

## Case Study:

# Life Safety Systems Improve Staff Workflow, Response Times, and Resident Experience



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### Categories:

- ◆ Reduced Response Time and Incidences
- ◆ Increased Resident/Staff/Family Safety and Satisfaction
- ◆ Increased Peace of Mind

### About the Organization

**Organization Name:**  
Birmingham Green

**Main Contributors:**  
Vivian Coda, Life Enrichment Director; John May, Facilities Director; Michael Sharifi, Director of Procurement Services

**Organization Type:**  
Long Term Care, Rehabilitation, and Memory Care

**Organization Description:**  
Birmingham Green, located in Manassas, VA, was first created in 1926 as the District Home of Northern Virginia, the first consolidated home for the poor in America and accommodated 50 patients. Today, the Birmingham Green campus consists of three facilities and provides assisted living, rehabilitation, long-term care, and memory care services to over 300 residents. They have highly trained staff and amenities that provide the best experience and care for residents.

### Project Description

With the pandemic raging through the health care industry, Birmingham Green looked for ways to improve its safety systems and help residents in isolation. The organization had dated nurse call and wander management systems that desperately needed to be replaced. Additionally, it needed a way to entertain residents with minimal contact with each other. The solution was to offer tablets to every resident for entertainment, community updates, and personal use.

### Safety Technology Category

Emergency Notification, Elopement Prevention, and Access Control

### System Embodiment

A modern wireless nurse call system was installed, including wall-mounted stations and wearable pendants for the residents. An elopement prevention system was also installed and integrated to the door access and nurse call systems. Both nurse call and elopement prevention alerts are sent to staff smartphones. With the offering of resident tablets, community members can now access general and emergency information about the community.

### Business Model

Standard of Care

### Implementation Approach

Birmingham Green has created a community that focuses on “fostering the spirit, nurturing the body, and nourishing the mind.” With that in mind, Symtech Solutions presented them with the Acuity wireless nurse call system that included wearable pendants. The wireless pendants allowed residents to call for help with a press of the button from anywhere in the building. It gives each resident independence, while offering staff and family peace of mind. When activated, staff are alerted of the resident’s exact location within seconds. Alerts are sent directly to the staff’s smartphones and to the Acuity staff consoles located throughout the community.

Adding to their new nurse call system, Birmingham Green upgraded its elopement prevention system as well. The new system automatically locks doors when specific residents get close to a restricted door. If a resident does elope or go into an area without staff knowledge, it will alarm. Additionally, when a resident loiters near a restricted door for a certain amount of time, it will alarm. Staff are again notified

through their smartphones and Acuity staff consoles. The doors breached will also alarm, guiding staff to where the resident has been.

Lastly, Birmingham Green needed a way to keep its community updated throughout the crazy times of COVID-19. Some of their residents had to be isolated, as they tested positive for COVID-19. The solution was resident tablets that included community announcements, food menus, and community activities that could be updated easily by staff. The resident tablets were also designed to help improve cognitive health by providing residents with different forms of entertainment like streaming services, music, games, and video chat communication to friends and family. These tablets are a big success to residents who were alone in isolation.

## Outcomes

The nurse call system was installed with the ease of staff transition and training in mind. Symtech Solutions was able to match the alert sounds that the previous nurse call system was using. Additionally, we were able to match the colors of the dome lights that were originally used as well. Along with training, this helped staff transition and adapt to the new system very quickly and painlessly. Today the system is running flawlessly. The addition of smartphones receiving alerts has made response times better and helps with alarm fatigue. Key staff members have access to the reporting software and those members get weekly reports emailed to them automatically. Residents adapted quickly as well, and really enjoy the wearable pendants; they are comfortable, can be worn when bathing, and have long-lasting batteries.

Elopement prevention has also been working as intended. With this system being more complex, there was a greater learning curve for staff and residents. Furthermore, it took some time to fine-tune the system to work as Birmingham Green expected. The addition of having alerts sent to smartphones allows staff to respond quicker and reduce the chance of accidental injuries from elopements.

The resident tablets have been embraced by the residents with open arms. Some residents had little to no experience with tablets or computers, which created some hesitancy. Staff have mentioned that it's great seeing those hesitant residents carry their tablets around with them and interact with other residents using them. Staff believe the overall morale at the community has been lifted with the addition of the tablets. The families of the residents are equally as happy, knowing that they can now video chat and connect with their loved ones from the tablets.

## Challenges and Pitfalls to Avoid

A large challenge with the elopement prevention system was fine-tuning its range of sensing the residents. Early on there were some false alarms. For example, one resident had their room right next to a restricted door. When the resident was in their bathroom, they would be in the door's range and if that door was opened it would alarm. We ended up decreasing the range of the field so it would not detect the resident when they were using their restroom. With every community being unique, the system requires fine-tuning and customization.

## Lessons Learned/Advice to Share with Others

Improving your residents' safety and experience, and your staff workflow, among other things, can be achieved sometimes with the simplest of changes. Taking a required nurse call system and making it easier for staff to use and improve workflow can be done in multiple ways. In some cases, the current nurse call system can have additional features added to help with smaller budgets. Putting the power in caregiver's hands with smartphones helps tremendously for staff who are moving throughout the community.

Residents don't want to feel like they are in a long-term care facility; as Americans we pride ourselves on our independence and strength. Giving residents freedom, but the security of wearable "call for help" pendants, is a great way to improve morale. It makes the community feel less clinical and more like home. This goes for elopement risk residents as well. Generally, most elopers struggle with dementia and wander without knowledge or a destination. The wearable pendants are sleek and styled like a fitness watch, so they don't feel embarrassed having to wear it, but most importantly keeps them in within the safe spaces within the community.

Lastly, the next generation of seniors coming into long-term care are more familiar with technology. Providing them with community tablets is a great way to welcome them to their new home. This allows them to stay up to date with the community, entertain themselves, and connect with others. This continued stimulus has shown to improve cognitive health in all ages! Additionally, these tablets are a great incentive for family and friends to have their loved one stay at your community. It shows that the community is providing new ways to entertain and care for to their residents through technology.