GRTHealth and Sigfox Canada launch IoT virtual home health monitoring solution at Pearl & Pine Retirement Home.

The Challenge

Pearl and Pine Retirement Residence offers independent senior's living with customized services based on each individual's needs, which may include 24-hour in-suite support and supervision. The management team has been seeking a technology-based solution to provide increased monitoring of high-risk residents. They need to ensure the highest level of care is provided based on each individual's needs, while also having the ability to reduce the cost of providing the highest level of care and service to their residents.

The Solution

GRTHealth has developed a robust IoT solution capable of monitoring numerous aspects of a senior's daily life, 24 hours a day. This solution offers several different IoT monitoring devices, multiple communication technologies, and all connected to the one GRTHealth platform.

Each residence can receive a customized service based on their needs and, the platform can monitor the following:
- In-suite activity, room by room
- Bed occupancy
- Vital Signs Monitoring (HR, BP, Pulse, 02, etc.)
- Medication Dispensing
- Panic Button & Location tracking
- In-suite environmental monitoring
- Many, many more

The Results

GRTHealth's solution is a great addition to traditional institutional care. The platform can extend the time a senior can safely remain in their residence independently, allowing them to age in place with dignity. It's a cost-effective means for healthcare providers to keep residents safe and secure. 24-hour remote monitoring will provide the following benefits:
- Alert care providers when additional support is required
- Identify and respond quicker to wandering residents.
- Immediately tend to residents that may have slipped or fallen in their unit
- Automatically dispense daily medication
- Prioritize delivery of service across all residents

0G Network Operator

Sigfox Canada provides end-to-end commercial IoT solutions across Canada, delivering local service with global scale. For more information, visit the company website.

Solution Partner

GRTHealth expands the capabilities of in-home and community-based care as a supplement to retirement home and institutional long-term care. This platform helps ensure the prioritization of acute care beds to those requiring them the most. Visit the GRTHealth website to see their complete offering.

Customer

Pearl and Pine Retirement Residence offers signature retirement living where residents receive excellent care and a wide range of services in a positive and vibrant environment. Visit their website for more details.

The entire healthcare system is currently overwhelmed by a rapidly increasing number of seniors requiring ongoing care, and this growth in the elderly demographic is expected to continue for decades. Covid-19 increased the pressure on an already strained healthcare system. These changes are resulting in less acute care bed availability for critical patients and putting more demands on the healthcare system. Often, patients are capable of living independently or in a retirement home but remain in acute care beds and long-term care homes because they require supervision and daily medical care as no technical solution previously existed... **until now!**

Expanded capabilities of in-residence and community-based care

GRTHealth is passionate about healthcare and provides a technology solution to address the inappropriate use of institutional long-term care, and the ineffective use of acute care beds in the hospital system. The key benefit to seniors is the ability to remain in the comfort of their individual residence and age with dignity without compromising their health or safety. This also benefits Retirement Residence Operators like Pearl & Pine Retirement Residence in the following ways:

Reduce healthcare demands – by empowering elderly patients and their care providers with the appropriate resources, individuals can remain in their residence for an extended period without placing demands on the healthcare providers.

Reduce healthcare costs – with 24-hour monitoring, and a view of all residents on a single screen, Retirement Residence Operators can provide residents with a better quality of care at a reduced overall monthly cost.

Optimize medication management – an automatic medication dispenser tracks and records when residents receive their scheduled medication in the appropriate dosage. Pharmacists prepare a patient's monthly medication which is locked in the dispenser. Medication can only be dispensed at the appropriate time and a complete history of all medication dispensing is stored digitally. As well, missed doses are reported to caregivers for follow-up.

Safe and secure healthcare – residents can easily access more affordable care. They are monitored 24 hours a day and have access to emergency services with the push of a button. The GRTHealth platform is constantly adding new monitoring devices to meet the daily needs of seniors.

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> *By implementing an IoT solution within the healthcare sector and retirement homes, medical professionals and caregivers can gain real-time insights into a senior's daily activities and immediately respond when critical changes occur. This also helps to keep costs down by prioritizing valuable resources and reducing unnecessary hospital visits, positively impacting a patient's overall care.*
>
> *Alan Ruth,*
> *CEO and Founder @ GRTHealth*

Smart health monitoring

The GRTHealth system is a fully integrated IoT solution, offering 24-hour IoT-enabled remote monitoring and includes hands-on and virtual care. The technology uses Artificial Intelligence (AI) to learn the behaviour patterns of individuals and signals an alert to healthcare providers when an abnormal event occurs. Medical monitoring devices can measure blood pressure, heart rate, respiration and 02 along with other critical health checks.

Smart sensors are installed in key areas of the household to monitor daily activity levels and environmental factors. Each sensor is independent and powered by a long-life battery that requires no maintenance. Connection to the Sigfox Canada 0G Network is instant with a brief, simple configuration. Data captured by sensors is automatically shared to a central data management platform.

In real time, any abnormal patterns or activity will send an alert to the system and caregivers can respond immediately or take the necessary actions. A wireless personal alert device, typically worn around the neck, contains a panic button if help is needed. If the individual falls, a notification or alarm is automatically triggered, and the person can communicate with the emergency response team via the pendant even if they are unable to physically press the button on the device. This is a great example of how multiple communication technologies can be complementary to each other. GRTHealth has integrated multiple technologies to provide a robust and comprehensive solution to customers.

Family members and caregivers may also have access to the platform, through a customized website, providing full visibility and peace of mind that their loved ones are well taken care of.

> *Sigfox's low-cost, low-powered connected devices offer great value to GRTHealth by ensuring the safety and security of Pearl & Pine residents. The reliable, affordable, real-time asset monitoring solution helps to protect their patients. This in turn offers peace of mind for the patients, caregivers and family members.*
>
> *Kent Rawlings,*
> *President, Sigfox Canada*

Prioritizing safety at home

By monitoring daily behaviours, the GRTHealth solution can deliver a safe environment where patients can thrive and live safely at home. IoT monitoring includes the following:

- Slips and falls
- Bathing routines
- Dispensing medication
- Eating
- Sleeping
- Last location
- Vital sign monitoring
- And much more

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www.sigfoxcanada.com

0G UN is the Global Association of 0G Network Operators, powered by Sigfox, the world's leading IoT service provider.

Enhanced benefits for the healthcare team

With access to real-time data of behaviour patterns and key indicators for residents, the healthcare team at Pearl & Pine can effectively monitor and identify new trends in individuals' health and modify the level of care provided to meet the residents' changing needs. In addition, early detection can help to prevent future incidents and reduce unnecessary visits to the hospital.

The data can also provide information related to an individual's vital signs and symptom information, which enables the healthcare team to better diagnose health conditions and work closely to treat them. By monitoring closely and accessing real-time data, healthcare providers reduce the amount of time spent with each individual allowing them to prioritize their time to residents who need help the most.

Automatic pill dispensers ensure residents are taking their medication at the correct time. If not, a notification is triggered and sent to the healthcare team to follow up. This frees up resources, promotes their independence, and reduces the additional costs for families.

With the success of this solution, we'll see a significant reduction in time and resources to support our residents, while still providing the same, or better quality of care. Some residents require 24-hour in-house supervision which can create a financial burden on their families. Instead, this technology can provide a safe and secure living environment. The medication dispenser will also help to free up resources and further reduce the costs for families.

Andrew Pawson,
Director of Care, Pearl & Pine Retirement Residence

The future of virtual healthcare

This is just the beginning. GRTHealth is committed to continually explore ways to introduce new solutions and expand their offering through integration with healthcare providers to ensure the safety and comfort of all patients. Technology solutions like this are required as the healthcare system will not be able to support the 100% increase in seniors over the age of 65 in the next 20 years in North America.

GRTHealth is committed to the continuous evolution of the platform and refining system features as customer and patient requirements evolve. There are opportunities to address other aspects including dietary needs, safety hazards within the home like stoves and running water, etc. These upgrades will continue to benefit those living on their own.

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