ACCSCIENCE PUBLISHING

Artificial Intelligence in Health

ORIGINAL RESEARCH ARTICLE

Pediatric patient hospital length of stay prediction: A comparative analysis of Bayesian inference and machine learning approaches

Supplementary File

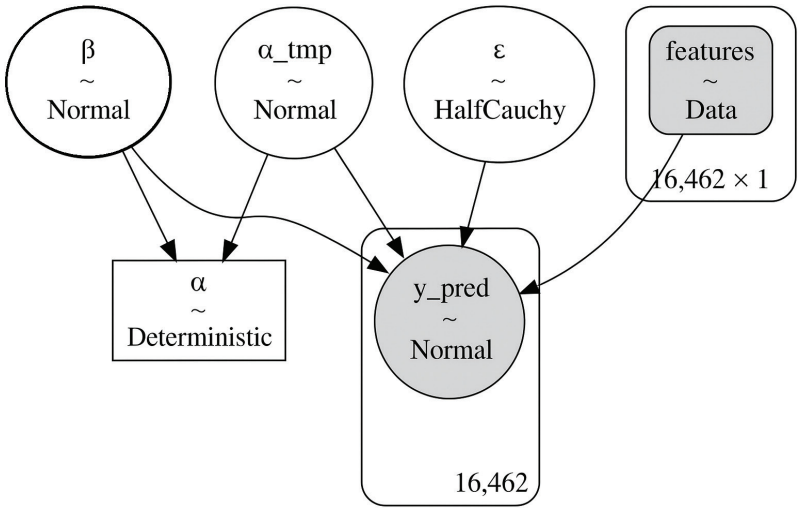

Figure S1. Bayesian linear regression model

Table S1. Hyperparameters of machine learning models

Predictive model	Hyperparameters	Values
Decision tree regressor	Max depth	5, 8, 15, 25, 30, None
	Min samples split	2, 5, 10, 15, 100
	Min samples leaf	1, 2, 5, 10
	Max features	auto, sqrt, log2, None
Random forest regressor	*n* estimators	5, 10, 15, 20, 25
	Max depth	5, 8, 15, 25, 30, None
	Min samples split	2, 5, 10, 15, 100
	Min samples leaf	1, 2, 5, 10
	Max features	auto, sqrt, log2, None
Support vector regressor	C	0.01, 0.1, 1, 10, 100
	Kernel	rbf, poly
Gradient boosting regressor	Learning rate	0.01, 0.0025, 0.1
	Gamma	0.05, 0.3, 0.5, 0.9
	Max depth	3, 5, 9, 12, 15, 25
	Min child weight	1, 5
	Subsample	0.6, 0.8, 1.0
	Min samples split	0.6, 0.8, 1.0
Adaptive boosting regressor	Learning rate	0.01, 0.0025, 0.1
	Loss	Linear, square, exponential
	n estimators	5, 10, 15, 20, 25
K-nearest neighbor regressor	Weight	Uniform, distance
	n neighbors	2, 4, 6, 8, 10, 12, 14, 16