

Supplementary table 2. Univariate and multivariate analysis of prognostic factors of irAEs.

Variable	Category	Univariate			Multivariate		
		HR	CI	p	HR	CI	p
Sex	<i>Female</i>	1					
	<i>Male</i>	0.95	0.69- 1.31	0.76			
Age at start of ICI (years)		1					
	<i>year</i>	1	0.99- 1.01	0.99			
Cancer type	<i>mUC</i>	1					
	<i>mRCC</i>	1.27	0.94- 1.71	0.13			
ECOG PS	<i>0</i>	1					
	<i>≥1</i>	0.83	0.61- 1.11	0.21			
Lung Metastases	<i>No</i>	1					
	<i>Yes</i>	1.02	0.76- 1.36	0.91			
Lymph node Metastases	<i>No</i>	1					
	<i>Yes</i>	1.12	0.76- 1.67	0.56			
Bone Metastases	<i>No</i>	1					
	<i>Yes</i>	0.83	0.58- 1.18	0.29			
Liver Metastases	<i>No</i>	1					
	<i>Yes</i>	0.73	0.50- 1.07	0.10			
Brain Metastases	<i>No</i>	1					
	<i>Yes</i>	0.50	0.16- 1.57	0.24			
Other Metastases	<i>No</i>	1					
	<i>Yes</i>	1.08	0.80- 1.46	0.63			
ICI type	<i>ICI Monotherapy</i>	1		<0.001	1		<0.001
	<i>ICI + ICI</i>	2.12	1.34- 3.36		1.83	1.15-2.91	
	<i>ICI + Other*</i>	2.09	1.50- 2.93		2.29	1.55-3.39	
Line of ICI	<i>Second or more</i>	1			1		
	<i>First</i>	1.36	1.13-1.63	0.001	1.29	1.06-1.56	0.011

Type of ICI	<i>PD-L1 inhibitors**</i>	1			1		
	<i>PD-1 inhibitors***</i>	1.10	0.81-1.50	0.53	1.64	1.15-2.36	0.007

*Investigational immunotherapy and targeted therapy agents

**Includes atezolizumab, avelumab, and durvalumab

***Includes pembrolizumab and nivolumab

ICI: Immune Checkpoint inhibitor; mRCC: metastatic renal cell carcinoma;

mUC: metastatic urothelial carcinoma; ECOG PS: Eastern Cooperative Oncology Group Performance Status;

PD-L1: programmed cell death ligand 1; PD-1: Programmed cell Death protein 1.