

WELCOME

Lung Radiation Committee Webinar!

Thank you for your patience as we give everyone time to join before we begin.

Please mute your line if you are not speaking.

We will have a **Q & A session** at the end of each section, in which you will have time to “**raise your hand**” in WebEx to ask a question or place your question in the **chat box**.

We will begin shortly!

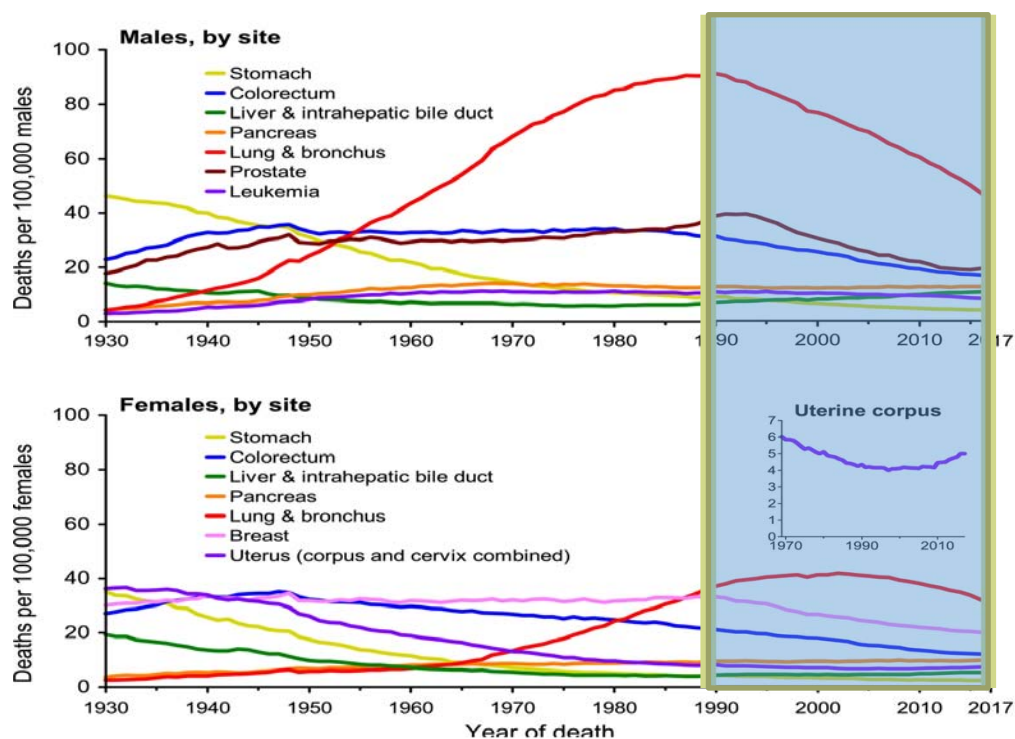


Checkpoint inhibitors in the landscape of lung cancer

Sarah B. Goldberg, MD

Associate Professor of Medicine (Medical Oncology)
Yale School of Medicine

Lung Cancer Mortality

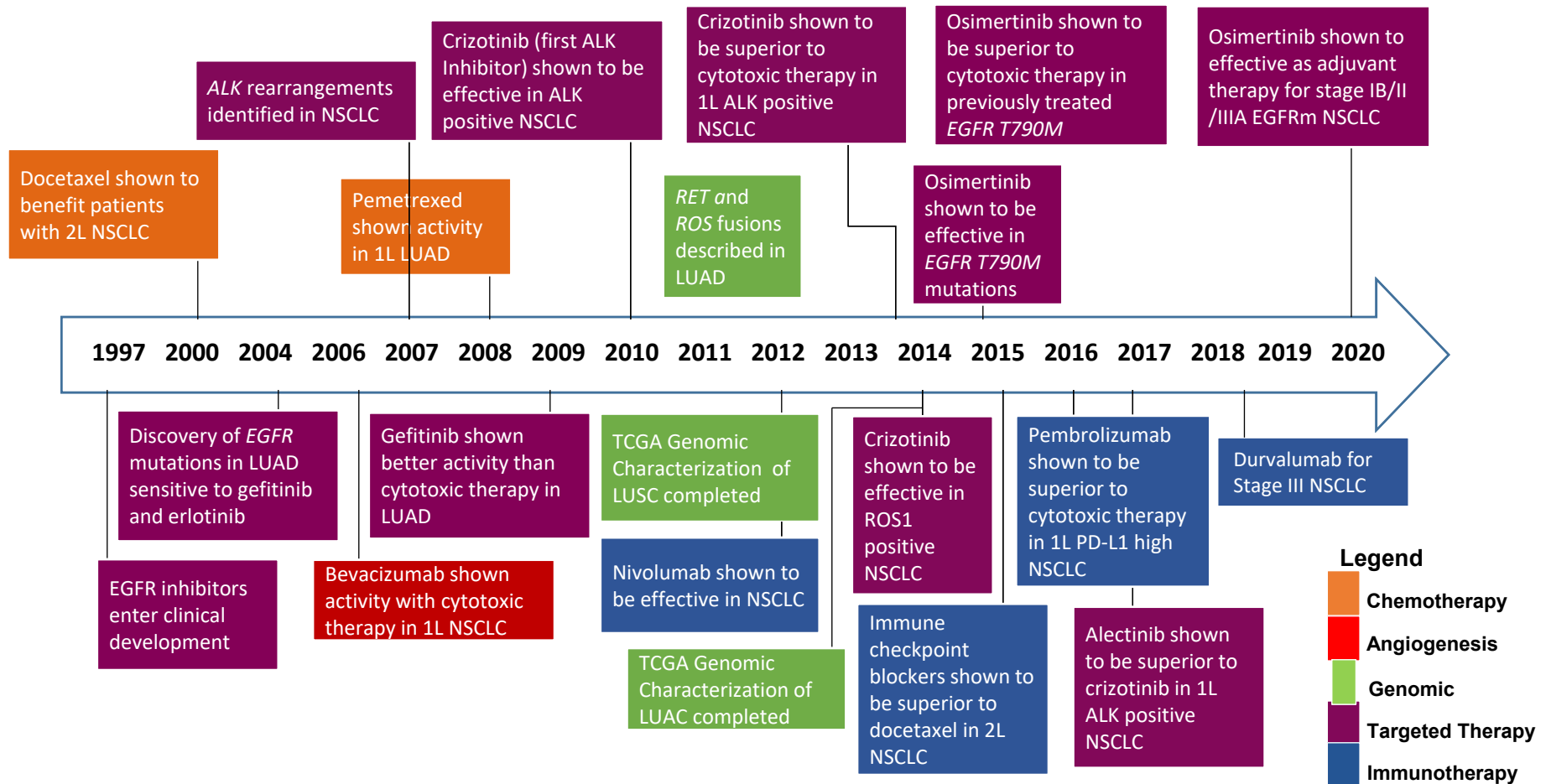


		Average annual percent change
Males	Incidence (2011-15)	-2.6
	Mortality (2012-16)	-4.3
Females	Incidence (2011-15)	-1.2
	Mortality (2012-16)	-3.1

Incidence: age standardized, delay-adjusted rate
Mortality: age-standardized rate

Siegel RL et al. Cancer statistics, 2020 CA CANCER J CLIN 2020;70:7-30; Annual Report to the Nation on the Status of Cancer. J Natl Cancer (2019) 111(12); Cancer Facts and Figures, American Cancer Society 2020;

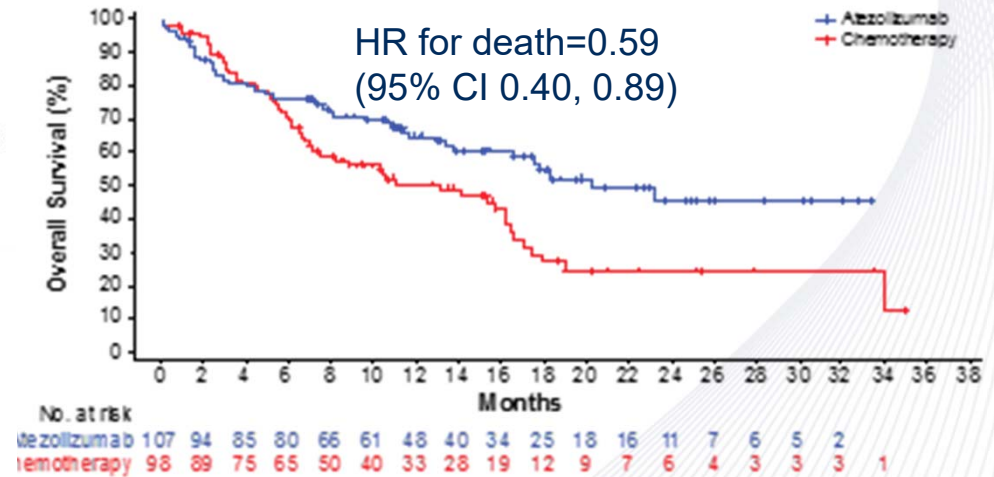
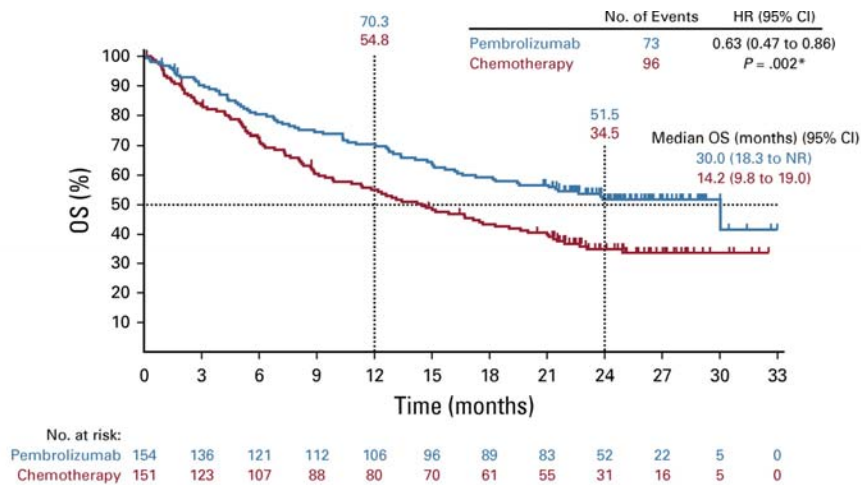
Progress in NSCLC Treatment



Single-agent immunotherapy for advanced NSCLC

Pembro vs chemo
(PD-L1 $\geq 50\%$)

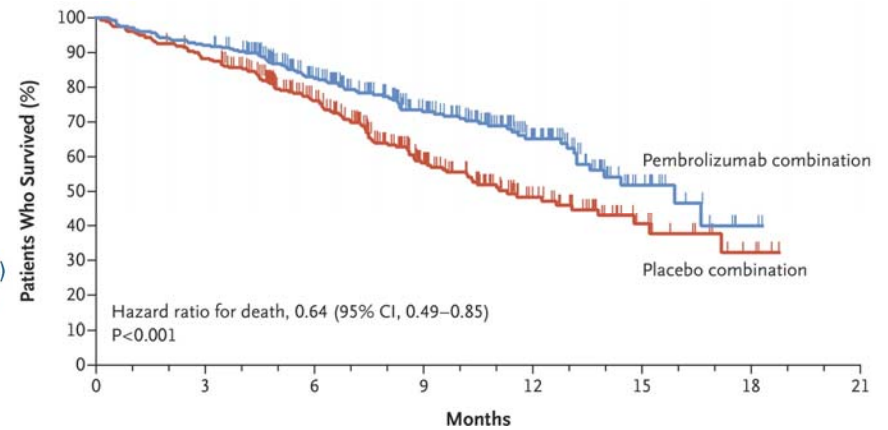
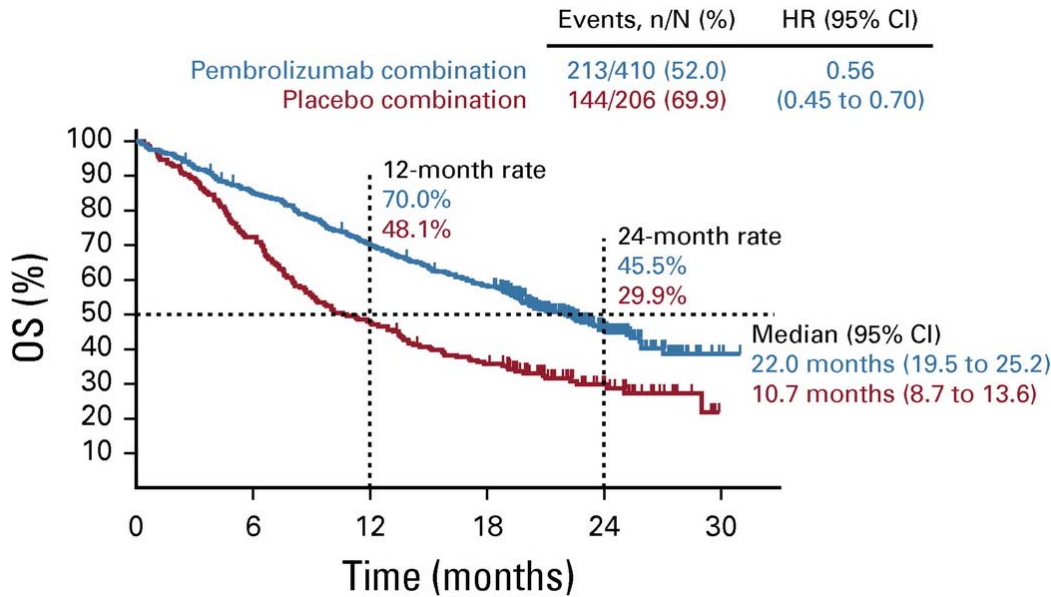
Atezo vs chemo
(TC3 or IC3)



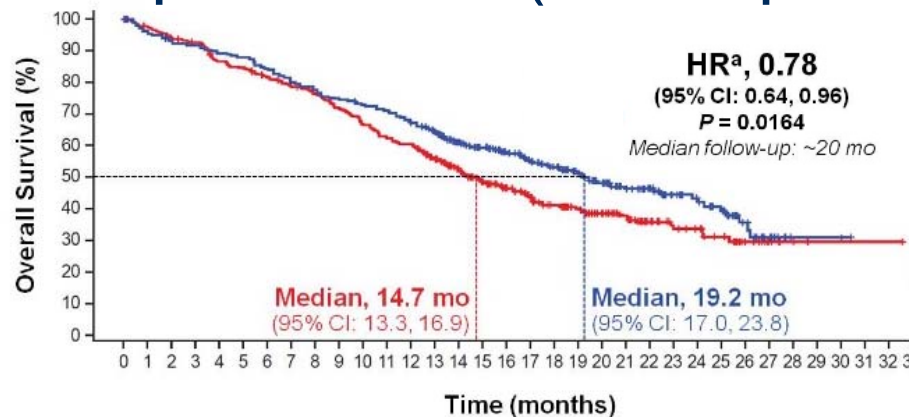
Chemo plus immunotherapy for advanced NSCLC

Keynote-189 (non-squam)

Keynote-407 (SCC)



IMpower 150 (non-squam)

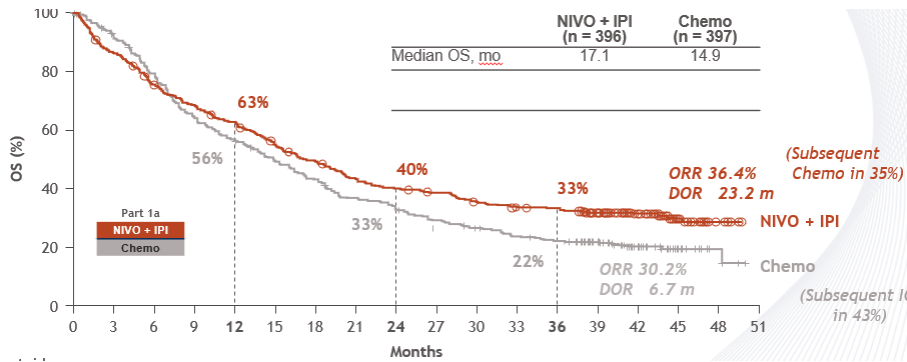


Gadgeel S, et al. JCO 2020.
Paz Ares L, et al. NEJM 2018
Socinski M, et al. NEJM 2018

Combination immunotherapy

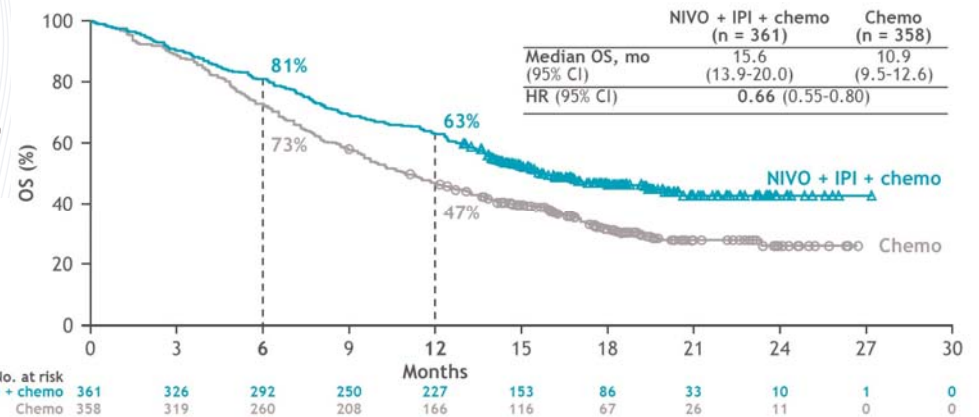
Checkmate-227

Nivo/Ipi (PD-L1 $\geq 1\%$)

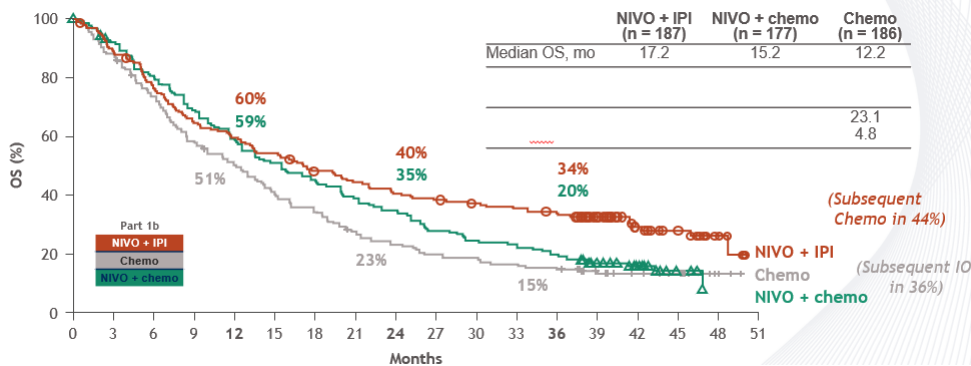


Checkmate-9LA

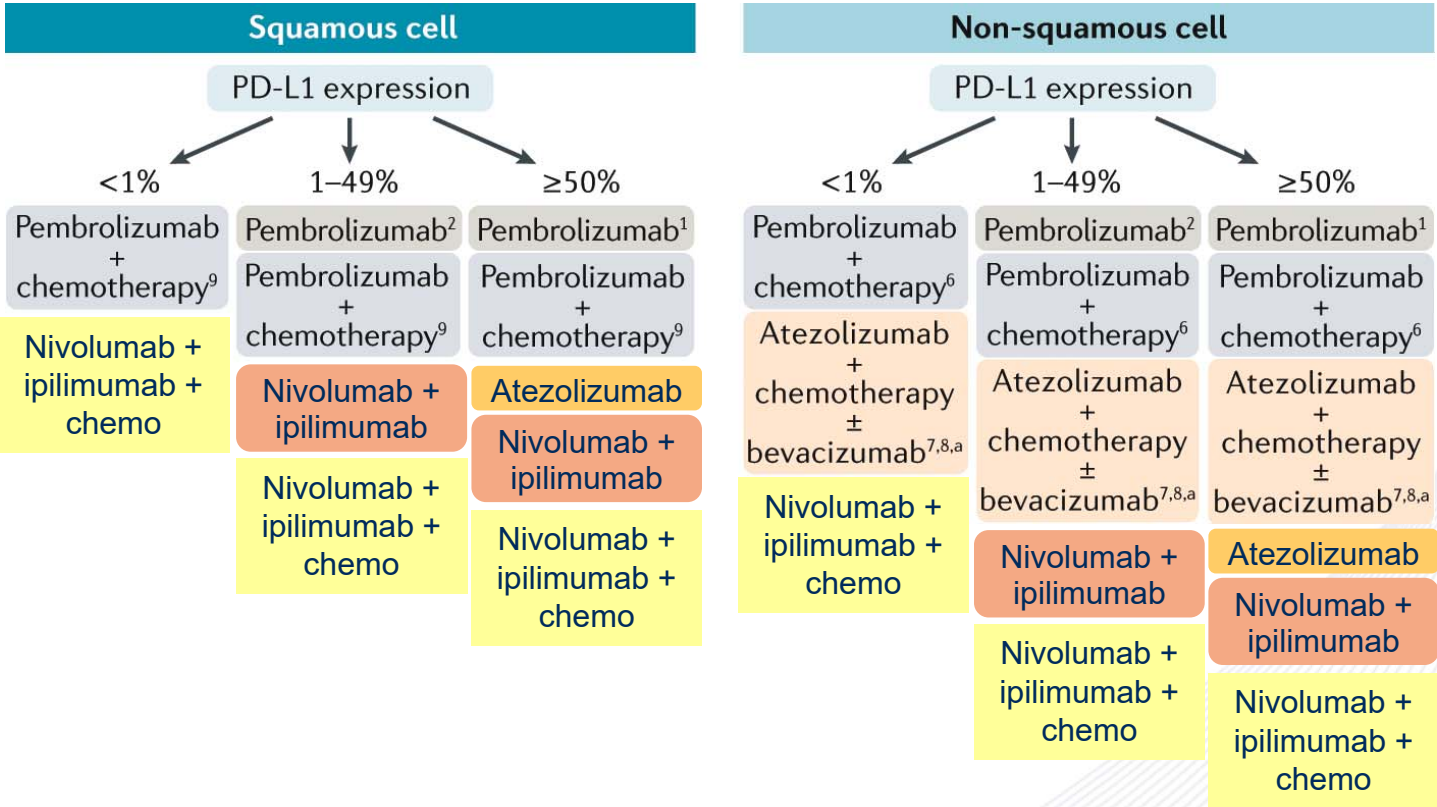
Nivo/Ipi/Chemo



Nivo/Ipi (PD-L1 < 1%)

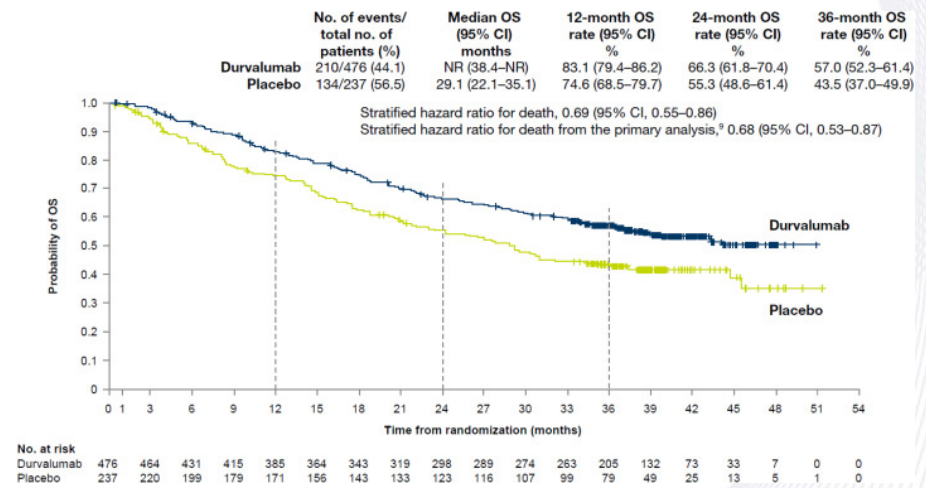
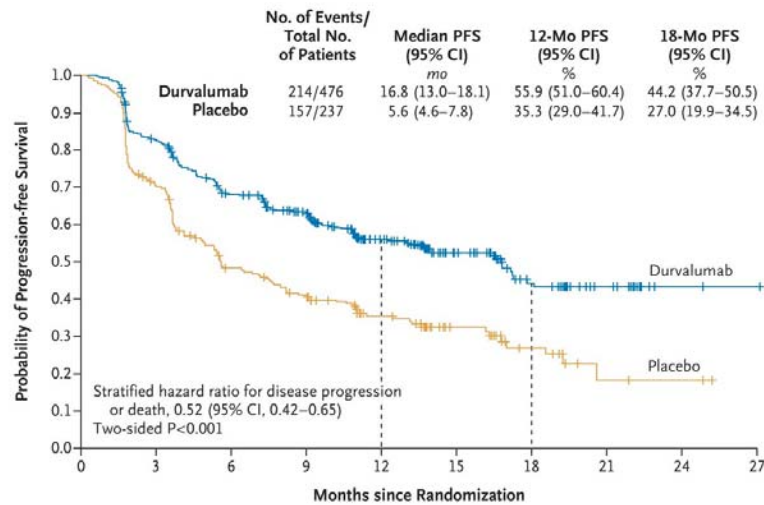


First Line Treatment Algorithm for Advanced NSCLC without Targetable Driver Mutations



Adapted from: Chiang AC, Herbst RS. *Nat Rev Clin Oncol*. 2020

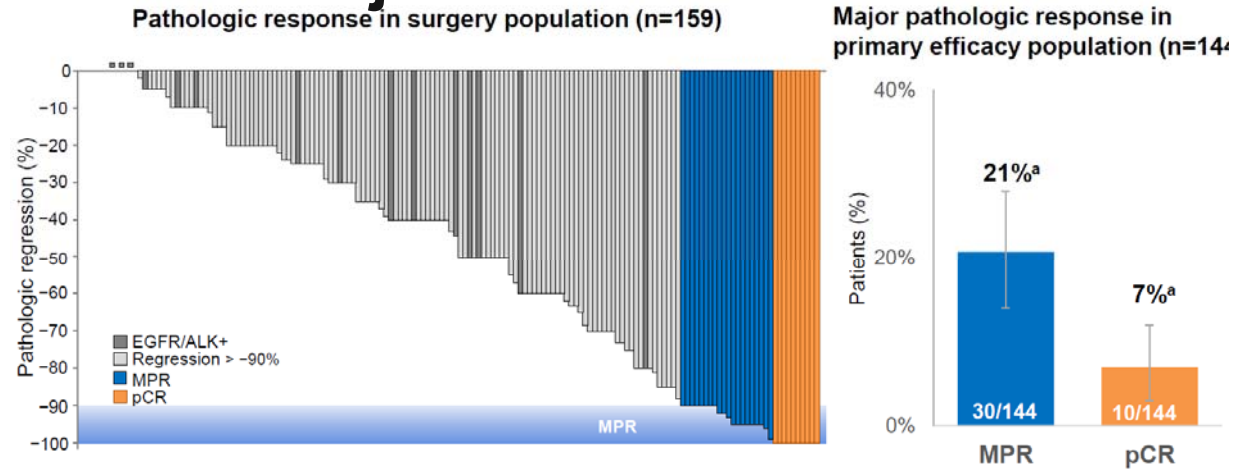
Durvalumab in stage III NSCLC



Antonia, N Engl J Med 2017.
Gray, J Thorac Oncol 2020.

Immunotherapy for early-stage NSCLC

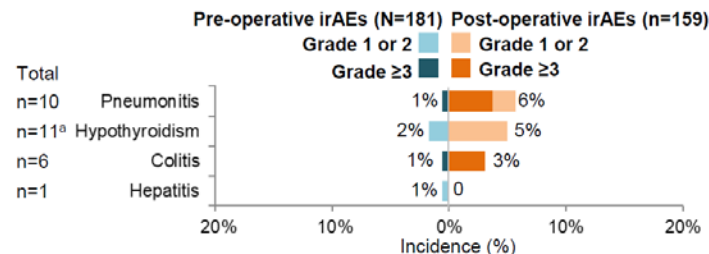
Neoadjuvant atezolizumab



Pathologic regression defined as % viable tumor cells - 100%.
 MPR, major pathologic response; pCR, pathologic complete response.
^aError bars indicate 95% CI

Pre-operative (N=181) and post-operative AEs (n=159)

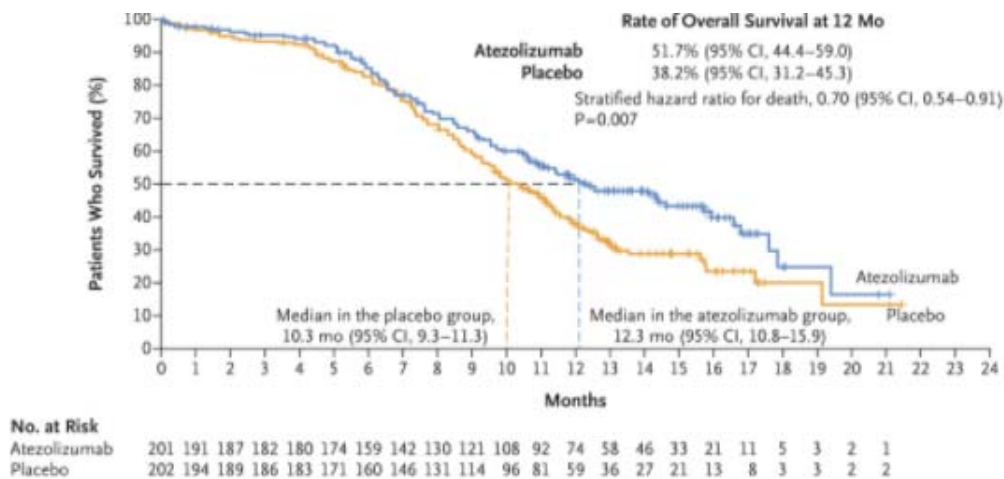
Patients with ≥1 AE, n (%)	Pre-operative TRAE N=181	Post-operative TRAE n=159	Pre-operative irAEs N=181	Post-operative irAEs n=159
Grade 1	55 (30%)	13 (8%)	22 (12%)	18 (11%)
Grade 2	36 (20%)	18 (11%)	16 (9%)	12 (8%)
Grade 3	11 (6%)	17 (11%)	3 (2%)	11 (7%)
Grade 4	0	3 (2%)	0	1 (1%)
Grade 5	0	1 (1%)	0	1 (1%)



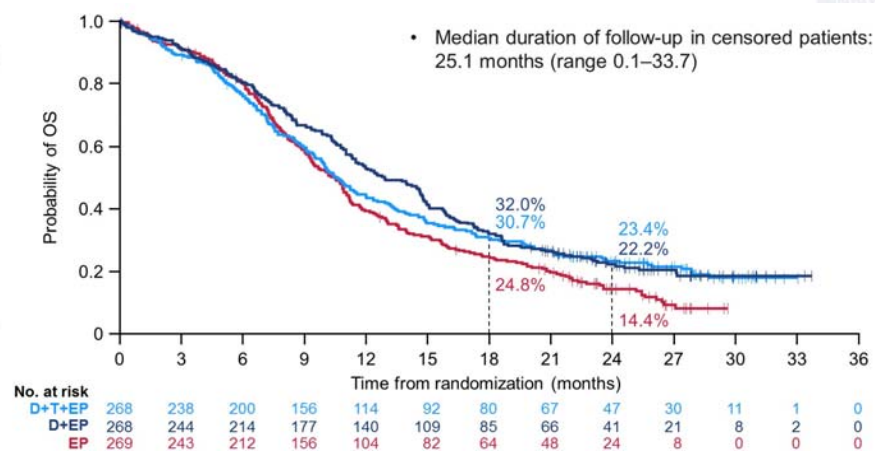
^a One patient had hypothyroidism preoperatively and postoperatively irAE, immune-related AE; TRAE, treatment-related AE.

Immunotherapy in SCLC

Impower 133 EP vs EP/atezo



Caspian EP vs EP/durva vs EP/durva/treme



A new era of lung cancer treatment

- Immunotherapy improves survival in advanced NSCLC and SCLC
- Also improves survival when used after chemoradiation for stage III NSCLC
- Compelling data in early-stage NSCLC
- MANY ongoing studies exploring the role of immunotherapy alone and in combination in early-stage, locally advanced, and advanced disease