

## LIMITING CORONAVIRUS SPREAD WITH TELEMEDICINE

The CDC advises that the best way to prevent infection from Corona virus is to avoid exposure. We now have the technology, using virtual digital communication, to remain in our homes and engage in dialogue and consultations with our healthcare providers via the internet.

Telemedicine (telehealth) can provide and support healthcare when distance separates the participants. Recent studies indicate that there are 80 million people who live in areas where there are not nearly enough primary care physicians to take care of them.

There are 117 million people who live in areas where there is a severe shortage of mental health professionals. For Americans who have a regular physician, only 57% report access to same or next-day appointments and 63% have difficulty getting access to care on nights, weekends or holidays without going to the emergency room. Over 20% of adults wait six days or more to see a doctor when they are sick. These healthcare shortcomings happen all the time.

Now, in the midst of a pandemic, there are serious legitimate concerns about how to manage the huge numbers of people who need and will need immediate healthcare services. One solution is telehealth to connect people with qualified licensed providers and get advice and authorization for care. The Centers for Medicare and Medicaid Services (CMS) has broadened access to Medicare telehealth services so beneficiaries can receive a wider range of services from doctors without having to travel to a healthcare facility. These policy changes build on the regulatory flexibilities granted under the President's emergency declaration. CMS is expanding this benefit on a temporary, emergency basis. The benefits are part of the broader effort by CMS to ensure that all Americans, particularly those at high risk of complications from the Covid-19 virus, are aware of easy-to-use accessible benefits that can help keep them healthy while containing the community spread of the virus.

<http://www.cms.gov/newsroom/fact-sheets/medicare-telemedicine-health-care-provider-fact-sheet>

Telemedicine includes video-based e-visits and remote patient monitoring tools to address many of the issues that have traditionally

been treated with face-to-face visits. Examples of telemedicine interactions include:

1. Basic consultations between patients and health professionals sharing audio, video and medical data to render a diagnosis, treatment plan, prescription or advice. This might involve patients located at a remote clinic, in a physician's office, or at home, or consultations with super-specialists. Labs, x-rays, photos and readings of vitals can be sent ahead. An interactive conference enables the clinicians to see, hear, examine and question patients and have them respond and ask questions.
2. A radio link between an EMT on the road and emergency medical personnel in a trauma center that helps the EMT keep the patient stable and alive while they are being transported.
3. Remote surgeries performed by robots hooked to cameras that are monitored by distant specialists as local clinicians standby while the robots perform the surgeries and procedures.
4. The eICU where doctors are able to watch over many intensive care units at the same time from a remote site.
5. Store-and forward of data, images or videos that provide the basis for these interactions.
6. Remote patient monitoring which uses medical equipment or devices to collect and send data from a patient's home or a nursing home to a monitoring station for interpretation. This includes monitoring of vitals such as blood pressure, hypertension, blood sugar and weight loss with a device connected to the cloud with real-time data transmitted to a physician in an office often hundreds of miles away and with feedback to patients based on their readings. Studies have found that patients using the tele-monitoring devices were 90% more likely to have controlled blood pressure. These results persisted after 12 months.
7. m-health (mobile) applications.

Although technicians cannot take a chest x-ray, or collect a sample for lab testing remotely, virtual visits can be effective for initial symptom assessments and can handle the millions of non-covid-19 virus-related

appointments that are being cancelled due to quarantines and precautions. Another twist in adding telemedicine to help manage the number of patient visits to the ER might be to use kiosks in a separate area where initial assessments are done using virtual video systems to collect information while a patient is isolated, minimizing the spread of the virus.

There are many anecdotal examples of how telemedicine has been used effectively.

*A pharmacist, physician assistant or nurse practitioner uses video conferencing to demonstrate to a patient how to use an inhaler or the proper way to administer an injection. The provider can watch and evaluate in real-time the patient's technique and further their understanding to how to take their medication.*

*A physician based in rural Arkansas is able to examine a patient who is on a trip to another country and developed a severe rash. Through a video-based skype call or a standard call after the patient has sent photos of the rash, the clinician can determine the cause and severity and decide what next steps would be to address the problem until the patient returns home.*

There are several online telehealth services such as American Well, Teledoc, Zoc Doc, Doctor on Demand, Icliiq that retain primary care, family physicians, psychologists, pharmacists, dentists, dietitians, and fitness experts as well as 24-hour advice lines staffed by nurses or physician assistants. These services are already used by millions of individuals in all 50 states and most foreign countries and can be accessed by a phone app and two-way video services. They are covered by insurance and available during off hours such as holidays, nights and weekends when patients need quick access to a clinician for an immediate need.

To address the Covid-19 pandemic Amwell Medical Group reports that it has been working proactively to ensure care delivered across its national telehealth network conforms to national and international standards. They have trained thousands of their doctors who deliver care on their platform and established an always-on-call infection control officer. They have put together Covid-19 specific workflows to

guide clinical operations and established a Covid-19 Readiness Team. Other online service groups are doing similar activities to ensure that their subscribers and others who may register with them have similar service opportunities available.

During this Pandemic, online screening for Covid-19 involves asking the appropriate questions, gathering the right answers and a triage plan. Although telehealth providers cannot do a full examination of someone, they can determine whether the patient is at high or low risk and make appropriate recommendations. They can also provide hotlines open 24 hours a day, 7 days a week to review with people the CDC guidelines and reduce the burden on emergency rooms and urgent care centers.

The public health response to this global outbreak has to be as efficient and effective and widespread use of telemedicine is one way to ensure that this will happen. It keeps people who do not need to be exposed to others who may be carriers away from health settings and able to learn all they need to know about their own symptoms and risks so that they can make intelligent choices.