Coronavirus Disease 2019 (COVID-19)

Uses of Telehealth during COVID-19 in Low Resource Non-U.S. Settings

Updated July 21, 2020   Print

Changes in the way that health care is delivered during the COVID-19 pandemic have occurred to reduce staff and patient exposure to sick people, preserve personal protective equipment (PPE), and minimize the impact of patient surges on facilities. Healthcare systems may need to adjust the way they triage, evaluate, and care for patients using methods that do not rely on in-person encounters. Telehealth services help provide necessary care to patients while minimizing the transmission risk of SARS-CoV-2, the virus that causes COVID-19, to healthcare workers and patients.

Telehealth modalities include:

- **Synchronous**: Real-time telephone or live audio-video interaction, typically with a patient, using a smartphone, tablet, or computer.
  - *In some cases, peripheral medical equipment (e.g., digital stethoscopes, otoscopes, ultrasounds) can be used by another HCP (e.g., nurse, medical assistant) physically with the patient, while the consulting medical provider conducts a remote evaluation.*
- **Asynchronous:** The provider and patient communication does not happen in real time. For example, "store and forward" technology allows messages, images, or data to be collected at one point in time and interpreted or responded to later. Patient portals can facilitate this type of communication between provider and patient through secure messaging.
- **Remote patient monitoring:** This allows direct transmission of a patient's clinical measurements from a distance (may or may not be in real time) to their healthcare provider.

What are potential uses of telehealth during COVID-19?

1. **Triaging and screening for COVID-19 symptoms**
   Telehealth can be used to screen for COVID-19 symptoms and assess patients for potential exposure. Phone screening, online screening tools, mobile applications, or virtual telemedicine visits can be used to evaluate patients for COVID-19 symptoms, assess the severity of their symptoms, and decide whether the patient needs to be seen for evaluation, admitted to the hospital, or can be managed at home. Screening algorithms can be used in telehealth communication.For patients who may need to be hospitalized, mobile phones and tablets or other telehealth technology can be used by mobile home health care units, community health volunteers/workers, or emergency services to communicate with healthcare providers at a health facility. Health care providers can use telehealth to conduct a remote evaluation of the patient's medical condition and determine if the patient needs to be in a regular hospital bed or in an intensive care unit. Making this decision remotely can avoid rushing the patient through the emergency room upon arrival at the hospital, limiting the exposure of emergency department personnel and other healthcare workers and preserving PPE.Telehealth can also be used to screen patients before they visit the healthcare facility for non-COVID-19 care. If COVID-19 symptoms are reported during the telehealth interview,

patients could be advised to delay non-emergent care and first seek testing for COVID-19.

2. **Contact tracing**
   Telehealth, especially via phone, can be used to interview patients with COVID-19 to determine who they were in contact with during the time they were potentially infectious, and to follow-up with their contacts to inform them of the need to quarantine, assess whether they have any symptoms, and tell them what to do if symptoms develop.

3. **Monitoring COVID-19 symptoms**
   Patients with mild or moderate COVID-19 symptoms can often isolate and be monitored at home to avoid overcrowding in healthcare facilities and save hospital beds for more severe cases. Using telehealth technology such as phones or apps, healthcare providers can check in with patients frequently to monitor their condition, provide advice, and determine if the patient's condition is deteriorating and they need to be evaluated for in-person care, such as hospitalization.

4. **Providing specialized care for hospitalized patients with COVID-19**
   Patients who are hospitalized with COVID-19 may require care from a diverse team (e.g., nurses, respiratory therapists, physicians). One member of the team can enter the patient's room and consult with the rest of the team using telehealth technology (tablets, phones) to assess the condition of the patient, adjust respiratory and other therapy, adjust the treatment plan, and manage complications.In addition, health facilities can use telehealth to consult with physicians who have specialized training or expertise in respiratory infections like COVID-19. Tele-intensive care unit platforms, which consist of real-time audio, visual, and electronic connections between remote critical care teams (intensivists and critical care nurses) and patients in distant ICUs, can also be used to monitor critically ill patients and provide expert guidance for care. Tele-radiology can also be used to consult with radiologists at remote locations.Telehealth can also be used to provide online training on COVID-19 for medical professionals and healthcare workers.

5. **Providing access to essential healthcare for non-COVID-19 patients**
   Telehealth can be used as a strategy to maintain continuity of care, to the extent possible, to avoid negative consequences from preventive, chronic, or routine care that might otherwise be delayed due to COVID-19 concerns. Telehealth visits can help determine when it is reasonable to defer an in-person visit or service. Follow-up visits can be conducted by phone or internet to reduce the number of in-person visits and overcrowding in outpatient settings. Providers can use internet-based drug prescription and provide multi-month dispensing of medications to further reduce the need for in-person encounters. Remote access can also help assure healthcare access when an in-person visit is not practical or feasible due to COVID-19 concerns.To mitigate stress during COVID-19, mental and behavioral health services can be provided to the population through hotlines or virtual provider-patient visits.

6. **Monitoring recovering COVID-19 patients**
   After COVID-19 patients are discharged from the hospital, healthcare providers can use telehealth technology to follow up with those who might need to continue isolation at home or be monitored for any sudden deterioration or long-term health effects due to COVID-19.

What are potential limitations of telehealth?

- There are certain situations in which in-person visits are more appropriate due to urgency, a person's underlying health conditions, or the fact that a physical exam or laboratory testing is needed for medical decision making.

- Telehealth may not be ideal if addressing sensitive topics, especially if there is patient discomfort or concern for privacy.

- Limited access to technological devices (e.g., phones, tablets, computers) or connectivity on the part of healthcare providers or patients may make telehealth infeasible for some people. This may be especially true for those living in rural settings.

- Depending on the platform used, some healthcare workers or patients may be less comfortable with using the technology, and may prefer an in-person visit.

- In some cultures, virtual visits may not be readily accepted in lieu of in-person visits by healthcare workers or patients.

Resources

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8. Project ECHO: Provides resources to connect frontline healthcare professionals with experts for distance learning and consultation ↗