Recently developed remote medical assessment tool could help flatten the COVID-19 curve

April 22 2020, by Katie Willis

U of A computing scientist Pierre Boulanger, who led development of the MedROAD virtual assessment tool, says it could allow doctors working from home to check in remotely with COVID-19 patients who are in isolation. Credit: John Ulan

A virtual assessment tool developed by University of Alberta computing

scientists has the potential to help flatten the curve of the COVID-19 pandemic.

The tool—called [MedROAD](link)—uses the power of artificial intelligence and cloud-based computing to remotely assess patients, eliminating the need for many to seek in-person care at clinics or in hospitals.

MedROAD was developed out of the Advanced Man Machine Interface Laboratory at the University of Alberta, under the leadership of U of A computing scientist Pierre Boulanger, who is also the Cisco Research Chair in Healthcare Solutions.

"The MedROAD system is a medical-grade virtual clinic that allows patients and doctors to conduct appointments remotely," explained Esmatullah Naikyar, director and CEO of Naiad Lab, the spinoff company that is commercializing the technology.

"On the patient's side, there is an Android app that collects data from portable medical-grade devices and sends it to a cloud-based server. The physician can then see this data and communicate with other users via video conference."

MedROAD was originally developed to support remote communities with limited access to [health services](link)—specifically communities in Northern Canada and rural areas of Mexico—which the researchers say makes it naturally tailored to address the COVID-19 pandemic.

"With the current COVID-19 pandemic, distance between patients and health-care providers is not only desired but essential to mitigate the spread of the virus and to flatten the curve," said Boulanger.

"MedROAD applies big data analytics on collected patient information. Personalized feedback and alerts are created for specific patients with

high risk. Physicians can monitor their patients through video conferencing and receive daily check-ins for COVID-19 positive patients in isolation. The aggregated real-time data allows officials to make informed decisions at critical times to respond to the rapidly spreading virus."

The research team is working closely with a handful of clinics and one long-term care facility in Edmonton to deploy MedROAD to allow physicians working at home to monitor consenting, at-risk patients. Continuing with their original purpose, the team is also working with health officials in Mexico to bring MedROAD to some of their jurisdictions.

The MedROAD project is funded by Cisco Canada and is part of a partnership with the University of Alberta that is designed to advance research, development and innovation in technologies that improve health care and save lives.

Provided by University of Alberta

Citation: Recently developed remote medical assessment tool could help flatten the COVID-19 curve (2020, April 22) retrieved 3 May 2024 from https://medicalxpress.com/news/2020-04-remote-medical-tool-flatten-covid-.html