Six-month mortality risk estimation from electronic medical record

Technology No. 2019-355

IP Status: Pending US Patent; **Application #:** 16/932,368

Applications

- In-hospital predictive algorithms
- Electronic health/medical records

Mini Serious Illness Algorithm (minSIA) to predict 6-month mortality risk

Researchers at the University of Minnesota have developed a lightweight algorithm using machine learning for predicting the risk of 6-month mortality at the time of hospital admission. Using just 8 different variables collected during the first 48 hours of hospitalization, this algorithm predicted death within 6-months with an AUC of 0.92. The discriminative ability of this algorithm has been shown to be significantly better than historical estimates of clinician performance. This algorithm can be a critical tool in supporting clinical decision-making at admission and in evaluating suitable options such as transfer to tertiary referral center, serious illness care-conversations in high-risk patients, patient/family counseling, and palliative care utilization.

Phase of Development

TRL: 3-4
Algorithm developed. Currently being validated.

Researchers:

Gyorgy Simon, PhD

Roshan Tourani, PhD

Nishant Sahni, MD, MS

Publications

min-SIA: a Lightweight Algorithm to Predict the Risk of 6-Month Mortality at the Time of Hospital Admission. Journal of general internal medicine (2020): 1-6.

Desired Partnerships

This technology is now available for:

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- Sponsored research
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