COVID-19 has resulted in a surge of interest in telehealth. Healthcare organizations are actively exploring how telehealth can be leveraged to expand the availability of care and services while keeping patients and clinicians away from unnecessary COVID-19 exposure.

As facilities are preparing for a surge of COVID-19 patients or plan recovery, building telehealth programs can aid organizations to manage their patient population. A number of different telehealth technologies exist that can support a range of applications such as primary care, specialist consultations, procedure collaboration, tele-ICU, tele-stroke, tele-psychiatry, and remote patient monitoring.

Added flexibility from federal agencies is also making it easier to adopt telehealth in response to COVID-19. Reviewing the six key points outlined below can help you identify the best use cases and the technology to fit your organizations needs.

1. Consider monitoring low acuity COVID-19 patients at home

   - All patients with COVID-19 do not require hospitalization; however, follow-up monitoring of the patient’s condition may still be required. Home monitoring options can be considered as a method to avoid in-person visits to reduce the likelihood of patient and clinician COVID-19 exposure.

   - Home monitoring can also aid in promptly identifying decompensating patients that require hospitalization. Home monitoring use can also help conserve PPE due to fewer in-person encounters.

   - Home monitoring can be as simple as sending the patient home with a pulse oximeter and conducting periodic follow-up phone calls to review the patient’s oxygen saturation and heart rate.

   - Turnkey remote patient monitoring systems that wirelessly communicate data to the clinician may also be configured for this purpose. See RPM section below.

   - More information about the use of home monitoring for COVID-19 patients can be found in the ECRI webinar - Telehealth—Patient Monitoring in the Age of COVID-19

ECRI offers a wealth of resources to help member healthcare facilities transition from the crisis practices instituted during COVID-19 surges, to more routine patient care practices that reflect the “new normal” of maintaining operations in the presence of the SARS-CoV-2 virus. Each article in our COVID-19 Operations Recovery Series highlights an area of concern, outlines some of the key challenges, and offers tips, recommendations, and resources to help you face those challenges in an effective and cost-effective manner.
2. Consumer audio or video chat applications can temporarily be used for telemedicine

- The Office for Civil Rights (OCR) at the Department of Health and Human Services (HHS) has announced it will temporarily allow consumer audio or video chat applications (e.g., Facetime, Skype, Zoom) for telemedicine use.

  - "OCR will exercise its enforcement discretion and will not impose penalties for noncompliance with the regulatory requirements under the HIPAA Rules against covered health care providers in connection with the good faith provision of telehealth during the COVID-19 nationwide public health emergency."

  - Under normal circumstances, the use of consumer audio and video chat applications are generally noncompliant with the HIPAA Security Rule. Any communication applications use for telemedicine would require a Business Associate Agreement with the vendor.

- The purpose of these temporary actions is to accommodate telehealth needs during the COVID-19 health emergency and encourage infection control and outbreak response measures to help control the spread of the infection. [COVID-19] HHS Temporarily Allows Use of Consumer Audio or Video Chat Applications for Telemedicine Use [ECRI Exclusive User Experience Report]

3. Using remote patient monitoring systems in response to COVID-19

- Telehealth remote patient monitoring (RPM) systems are used to enable periodic vital signs monitoring of patients in their home by wirelessly sending information to a database for clinician review. These systems are mainly used to manage patient populations with chronic diseases to reduce hospital readmissions.

  - RPM may also be tailored to monitor low acuity COVID-19 patients at home.

  - RPM systems bring together established physiologic measurement technologies (e.g., blood glucose meters, pulse oximeters, blood pressure meters) and use cellular technology to enable monitoring of patients outside the healthcare setting.

    - Monitoring COVID-19 patients requires at minimum the use of pulse oximeters.

    - A clinician can review the aggregated vital signs data from a large patient group utilizing the RPM system. The RPM system often offers an automated risk stratification algorithm to help the clinician identify deteriorating patients and prioritize them for follow-up.

    - ECRI provides guidance on selecting the best RPM solution to meet your needs: Selecting a Remote Patient Monitoring Solution: 8 Key Considerations as well as a comparative product evaluation for commonly used RPM systems Evaluation Background: Telehealth Remote Patient Monitoring Systems.

4. CMS includes coverage for remote patient monitoring with COVID-19 patients

- In March 2020, CMS established the following CPT codes to cover reimbursement for remote monitoring of patients with COVID-19:

  - CPT Code 99453: Remote monitoring of physiologic parameter(s) (e.g., weight, blood pressure, pulse oximetry, respiratory flow rate), initial; set-up and patient education on use of equipment. (Initial set-up and patient education of monitoring equipment)

  - CPT Code 99454: Device(s) supply with daily recording(s) or programmed alert(s) transmission, each 30 days. (Initial collection, transmission, and report/summary services to the clinician managing the patient)

  - CPT Code 99457: Remote physiologic monitoring treatment management services, clinical staff/physician/other qualified health care professional time in a calendar month requiring interactive communication with the patient/caregiver during the month; first 20 minutes

  - CPT Code 99458: Each additional 20 minutes (List separately in addition to code for primary procedure)

  - CPT Code 99091: Collection and interpretation of physiologic data (e.g., ECG, blood pressure, glucose monitoring) digitally stored and/or transmitted by the patient and/or caregiver to the physician or other qualified health care professional, qualified by education, training, licensure/regulation (when applicable) requiring a minimum of 30 minutes of time, each 30 days.

- CMS reimbursement can make it easier to adopt remote patient monitoring in response to COVID-19.
5. Telepresence carts are available to support various clinical use cases

- Telepresence carts are mobile workstations that allow telehealth to be brought directly to the patient in a satellite clinic or a physician’s office, connecting the appropriate clinicians with patients to perform examinations and diagnoses. Use of telepresence carts can enable facilities to bring needed services to patients while reducing opportunities for COVID-19 exposure.

- Telepresence carts enable organizations to bring clinical expertise to various types of virtual visits such as primary care, specialist consultations, procedure collaboration, tele-ICU, tele-stroke, and tele-psychiatry.

- Various configurations are available and purchasing guidance can be found from Telepresence Carts: Key Purchasing Considerations

6. Cybersecurity risks should be considered for connected devices at home

- Connected devices used in the home must be protected against threats that could interrupt the flow of data, alter or degrade the device’s performance, or expose protected health information. A cybersecurity issue that interrupts the transfer of data to the healthcare provider, for example, could lead to misdiagnosis or a delay in care.

- Cybersecurity risks due to connected home healthcare environment are featured in the ECRI Top 10 Health Technology Hazards list for 2020 including actionable recommendations - Cybersecurity Risks in the Connected Home Healthcare Environment

Learn more: www.ecri.org
Contact us: clientservices@ecri.org

ECRI Resources

- Telepresence Carts: Key Purchasing Considerations
- Telehealth—Patient Monitoring in the Age of COVID-19
- Evaluation Background: Telehealth Remote Patient Monitoring Systems
- Evaluation: ForaCare iFORA MP with HealthView Telehealth Remote Patient Monitoring System
- Evaluation: Honeywell Genesis Touch with LifeStream Telehealth Remote Patient Monitoring System
- Evaluation: Vivify Health Pathways Home Telehealth Remote Patient Monitoring System
- Selecting a Remote Patient Monitoring Solution: 8 Key Considerations
- ECRI Top 10 Health Technology Hazards list for 2020 - Cybersecurity Risks in the Connected Home Healthcare Environment

About ECRI

ECRI is an independent, nonprofit organization improving the safety, quality, and cost-effectiveness of care across all healthcare settings. With a focus on patient safety, evidence-based medicine, and health technology decision solutions, ECRI is the trusted expert for healthcare leaders and agencies worldwide. The Institute for Safe Medication Practices (ISMP) is an ECRI affiliate. Visit ecri.org and follow @ECRI_Org.