

Integrated Solutions Mean New Independence for Residents

Owen Roberts

Betty Kolewaski faced a unique challenge. As the administrator for the new \$23-million (CDN) Dianne and Irving Kipnes Centre for Veterans in Edmonton, Alberta, Canada, she was charged with maintaining resident safety in the sprawling continuing care facility, while helping the 120 residents maximize their enjoyment of its spacious home-like design. The Kipnes Centre features a community of 8 houses spread over 2 floors and joined by common areas. Its design promotes an unusually relaxed and open environment, where residents have unprecedented freedom to roam in specified areas. “We wanted our veterans to live in an environment that feels like home,” says Kolewaski, “one that reflects their contributions to all Canadians.”

The Kipnes Centre is located on nearly 5 acres of land inside the former Canadian Forces Base Griesbach. The center is named in honor of the philanthropic Dr. Dianne and Irving Kipnes, the lead private donors to the project. Additional support came from Veterans Affairs Canada (\$5.2 million for enhanced programming) and the Alberta government (\$7.2 million). A capital fund-raising campaign rendered the project \$7 million, which included



the Kipnes' \$2-million donation.

The Kipnes Centre's design is based on a “neighborhood” approach, with each of the private rooms grouped into 8 houses of 15 residents. The houses—each with its own kitchen, dining room, and access to outdoor gardens—meet at a main floor “town square,” surrounded by amenities such as an exercise room, a barber shop, a pub, a bistro, and a coffee shop. The center can also accommodate female veterans, as well as the

spouses of veterans who require continuing care. “When people first see it, they comment on how it looks more like a hotel than a nursing home,” says Kolewaski.

When its doors opened in November 2005, the center drew immediate accolades for its home-like atmosphere, unique housing arrangements, and nearly invisible and inaudible utilization of high technology. Gone was the incessant jarring jangle of technical equipment, beepers, and alarms, and

hectic nursing stations that, in older facilities, were representative of acute care rather than continuing care. Instead, the Kipnes Centre felt and looked like home—quiet, peaceful, and bereft of the dreaded beeps and dings heard throughout older facilities.

Safety and independence are key, and both come together with the wander prevention technology instituted at the Kipnes Centre, using the combination of electronic pendants, wristbands, and a computer tracking system. “Our goal was to promote resident independence, while maintaining safety in a secure, home-like environment,” says Phyllis Hempel, Chief Executive Officer of *The CAPITAL CARE Group*, operators of the Kipnes Centre and 10 other continuing care centers in the Capital Health region. “We knew we would need an advanced system of communications befitting of the Kipnes Centre’s advanced design,” Hempel acknowledges.

That led administrators and the facility’s designers to a cooperative coordinated initiative involving 5 leading technology companies. Together, they put together a seamless system that allows nursing staff to monitor residents from anywhere in the facility. It combines systems for nurse calls, door controls, emergency calls, door intercoms, and patient wander, all in one package. “When it comes to integration, it’s one of the top projects in North America,” says Hempel. Wayne Campbell, Manager of Facility Projects for *The CAPITAL CARE Group*, agrees, adding, “We’ve been very proactive in trying new things and coming up with a customized solution.”

With regard to technology for the Kipnes Centre, *The CAPITAL CARE Group* chose a Rauland Responder 4000 nurse call system, a VeriChip RoamAlert resident protection system, a Keyscan door control and monitor system, and a Spectralink Link 150 wireless telephone

system, while utilizing Globestar Connexaa Integration software to allow communication among the various technologies. “The system put together for the Kipnes Centre shows how flexible the technology can be,” says Diane Hosson, Marketing Manager for VeriChip. “Continuing care in a facility with as unique a design as the Kipnes Centre is a big challenge, and the technology needs to be versatile enough to meet the demand.”

Rapid tracking is made possible by strategically placed locating receivers in a facility’s ceiling, which pick up signals from each resident’s wristband so that their location is known at all times.

All parts of the system contribute to its effectiveness. Connectivity is critical, revolving around wireless telephones, electronic pendants that look a lot like iPods, and electronic wristbands.

How the Technology Works

When a resident wants assistance, he simply touches his pendant, starting a chain reaction. A text message is immediately sent to a nursing attendant’s phone, which displays the resident’s name and room number. The phone is set on “vibrate,” rather than “ring” or “buzz,” so that the only person aware of the call is the attendant. If she or he is busy and the call goes unanswered, a call-escalation protocol begins, with the message automatically forwarded after 2 minutes to the attendant’s partner. If the call is still unanswered after 2 more minutes, it routes to the licensed

practical nurse and finally to the registered nurse on duty.

While the nurse call system works fine for self-directed residents living on the second floor, what about the 70% of residents who have some form of dementia and cannot call for assistance, or because of their tendency to wander, are at-risk for elopement? In such cases, residents living on the first floor are provided with an electronic wristband equipped with a locating device that sends a signal to staff that a resident is “on the move.” If a resident tries to leave the center through the front or back doors or the elevator, access is immediately denied. Similarly, if a resident has lost his way in the building or on the grounds, a staff member simply types the resident’s name into the computer and his location is identified within seconds. This rapid tracking is made possible by strategically placed locating receivers in the facility’s ceiling, which pick up signals from each resident’s wristband so that their location is known at all times. By overlapping the sensors’ coverage area, no areas in the center are without detection. “It’s like cell phone coverage and a satellite,” says Campbell. “As you roam with your phone, you pick up a new service provider. The same goes for this system.”

The integrated technology systems enable residents to wander freely in secure areas, including all common areas and the center’s extensive gardens. In addition, they act as a gatekeeper to safeguard wandering residents from the risk of elopement.

Future Applications

The effectiveness of the integrated communications systems will be measured in a post-occupancy evaluation conducted at the Kipnes Centre. *The CAPITAL CARE Group* is working with the University of Alberta to examine the impact of

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environmental change from the traditional continuing care center that residents previously occupied to that of the Kipnes Centre. Researchers are observing ways the veterans, their families, and the staff use the public spaces in the center, how residents adapt to the home-like features, whether they find the buildings user-friendly, and if mealtime atmosphere has a positive impact on consumption and nutrition. Because it is rare to move an entire group of people from one facility to another that's so different, and be able to observe the changes and implement positive results elsewhere, researchers consider this a unique opportunity to develop a comparative analysis.

The CAPITAL CARE Group is uniquely positioned to accomplish this feat. The public company, a wholly owned subsidiary of Capital Health, is among the few continuing care providers in Canada with a dedicated research unit. Its experience in building modern continuing care centers started in 1995 with McConnell Place North in Edmonton (Canada's first residential care center

for people with Alzheimer's disease) and has culminated in the Dianne and Irving Kipnes Centre for Veterans as its most recent endeavor.

In keeping with its decade-long drive to become the Western Canadian leader in practice-based research, on-site student training, and evidence-based practice, The CAPI-



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TAL CARE Group is planning a continuing care teaching center in downtown Edmonton, in collaboration with the University of Alberta and NorQuest College. It envisions a center of excellence that integrates clinical care with education and research for seniors in continuing care and supportive living envi-

ronments. Historically in Canada, teaching and research have not been intentionally incorporated into continuing care settings, despite the obvious need—continuing care beds outnumber those found within acute care facilities, where most of the research has taken place. In contrast, within the teaching nursing homes developed and evaluated in the United States, Hempel says significant positive outcomes have been documented, including improved quality of care for residents, as well as benefits for the health care professionals and researchers affiliated with these settings.

"Our model has been replicated in a number of places in Canada," says Hempel. "It's a model that really makes residents feel at home." ALC

Owen Roberts is a journalist and Director of Research Communications at the University of Guelph, a major life sciences education and research institution near Toronto, Canada. In his 25-year writing career, he has been recognized by the Council for the Advancement and Support of Education, as well as the Association for Communications Excellence. He is a candidate in the Doctorate of Education program at Texas A&M University and Texas Tech University.