

# Home-Based Video Telehealth for Veterans With Dementia

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In-home video telehealth supplements office visits and offers comfort and convenience to patients with dementia and their caregivers.

For nearly 4 decades, the unifying focus of the 2-site New England Geriatric Research Education and Clinical Center (GRECC) has been on dementia and related disorders. Veterans with dementia are an extremely vulnerable population with high rates of health care use that is projected to total > \$203 billion in the U.S. in 2013.<sup>1</sup> Their caregivers are also among the most burdened, having provided about 17.5 billion hours of unpaid care in 2012, which is valued at more than \$216 billion.<sup>1</sup> Additionally, spouses, who are the most common caregivers of persons with dementia, often experience poor health outcomes related to the experience of living with the afflicted spouse.<sup>2</sup>

Currently > 200,000 VA patients have dementia, and that number is expected to increase.<sup>3</sup> Dementia is largely a disease of the elderly; thus, many veterans with dementia also

have other medical and orthopedic conditions that increase their frailty and decrease their mobility. Behavioral and psychological symptoms are present in > 75% of people with dementia, contributing to the relative isolation of both those with dementia and their families.<sup>4</sup>

Disruption in routine and removal from familiar surroundings can cause many patients, particularly in the moderate stages of dementia, to become disoriented and agitated. For these patients, VA clinics can be unsettling and may reveal behavior that is not the same as the veterans' behavior at home. For these reasons, veterans with dementia likely may benefit from remote access to health care via telehealth. However, current

telehealth applications for this population are vastly underdeveloped.

## VIDEO DEMENTIA MANAGEMENT

Many GRECCs and other VA geriatric programs provide video-based dementia evaluations and management at community-based outpatient clinics (CBOCs) affiliated with their medical centers. At this point, close to a dozen GRECC and geriatric programs nationally have geriatric psychiatrists, geriatricians, or neurologists conducting such visits from their office or clinic space with video links to a telehealth-enabled room in the corresponding CBOC.

The visits usually entail having the veteran and, when appropriate, a family member check in at the local

The VHA Geriatric Research Education and Clinical Centers (GRECCs) are designed for the advancement and integration of research, education, and clinical achievements in geriatrics and gerontology throughout the VA health care system. Each GRECC focuses on particular aspects of the care of aging veterans and is at the forefront of geriatric research and clinical care. For more information on the GRECC program, visit <http://www1.va.gov/grecc>. This column, which is contributed to by GRECC staff members, is coordinated and edited by Kenneth Shay, DDS, MS, director of geriatric programs for the VA Office of Geriatrics and Extended Care, VA Central Office, Washington, DC. Please send suggestions for future columns to [Kenneth.Shay@va.gov](mailto:Kenneth.Shay@va.gov).



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CBOC for the appointment and receiving assistance throughout the video visit from the telehealth technician at the CBOC.

The technician assists with the technical aspects of the encounter, including establishing and maintaining the video link to the VA medical center (VAMC), and often is trained to administer a brief standardized mental status assessment. The telehealth technician also helps pass along the physician's written recommendations to the veteran and family once the recommendation summary has been sent by e-mail or printed on the CBOC printer. These VAMC-CBOC video telehealth programs have been very popular with veterans, particularly those in rural settings, since traveling to the CBOC is usually more convenient.

### HOME-BASED VIDEO PROGRAM

While CBOC-based video telehealth programs expand the population of veterans able to benefit from specialty dementia care, any travel out of the home can be challenging or disruptive for many veterans and their families. In addition, the performance and demeanor of a veteran with dementia in a clinic setting is sometimes different from that which the family describes as their more typical behavior at home.

A new in-home video telehealth program developed by the GRECC at the Edith Nourse Rogers Memorial Veterans Hospital in Bedford is addressing these issues. The Bedford site of the New England GRECC offers in-home clinical video telehealth services to community-dwelling veterans and caregivers as an extension of their Interdisciplinary Memory Assessment Continuity Clinic (IMACC). Currently, the percentage of IMACC

veterans/caregivers who have voluntarily signed up for the program is nearly 30%. About 70% of the families that have enrolled to date have their video visits with their spouse caregivers.

Veterans participating in the home video telehealth program have had at least 1 in-person visit at the Bedford IMACC before being invited to join. Veterans and their caregivers are invited to participate in the GRECC home telehealth program either at the time of an in-person IMACC visit or afterward via a telephone call from either a provider or a member of the telehealth staff.

Telehealth visits are offered as a supplement to regularly scheduled in-person visits, not as a substitute. The frequency of telehealth visits is individualized, depending on the medical status of the veteran and preferences of the caregiver. Some participating families, finding the telehealth format much more convenient, have asked whether they could postpone upcoming in-person visits at the VAMC. Many patients are particularly interested in minimizing medical visits in the winter months in New England.

### Case Example

*A male World War II veteran with moderate stage dementia lived with his wife in an apartment down the street from his adult son and daughter-in-law. His son and daughter-in-law visited and helped with the veteran's care most days, but his wife was his primary caregiver. However, due to her own mobility issues, she was unable to attend the veteran's in-person IMACC initial evaluation or subsequent follow-up visit.*

This family enthusiastically embraced the opportunity to participate in the home video telehealth

program and had multiple telehealth visits. During these video encounters, the veteran, his wife, and his son and daughter-in-law were present. The clinician, communicating via computer from the Bedford VAMC, was able to hear from all the caregivers, observe the veteran as he interacted with each person, and watch as he walked within the comfort and familiarity of his home.

Based on these observations, the veteran was clearly at risk for falls. The clinician ordered a home safety consultation as a result. Thus the home video telehealth program allowed this veteran's mobility-impaired wife to participate directly in his dementia care. It gave the clinician an opportunity to spot potential fall risks within the veteran's home before a disabling fall and provided the entire family with additional, convenient dementia-related care beyond the standard in-person VAMC visits.

### Establishing Home Video Links

Veterans must already have broadband Internet access and a home computer or laptop to participate in the program. To assess the connectivity status and computer comfort level of the family, a Bedford VAMC telehealth technician calls the caregiver to assess their computer, operating system, presence of a webcam, and Internet service provider.

In addition to assessing the equipment necessary for the telehealth visit, the Bedford VAMC telehealth team also determines whether or not the caregiver has had experience with videoconferencing. Based on this information, the proper level of support is given to the family for both the initial software and, when necessary, VA-provided webcam installation.

On a few occasions, program staff have visited the veteran's home to install the software and camera. Thus the telehealth program is fit to the family needs and resources to ensure a successful visit. The Bedford VAMC telehealth team provides enrolled families with live phone-based support for download and installation of the VA-approved videoconferencing software and webcam. For each scheduled video telehealth visit, a telehealth technician is available via phone to assist the caregiver with initiating the video call to the clinician.

### NEXT STEPS

GRECC neurologist Lauren Moo, MD, is leading this telehealth initiative as a clinical demonstration project and is studying implementation of the service. Dr. Moo is collecting data on whether IMACC veterans/caregivers accept or decline enrollment and their reasons for declining. The goal is to empirically determine the degree to which age, Internet access, and other variables are barriers to wider adoption.

Dr. Moo predicts that the improved access to clinical care offered by home video telehealth will translate into reduced hotline calls, emergency department visits, and delay in community living center placement. Easier access should facilitate earlier intervention for common dementia-related issues, such as fall risk, behavioral symptoms, and disruption of circadian rhythm, thereby improving quality of life and reducing overall health care uti-

lization for this growing population of veterans.

There is the perception that geriatric veterans are not "wired" for Internet-based communications or lack the technical proficiency to use current and evolving technologies. However, a recent national survey suggests that while only 34% of those aged > 75 years use the Internet, there has been a significant jump in the percentage of Americans aged ≥ 65 years that use the Internet or e-mail: from 40% in 2010 to 53% in 2012.<sup>5</sup>

Once online, 70% of adults aged ≥ 65 years use the Internet on a typical day, suggesting that when given the necessary tools and training, seniors are enthusiastic technology adopters.<sup>5</sup> Thus, it is anticipated that the number of geriatric veterans interested in and able to take advantage of the in-home video visit format will grow rapidly in the near future. The initial enrollment rate at Bedford of 30% is expected to grow as families and providers become more familiar with this modality.

The Bedford VAMC is in an urban/suburban region with multiple Internet service providers, a relatively educated population, and comparatively low levels of poverty. As such, the Bedford VAMC veterans with dementia and their caregivers are likely a best-case scenario population in which to pilot this dementia home telehealth program. If the preliminary success of this pilot program is sustained, expansion to a broader range of home telehealth services, such as social work and home safety assessments,

to more rural settings would be the logical next steps. ●

### Author disclosures

*The authors report no actual or potential conflicts of interest with regard to this article.*

### Disclaimer

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