

Supplementary Table 1. Patient characteristics.

Patient characteristics	Tivozanib n=175	Sorafenib n=175
Median age, years (range)	62 (34-88)	63 (30-90)
Sex – no. (%)		
Female	49 (28)	47 (27)
Male	126 (72)	128 (73)
IMDC risk category – no. (%)		
Favorable	34 (19)	36 (12)
Intermediate	109 (62)	105 (60)
Poor	32 (18)	34 (19)
Histopathology – no. (%)		
Clear cell	165 (94)	160 (91)
Clear cell component	9 (5)	9 (5)
Other	1 (1)	5 (3)
Previous treatments – no. (%)		
VEGFR-TKI and VEGFR-TKI	79 (45)	80 (46)
VEGFR-TKI and immunotherapy	47 (27)	44 (25)
VEGFR TKI and other systemic therapy	49 (28)	51 (29)
Race – no. (%)		
White	165 (94)	167 (95)
Asian	2 (1)	2 (1)
Black or African American	0	2 (1)
Other/unknown	8 (5)	4 (2)
No of previous therapies – no. (%)		
2	108 (62)	104 (59)

3	67 (38)	71 (41)
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IMDC, International Metastatic Renal Cell Carcinoma Database Consortium; VEGFR, vascular endothelial growth factor receptor; ITT, intention to treat; TKI, tyrosine kinase inhibitor.

Supplementary table 2. Dose modifications by age and prior immuno-oncology therapy status

		Drug exposure, mean cycles, n	Dose interruption, %	Dose reduction, %	Dose discontinuation, %
All	Tivozanib (n=173)	11.9	48	24	21
	Sorafenib (n=170)	6.7	64	39	30
Age <65 y	Tivozanib (n=97)	10.1	41	20	26
	Sorafenib (n=92)	6.7	51	26	25
Age 65-74 y	Tivozanib (n=61)	15.0	59	33	15
	Sorafenib (n=59)	6.6	80	51	36
Age ≥75 y	Tivozanib (n=15)	11.2	73	33	20
	Sorafenib (n=19)	7.3	74	63	37
Prior CPI	Tivozanib (n=47)	12.3	69	33	25
	Sorafenib (n=44)	5.5	81	35	40
No. of prior CPI	Tivozanib (n=126)	11.7	43	22	20
	Sorafenib (n=126)	7.2	57	40	27