

Table 2: Model performance comparisons

Model Type	Accuracy	Precision	Recall	F1 Score	AUC Score
PH Persistence at Discharge					
Decision Tree	0.48	0.52	0.48	0.50	0.51
XGBoost	0.60	0.64	0.61	0.62	0.68
AdaBoost	0.55	0.58	0.61	0.60	0.56
PH Associated Mortality					
LightGBM	0.74	0.33	0.38	0.35	0.70
XGBoost	0.83	1.00	0.13	0.22	0.74
Histogram Boosting	0.67	0.35	0.88	0.50	0.72
Pharm PH					
Histogram Boosting	0.76	0.90	0.50	0.64	0.88
XGBoost	0.76	0.79	0.61	0.69	0.76
LightGBM	0.76	0.90	0.50	0.64	0.87
Multi Agent PH					
Decision Tree	0.82	0.25	0.33	0.29	0.61
AdaBoosting	0.89	0.00	0.00	0.00	0.57
LightGBM	0.68	0.13	0.33	0.18	0.44