Reproduced Study

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Reproduced Study

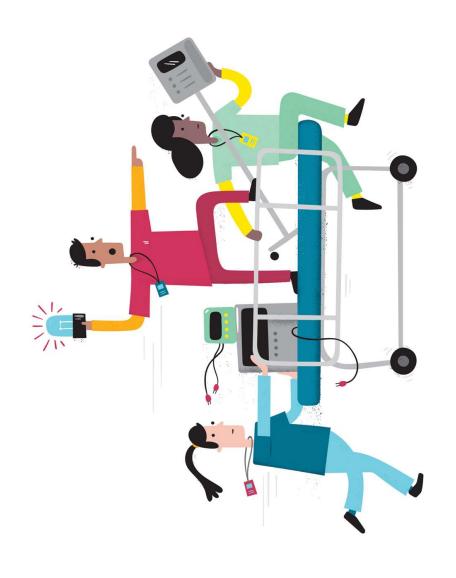
An Interpretable Machine Learning Model for Accurate Prediction of

Sepsis in the ICU

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Study Question

Can Electronic Medical Records be used to predict onset of sepsis in patients in the ICU?



Data Extraction

- · Cohort exclusions depending on time.
- Extraction from multiple tables (chartevents, labevents, derived tables).
- Dataset creation for time-varying regression.
- Frequency of measurements related issues.

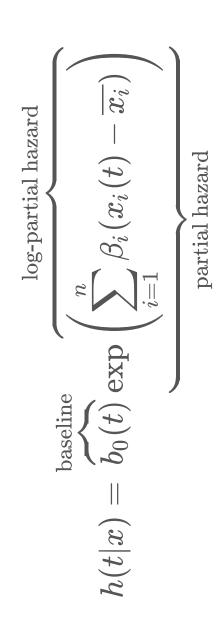
Methodology

· Study Approach:

Weibull-Cox proportional hazards model to predict onset of sepsis in the proceeding T hours (where T = 4, 6, 8 or 12)

Reproduction Simplified Approach:

Cox's time varying proportional hazard model



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Lessons Learned

- Medical databases are tricky.
- Crashes due to RAM limit exceeded!
- More detail on things like missing values imputing and description of the covariates would be helpful to improve reproduction studies.

Thank You!