Table S1. The selected features of four machine learning algorithm

| LASSO features | SVM features | Randomforest-Boruta featuers | Xgboost featuers |
| --- | --- | --- | --- |
| Gender | NGAL | Age | NGAL |
| Weight | NT\_prBNP | CRF | NT\_prBNP |
| Drink | HJV2 | CVP | HJV2 |
| CRF | FABP | TnI | DKK3 |
| Wb | DKK3 | FABP | Mechanical\_ventilation\_time |
| EF | TnI | NT\_prBNP | TnI |
| TnI | Mechanical\_ventilation\_time | NGAL | Cleveland |
| FABP | CRF | HJV2 | FABP |
| NGAL | CVP | DKK3 | Hb |
| HJV2 | Age | ICU\_length\_of\_stay | Wb |
| CPBT | ICU\_length\_of\_stay | Mechanical\_ventilation\_time | Age |
| Erythrocyte\_infusion | Hb | Randomforest-Boruta featuers | CVP |
| ICU\_length\_of\_stay | CPBT | Age | BMI |
| Mechanical\_ventilation\_time | Cleveland | CRF | Urinedroupout |
| Cleveland | Ultrafiltration\_volume | CVP | Erythrocyte\_infusion |
|  | Hospitalization\_time | TnI | Height |
|  |  |  | Interval\_time |
|  |  |  | hCT |

|  |  |  |  |
| --- | --- | --- | --- |
| LASSO features | SVM features | Randomforest-Boruta featuers | Xgboost featuers |
| Gender | NGAL | Age | NGAL |
| Weight | NT\_prBNP | CRF | NT\_prBNP |
| Drink | HJV2 | CVP | HJV2 |
| CRF | FABP | TnI | DKK3 |
| Wb | DKK3 | FABP | Mechanical\_ventilation\_time |
| EF | TnI | NT\_prBNP | TnI |
| TnI | Mechanical\_ventilation\_time | NGAL | Cleveland |
| FABP | CRF | HJV2 | FABP |
| NGAL | CVP | DKK3 | Hb |
| HJV2 | Age | ICU\_length\_of\_stay | Wb |
| CPBT | ICU\_length\_of\_stay | Mechanical\_ventilation\_time | Age |
| Erythrocyte\_infusion | Hb |  | CVP |
| ICU\_length\_of\_stay | CPBT |  | BMI |
| Mechanical\_ventilation\_time | Cleveland |  | Urinedroupout |
| Cleveland | Ultrafiltration\_volume |  | Erythrocyte\_infusion |
|  | Hospitalization\_time |  | Height |
|  |  |  | Interval\_time |
|  |  |  | hCT |