How ConnectedCare™ Is Transforming Home Health

A review of new advancements in telecare technology and what current research says about improved patient outcomes, reduced hospital readmissions, and improved quality scores.

Home healthcare technology is changing fast.

The demand for home healthcare services is predicted to grow to record levels over the next 15 years. Yet providers have never faced such significant challenges in providing service that is simultaneously effective and profitable.

To begin, the number of people needing home healthcare is skyrocketing as the population of Americans aged 65 and older grows by over 10,000 per day (expected to hit 71 million by 2030), according to the U.S. Centers for Disease Control.[1]

Simultaneously, regulatory and financial pressures are squeezing healthcare delivery systems. A cost-containment provision in the Affordable Care Act called the Hospital Readmission Reduction Program (HRRP) imposes significant penalties on hospitals (and, by extension, home healthcare providers) for 30-day hospital readmissions.[2]

Those pressures are incentivizing greater use of home healthcare options, especially as hospitals and health plans seek to reduce hospital readmissions. "Home healthcare programs ... are proliferating as health plans and at-risk providers look for ways to keep patients out of the hospital or from returning after being discharged," writes *Modern Healthcare*.[3]

This problem is not going away: even if the Center for Medicare and Medicaid Services

New ConnectedCare™ options are significantly increasing home-based patient engagement as well as measurably increasing senior aging in place.

(CMS) adjusts the specifics of its approach in the future, the drive to reduce healthcare costs means it will likely continue to penalize preventable readmissions. And new value-based and "risk-sharing" home healthcare delivery models and incentive programs will just intensify those pressures. Specifically, value-based pricing is coming, with CMS driving it. That means providers will be paid a set amount for a given service, and it's up to them to make it work. If a patient goes back to the hospital for readmission, it will be entirely out of their pocket, not CMS's. Given that the average cost of a readmission for a patient who is receiving Medicare is $13,800, those costs can aggregate quickly.[4]

Unfortunately, few organizations meet their readmission targets: 81% of all hospitals suffered penalties in 2018, costing around $500 million in total Medicare payments to hospitals.[5]

"We know we're facing a crisis ... coming down the pike," said Abby Marquand, director of policy research at the Paraprofessional Healthcare Institute.[6]

Understanding legacy "telecare" delivery models.

Not all "tele" forms of healthcare delivery are the same.

Technological advances are taking home health care by storm, with new developments emerging almost faster than home healthcare providers can adopt and deploy. The result can be confusion regarding new terminology whose definitions may not be universally shared. This is certainly true of terms like telecare, telemedicine, and telehealth. Though often used interchangeably, the Federal Communications Commission's Connect2Health FCC Task Force has developed clear definitions of each, and it's worth taking a moment to clarify:

- **Telecare:** "Technology that allows consumers to stay safe and independent in their own homes."[7]
- **Telemedicine:** "Using telecommunications technologies to support the delivery of all kinds of medical, diagnostic and treatment-related services."[8]
- **Telehealth:** "Similar to telemedicine but includes a wider variety of remote healthcare services beyond the doctor-patient relationship."[9]
- **ConnectedCare:** Advanced remote health monitoring technology that extensively uses two-way sensor data, real time alerts, event reporting and voice communications.

Of the four, ConnectedCare™ represents the easiest and most cost-effective point of entry into home healthcare delivery.

ConnectedCare™ enables home healthcare providers to provide better care without having to deploy more people or resources. For that reason, we'll be focusing on ConnectedCare™ specifically in this paper. ConnectedCare™ also has tremendous benefits for patient engagement and program compliance. Thus, it's possible to achieve many of the same benefits as telemedicine and telehealth programs through ConnectedCare™ alone, *without* the same (extensive) level of investment.

Telecare is already familiar to many healthcare providers, albeit in limited forms. For the past 30 years, telecare was comprised solely of home-based medical alarm buttons.

Decades old phone line-based systems are still offered by 95% of traditional medical alarm companies today.

But the benefits of older forms of telecare have been constrained by significant shortcomings.

Too reactive: Traditional telecare devices require the user to experience a medical/personal emergency before manually activating the SOS button. Such devices are rendered effectively useless for routine personal assistance matters.

Too little engagement and compliance: Seniors often resist using their medical alarm buttons unless they are experiencing an actual emergency. Some seniors choose to remain on the floor for hours waiting to be discovered rather than press the emergency button! Seniors simply do not want to be a burden on anyone.

Too little information: Most seniors also dread the possibility of being sent to an assisted living facility or nursing home. Consequently, too often seniors simply do not inform caregivers of falls or lift assist calls out of fear that they may be taken from their home and placed in assisted living or nursing homes, and traditional telecare devices have had no way to fill this information gap.

Too limited in communication options: Many older solutions (and even some current solutions) are programmed to communicate with emergency monitoring centers only, rather than directly calling/texting non-emergency care providers, family members, neighbors, etc.

Too many false positives: Most medical alarm calls are for non-emergencies (like lift assist calls) where paramedics are dispatched for non-medical reasons, which generates extra cost (and embarrassment) for seniors and unnecessary burden on local emergency responders.

Introducing the new "telecare" technology - ConnectedCare™.

What can new proactive ConnectedCare™ do for home healthcare

Fortunately, a technological revolution has transformed the design and features of wireless help alert devices during the past several years and addressed the weaknesses and

shortcomings of older telecare devices. ConnectedCare™, a revolutionary new type of proactive telecare technology can:

- Enables two-way patient activity data & wellness monitoring for key health metrics.
- Provides detailed immediate phone, text and email notification & alerts of critical & urgent criteria.
- Sends customized daily, weekly, and monthly reports to monitor and track key metrics.
- Facilitate increased patient engagement and communication with care providers (e.g., telecare devices can help illuminate hidden issues that patients wouldn't normally disclose or remember to disclose).
- Enable healthcare providers to provide effective care to a larger population with a wider range of ailments and chronic conditions.
- Ensure that high-risk situations (e.g., falls among the elderly) are identified and addressed promptly.
- Reduce the frequency of nurse visits while still increasing communication with patients and generating improved outcomes.

What advanced features does ConnectedCare™ provide?

Ships "Plug & Play"	ConnectedCare™ devices ship pre-tested and pre-configured
Maximizes Senior Aging in Place	Keep your clients living safely and independently at home longer.
Keep Family Members Informed	Family members & loved-one can be notified of important events.
Agency Dashboard	Easily manage all your ConnectedCare™ devices on one secure dashboard.
Multiple Contacts	Multiple caregiver contacts can be preset (agency office/staff, caregivers, family, friends, caregivers, healthcare providers, etc.).
SMS Text Alerts	Provides immediate text message alerts & notifications to all caregivers.
Direct Two-Way Voice	Caregivers & contacts can speak directly with wearer.

Real-Time GPS Locators	Provides caregivers with ability to locate Alzheimer's/dementia sufferers anytime/anywhere.
Advanced Fall Detection & Alerts	Many seniors do not inform their families of early (non-injury) falls in fear that the family may decide to remove them from living alone at home; this enables caregivers to be informed of falls. Determine and eliminate the cause of falls (in-home hazards, medication issues, etc.).
Adjustable Fall Sensitivity	Ability to fine tune the fall alert sensitivity based upon activity level of the wearer.
Call-in & Chat Features	Allows caregivers to call into the device directly and speak to the wearer for wellness checks.
Real-Time Geo-Fencing	Notifies caregivers immediately if user crosses a pre-set boundary (important for Alzheimer's/dementia sufferers).
Simple to Use	One touch activation connects caregivers and seniors.
Quick and Easy to Deploy	In-home set-up, testing & user instruction should take less than 15 minutes.
Multi-Language Voice Assistance	CareCaller voice prompts can be set-up in a variety of languages.
Spam Call Blocking	Screens out inbound spam calls if not on pre-set contact list.
Google Maps Embedded	Real-time GPS location displayed on Google Maps.
Automated Reporting	Customizable agency/caregiver daily, weekly & monthly activity reports by email.
Quick and Easy to Deploy	In-home set-up, testing & user instruction should take less than 30 minutes.
Low/No Initial Investment	Easily manage all your ConnectedCare™ devices on one secure dashboard.
Monthly Service is Less than $2/day	Depending on your service levels, the monthly "no contract" fee is less than $2/day/client.
Free Provider Demo Program	Professional home health agencies can request a [free demo.](#)
No HIPPA/Data Issues	No patient information is transferred or maintained.

ConnectedCare™ technologies can improve outcomes.

ConnectedCare™ technology has come a long way from the phone-based, single-function alert systems. Recent advancements include wireless mobile buttons, built-in GPS locators, automated fall detection technology, and more. These advances build on the foundation laid by earlier generations of telecare to facilitate even better patient outcomes with improved cost-effectiveness. But what specific and measurable results can today's telecare achieve for home healthcare providers?

ConnectedCare™ supports aging-in-place for many extra years.

The fact is your senior clients would prefer to remain safely and independently at home for as many years as possible. However, a fall or personal medical emergency, if not immediately responded to, can remove them from their home permanently. For each of your clients are placed prematurely into assisted living or skilled nursing, <u>your agency has permanently lost thousands of dollars each</u>.

By deploying a ConnectedCare™ program agency-wide, you not only protect your clients but add to the number of years you can provide personal care services to them – and their families.

ConnectedCare™ technology is preferred by seniors.

The latest generation of wearable mobile ConnectedCare™ devices are stylish, smaller, more comfortable and are easier to use. Simply knowing that pressing the SOS help alert button will directly contact their personal caregivers – and not result in paramedic rescue being automatically dispatched – provides a comfort level not previously enjoyed.

New features like multilingual voice assistance and user alerts, step counters, heart rate monitors and more are also built-into the the next generation of ConnectedCare™ devices.

ConnectedCare™ maximizes patient engagement and medical plan compliance.

When patients do not receive, or do not follow, their prescribed medical treatment, the risks of future complications and hospital readmissions rise. Additionally, when patients are not engaged in their treatment, health risks increase. Research has consistently identified this link. For example, a 2017 study published in the *Journal of Patient Experience* "revealed that patients who indicated on HCAHPS surveys that they were not engaged in their own care were 34 percent more likely to be readmitted to the hospital within 30 days of discharge."

That's where ConnectedCare™ devices come in: they increase patient engagement and compliance. For example, when Florida-based Accessible Home Health Care deployed CareCaller™ devices to its patients (including chronically ill patients as well as some non-medical clients), the number of missed nurse visits fell by 50%.

ConnectedCare™ benefits patients psychologically.

Perhaps surprisingly, even older patients are open to medical devices. A researcher from the University of Brighton in England, where telecare is an extremely popular means of healthcare delivery, studied the relationship between elderly patients and their telecare devices. She found that "although the service is offered from a distance, users still perceived it as 'human', likely to be a result of the personalised [sic] relationship that can form between older users and the technology provider."[10]

Another study found that "one year after receiving a [telecare device] unit, patients experienced decreased levels of fear, stress and anxiety about their well-being. These psychological effects can contribute to improved self-efficacy for self-care and improve clinical outcomes in chronic diseases management."[11]

ConnectedCare™ promotes professional and personal home health referrals.

Payors and Managed Care Organizations (MCO's) are looking to refer to home health providers who utilize technology to increase positive outcomes and reduce re-admissions. Increasingly, major insurance companies (payors) are contracting with local home health providers under risk-sharing agreements who can document their success in reducing readmissions, increasing HHCAHPS scores and improving positive patient engagement.

ConnectedCare™ virtually eliminates unnecessary emergency calls and ED visits.

ConnectedCare™ devices can reduce pressures on over-taxed health care delivery networks. For example, they can help to reduce unnecessary emergency dispatch calls for relatively minor issues, like lift assists. "Lift Assist (LA) calls are time consuming and are non-reimbursable," explain researchers in the *Journal of Prehospital Emergency Care*. "The increase in number of this call type, specifically amongst older adults, is placing strain on paramedic services. LAs consume the time of paramedics, preventing them from responding to more urgent emergency calls."[12]

Similarly, emergency rooms nationwide are strained by unnecessary patients who are transported by rescue but who do not really need emergency care. The New England Health Institute said 56% of emergency room visits were "totally avoidable." In fact, according to Debt.org, "It is estimated that more than $18 billion could be saved annually if those patients whose medical problems are considered 'avoidable' or 'non-urgent' were to take advantage of primary or preventative care."[13]

ConnectedCare™ reduces avoidable hospital re-admissions.

At its heart, the new ConnectedCare™ technology is a way for home health care groups to improve hospital readmission rates without having to deploy more skilled staffing. This is critical: 27% of 30-day hospital readmissions are preventable.[14] But how can healthcare organizations successfully prevent them without a significant outlay of time, resources, and money?

Multiple studies have looked at this question as it relates to telecare. For example, one such program for Chronic Heart Failure (CHF) patients at Massachusetts General Hospital "showed significant decreases in 30-day readmission rates and overall hospitalization rates over the 4-month program period."[15]

Further research indicates the use of medical alert devices creates better outcomes for patients (on average) by reducing hospital readmissions by 48%, decreasing the number of days hospitalized by 69% and reducing the number of emergency room visits by 6.5%.[16]

ConnectedCare™ can help indirectly as well by engaging family caregivers, which also reduces the chances of hospital readmission. In one study from the University of Pittsburgh Medical Center, the chance of a 90-day hospital readmission fell by 25% under these circumstances.[17]

Note, however, this benefit requires using ConnectedCare™ devices that can incorporate family members into the communication and notification process.

ConnectedCare™ combines low cost with high returns and minimal investment.

This is the area where the new ConnectedCare™ solutions are truly impressive. High-quality healthcare does not come cheap, and healthcare delivery systems that incorporate leading technologies even less so. For example, the average cost of developing a mobile health app is $425,000 in 2019; and in many cases, it can be much higher than this.

Additional costs often include wearable devices costing hundreds of dollars per patient, integration with your patient management software, extensive set-up and staff training costs, ongoing service/maintenance contracts, and more.

The surprisingly low initial investment of an agency-wide ConnectedCare™ program produces almost an immediate – and impressive ROI. Typically, a wearable ConnectedCare™ pendant monthly cellular service cost is less than $2/day per patient. Of course, optional services, features and/or device upgrades may affect the cost but not significantly.

Imagine if your agency was to be successful in keeping your clients living at home for an additional year, how much additional revenue that would generate each and every month. Everything past that point is pure cost savings and profit.

ConnectedCare™ Technology is Remarkably Affordable.

New ConnectedCare™ admin dashboards make it easy for agency management & staff to set-up and maintain all their ConnectedCare™ devices. Additional, optional features can be added including automated wellness calls, medication reminders and even in-home activity sensors.
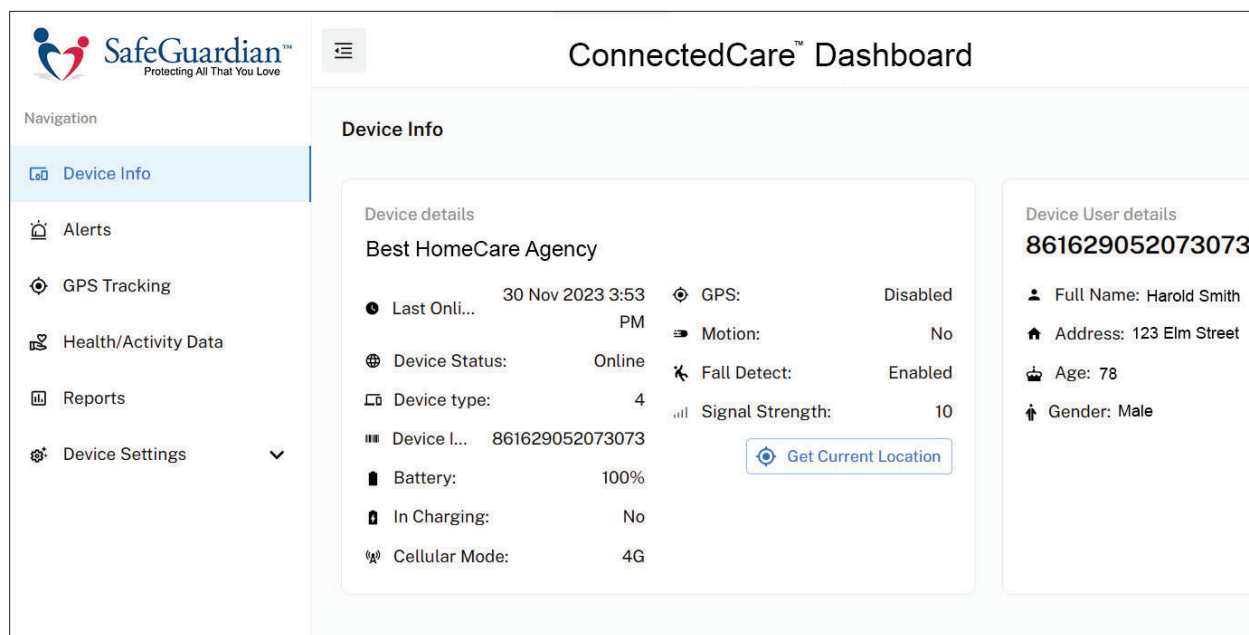
Medical alarm buttons have been available for decades. What makes ConnectedCare™ so revolutionary is its low-cost, advanced functionality and flexibility in usage.

ConnectedCare™ devices provide home healthcare agencies more options in how to prevent the incidence of health risks and readmissions. Even if they reduce the number of weekly nurse visits, they can continue to get 24-hour coverage with automated alerts that can be programmed to reach out to a larger number of people – determined by the agency – with greater depth of useful, actionable information on what's happening with the patient. Consequently, ConnectedCare™ can reduce costly avoidable visits to the hospital. Simultaneously, ConnectedCare™ gives patients the freedom they desire. As the National Council on Aging reports, "Studies indicate this population of elderly prefer to live independently as long as possible, making the average age of those moving into assisted living facilities in their mid-80s. We need to give them the medical and communication resources necessary to safely make their own lifestyle choices without putting an additional burden on hospitals and other healthcare agencies."

And despite the advances, ConnectedCare™ is extremely low-cost compared to other technology approaches to care delivery. By reducing readmissions with a low-cost option, agencies can recoup a greater portion of the flat fee they receive from health plans for each patient. In other words, proactive telecare requires only minimal investment while providing immediate returns. Effective ConnectedCare™ technologies are significantly less costly than enterprise-wide telehealth & telemedicine solutions, while laying the foundation for future ConnectedCare™ initiatives.

About SafeGuardian, LLC

SafeGuardian, LLC is the original innovator and recognized industry leader in developing ConnectedCare™ solutions dedicated to home health providers. Our exclusive CareCaller™ devices have been proven to provide superior patient/provider engagement through voice, text, email and live chat to virtually eliminate unnecessary 911 calls and ED visits and effectively reduce hospital admissions/re-admissions by as much as 40%.

Our low-cost, quick & simple to deploy CareCaller™ wearable devices offer one touch calling direct to the healthcare provider, GPS real-time location including Google maps link, text messaging alerts, optional fall alerts, waterproof design and more. These benefits provide home health agencies with unmatched competitive advantages which translates into superior patient engagement, reduced readmission, higher CMS customer service ratings, increased professional referrals and 2-3X longer aging in place.

SafeGuardian offers two professional caregiver-based programs for licensed home health care agencies. The Patient Referral Program allows agencies to easily refer clients & families to order a CareCaller for a loved-one. The Preferred Provider Program is designed for those agencies that deploy a ConnectedCare™ solution agency wide.

Contact

Mailing Address
825 College Blvd Suite 102-310
Oceanside, CA 92057

Phone
(800) 209-3220

Email
info@safeguardianpro.com

Web
https://safeguardianpro.com/

[1] https://www.cdc.gov/aging/emergency/general.htm
[2] https://www.cms.gov/medicare/medicare-fee-for-service-payment/acuteinpatientpps/readmissions-reduction-program.html
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