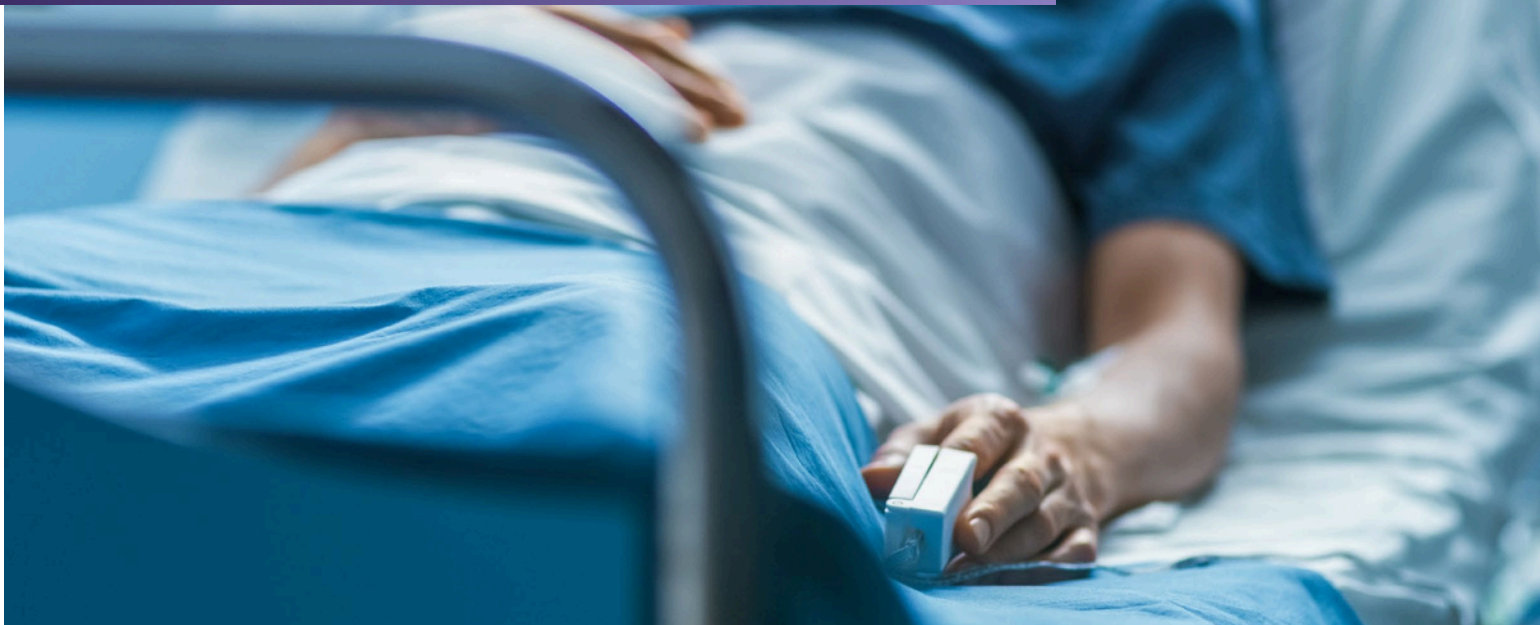# Lower costs, efficient care: How hospitals are driving cardiac patient improvements with RPM

Heart disease and co-occurring cardiac conditions, such as unmanaged hypertension, affect millions of patients and present a significant burden on the U.S. healthcare system.

To adequately meet the healthcare needs of this patient population — while managing capacity and keeping costs down — hospitals and health systems are embracing remote patient monitoring (RPM) technology.

During a Becker's Healthcare webinar sponsored by Medical Guardian (formerly Clear Arch Health), Michelle Hirst, BSN, RN, director of clinical operations at Medical Guardian, and Nancy Satnowski, BSN, RN, telehealth nurse supervisor at Hunterdon Healthcare (Flemington, N.J.), discussed how deploying RPM technology can help patients manage their conditions while reducing care costs for health systems.

Some of the main ideas from the session are summarized below.

The costs of heart disease and related comorbidities are staggering

According to the CDC, as of 2020:

- Approximately 6.2 million adults in the U.S. had been diagnosed with heart failure.

- Heart failure costs the nation more than $30 billion a year, including the costs of care services, medicines to treat heart failure and missed days of work.

- Nearly half of U.S. adults have hypertension, but less than 25% have their hypertension under control, accounting for approximately 37 million adults with uncontrolled hypertension.

Unmanaged or poorly managed heart disease and accompanying conditions lead to increased healthcare utilization and hospitalizations, which in turn elevate the costs of care and put a strain on already overburdened healthcare professionals.

"Heart disease is the leading cause of death in the U.S., and its management is something that we, as care providers, can impact with technology," Ms. Hirst said.

RPM can help to reduce hospitalizations and healthcare utilization

Hunterdon Healthcare's flagship medical center is a 178-bed nonprofit community hospital in Flemington, N.J., which offers a home health service to support patients with chronic conditions. A telehealth program is part of that service. The telehealth program includes RPM capabilities.

Hunterdon's healthcare goals with RPM include the following objectives: Reduction in hospitalization rates to less than 10% and acute care utilization overall by providing early interventions.

- **Implement RPM** in at least 55% of home health patients.

- **Improvement in** health outcomes by leveraging RPM data to inform clinical decision-making.

To achieve those goals, Hunterdon has been using Medical Guardian's RPM solution. The solution, which is interactive and tablet-based, enables close monitoring of patient vital signs including blood pressure, heart rate, oxygen saturation and weight. It also enables monitoring of multiple cardiac-related conditions and devices, including congestive heart failure, hypertension, atrial fibrillation, hypotension, myocardial infarction, coronary heart disease, aftercare following cardiac surgery and cardiac pacemaker placement.

Key technology features of Medical Guardian's RPM solution include:

- **A clinical RPM dashboard** that integrates with provider organizations' EHR systems and shows patient data trends, documentation, and other notes and reports.

"Our telehealth program does not provide 24-hour monitoring, so if a patient calls after hours with any symptom management question, the on-call nurse can provide a more informed answer by visualizing their vital signs, which are integrated from Medical Guardian into our EHR system," Ms. Satnowski said.

- **An RPM device (tablet)**, that is provided to the patient to keep in their home, enables two-way messaging, virtual visits, administration of surveys and patient questionnaires, video education modules and communication tiles. Each of these capabilities facilitates patient access to clinical or telehealth personnel and can be tailored depending on the needs of the organization or the patient.

- **Integration with peripheral devices** such as scales, blood pressure cuffs and pulse oximeters for patient-generated transmission of vital signs. Each organization can determine the appropriate connected devices for its patients and provide them as part of the RPM program. Connecting peripheral devices to RPM comes with the capability to set up customized alert parameters as well as the ability to tailor high and low thresholds for the specific patient's condition and health status.

"Ideally, we would like every home health patient to receive telehealth, but if a patient has certain disabilities that inhibit use of the full kit, that's where customization comes into the picture," Ms. Satnowski said. She noted that the decision of what peripheral device to assign to a patient is always made at the start of care, after the RPM program has been explained in detail to that patient.

"One of the powerful things about RPM and specifically about our solution is the ability to customize care protocols per organization," Ms. Hirst said.

Initiating Medical Guardian's RPM program is quick and easy

There are two service models that underpin the use of Medical Guardian's RPM solution.

1. A turnkey, vendor-managed logistics service model, where the equipment is pre-configured and shipped directly to patients' homes.

2. A client-managed logistics service model, where organizations install, configure, manage, and troubleshoot the equipment in the patients' homes themselves.

Hunterdon Healthcare uses the self-directed client-managed model. Ms. Satnowski said using that model allows the organization to ship the devices, as well as to troubleshoot potential issues, very quickly. In 2023, Hunterdon's average time from referral to installation of RPM equipment was 1.2 days.

"By keeping all our telehealth equipment in house, if we need to troubleshoot, we can usually complete troubleshoot visits the same day; replace faulty equipment with new equipment; and be in touch with Medical Guardian for replacements," she said. "From a satisfaction standpoint for the patient, there's very little lead time."

Using an RPM solution leads to clinical efficiencies and improved health outcomes

At a high level, the key value proposition of using an RPM program or solution is that it supports clinical oversight, helps with symptomatology assessment, and facilitates patient communication.

"With RPM, we're identifying slight changes that can prevent hospitalization that, without the RPM, a nurse going out to a patient's home once a week might not have caught," Ms. Satnowski said.

In 2023, Hunterdon Healthcare saw tangible benefits of leveraging Medical Guardian's RPM solution:

- **30-day hospitalization rates** for patients enrolled in its telehealth program were 6% compared to 30-day hospitalization rates for all patients of 14%.

- **60-day rehospitalization rates** for patients in the telehealth program were 7.9%, compared to 18.5% for patients overall.

For hospitals and health systems considering RPM programs, and for the managers who oversee those programs, Ms. Satnowski had a piece of advice: "Just because we say a heart failure patient needs x, y and z — if x, y and z are not applicable to that patient, it's ok to make changes," she said. "The biggest key to success is making sure that any technology-enabled intervention addresses the need of the patient and not the need of the program."

Ms. Satnowski added that building relationships with program administrators and clinicians is also paramount for the success of RPM programs. "When I call a care coordinator, if they're not available at the moment, I know I'm going to get a call back that same day," she said. "They know that if I'm calling, it's because there's a patient who isn't feeling good and we're going to collaborate to triage that patient to get treatment."

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