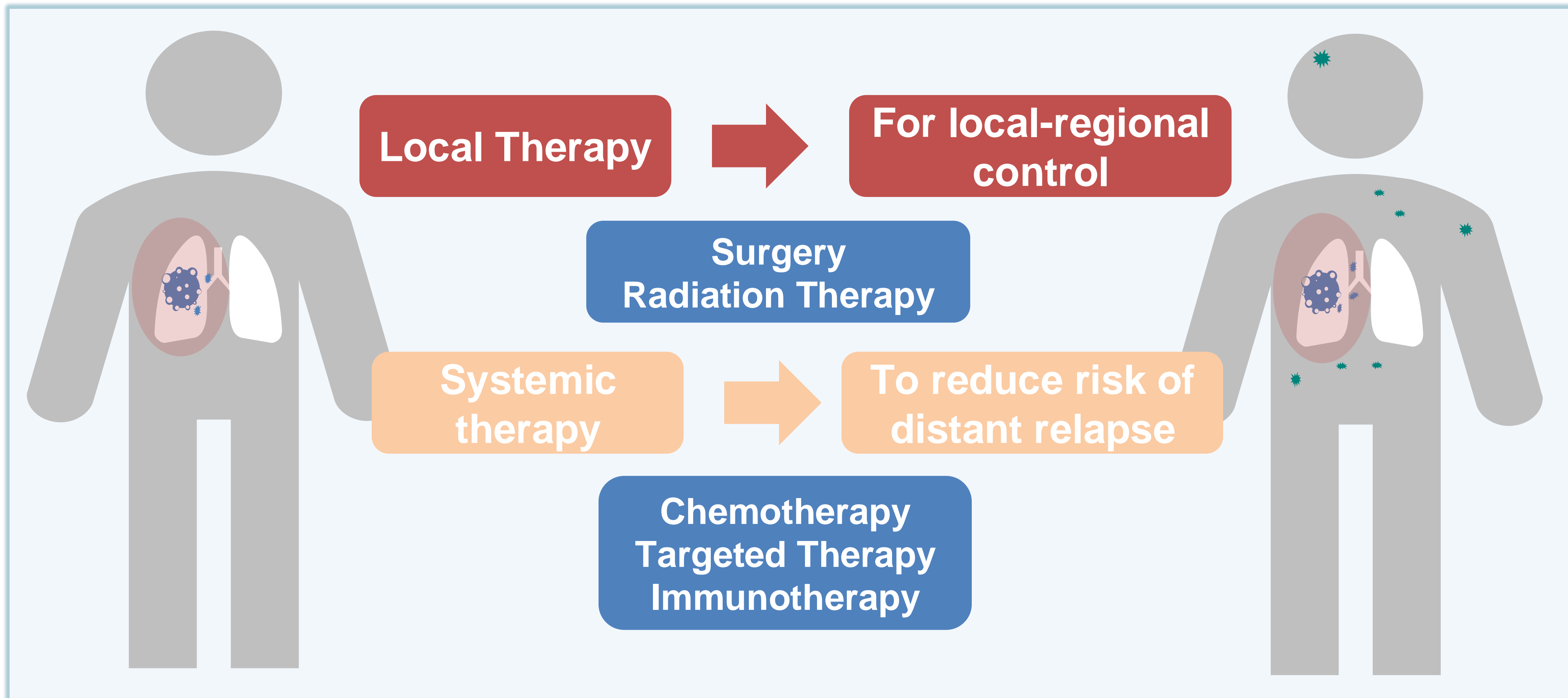
### Low risk

- Age  $< 50$  y and/or
- $< 20$  pack-year history of smoking cigarettes or  $< 20$  year history of smoking cigarettes (category 2B)

Lung cancer screening not recommended



# Curative Therapy for Locally Advanced NSCLC

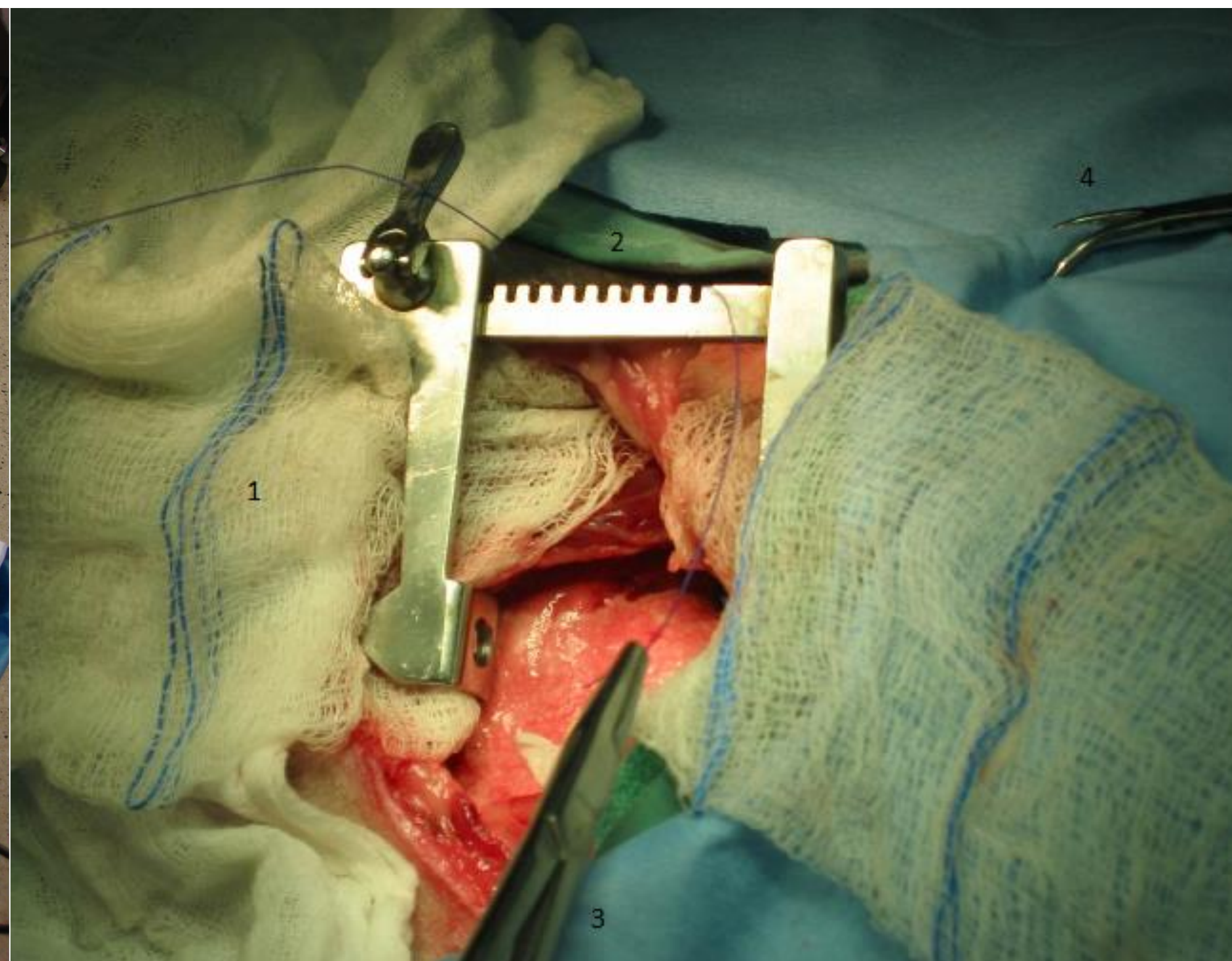




**Out, damned spot! Out, I say!**

Shakespeare in Lady Macbeth









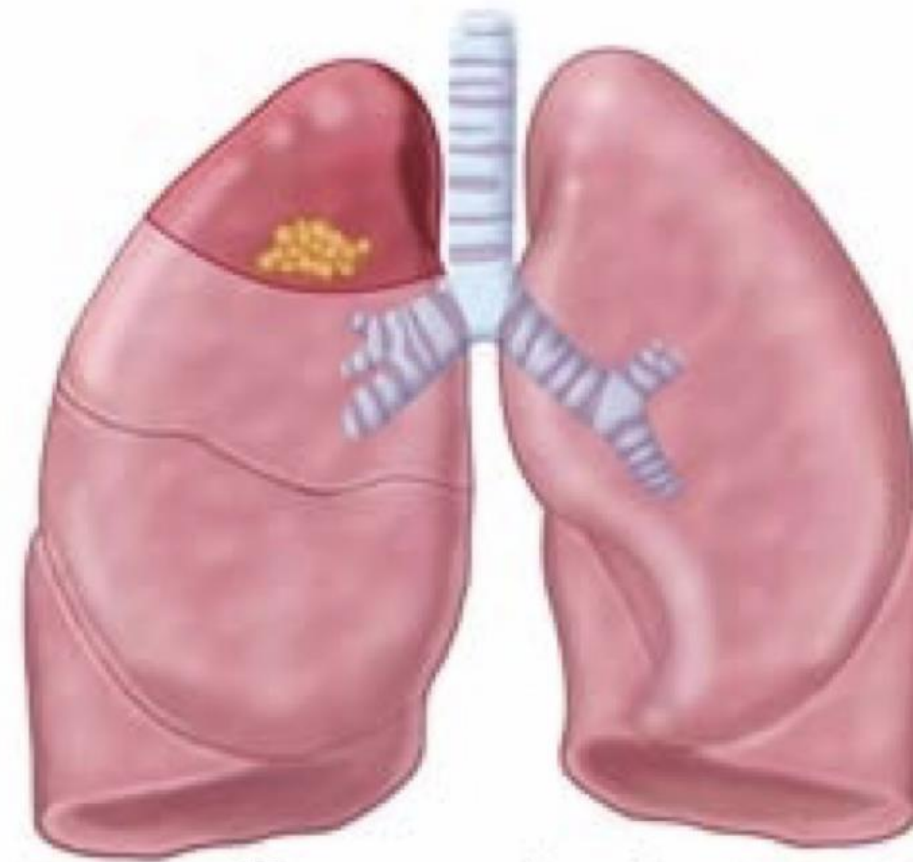


# Advantages to Patients

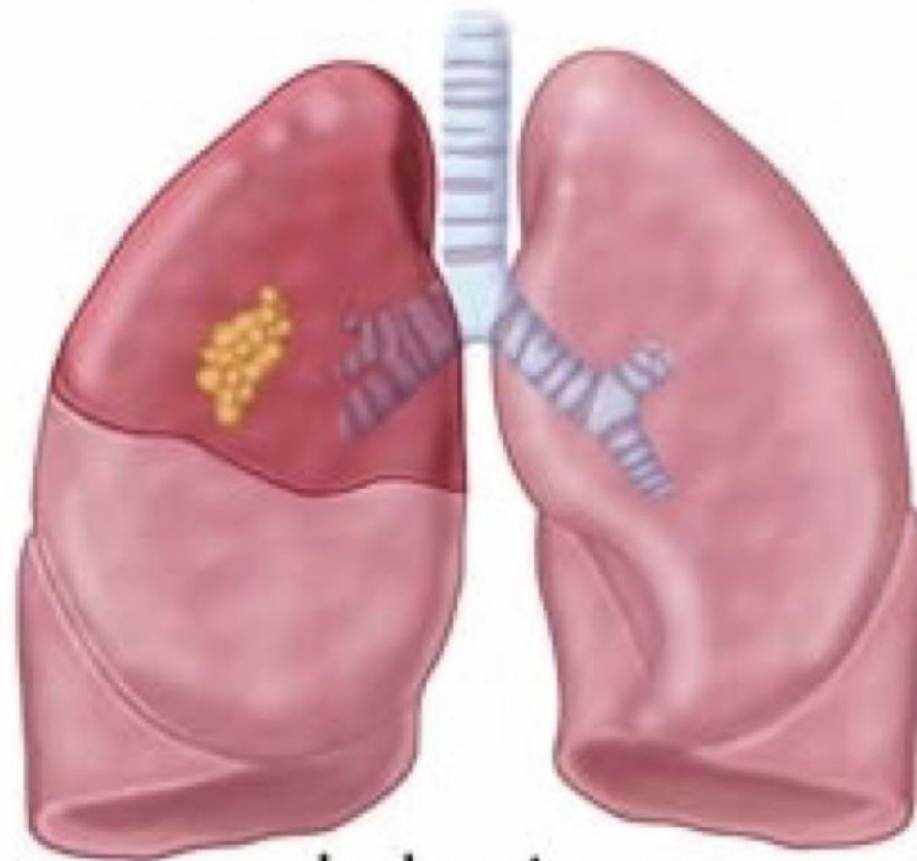
- Less pain
- Less narcotics usage
- Earlier discharge
- Earlier return to usual activities
- Improved quality of life
- Better tolerance of other treatments after surgery



Wedge Resection



Segmentectomy

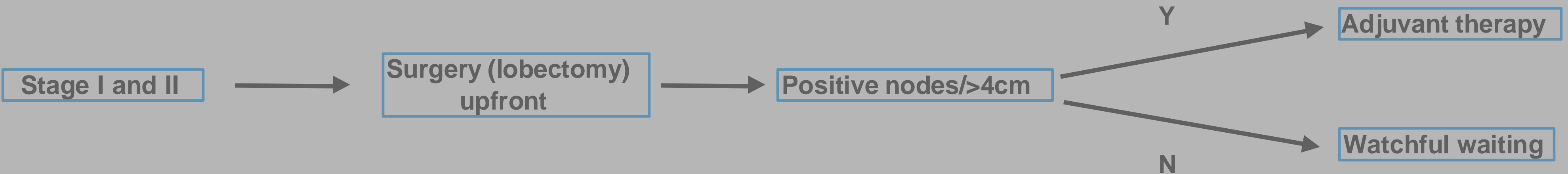


Lobectomy

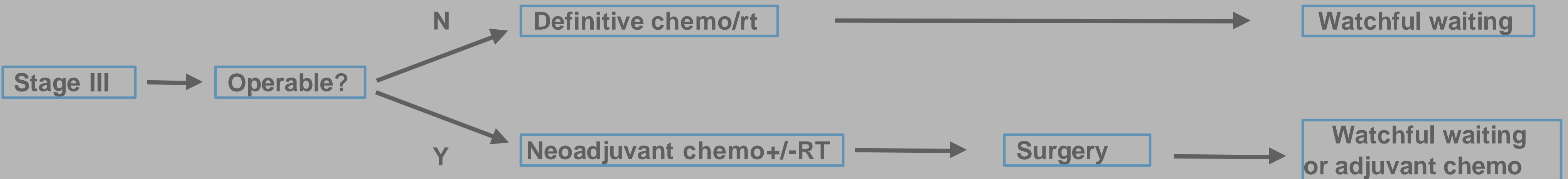


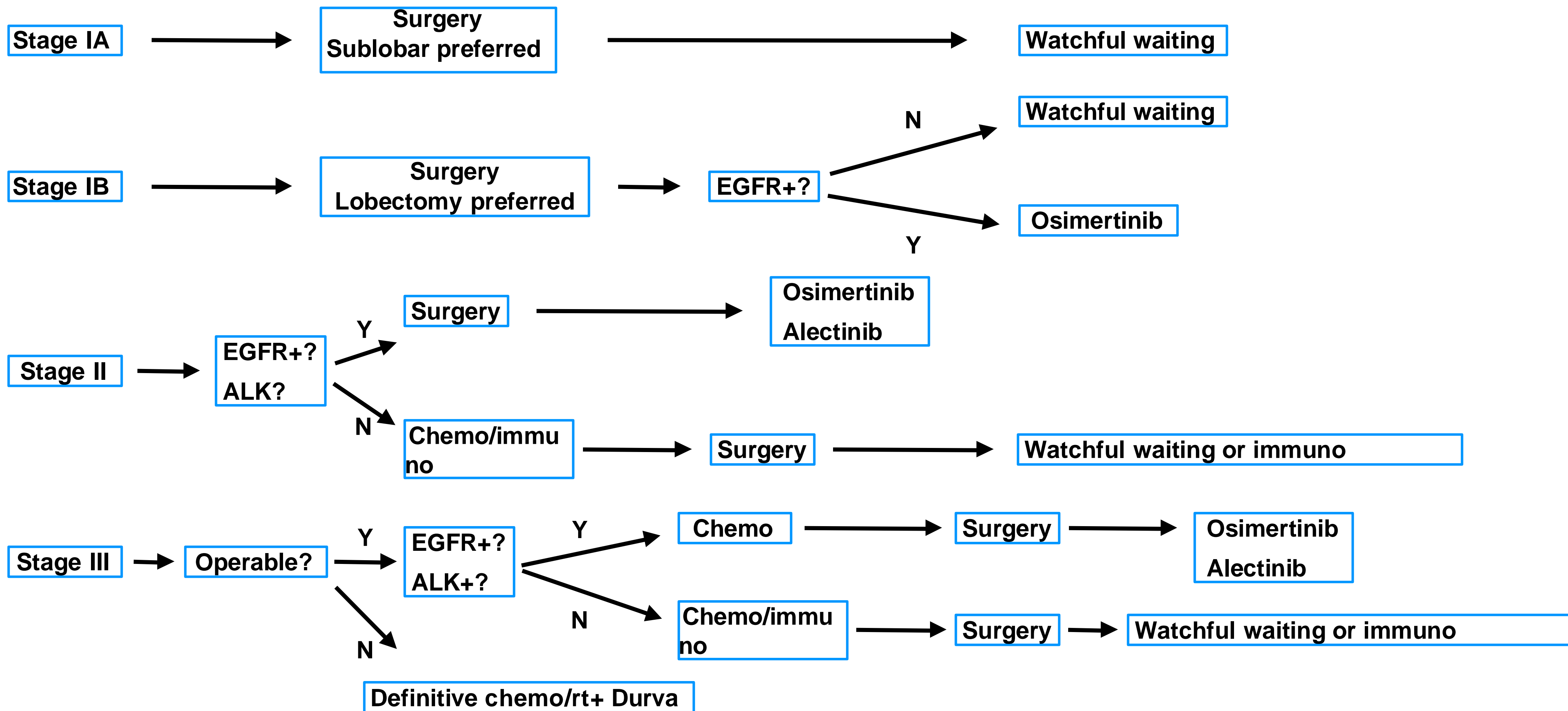
Pneumonectomy

# Old Paradigms



**Seismic changes starting in 2017!**



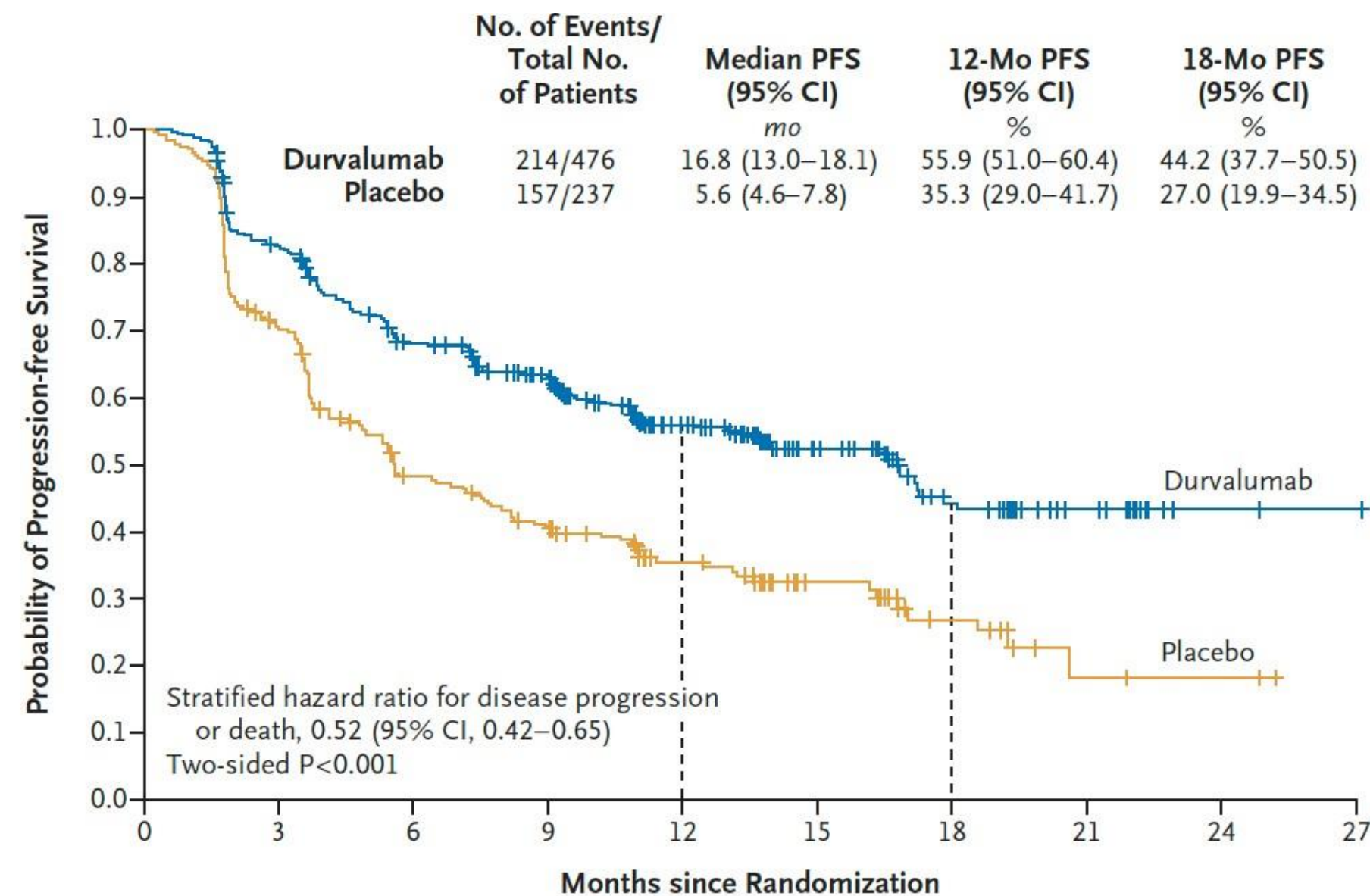




# Durvalumab after Chemoradiotherapy in Stage III Non–Small-Cell Lung Cancer

S.J. Antonia, A. Villegas, D. Daniel, D. Vicente, S. Murakami, R. Hui, T. Yokoi, A. Chiappori, K.H. Lee, M. de Wit, B.C. Cho, M. Bourhaba, X. Quantin, T. Tokito, T. Mekhail, D. Planchard, Y.-C. Kim, C.S. Karapetis, S. Hirt, G. Ostoros, K. Kubota, J.E. Gray, L. Paz-Ares, J. de Castro Carpeño, C. Wadsworth, G. Melillo, H. Jiang, Y. Huang, P.A. Dennis, and M. Özgüroğlu, for the PACIFIC Investigators\*

NEJM 2017





# Five-Year Survival Outcomes From the PACIFIC Trial: Durvalumab After Chemoradiotherapy in Stage III Non-Small-Cell Lung Cancer

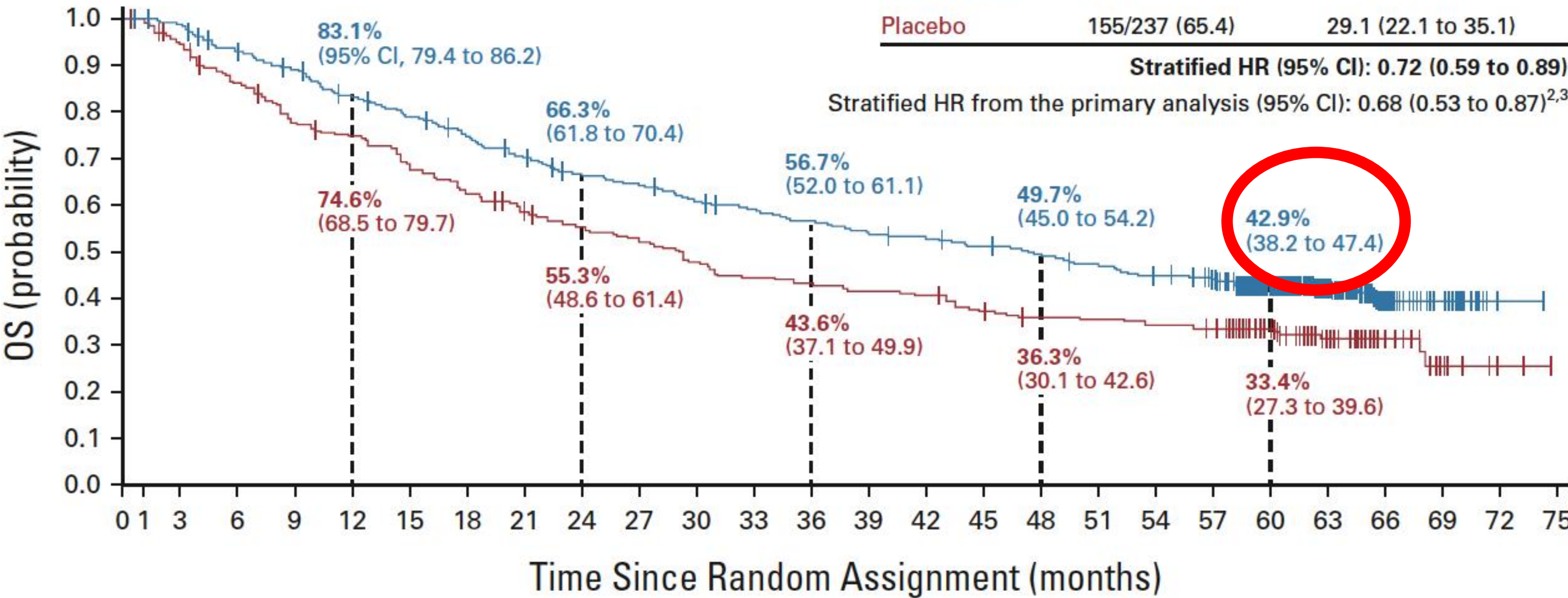
David R. Spigel, MD<sup>1</sup>; Corinne Faivre-Finn, MD, PhD<sup>2</sup>; Jhanelle E. Gray, MD<sup>3</sup>; David Vicente, MD<sup>4</sup>; David Planchard, MD, PhD<sup>5</sup>; Luis Paz-Ares, MD, PhD<sup>6</sup>; Johan F. Vansteenkiste, MD, PhD<sup>7</sup>; Marina C. Garassino, MD<sup>8,9</sup>; Rina Hui, PhD<sup>10</sup>; Xavier Quantin, MD, PhD<sup>11</sup>; Andreas Rimner, MD<sup>12</sup>; Yi-Long Wu, MD<sup>13</sup>; Mustafa Özgüroğlu, MD<sup>14</sup>; Ki H. Lee, MD<sup>15</sup>; Terufumi Kato, MD<sup>16</sup>; Maïke de Wit, MD, PhD<sup>17</sup>; Takayasu Kurata, MD<sup>18</sup>; Martin Reck, MD, PhD<sup>19</sup>; Byoung C. Cho, MD, PhD<sup>20</sup>; Suresh Senan, PhD<sup>21</sup>; Jarushka Naidoo, MBBCH, MHS<sup>22</sup>; Helen Mann, MSc<sup>23</sup>; Michael Newton, PharmD<sup>24</sup>; Piruntha Thiyagarajah, MD<sup>23</sup>; and Scott J. Antonia, MD, PhD<sup>3</sup>; on behalf of the PACIFIC Investigators

J Clin Onc 2022

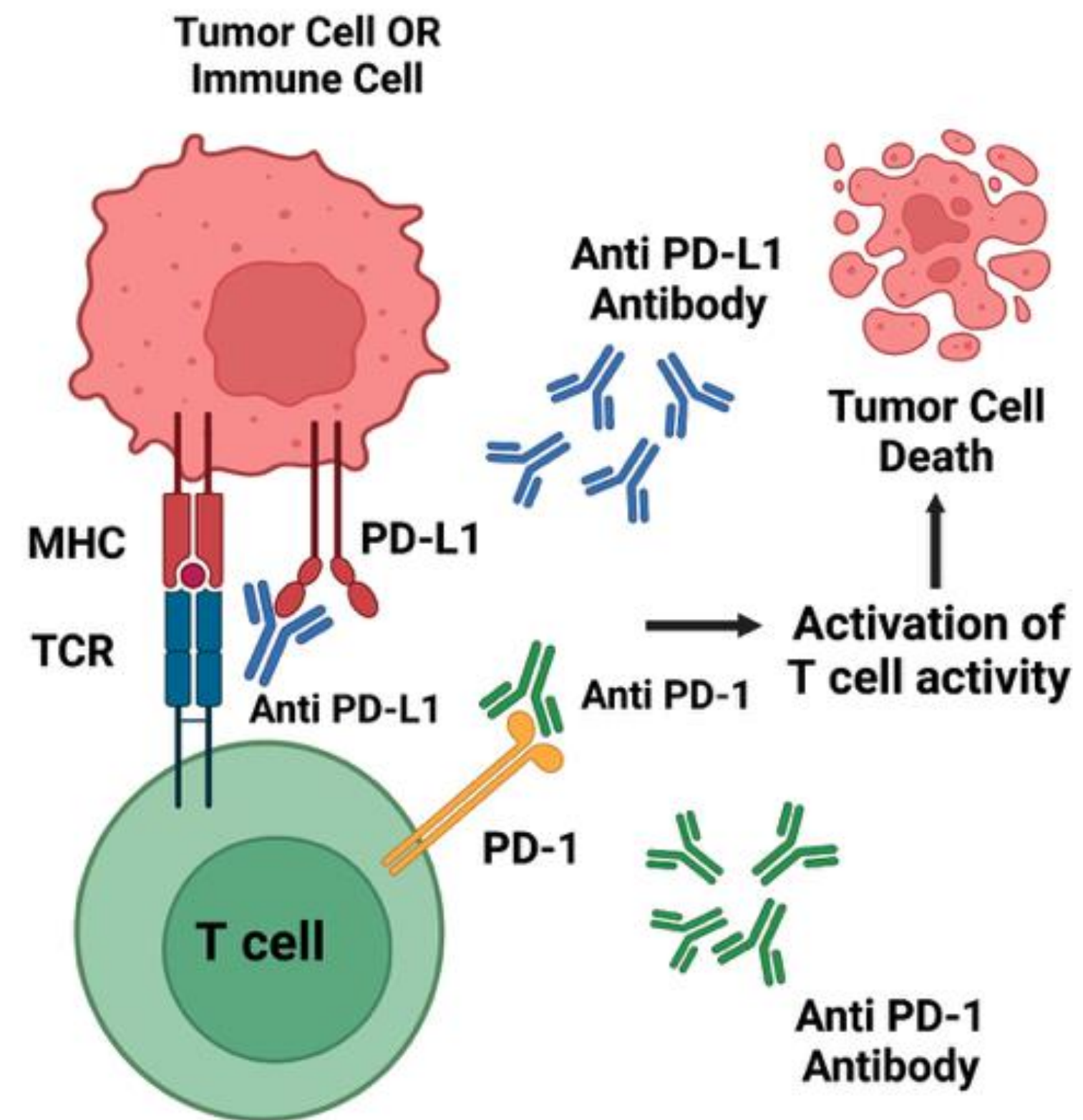
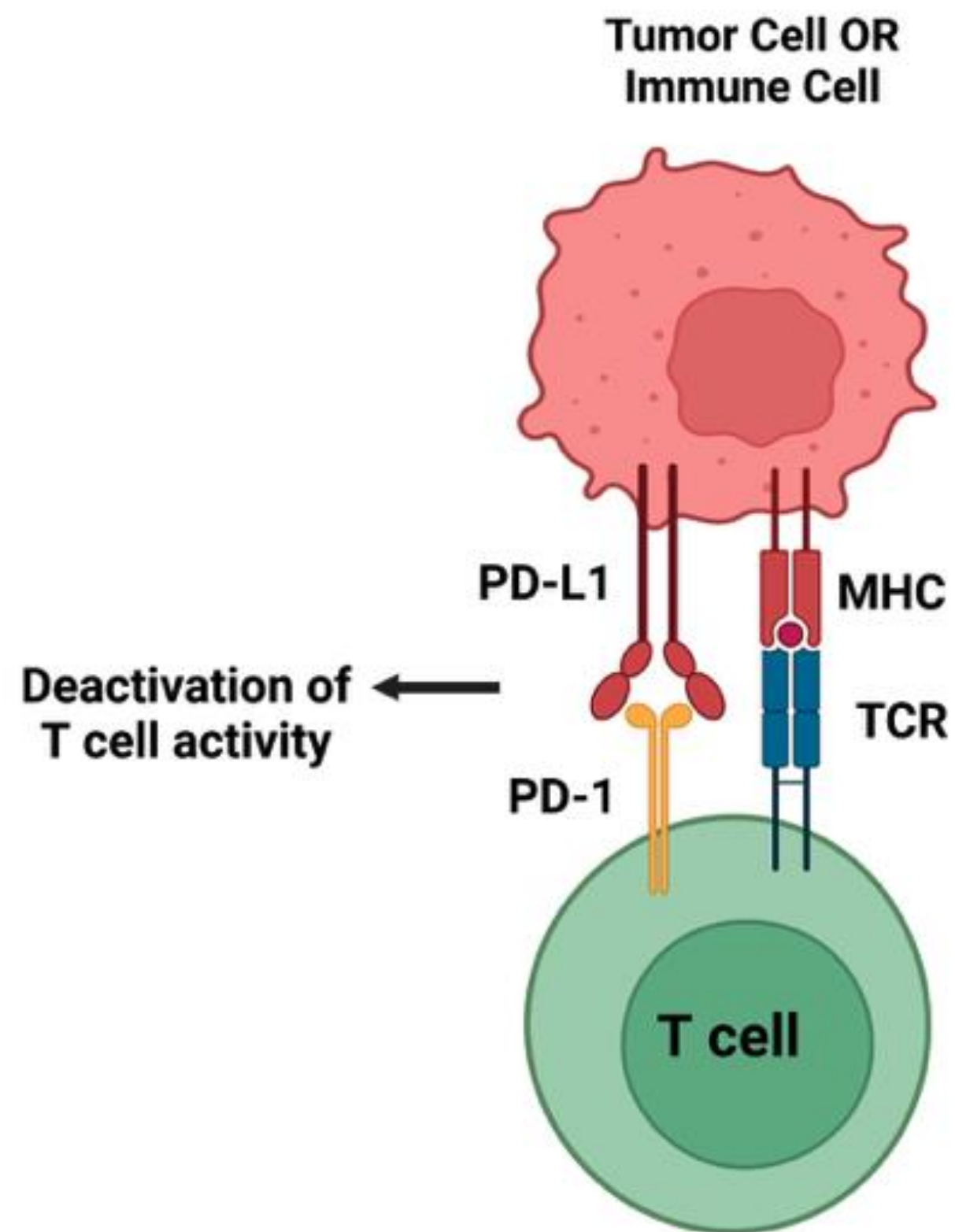
Arm	No. of Events/ Total No. of Patients (%)	Median OS (95% CI), Months
Durvalumab	264/476 (55.5)	47.5 (38.1 to 52.9)
Placebo	155/237 (65.4)	29.1 (22.1 to 35.1)

Stratified HR (95% CI): 0.72 (0.59 to 0.89)

Stratified HR from the primary analysis (95% CI): 0.68 (0.53 to 0.87)<sup>2,3</sup>

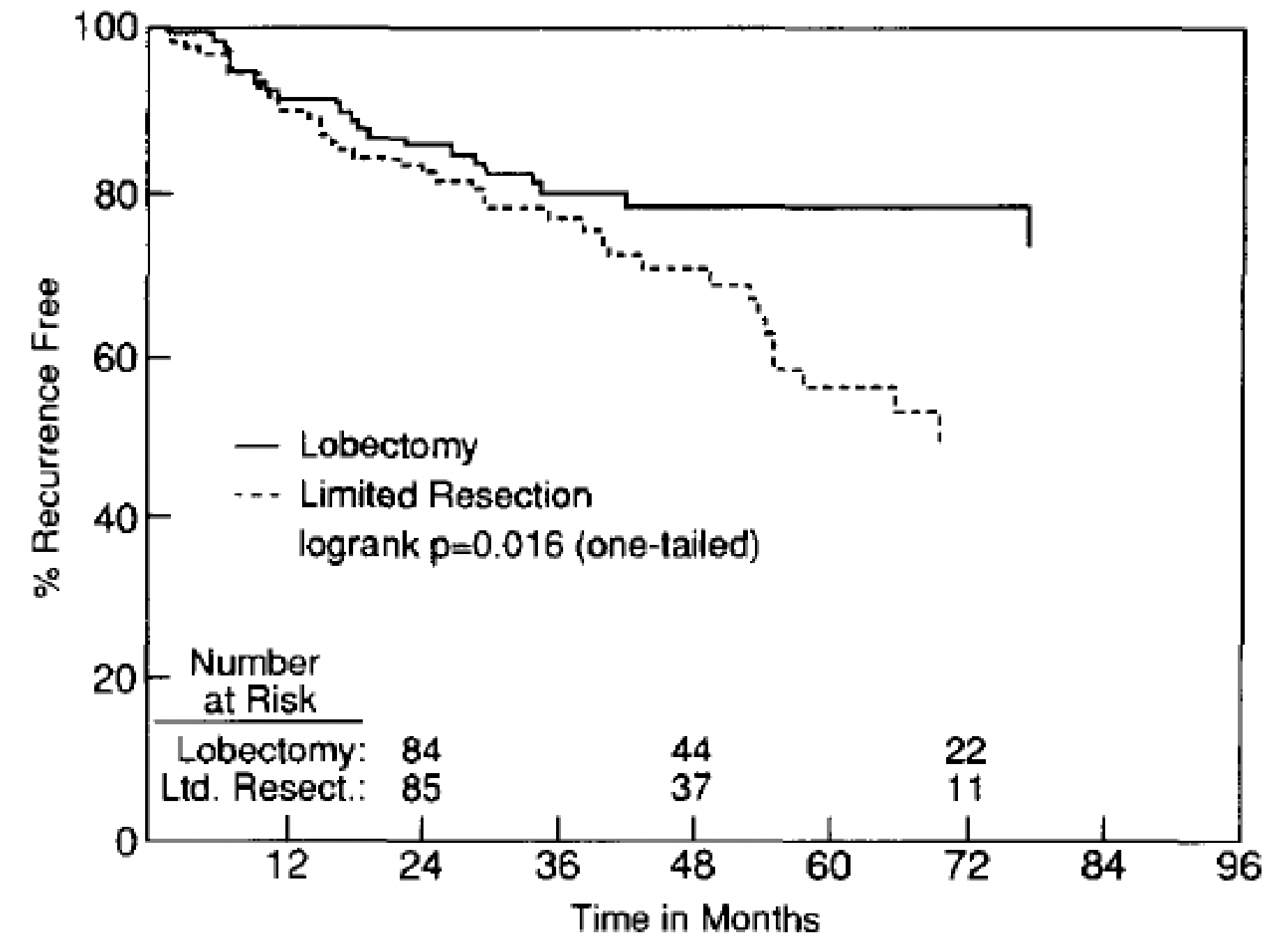
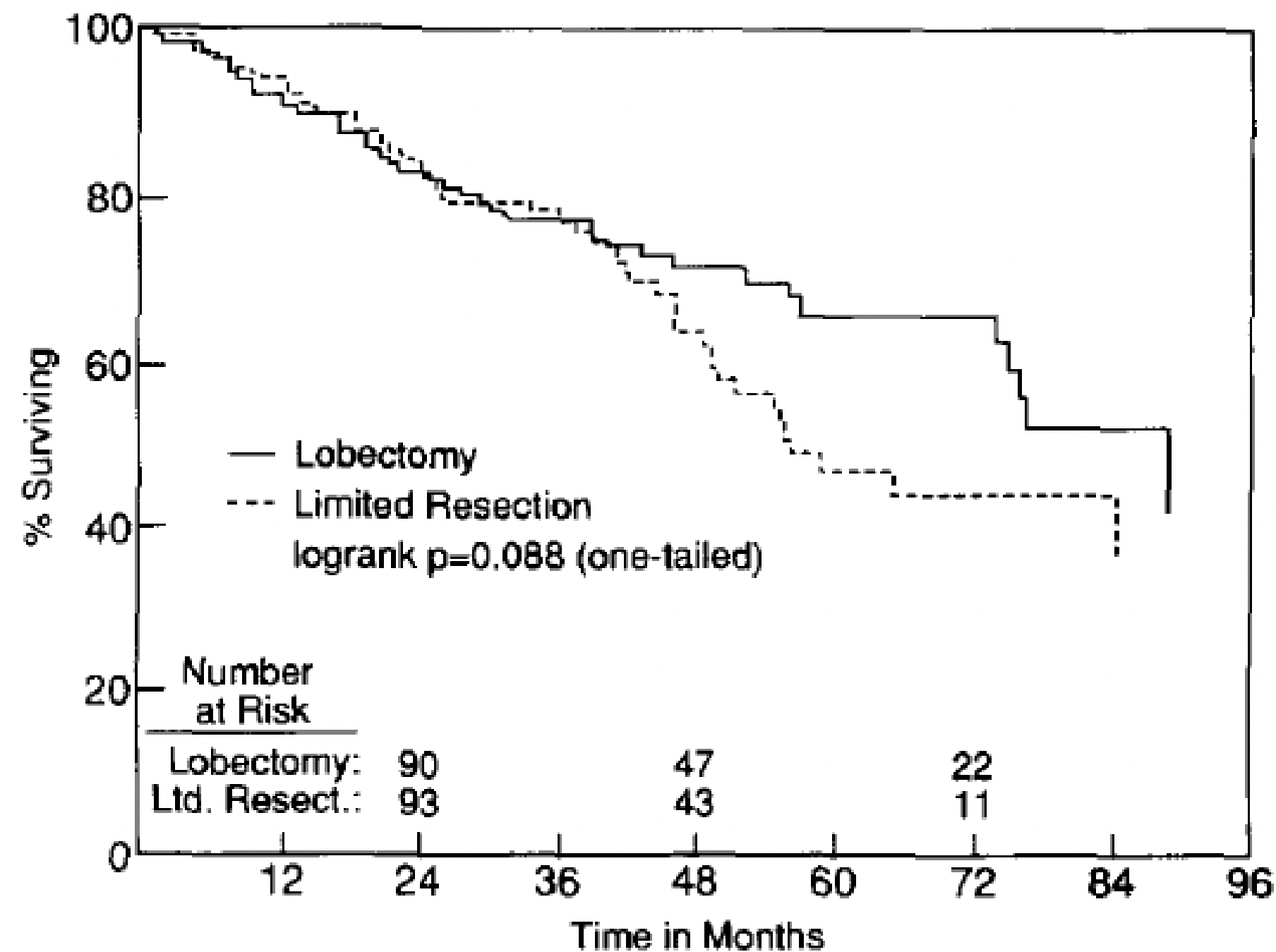




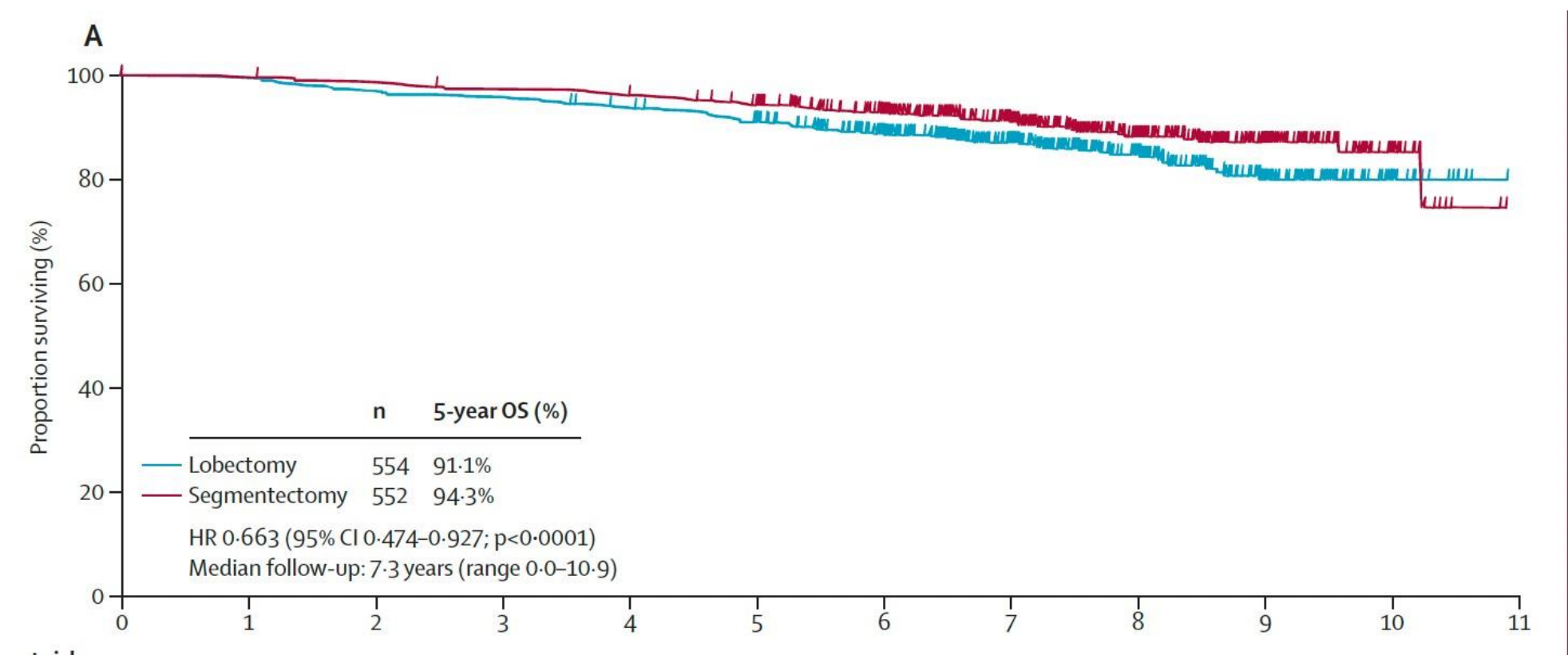


# Randomized Trial of Lobectomy Versus Limited Resection for T1 N0 Non-Small Cell Lung Cancer

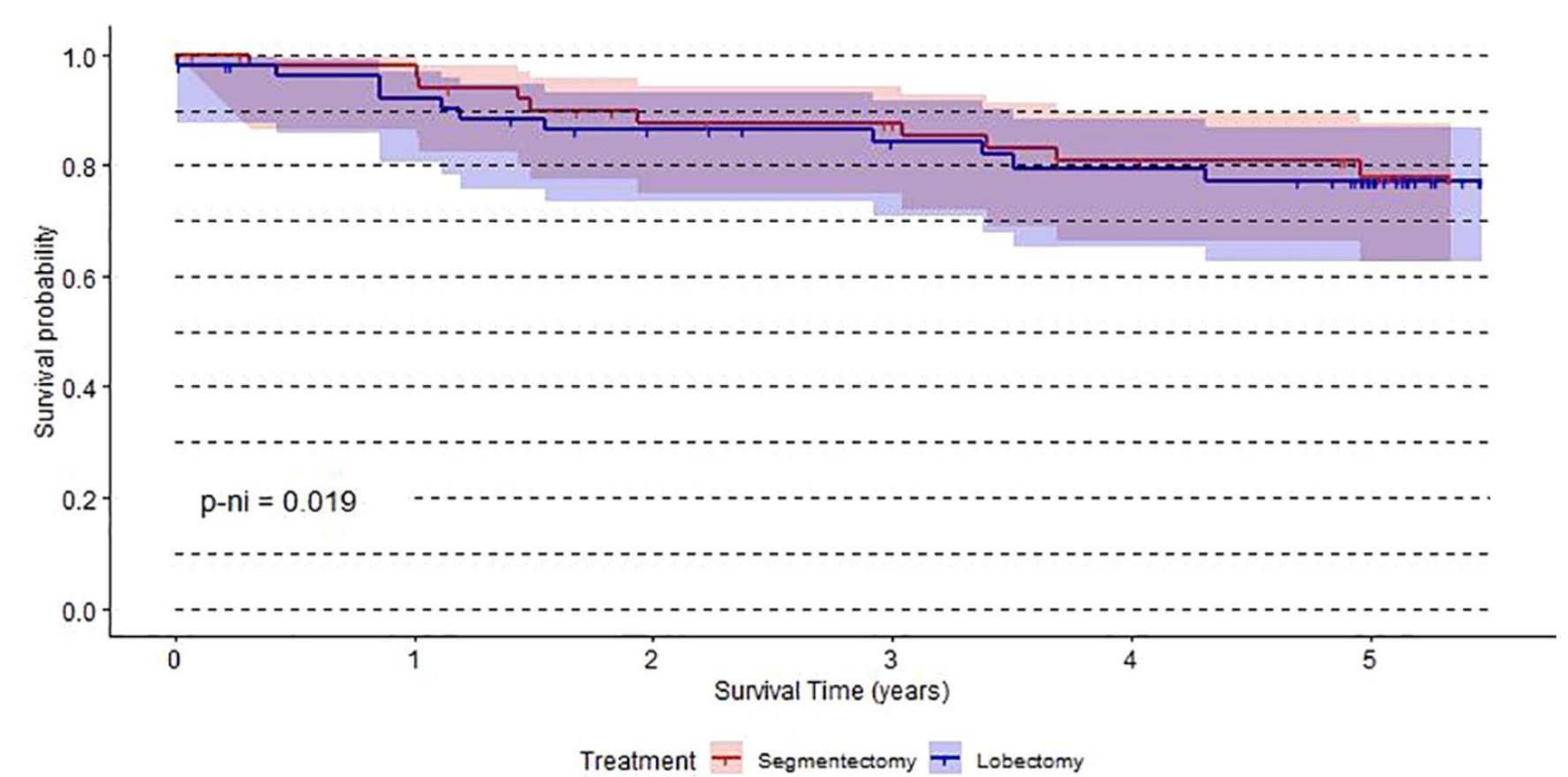
Lung Cancer Study Group (Prepared by Robert J. Ginsberg, MD, and Lawrence V. Rubinstein, PhD)



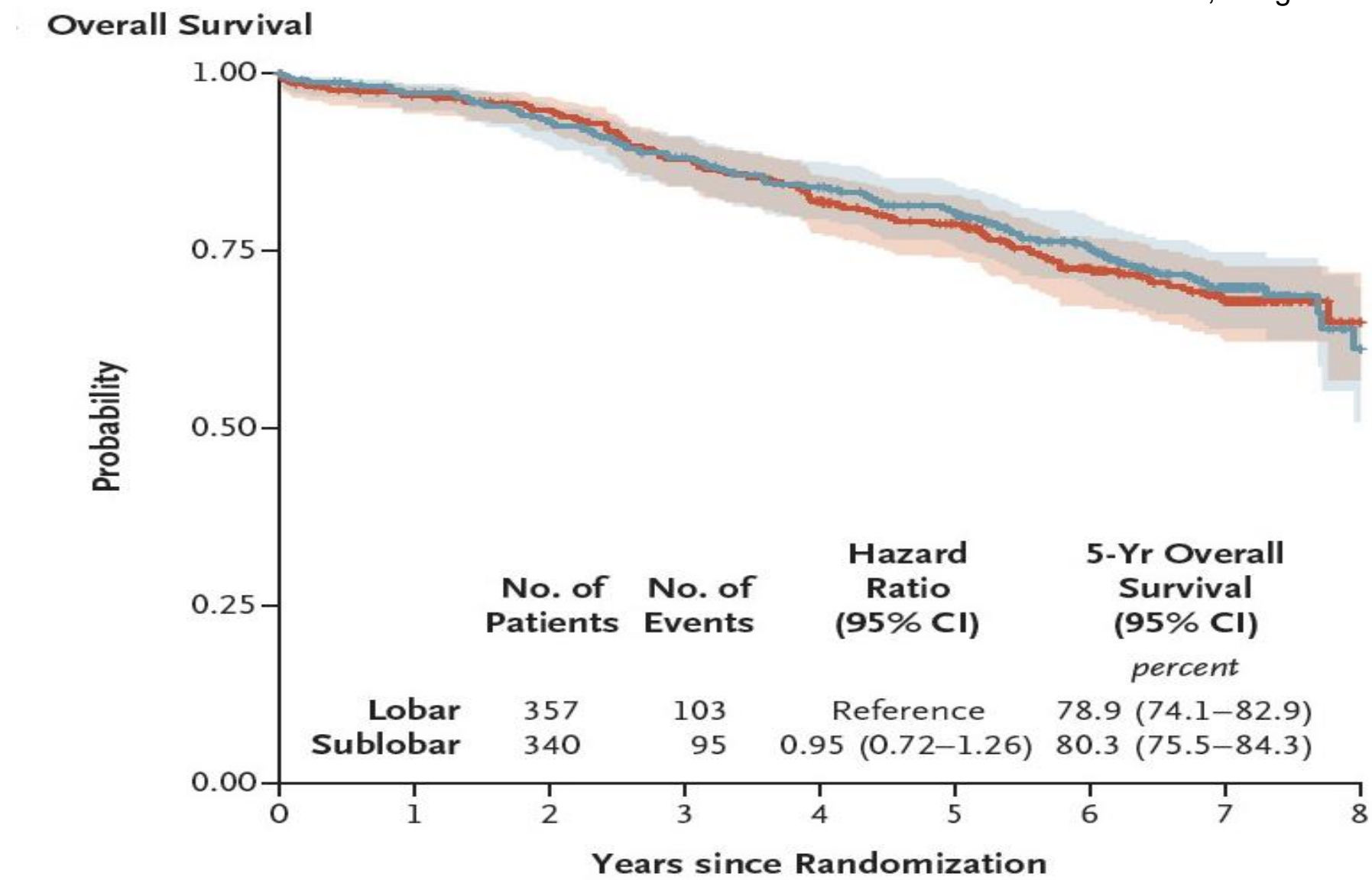




Saji et al, Lancet 2022, 399:1607-17



Stamatis et al, Lung Cancer 2022, 172:108-116



Altorki et al, NEJM 2023, 388:489-98



Lobectomy

For Tumors smaller than 2 cm



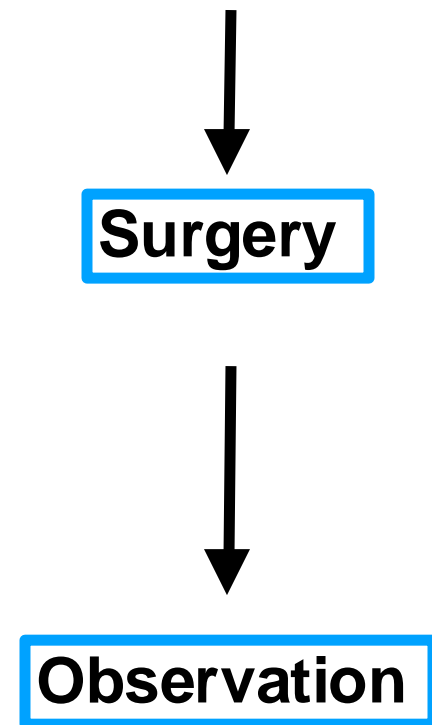
Segmentectomy

# Stage IB-III



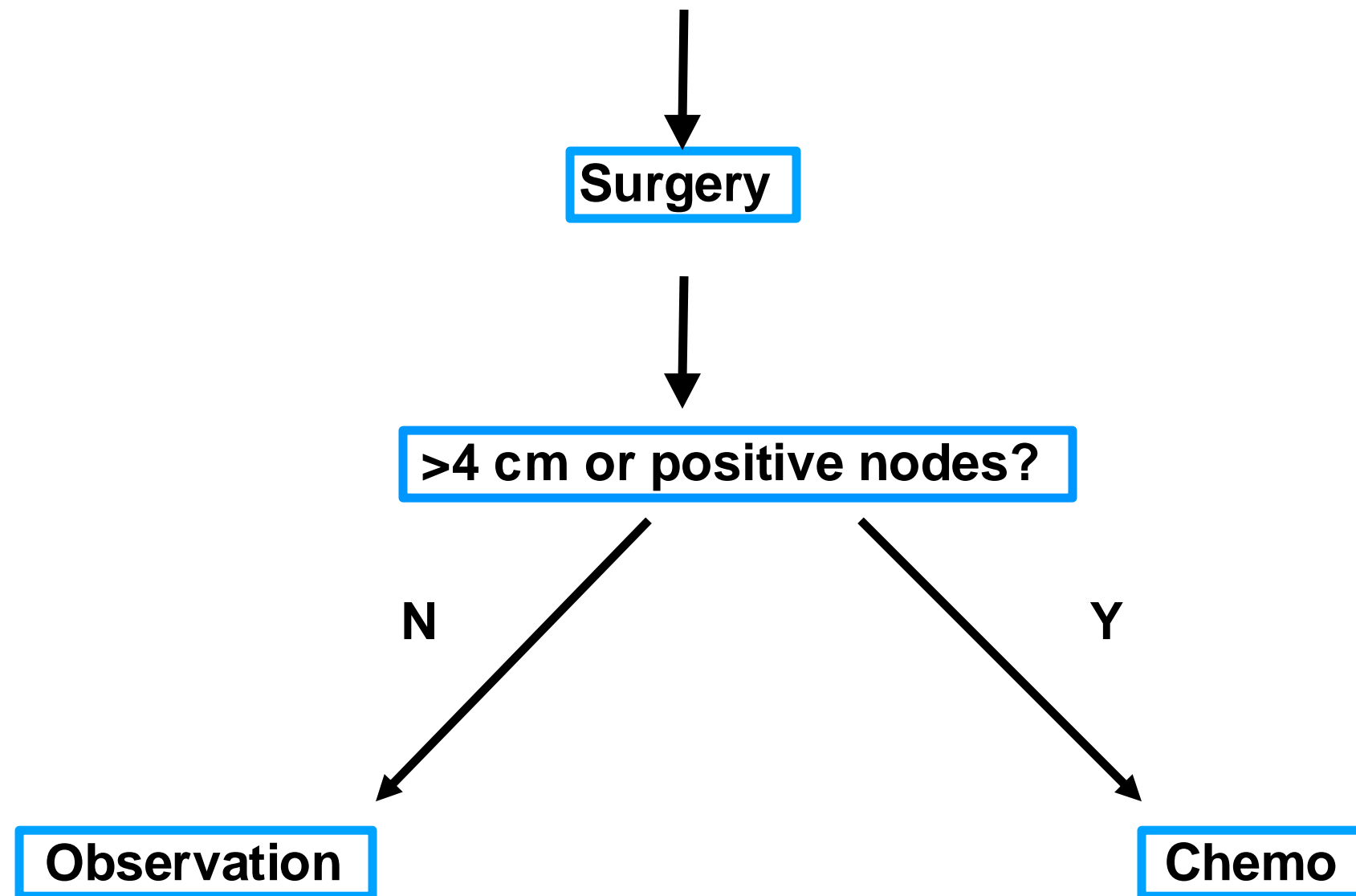
## Stage IB

Old paradigm



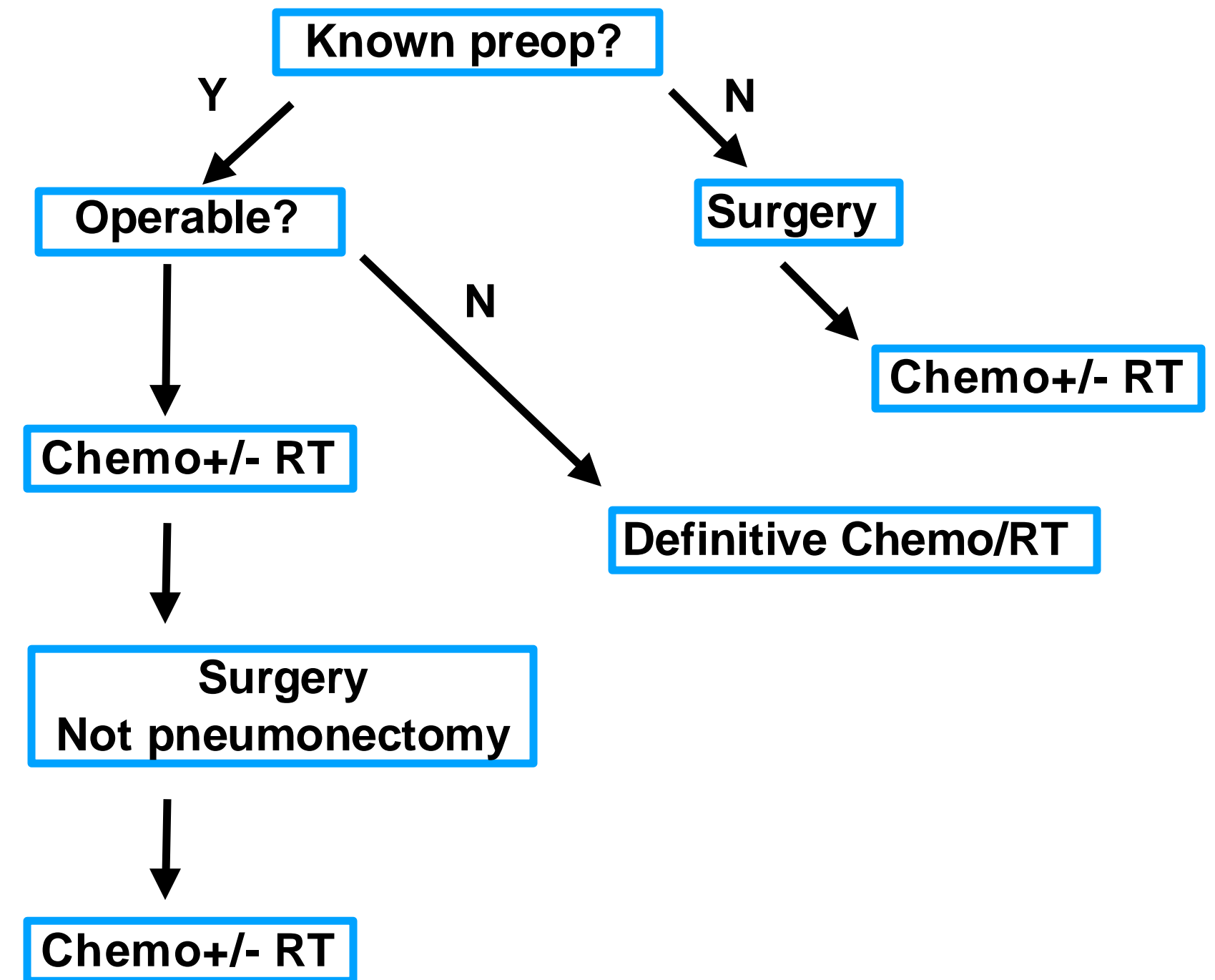
## Stage II

Old paradigm



## Stage III

Old paradigm

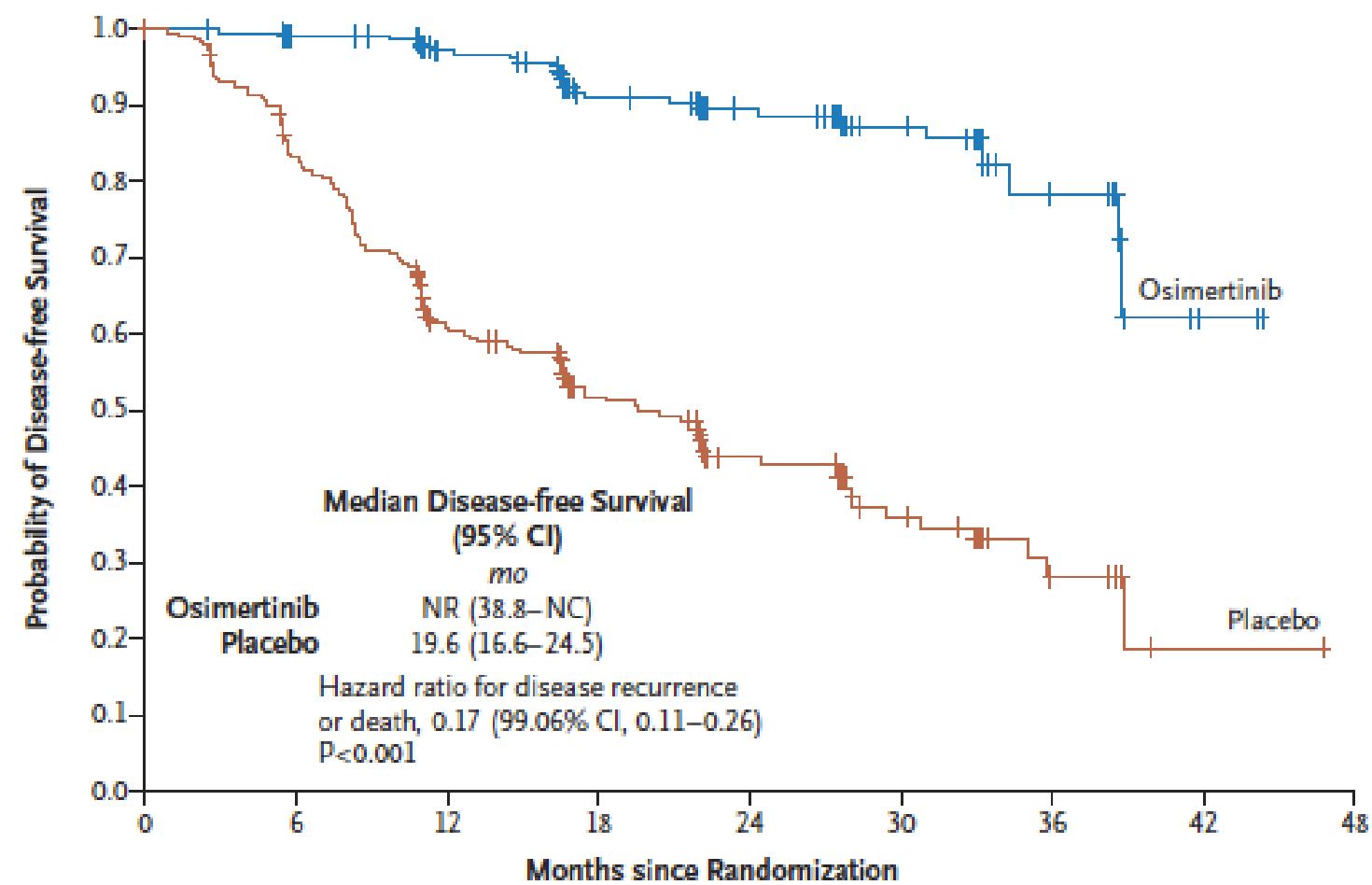


# Osimertinib in Resected *EGFR*-Mutated Non-Small-Cell Lung Cancer

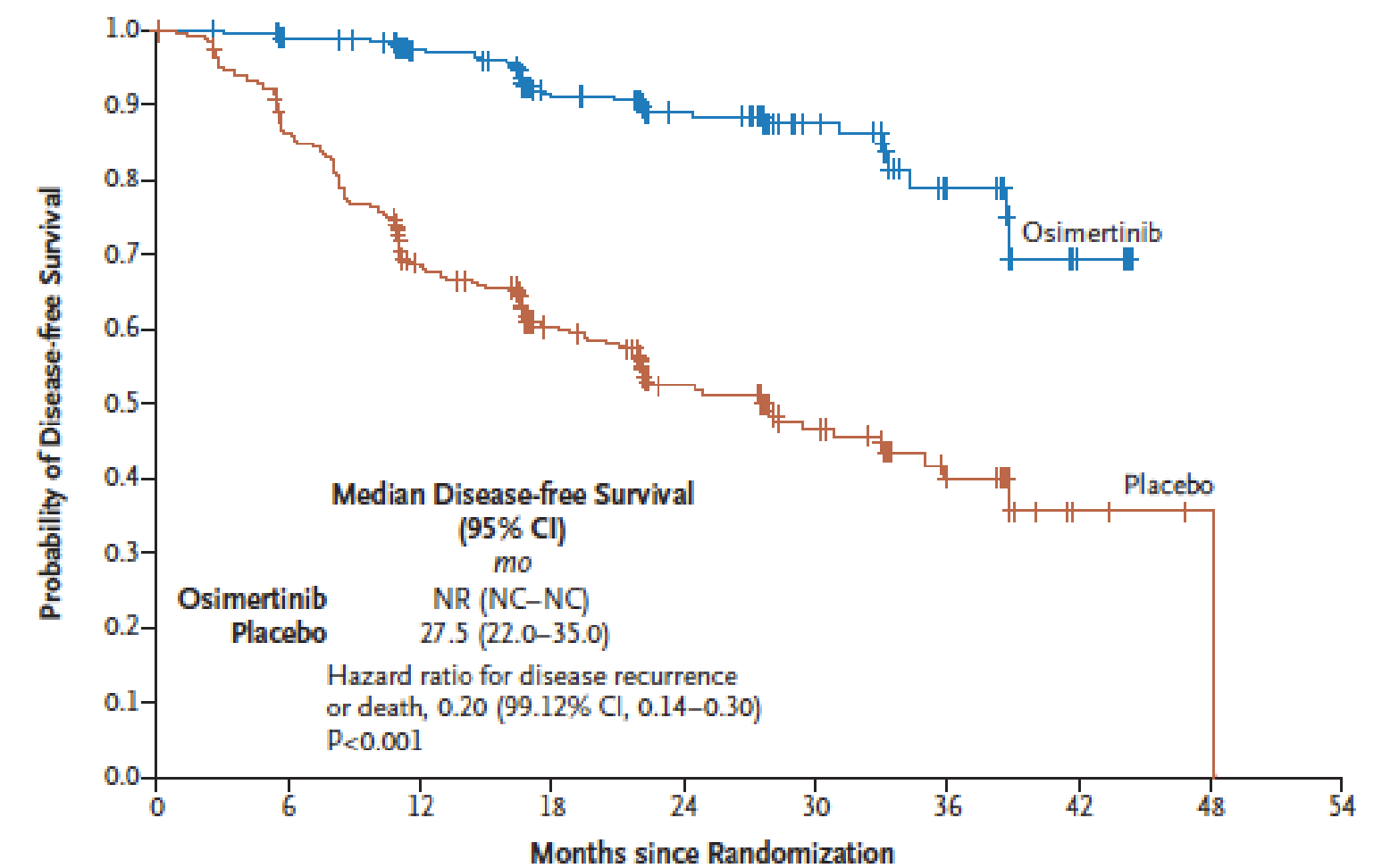
Yi-Long Wu, M.D., Masahiro Tsuboi, M.D., Jie He, M.D., Thomas John, Ph.D., Christian Grohe, M.D., Margarita Majem, M.D., Jonathan W. Goldman, M.D., Konstantin Laktionov, Ph.D., Sang-We Kim, M.D., Ph.D., Terufumi Kato, M.D., Huu-Vinh Vu, M.D., Ph.D., Shun Lu, M.D., Kye-Young Lee, M.D., Ph.D., Charuwan Akewanlop, M.D., Chong-Jen Yu, M.D., Ph.D., Filippo de Marinis, M.D., Laura Bonanno, M.D., Manuel Domine, M.D., Ph.D., Frances A. Shepherd, M.D., Lingmin Zeng, Ph.D., Rachel Hodge, M.Sc., Ajlan Atasoy, M.D., Yuri Rukazenkov, M.D., Ph.D., and Roy S. Herbst, M.D., Ph.D., for the ADAURA Investigators\*

NEJM 2020

**A** Patients with Stage II to IIIA Disease



**B** Patients with Stage IB to IIIA Disease

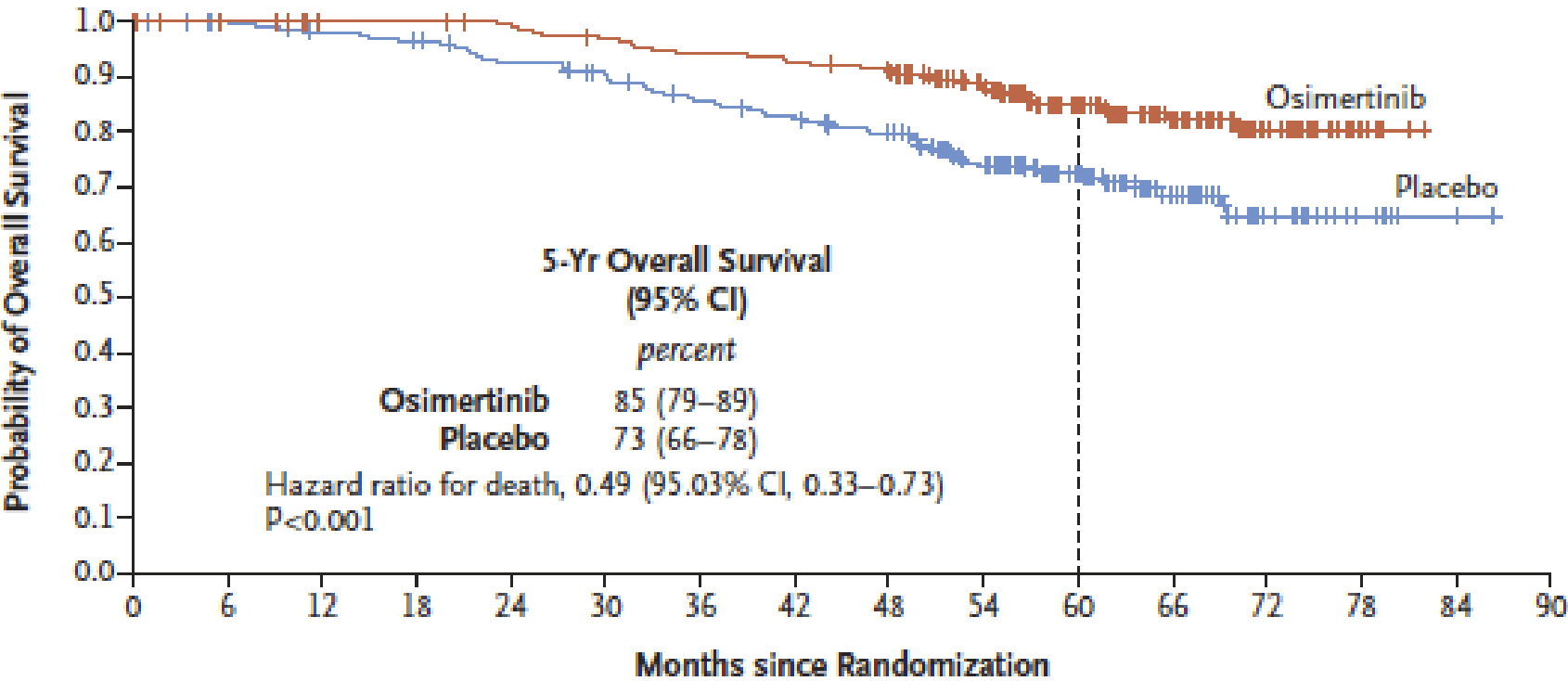


# Overall Survival with Osimertinib in Resected EGFR-Mutated NSCLC

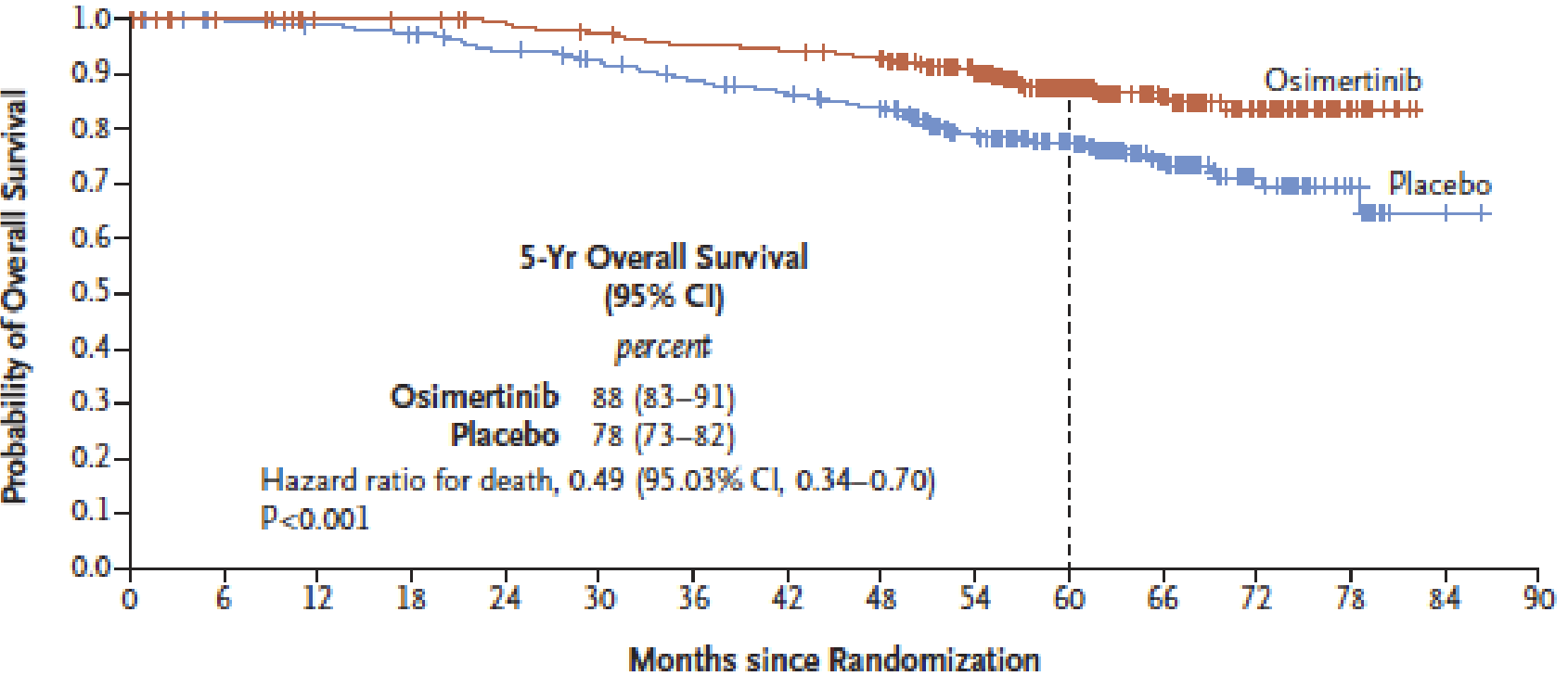
Masahiro Tsuboi, M.D., Roy S. Herbst, M.D., Ph.D.,  
Thomas John, M.B., B.S., Ph.D., Terufumi Kato, M.D.,  
Margarita Majem, M.D., Ph.D., Christian Grohé, M.D., Jie Wang, M.D., Ph.D.,  
Jonathan W. Goldman, M.D., Shun Lu, M.D., Wu-Chou Su, M.D.,  
Filippo de Marinis, M.D., Frances A. Shepherd, M.D., Ki Hyeong Lee, M.D., Ph.D.,  
Nhieu Thi Le, M.D., Arunee Dechaphunkul, M.D., Dariusz Kowalski, M.D., Ph.D.,  
Lynne Poole, M.Sc., Ana Bolanos, M.D., Yuri Rukazenzov, M.D., Ph.D.,  
and Yi-Long Wu, M.D., for the ADAURA Investigators\*

NEJM 2023

A Patients with Stage II to IIIA Disease



B Patients with Stage IB to IIIA Disease



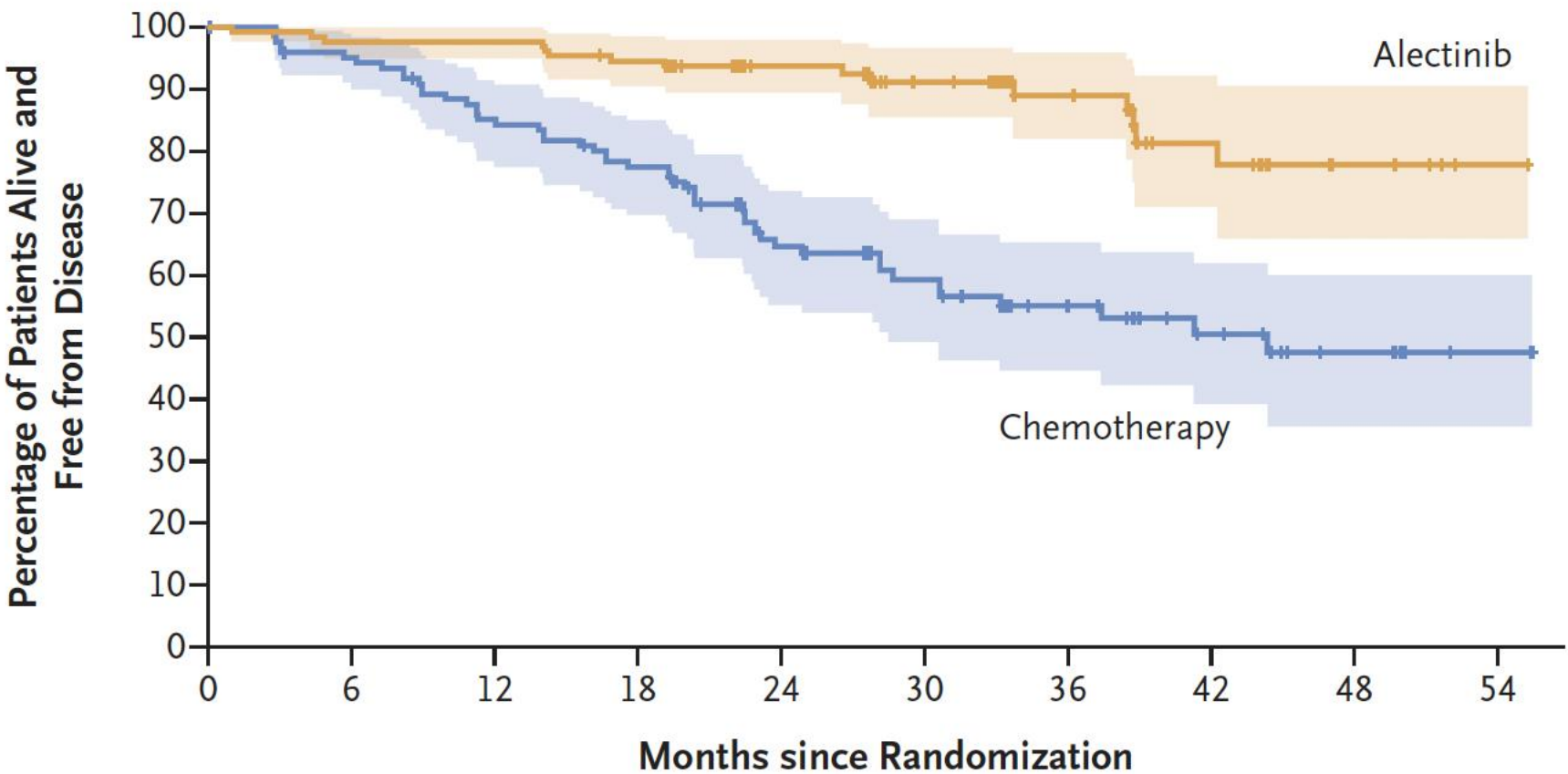


# Alectinib in Resected ALK-Positive Non-Small-Cell Lung Cancer

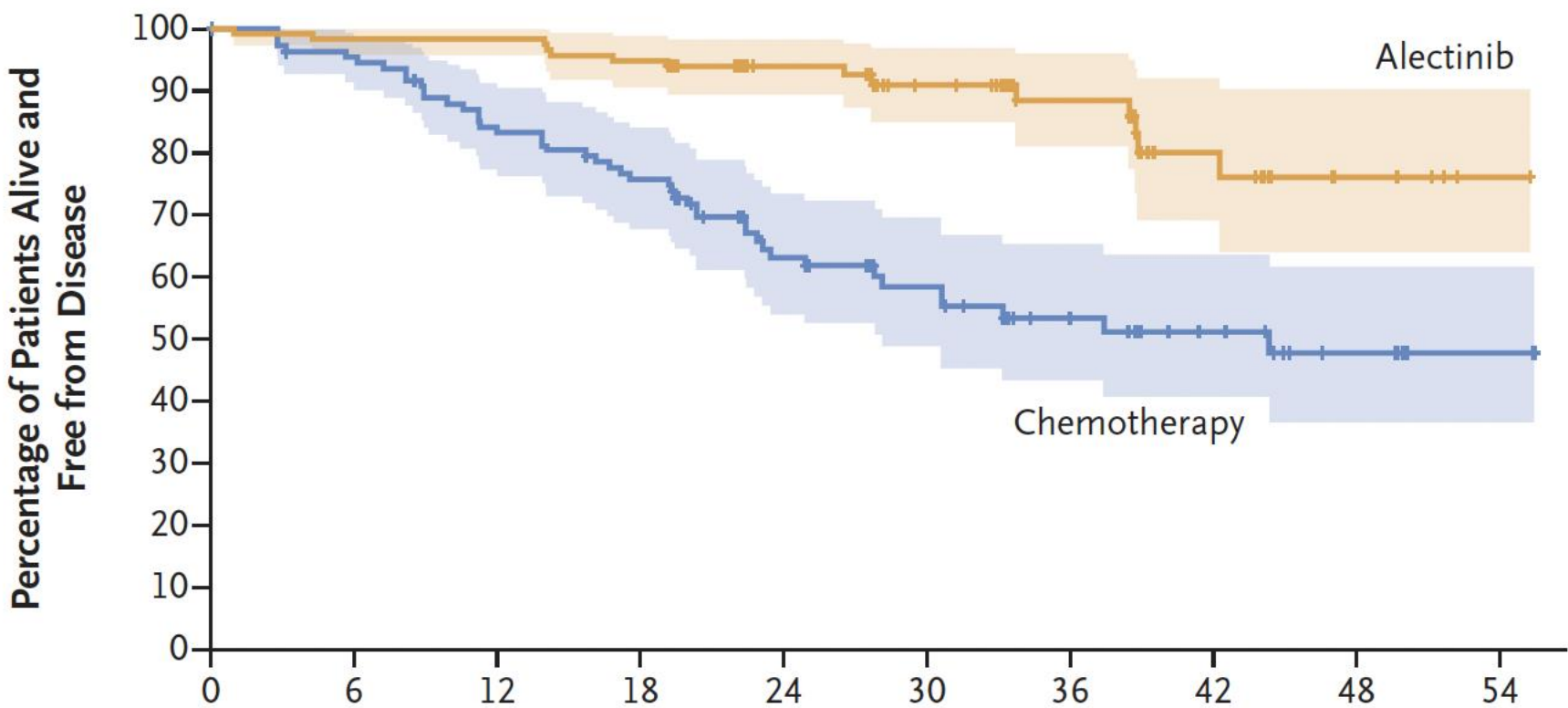
Yi-Long Wu, M.D., Rafal Dziadziuszko, M.D., Ph.D., Jin Seok Ahn, M.D., Ph.D., Fabrice Barlesi, M.D., Ph.D., Makoto Nishio, M.D., Ph.D., Dae Ho Lee, M.D., Ph.D., Jong-Seok Lee, M.D., Ph.D., Wenzhao Zhong, M.D., Ph.D., Hidehito Horinouchi, M.D., Ph.D., Weimin Mao, M.D., Ph.D., Maximilian Hochmair, M.D., Filippo de Marinis, M.D., M. Rita Migliorino, M.D., Igor Bondarenko, M.D., Ph.D., Shun Lu, M.D., Qun Wang, M.D., Tania Ochi Lohmann, Ph.D., Tingting Xu, M.D., Andres Cardona, M.Sc., Thorsten Ruf, M.D., Johannes Noe, Ph.D., and Benjamin J. Solomon, M.B., B.S., Ph.D., for the ALINA Investigators\*

NEJM 2023

Intention-to-Treat Population

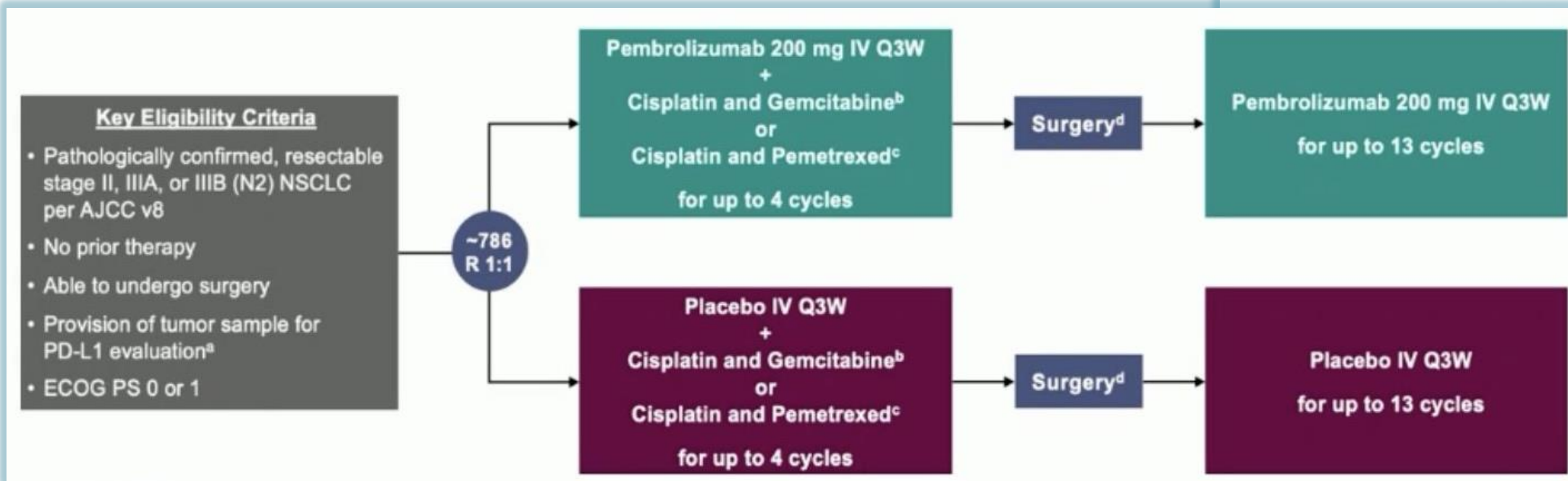


Patients with Stage II or IIIA Disease



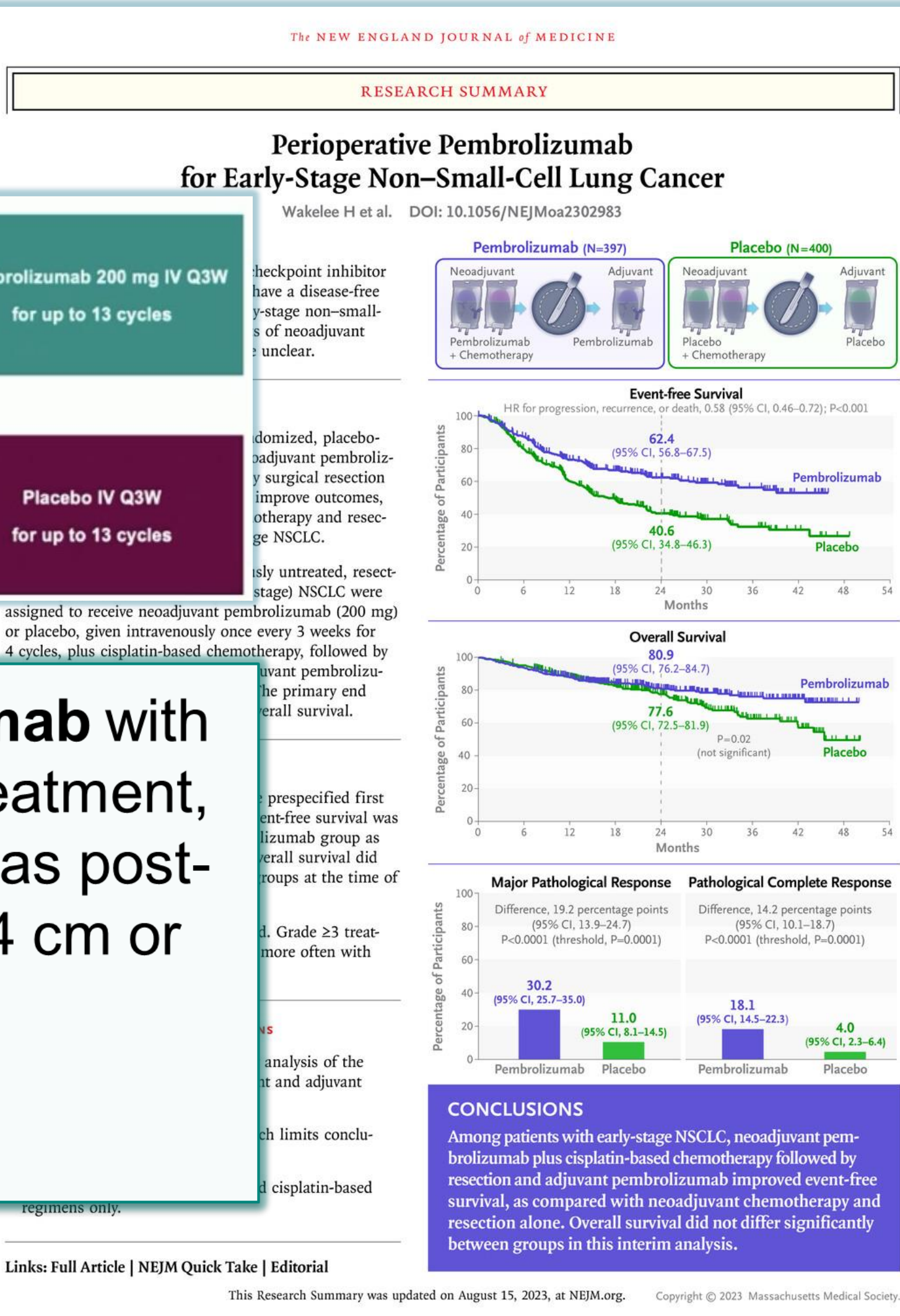


# Keynote-671



In October 2023, the US FDA approved **pembrolizumab** with platinum-containing chemotherapy as neoadjuvant treatment, and with continuation of single-agent pembrolizumab as post-surgical adjuvant treatment for resectable (tumors ≥4 cm or node positive) NSCLC

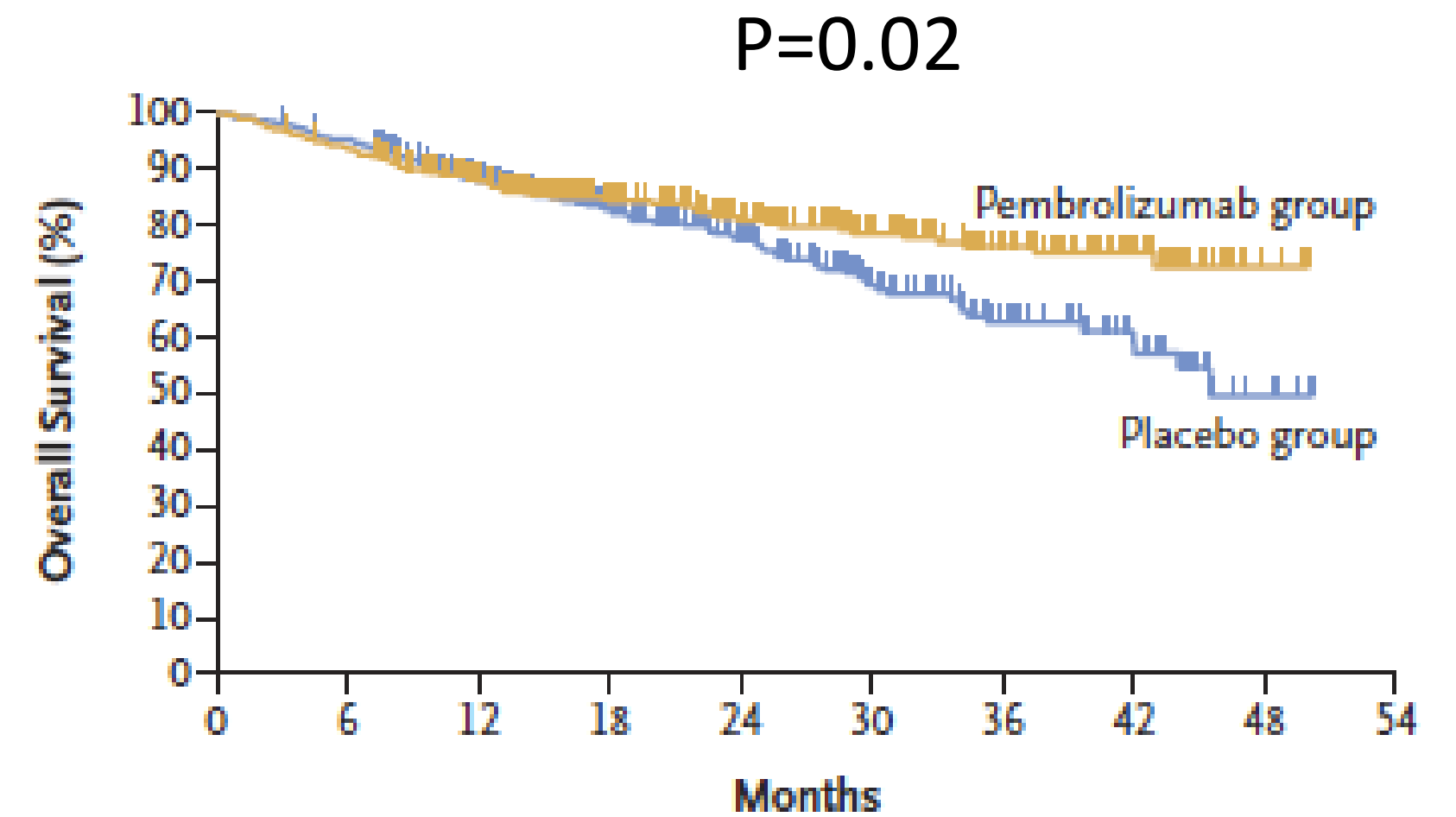
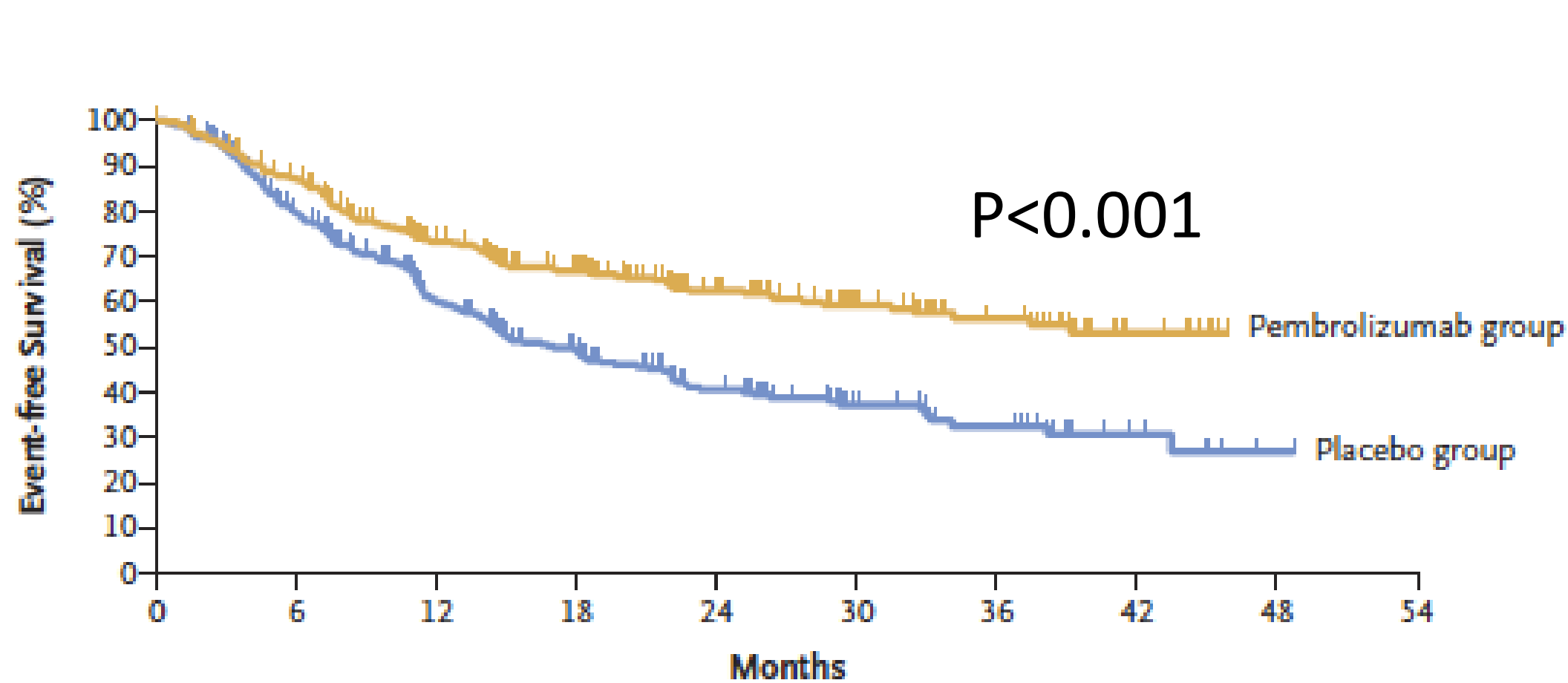
NCCN designated a class I recommendation



# Perioperative Pembrolizumab for Early-Stage Non-Small-Cell Lung Cancer

H. Wakelee, M. Liberman, T. Kato, M. Tsuboi, S.-H. Lee, S. Gao, K.-N. Chen, C. Doooms, M. Majem, E. Eigendorff, G.L. Martinengo, O. Bylicki, D. Rodríguez-Abreu, J.E. Chaft, S. Novello, J. Yang, S.M. Keller, A. Samkari, and J.D. Spicer, for the KEYNOTE-671 Investigators\*

NEJM 2023



Pre specified threshold  $p = 0.00462$

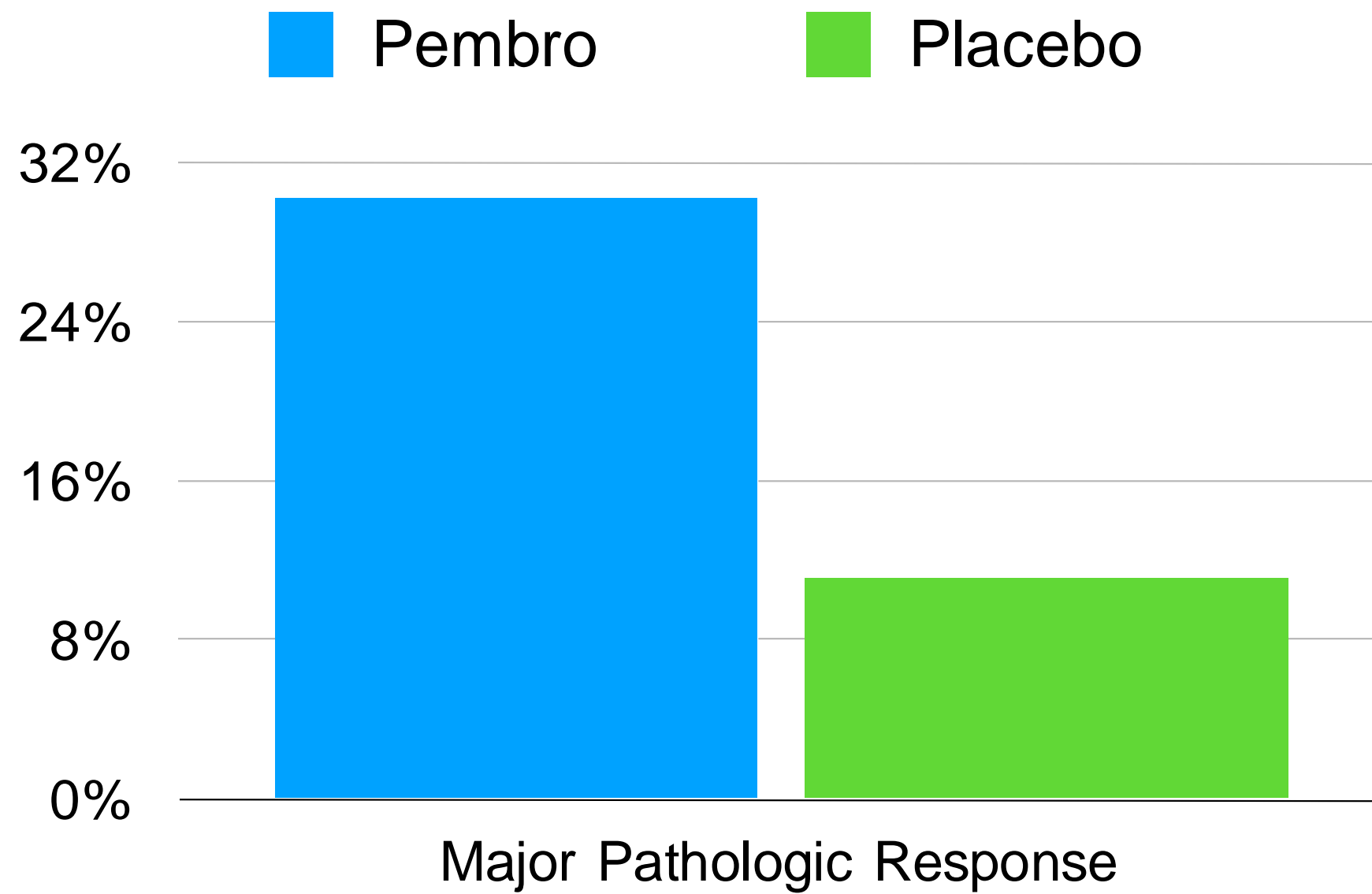
Pathological stage at baseline — no. (%)

II	118 (29.7)	121 (30.2)
III	279 (70.3)	279 (69.8)
IIIA	217 (54.7)	225 (56.2)
IIIB	62 (15.6)	54 (13.5)

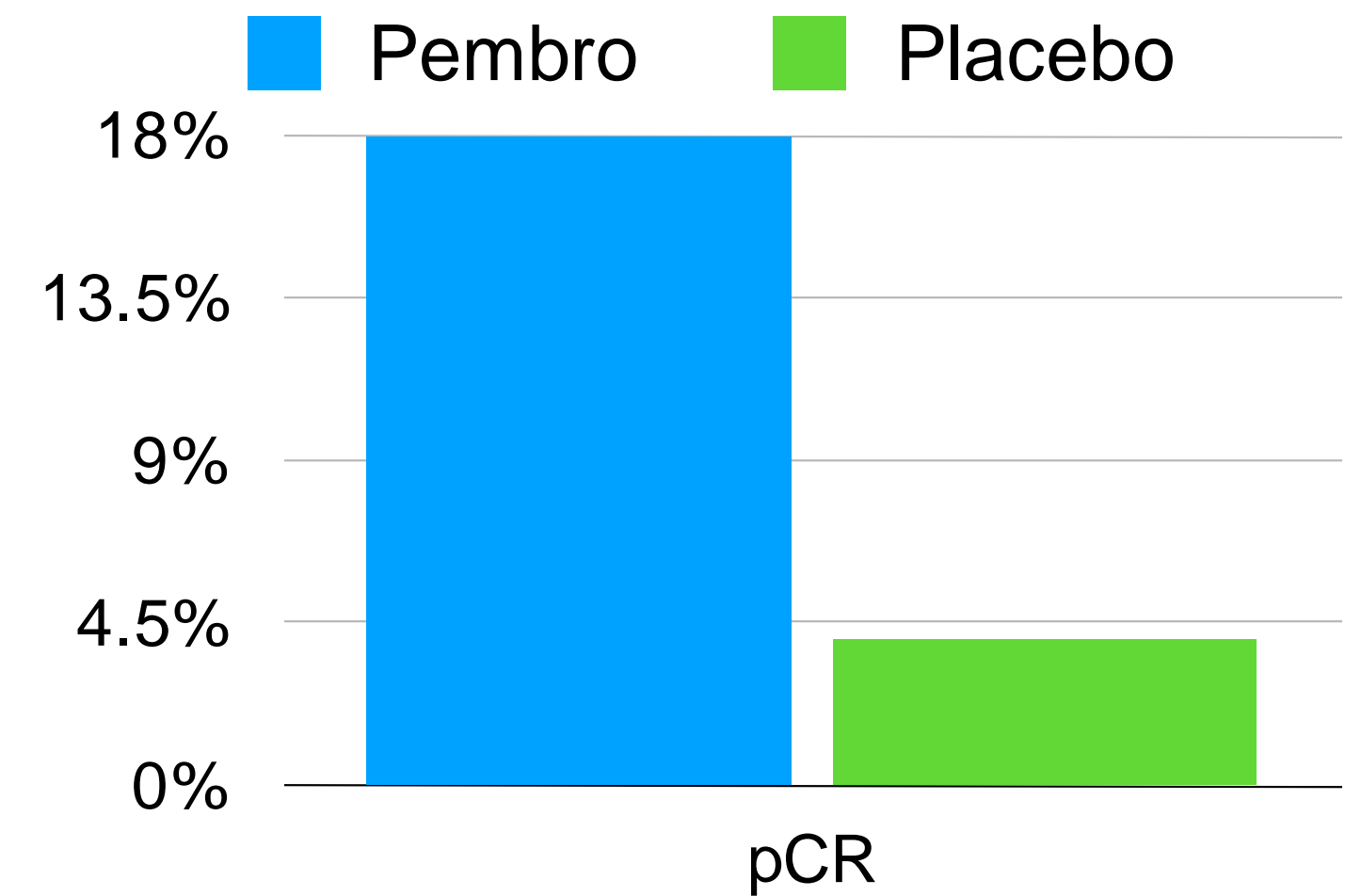


# Pathologic Response

P<0.001



P<0.001



# Overall Survival

- Median survival
  - Pembro NR
  - Placebo 52.4 months
- HR 0.72 (CI 0.56-0.93)
- p=0.005
- Median time from randomization 36 months
- 71% vs 64% overall 36 months survival

## NSCLC, early stage

LBA56

**Overall survival in the KEYNOTE-671 study of perioperative pembrolizumab for early-stage non-small-cell lung cancer (NSCLC)**

J.D. Spicer<sup>1</sup>, S. Gao<sup>2</sup>, M. Liberman<sup>3</sup>, T. Kato<sup>4</sup>, M. Tsuboi<sup>5</sup>, S-H. Lee<sup>6</sup>, K-N. Chen<sup>7</sup>, C. Doms<sup>8</sup>, M. Majem<sup>9</sup>, E. Eigendorff<sup>10</sup>, G. Martinengo<sup>11</sup>, O. Bylicki<sup>12</sup>, M.C. Garassino<sup>13</sup>, D. Rodriguez Abreu<sup>14</sup>, J. Chaft<sup>15</sup>, S. Novello<sup>16</sup>, J. Yang<sup>17</sup>, S.M. Keller<sup>18</sup>, A. Samkari<sup>18</sup>, H. Wakelee<sup>19</sup>

Presented at ESMO 2023

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Neoadjuvant pembrolizumab plus chemotherapy followed by adjuvant pembrolizumab compared with neoadjuvant chemotherapy alone in patients with early-stage non-small-cell lung cancer (KEYNOTE-671): a randomised, double-blind, placebo-controlled, phase 3 trial

[Jonathan D Spicer, MD](#) <sup>a,\*</sup> [✉](#) · [Prof Marina C Garassino, MD](#) <sup>b,\*</sup> · [Prof Heather Wakelee, MD](#) <sup>c</sup> · [Moishe Liberman, MD](#) <sup>d</sup> · [Terufumi Kato, MD](#) <sup>e</sup> · [Prof Masahiro Tsuboi, MD](#) <sup>f</sup> · et al. [Show more](#)

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# Chemotherapy + Immunotherapy

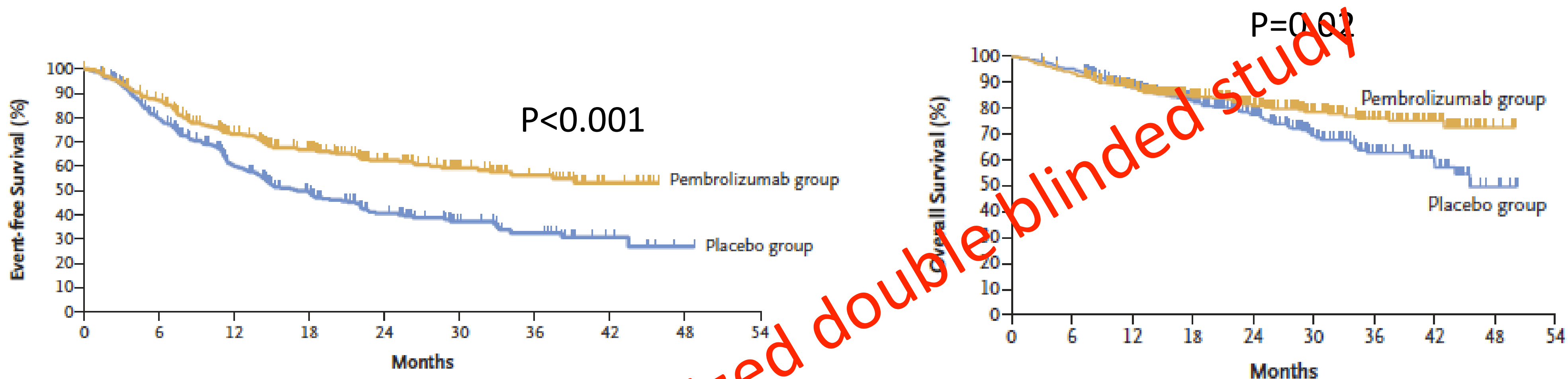
Adjuvant	Neoadjuvant	Sandwich
<b>IMPower010</b> Atezolizumab x 1Y Resected II-III A PD-L1+ 5Y DFS HR:0.70 <b>FDA</b>	<b>Checkmate-816</b> Nivolumab x 3 cycles Resectable IB-III A 4Y EFS HR:0.62 <b>FDA</b>	<b>AEGEAN</b> Durvalumab 4c + 1Y Resectable II-III A 2Y EFS HR:0.68 <b>FDA</b>
<b>Keynote 091</b> Pembrolizumab x 1Y Resected IB-III A 1.5Y DFS HR:0.76 <b>FDA</b>		<b>Keynote 671</b> Pembrolizumab 4c + 9M Resectable II-III B 3Y OS HR:0.72 <b>FDA</b>
		<b>Neotorch</b> Torpalimab 3c + 10M Resectable III 2Y EFS HR:0.40
		<b>Checkmate-77T</b> Nivolumab x 4c + 1Y Resectable II-III A 1.5 EFS HR:0.58
		<b>RATIONALE-315</b> Tislelizumab 3-4c + 10M Resectable II-III A MPR OR:7.5



# Perioperative Pembrolizumab for Early-Stage Non-Small-Cell Lung Cancer

H. Wakelee, M. Liberman, T. Kato, M. Tsuboi, S.-H. Lee, S. Gao, K.-N. Chen, C. Doooms, M. Majem, E. Eigendorff, G.L. Martinengo, O. Bylicki, D. Rodríguez-Abreu, J.E. Chaft, S. Novello, J. Yang, S.M. Keller, A. Samkari, and J.D. Spicer, for the KEYNOTE-671 Investigators\*

NEJM 2023

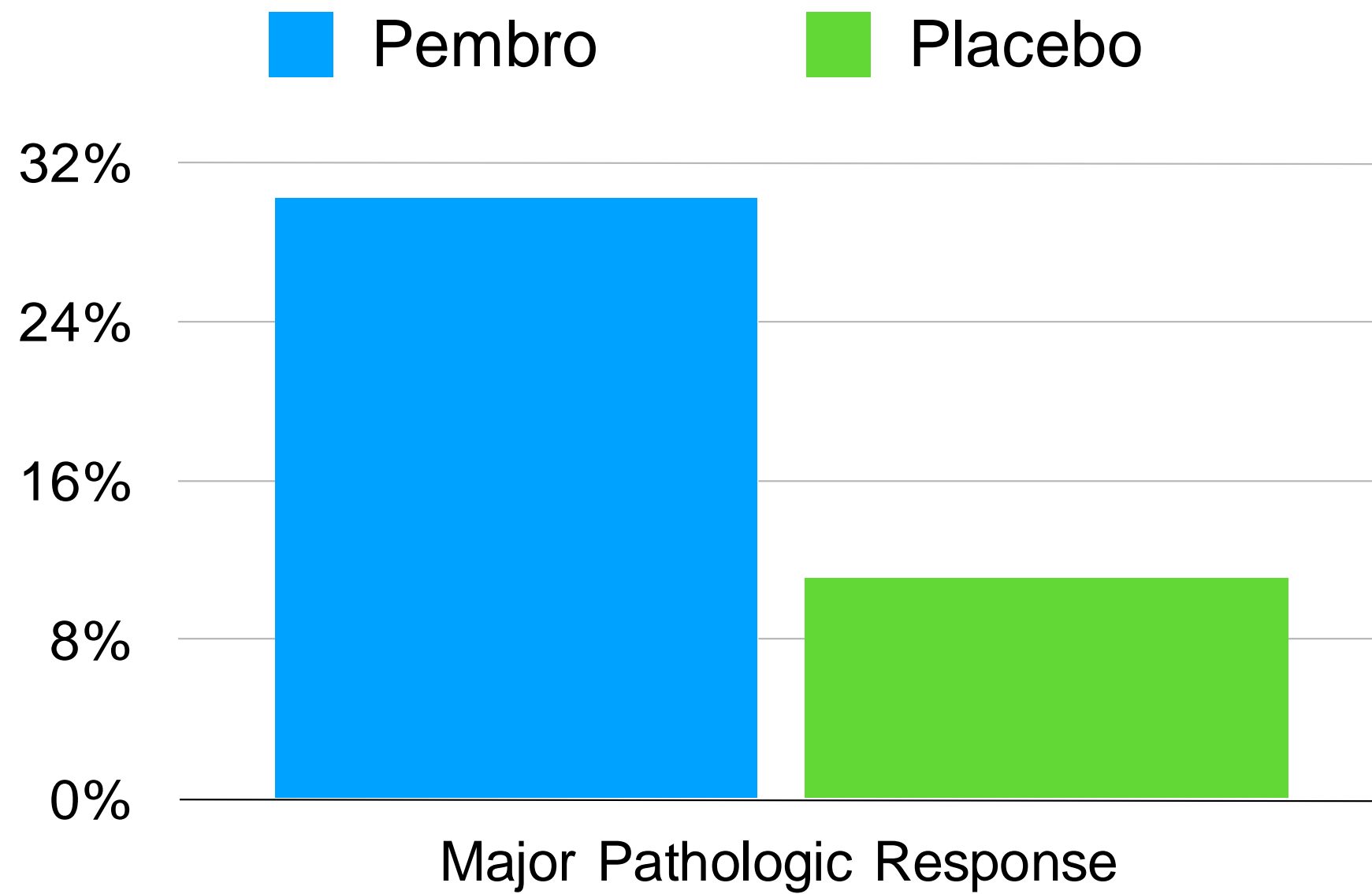


Pathological stage at baseline — no. (%)

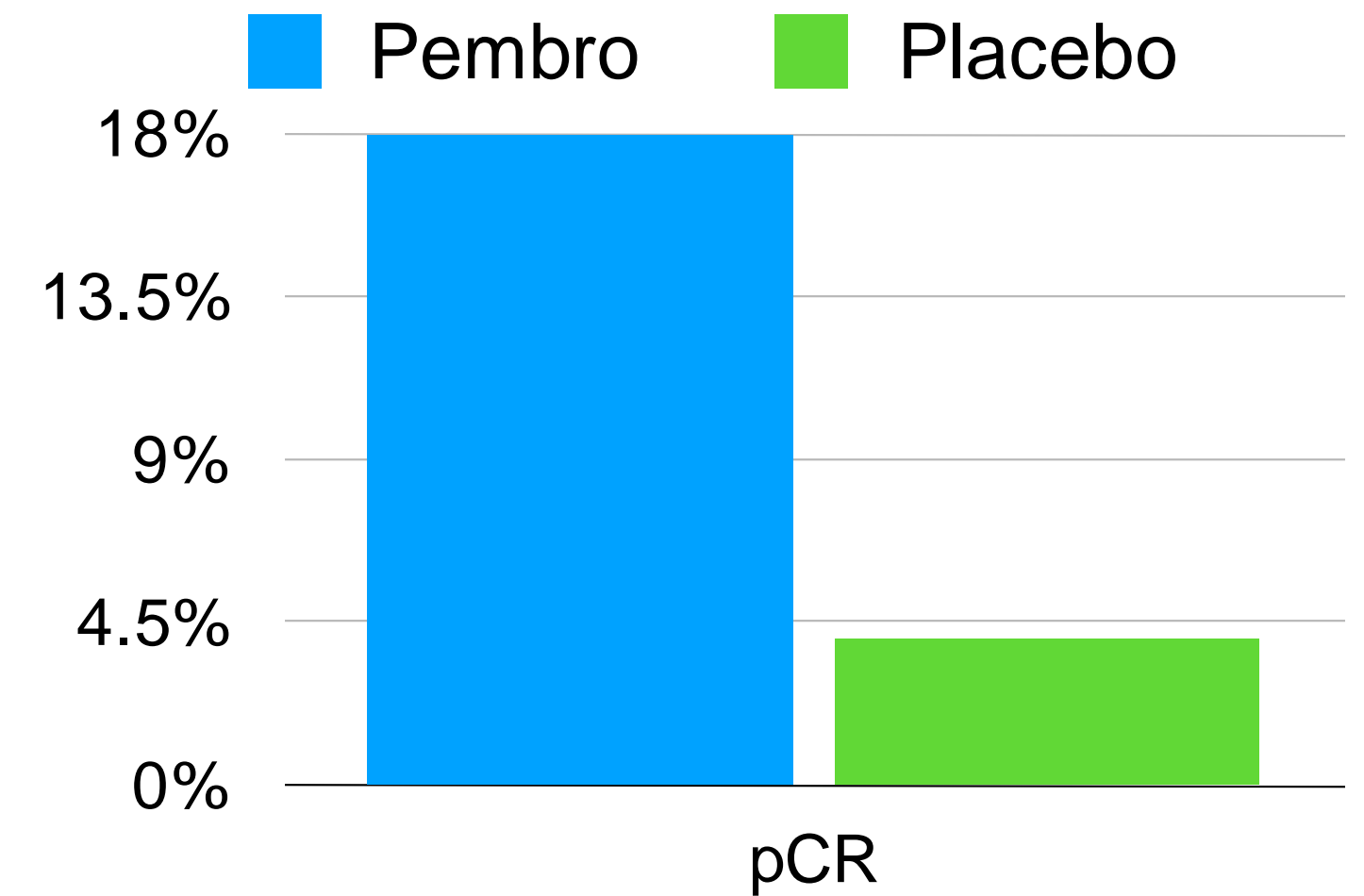
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# Pathologic Response

P<0.001



P<0.001



# Emerging Therapies in Resectable NSCLC



## PD-1/PD-L1 inhibitors

Inhibit interactions between PD-1 and PD-L1 that activate T cells to recognize and eliminate



## Biomarker-directed therapies

Inhibit oncogenic drivers, which are present in

**Does the tumor have a targetable mutation?**

Atezolizumab (PD-1)

Durvalumab (PD-1)

Nivolumab (PD-L1)

Pembrolizumab (PD-L1)

Osimertinib (EGFR)

Alectinib (ALK)



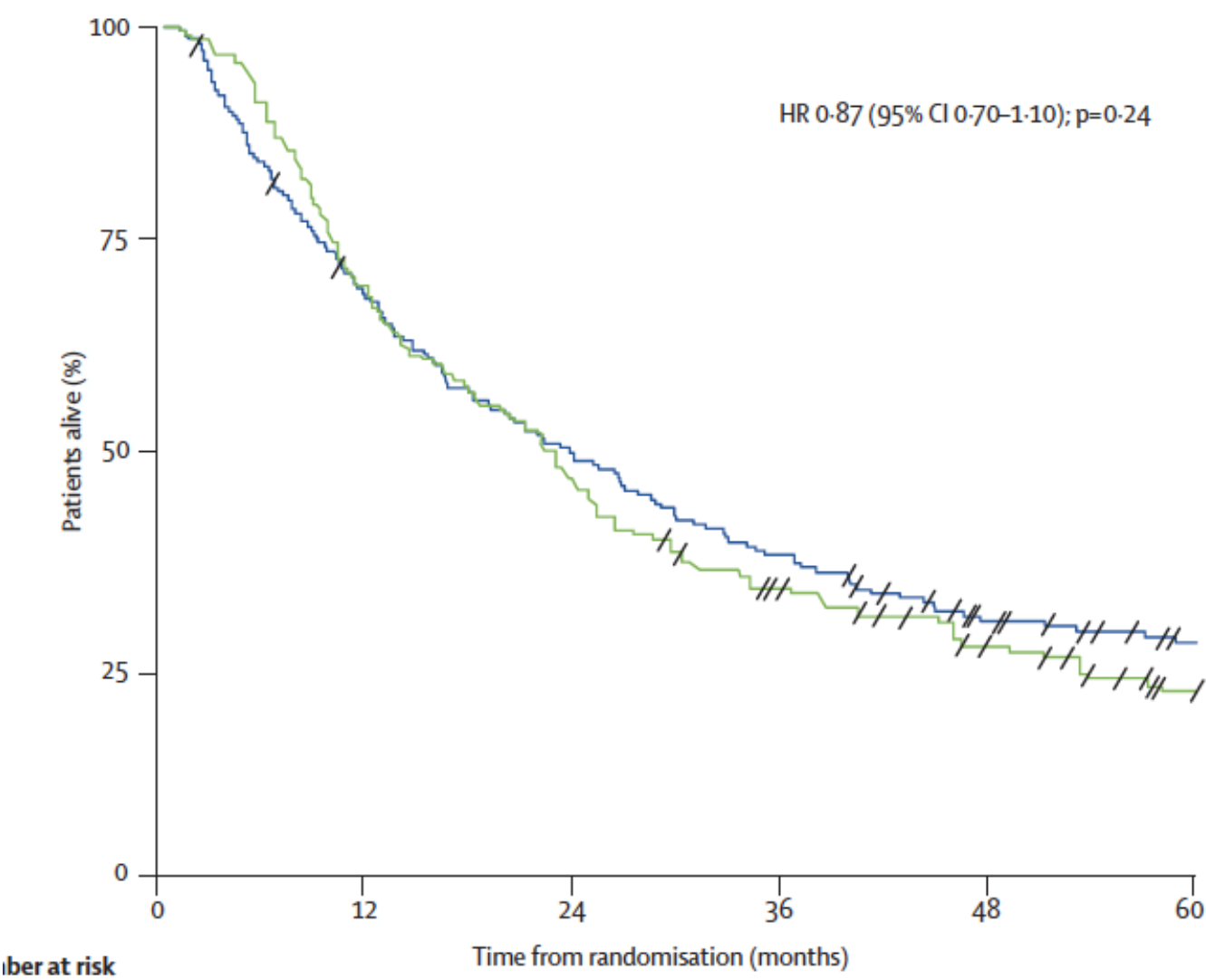
# Decade of Change in NSCLC Treatment

## In 2015

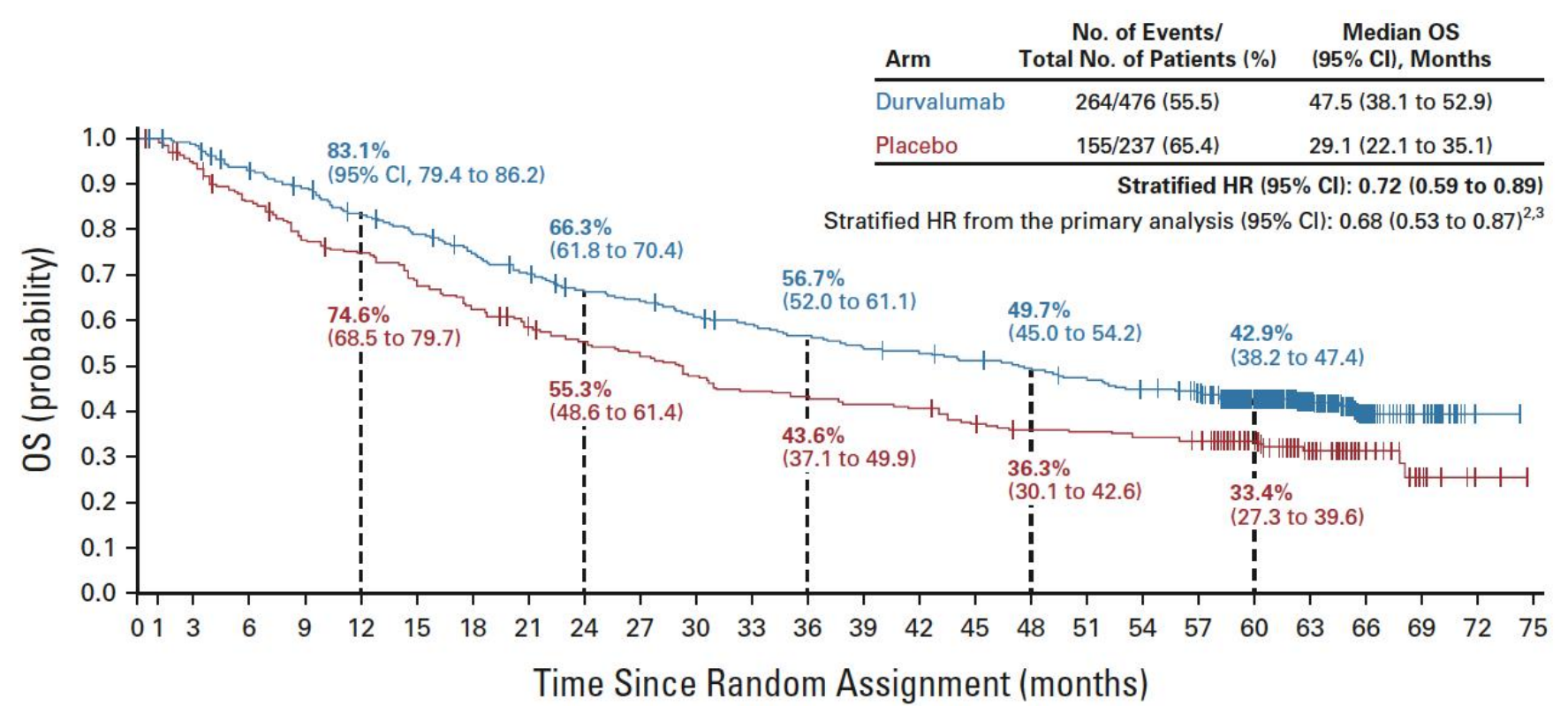
IA & small IB <i>Resection alone</i>		II and non-N2 IIIA <i>Resection + adjuvant treatment</i>		IIIA N2 <i>Potential neoadjuvant treatment + resection, determined by bulk of nodal disease</i>		IIIB/C <i>Definitive chemotherapy/RT</i>		
T and N	N0		N1		N2		N3	
T1	IA		IIA		IIIA		IIIB	
T2a/b	IB	IIA	IIA/IIIB		IIIA		IIIB	
T3	IIB		IIIA		IIIA		IIIC	
T4	IIIA		IIIA		IIIB		IIIC	
M1a/b/c	IVA/B/C		IVA/B/C		IVA/B/C		IVA/B/C	
IVA/B/C Chemotherapy								

## In 2024

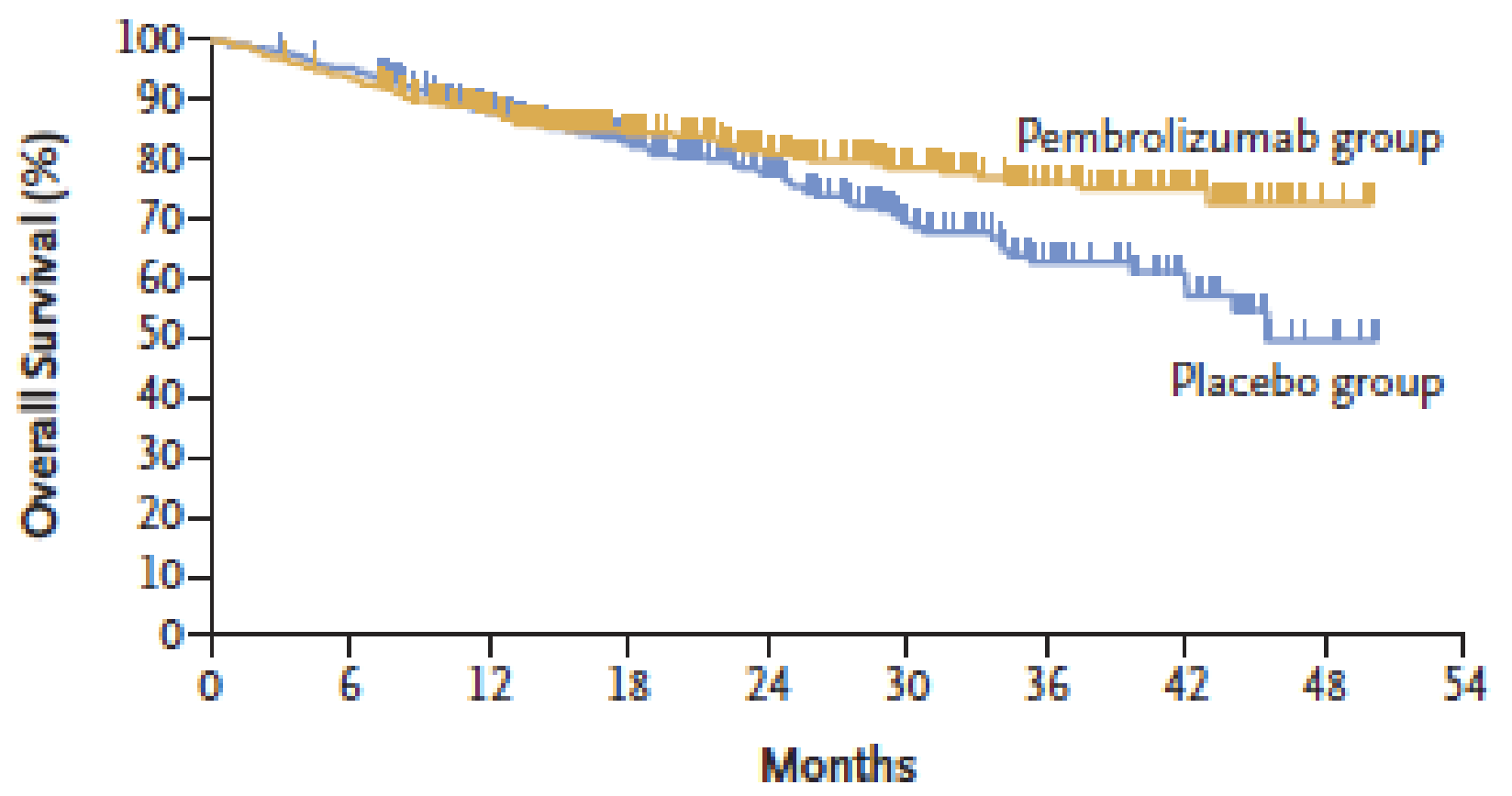
					<b>IA</b> <i>Resection alone Consider Sublobar Resection</i>		<b>Resectable II and IIIA/B(N2)</b> <i>Surgery ± peri-adjuvant cancer immunotherapy or targeted therapy ± chemotherapy ± RT</i>		<b>Unresectable III</b> <i>Chemotherapy/RT ± cancer immunotherapy or targeted therapy</i>			
<b>T and N</b>					<b>N0</b>		<b>N1</b>		<b>N2</b>		<b>N3</b>	
<b>T1</b>					<b>IA</b>		<b>IIA</b>		<b>IIIA</b>		<b>IIIB</b>	
<b>T2a/b</b>					<b>IB</b>	<b>IIA</b>	<b>IIA/IIIB</b>		<b>IIIA</b>		<b>IIIB</b>	
<b>T3</b>					<b>IIB</b>		<b>IIIA</b>		<b>IIIB</b>		<b>IIIC</b>	
<b>T4</b>					<b>IIIA</b>		<b>IIIA</b>		<b>IIIB</b>		<b>IIIC</b>	
<b>M1a/b/c</b>					<b>IVA/B/C</b>		<b>IVA/B/C</b>		<b>IVA/B/C</b>		<b>IVA/B/C</b>	
<b>IVA/B/C</b> Systemic therapy: cancer immunotherapy; targeted therapy; chemotherapy												



Median 23 months - 2009



Median 47% - 2017



Estimated 58 months 2024





# Screening

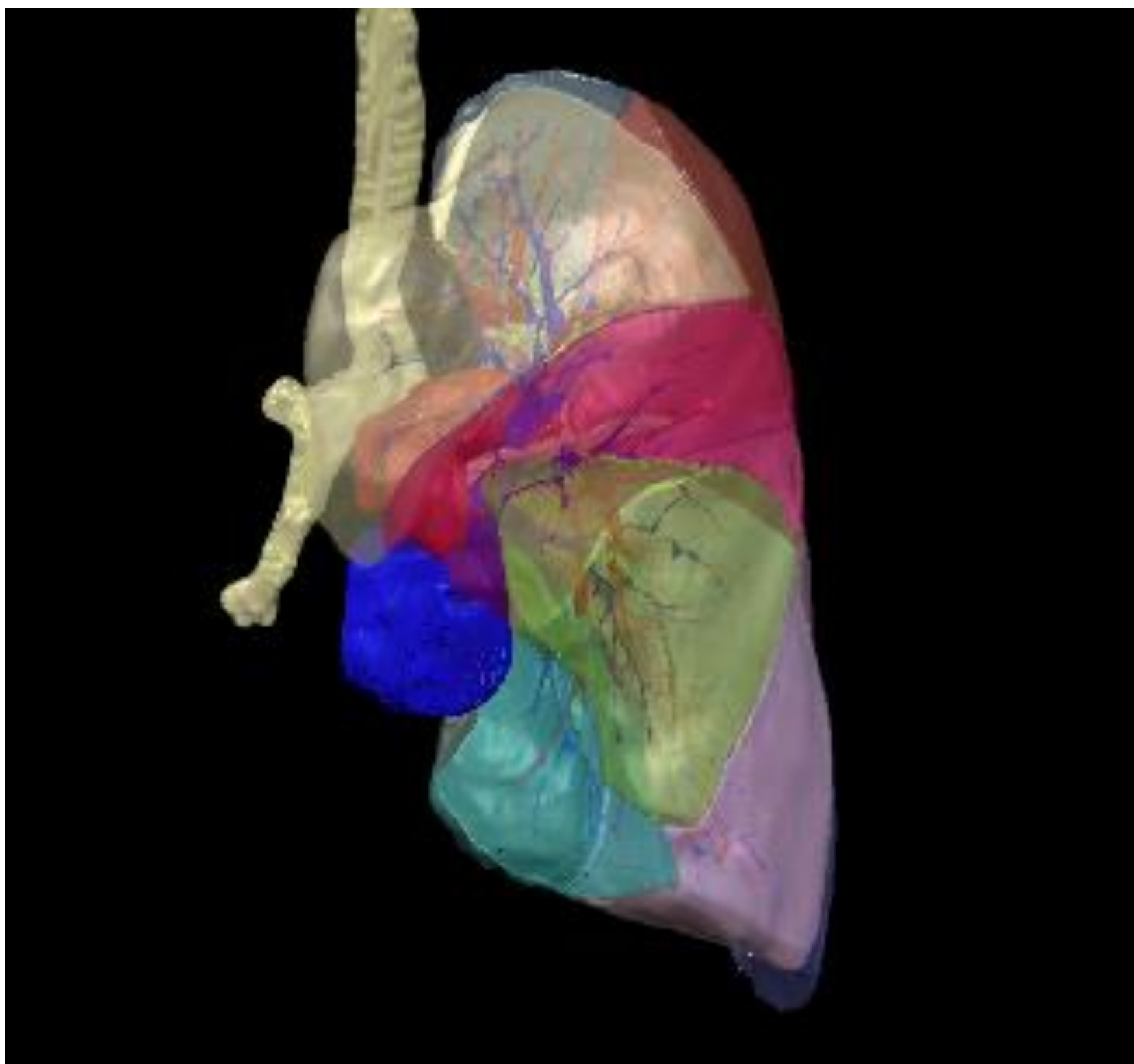
- A robust screening program is essential. Early diagnosis is key.
- 8000 screened patients a year at AHN.

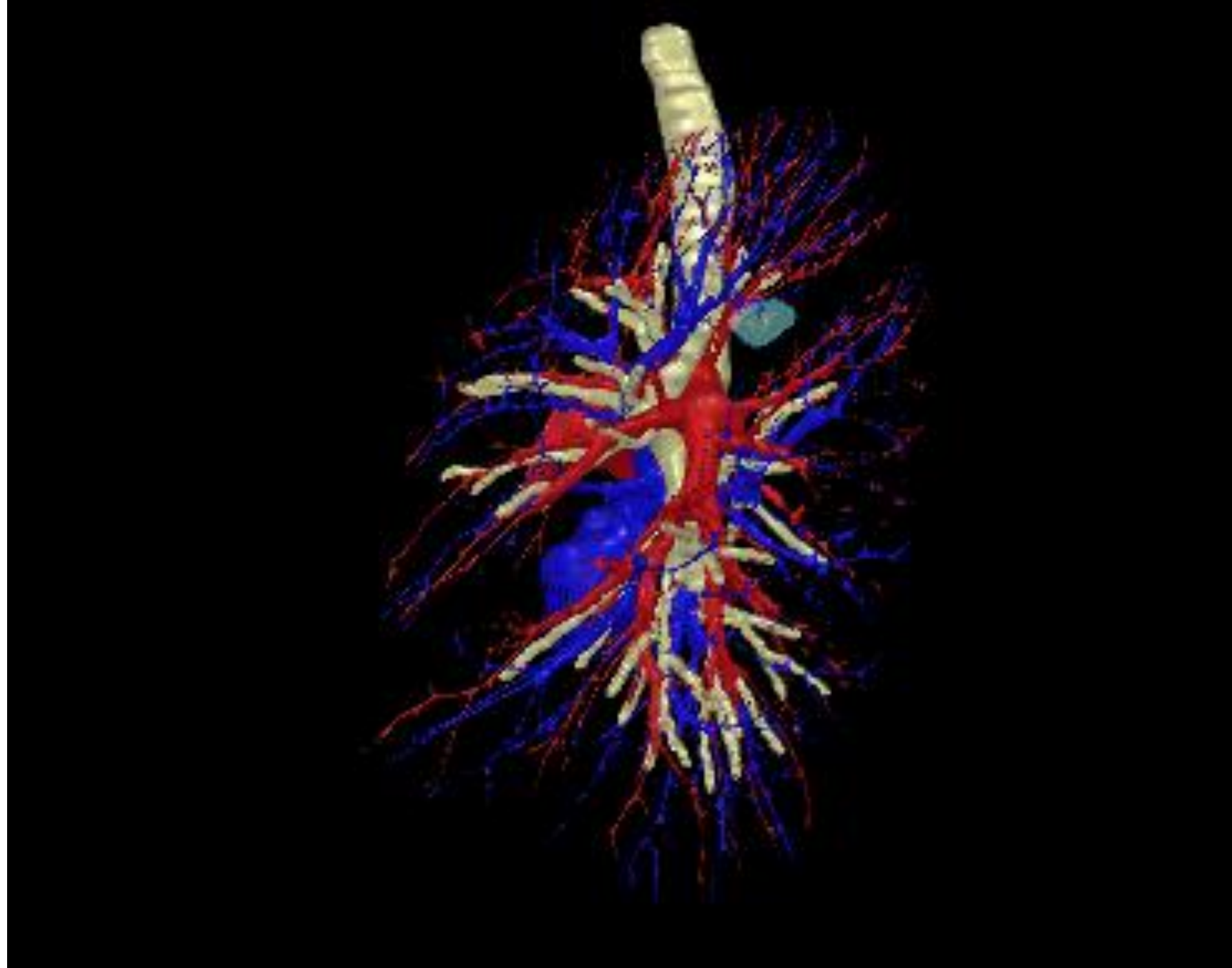


# Speeding Up the Process

- Multidisciplinary clinics - One stop shop.
  - See both IP and Surgery
    - Improve patients' satisfaction and decrease time from diagnosis to treatment
    - Reduces unnecessary surgical procedures
- Markers (PDL-1, EGFR, ALK) on all patients stage II and above
- Prospective TB and referrals for neoadjuvant/adjuvant therapy















# Summary

- Since 2017 lung cancer care has completely changed for every single stage
- Early detection, speedy treatment, minimally invasive surgery, and knowledge of targeted therapy are essential to good outcomes.

It's funny how things change slowly,  
until we realized they've changed  
completely!

Nancy Gibbs





Thank You!