

Figure S1. Flow chart of the study population selection

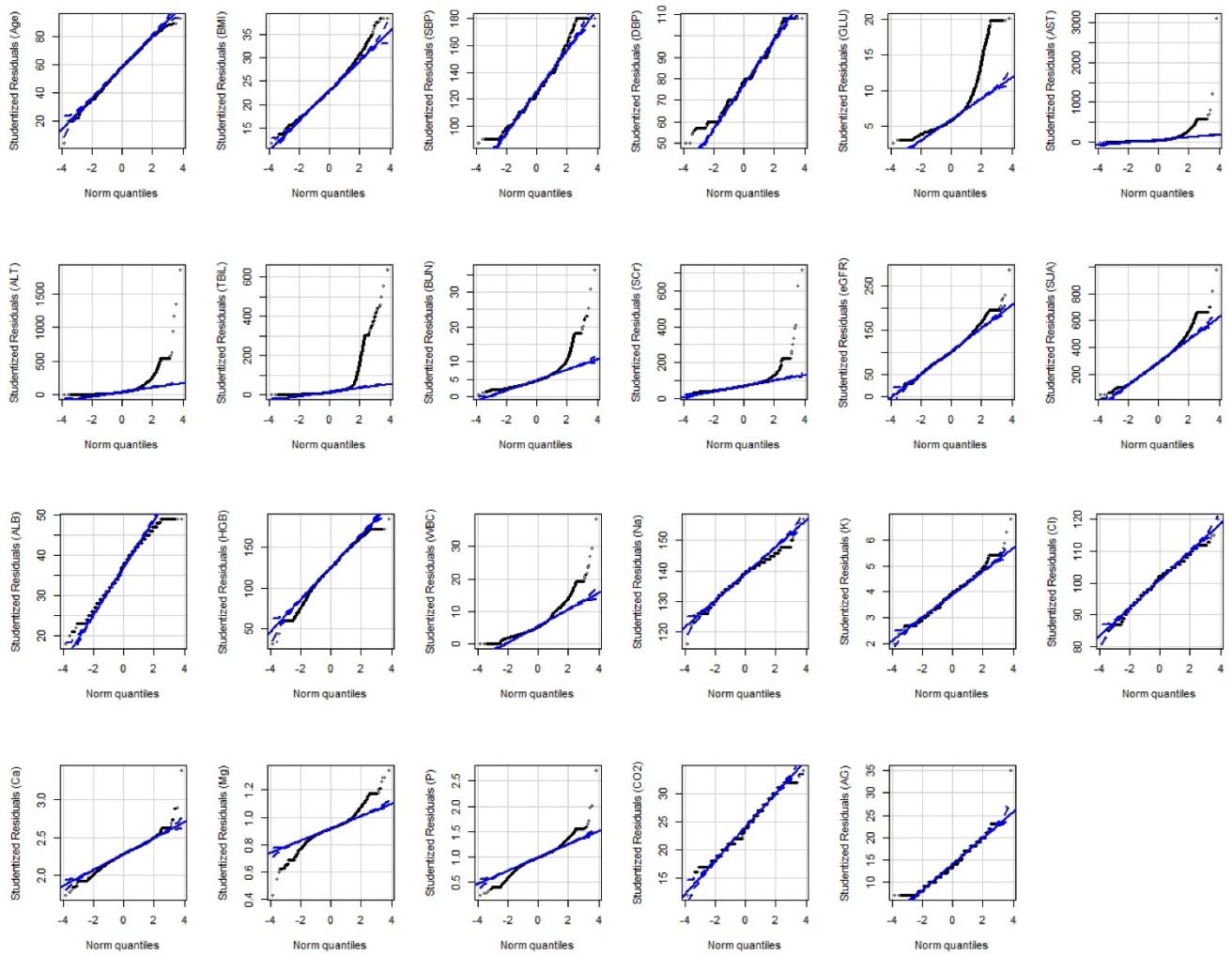


Figure S2. QQ-plot for demographics and clinical factors associated with AKI

Table S1. Distribution of demographic and clinical factors in training and test set

Variables	Training set	Test set	Stat. value	p-value
AKI (%)	792(11.6)	198(11.6)	0.000	0.997 ^a
AKI Stage-1 (%)	701(88.5)	168(84.8)	2.135	0.545 ^a
Stage-2 (%)	55(6.9)	17(8.6)		
Stage-3 (%)	36(4.5)	13(6.6)		
RRT (%)	21(0.3)	7(0.4)	0.440	0.507 ^a
Age (yr)	58.2±11.4	58±10.9	0.670	0.503 ^b
Gender (female)	5591(81.7)	1399(81.8)	0.009	0.926 ^a
BMI	23.2±3.4	23.1±3.2	1.532	0.126 ^b
Hypertension (yes, %)	791(11.6)	207(12.1)	0.393	0.531 ^a
Diabetes (yes, %)	514(7.5)	132(7.7)	0.084	0.772 ^a
Stroke (yes, %)	32(0.5)	7(0.4)	0.103	0.749 ^a
CHD (yes, %)	45(0.7)	18(1.1)	2.918	0.088 ^a
COPD (yes, %)	43(0.6)	15(0.9)	1.256	0.262 ^a
CKD (yes, %)	196(2.9)	57(3.3)	1.047	0.306 ^a
Metastatic tumors (yes, %)	692(10.1)	146(8.5)	3.844	0.051 ^a
Emergent condition (yes, %)	581(8.5)	134(7.8)	0.767	0.381 ^a
Treat (surgery, %)	489(7.1)	112(6.5)	5.196	0.158 ^a
Treat (chemotherapy, %)	3135(45.8)	743(43.4)		
Treat (interventional, %)	3077(44.9)	821(48.0)		
Treat (palliative, %)	145(2.1)	35(2.0)		
SBP (mmHg)	125.5±15.5	125.2±16	0.829	0.407 ^b
DBP (mmHg)	77.9±9.5	77.5±9.6	1.350	0.177 ^b
Glucose (mmol/L)	5.8[5.0, 6.9]	5.8[4.9, 6.8]	—	0.787 ^c
ALT (U/L)	43.0[24.0, 71.0]	42.0[24.0, 66.4]	—	0.379 ^c
AST (U/L)	45.0[30.0, 75.0]	44.0[30.0, 74.5]	—	0.255 ^c
TBiL (μmol/L)	13.2[8.7, 23.2]	13.3[8.8, 23.1]	—	0.881 ^c
BUN(mmol/L)	4.6[3.7, 5.7]	4.6[3.7, 5.7]	—	0.969 ^c
SCr (μmol/L)	73.3±24.4	74.3±27.3	-1.539	0.124 ^b
eGFR (mL/min/1.73m ²)	104.3±28.2	103±28.1	1.718	0.086 ^b
SUA (μmol/L)	296.4±95.5	297.4±92.9	-0.363	0.717 ^b
Album (g/L)	37.0±5.4	37.1±5.3	-0.629	0.529 ^b
Hemoglobin (g/L)	124.3±21.0	125±20.9	-1.259	0.208 ^b
Leukocyte (*10 ⁹)	5.2[3.7, 7.2]	5.0[3.7, 7.1]	—	0.225 ^c
Sodium (mmol/L)	138.9±4.0	138.9±3.8	-0.626	0.532 ^b
Potassium (mmol/L)	3.9±0.5	3.9±0.5	-0.371	0.711 ^b
Chloride (mmol/L)	101.2±4.4	101.3±4.3	-0.338	0.736 ^b
Calcium (mmol/L)	2.3±0.1	2.3±0.1	-1.728	0.084 ^b
Magnesium (mmol/L)	0.9±0.1	0.9±0.1	0.563	0.573 ^b
Phosphorus (mmol/L)	1.0±0.2	1.0±0.2	0.659	0.510 ^b
CO ₂ (mmol/L)	23.8±3.1	23.9±3.0	-1.258	0.208 ^b
Anion gap (mmol/L)	13.8±3.0	13.8±3.0	0.460	0.646 ^b

Notes: ^a Student's t test; ^b Pearson chi-square test; ^c Wilcoxon test.

Abbreviations: AKI, acute kidney injury; RRT, renal replace treatment; BMI, body mass index; CHD, coronary heart disease; COPD, chronic obstructive pulmonary disease; CKD, chronic kidney injury; SBP, systolic blood pressure; DBP, diastolic blood pressure; ALT,alanine aminotransferase; AST, aspartate aminotransferase; TBiL, total bilirubin; BUN, blood urea nitrogen; SCr, serum creatinine; eGFR, estimated glomerular filtration rate; SUA, serum uric acid.a Student's t test; b Pearson chi-square test; c Wilcoxon test.

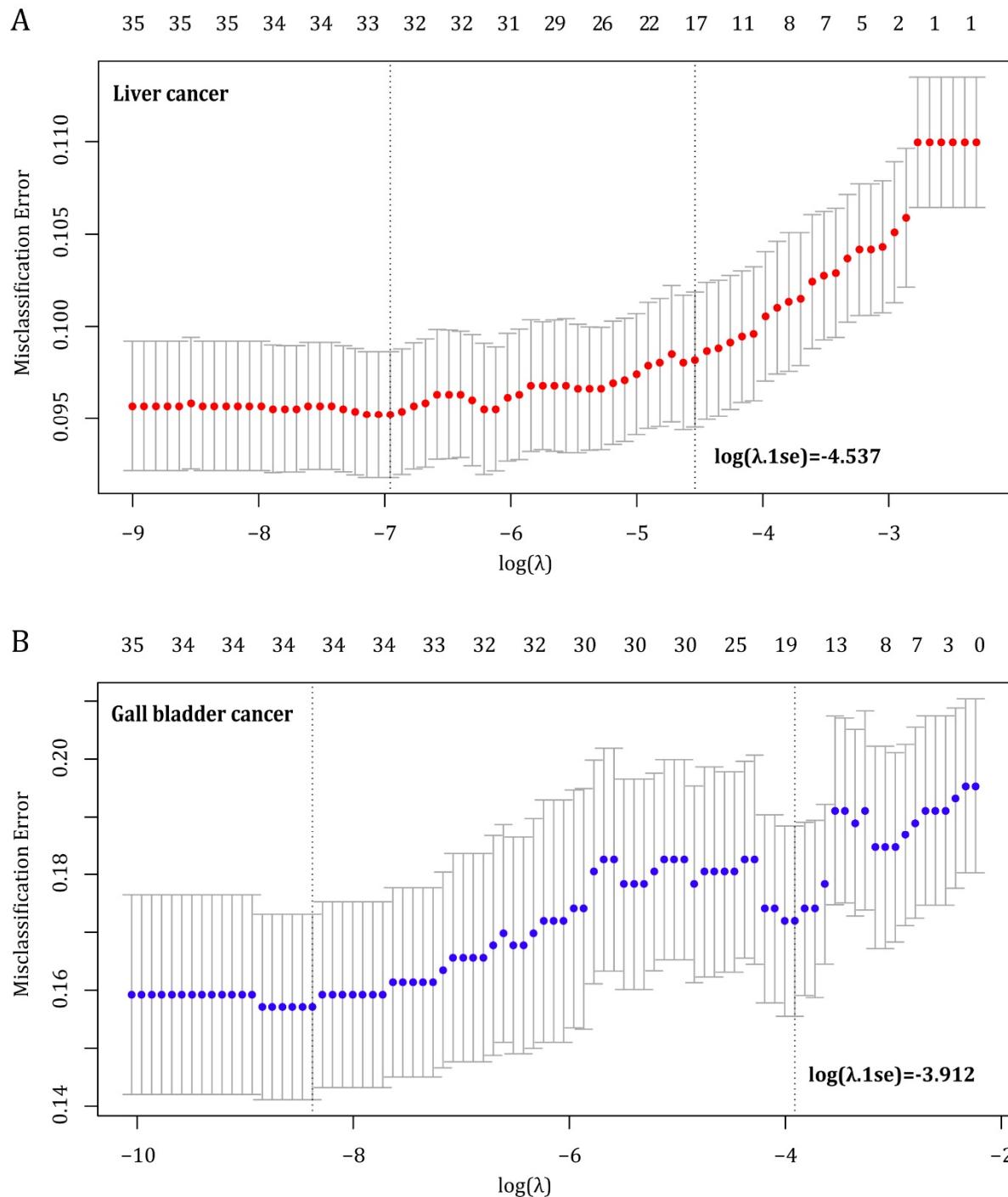


Figure S3. (A) AKI candidate variable selection by using LASSO among liver cancer patients; (B) AKI candidate variable selection by using LASSO among gallbladder cancer patients;