



Remote Telemonitoring for Chronic Respiratory Illness Gains Ground in Portugal

“The innovation and creativity of the service providers, the enthusiasm of the clinicians, and the openness of patients to this practice—all of this fuels our excitement about moving forward with the larger initiative.”

Dr. Luis Gonçalves, coordinator, Grupo de Trabalho de Telemedicina

How effective is remote telemonitoring for treating patients living with COPD and other chronic respiratory illnesses? Researchers in Portugal are working to answer that question through a set of pilot programs launched in 2014. Based on preliminary results, the practice appears more than promising, prompting health authorities to begin work on an initiative that will bring remote telemonitoring programs to patients throughout the country.

Challenge

To more effectively and cost-effectively serve the nearly 2 million people in Portugal who live with chronic respiratory illness, health authorities wanted to implement remote telemonitoring.

Solution

A working group within the country's Health Ministry established remote telemonitoring pilot projects at multiple public hospitals to determine if remote telemonitoring was a good fit for chronic obstructive pulmonary disease (COPD).

Results

After six months, preliminary results showed an average 50 percent reduction in hospital and ER admissions and widespread satisfaction with the practice among patients and clinicians.

Next Step

Health authorities have begun work toward implementing remote telemonitoring for chronic respiratory illness in a program expected to be in place sometime in 2016. If that program works as pilot evidence suggests, it could save the country significantly in yearly healthcare spending and improve patients' quality of life.

Tactio Technologies

- Tactio RPM7000 platform
- Tactio RPM1000 patient app
- Tactio RPM6000 clinical app

Mobile Technologies

- Apple iPad Air
- Apple iPad mini 2 & +

Connected Health Technologies

- Nonin Medical Model 3230 pulse oximeter
- Medisana BU 550 Connect blood pressure monitor
- Medisana 575 Connect blood pressure monitor
- Medisana TM 700 digital thermometer
- Medisana ViFit Connect activity tracker



“With TactioRPM we have everything we want in a remote monitoring platform...”

José Paulo Carvalho, founder and principal, Hope Care



Saúde sem barreiras geográficas

Founded in 2012, headquartered in Óbidos, and employing eight people, Hope Care, S.A., provides telecare services to hospitals and individuals throughout Portugal. Hope Care has worked with telemonitoring in public hospitals since soon after its founding and has served as a Tactio Health Group partner and distributor since 2013.

“We consider the call-center model, and the support for it provided by the TactioRPM platform, key to the successful implementation of remote telemonitoring.”

Ana Rita Cunha, business developer, HopeCare

Health authorities in Portugal are laying the groundwork for a nationwide initiative that could improve the lives of up to 2 million people living with chronic respiratory illnesses such as asthma and chronic obstructive pulmonary disease, or COPD. With this initiative, the Health Ministry of Portugal will enable many of these individuals to self-monitor their vital signs from home or wherever they are, and transmit that information to their clinicians as effortlessly as slipping on a wristband and clicking the equivalent of a Send button.

Expected to be fully in place by sometime in 2016, the remote monitoring initiative will bring the practice to patients and their doctors at more than 75 hospitals throughout the country. The impact of the initiative could be significant, considering that each year chronic respiratory illnesses account for 20 percent of all hospital admissions and 4 million missed days of work or school, at a cost to the Portuguese economy of €240 million.

In fact, authorities have begun to grasp just how significant that impact could be, thanks to preliminary results from a set of pilot projects that began running in 2014. So explains Dr. Luis Gonçalves, coordinator of the Telemedicine Working Group (Grupo de Trabalho de Telemedicina, or GTT), an agency that operates within the Health Ministry. “For several years, we have been intrigued by the idea of remote telemonitoring for chronic respiratory illness, so we set up the pilots to determine the efficacy of the practice before investing resources to implement it on a large scale,” he says. “With a small sample cohort, we cannot extrapolate the numbers to a larger population, but the qualitative

improvements are clear.”

The value of support for existing technologies

The pilot projects are organized geographically, with each of five pilots covering a hospital in a given region of the country, 15 patients living with COPD who are under treatment at that hospital, and the clinicians treating them. For each pilot, a private business contracted through the GTT provides technology, expertise, and project management. At the Coimbra Hospital (Hospitais da Universidade de Coimbra), one of the largest hospitals in Portugal, that business is Hope Care, an Óbidos-based telecare services provider whose founder and principal is José Paulo Carvalho.

As Carvalho explains, at the start of the pilot he and his colleagues knew that the success of their work would depend in large part on the technology they selected. After considering their choices, they decided to deploy TactioRPM™, from Tactio Health Group, a remote patient monitoring platform that uses mobile apps and works with off-the-shelf connected health devices.

Carvalho says a key factor in his team’s decision was the platform’s support for existing smartphones and tablets. “We had already seen that older patients, who constitute much of the COPD population, were far more comfortable with tablets than with ordinary computers,” he says. Another factor was the platform’s wide support for dozens of health-data collection and monitoring devices from a diverse set of manufacturers. Yet another factor was the platform’s support for the call-center model of data delivery,



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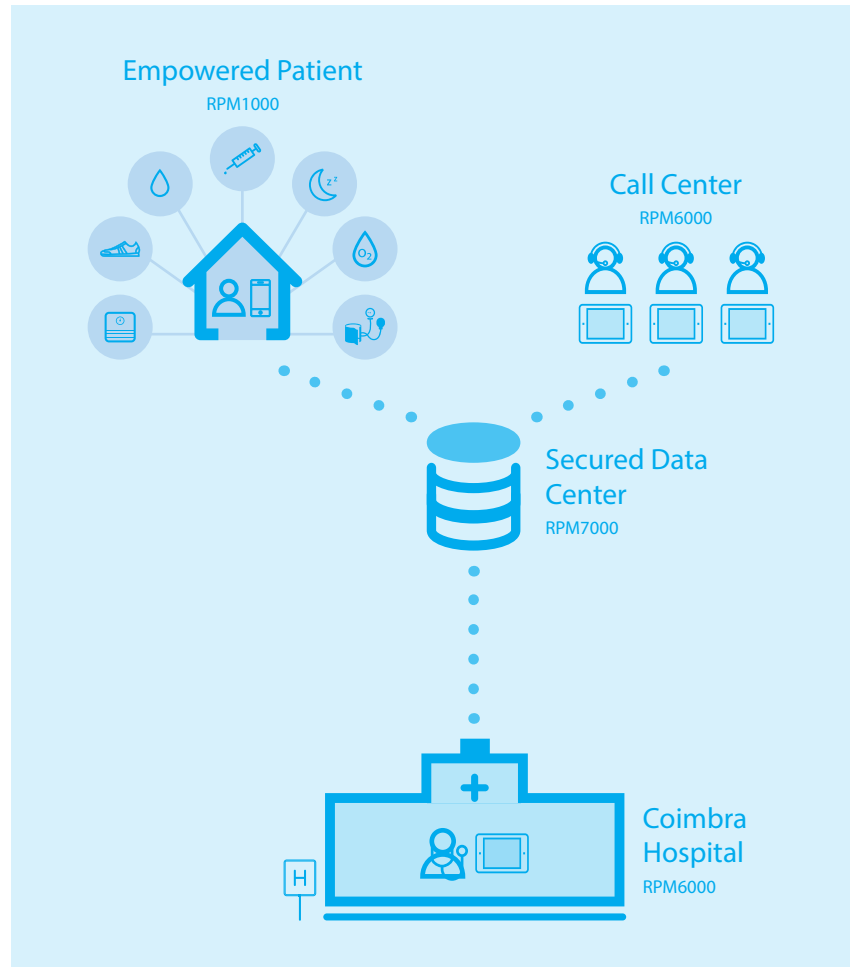
Dr. Paulo Lopes, pulmonologist, Coimbra Hospital



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Dr. Cidália Rodrigues, pulmonologist, Coimbra Hospital

50%
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in which clinical experts triage raw data to ensure its reliability before sending it on the hospital clinicians. Those experts also provide rapid and often immediate feedback to patients who need it.

“With TactioRPM we have everything we want in a remote monitoring platform: support for the user-input devices that patients like, support for the health-data-collection devices that clinicians like, and support for the call-center model that we believe works best for patients and clinicians alike,” Carvalho says. “We especially like the TactioRPM dashboard, which enables a given patient

to be monitored by multiple clinicians, and vice versa.”

Six months of data, abundant evidence

According to Carvalho, just six months after launch the results easily exceeded expectations:

A 50 percent average reduction in hospital and ER admissions. Considering the cost of each hospital readmission (€4000 – average 10 days stay) and each ER visit (€1800), “This could represent a significant economic impact for hospitals,” Carvalho says.



Enhanced quality of life. Two patients have provided anecdotal feedback on their experience, citing not only greater feelings of safety and security, but also a clearer understanding of how to manage their disease. “I like everything about home telemonitoring, especially the confidence it gives me,” one patient reports. “I know better what to do when certain symptoms appear, and I worry less about having to visit the ER. As for the tablet, I had very little experience with such devices before now, but I find mine easy to use.”

“Participating in this pilot helps me better understand my COPD condition,” another patient reports. “I know the meaning of changes in my oximetry and blood pressure values. I have learned how to improve my breathing, and I feel less need to call my doctor. Before this I used tablets only for games, but I find the apps that run on the tablets to be very easy to use. I would recommend home telemonitoring to others with COPD.”

Clinician satisfaction. The two hospital clinicians in the pilot, both new to remote telemonitoring, speak highly of their experience in general and of the call-center model and TactioRPM platform in particular. “The call-center model makes my job easier and my patients’ day-to-day lives more secure,” says Dr. Paulo Lopes, pulmonologist at Coimbra Hospital. “I would recommend remote telemonitoring to other doctors treating patients with COPD.”

“I consider remote telemonitoring a good fit for motivated patients in rehabilitation programs, especially to help them track their oximetry levels,” says Dr. Cidália Rodrigues, pulmonologist at Coimbra Hospital. “I also like the data presentation and ease of navigation provided by the TactioRPM platform on the iPad, as well as the immediate feedback that call-center experts are able to give to patients. The experience I have gained from

this pilot is extremely important.”

Importance of the call-center model

Carvalho is delighted to learn that the clinicians liked the call-center model. “This model is not universally preferred among clinicians,” he says. “But after using it for six months, the Coimbra clinicians reported high levels of satisfaction with the model and its support for data quality over data quantity in terms of helping them to make decisions.”

That assessment is echoed by Ana Rita Cunha, business developer at Hope Care and project manager of the Coimbra pilot. “Based on this pilot, we consider the call-center model, and the support for it provided by the TactioRPM platform, key to the successful implementation of remote telemonitoring,” she says. “The model is scalable, cost-effective, and avoids creating more work for the hospital clinicians. That is essential for providing successful remote telemonitoring to many of the 2 million people in Portugal who live with chronic respiratory illness.”

Enthusiasm and optimism

Based on his own observations of the pilot project, Dr. Gonçalves is optimistic about the future of remote monitoring for chronic respiratory illness. “Along with my colleagues at GTT, I am highly encouraged by the enthusiasm of the pilot participants,” he says. “The innovation and creativity of the service providers, the enthusiasm of the clinicians, and the openness of patients to this practice—all of this fuels our excitement about moving forward with the larger initiative.”

About Tactio Health Group

Tactio Health Group, founded in 2009, helps innovative healthcare organizations worldwide tap the power of mobile and connected health to improve clinical research, remote care workflows and patient engagement. The TactioRPM (remote patient monitoring) digital platform for health professionals and patients combines mobile apps, web tools, HIPAA-compliant, FDA Class 1 MDDS secured cloud services and vendor-agnostic connected health device integrations. TactioRPM is available

as a complete end-to-end system and as a platform for innovative healthcare application developers to provide digital coaching for patients with hypertension, diabetes, chronic obstructive pulmonary disease (COPD), congestive heart failure (CHF), atherosclerosis and obesity. Tactio apps have been downloaded by more than 4 million users in 135 countries and 17 languages.



TactioRPM™ FDA Class 1 MDDS Platform

Secured Cloud Based Platform Services and APIs

- RPM700 – Secured Cloud
HIPAA Secured Health Cloud & APIs
- RPM7900 – Connected Health
Connected Health Data Aggregator (CHDA) APIs
- RPM7500 – Content
Patient Educational Services
Science-Based Health Coaching
Patient Education Content LearnAPI
- RPM7550 – Medical Rules
Patient Educational Services
Science-Based rules, ranges, colors
and categories
- RPM7600 – Engagement
Patient Engagement Services
Secured 2-way Messaging EngageAPI
Health Appointments API
- RPM7650 – Surveys
Patient Survey API

Secured Mobile Health Apps

- RPM6000 – Health Professionals
Clinical Patient Monitoring Dashboard App
(RPM6000i - iPad)
- RPM1000 – Patients
Patient Connected Health Tracking App
RPM1000i (iOS) and RPM1000a (Android)
Weight, Steps, Activity, Mood, Sleep, Nutrition, Blood Pressure, Diabetes,
Atherosclerosis, Oximetry, Temperature and Blood Chemistry.
- RPM7001 – SysAdmin
RPM7000 Clinical Account and Group Management App (iOS with TouchID)

Secured Web Health Apps

- RPM6000
Clinical Patient Monitoring Dashboard App
- RPM6700
Anonymized Patient Data Export
- RPM6750
De-identified Usability Reports

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TactioRPM Platform

Design, develop, and deliver innovative mobile & web solutions for your health organization. The TactioRPM Platform offers all the tools, technologies, and server software necessary to create satisfying patient engagement and home health monitoring experiences. To learn more, go to:
www.tactiohealth.com/tactiorpm

For More Information

For more information about Tactio Health Group's products and services, please call Tactio Sales Department at (514) 657 7628. Or for other information go to :
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