

DynaCOMP: Bringing ML to the Transplantation Clinic

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Managing a liver transplantation long-term is a difficult task which requires doctors to balance the different risks their patients are facing. Since every patient is unique, there is no one standard treatment, and doctors frequently need to experiment with medication and make judgement calls based on their knowledge and experience.

To alleviate the pressure faced by doctors and to formalize their intuitions through the use of data, we have created a machine learning model which stratifies patients into different risk categories and gives likelihood estimates for each liver transplant patient for the 4 biggest causes of mortality.

In addition, we have designed a dashboard which displays this information succinctly and allows doctors to gain deeper insight into their patients' unique situations. This dashboard will be integrated directly into the existing electronic health records system at UHN, allowing them to access this additional information quickly and easily and focus on improving patient care.