



# A helping hand: Practical ways to enhance the safety, dignity and quality of life of dementia residents in long-term care facilities

*Facilities that care for people with dementia face numerous serious challenges. One of the most pressing is how to provide the safest, most secure environment possible—while simultaneously promoting each individual’s dignity, independence and quality of life. Smart technology such as wearable transceivers and location beacons can go a long way towards achieving this crucial objective.*

The dramatic increase in life expectancy throughout most of the world in the twentieth century is rightly considered a medical and public policy triumph. However, living longer does not necessarily mean living better. Indeed, Dr. John Beard, Director of the Department of Ageing and Life Course at WHO, states: “There is very little evidence that the added years of life are being experienced in better health than was the case for previous generations at the same age”<sup>1</sup>.

One major health issue generated by an aging population is dementia. The statistics are alarming: every third second an individual somewhere in the world is diagnosed with dementia, and the total number of people living with dementia is predicted to reach almost 75 million by 2030.<sup>2</sup>

As the number of people with dementia increases, so will the number of dementia sufferers residing in long-term care facilities. This will in turn place enormous pressures on facilities’ frontline staff and management. Care facilities will have to invest in new technologies and equipment in order to provide adequate ongoing care. Staff will have to follow a growing body of guidelines and protocols designed to ensure residents’ safety and dignity. And management will have to find the optimum compromise between rising care costs, budget constraints, and the requirement to provide the best care possible.



## Key facts about dementia



- The U.S. National Institutes of Health defines dementia as a group of symptoms caused by disorders that affect the brain.<sup>3</sup> It is not a specific disease. People with dementia may gradually lose the ability to perform everyday tasks such as dressing, bathing and eating. They may lose their ability to solve problems or control their emotions. Their personalities may change. They may become agitated, or see things that are not there.
- Memory loss is a common symptom of dementia. However, memory loss by itself does not signify dementia. People with dementia have serious problems with at least two brain functions.
- Dementia is common among the very old. But it is not part of normal aging.<sup>3</sup>
- Alzheimer’s Disease is by far the most common form of dementia, and typically progresses slowly through three stages: mild, moderate and severe. On average, a person with Alzheimer’s lives four to eight years following diagnosis, but can live as long as 20 years.<sup>4</sup>
- An estimated 46.8 million people are living with dementia today.<sup>2</sup>
- In the US, one in three seniors die with Alzheimer’s or other dementia each year. An estimated 5.3 million Americans currently suffer from Alzheimer’s.<sup>5</sup>
- In Australia, more than 353,000 people are living with dementia, a number expected to reach nearly 900,000 by 2050 in the absence of significant medical breakthroughs.<sup>6</sup>
- Germany has more than 1.5 million people with Alzheimer’s.<sup>7</sup> Researchers predict that the number of dementia sufferers in the country will double by 2050.<sup>8</sup>



Wandering and elopement are common problems among dementia sufferers. The former is understood by the North American Nursing Diagnosis Association as: “meandering, aimless, or repetitive locomotion that exposes the individual to harm; frequently incongruent with boundaries, limits or obstacles”.<sup>9</sup> Elopement can be understood as “the act of leaving a safe area unsupervised and unnoticed and entering into harm’s way”.<sup>10</sup> According to the Alzheimer’s Association, six out of ten dementia sufferers will wander, putting themselves at risk of injury and/or becoming lost.<sup>11</sup>

Care facilities face obvious dilemmas and challenges when attempting to minimize the risk of wandering and elopement. Restricting an individual’s movement can raise serious ethical, legal, medical and practical concerns. For instance, confining a person with dementia within a locked room prevents wandering. But it also deprives that person of the benefits of exercise and socialization. Moreover, locking doors can unnecessarily restrict other residents who do not require such safeguards. Constant face-to-face monitoring is an alternative—but it is impractical, costly, and risks demeaning the resident. Loud and disruptive electronic movement alerts can cause the dementia resident to become anxious or agitated—mental states known to trigger wandering behavior.<sup>12</sup>

Fortunately, today’s smart ‘Wanderer Control’ solutions offer a way out of the dignity-versus-safety dilemma posed by dementia-related wandering. These solutions typically consist of wearable transceivers, low-frequency location beacons, movement sensors and two-way communication systems. They let staff easily monitor and track a resident’s whereabouts. At the same time, these solutions help maximize mobility and freedom-of-movement for dementia residents. And of course, knowing that their loved ones are in a safe yet dignified environment can help reassure residents’ families.

#### **What makes up a Wanderer Control solution?**

The specific details of a Wanderer Control solution will of course vary from care facility to care facility. In fact, extreme customization is a hallmark of today’s monitoring and alert systems. However, a modern wanderer control solution includes an expert solution provider and at least one of the following elements:

##### **Wearable transceivers**

These devices let staff keep a discreet, respectful eye on at-risk residents. Unobtrusive and attractively designed, such devices can be worn around the neck as a pendant. However, devices in the form of a securely fastened wristband are often preferred for persons with more serious dementia.



This type will also alert staff when removed. Both versions can be color-coded for quick and easy resident identification. The devices may also include a ‘no-motion’ feature that alerts staff if no movement has been detected over a pre-determined period of time.

Esthetics and ergonomics are important aspects of modern wearable transceivers. The ability to choose from a range of differently colored device attachments helps residents express their personal styles and identities. It can also help prevent ‘alarm stigma’, and contributes to improving residents’ self-esteem.

##### **Two-way communication systems**

Bi-directional communication between residents and staff can be particularly effective in calming and reassuring residents with mild to medium dementia. A resident can, for example, send an assistance request directly to a staff member’s mobile device. The staff member can acknowledge the request with a reassuring call. If unable to immediately act on the request, the staff member can pass it along to a colleague, while also letting the resident know that assistance is on its way.

Many two-way communications systems are available with a wide range of functionality and options. An alert signal from a resident can for instance be sent to a variety of receiving devices. This means an alert or an assistance request can go to corridor and door signs, PC monitors and other systems, in addition to staff members’ mobile handsets. The main benefit of such broad alert distribution is that staff members can quickly learn about the resident’s situation and exact location.

##### **Location beacons**

Low-frequency (LF) location beacons discreetly transmit residents’ locations to staff members. The LF beacons



interact with residents' wearable transceivers, and can pinpoint a resident with a high degree of accuracy. The most advanced LF beacons are compact, unobtrusive, easily mounted on walls, and run on durable, long-life batteries. Such LF beacons should feature a tamper alarm, and should also be able to alert staff when vulnerable residents are entering risk zones or approaching prohibited exit areas.

Knowing the location of vulnerable residents delivers numerous benefits. The residents themselves are of course in a much safer environment when compared to residents without LF beacons and wearable transceivers. They also gain the benefits of discreetly supervised exercise and mobility. Staff have more time for meaningful face-to-face interaction with residents. And residents' families can benefit from an enhanced sense of reassurance. Finally, the use of LF beacons and wearable transceivers can help eliminate the use of anti-psychotic medications and physical restraints. Such measures are inappropriate interventions for wandering. They increase the risk of pressure ulcers, infections, falls and sedation, and can promote anxiety, agitation or violence.<sup>13</sup> Moreover, the improper use of physical restraints can cause injuries of varying severity, some of which can be fatal.<sup>14</sup>

#### **The importance of an expert solution provider**

The supplier of a wanderer control system is an often overlooked part of the overall solution. In-depth experience is required of a supplier in order to ensure that all applicable standards and protocols are met. Also, technical expertise—as well as an understanding of the daily realities facing care facilities—is required in order to integrate the solution with existing or planned communication systems. Finally, it is important to select providers that have the resources to deliver ongoing support and services such as training, software updates, planned maintenance and emergency coverage.

#### **Benefits for all**

When used correctly, smart technology can significantly benefit all parties in the complex equation that makes up long-term dementia care: residents, staff, residents' families, care facilities, regulatory agencies, public bodies and private companies.

#### **Residents – dignity and freedom**

By maximizing freedom of movement within a secure environment, smart technology can contribute to enhanced self-esteem among residents. Mobility also promotes exercise and social interaction among residents with dementia. Other residents, too, stand to benefit from the deployment of

smart technology, as the absence of loud alarms and frantic searches for wanderers helps create a calmer, more peaceful atmosphere for all. Also, smart technology facilitates what the Alzheimer's Association calls "meaningful activities", which are described as "the foundation of dementia care because they help residents maintain their functional abilities and can enhance quality of life".<sup>15</sup>



#### **Families and friends – peace of mind**

Reassurance. Peace of mind. Confidence. Nothing is more important to a dementia sufferer's family and friends than the knowledge that she or he is receiving the best possible care. The use of smart technology—by providing safety with dignity—can help develop this critical sense of security. This in turn may help alleviate some of the stress and anxiety felt by many families of dementia sufferers.

#### **Staff – job satisfaction**

The discreet monitoring of residents with dementia offers numerous benefits to staff at long-term care facilities. Most obviously, staff gain extra time that can be spent in more face-to-face care with residents. Staff may also benefit from a less stressful working environment, and from working with less agitated residents. Smart wanderer control technology can also boost job satisfaction and morale—staff know they are using the latest technology to provide quality care.

#### **The care facility – enhanced reputation**

Smart wireless technology is a cost-effective way for care facilities to reduce the risks associated with wandering and elopement. Such technology can also offer a competitive advantage to long-term care facilities. As the children and families of those with dementia increasingly seek the best possible care for their loved ones, they will increasingly insist on the use of smart, discreet technology. Nobody wants their loved ones to be unnecessarily restrained or medicated.



Discreet, wireless monitoring also answers the call for ‘person-centered’ care. Described as an “urgent need” by the American Society on Aging, person-centered care is defined by the Institute of Medicine as “respectful of and responsive to individual patient preferences, needs, and values and ensuring that patient values guide all clinical decisions”.<sup>16</sup>

Smart technology can also help care facilities comply with human rights legislation. Such legislation is designed to safeguard the rights of individuals, and is assuming more and more relevance in Healthcare worldwide. In Great Britain, for instance, The Human Rights Act of 1998 incorporated the rights contained in the European Convention on Human Rights into domestic UK law. More generally, many nations have signed the UN Convention on the Rights of Persons with Disabilities.

As a result, care facilities may find themselves coming under close scrutiny as to the level of human dignity and personal freedom they provide for residents.

## Conclusion

Without a major medical breakthrough in the near future, most people alive today will be affected by dementia in some form or another. The issues of human dignity, freedom of movement, quality of life and safety are assuming more and more importance—and are becoming decisive factors when deciding on care plans and care facilities. By using smart and discreet wanderer control technology, care facilities can effectively provide their residents with safe, dignified care, while simultaneously achieving organizational viability.

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