Remote Patient Monitoring: What Your Health Center Needs to Know

Remote patient monitoring (RPM), considered a type of telehealth, encompasses a variety of technologies designed to monitor health status. RPM can be used to facilitate management of conditions such as diabetes, high blood pressure, congestive heart failure (CHF), atrial fibrillation, chronic obstructive pulmonary disease (COPD), obesity, and pregnancy. RPM also supports individuals with disabilities and concerns related to aging and limited mobility; with potential for reducing hospital admissions, readmissions, and length of stay; and improving health behavior interventions. RPM also provides insight into a patient's adherence to treatment and can enable more timely interventions.

Handheld medical devices (i.e., glucose meters and heart rate monitors), consumer-grade wearables, smartphones, tablets, and other mobile devices can be used to acquire, transmit, process, store, and retrieve health-related data to facilitate real-time information exchange and increased coordination of care. RPM can also address barriers to accessing care, such as lack of transportation, and encourages patients to take a more active role in their care.

During the COVID-19 pandemic, RPM was recognized as an essential health service by providing vulnerable patients with increased access to routine care. Data from the National Association of Community Health Centers (NACHC) also demonstrates how community health centers have rapidly adapted to telehealth technologies. For more detailed information related to Federal Tort Claims Act (FTCA) coverage for telehealth and other remote care services, see PAL 2020-01—Telehealth and Health Center Scope of Project and HRSA's COVID-19 Frequently Asked Questions (search for "Telehealth").

In March 2020, the Centers for Medicare and Medicaid Services (CMS) expanded Medicare coverage for RPM to patients with acute conditions. In addition, the U.S. Food and Drug Administration (FDA) introduced a new policy allowing FDA-approved noninvasive devices for monitoring vital signs in remote settings to reduce patient and healthcare provider contact and exposure for the duration of the COVID-19 public health emergency. In January 2021, CMS issued updated guidance on the rules for RPM services, improving reimbursement and coverage, including the need for innovative uses of technology in federally qualified health centers. At the same time, the Health Information Technology, Evaluation, and Quality (HITEQ) Center, under contract to the Bureau of Primary Health Care, published comprehensive guidance on the use of RPM in patient care.

While RPM provides numerous benefits for patient care, it is also important to recognize potential liability risks and safety concerns. Health centers and free clinics can use the following checklist to identify appropriate RPM services and address risk management considerations to ensure safe and effective implementation.

1. Types of Remote Patient Monitoring

☐ A. Understand the different types of RPM available, which include:

- Blood pressure self-monitoring has many benefits including decreasing the risk of heart attack, stroke, kidney disease, and heart failure.
- Self-monitoring of blood glucose alerts clinical teams about medications, diet, and exercise, and how daily activities, stress, or illness can affect blood glucose levels.
- Remote anticoagulation testing enables patients and providers to collaboratively monitor therapeutic ranges of laboratory values and medication, provides better anticoagulation control, and improves quality of life by decreasing frequency of lab visits.
- Ambulatory cardiac monitoring, including remote electrocardiography and heart rate monitors, such as handheld or wearable devices, can help detect potentially life-threatening arrhythmias and myocardial ischemia, as well as assess the effectiveness of certain heart disease treatments, such as a pacemaker and pharmacological interventions.
- Pulse oximetry and spirometry allow clinicians to virtually monitor a patient's lung condition, such as asthma, COPD, cystic fibrosis, and other respiratory diseases, including those diagnosed with COVID-19.
- Remote technologies that monitor patient weight, nutrition, and physical activity such as wearable devices, smart scales, and smartphone applications can be used for the management of obesity, as well as congestive heart failure for medication dosing.
- Remote patient monitoring associated with medication management, including monitored in-home dispensing devices and smartphone applications can help facilitate real-time communication between patients and providers to identify adverse drug events and address issues with compliance.

☐ B. Health centers and free clinics should be prepared to understand different levels of technology for RPM, such as:

- Low tech devices which only obtain a local reading and do not have the ability to transmit data to medical professionals.
- High tech devices which have the ability to transmit data through Bluetooth, Wi-Fi or cellular connections and provide patients with automated feedback.

☐ C. Stay informed on evolving technologies and future RPM devices and evaluate management considerations and other factors (e.g., demographics served and health literacy) when considering their use.

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2. Considerations for Device Selection

☐ A. Identify what type of monitoring is most important to your practice, patient population, and clinical workflow.

☐ B. Assess how the RPM system interfaces with your existing technology (e.g., electronic health record [EHR] software and/or revenue cycle management solution).

☐ C. Select technology that is easy for both patients and clinicians to use, including identifying whether devices use cellular or Bluetooth technology.

- Cellular devices typically involve simple set up and use, only requiring patients to insert batteries and turn the device on.

- Bluetooth devices may require the completion of more steps, which could include downloading and installing a smartphone app, connecting the device to the smartphone, and ensuring the smartphone can access Wi-Fi.

☐ D. Consider choosing vendors that provide your health center and patients with device setup instructions, ongoing educational support, and continuous quality control, including information on device verification and validation.

☐ E. Utilize a formal checklist or vendor intake form (see "Selecting a Vendor Guide" on page 76) to determine implementation criteria.

☐ F. Refer to the HITEQ Center's Health App Analyzer to help determine whether a particular health app is the best fit for a specific patient or a health center's patient population, as well as for facilitating data accuracy, continuous improvement of clinical performance, and customization.

☐ G. Consult with healthcare information and technology professionals at your health center, as well as professional societies, such as the Healthcare Information and Management Systems Society, Inc. for implementation recommendations.

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3. Clinical Policies and Workflow

☐ A. Determine patient population and appropriate patient selection by identifying patients who:

- Are actively engaged in their care plan and seeking opportunities to improve
- Have a sound understanding of digital technology
- Have strong caregiver support

☐ B. Seek out colleagues within your practice or at practices similar to yours who have previously implemented RPM for guidance.

☐ C. Define expected goals and outcomes that are most appropriate for assessing progress and success, including those that align with the Uniform Data System, Electronic Clinical Quality Measures, and existing chronic disease programs in your health center.

☐ D. Appoint a health center champion and designate "super users" who can act as ongoing trainers for other staff.

☐ E. Determine who will be responsible (see "RPM Clinical Roles and Responsibilities" on page 90) for identifying and enrolling patients, tracking eligible patients, fielding patient phone calls, supporting patient troubleshooting, and reminding patients to participate.

☐ F. Solicit vendor representatives to provide staff training and written and/or video training materials (e.g., scripts, guides, reference documents).

☐ G. Dedicate sufficient nonphysician staff to operate the program, including the use of pharmacists for blood pressure monitoring and medication management programs.

☐ H. Develop a comprehensive set of policies and protocols that outline the following:

- Informed consent (see page 18) and authorization process advising patients regarding equipment choice
- Hours of availability and operation of RPM services (consider having patient sign and acknowledge), of physician/provider "available hours," and the limitations of remote monitoring
- Process for receiving, reviewing, and integrating the data into the medical record (for example when, how often, and who reviews the data, and if the designated person is unavailable, who covers for them?)
- Guidelines for physician notification and communication of results, including the communication of abnormal and critical values
- Standard on which information should be added to the patient's EHR, used for the patient's diagnosis or treatment, and which additional testing should be ordered if there is concern over accuracy of the patient-generated health data
- Documentation of result follow-up

- Verifying device quality control and accuracy of data

☐ I. Hold standing meetings dedicated to RPM.

☐ J. To ensure FTCA liability coverage, ensure all RPM services fall within the health center's approved scope of project and within the healthcare provider's scope of employment. (Refer to PAL 2020-01—Telehealth and Health Center Scope of Project and HRSA's COVID-19 Frequently Asked Questions [search for "Telehealth"]). If appropriate, also contact your medical liability carrier to discuss any change in your practice related to RPM.

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4. Patient and Caregiver Engagement

☐ A. Assess for readiness to learn by asking patients and caregivers how they prefer to receive education. This may help them feel like they are in greater control of their experience and may alleviate some concerns about using a new technology.

☐ B. Consider the patient's demographics and social determinants of health (SDOH) such as age, education, and where they live. Address barriers and plan for interventions that increase access to and knowledge about technology, especially in older adults.

☐ C. Educate patients and caregivers on how to use the device, including:

- What is required to set up and use their device and where they should go for any technical assistance
- What device failure or malfunction looks like, and what the patient should do if that happens
- How to recognize and report potentially inaccurate information

☐ D. Provide information about RPM services on your practice's website, including resources for setup, maintenance, and troubleshooting.

☐ E. Consider having the patient bring the device to an office visit to evaluate how they use it, and compare device results with office-based findings.

☐ F. Foster health literacy by using patient education strategies, such as motivational interviewing and teach back to help improve understanding of the treatment plan and outcome goals associated with RPM.

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5. Privacy, Data Security, and Compliance

☐ A. Thoroughly review the security profile of potential vendors and related third parties to limit vulnerabilities in the host system and other interconnected systems.

☐ B. Ensure that the health center and RPM vendor have a Business Associate Agreement (BAA) in place before protected health information is shared.

☐ C. Ensure that the RPM device company has Health Insurance Portability and Accountability Act of 1996 (or HIPAA) compliant processes for safeguarding protected health information, such as:

- Encrypting patient information both when the device is at rest and when the information is in transit
- Use of passwords or other user authentication

☐ D. Include information on RPM technology in your notice of privacy practices to patients.

☐ E. Follow FDA guidelines for managing cyber risks associated with medical devices connected to the internet and device software for mobile medical applications, as well as consumer security information from the Federal Trade Commission.

☐ F. Include RPM equipment in your organization's security management plan and annual security risk assessment. Ensure that all employees who participate in telemedicine/remote monitoring services have received telemedicine-specific healthcare privacy and security training.

☐ G. Encourage patients to maintain physical control of all mobile devices associated with RPM.

Notes:

Want to learn more? Refer to the Practice Alert Managing Risks Associated with Telehealth Programs and Get Safe! High Efficiency or High Risk? Using Technology to Communicate with Patients.

Additional resources include Health and Human Services' Million Hearts Hypertension Control Change Package, NACHC's Self-measured Blood Pressure Monitoring Implementation Guide for Healthcare Delivery Organizations for tools to monitor patient outcomes and process improvement, as well as CMS's Telehealth for Providers: What You Need to Know.

Clinical Risk Management Program resources are provided for FREE by ECRI on behalf of HRSA. Don't have access or want to attend a free, live demonstration of the website? Email Clinical_RM_Program@ecri.org or call (610) 825-6000 ext. 5200.

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