1. Data Pre-processing
   - Deal with missing values

2. Training/Test dataset splitting
   - (a) 80/20 splitting
   - (b) K-fold validation (k=5)

   - Training set
   - Test set

3. Model training
   - Grid-search for parameter values
   - Cross validation
     - (a) XGBoost model
     - (b) RandomForest model
     - (c) Logistic model

4. Model prediction
   - Mortality prediction: 0 (No)/1 (Yes)

Precision/Recall/F1/Brier/AUC computation

**Supplemental figure 1. Flow diagram of the study**
Supplemental figure 2. Local interpretable model-agnostic explanations (LIME) plots of two representative individuals
Supplemental figure 3. Receiver operating characteristic curves showing the performance of the XGBoost, RF, and LR models with hospital-factor for predicting 30-day mortality in critically ill influenza patients.