

Baseline variables and in-hospital factors	Training/Validation n=6564	Testing n=2228	P value
Death	778 (11.9%)	251 (11.3%)	
Baseline variables and in-hospital factors			
Age	71.90 ± 13.35	72.97 ± 13.56	0.087
Sex (%)			
Female	2894 (44.1%)	962 (43.2%)	
Male	3670 (55.9%)	1266 (56.8%)	
Weight (kg), mean (SD)	53.86 ± 11.98	54.48 ± 12.69	0.125
Height (cm), mean (SD)	158.38 ± 9.79	158.96 ± 9.92	0.675
BMI (kg/m2), mean (SD)	21.35 ± 3.72	21.43 ± 3.92	0.752
Length of stay in hospital, days, mean (SD)	45.17 ± 60.05	42.86 ± 49.27	0.037
Length of stay to surgery	1.54 ± 0.65	1.72 ± 0.81	0.019
Type of surgery (%)			
Colostomy	1170 (17.8%)	423 (19.0%)	
Colectomy	4479 (68.2%)	1488 (66.8%)	
Rectal resection	915 (13.9%)	317 (14.2%)	
Use of laparoscopy	1224 (18.6%)	513 (23.0%)	
Indication for surgery (%)			
Perforation	1310 (20.0%)	430 (19.3%)	
Obstruction	1375 (20.9%)	446 (20.0%)	
Ischemia	165 (2.5%)	64 (2.9%)	
Bleeding or diverticulosis	418 (6.4%)	131 (5.9%)	
Others	3296 (50.2%)	1157 (51.9%)	
Colorectal cancer	3713 (56.6%)	1288 (57.8%)	
Accompanied diseases (comorbidity)			
Other cancer (Except for colorectal cancer)	317 (4.8%)	98 (4.3%)	
Hypertension	1699 (25.9%)	620 (27.8%)	
Diabetes	1094 (16.7%)	376 (16.9%)	
COPD	248 (3.8%)	79 (3.5%)	
Heart failure	790 (12.0%)	295 (13.2%)	
Ischemic heart disease	495 (7.5%)	158 (7.1%)	
Cerebrovascular disease	528 (8.0%)	211 (9.4%)	
Liver disease	114 (1.7%)	35 (1.6%)	
Dementia	191 (2.9%)	83 (3.7%)	
psychological disease	304 (4.6%)	129 (5.9%)	
Blood test at admission, mean (SD)			
White blood cell count (10 ⁹ /l), mean (SD)	10.17 ± 5.48	10.33 ± 5.77	0.678
Hemoglobin (g/dl), mean (SD)	11.64 ± 2.90	11.63 ± 2.85	0.799
Platelet count (10 ⁹ /l), mean (SD)	281.87 ± 120.88	280.80 ± 122.92	0.218
Sodium (mmol/l), mean (SD)	137.95 ± 4.21	137.92 ± 4.30	0.991
Potassium (mmol/l), mean (SD)	4.00 ± 0.64	3.97 ± 0.68	0.049
Chlorine (mmol/l), mean (SD)	101.31 ± 5.05	101.85 ± 4.95	0.029
Creatinine (mg/dl), mean (SD)	1.12 ± 1.17	1.14 ± 1.12	0.026
Blood urea nitrogen (mg/dl), mean (SD)	22.29 ± 15.19	22.96 ± 16.03	0.055
Total protein (g/dl), mean (SD)	6.59 ± 0.81	6.55 ± 0.83	0.071
Albumin (g/dl), mean (SD)	3.52 ± 0.67	3.35 ± 0.68	0.035
Alanine aminotransferase (U/l), mean (SD)	22.50 ± 8.75	22.21 ± 8.67	0.345
Aspartate transaminase (U/l), mean (SD)	32.14 ± 14.43	30.02 ± 15.92	0.391
Total bilirubin (mg/dl), mean (SD)	0.82 ± 0.60	0.83 ± 0.57	0.527
Alkaline phosphatase (U/l), mean (SD)	290.15 ± 56.61	291.88 ± 59.90	0.011
Gamma-glutamyltransferase (U/l), mean (SD)	42.96 ± 82.18	43.00 ± 26.13	0.492
Lactate dehydrogenase (U/l), mean (SD)	248.01 ± 72.18	249.75 ± 72.78	0.383
Amylase (U/l), mean (SD)	88.06 ± 60.16	83.89 ± 61.91	0.732
C-reactive protein (mg/dl), mean (SD)	6.26 ± 8.54	6.78 ± 8.93	0.072
Prothrombin time-International normalized ratio, mean (SD)	1.18 ± 0.49	1.15 ± 0.41	0.058
Partial thromboplastin time (second), mean (SD)	29.47 ± 9.14	30.32 ± 7.58	0.079