



The Ultimate **Remote Patient Monitoring** Guide

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What is Remote Patient Monitoring?



Remote Patient Monitoring (RPM) is the best way to continuously track patients' health and bring additional revenue to practices. RPM works to prevent health emergencies and manage current chronic conditions. From blood pressure to blood glucose, patients have seen incredible results while measuring their biometrics from the comfort and safety of their home.

Practitioners not only benefit financially from remote patient monitoring programs, but are also able to track their patients between sporadic doctors office visits. With additional data, practitioners can make more informed decisions when it comes to treatment and medication. Managing chronic illnesses has never been so easy — learn how RPM can benefit your practice and your patients today.

Remote Patient Monitoring bridges the gap of effective communication, trust, and support between medical providers and Medicare patients. By definition, RPM is a program in which healthcare providers receive and review data from remote patients through connected medical devices. This data is collected and securely transmitted from devices directly to providers. This process mitigates time and resource constraints on providers while relieving the stress of travel and doctor visits on patients. As a subset of telehealth, RPM is a rapidly evolving program whose growth is encouraged and sustained by platforms like 100Plus. Let's talk about how this evolution can benefit your patients and benefit you as a medical provider:

Benefits of Remote Patient Monitoring

Patient benefits of Remote Patient Monitoring

For your patients, Remote Patient Monitoring is a life uninterrupted by appointments, exhaustive travel, phone calls, and confusing patient portal systems. With access to free, easy-to-use medical devices that automatically transmit data to providers, patients can be monitored on a daily basis; making it possible for medical providers to identify potential risk and illness proactively. This proactive approach helps to prevent emergency room visits, readmissions, and can even work to extend patients' time at home rather than placing them in nursing facilities. With no cost, easy access to devices, and no manual data entry, patients are granted support and individuality from the comfort of their homes.

Medical provider benefits of Remote Patient Monitoring

For medical providers, RPM provides a constant and sustainable stream of revenue.

Companies such as 100Plus are making it even easier for RPM to sustain smaller clinicians with additional revenue by providing a model that eliminates upfront costs. A monthly service fee in lieu of initial outlay allows providers to utilize the RPM technology immediately without upfront payment.

Why start Remote Patient Monitoring now?

By utilizing RPM, medical providers can bridge the gap between clinicians and patients, no matter the distance between them. With RPM, Clinicians and patients alike are given the opportunity to build a foundation of effective communication, trust, and support from the comfort of their respective homes. Remote Patient Monitoring (RPM) represents the future of accessible and affordable healthcare for senior patients.

What does a comprehensive Remote Patient Monitoring program include?

When looking for the right Remote Patient Monitoring program for your practice and your patients, it can be difficult to choose. While many companies offer RPM programs, it's important to know what makes one program a better fit over another. A comprehensive RPM offering should include all of the following:

No upfront costs

RPM programs should offer free sample devices for practices and no cost devices for patients; allowing practices to test drive their product without requiring a credit card or alternative cost.

White Glove setup

White Glove setup consists of patient outreach, education, and enrollment. RPM programs should automatically identify eligible patients within your practice who would benefit from the use of remote monitoring devices. Once identified, your program should also obtain patient consent, send fully configured and functioning RPM devices directly to the patient, and train them on their devices best practices.

Rapid scaling

An RPM program's ability to scale your patients is essential when it comes to expanding your practice and revenue. Onboarding your entire patient population in a matter of days may be crucial for patients who require immediate remote monitoring.

Medicare eligibility checks

Even if a majority of a practice's patient population fall under the umbrella of Medicare, they may not all be eligible for Remote Patient Monitoring. Your ideal program should check your patient population for you and only contact those that are willing and able to participate in the RPM program.

AI assistance

The future of healthcare lies in the hands of artificial intelligence. Though AI assistance is not offered by the majority of RPM programs, it is necessary when it comes to giving your patients the best care possible and running your practice efficiently. AI virtual medical assistants handle scheduling, coaching, and daily patient reminders so that practitioners can focus solely on caring for their patients.

Predictive Population Health Management (PHM)

Population Health Management, or PHM, is critical in the process of monitoring remote patients. When patients record measurements that fall outside of a safe range, PHM immediately alerts medical staff so that patients at risk are always prioritized. Predictive PHM goes a step further to guarantee the health and safety of patients by alerting medical staff of potential emergencies in order to prevent patients from drifting out of their safe range.

No cost, ready to use, integrated cellular devices

With the right RPM program, remote monitoring devices should come at no cost to the patient or practitioner. They should also be ready to use upon arrival and be equipped with integrated cellular capabilities so that patient data can be transmitted to practitioners safely and quickly without the need to plug any device in or manually enter data into a patient portal.

Automatic transmission of data without user intervention

Recording patient data at home should require no user intervention. The proper RPM program should supply your patient population with devices that automatically transmit data to their providers so that practitioners can stay informed and patients can focus on measuring their biometrics.

Finding the right RPM for you

These factors are crucial when considering the appropriate RPM program to implement into your practice and your patients lives. The best RPM program for you is the most comprehensive, most supportive, and most thorough one available. When it comes to the health and safety of your patients and the wellbeing of your practice, you want a RPM program that works as hard as you do.

Why Remote Patient Monitoring should be an essential part of telemedicine

RPM provides the longitudinal patient health data in realtime that is needed for the care management of patients with chronic conditions

Addressing a growing need for senior care at home, virtually

Most seniors suffer [at least one chronic condition](#), have [limited financial resources](#), and significant [technology barriers](#), making it difficult for them to get care when they need it. Providing care to this population, by monitoring and treating their chronic conditions, is critical for their health and our healthcare system. If their [conditions](#), such as diabetes, obesity, and congestive heart failure, become unmanaged, it can result in potentially catastrophic and expensive outcomes, further stressing the healthcare system.

Addressing a growing need to serve seniors at home, virtual care, including telemedicine and remote patient monitoring, has come to the forefront as an effective method of managing chronic conditions of seniors and improving outcomes.

What is telemedicine?

Telemedicine encompasses [two-way, real-time communication between patients and healthcare providers](#), including phone conversations, video, and chat. There are various telemedicine software and technology that make electronic consultations, real-time interactions between providers and patients. With recent technological innovation in the telemedicine industry, many healthcare providers are starting to adopt videoconferencing for care management, diagnosis, counseling, and monitoring of patients.

What role does RPM play in telemedicine care?

While telemedicine eliminates the barriers of transportation and distance, telemedicine on its own just covers a virtual conversation between a healthcare expert and patient about past health data and described symptoms. RPM data and population health alerts on the other hand provide real-time information about when at-risk patients' results are out of a defined range to allow practitioners to rapidly intervene and the facts necessary to have an informed patient appointment.

To fully utilize telemedicine consultation, physicians need data about their patients' conditions to understand who needs to be attended to and who needs intervention. Remote Patient Monitoring provides that missing data to better inform providers to provide optimal care for their patients. The real-time patient data informs a telemedicine visit and assists healthcare providers in ensuring a patient is in compliance - all without an office visit.

Remote Patient Monitoring (RPM) Solutions Providers

Remote Patient Monitoring has become more sophisticated in recent years. Technology and devices being used are more innovative than they used to be. For example, 100Plus offers a comprehensive RPM solution that enables providers to receive patient health data as a fully automated charting experience and automated patient health alerts whenever the patient's data is out of the normal range. They send the monitoring hardware directly to the patients all set up with cellular capability so patients just have to use the device. Then the data automatically uploads to the provider chart area in the web-based online provider portal. Providers will have access to their provider portal online anytime. 100Plus also sends automatic

population health alerts to the providers whenever their patient data is out of the normal range so the providers can check their patient data history and provide the care to avoid costly ER visits. Patients use RPM devices at home or on the go to share health information like blood pressure, weight, and temperature with their healthcare provider. With an RPM platform such as 100Plus, healthcare providers can reduce episodic care and improve patient care by continuously monitoring high-risk seniors in your population.

Remote Patient Monitoring enables providers to serve their patients with chronic conditions such as diabetes, obesity, and congestive heart failure via cellular-connected devices and receive longitudinal data in perpetuity. The output informs a telemedicine visit and assists healthcare providers in ensuring a patient is in compliance – all without an office visit.

Remote Patient Monitoring also alerts providers when patients are out of compliance, enabling a provider to intervene with the goal of avoiding expensive, episodic care – all without an office visit and thus alleviating stress on the health system.

Telemedicine on its own solves part of the problem, but remote patient monitoring ensures that practitioners are not flying blind during telemedicine visits. Doctors and other healthcare providers can now have access to real-time patient data to inform their decisions, making virtual care a true reality for seniors at home.



The economics of Remote Patient Monitoring for your practice

The Centers for Medicare and Medicaid Services (CMS) has taken steps to make it easier for practices to provide this type of care to their patients by introducing new CPT codes and removing barriers to entry. Among these are the Remote Physiologic Monitoring CPT codes for care services that help improve outcomes of Medicare patients with chronic conditions while providing additional revenue streams for medical practices.

In 2019, Medicare introduced reimbursement for RPM, often making it no cost to seniors with at least one chronic condition¹. Even during “normal times,” going to a medical office or clinic for seniors has been logistically challenging, as approximately half have transportation barriers to get to their doctor.

In addition to these pandemic driven CMS decisions, they have made [other recent notable decisions](#). The two most hotly anticipated changes for providers include:

- The decision to allow RPM to be furnished “incident to” under general supervision.
- The addition of CPT Code 99458: a new add-on code for patients who receive an additional 20 minutes of RPM services in a given month (i.e., 40 minutes of RPM service, rather than the previously allowed 20 minutes).

These changes have expanded how healthcare providers can treat their patients using RPM. They can now treat their chronic care patients not only using traditional CCM codes, but they can provide a wider array of care options with RPM and spend more time on that care with the addition of CPT 99458. CMS also expanded who is empowered to provide RPM care to patients, enabling practice nurses and staff to take on the process of monitoring patients’ data and escalating that information if a patient’s health information indicates a need for intervention.

Typically, physicians are the highest-paid employees in a practice, so enabling other staff members to perform RPM tasks increases the return on investment in the program and frees doctors to focus on making the best healthcare decisions for their patients.

1. Subject to co-payment.



Billing for Remote Patient Monitoring CPT Codes in 2021

CPT codes or, current procedural terminology codes, are crucial

not only in the process of incorporating Remote Patient Monitoring into your practice, but getting properly paid for your Remote Patient Monitoring services. CPT codes are used to bill Remote Patient Monitoring to Centers for Medicare and Medicaid Services (CMS). These codes translate into revenue, making Remote Patient Monitoring a sustainable and financially beneficial program for small and medium size medical providers.

In 2021, CMS has expanded the role of remote patient monitoring, including building on CPT codes, adding a wider variety of the types of clinicians who can perform Remote Patient Monitoring tasks, and more. Now that CMS has made the program more robust, it's important to understand how to bill for these services.

CMS has expanded its Remote Patient Monitoring Program and Billable CPT Codes

The most recent and important changes in Remote Patient Monitoring revolve around CMS clarifying what exactly defines billable services and what qualifies as an Remote Patient Monitoring service in 2021. The most recent CPT code book has defined Remote Patient Monitoring devices as medical devices that automatically collect and transmit patient data for the purpose of treatment and diagnosis. To bill some of these CPT codes, 99453 and 99454 specifically, the Remote Patient Monitoring must consist of at least 16 days worth of data within a 30 day period. While the COVID-19 Public Health Emergency (PHE) is in effect, CMS is requiring fewer than 16 days worth of data within a 30 day period as long as all requirements are met. The first of these, 99453, "can be billed only once per period of care, defined as "beginning when the remote physiologic monitoring service is initiated and ends with attainment of targeted treatment goals."

What are the Remote Patient Monitoring CPT Codes you need to know?

CPT code 99453

compensates providers for any time associated with onboarding and educating a patient while a clinical staff member sets up the necessary Remote Patient Monitoring devices. With 100Plus, providers can earn \$24.58 per one time patient under this code.

CPT Code 99453 is the billing code for setting up patients with Remote Patient Monitoring devices. It reimburses providers for the time it takes to set-up devices and educate patients on how to use their new at home monitors. This code is different from some of the other CPT codes because it is used only once for every patient rather than a monthly or annual billing code. CPT Code 99453 comes with its own set of rules and qualifications that are mapped out here in this comprehensive guide.

How does CPT 99453 relate to Remote Patient Monitoring?

CPT Code 99453 is a billing code that compensates providers for onboarding, initial device set-up, and patient education while setting up Remote Patient Monitoring devices. With 100Plus, providers can earn \$24.58 per one time patient under this code².

2. Potential earnings for CPT code 99453 for 94105 zip code

What services are required for CPT 99453?

The services required for CPT 99453 as specified by Medicare guidelines are: the initial set-up and initial patient education on use of equipment. Medicare additionally requires that a member of the clinical staff or under the supervision of the primary physician spend time helping the patient set up and become comfortable with device use.

Who qualifies for CPT 99453?

The eligible population for RPM has grown significantly in the past couple of years, this includes patients who now qualify for the CPT Code 99453. Remote Patient Monitoring was previously limited to Medicare patients with chronic conditions who were already established with their primary physicians and clinicians, thus preventing new patients from being added to the program without an initial in-person visit.

Due to the current public health emergency, these initial in-person visits are no longer available to some, thus doctors can now use remote communication for first time visits to establish a virtual relationship with Medicare patients suffering from chronic conditions.

What devices are used for CPT Code 99453?

The major devices used for code 99453 are:

- Blood Pressure Cuff
- Pulse Oximeter
- Blood Glucose Monitor
- Digital Thermometer
- Digital Weight Scale

Does CPT Code 99453 cover the device cost?

For billing, CPT Code 99453 will only cover the cost of the time spent setting up the device and educating the patient on device use. Cost and shipping of RPM devices will not be reimbursed.

How much does Medicare reimburse for 99453?

As of this year, 2021, the average amount that Medicare will reimburse providers for CPT Code 99453 is \$19.90.

How often can you bill for CPT Code 99453?

CPT Code 99453 is unique in that it is an initial billing code that can only be billed once per patient during the device set-up period. Other codes, such as CPT 99454 and CPT 99457 can be billed monthly for continuous service costs, device supply, and treatment services.

How do practices get paid for Remote Patient Monitoring with CPT Code 99453?

Providers can get paid for their Remote Patient Monitoring work by using CPT Codes. For CPT Code 99453, billing for the initial set-up of RPM, the primary physician or clinician of the patient must order the set-up. Providers can then bill for this code once per patient. CPT Code 99453 requires 16 days of patient data readings during a 30 day billing period.

Can a third party deliver CPT 99453 services on behalf of the practice?

Yes, a third party Remote Patient Monitoring partner can deliver CPT 99453 services on behalf of the practice, so long as it is supervised by the primary provider. These third party partners can educate patients on device set-up and use. Utilizing a third party partner that specializes in Remote Patient Monitoring, like 100Plus, can alleviate stress from and help physicians and clinicians to run crucial and efficient Remote Patient Monitoring services.

Can a single patient have multiple RPM devices under CPT 99453?

Yes, a single patient can have multiple RPM devices under the CPT Code 99453, but providers can only bill for the set-up of one device. This code is used to bill for the initial set-up and education of the patient regardless of the amount of devices they are using.

Do RPM devices have to be FDA certified for CPT 99453?

As of 2021, the Physicians Fee Schedule Final Rule has clarified which RPM devices are considered to be acceptable medical equipment for Medicare patients. Devices for CPT Code 99453, however, do not need to be specifically FDA-approved. Instead, Medicare specifies that the devices meet the FDA's definition of a medical device as described in Section 201(h) of the Federal, Food, Drug and Cosmetic Act.

By this standard, the device must:

- Automatically upload patient data to primary physicians and clinicians
- Be relevant to the treatment plan for the patient's condition
- Collect and transmit data in an accurate and reliable manner

Who must do the work for each Remote Patient Monitoring service?

The work for each Remote Patient Monitoring service must be ordered by the patient's primary physician or clinician and they must be monitored for at least 16 days before providers can bill for CPT code 99453. Use CPT Codes like 99453 to keep your patients monitored and providers paid. With no hassle patient onboarding, no upfront costs, and full support for physicians, clinicians, and patients alike, 100Plus makes Remote Patient Monitoring easy. Schedule a demo today to learn more about billing for Remote Patient Monitoring CPT Code 99453

CPT Code 99454

reimburses providers for supplying said patient with a Remote Patient Monitoring device for a 30-day period. 100Plus clients can take in \$990 per patient annually using this CPT code.

CPT Code 99454 is the billing code for supplying and monitoring patients with remote patient monitoring devices. The code reimburses providers for the continuous supply of devices and remote patient monitoring.

This code can be billed monthly, but only once per patient, per month, regardless of how many devices the patient has. CPT Code 99454 comes with a unique set of rules and qualifications broken down here in this comprehensive guide.

What services are required for CPT 994534?

CPT Code 99454 services cover continuous device supply and patient monitoring. This code also covers costs associated with leasing a remote patient monitoring medical device.

Who qualifies for CPT Code 99454?

All remote patients covered by Medicare qualify for CPT Code 99454. The expansion of the remote patient population that came with COVID-19 pandemic, allowed even more Medicare patients to qualify for these CPT codes.

What devices are used for CPT Code 99454?

The major devices used for code 99454 are:

- Blood Pressure Cuff
- Pulse Oximeter
- Blood Glucose Monitor
- Digital Thermometer
- Digital Weight Scale

Does CPT Code 99454 cover the device cost?

For billing, CPT Code 99454 covers the monthly servicing costs of devices and treatment services.

How much does Medicare reimburse for 99454?

Under CPT 99454, clinicians and physicians can be reimbursed \$62.80 for supplying devices and Monitoring.

How to get reimbursed for Remote Patient Monitoring with CPT Code 99454?

Providers can get paid for their Remote Patient Monitoring work by using the right CPT Codes. For CPT Code 99454, monthly billing for supplying devices and monitoring patients, the primary physician or clinician of the patient must order the devices. The primary physician or clinician also needs to provide invoices for the cost of the devices and services related to the devices. CPT Code 99454 requires 16 days of patient data readings during a 30 day billing period.

CPT Code 99457

compensates for time spent monitoring physiologic parameters (weight blood pressure, pulse oximetry, and respirator flow rate, for example). This comes in at about 20 minutes per calendar month and can earn providers \$736 per patient annually.

CPT Code 99458

is an add-on to code 99457 that reimburses providers for each additional 20 minutes per month of interactive monitoring. This code can provide up to \$1,174 per patient annually to medical providers.

CPT code 99091

focuses on data collected within a 30-day period to be analyzed remotely by a physician or medical provider. While this CPT code is still considered valid by the CMS, the codes listed above better represent the various situations that require billing. This code cannot be billed in the same calendar month as 99457 and 99458.

Who can perform and bill for Remote Patient Monitoring services?

Remote Patient Monitoring services can be provided by companies like 100Plus who deliver, set up, and maintain Remote Patient Monitoring devices. These services can be performed and billed by clinicians and medical providers to CMS by way of CPT codes.

Who qualifies for Remote Patient Monitoring services?

Another major change within Remote Patient Monitoring services is expansion of the eligible population. Medical providers can now conduct Remote Patient Monitoring without an initial new patient visit and evaluation. Remote Patient Monitoring was previously limited to established patients. Due to the current public health emergency, that rule has been amended so doctors can use remote communication for face-to-face visits to establish a virtual relationship.

How can your practice benefit from billing for remote patient monitoring CPT codes?

Billing for Remote Patient Monitoring via these CPT codes is a great way for small and medium size medical providers and practices to take in additional income and increase revenue. With the Remote Patient Monitoring and CPT code changes made by CMS, providers can now obtain and sustain additional automated revenue without any in-person interaction.



How can Remote Patient Monitoring impact Hypertension?

Remote Patient Monitoring devices can track hypertension more accurately and closely than most doctors' offices are able to in a traditional office visit setting. [Research](#) has shown that Remote Patient Monitoring can reduce both systolic and diastolic blood pressure when compared to typical care plan and self monitoring. With continuous measurements and monitoring, the once silent killer can be detected earlier and treated with more personalized care.

What is remote hypertension pressure monitoring?

Hypertension, also known as high blood pressure, is a condition in which the prolonged force of blood flow against artery walls is high enough to cause health complications, the most common being heart disease. [Nearly half of all adults in the US suffer from hypertension](#). Hypertension can be caused by underlying or preexisting conditions as well as by lifestyle factors such as:

- Diet
- Weight
- Stress
- Alcohol consumption

It is often referred to as the silent killer because many individuals do not experience or exhibit any symptoms. Early detection is crucial in the treatment of hypertension — this is where remote patient monitoring can become a crucial part of patient care. Remote hypertension monitoring is the process by which patients measure their blood pressure with at home monitoring devices. Remote Patient Monitoring allows those measurements to be automatically transmitted to clinicians in order to track patient data.

[Studies](#) have shown that, when it comes to device design, user-centered Remote Patient Monitoring technology appeals to a wider range of ages, health statuses, and digital literacy levels, and also increases patient satisfaction. Patient usability in devices is one of the most important factors in Remote Patient Monitoring. Devices that are poorly designed and inaccessible to patients can result in an [increase in user errors as well as low uptake and adherence rates](#).

How can Remote Patient Monitoring help hypertension?

Hypertension requires personalized and closely monitored care that, prior to remote patient monitoring, was unavailable to clinicians and their patients. RPM technology allows clinicians to gather more patient data from a distance, helping them to better understand, manage, and treat their patients' hypertension.

Many times, one-off readings taken sporadically at doctors offices are inaccurate or insufficient when identifying and tracking hypertension. Continual blood pressure readings are essential, even after diagnosis, in order to prescribe the correct medication and dosage. [Studies](#) have shown that self monitoring, when employed by practitioners with the intent of prescribing the correct medication and dosage to patients, led to significantly lower blood pressure in patients.

[Remote Patient Monitoring companies](#) make it easy for patients to use at home monitoring devices to keep track of their blood pressure and make it even easier for clinicians to access their patients' data. By employing [best practices when measuring their blood pressure](#), patients can depend on efficient and accurate readings from the comfort of their home.

What happens if a patient's blood pressure is too high?

Not only does RPM enable clinicians to monitor and access patient data, but it allows for early detection and intervention in the case of high blood pressure. In the event that a patient's reported blood pressure is dangerously high, [an urgent alert will be sent to the clinician](#). This system is called Population Health Management and is used to identify patients that are outside of a safe range. This allows clinicians to review and attend to their most at-risk patients in a timely manner.

When a patient reports a measurement outside of that safe range, dedicated medical staff members are notified immediately and triage patients to avoid the worsening of the condition or hospitalization. Population Health Management, or PHM, alerts are categorized as [low, medium, and high](#), and their advanced warning can save patients' lives. These notifications also keep clinicians within the requirements of Medicare so that they can continue to be reimbursed. RPM enables patients to collect sufficient and accurate data from home, ensuring the proper diagnosis, management, prevention, and treatment of their hypertension.



How accurate are home blood pressure monitors for Remote Patient Monitoring?

[Home blood pressure monitors](#) provide patients with an accurate alternative to in-person doctor visits. Patients with at-home monitors have the ability to check their blood pressure twice daily, the recommended amount, or more often, without making multiple trips to the doctor's office.

When paired with cellular connectivity, these home blood pressure monitors are useful for remote patient monitoring, as patient data can be quickly and easily transferred to clinicians. Remote Patient Monitoring providers like 100Plus will replace at home blood pressure monitors at no cost to the patient, furnishing them with an easy-to-use device with phone and email support built right into the program.

How long do home blood pressure monitors last?

On average, home blood pressure monitors last about three years. To ensure accuracy, 100Plus will replace devices at no additional cost for as long as your patient is a part of the program.

What is the best blood pressure monitor for at home use?

For at home use, it is best that the blood pressure monitor has cellular connection. This way, clinicians can access and utilize patient data as soon as it is recorded. To ensure total support through remote patient monitoring, your at-home program should be accompanied by a support number and email so patients can speak to real customer service representatives. Only a select few at-home patient monitoring systems, such as 100Plus, provide comprehensive support.

How do I check my blood pressure with a 100Plus at home monitor?

If this is your first time using your at home blood pressure monitor, you will first need to install batteries.

1. Install the batteries your device came with, pre-provided by 100Plus, into the back of the device following the diagram inside of the battery compartment.

Connect the blood pressure cuff to your device

2. Then connect the cuff to the device by plugging the cuff connector in.

How to secure the cuff to your arm

3. Expose your left upper arm by removing or adjusting clothing and jewelry. Make sure blood flow is not constricted by a rolled-up sleeve.
4. Open the cuff and loosen fully.
5. Orient the cuff so that the tube exits towards the hand.
6. Place your arm through the cuff loop, with your palm facing up.
7. Position the cuff's edge about an inch (2-3 cm) above the elbow.
8. Align the Φ marker (located to the right of tube exit) with the center of your arm.
9. Your device arrives with a universal cuff size, which is designed to fit most but may not be your ideal size. Please contact 100Plus support if you would like a smaller or larger cuff.

10. Tighten the cuff evenly around your arm by pulling on the end — make sure the Φ marker stays aligned with the center of your arm.
11. Wrap the end of the cuff over your arm to secure it in place. Don't make it too tight — allow two fingers to fit between the cuff and your arm.

How to take your blood pressure measurement

12. Lay your arm on a table with your palm facing up. The cuff should be at the same height as your heart. Sit up straight and rest your feet flat on the ground. Make sure the tube is not kinked or pinched.
13. Press the START/STOP button on the device to turn it on.
14. Wait for the device to power on, and perform the measurement while inflating the cuff.
15. When the measurement concludes, results are shown on the display and the cuff automatically deflates.
16. Remove the cuff after it deflates.

Transmitting data to your clinician

17. The device automatically transmits measurement results. During this process an indicator is shown in the middle of the display.
18. When the measurement is successfully transmitted, the device shows the following indication before powering off.

Are home blood pressure monitors reliable?

Yes! At home blood pressure monitors are a reliable way to check your blood pressure. The best way to ensure reliability with an at home device is to bring your device to your doctor's office to compare your at home device readings to the readings taken by your doctor.

At home blood pressure monitors can be even more reliable at home due to something called white coat syndrome. This means that patients' blood pressure can be elevated at the doctor's office due to the stress and anxiety of the visit itself. Relieving patients of that anxiety by providing at home blood pressure testing can ensure more accurate readings.

Additionally, the type of cuff being used in blood pressure testing makes a difference. Programs such as 100Plus provide blood pressure cuffs that are fitted to patients' upper arms, which generally yield the most accurate results.

Best practices for taking at home blood pressure readings

Proper training and technique for patients is the best way to ensure accurate readings with your at-home blood pressure monitor. Some of the most common reasons for inaccurate readings can be as simple as an ill-fitting cuff. 100Plus provides accurate and reliable at-home blood pressure devices and proper patient training to guarantee precise patient data for clinicians.

Accurate blood pressure measurements are crucial to remote patient monitoring. Keeping clinician and health care providers informed with the most up to date patient readings is the best way to work preventatively. Consistent inaccurate results can lead to untreated high or low blood pressure which, over time, can become dangerous for patients.

Ways to guarantee accurate at-home blood pressure readings

1. **One of the best ways to ensure accurate results with an at-home blood pressure monitor is to compare in-office and at-home readings.** This guarantees at-home device accuracy and reliability. It also lets clinicians know if patients are successfully using their at-home devices.
2. **Use a cuff style monitor.** The cuff style monitor, offered by 100Plus, is preferred over the wrist monitor when it comes to accuracy. These cuff style monitors from 100Plus, along with the in-depth training provided, make it easy for patients to take their blood pressure consistently and accurately.
3. **Another way to ensure accuracy with at-home blood pressure devices is to make sure patients are using the right size cuff.** Measuring your mid-upper arm, where the cuff will be placed, will help to determine which size is right for you. From small to extra large, the size of the cuff can differ greatly. Using the wrong size will make an accurate reading more difficult. To guarantee precise results, patients should be fitted to the correct cuff size for their at-home blood pressure monitors.

With all these steps and techniques, patients and clinicians alike can be confident in their at-home blood pressure monitor readings and work together to ensure the health of all remote patients.



How can Remote Patient Monitoring impact diabetes?

For patients with type I or type II diabetes, remote patient monitoring (RPM) offers an easy and data driven solution. RPM uses everyday readings to keep clinicians informed and helps providers create adaptive management regimens for diabetic patients. By bridging the gap between scheduled doctor visits, RPM devices allow patients to track incremental changes in their blood sugar and allows providers to approach their diabetic patients with more informed and personalized treatment plans.

What is remote diabetes monitoring?

Remote diabetes monitoring enables type I and II diabetes patients to measure their glucose levels with at-home devices and ensures that their readings are quickly and safely transmitted to a provider portal. With access to their patients' day to day readings, clinicians are able to track patient progress and identify patterns in order to prevent spikes and dips in patient blood sugar levels.

Diabetes patients are especially susceptible to minor changes between doctors visits which, without remote patient monitoring, can otherwise go unnoticed by healthcare providers. These minor shifts can present larger problems if left untreated, making daily data collection crucial for diabetic patients. With a clearer and more accurate depiction of patient progress between scheduled visits, providers can treat patients with more personalized and preventative care.

How can Remote Patient Monitoring help type I and type II diabetes?

Diabetes is a chronic condition that requires everyday monitoring and personalized management and treatment plans. Prior to the popularization of remote patient monitoring devices, patients with diabetes could not record and report data during scheduled doctors visits with the same accuracy, speed, and ease. Furthermore, these one off measurements taken at doctors visits may not be an accurate reflection of the patient's overall wellbeing, or most common glucose levels. With a sporadic and ever changing condition such as diabetes, continuous monitoring with at-home devices is essential.

[It has been proven](#) that patients with diabetes that participated more frequently and regularly in remote monitoring programs had lower HbA1c (a measure of blood sugar in the body) levels at the end of their RPM program trials. When compared to the HbA1c of patients who measured their blood sugar only every two days, or even less often, patients who consistently measured their blood sugar an average of once per day were less likely to have high blood sugar levels. The more patients activated and engaged with their remote patient monitoring devices, the better their blood sugar control was.

Not only has greater patient engagement and activation been proven to lower blood sugar, but increased patient RPM education has also shown significant reductions in HbA1c levels. [A study on remote patient monitoring and diabetes education](#) showed that patients improved their control over their diabetes through the use of remote monitoring devices and education provided via a diabetes self-management program. **Diabetes self-management education, or DSME, is recommended to all patients upon diagnosis, however only 5-6% of patients receive DSME. This education has been proven to lower hospital readmissions, reduce A1C, and is cost effective for patients.**

By combining DSME with remote glucose monitoring, patients were able to achieve greater glycemic control, increase their knowledge of diabetes, and improve self-care methods. This study also revealed that physician engagement with patients during DSME was incredibly beneficial, including long-term and continuous follow up from providers. Therefore, physician and patient engagement in patient education as well as in remote patient monitoring is crucial in the management and treatment of remote diabetic patients.

What happens if a patient reports dangerous glucose levels?

Remote Patient Monitoring allows providers to go beyond assessing and monitoring patient data in order to identify patterns in patient data and intervene in cases of high or low blood sugar readings. These patterns in patient data can lead to early detection while intervention can catch issues before they evolve into emergencies. If a patient's device reports a blood sugar level outside of the safe zone, an urgent alert will be sent to the clinician. For providers, this information is known as Population Health Management and it is used to recognize patients that are reporting data outside of a safe range and notify clinicians of their status. This process enables clinicians to receive, review, and treat their high priority and at-risk patients in a quick and efficient manner.

Patients who report readings outside of their safe range will be attended to by staff members who are immediately notified of the patient's current condition. Population Health Management, or PHM, alerts are categorized as low, medium, and high, and are used to alert providers of the status and priority of their patients. Medicare requires that clinicians receive such notifications and remain informed by their remote patient monitoring system so that they can continue to be reimbursed by the program. [Remote Patient Monitoring companies](#) make population health management and Medicare reimbursement easy, keeping patients safe and clinicians reimbursed through the program. RPM gives patients the ability to measure their blood glucose from the comfort of their home while ensuring that they are cared for with the most personalized management and treatment plans their clinicians can provide.



How can Remote Patient Monitoring impact obesity?

Remote Patient Monitoring is a revolutionary solution to the extremely prevalent and difficult to manage condition, Obesity, that afflicts roughly [42 percent of the adult American population](#). This percentage has risen dramatically from [31 percent just 20 years prior](#). When left untreated or unmanaged, obesity can lead to serious health issues such as diabetes or heart failure. Tracking patients well being through continuous monitoring can help prevent the progression of weight gain in obese patients, prevent life threatening emergencies ,and in many cases, can help patients to lose weight. Remote Patient Monitoring can help your patients manage obesity by keeping both practitioners and patients informed on patterns in weight gain and loss, assists physicians with the titration of medication, and can help practitioners establish personalized weight management plans.

What is remote obesity monitoring?

Remote obesity monitoring is the process by which patients use an at-home digital scale to measure their weight on a daily basis; measurements which are directly transmitted to practitioners. Continuous monitoring allows practitioners to track and care for patients between in-person visits. By relying less on sporadic weigh-ins during in-person visits, practitioners can use daily measurements to identify patterns as well as the efficacy of medication and weight management plans.

Remote obesity monitoring differs from other forms of RPM as it benefits the patient not only by providing them with personalized and effective treatment, but remote obesity monitoring can actually contribute to patient weight loss. It has been suggested that patients who weigh themselves everyday [were more likely to gain greater weight control behaviors and lose more weight](#) than those who weighed themselves most days of the week. The daily measurements required by remote obesity monitoring are not only a means of preventing health emergencies and treating obesity related illnesses, but they are also an effective weight loss tool.

How can Remote Patient Monitoring help obesity?

Remote Patient Monitoring has a variety of applications, but can specifically help patients with obesity by identifying potential lifestyle changes that may go undetected during infrequent doctors visits. Telehealth is a comfortable and safe way of approaching the sometimes difficult to broach subject of weight. [Remote Patient Monitoring has been associated with significant changes in body weight](#) as a means of ensuring the health and safety of obese patients who may be at risk for life threatening obesity related illnesses. When compared to the traditional approaches taken when attempting to manage or treat obesity, [RPM was found to be more effective in facilitating weight control, behavioral changes, and lifestyle changes](#). RPM also provides a cost effective, accessible, and easy to use solution to the issue of adult obesity.

With the expansion of RPM comes even more patient and practitioner benefits, including access to cutting edge artificial intelligence technology. Virtual health assistants powered by AI are the future of healthcare and there is currently only one Remote Patient Monitoring company offering comprehensive AI care. Patients who have interacted with this personable and engaging AI virtual health assistant have believed it to be human. This effective and efficient machine, however, is better than human, and can save practices copious amounts of valuable time. With AI acting as an extra staff member by taking care of day to day office administration, physicians are able to focus more on their patients and offer them better, more attentive care.

What happens if a patient reports dangerous weight levels?

RPM not only allows practitioners to identify trends and patterns in patient weight gain and loss, but it also allows for early detection and prevention of other obesity related illnesses. If a patient reports a weight that is outside of their usual range, or outside of a safe range, [an urgent alert will be sent to the patient's practitioner](#). These urgent alerts are distributed through systems referred to as Population Health Management. These systems are used to identify patients who may be at risk for emergency and alert designated staff to take immediate action. PHM enables practitioners to use RPM to assess, prioritize, and tend to their most at-risk patients.

As little as a 2-3 pound change in an obese patient can indicate that the patient is at risk for heart failure as the slight increase in weight might suggest a change in the patients water retention. For obese patients who also suffer from Chronic Heart Failure, [immediate intervention has been proven to be the most crucial and effective RPM method when managing obesity and CHF](#). RPM allows practitioners to intervene in time to prevent crises such as these. For obese patients without CHF, [obesity is still a likely contributor to heart failure](#), even if traditionally known markers of heart disease are absent.



Navigating new technology can be difficult, your RPM provider should make it easy

RPM benefits Medicare patients suffering from chronic conditions by ensuring their health and safety– even from a distance, while supplying practices with crucial additional revenue. From billing to best practices, the right RPM program for you should be as comprehensive as this guide.

Now that you know exactly how Remote Patient Monitoring works, how it can benefit your patients and your practice, and what to look for when choosing an RPM program, you can watch a demo and start your RPM program in minutes. Get started right away and start providing your patients the care they deserve.



Book a demo to learn more about remote patient monitoring with 100plus.

[Request a demo](#)