

How to Choose the Right Remote Patient Monitoring (RPM) Solution

Remote Patient Monitoring (RPM) is a new and powerful reimbursable telehealth program changing the future of healthcare. Benefits of RPM include improved care outcomes, new revenue for your organization, and an improved patient experience. A successful RPM program requires RPM software, devices, and people. This e-book will provide practical advice on critical items to consider when evaluating the right RPM solution and partner(s) for your organization.

Chapters

- I. RPM Software
- II. RPM Devices
- III. RPM Team

Chapter I: RPM Software

Regardless of whether you decide to “insource” or “outsource” the monitoring/care team aspect of your RPM program — it will be running on an RPM software. This software must be capable, at a minimum, of collecting data from the monitoring devices and creating reports for the care team for review. This is the minimal functionality of an RPM software program. In practice, it should include many more offerings to ensure the success of your program.

You will need automated and granular analysis of what data has been received, not received, and who should know about it for review and action. A high-quality RPM software should include dashboards, alert queues, notifications, messaging, integrations, and more. The software should be easy to deploy and use for any Care Team and should include data from the best devices. It should work with a model that supports your current needs while not “locking you in” to anything. Below are three key features of any RPM Software solution:

1. Can Be Used by Any Type of Care Team

Your RPM software should be flexible enough to support either an “insource” or “outsource” approach to monitoring. For example, you might start with an “outsourced” team and then later decide to bring that team “in-house.” The same is true for outsourcing your “in-house” team. You can also have a hybrid team. Your RPM software should work seamlessly across any care team approach, and you should avoid getting locked into an RPM Software that “only works with the software vendor’s care team.”

2. Can Work with All Devices

Your RPM software should integrate with a wide range of devices from multiple manufacturers at varying price points. Your patients are not one-size-fits-all, so why would your device approach look that way? In addition, the device market is rapidly evolving (for the better), so your RPM

software should have a demonstrated track record of continually supporting the best RPM devices on the market.

Specifically, you should require support for cellular devices and Bluetooth devices, as well as a wide range of actual device types, including blood pressure cuffs, Glucometers (standard and continuous), weight scales, pulse oximeters, thermometers, and wearable smartwatches. You should be wary of utilizing an RPM software platform developed by the device manufacturer themselves; their software will not allow you to utilize devices that are not made by that manufacturer.

Also, confirm that your RPM software partner integrates directly with the manufacturer through their own internal engineering team. Other approaches can result in delays in data processing speed and an inability to add support for new devices that come on the market. An RPM software platform should not “outsource” the actual integration of the RPM devices.

3. Has the Features and Functionality Critical to the Success of the RPM Program

High-quality RPM software must have certain features and functionality. Below is a checklist:

1. Easily usable for any care team via modern web browsers on any device for example a desktop computer, a tablet, or a mobile phone. No “installed software” required.
2. Supports a wide range of cellular and Bluetooth devices from multiple manufacturers
3. Provides a robust alerting engine with granular controls to ensure the right member
4. Delivers optional text and email alert notifications
5. Automatically tracks monitoring days (CPT 99454) and has built-in tools to enhance patient compliance
6. Automatically tracks virtual care time spent by the Care Team (CPT 99457, CPT 99458)
7. Tracks “RPM Go Live Date” (CPT 99453)
8. Can gather/monitor/track blood pressure, heart rate, continuous heart rate, glucose, continuous glucose, weight, body fat, BMI, SpO2/Blood Oxygen percentage, body temperature, heart rate variability, steps, active minutes, sleep, respiratory rate, and more
9. Provides “trends” charts for all monitoring measurements charted by day, month, and year
10. Automatically calculates minimum, maximum, and average measurements over different time periods
11. Capable of easily escalating measurements for review to other members of the care team
12. Tracks RPM eligibility, enrollment, and consent
13. Supports email, text, and HIPAA secure messaging (“1-to-1” where a single care team member sends to one patient, or “bulk” -- where a single care team member sends to a specific group of many patients at once)
14. Provides an optional patient-facing web and mobile portal and downloadable app (for patients who wish to review their measurements, and more)
15. Provides role-based access and rights to the care team portal with your own administrative capability to add/edit/delete access
16. Provides robust ad hoc reporting engine and export capabilities
17. Provides pre-built built aggregated billing reports/exports with built-in CPT code logic

18. Provides the ability to customize dashboards to display the most important data properties for the care team and saved filters
19. Supports Chronic Care Management (CCM) with the ability to deliver both programs at the same time on the same patient (and other virtual care programs like PCM . . .)
20. Exports all data easily -- especially patient data records, and summarized intelligent “billing reports”
21. Allows patients to connect their own smartwatches or wearables
22. Orders devices within the software system by the care team and drop-ship them directly to patients (and/or order in bulk for shipping to your facilities)
23. Gives optional integration to your EHR, HIE, or other systems
24. Does not require a long-term contract

BONUS ITEMS CRITICAL IF YOU PLAN ON “RESELLING” YOUR OWN RPM PROGRAM TO MULTIPLE CUSTOMERS/ORGANIZATIONS

25. Gives you the ability to completely white label the software under your brand — including the web addresses and the “wrap around communications” like emails and texts that emanate from the software, as well as any optional downloadable patient-facing apps
26. Provides clean support for multiple patient groups (i.e., your multiple customers) in their own distinct configuration with the ability to control access at the patient group level
27. Integrates in-house devices with an engineering team that is capable of adding the most modern devices (i.e., the most simple to use for patients at the best cost and most accurate readings)

[1bios](#) puts all of this technology in place for your organization. We’ve been building the modern RPM solution for 5 years. When you are looking to select or upgrade your RPM partner, make sure you are getting a proven and complete RPM software solution. You should not be “locked-in” to an RPM software platform regardless of whether you are going to deliver RPM “in-house” or “outsource” the monitoring team. You also should not be “locked-in” to a specific monitoring device family. We will further explore this topic in the next chapter.

Chapter II: RPM Devices

Your RPM solution will utilize RPM devices to collect data from your patients. The specific devices you decide to use, how they are delivered, and your payment for them will be based on a combination of factors specific to your patients and your budget. Our recommendation is that you take an approach that provides the devices that best fit any given patient or patient population. Rarely does a one-size-fits-all approach work. Devices should be FDA-approved for reimbursement under RPM codes if that is how you are planning to fund your program. Below are three key aspects to consider for your RPM devices strategy:

1. Cellular vs. Bluetooth

Cellular devices are the most simple for patients to use, as they do NOT require the patient to have a smartphone or wi-fi network. The patient takes a measurement, and the data will automatically show up in [1bios](#) software within 30 seconds. No app required, no wi-fi needed, no extra buttons for the patient to press. However, cellular devices may be more expensive than Bluetooth, and there are fewer device types and manufacturers. The higher cost of cellular

devices is typically offset by higher levels of patient compliance and engagement and lower levels of ongoing technical support or patient onboarding.

Bluetooth devices are typically less expensive than cellular devices, and there are more options for different types of devices available. For example, currently, there are ONLY blood pressure cuffs, scales, and glucometers in cellular*. Bluetooth has all these devices plus “always-on” smartwatches, finger SpO2, thermometers, and more. However, the patient must pair the Bluetooth device to an app on their smartphone and regularly synchronize the app to keep the data flowing.

There are also hybrid models that involve a cellular hub. This is paired with one or more Bluetooth devices. These are almost as simple to use for patients as a stand-alone cellular device, but they are also the most expensive.

Patient groups that are less tech-savvy, don't have wi-fi or internet access, or don't have smartphones will do much better, or require, cellular devices. Patient groups that are very tech-savvy and have smartphones can be successful with Bluetooth devices. Bluetooth can also be a better fit if your organization's RPM financial model is extremely sensitive to the cost of the devices (i.e. you are not being reimbursed ~\$115 per patient per month under 99454 and 99457 for example).

Our summary recommendation is to utilize cellular devices if at all possible and utilize Bluetooth devices if there is no cellular device type available — or if there are extreme budgetary or other constraints.

* Note there are also “cellular hubs” that will connect to one or more bluetooth devices. These systems can work well in certain situations, but are likely to be more expensive. For example providing “a bluetooth blood pressure cuff + a cellular hub the cuff connects to” is 2x more expensive than providing a “single cellular blood pressure cuff”.

2. Device Logistics and Paying for Devices

Device logistics encompasses the process of ordering, paying for, shipping, and supporting the devices provided to your patients. You can choose to outsource this function to your RPM software and solution partner, or you can do it yourself. Outsourcing this function means you do not have to worry about establishing relationships with manufacturers, placing orders with manufacturers, keeping track of the shipping and delivery dates, paying for the devices upfront, or managing any warranty issues with manufacturers.

If you are going to drop-ship to individual patients as they are enrolled, this service can be especially useful. Alternatively, if you plan on buying devices in bulk (for example, you have 1,000 units shipped to your facility/facilities), and handing the devices out yourself, you can save money with this approach, especially on shipping and handling costs. A good RPM software and solution partner will support the approach that is the best fit for you. At [1bios](#), we provide a “Managed Device Service” which supports your program in working directly with any of our manufacturers.

Additionally, [1bios](#) provides the option to spread out the device costs over many months so that you can fund them with reimbursements from your program. One of the most important details in

our program is that you OWN your devices in ALL of our models. In our next section, you will see why this is so important.

3. Own or Lease Devices

If you are using cellular devices and paying any kind of fee for them (whether it is directly or bundled in with some other fee, trust us, you are paying for the device SOMEWHERE), you should plan on owning the devices. Owning the devices means exactly that — they are your devices to use as you please. This includes using them with whatever RPM care team or RPM software you choose. Be wary of device deals from RPM companies that seem too good to be true. That is probably a vendor's way of secretly locking you into their RPM software and/or care team.

If you don't actually own the devices, the vendor is under no obligation to let you use them with your own care team or another RPM software platform. As with everything else you are considering with your RPM solution, our recommendation is that you plan for the future and avoid vendor or device lock-in.

BONUS: Support patients by connecting their own wearable devices like Fitbits, Garmins, and Apple Watches. These are not necessarily FDA-approved devices but can be great “add-ons” for patients who already own and use them, and patients who want to share their steps, sleep, active minutes, and more with their care team. This is a great way to further support patient engagement and monitoring compliance days in your RPM program.

[1bios](#) integrates with 11 different manufacturers and supports more than 150 different devices.

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Chapter III: RPM Team

Your RPM solution will require a monitoring/care team that will be reviewing the patient measurements, reaching out to patients to communicate and support their progress and other care needs, and escalating to the Qualified Healthcare Provider (QHP) as needed. You can use your own in-house resources to perform the care team function, or you can outsource your care team to a third-party (typically one who is also providing a “bundle” with solutions for RPM software and RPM devices). Below are three key aspects to consider when choosing your care team approach:

1. Long Term Flexibility

Regardless of whether you decide to start with an outsourced or in-house care team, you should have the flexibility to change over time — **WITHOUT HAVING TO CHANGE RPM SOFTWARE AND RPM DEVICE VENDORS**. The best RPM solutions don't require you to use their care team or force you to hire/assign/build your own.

2. Cost and Scale

As with any outsourcing function, you may pay more for outsourcing over the long-run versus doing it yourself, especially at high volume or scale. However, the simplicity of outsourcing may actually cost less unless you are willing to invest the time and effort to train a care team to perform the in-house function. Additionally, if you don't have enough patients to justify at least one full-time individual, know that it can be very difficult to be successful with a part-time monitoring employee. Finally, the care team will need to be fully trained to understand how to use the RPM software. If you are not sure that you can find an employee that can be proficient with technology, an in-house team may not be a good fit.

We find that a well-trained, full-time care team member should be able to handle a patient panel of 200-350 patients each month. The range depends on the average amount of time being spent on providing virtual care for each patient (which is typically a function of their general state of health, and the supervising QHP's preference for level and frequency of care). If you envision having hundreds or thousands of RPM patients, you can support one or more full-time care team members in-house. Assuming they are competent and trained, they become as efficient and effective as an outsourced alternative, and your organization has time to support them, you will likely pay less on an RPM billable patient-per-month basis for an in-house team than an outsourced team.

3. Strategic Focus and Control

If providing RPM telehealth at scale is a long-term strategic focus for your practice or organization and you want to differentiate based on your capabilities, you will most likely bring it in-house at some point in time. Unlike an administrative function, the care team is actively involved in delivering care to your patients. This will give you the most control over the care team members and their integration into other aspects of your business model. However, if you aren't sure or don't have the time right now or don't have the initial scale — starting with an outsourced team is a great option. Remember, you should not have to be locked into one model or the other over the long term.

In conclusion, a great RPM solution is a combination of software, devices, and people. There is no single model that is best for every practice or organization; however, there are certain things you should look for when exploring your options. Use an RPM software that is proven and has the required features to deliver a successful program, works with all the best devices, and lets you use an outsource or in-house care team. Pick a device strategy that is the best fit for your patients. Ensure it allows you to skip the device logistics -- at your option -- and gives you ownership of the devices. Choose a care team approach that is best aligned with the size, focus, and long-term objectives of your practice or organization. RPM is an exciting new program, but there is no need to get locked into a long-term RPM software, a single device manufacturer, or a specific care team approach.