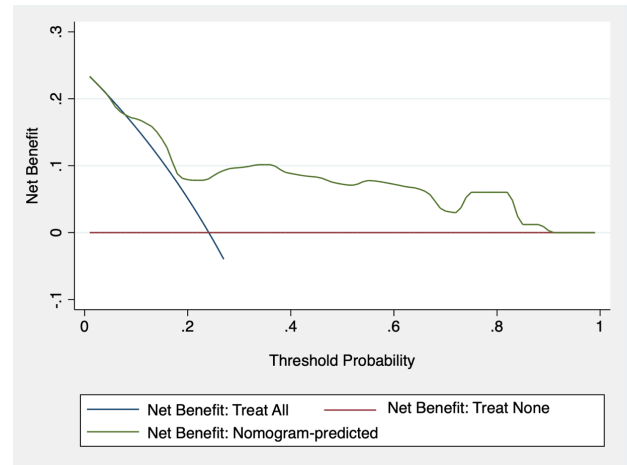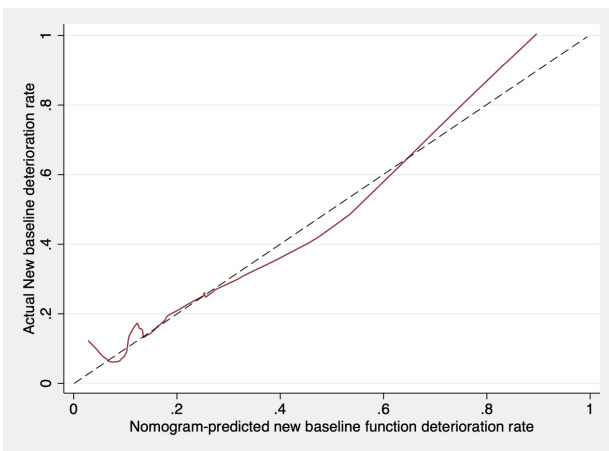**Figure S1** Kaplan-Meier plots the significantly difference between low- and high-risk groups developing to new baseline deterioration-free rate.

Figure S3 Decision curve analyses demonstrating the net benefit associated with the use of the nomogram-derived probability for the prediction of new baseline deterioration-free rate in the external cohorts.

Figure S2 Calibration plot of observed (actual) *vs.* nomogram-predicted probability of new baseline deterioration-free rate in the external cohorts.

Table S1 Multivariable Cox-regression analyses including 184 cases of patients within the time-frame of 6-12 months

Covariate	HR	95% CI		P
Age	1.062	1.012	1.113	0.014
Ischemia time <30 min	1.000			
Ischemia time >30 min	2.941	1.315	11.809	0.014
Baseline eGFR	1.027	1.004	1.051	0.021
RNS	1.565	1.042	2.349	0.031
AKI				
No AKI	1.000			
Transient AKI	2.761	1.160	4.626	0.032
Persistent AKI	4.400	2.146	15.520	0.002

eGFR, estimated glomerular filtration rate; AKI, acute kidney injury; RNS, Renal Nephrometry Score.

Table S2 Multivariable Cox-regression analyses excluding AKI to predict new baseline eGFR deterioration between 3 and 15 months after robot-assisted or laparoscopic partial nephrectomy

Covariate	HR	95% CI		P
Age	1.045	1.019	1.073	0.001
Ischemia time <30 min	1.000			
Ischemia time >30 min	2.676	1.420	5.043	0.002
Baseline eGFR	1.016	1.009	1.024	0.000
RNS	1.852	1.274	2.692	0.001

eGFR, estimated glomerular filtration rate; RNS, Renal Nephrometry Score.