


While providers make clinical discoveries faster, RPM is shifting to a new care model

 [healthcareitnews.com/news/while-providers-make-clinical-discoveries-faster-rpm-shifting-new-care-model](https://www.healthcareitnews.com/news/while-providers-make-clinical-discoveries-faster-rpm-shifting-new-care-model)

February 11, 2025

Global Edition

Remote Patient Monitoring

Remote patient monitoring has begun to collect vital signs and other patient data more strategically and efficiently: Instead of waiting until a patient experiences distress, AI can help clinicians intervene earlier.

By Bill Siwicki

February 11, 2025

11:58 AM



Kent Dicks, CEO and founder of Life365, a remote patient monitoring company

Photo: Kent Dicks

Every day in the United States, 10,000 Americans turn 65, according to the AARP. And 85% of older Americans have at least one chronic condition, according to the National Institutes of Health.

Against this backdrop, health systems usually wait until a patient is in a costly state before implementing a remote patient monitoring program. That's because distributing connected devices to homes is extremely difficult to scale. Engaging patients also is a challenge, especially with the need for 16 days' worth of readings to bill CPT codes.

Technology can help, but only if it's cost-effective, easy to use and engaging. With the ongoing shift to value-based care, the need to address large patient populations in a cost-effective manner is necessary. Increasing quality of care potentially could be aided by artificial intelligence and machine learning, but only to the extent these technologies have timely patient data to personalize preventive care.

Scalable or sustainable

"I don't believe the quality of care delivered through RPM or virtual care has challenged providers," said Kent Dicks, CEO and founder of Life365, a remote patient monitoring company. "Instead, most RPM programs today do not appear to be widely scalable or sustainable, which could eventually pose a risk to the quality of care and patient outcomes.

"For example, as more patients request or are assigned RPM care plans, providers are required to expand care coordination staff, typically nurses, or assign larger and larger populations to existing clinicians," he continued. "Neither of these options appeals to health systems, given the potential increased labor costs due to the shortage of nurses and the heightened risk of error presented with fewer clinicians responsible for larger patient groups."

Another problem with most current RPM methods is their reliance on costly, complicated medical hardware. Sending patients home with an array of monitoring equipment they do not understand, in addition to their data collection and entry duties, is a recipe for nonadherence and frequent errors.

"Instead, assigning fewer clinical duties to patients and their family members would make RPM less costly, more scalable and ultimately more successful," Dicks contended.

"Automating more RPM tasks also makes the experience better for patients who can, in turn, focus on their health and recovery.

"Lastly, most RPM workflows to date are still highly reactive," he noted. "By that I mean clinicians tend to intervene with patients only when they are experiencing troubling symptoms or vital signs have exceeded certain thresholds. Instead, we could take advantage of proven and reliable forms of AI and other data science techniques to identify early indicators of potential deterioration."

Is an adverse event imminent?

Rather than jumping into crisis mode, a care manager or health monitoring platform could gather more information from the patient to determine if an adverse event is imminent or an anomaly, because, maybe, the patient had too much pepperoni pizza last night, he quipped.

Moving forward, Dicks said healthcare must move from reactive care to his 5 P's: proactive, preemptive, preventive, personal and prioritized care.

"This concept is inspired by the visionary book, *The Age of Scientific Wellness*, by Dr. Leroy Hood and Nathan Price," he said. "The P's they describe in their book are different and one less than mine, but they are closely related: predictive, personalized, preventive and participatory. Regardless, Hood and Price believe we can evolve toward a healthcare model where technological and scientific discoveries enable services and drugs to become more personalized and effective.

"They contend it soon will be commonplace to use data to identify early disease indicators before symptoms appear and then deliver precise treatments to prevent the illness from progressing," he added.

Intervening at the earliest signs

Dicks believes healthcare is making meaningful steps forward in this evolution. The galvanizing event was the completion of the Human Genome Project in 2003. This project kicked off the era of personalized medicine, exploring how genes influence health.

"Thanks to advances in AI and other types of data analytics technology, researchers and providers are exploring ways to make clinical discoveries faster and apply that evidence to help prevent disease or design the most effective treatments," he said.

"For RPM, shifting to this new care model means using collected vital signs and other patient data more strategically and efficiently," he continued. "Instead of waiting until a patient experiences a distressing symptom or a flat-out medical emergency, AI can help clinicians identify and intervene at the earliest signs based on continuous calculations of incoming and historical data and other relevant information. Clinically validated technology can even detect changes in patients' voices to identify signs of trouble."

But even before early signs of health deterioration emerge, clinicians could intervene when AI-powered RPM technology detects patients are not taking their medications, their sleep patterns change, or they don't enter biometric data or respond to routine health questionnaires. Modifying these behaviors may not require a live clinician intervention either.

"An AI outreach system could notify the patient with highly personalized messaging and offer support to help them get back on track," Dicks explained. "These would be lower-risk, lower-priority interventions that would enable live human care managers to initiate more complex, more urgent outreach where a significant health event is likely to occur."

'Actionable biometric data'

Dicks suggests increasing quality of care will be aided by AI and machine learning but only to the extent these technologies have timely patient data to personalize preventive care. So, what needs to happen to enable AI to boost remote patient monitoring?

"Ultimately, we need to evolve RPM to make it as automated and seamless for patients and clinicians as feasible," he said. "That starts with the way we collect and analyze data. Certainly, patients understand how to operate a digital weight scale or blood-pressure cuff that you could find in any online or brick-and-mortar mass retailer."

"The most meaningful and actionable biometric data will come from wearable sensors that automatically collect data and share it wirelessly to the cloud to be accessed and analyzed by the provider's AI-powered analytics," he added. "The analytics platform should be device-agnostic so that the weight scale, blood pressure cuff, biosensor or any connected device, regardless of the manufacturer, can transmit usable data."

Much or all of this data collection and sharing should occur without the patient or family needing to perform any task, similar to if they were in a hospital setting. The AI can determine if appropriate data is being collected and warn clinicians if the data seems erroneous or incomplete. It shouldn't fall to the patient, family member or care manager to perform tech support, Dicks insisted.

Maximizing AI's value

"Using novel biomarkers, such as vocal changes, also can help maximize AI's value and support proactive and preventive interventions for patients in the home," he said. "In as little as 15 seconds, our vocal signatures can inform clinicians about mood and disease states before observable symptoms appear and traditional clinical screenings would detect changes."

"Voice, however, is just one of many data elements that could be collected both passively in the background or actively during virtual visits with providers," he continued. "By combining data from all these sources with patients' historical data and information from comparable patients, clinicians can build a holistic, highly personalized perspective of the patient's health and trajectory."

Dicks has been conducting RPM work along all these lines with real-world patients – meeting these needs he has outlined.

"We recently were included in a heart failure/RPM study with a suburban hospital near New York City," he reported. "The study, which appeared last year in The Joint Commission Journal on Quality and Patient Safety, evaluated the outcomes of previously hospitalized patients with heart failure who were enrolled in a holistic and integrated program upon discharge.

"Patients were equipped with cellular-connected medical devices, a platform for tracking their vital signs, clinical tele-pharmacy services, in-person community paramedicine visits, virtual monitoring, and care from the hospital transitional care team," he added.

Reducing readmission rates

Patients who received this complete bundle of services experienced a significant reduction in readmission rates, with a rate of only 2.6%. The current national average 30-day readmission rate for heart failure is 23%, Dicks noted.

"Delivering this bundle of services ensured comprehensive patient care and supported interventions after hospital discharge," he explained. "It also informed providers on ways to improve care equity. For example, the research team adjusted study protocols from cellular phone devices with an app installed to a more accessible cellular hub-based model provided by our company to ensure all patients, regardless of technological proficiency or socioeconomic status, could benefit from the program."

This approach closed several gaps in service delivery and ensure equitable access to care.

"We currently are working with three other vendors on the U.S. Department of Veterans Affairs' new eight-year, \$1.03-billion remote patient monitoring program expansion, announced in 2023," Dicks noted. "Our integrated, connected care platform will be the foundation for the VA's massively expanded RPM program, which is expected to grow from 70,000 veterans served annually to as many as 2 million.

"To scale to that level effectively, we and the other partners are shifting the RPM care model from reactive to proactive, preventive, pre-emptive, personal and prioritized, as I discussed earlier," he continued.

Enabling prevention

Similarly, all the technology discussed – AI, machine learning, biosensors, voice biomarkers and others – will be deployed to intervene early to nudge the veteran back to adhering to a care plan and helping clinicians prioritize those who need more intensive outreach.

"We are excited to participate in this groundbreaking program, which will undoubtedly inform the rest of the industry about how to cost-effectively scale and operate an RPM program that enables patients to prevent illness and improve their health and well-being," Dicks concluded.

Follow Bill's HIT coverage on LinkedIn: Bill Siwicki

Email him: bsiwicki@himss.org

Healthcare IT News is a HIMSS Media publication

WATCH NOW: Chief AI officers must build in-house and evaluate vendors' AI