

Supplementary materials

Figure Supplementary 1. Patients' selection process from the ARON-1 study.

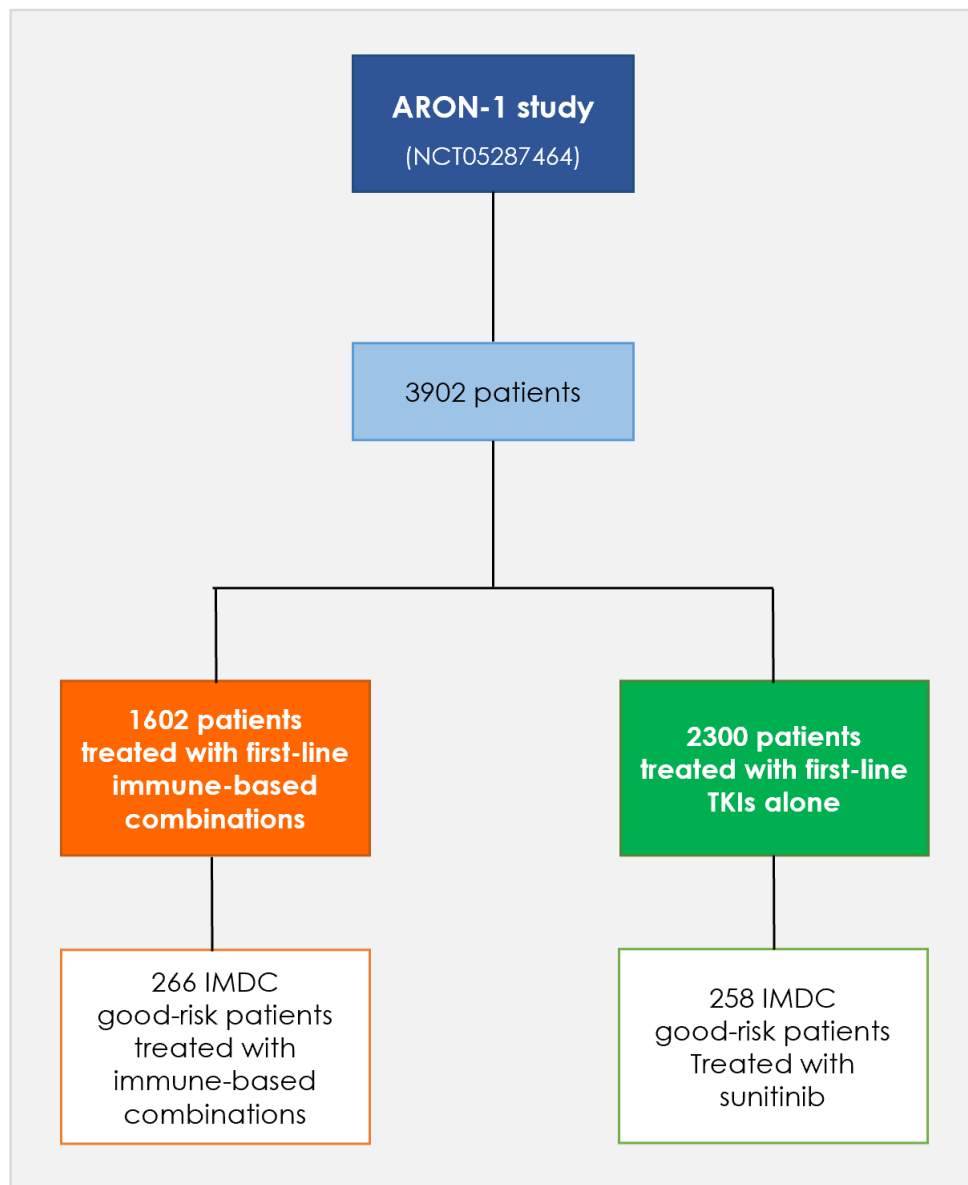


Figure Supplementary 2. Duration of response of first-line therapy.

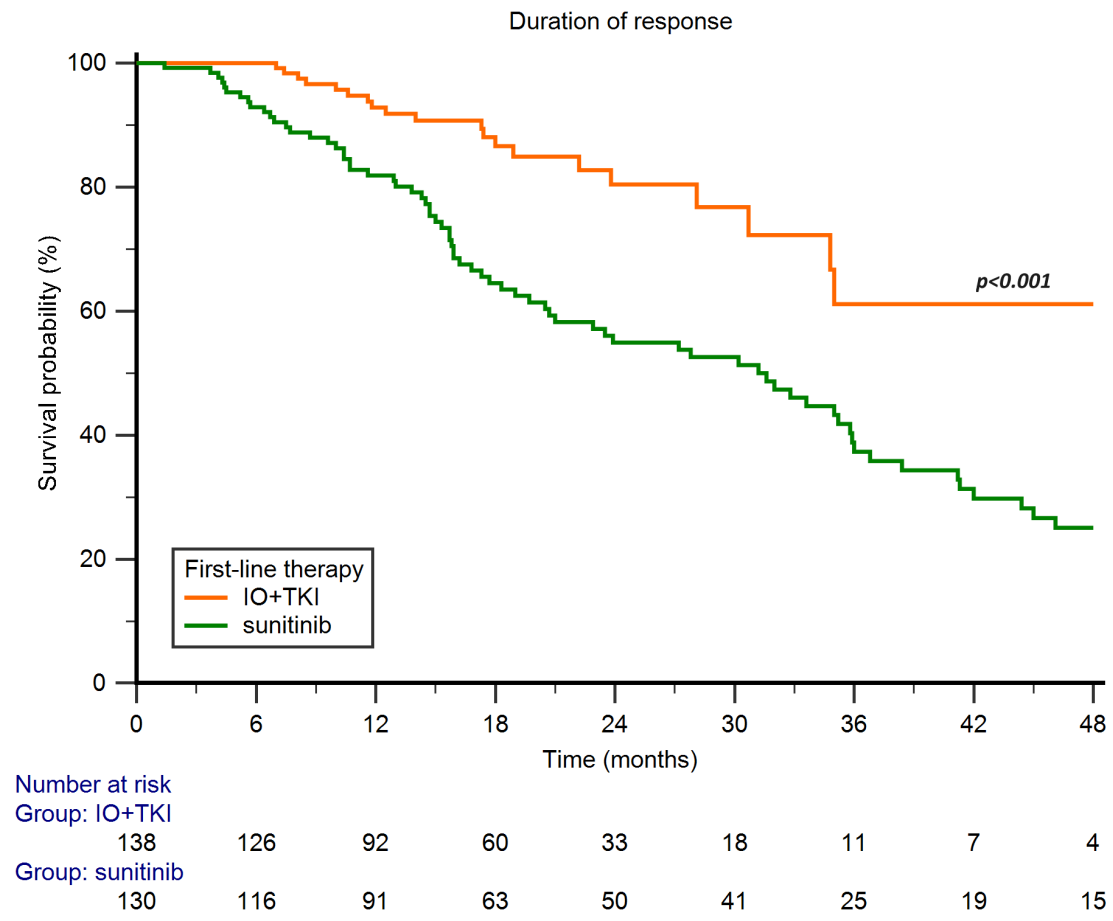
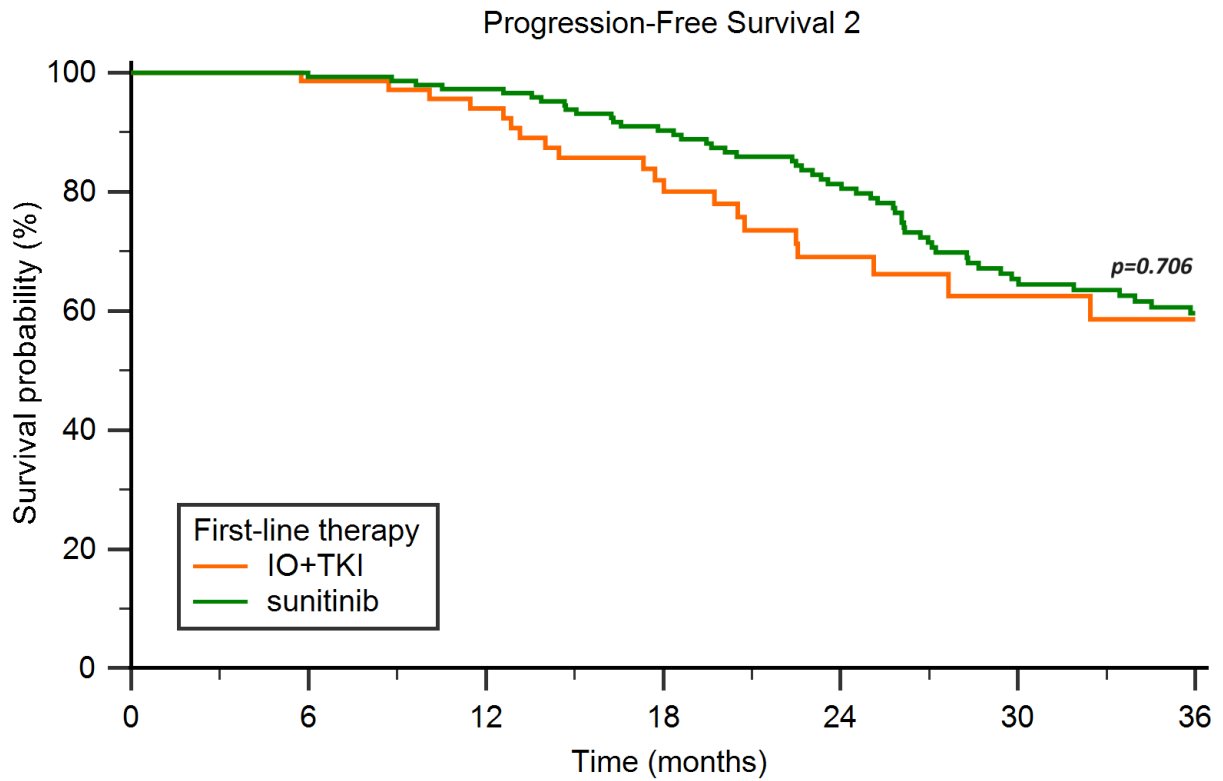


Figure Supplementary 3. Progression-Free Survival 2 in favorable-risk patients treated by IO + TKI or sunitinib.



Number at risk		0	6	12	18	24	30	36
Group: IO+TKI		77	71	57	43	29	16	14
Group: sunitinib		149	147	142	125	103	72	61

Figure Supplementary 4. Ideal candidate to IO+TKI or TKI basing on the 2y-OS rate in favorable-risk RCC patients.

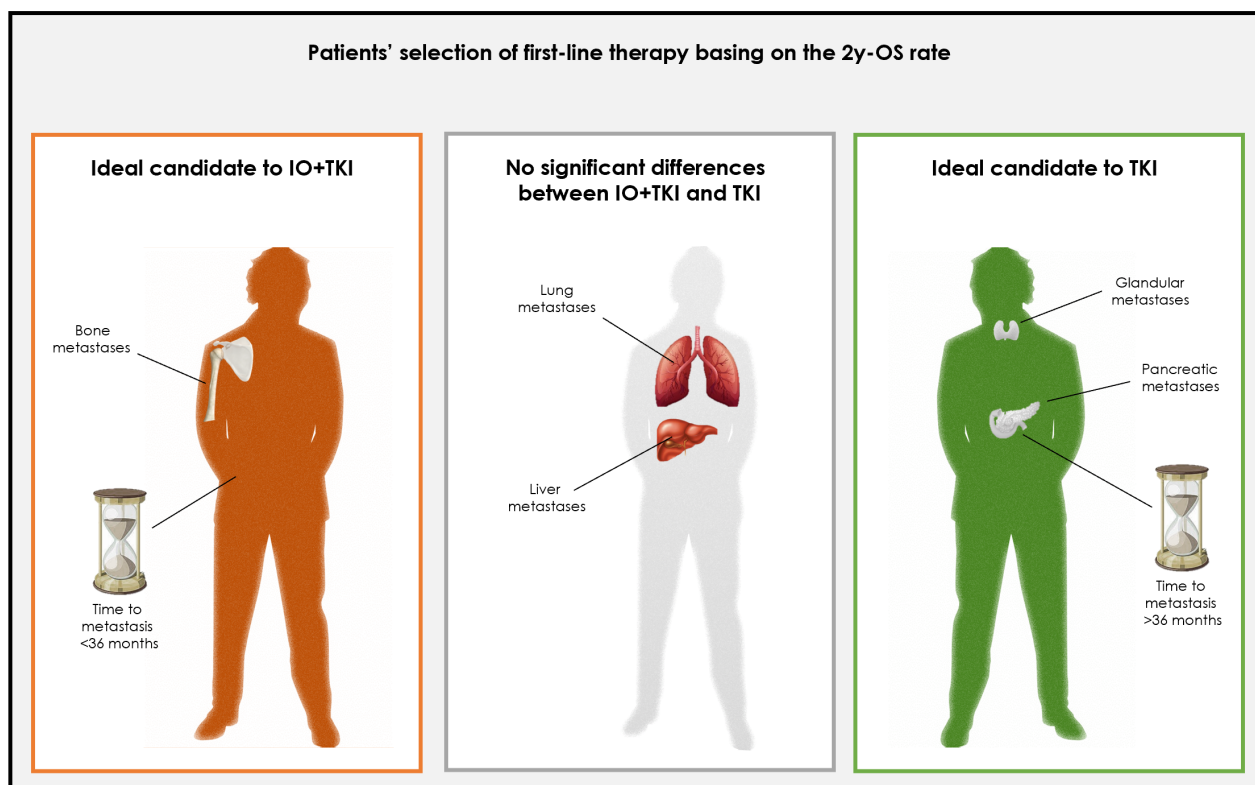


Table Supplementary 1. Univariate and multivariate analysis in favorable-risk RCC patients treated with IO+TKI.

Overall Survival	Univariate Cox Regression		Multivariate Cox Regression	
	HR (95%CI)	p-value	HR (95%CI)	p-value
Gender (females vs males)	1.09 (0.77–1.43)	0.798		
Age ($\geq 65y$ vs $< 65y$)	1.42 (0.92–1.69)	0.421		
Nephrectomy (yes vs no)	0.39 (0.15–1.03)	0.057		
Histology (nccRCC vs ccRCC)	2.13 (0.80–5.66)	0.131		
Sarcomatoid features (yes vs no)	1.13 (0.87–2.27)	0.189		
Lung metastases (yes vs no)	0.95 (0.45–2.04)	0.901		
Bone metastases (yes vs no)	1.03 (0.43–2.46)	0.940		
Liver metastases (yes vs no)	3.04 (1.15–8.06)	0.026		
Brain metastases (yes vs no)	0.93 (0.10–5.36)	0.753		

Glandular metastases (yes vs no)	1.22 (0.49–3.01)	0.678		
Time from RCC diagnosis to metastasis >36 vs ≤36 months	0.95 (0.45–2.01)	0.903		
Progression-Free Survival	Univariate Cox Regression		Multivariate Cox regression	
	HR (95%CI)	p-value	HR (95%CI)	p-value
Gender (females vs males)	1.16 (0.83–1.67)	0.478		
Age (≥65y vs <65y)	1.10 (0.91–1.62)	0.313		
Nephrectomy (yes vs no)	1.44 (0.58–3.57)	0.432		
Histology (nccRCC vs ccRCC)	1.58 (0.81–3.09)	0.184		
Sarcomatoid features (yes vs no)	0.63 (0.19–2.01)	0.431		
Lung metastases (yes vs no)	1.31 (0.81–2.10)	0.274		
Bone metastases (yes vs no)	1.09 (0.64–1.85)	0.752		
Liver metastases (yes vs no)	4.08 (2.22–7.49)	<0.001		
Brain metastases (yes vs no)	0.71 (0.22–2.27)	0.566		
Glandular metastases (yes vs no)	1.15 (0.66–1.98)	0.627		
Time from RCC diagnosis to metastasis >36 vs ≤36 months	0.93 (0.59–1.47)	0.765		
ccRCC = clear cell Renal Cell Carcinoma; IMDC = International Metastatic RCC Database Consortium; nccRCC = non-clear cell Renal Cell Carcinoma				

Table Supplementary 2. Univariate and multivariate analysis in favorable-risk RCC patients treated with sunitinib.

Overall Survival	Univariate Cox Regression		Multivariate Cox Regression	
	HR (95%CI)	p-value	HR (95%CI)	p-value
Gender (females vs males)	1.05 (0.83–1.76)	0.764		
Age (≥ 65y vs < 65y)	1.32 (0.89–1.76)	0.341		
Nephrectomy (yes vs no)	1.10 (0.35–3.47)	0.868		
Histology (nccRCC vs ccRCC)	1.14 (0.73–1.78)	0.565		
Sarcomatoid features (yes vs no)	2.06 (1.18–3.60)	0.012	1.67 (0.96–2.90)	0.071
Lung metastases (yes vs no)	0.95 (0.67–1.35)	0.782		
Bone metastases (yes vs no)	1.08 (0.71–1.66)	0.712		
Liver metastases (yes vs no)	1.80 (1.19–2.72)	0.005	1.89 (1.29–2.78)	0.001
Brain metastases (yes vs no)	0.98 (0.45–2.11)	0.962		

Glandular metastases (yes vs no)	0.71 (0.40–1.26)	0.245		
Time from RCC diagnosis to metastasis >36 vs ≤36 months	0.74 (0.53–1.03)	0.071		
Progression-Free Survival	Univariate Cox Regression		Multivariate Cox regression	
	HR (95%CI)	p-value	HR (95%CI)	p-value
Gender (females vs males)	1.18 (0.88–1.77)	0.589		
Age (≥65y vs <65y)	1.17 (0.95–1.56)	0.653		
Nephrectomy (yes vs no)	1.96 (0.62–6.15)	0.249		
Histology (nccRCC vs ccRCC)	2.15 (1.43–3.24)	<0.001		
Sarcomatoid features (yes vs no)	1.61 (0.84–3.10)	0.153		
Lung metastases (yes vs no)	1.02 (0.73–1.41)	0.929		
Bone metastases (yes vs no)	1.30 (0.89–1.90)	0.170		
Liver metastases (yes vs no)	1.29 (0.86–1.92)	0.216		
Brain metastases (yes vs no)	1.26 (0.68–2.33)	0.459		
Glandular metastases (yes vs no)	0.84 (0.54–1.32)	0.453		
Time from RCC diagnosis to metastasis >36 vs ≤36 months	0.74 (0.53–1.02)	0.220		
ccRCC = clear cell Renal Cell Carcinoma; IMDC = International Metastatic RCC Database Consortium; nccRCC = non-clear cell Renal Cell Carcinoma				