AI Flags High-Risk COVID-19 Patients in Israel

Since the new coronavirus disease (COVID-19) can be transmitted even by asymptomatic carriers, protecting vulnerable individuals from getting infected is critical. This raises the question – how do we identify these high-risk members of the population?

You might also like: Software Identifies COVID-19 Super Carriers

In Israel, using an AI-based system has been found to be an effective way to help find people most at risk of severe COVID-19 complications. Maccabi Healthcare Services, a leading health maintenance organisation (HMO) in the country, said the system enabled it to determine who among its 2.4mln members were in the high-risk group.

The AI company Medial EarlySign co-developed the technology, which was adapted from an existing system trained to detect people most at risk from flu. The system is backed by huge sets of medical data from Maccabi going back 27 years. These medical records include a person's age, BMI, health conditions (eg, diabetes; heart disease), and history of hospital admissions.

By trawling through this comprehensive database, the AI tool has already identified around 40,000 of Maccabi members in the high-risk group. These members were then prioritised for testing.

In addition, the AI system helps with assessing the level of treatment these at-risk members might need should they get sick: 1) home-based care; 2) confinement in a quarantine hotel; or 3) admission to hospital.

Maccabi is currently in talks with major health providers in the United States who have shown interest in using the AI system to help flag their own high-risk patients. However, bringing such a tool to the U.S. and other countries may not be that easy. In the U.S., for instance, medical records are kept in "data silos" of hospitals and other healthcare organisations. "Our ability to develop algorithms to identify individuals as high risk is limited by the lack of data sets," notes Darren Schulte, an MD and CEO of AI firm Apixio, who hopes that the current pandemic will bring about needed improvements in data sharing.

The U.S. Office of the National Coordinator for Health Information Technology , Dr Schulte notes, has recently introduced regulations supporting secure data transfer between different hospitals. "We just need providers to make patient data accessible," he points out.

Source: MIT Technology Review

Image credit: iStock

Published on : Wed, 29 Apr 2020