

# Artificial intelligence could help reduce hospitalizations for GI condition

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When patients with ulcers or other conditions that cause bleeding in the stomach or intestines go to the emergency room, they are often admitted to the hospital. But they may not need to be, according to Yale researchers. A new study shows that a form of artificial intelligence could help providers send more of these patients home to be treated

outside the hospital.

The Yale-led research team used patient data from six medical centers around the world to develop and validate a [machine-learning model](#) that predicts the risk of dying or the need for intervention in the hospital for patients with upper gastrointestinal bleeding. The researchers then compared the machine-learning results with standard risk-scoring systems already available to providers in hospitals.

The researchers concluded that the machine-learning approach outperformed standard risk assessment systems and identified more low-risk patients who could safely be sent home. They made the model available to providers as an online app, which can be used in the emergency department to potentially avoid the expense and burden of unnecessary hospitalizations. Their study also paves the way for further work incorporating predictive models into [electronic health records](#), which could lead to rapid and accurate results, said lead author Dr. Dennis Shung.

**More information:** Dennis L. Shung et al. Validation of a Machine Learning Model That Outperforms Clinical Risk Scoring Systems for Upper Gastrointestinal Bleeding, *Gastroenterology* (2019). [DOI: 10.1053/j.gastro.2019.09.009](#)

Provided by Yale University

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