

Supplementary Table S1. Model internal validation by 5-fold cross-validation

| Predicting in-hospital mortality | | | | | | |
|----------------------------------|---------|-------|-----------|-----------|-----------|-------------|
| Dataset | Total N | AIC | R-Square | RMSE | AUROC | Brier Score |
| Train | 261 | 275.2 | 0.2566665 | 0.4178324 | 0.8148581 | 0.263008 |
| Test | 66 | 63.72 | 0.3990093 | 0.4047687 | 0.8365385 | 0.4610844 |
| accuracy = 0.7424242 | | | | | | |

Supplementary Table S2. The cut-off values for the new SBP score model in predicting in-hospital mortality

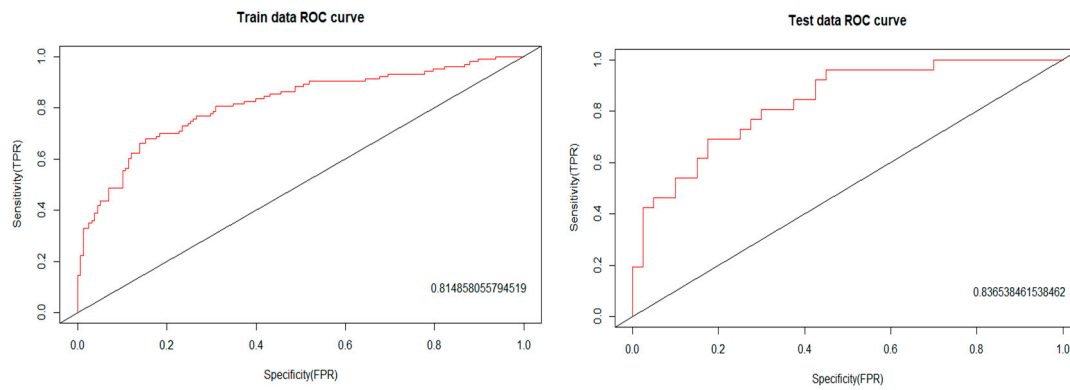
| Mortality above or below the cut-off values | |
|---|----------------|
| In-hospital, n=129 (39.4%) | |
| In-hospital mortality new SBP score | Mortality rate |
| ≥ -0.4697 | 73.38709677% |
| < -0.4697 | 18.711921182% |

Supplementary Table S3. The cut-off values for the new SBP score model in predicting 3-month mortality

| Mortality above or below the cut-off values | |
|---|----------------|
| Three-month, n=168 (51.4%) | |
| Three-month mortality new SBP score | Mortality rate |
| ≥ 0.3712 | 84.95575221% |
| < 0.3712 | 33.64485981% |

Supplementary Table S4. The cut-off values for the new SBP score model in predicting 6-month mortality

| Mortality above or below the cut-off values | |
|---|----------------|
| One month, n=199 (60.9%) | |
| Six-month mortality new SBP score | Mortality rate |
| ≥ 0.4690 | 83.66013072% |
| < 0.4690 | 40.8045977% |



Supplementary Figure S1. The AUROC curve of the training set and the test (validation) set for predicting in-hospital mortality. The AUROC of the training cohort for the new SBP score was 0.815, and for the validation cohort, it was 0.837, both > 0.8 .