

# Remote Patient Monitoring Commonly Used Medical Devices



- **Continuous Glucose Monitor (CGM):** Remind diabetes patients to take their insulin, while allowing their physician to monitor the disease.
- **Digital Blood Pressure Monitors:** Enables patients to remotely send physicians their blood pressure and blood oxygen levels.
- **Anticoagulation Testing Device:** Requires just one drop of blood and about one minute to yield results. Patients then send the gathered information to their providers and await instructions on how to proceed with treatment.
- **Electrocardiography (ECG) Device:** RPM devices records electric impulses from a patient's heart and transmit them to a clinician in real-time—even during endurance or sports training. Whether in handheld, wearable, or patch form, these devices can help detect life-threatening conditions. ECG can catch symptoms of arrhythmia, myocardial ischemia, and ST depression— they may even alert clinicians to cardiac chamber abnormalities and drug toxicities.
- **Heart Rate Monitors:** Portable mobile devices automatically record and transmit a patient's heartbeat data during errands, exercise, stressful events, and even sleep—which helps clinicians detect both symptomatic and asymptomatic arrhythmias, as well as atrial fibrillation after cardiac ablation. They have also helped clinicians diagnose and treat syncope and presyncope.
- **Medical Alert Systems:** These wearables can help prevent death after a fall, as they enable immediate intervention by alerting the wearer's clinician, emergency personnel, and their nearest caregiver or family member of what has happened.
- **Maternity Care Monitoring:** The number of required clinic visits goes down when pregnant women can have virtual visits with a nurse who instructs them on the use of an automatic blood pressure cuff, hand-held Doppler monitors, and weight monitors.
- **Pediatric At-Home Monitoring:** Remote patient monitoring devices allow family priorities and goals to take center stage. Every time a child begins a new protocol or prescription, parents can track positive and negative effects—and report the information to their clinicians straightaway. They can also track behavioral data on exercise, pain, mood, and sleep patterns, which are especially important when managing behavioral challenges. Data is presented in colorful graphs and charts that enable families to view and discuss key patterns with their providers.
- **Pulse Oximeter:** These non-invasive clips are typically attached to fingers or earlobes to measure light wavelengths that determine blood oxygen levels. The light measures the proportion of hemoglobin in oxygen-saturated blood. Pulse oximeters also take a patient's pulse. These devices have been used for decades by people with chronic heart or lung issues, and by people who supplement oxygen to adjust their flow. That is why

they are especially helpful in detecting declining lung function (which, these days, may prompt a COVID-19 test). Athletes also use them for fitness monitoring.

- **Smart Scale:** To manage patient's weight, when clinicians receive this information on their remote patient monitoring device, they can act quickly: prescribe a diuretic, increase a current medication dosage, or call the patient in for a visit.
- **Medication Monitoring:** Intelligent connected pill dispensers now come with patient management portals that connect patients and providers. This real-time communication can prompt patients to take their medication at the right time of day and in exactly the prescribed dosage to prevent adverse drug events (ADEs). Remote patient monitoring devices are especially helpful for psychologists, whose patients often require continual prescription monitoring and adjusting.
- **Patient Wearables:** Patient wearables can cut down on the amount of time clinicians have to spend seeing patients—allowing them to track and respond to patient medical data quickly, in real-time. Patient wearables can track heart rate, blood pressure, glucose levels, weight gain and loss, and even stress to help clinicians deliver customized, data-driven care to patients sitting comfortably at home.