

Immune-Related Adverse Events (irAE) in Cancer Immune Checkpoint Inhibitors (ICI) and Survival Outcomes Correlation: To Rechallenge or Not?

Heidar J. Albandar, Jacob Fuqua, Jasim M. Albandar, Salahuddin Safi, Samuel A. Merrill and Patrick C. Ma

Table S1. Type of irAEs after Initial ICI Reinitiation.

IrAE (n = 41)	n (%)
Hypothyroidism/hyperthyroidism	9 (22)
Diarrhea/colitis	8 (20)
Rash	6 (15)
Pneumonitis	5 (12)
Adrenal Insufficiency	4 (10)
Hepatitis	4 (10)
Nephritis	1 (2)
Myalgia	1 (2)
Other **	3 (7)

** Other irAE included arthralgia, MAHA, and SIADH.

Table S2. Multivariable Cox Proportion Analysis of Overall Survival Comparing irAEs with or without Rechallenge vs Non-irAE Groups.

Effect	Categories	Hazard Ratio *	Lower CI	Upper CI	p
Group	No immune-related adverse events	Ref			
	IrAE and not rechallenged (non-reinitiated + interruption)	0.40	0.22	0.52	0.0024
	IrAE and rechallenged (reinitiated +/- interruption)	0.34	0.22	0.52	<0.0001
Age	≤60Y	Ref			
	>60Y	1.48	1.01	2.17	0.04
Gender	Female	Ref			
	Male	0.77	0.53	1.11	0.16
Immunotherapy type	Pembro/Nivo	Ref			
	Ipi & Ipi/Nivo	1.89	0.88	3.47	0.1
	Atezo/Durva/Avelu	0.98	0.47	2.04	0.95
Antibiotic use	No	Ref			
	Yes	0.76	0.49	1.20	0.24
ECOG Performance status	0–1	Ref			
	>1	2.00	1.35	2.98	0.0006
Tumor Location	Lung	Ref			
	Melanoma	0.31	0.16	0.62	0.0008
	Other	0.84	0.55	1.28	0.41

* Ref: Reference for hazard ratio analysis and comparison.

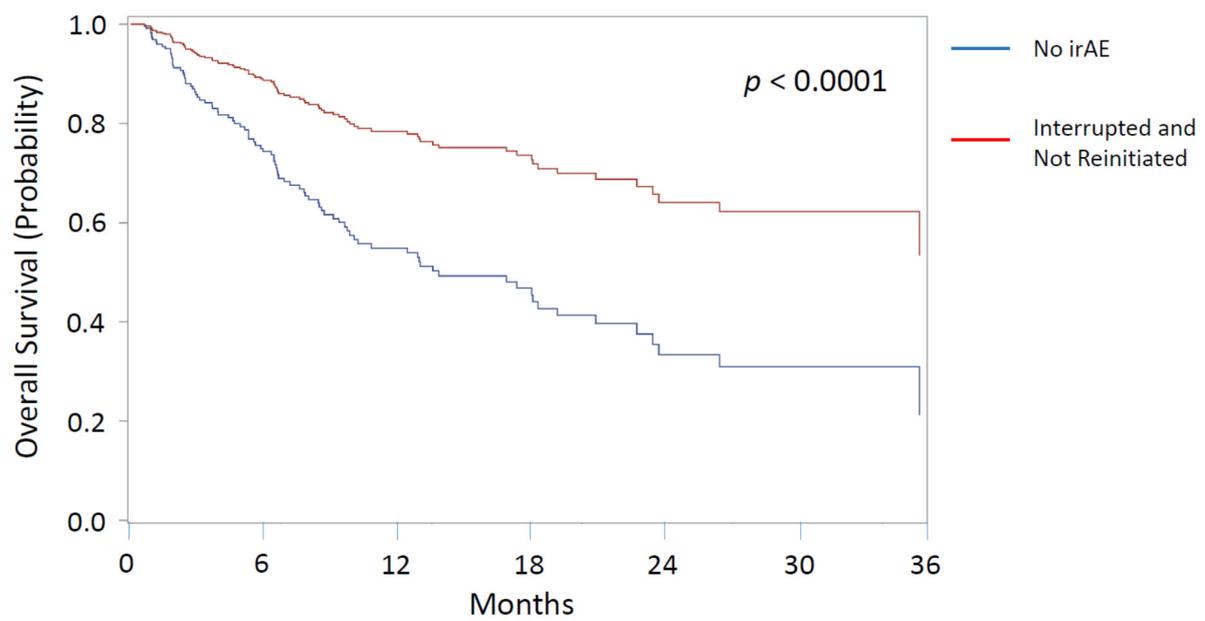


Figure S1. Kaplan-Meier Survival Analysis of Study Patients with No irAEs (blue) compared with those ICI “Interrupted and Not Reinitiated (i.e., Discontinued)” (red).

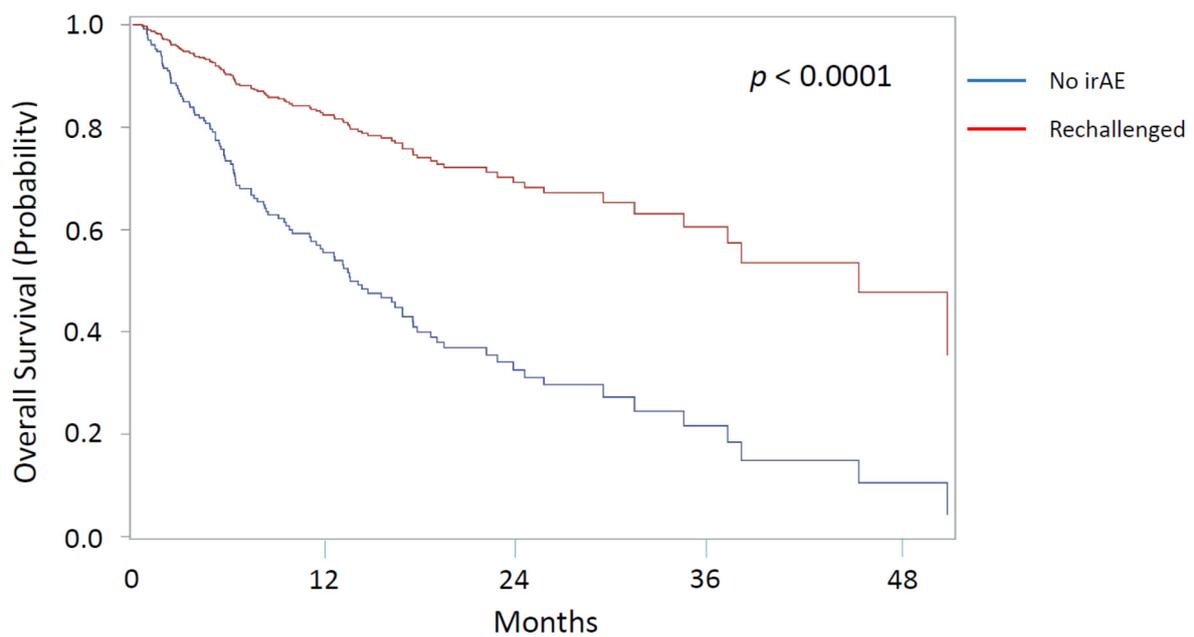


Figure S2. Kaplan-Meier Survival Analysis of the Study Patients with No irAEs (blue) compared with the “ICI Rechallenged” Cohort (ICI Reinitiated +/- Interruption) after irAEs.