

Advances in Geriatrics

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The Driving Clinic: A Pilot Program for Veterans with Dementia

As the general U.S. population ages, the issue of driving safety among older adults is coming to the forefront. In 2007, there were 31 million licensed drivers aged 65 years or older,¹ and that number continues to increase. Serious motor vehicle accidents involving older drivers draw public attention and increased scrutiny over whether this population should be able to maintain their driving privileges. This scrutiny is especially prevalent for older drivers who exhibit symptoms of cognitive impairment, such as dementia or Alzheimer disease (AD). Statistically, older drivers are not involved in more vehicle accidents than other populations, but they do have more fatal crashes per mile driven than any other group except teenaged males.² Patients in the early stages of dementia may be able to drive safely, but progressive dementia inevitably leads to the need to retire from driving.³

For the clinician, addressing the issue of driving with a cognitively impaired patient can be challenging. To begin with, the discussion can evoke a very emotional response since driving often symbolizes the patient's independence, lifestyle, and mobility. This difficulty is compounded by the limited number of resources available to evaluate driving capability, a lack of consensus on the gold standard

for fitness to drive, and often limited transportation options for the patient apart from driving.

In 2006, the number of veterans with dementia was estimated at 548,000; by 2012, this number is projected to increase to 572,000.⁴ Given this prevalence, there is a clear need for the VA to address issues that surround dementia in this population, such as driving. At present, however, there are no programs in the VA health care system that serve exclusively the unique needs of the older driver with progressive cognitive impairment. Historically, VA driving programs have targeted patients with physical impairments, oriented toward rehabilitation, and focused on adapting the vehicle and teaching compensatory techniques. In such programs, it may or may not be necessary to reevaluate the patient's driving skills routinely. Conversely, older drivers with dementia almost invariably have a progressive disease, such as AD, that requires routine reevaluation to determine when it is appropriate to

begin transitioning the patient from unrestricted to restricted driving or, in severe cases, driving cessation.

The Minneapolis VA Medical Center (MVAMC) Geriatric Research, Education and Clinical Center (GRECC) is focused on the aging nervous system. A key component of the clinical program is the GRECC Memory Loss Clinic, in which patients are seen for the diagnosis and treatment of dementia. One of the most common problems that clinicians providing care to such patients must address is the driver with dementia. In an effort to help older drivers, their families, and clinicians deal with this complex issue, the Minneapolis GRECC proposed a driving program that focuses solely on older drivers with dementia. With the support of funding from the VISN 23 Fiscal Year 2008 Strategic Initiative Plus, an occupational therapist/drivers rehabilitation specialist (OT/DRS) was hired in March 2008 to design a pilot program that would use a best practices, evidence-based model for driving assessment. An automobile was pur-

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The VHA's 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 the web site (<http://www1.va.gov/grecc/>). This column, which is contributed monthly 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.

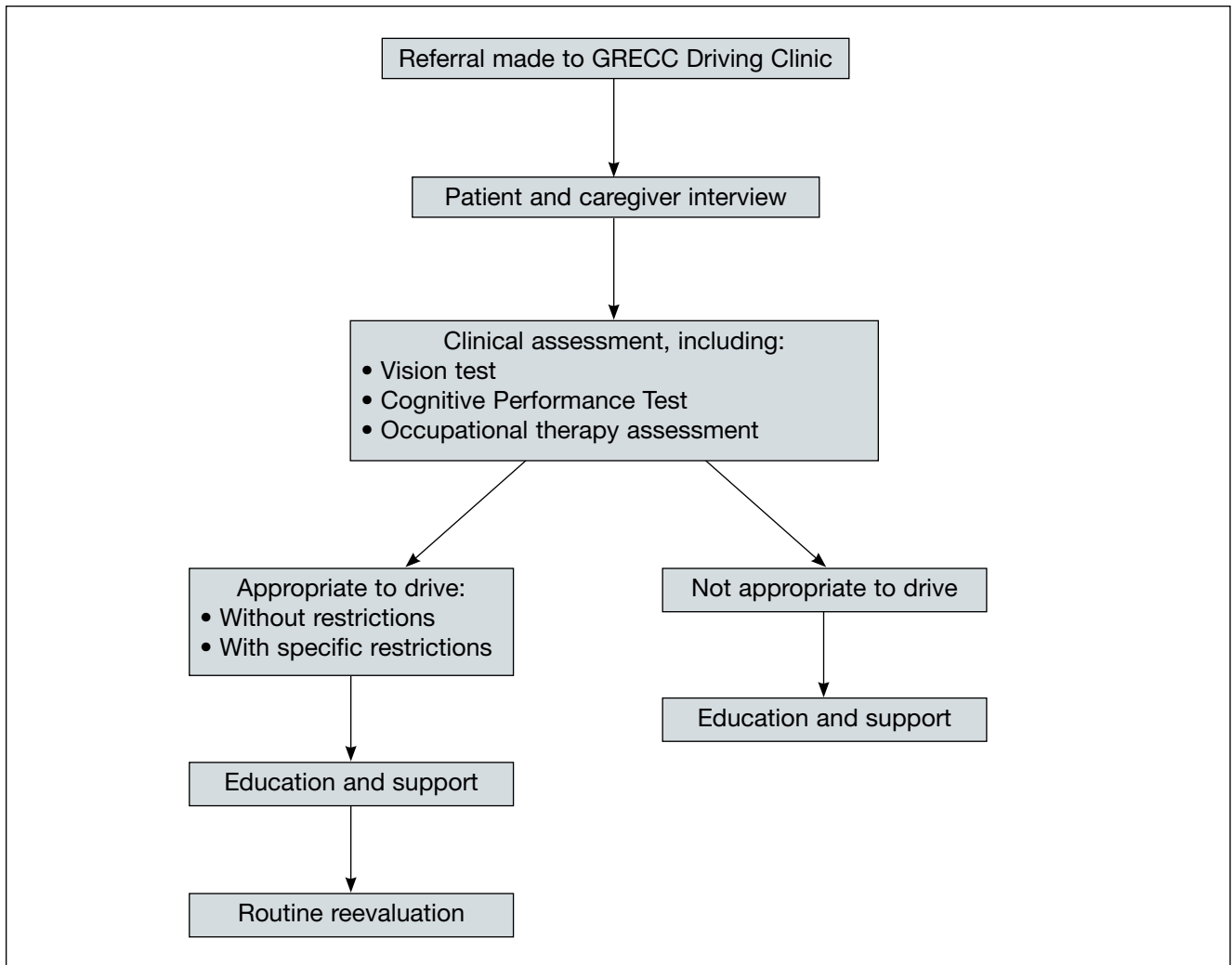


Figure. Driving assessment algorithm developed for the program piloted at the Minneapolis VA Medical Center Geriatrics Research, Education and Clinical Center (GRECC).

chased, and adaptations were installed to allow the OT/DRS to safely conduct behind-the-wheel testing. The Driving Clinic began in June 2008 and ended in June 2009.

THE PILOT PROGRAM

The program began with the premise that the key to success is having the initial conversation with the driver before he or she is required to stop driving. Engaging the person with dementia early in the decision process, when insight and reasoning are still relatively intact, may ease the transi-

tion for the often emotional, but necessary, decision to retire from driving.

Since many VA facilities do not have the resources to conduct a comprehensive driving evaluation that includes behind-the-wheel testing, we included in the pilot program components that could be used in any VA setting. Existing educational materials were identified and additional materials were developed to provide patients and families with the tools necessary to make a plan for limiting and eventually discontinuing driving. An algorithm and practice model also was

created (Figure). In addition, efforts are ongoing to correlate other clinical elements with the behind-the-wheel assessment with the goal of identifying a less time consuming and expensive means of predicting patients' ability to drive safely. Patients enrolled in the GRECC Memory Loss Clinic and the VISN 23 Dementia Demonstration Project (DDP) were targeted specifically when developing this program.

Initial and follow-up evaluations of patients seen in the GRECC Memory Loss Clinic and DDP clinic typically include a discussion about driving.

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Clinicians consider risk factors that could affect safe driving, including a diagnosis of AD or other progressive dementias, a score on the Mini-Mental State Examination (MMSE) of less than 24, or medications or other medical conditions that could contribute to impaired driving. Self-report, caregiver questionnaires, family reports of concerns, and other interview tools also have been developed to aid the clinician in identifying a history of unsafe driving. During the pilot program period, patients identified by their clinicians as being potentially at risk for unsafe driving were referred to the GRECC Driving Clinic.

THE DRIVING CLINIC

The GRECC Driving Clinic was designed to provide a comprehensive assessment of the driving skills of cognitively impaired older veterans. According to the model developed, the evaluation was conducted by the OT/DRS and began with an interview based on questionnaires developed specifically for this program.

The interview

Both the patient and caregiver are asked about the patient's driving behavior (such as getting lost while driving, recent accidents or near misses, and family members feeling uncomfortable riding in the car while the patient is driving). The interview helps the driving evaluator to determine the degree of insight that the patient has with regard to his or her own driving skills. It is not uncommon for the patient to deny any problems or changes in his or her driving performance, while the caregiver may have observed definite changes. Questions about restrictions on the patient's driver's license and his or her current driving habits also help the driving evaluator to determine how much driving exposure the patient has.

The evaluator also asks the caregiver if he or she drives. Caregivers who do not drive may be less likely to initiate a conversation about limiting or stopping the patient's driving and may be less inclined to acknowledge problems with driving than caregivers who do drive. In our previous research, only 20% of caregivers who were dependent on a driver with dementia believed that the driver should limit or discontinue driving, compared to 87% of caregivers who were not dependent on the driver with dementia.⁵

Clinical assessments

After the interview, the patient's vision is assessed using the Functional Vision Analyzer (Stereo Optical Company, Inc., Chicago, IL). The unique benefit of this test is that the computer is able to generate an image—based on the patient's vision—that allows the caregiver or family member to see what the patient sees. This aspect of the testing serves as a reminder that physical changes as well as cognitive changes influence safe driving.

If the patient has not had a recent occupational therapy assessment, one is completed as part of the driving evaluation. Additionally, the Cognitive Performance Test (CPT) is used to help the OT/DRS determine whether the patient has problems with the demands of more complex activities.⁶ The CPT is a performance-based functional assessment, which the caregiver is allowed to observe, and which involves the patient demonstrating his or her ability to perform certain instrumental and self-care activities of daily living. Problems identified by the CPT may alert patients and caregivers to the need to watch for problems with driving.

Behind-the-wheel assessment

After the interview and clinical assessments have been completed, the OT/DRS takes the patient for a behind-

the-wheel assessment. The vehicle used for this assessment is a large, four-door sedan with a second brake installed on the passenger side. For the safety of both patient and evaluator, this part of the evaluation is conducted in stages. When the patient demonstrates safe performance at one stage, the evaluator directs the patient to a more complex driving situation. The assessment begins in a parking lot, then progresses to residential areas, light commercial traffic, highway, and finally freeway driving. For insurance purposes, caregivers are not allowed in the test vehicle.

Immediately after the behind-the-wheel assessment, the evaluator meets with the patient and caregiver or family members to give the final driving recommendations. The recommendations range from unrestricted driving to driving with various restrictions to retirement from driving. Some older patients have only limited driving exposure in familiar areas, such as driving to a local church, grocery store, or other destination close to home. In these cases, a local area behind-the-wheel assessment, in which the evaluator drives the testing vehicle to the patient's home, also may be recommended. If the patient can demonstrate that he or she can drive safely in a limited area, the evaluator may make a recommendation for continued driving with area restrictions.

If the recommendation is retirement from driving, the OT/DRS provides the patient and family educational resources that will aid in the transition to driving cessation (Table). The resources include suggestions for approaching the discussion about driving cessation as well as a guide for developing an alternative transportation plan. Identifying places the patient needs and wants to go allows the patient and family to make a transportation plan that incorporates the various public and private resources

Table. Resources on older drivers and Alzheimer disease

Resource	URL	Telephone
Older drivers		
The Hartford—Family Conversations with Older Drivers	http://www.thehartford.com/talkwith_olderdrivers/worksheets/main.htm	—
American Medical Association—Older Driver Safety	www.ama-assn.org/go/olderdrivers	—
Alzheimer's Association—Safety Center: Driving	http://www.alz.org/safetycenter/we_can_help_safety_driving.asp	—
National Institute on Aging—Age Page: Older Drivers	http://www.nia.nih.gov/HealthInformation/Publications/drivers.htm	—
Senior Linkage Line		1-800-333-2433
Alzheimer disease/dementia		
Alzheimer's Association (home page)	http://www.alz.org	1-800-272-3900
National Institute on Aging—Alzheimer's Disease Education and Referral Center	http://www.nia.nih.gov/alzheimers	1-800-438-4380
VA intranet resources		
2004 OMI Report Firearm Access and Automobile Driving Among Veterans with Dementia	http://vaww.va.gov/geriatricshg/docs/finalrpt.pdf	—
2008 Dementia Safety Review Workgroup Final Report	http://vaww1.va.gov/geriatricsshg/docs/VISNDementiaSafetyReviewWorkgroupFinalReport2008.doc	—

that offer reasonable alternatives to driving.

Patients resistant to comply with a recommendation to retire from driving are reported to the state. The MVAMC has a standing release on file from the Minnesota, Wisconsin, and South Dakota Departments of Public Safety, which allows the attending physician to send a letter notifying the department that the patient has a condition that could impair his or her ability to operate a motor vehicle safely and recommending testing of those abilities. The MVAMC always informs the patient in advance that

the letter is being sent and the minimum amount of protected information is disclosed.

The evaluator makes follow-up telephone calls to the patient and family at 30 days to ascertain compliance with the recommendations and provide education and support. The OT/DRS also provides ongoing education, support, and assistance with matters related to changes in driving status. For patients who continue to drive, the topic of driving is routinely discussed at subsequent GRECC Memory Loss Clinic and DDP clinic visits.

PROGRAM RESULTS

During the pilot program period, 114 patients participated in a behind-the-wheel assessment, 68 (59%) of whom received recommendations to continue driving but with restrictions. These restrictions typically related to freeway driving, time of day (for example, no driving at night or during rush hour), and area (for example, drive only on familiar routes). Additionally, limiting distractions (such as the radio) while driving and driving with someone else when in unfamiliar areas were recommended.

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Of the remaining patients, 43 (38%) received a recommendation to retire from driving completely. Only three patients (3%) received a recommendation that they be allowed to drive without restrictions. If, at the 30-day telephone follow-up, it was determined that the patient had not been compliant with a recommendation to retire from driving, the OT/DRS informed the referring clinician and a letter of concern was sent to the appropriate Department of Public Safety.

In an effort to evaluate satisfaction with the program, a survey was mailed to caregivers of the patients who had been evaluated during the first six months of the program. Only patients who had follow-up to determine compliance were included. A total of 61 surveys were mailed, and 44 caregivers (72%) returned responses. With regard to the statement, "Persons who have problems with thinking and memory should be evaluated for driving safety," 41 (93%) of the respondents agreed or strongly agreed. Twenty-six (59%) of the respondents agreed or strongly agreed that they felt confident to handle driving-related questions, and 40 (91%) agreed or strongly agreed that they would recommend the GRECC Driving Clinic to other veterans.

NEXT STEPS

Future evaluations will examine correlations between behind-the-wheel driving performance and a variety of clinical data to better identify clinical indicators of driving performance. Ultimately, we hope to: (1) develop a clinical profile that will allow clinicians to estimate the likelihood of impaired driving and the need for restricted driving or retirement from driving without the need for a behind-the-wheel assessment and (2) provide strategies that will help clinicians, patients, and caregivers deal with this important issue more comfortably and effectively.

THE BOTTOM LINE

The emotional nature of driving decisions can cause stress for patients and families, and clinicians often are reluctant to address this sensitive issue. If a patient has been diagnosed with progressive dementia, a driving evaluation designed for this patient population (one that includes planned follow-up care) may alleviate much of the stress and may prevent motor vehicle accidents prior to the patient retiring from driving.

The GRECC Driving Clinic—which was focused strictly on older drivers with cognitive impairment—was designed with this goal in mind. Patients identified as being in need of a driving assessment received a comprehensive evaluation of their driving attitudes and habits, vision, cognition, and driving performance. Recommendations with regard to driving status and educational materials were provided to patients and families. Compliance with driving recommendations was established by a follow-up telephone call to the patient and family. In addition, the OT/DRS provided ongoing support and assistance with regard to changes in driving status.

While many VA facilities do not have access to the resources in this program, elements of the GRECC Driving Clinic can provide clinicians with the tools to help the older driver with dementia. It is important to have a discussion with the patient and family in the early stages of dementia, allowing the patient to be part of the decision-making process. Patients in the early stages of dementia may be able to drive safely, but the progressive nature of most dementing illnesses requires regular reassessment of driving skills. Educational materials are available to aid patients and families in making transportation plans that are reasonable alternatives to driving. Once acceptable options

for transportation are identified, the transition to nondriving status can be a gradual process—rather than a sudden decision made in response to an adverse and potentially traumatic event. ●

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