5 Reasons to Use Remote Patient Monitoring to Manage Patient Health and Recovery

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Healthcare providers and health systems are facing an unprecedented challenge to provide individualized care to patients while managing everincreasing resource demands.

Remote patient monitoring (RPM) is one way to support care. RPM programs monitor patients' health over time outside of conventional clinical settings. Medtronic Care Management Services (MCMS) provides remote monitoring programs designed to manage the health of focused populations, providing five key benefits:

1. RPM can engage patients with individualized experiences

RPM should provide a two-way connection between patients and care teams. Health systems may use RPM to provide condition-related education and selfmanagement support (SMS). Patients using MCMS remote monitoring are offered educational content through the monitoring platform as they complete their daily health check. Based on patient responses to health questions, the solution utilizes branching logic to ask probing questions and provides education content to support understanding of their condition or symptomology. The individualized experience is designed to bolster knowledge, helping patients feel more confident and in control of their health.

2. RPM can improve health outcomes and reduce unnecessary healthcare utilization 1/2, 2/3

Well-designed RPM programs prioritize at-risk patients, alerting clinicians to changes in patient status allowing for timely intervention. The U.S. Department of Veterans Affairs (VA) analyzed 4,999 patients with multiple chronic conditions using RPM programs. The program promoted self-management through care coordination, supplemented with telehealth monitoring. **The result**: lowered mortality rates compared to patients outside of the program by more than 40% over 12 months.<u>1</u>

Other studies have found RPM to reduce healthcare utilization. A Medicare Advantage plan implemented MCMS heart failure monitoring and experienced

a 30% reduction in emergency room (ER) visits per thousand patients.2 In another example, the University of Nebraska conducted a 90-day telehealth study on 552 recently discharged patients diagnosed with Type 2 diabetes. The program included RPM and telephonic coaching and education. **The result:** a 55% reduction in the percentage of patients with hemoglobin A1c levels above 9% — a key measurement tied to positive diabetic health outcomes.<u>3</u>

3. RPM can reduce the total cost of care 4.5

RPM can offer a return on investment by helping reduce the total cost of care per member per month for high-risk patient populations. Spectrum Health analyzed 795,000 heart failure patients post discharge, including 138 patients using MCMS RPM technology. Spectrum found the MCMS monitoring program reduced hospital admissions by more than 50%, decreased length of stay by almost 70%, and lowered the average daily charge per patient by more than 55%.

Beyond outcomes that impact the bottom line, RPM shows promise augmenting patient satisfaction. A randomized controlled study shows patients receiving home monitoring services were more likely to report higher care related satisfaction than those receiving usual care.

4. RPM scales to large patient populations <u>6</u>

Advances in technology have given remote monitoring providers the ability to analyze data in large patient populations. Risk stratification algorithms and criteria can be applied to retrospective clinical and claims data aiding in the identification of high-risk patient cohorts.

Clinical monitoring software can analyze patient data, identify notable changes and alert clinicians. Automated data analysis in MCMS remote monitoring software is designed to help clinical staff prioritize and follow up with high-risk patients. This efficiency is critical to managing large populations and helping target patients on the precipice of acute events.

5. RPM can support medical needs of patients with chronic complex conditions $\underline{7'\,8}$

Multi-morbidity is incredibly common among patients with chronic conditions in that 99% of heart failure patients and 96% of diabetes patients have more than one other condition.<u>7</u>

Effective RPM programs have the ability to monitor and aid in the management of multiple diseases over time.

MCMS offers more than 20 disease management programs, in addition to covering post-operative care needs and general care transitions. By targeting high-cost, high-risk conditions we can simultaneously monitor other chronic conditions for a more complete view of patients' health.

In conclusion, no one healthcare entity can address all chronic care management needs. The industry must collaborate to create more connected and integrated models of care. RPM is a tool that supports clinician care management to deliver benefits to the health systems and — most importantly — to the health of their patients.

Citations:

 Darkins A, Kendall S, Edmonson E, Young M, Stressel P. Reduced Cost and Mortality Using Home Telehealth to Promote Self-Management of Complex Chronic Conditions: A Retrospective Matched Cohort Study of 4,999 Veteran Patients. Telemed J E Health. 2015(21):70–76.
Medtronic data on file.

3. Siahpush, Mo, Tyson, Geri. Remote Interventions Improving Specialty Complex Care (RIISCC): Remote Patient Monitoring for Diabetes Patients. University of Nebraska Medical Center PowerPoint presentation. 2016.

4. Dickinson, Michael G., and Kevin L. Vos. "Home Telehealth Done in an Integrated Disease Management Program Results in Substantial Cost Savings and Reduction in Healthcare Utilization." Journal of Cardiac Failure, vol. 21, no. 8, Aug. 2015, p. S78.

5. Grant LA, Rockwood T, Stennes L. Client Satisfaction with telehealth services in home health agencies. Journal of Telemedicine and Telecare 2015; 21(2): 88-92

6. Darkins, Adam, et al. "Reduced Cost and Mortality Using Home Telehealth to Promote Self-Management of Complex Chronic Conditions: A Retrospective Matched Cohort Study of 4,999 Veteran Patients." Telemedicine and e-Health, vol. 21, no. 1, 2015, pp. 70–76.

7. Chronic Conditions Among Medicare Beneficiaries, Chart Book: 2012 Edition. Baltimore, MD. Centers for Medicare & Medicaid Services. Accessed January 2016. Data is based on third-party data, which is not necessarily identical to the Medtronic Care Management Services data.