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Intel - GE Care Innovations™
QuietCare®

A new dimension of proactive care

Intel-GE Care Innovations™ introduces an innovative wireless monitoring technology to the senior living community, Care Innovations™ QuietCare®. The system provides for more individualized care while maintaining residents' privacy and independence. QuietCare® automatically identifies notable changes in each resident's daily activity levels allowing staff to be more proactive. Coupled with notifications of potentially urgent situations, QuietCare provides vital information to caregivers enabling them to be better **informed** and to **intervene** when needed. When integrated into a community's day-to-day operations QuietCare information can increase responsiveness and help **improve** care.

33% of seniors fall every year¹ and **25%** of all falls occur at night²

UTIs are the **#2** reason for hospitalizations in seniors > 65⁴

Only **50%** of hospitalized residents return to their communities³

Be informed.

Reliable and timely information is a vital element in delivering quality care. Many technology solutions alert caregivers only after an incident has occurred. QuietCare® uses multiple sensors combined with robust data analysis and empowers caregivers to be better informed about individual resident activity levels while maintaining privacy and independence.

The system flags certain deviations from normal daily routines, enabling improved response times and identification of potential problems before they become urgent situations. This information has the potential to help caregivers discover emerging health issues or conditions that put residents at risk of falling before a fall may occur.



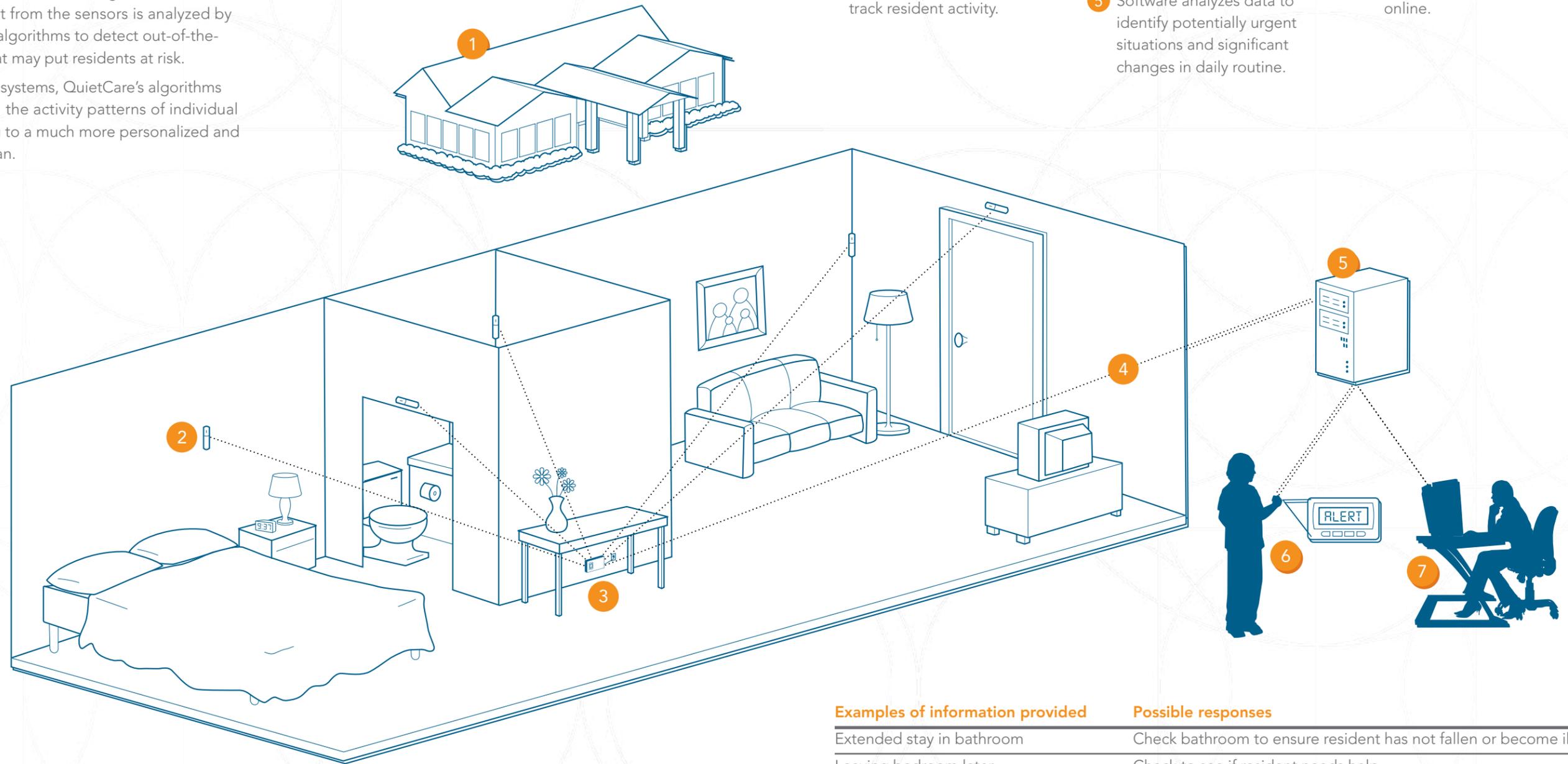
Improved care and increased resident independence begin with QuietCare's advanced analytic algorithms that provide robust activity and urgent alert data.

1 Hausdorff JM, Rios DA, Edelber HK. Gait variability and fall risk in community-living older adults: a 1-year prospective study. Archives of Physical Medicine and Rehabilitation 2001;82(8):1050-6.
 2 Jensen J, Lundin-Olsson L, Nyberg L, Gustafson Y: Falls among frail older people in residential care. Scand J Public Health 2002; 30: 54-61
 3 Sattin RW, Lambert Huber DA, DeVito CA, et al. The incidence of fall injury events among the elderly in a defined population. Am J Epidemiol 1990; 131:1028-37
 4 Juthani-Mehta, M: Chapter 32: Urinary Tract Infections in Elderly Persons. Geriatric Nephrology Curriculum. American Society of Nephrology, 1-5; 2009

Smart Algorithms

QuietCare's advanced capabilities utilize strategically located sensors that detect residents' motion as they move about, enter or leave their apartment. It also monitors the use of doors on refrigerators or medicine cabinets. Data sent from the sensors is analyzed by QuietCare's smart algorithms to detect out-of-the-ordinary events that may put residents at risk.

Unlike rules-based systems, QuietCare's algorithms are able to "learn" the activity patterns of individual residents – leading to a much more personalized and responsive care plan.



- 1 Residents go about their daily routine with privacy and dignity intact.
- 2 Motion sensors are placed throughout apartment to track resident activity.
- 3 Sensors relay activity data to communicator or router.
- 4 Activity data transferred to central computer for analysis.
- 5 Software analyzes data to identify potentially urgent situations and significant changes in daily routine.
- 6 Alerts for potentially urgent situations are sent to the staff so they can respond promptly.
- 7 Password-protected, comprehensive resident reports are also available online.

Examples of information provided

Possible responses

Extended stay in bathroom	Check bathroom to ensure resident has not fallen or become ill
Leaving bedroom later than usual in a.m.	Check to see if resident needs help
Wander	Locate resident and provide appropriate assistance
Night motion	Check on resident to see if they need help returning to bed
Temperature	Adjust room temperature accordingly.
Nighttime bathroom use	Increase or decrease in bathroom visits may indicate a health problem
Increased/decreased activity	Atypical activity levels may indicate a change in health status, medication or mood
Decrease in meal preparation activity	Talk to resident to assess reasons for change
Accessing medication storage area	Discuss medication compliance with resident



Intervene faster.

At the core of proactive care is the ability to identify risks and intervene in a way that may change the outcome. When certain deviations from normal resident activity are flagged caregivers are alerted. This gives them the opportunity to take preemptive measure to help assure resident safety and well-being.

A system that translates knowledge into action...

The integrated relationship between QuietCare's detection capability and the caregiver's response can lead to a better chance of mitigating emerging health concerns. QuietCare empowers caregivers to improve care by giving them the tools they need to anticipate potential issues and tailor individual resident care plans accordingly.

...action that translates into quality care.

Because QuietCare is able to learn the activity patterns of individual residents and look for anomalies specific to their routine, caregivers may be able to identify potential risks much earlier. When the right action is taken, some falls and other potentially serious health concerns may be averted, enabling seniors to remain independent and healthier longer. And when falls do occur, caregivers will likely be able to respond faster, improving the "Golden Hour" opportunity to get treatment quickly.

5 GE-commissioned study in Northeastern U.S.

6 GE-commissioned study in Midwestern U.S.

Increase success.

Successful communities optimize all available resources to empower their caregivers to achieve a higher standard of care. In doing so, both residents and caregivers benefit which creates an atmosphere of trust and assurance. In this environment, success is measurable. By providing information that may potentially reduce falls and the risk of other emerging health concerns, seniors may be able to stay independent longer. At the same time, healthcare providers can develop more tailored care plans that make them confident they are performing their job at the highest level.

Achieving higher occupancy rates.

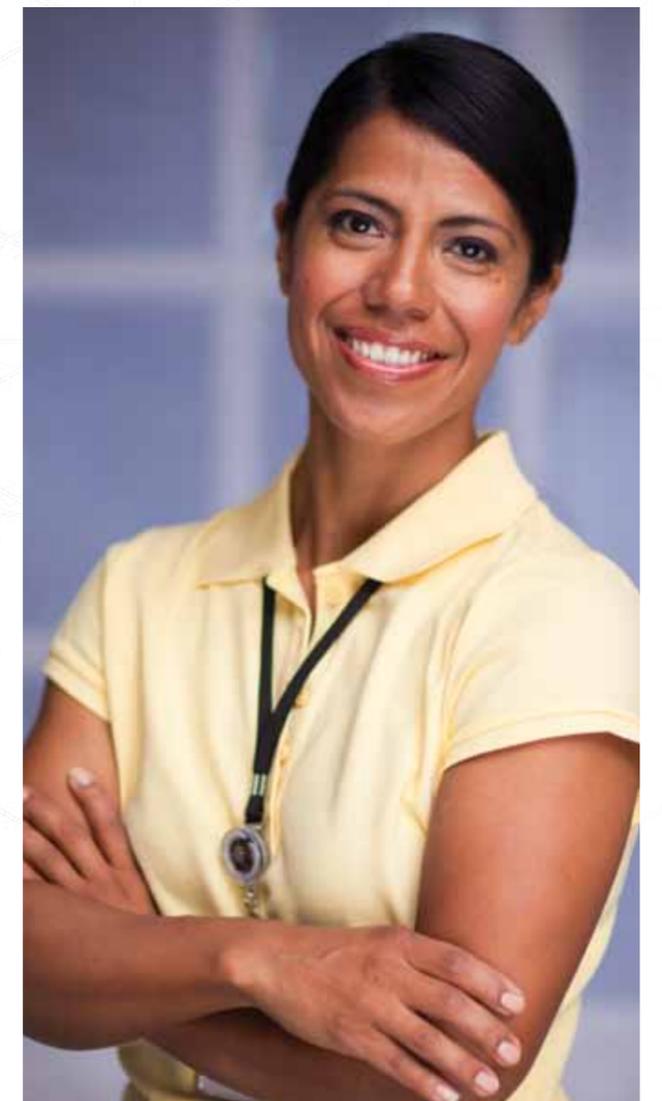
Many communities report that QuietCare's ability to identify activity changes and potentially urgent situations is contributing to retention of both residents and staff. By detecting potential problems early, QuietCare can help staff to intervene and enhance the wellness and safety of their residents – leading to longer stays. Early studies have indicated higher occupancy rates in senior care communities using QuietCare and an increased – by as much as 60% – length of stay⁵. QuietCare can also help improve staff accountability, and increase staff morale and retention. By providing tailored information on each resident, the care model may become more efficient and meaningful – shifting from a scheduled rotation to a needs-based delivery.

Increasing revenue.

Two studies^{5,6} illustrated how QuietCare is helping to positively impact revenue. As caregivers are empowered to become more proactive and intervene, resident service levels may also increase. One study showed a need for higher levels of care and associated service levels that resulted in an average monthly service increase in revenue of \$107 per resident⁶. These service levels help residents to stay where they are even as they increase their need for care. And in instances where more acute care is needed (such as dementia), residents can be transferred to higher care areas proactively before more serious risks emerge.

Building trust and confidence.

Both employee and resident retention can be increased when a care system enables staff to improve responsiveness and service delivery. QuietCare provides necessary tools to help community owners and caregivers optimize resident care. And, care becomes more personal when it is determined by actual needs and resident privacy is prioritized without unnecessary intrusions. The goal is to build resident and family confidence in your community and their care through improved quality assurance and accountability. Care Innovations' experienced service and clinical support teams work closely with each retirement community to help customize its QuietCare system and get it up-and-running quickly.





The QuietCare system is not an emergency response or alarm system and is not intended for providing medical care.

Data from the QuietCare system should not be relied on as medical advice or clinical diagnosis.

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