

Table S1 The parameter criteria of the potential risk factor for pathological upstage in patients with T1-2 renal tumor

Variable	1	2	3
Maximum tumor diameter	≤2.5 cm	2.5-3.5cm	>3.5 cm
Tumor morphology	Round	Lobular	Irregular
Polar distance	Distance to polar lines >2 cm	Distance to polar lines ≤2 cm	Overlap renal hilum level
Tumor rim location	Outer	Inner	Renal hilar lesion
Tumor lateral location	Anterior	Posterior	Touching renal artery or vein
Axial distance	Distance to axial midline >1.5 cm	Distance to axial midline ≤1.5 cm	Overlap axial renal midline
Nearness of tumor to collecting system	No	Yes	-
Nearness of tumor to renal sinus	No	Yes	-

Table S2 Net Benefit and Reduction in missing prediction of pathological upstage in patients with T1-2 renal tumor

Threshold probability, %	Net benefit, %						Net reduction in missing prediction, %				
	Treat all	R.E.N.A.L.	PADUA	DAP	C-Index	M-Index	R.E.N.A.L.	PADUA	DAP	C-Index	M-Index
10	7.8	10.2	8.2	9.9	10.3	10.5	21.5	4.0	19.5	22.5	24.5
15	2.4	6.3	7.1	5.8	8.1	9.9	22.5	26.8	19.5	32.8	42.5
20	-3.8	4.4	3.8	3.6	6.0	9.4	32.5	16.5	29.5	39.0	52.5
25	-10.7	1.5	-0.7	1.2	2.3	8.8	36.5	30.0	35.5	39.0	58.5
30	-18.6	0.4	-1.4	-0.1	1.3	9	44.2	40.0	43.2	46.3	64.3

R.E.N.A.L., radius, exophytic/endophytic, nearness, anterior/posterior, location; PADUA, preoperative aspects and dimensions used for an anatomic classification; DAP, diameter, axial, polar; C-Index, centrality index; M-index, tumor morphology rim location.