## **Supplementary Material**

**Table S1** NRI and IDI for assessing the contributions of different biomarkers for non-recovery prediction when combining with clinical risk factors

Biomarker model	NRI	P value	IDI	P value
Endostatin-clinical model vs.	0.252	0.027	0.089	0.021
NGAL-clinical model				
Endostatin-clinical model vs.	0.228	0.034	0.102	0.006
Cystatin C- clinical model				

The predictive value of endostatin-clinical risk model was superior to NGAL- and cystatin C-clinical risk model in predicting non-recovery from AKI. *AKI* acute kidney injury, *NRI* net reclassification improvement, *IDI* integrated discrimination improvement, *NGAL* neutrophil gelatinase-associated lipocalin.

Table S2 Sensitivity analysis

	AUC (95 % CI)	p value
SOFA + AKI stage 1 and 3	0.782 (0.661, 0.895)	< 0.001
SOFA	0.703 (0.589, 0.812)	< 0.001
Endostatin + SOFA + AKI stage 1 and 3	0.887 (0.766, 0.958)	< 0.001
Endostatin + SOFA	0.829 (0.701, 0.870)	< 0.001
NGAL + SOFA + AKI stage 1 and 3	0.801 (0.707, 0.926)	< 0.001
NGAL + SOFA	0.750 (0.638, 0.857)	< 0.001
Cystatin C + SOFA + AKI stage 1 and 3	0.796 (0.678, 0.906)	< 0.001
Cystatin C + SOFA	0.748 (0.629, 0.846)	< 0.001

The risk prediction analyses were repeated after removing AKI stage 1 and 3 from the clinical model. The predictive value of the model combining SOFA score and endostation was identified to be steady and good whether it is with and without AKI stage 1 and 3. *AUC* area under the receiver operating characteristic, *CI* confidence interval, *AKI* acute kidney injury, *SOFA* sequential organ failure assessment, *NGAL* neutrophil gelatinase-associated lipocalin.