

Supplemental Tables for:  
Immune-related adverse events as clinical biomarkers in metastatic renal cell carcinoma patients treated with immune checkpoint inhibitors  
Mehmet Bilen et al.

**Supplemental Table 1:** UVA of association between severe irAEs\* and clinical outcomes

Variable	Level	OS		PFS		CB	
		HR (CI)	p-value	HR (CI)	p-value	OR (CI)	p-value
<b>Systemic Corticosteroid for irAE treatment</b>	Yes n=41	0.99 (0.41-2.37)	0.983	1.11 (0.59-2.06)	0.751	1.69 (0.59-4.89)	0.331
	No n=24	1		1		1	
<b>Grade 3 or 4 irAE</b>	Yes n=17	2.22 (0.91-5.45)	0.081	1.21 (0.62-2.35)	0.582	0.69 (0.21-2.26)	0.544
	No n=48	1		1		1	

\*Severe irAEs defined as Grade 3 or 4 per CTCAEv5.0

**Supplemental Table 2:** Univariate association (UVA) of sites of irAEs and clinical outcomes

Variable	OS		PFS		CB	
	HR (CI)	p-value	HR (CI)	p-value	OR (CI)	p-value
<b>Any irAE</b> n=66	0.51 (0.32-0.82)	0.006*	0.60 (0.42-0.84)	0.003*	2.36 (1.26-4.41)	0.007*
<b>Pulmonary irAE</b> n=6	0.74 (0.18-3.03)	0.680	1.26 (0.56-2.86)	0.573	1.88 (0.31-11.5)	0.497
<b>Dermatologic irAE</b> n=20	0.61 (0.28-1.32)	0.207	0.63 (0.36-1.09)	0.101	1.80 (0.69-4.69)	0.233
<b>Endocrine irAE</b> n=26	0.26 (0.09-0.70)	0.008*	0.46 (0.26-0.79)	0.005*	3.03 (1.23-7.42)	0.016*
<b>Thyroid irAE</b> n=17	0.09 (0.01-0.65)	0.017*	0.28 (0.13-0.60)	0.001*	11.03 (2.44-49.79)	0.002*
<b>Adrenal irAE</b> n=8	0.50 (0.12-2.04)	0.336	0.65 (0.27-1.59)	0.346	1.67 (0.36-7.68)	0.510
<b>Pituitary irAE</b> n=4	0.97 (0.24-3.94)	0.966	2.43 (0.89-6.62)	0.084	0.00 (0.00-1)	0.982
<b>Renal irAE</b> n=7	1.31 (0.48-3.57)	0.597	1.02 (0.45-2.30)	0.967	1.24 (0.24-6.30)	0.797
<b>MSK irAE</b> n=8	1.11 (0.41-3.01)	0.845	0.68 (0.28-1.66)	0.401	2.12 (0.49-9.13)	0.315
<b>GI irAE</b> n=21	0.40 (0.16-0.99)	0.047*	0.61 (0.35-1.06)	0.079	1.99 (0.77-5.12)	0.155
<b>Hepatic irAE</b> n=14	0.54 (0.20-1.47)	0.230	0.69 (0.35-1.35)	0.280	2.07 (0.65-6.58)	0.218
<b>Pancreatic irAE</b> n=5	0.30 (0.04-2.19)	0.237	0.45 (0.14-1.41)	0.171	1.88 (0.31-11.50)	0.497

<b>Colon irAE</b> <b>n=2</b>	0.00 (0.00--)	0.981	0.29 (0.04-2.04)	0.212	1889561 (0.00-1)	0.987
<b>Other irAE</b> <b>n=4</b>	1.23 (0.39-3.88)	0.729	1.71 (0.63-4.64)	0.295	0.00 (0.00-1)	0.982

\*Statistical significance at alpha < 0.05

**Supplemental Table 3:** Univariate analysis (UVA) using extended Cox model for association of irAEs and overall survival (OS)

Covariate	Level	OS	
		HR (CI)	p-value
<b>Any irAE</b>	Yes n=66	0.79 (0.49-1.28)	0.338
	No n=134	-	
<b>Endocrine irAE</b>	Yes n=26	0.372 (0.14-1.02)	0.054
	No n=174	-	
<b>Thyroid irAE</b>	Yes n=17	0.133 (0.019-0.958)	<b>0.045*</b>
	No n=183	1	