



Survivors from Anti-PD-(L)1 Immunotherapy in NSCLC:

Clinical Features, Survival Outcomes and Long-term Toxicities

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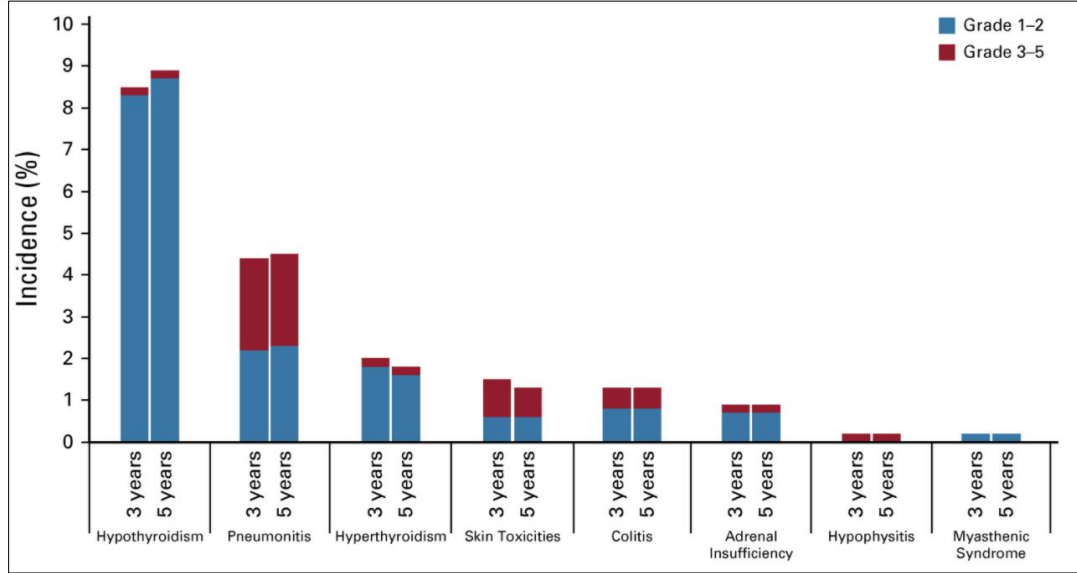
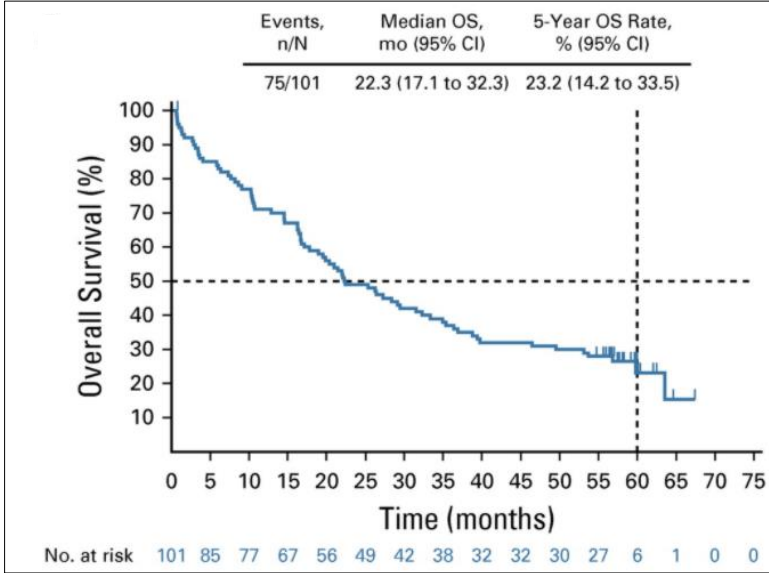
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DISCLOSURES

I do not have any relevant financial relationships to disclose.

Immunotherapy improves OS in NSCLC

And leads to immune-related toxicity



Garon et al, JCO 2019.

5-year OS of NSCLC patients receiving 1L pembrolizumab (mOS 22.3 mos)

Incidence of irAE's at 3 & 5 years in NSCLC patients treated with pembrolizumab

Identification of NSCLC Immunotherapy Survivors

Study population

- Retrospective cohort (IRB-approved JHU database)
- IO survivor: alive >1 year after anti-PD-1/PD-L1 treatment initiation
- Histologically-confirmed stage III/IV NSCLC treated between 11/2009-2/2020

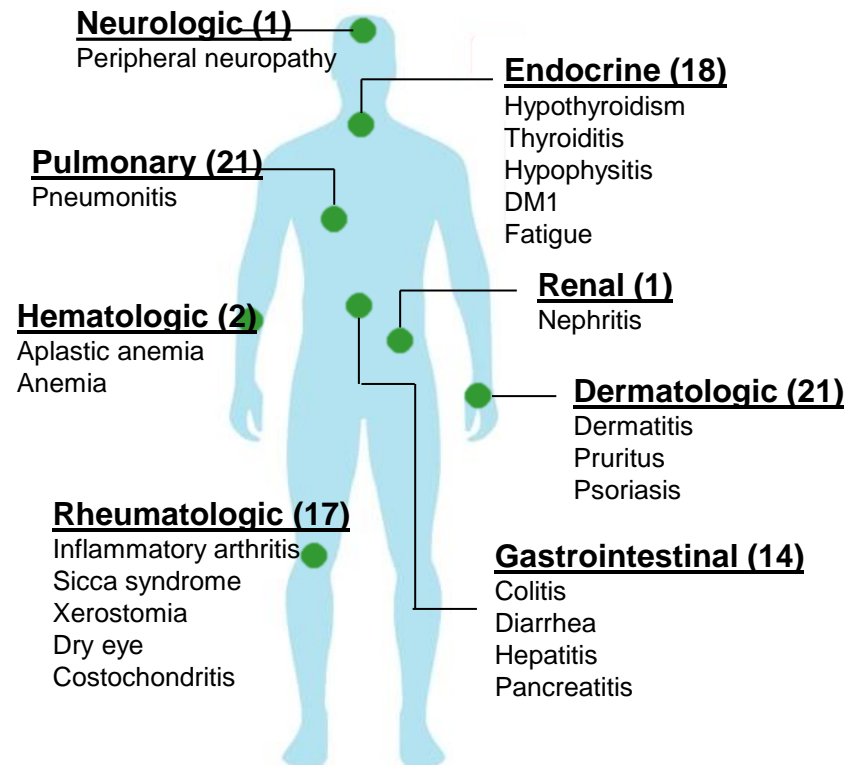
Analytic plan

- Demographics, treatment, and irAE's identified via chart review
 - irAEs defined by biopsy, clinical course, or multidisciplinary consensus; graded by CTCAE v5.0
 - Chronic irAEs: experienced >1 year after start of IO
- Median overall survival (OS) & progression-free survival (PFS) estimated using Kaplan-Meier
 - OS: time from IO initiation to death from any cause

Results

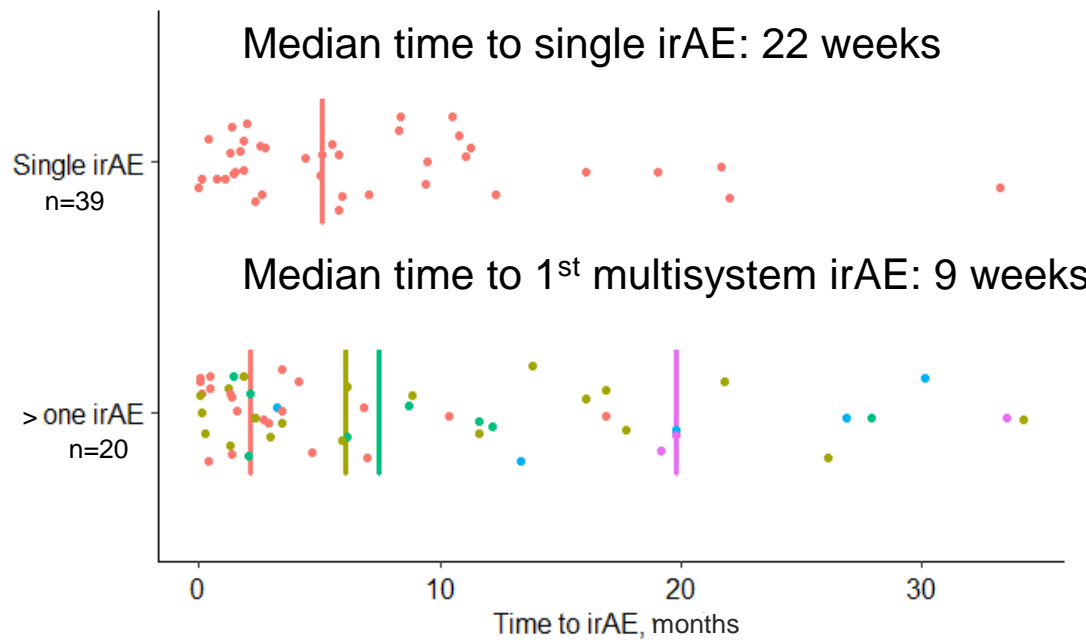
Clinical Characteristics	n (%)
Median Age at start of IO	
<65 years	54 (47)
≥65 years	60 (53)
Smoking Status	
Current/Former	94 (82)
Never	20 (18)
Histology	
Adenocarcinoma	76 (66)
Squamous cell	30 (26)
Other	8 (8)
PD-L1 status	
Unknown	69 (61)
0%	13 (11)
1-49%	8 (7)
>50%	24 (21)
Median number of doses received, (range)	13 (1-121)
Monotherapy	74 (65)
Combination therapy	40 (35)

Spectrum of irAE's



Results: Time to development of irAE's

irAE event 1 2 3 4 5



- Most common multi-system irAE's:**
- Dermatitis-pneumonitis (4)
 - Pneumonitis – inflammatory arthritis (3)
 - Pneumonitis –sicca (2)

NSCLC ICI survivors have unique long-term needs

- 36% (114/317) of NSCLC patients survived >1 year after initiation of IO.
- 52% (59/317) of ICI survivors developed irAEs.
- **27% (31/114) required ongoing management of irAEs at 1 year.**

