Artificial intelligence-based tool may help diagnose opioid addiction earlier

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Researchers have used machine learning, a type of artificial intelligence, to develop a prediction model for the early diagnosis of opioid use disorder. The advance is described in *Pharmacology Research &*

Perspectives.

The model was generated from information in a commercial claim database from 2006 through 2018 of 10 million medical insurance claims from 550,000 patient records. It relied on data such as demographics, chronic conditions, diagnoses and procedures, and medication prescriptions.

The tool led to a diagnosis of opioid use disorder that was on average 14.4 months earlier than it was diagnosed clinically.

"Opioid use disorder has led a very serious epidemic in the U.S. and many other countries, with devastating rates of morbidity and mortality due to missed and delayed diagnoses. The novel ability of our algorithm to identify affected individuals earlier will likely save lives and health care costs," said senior author Gideon Koren, MD, of Ariel University, in Israel.