Dynamic Mortality Risk Predictions for Children in Intensive Care Units: Development and Validation of Machine Learning Models

Study Question:
Can a machine learning model use electronic health record data to estimate the 6-hour mortality risk for a pediatric ICU patient?

Study Population:
27,354 pediatric ICU admissions from 88 hospitals from 2009-2018

Predictive Variables
- Routine Laboratory Tests
- Medication Categories
- Vital Signs & Positive Pressure Ventilation

Using machine learning models based on the Criticality Index, mortality risk can be estimated for pediatric ICU patients

Data from Rivera, ET et al; Pediatr Crit Care Med 2022