

Machine learning to identify attributes that predict patients who leave without being seen in a pediatric emergency department

Up to 17% of patients leave without being seen (LWBS) by a physician in an ED

Five machine learning methods were appraised

The most influential attributes in this model were:



QUESTION

Can we create predictive models using machine learning to identify key attributes of patients with LWBS

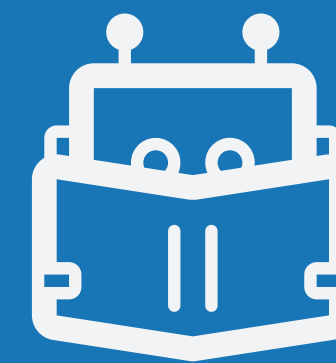
101,266 patients included

80% TRAINING DATA

20% TESTING DATA



XGBoost model performance:



97% recall
87% sensitivity



Triage time



ED patient load



Length of stay



Driving distance



Age

Take Home Message: Machine learning models can sensitively predict left without being seen patients using administrative data.

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Infographic by: S Wilson, MD



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