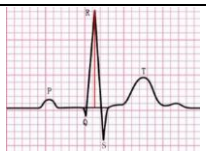
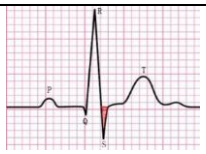
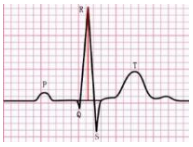
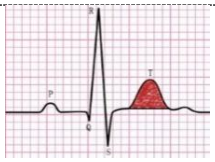
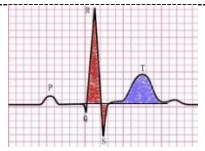
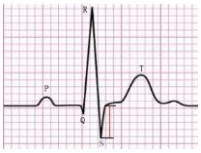
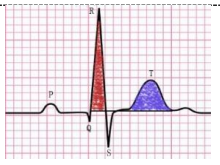
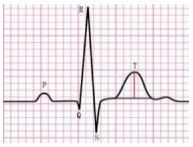
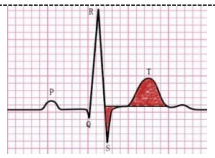
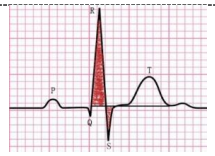
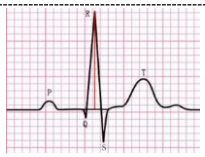
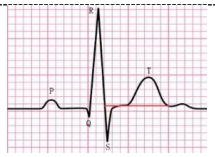
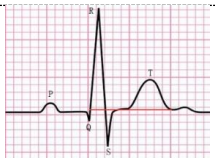
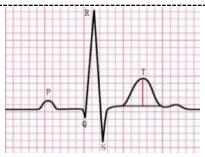
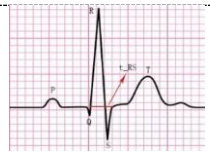
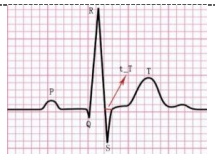
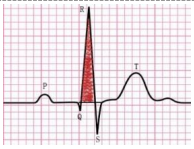
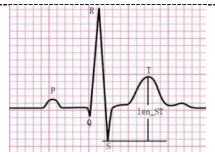
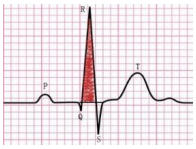
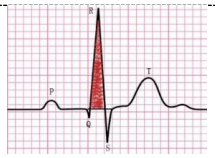
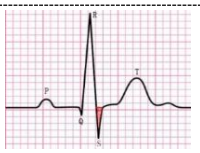
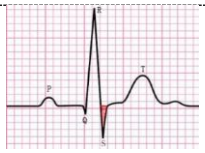
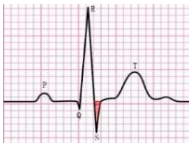
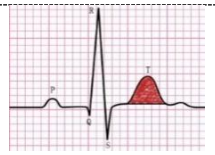
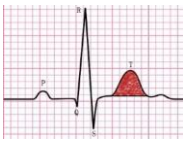
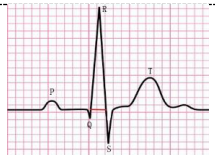
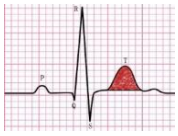
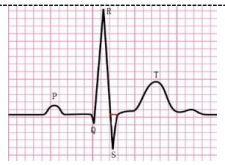
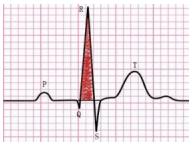
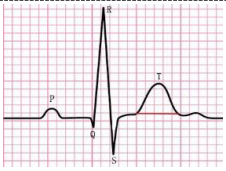
Supplementary Table 1

Table S1. Clinical features and their description used in the study.

Symbol	Description	Figure	Symbol	Description	Figure
maxR	Maximum value of R peak in ten-second		inteS_mean	The average area of the S peak in ten-second	
minR	Minimum value of R peak value in ten-second		inteT_mean	The average area of the T peak in ten-second	
maxS	Maximum value of S peak value in ten-second		inteRST	average value of R peak area plus S peak area minus T peak area	
minS	Minimum value of S peak value in ten-second		inteRT	average value of R peak area minus T peak area	
maxT	Maximum value of T peak value in ten-second		inteST	average value of S peak area plus T peak area	
minT	Minimum value of T peak value in ten-second		inteRS	average value of R peak area plus S peak area	
mean_R	Average value of R peak value in ten-second		t_ST	S begin-to-T end interval	
mean_S	Average value of S peak value in ten-second		t_RT	R begin-to-T end interval	

mean_T	Average value of S peak value in ten-second		t_RS	R begin-to-S end interval	
RS	average value of the difference between R peak and S peak		t_T	T begin-to-T end interval	
inteRM	The maximum area of the R peak in ten-second		len_ST	the average value of S-T peak difference	
inteRm	The minimum area of the R peak in ten-second		inteR_sum	Total R peak area in ten-second	
inteSM	The maximum area of the S peak in ten-second		inteS_sum	Total S peak area in ten-second	
inteSm	The minimum area of the S peak in ten-second		inteT_sum	Total T peak area in ten-second	
inteTM	The maximum area of the T peak in ten-second		t_R_sum	Total time interval between R begin and R end in ten-second	
inteTm	The minimum area of the T peak in ten-second		t_S_sum	Total time interval between S begin and S end in ten-second	
inteR_mean	The average area of the R peak in ten-second		t_T_sum	Total time interval between T begin and T end in ten-second	

Supplementary Table 2

Table S2. the hyper-parameters used in XGBoost training procedure.

Hyper-parameters	Description	Value set	Selected
Max_depth	Maximum depth of a tree.	5,7,9,11	7
Learning_rate	Step size shrinkage is used in the update to prevents over-fitting.	0.05,0.1,0.3	0.05
N_estimators	The number of base learners, with the same effect as learning_rate.	50,100,200	200
Min_child_weight	Minimum sum of instance weight needed in a child.	0.01,0.05,0.1	0.01
Gamma	Minimum loss reduction required to make a further partition on a leaf node of the tree.	0.1,0.3,0.5	0.3
Subsample	Subsample ratio of the training instances.	0.6,1	0.6
Colsample_bytree	A parameter for subsampling of columns.	0.6,1	0.6
Reg_lambda	L2 regularization term on weights.	0.01,0.05,0.1	0.01
Reg_alpha	L1 regularization term on weights.	0.01,0.05,0.1	0.01

The table shows the hyperparameter information used in the XGBoost training process and the parameter range for performing grid search.