

Assessing the Acuity of the Elderly Driver: A Guide for the Practitioner

Introduction

While awareness of the driving health risks posed by persons under the influence of alcohol has been established through publicity efforts of organizations such as Mothers Against Drunk Driving (MADD), there are other societal populations that represent just as great a driving hazard. However, due to a lack of focused attention they are frequently overlooked. One such group is senior citizens. As it is estimated that by 2030 people age 65 and older will represent 25% of the driving population this is a problem of increasing concern. As seniors drive fewer miles, less at night and seldom in rush hour traffic, they consequently have the least amount of traffic accidents when compared to other driving groups. However, upon closer inspection they are found to have the highest amount of traffic violations, the highest fatality rate per mile driven due to their inability to withstand the trauma, and, ultimately, nearly the same rate of accidents as young adults just learning to drive.

Health of the Elderly Driver

The main issue with the older driver is not chronological age but physical condition. Although the government has spent significant resources identifying screening tools to help evaluate one's functional capacity to drive, there is no absolute consensus. Research found that predictors for risk included a history of falls over the previous one to two years, visual, auditory and/or cognitive problems, history of previous car crashes, and the use of medications that may impair response time. Other factors that predispose elders to higher risk include sleep disorders such as obstructive sleep apnea, diabetic or rheumatic complications, and movement disorders. Special attention should be paid to patients with a history of syncope or seizures. Further, when it comes to medications, findings are vague. Research has shown that beta-blockers may reduce performance anxiety and tremor, thereby strengthening vehicle

control in some older people. However, medications with effects on the central nervous system, such as sedatives, anxiolytics, antihistamines, anticholinergics and some tricyclic antidepressants, can be harmful alone and worse when combined. Considering that one-third of all benzodiazepine prescriptions are written for people age 60 and older, it is important to re-emphasize that their consumption, alone or combined with alcohol, makes them prone to greater impairment due to the normal physiological effects of aging.

Assessing the Senior Patient

It is important for the primary practitioner to consider the health of the elderly patient and how that person's physical condition might impact their ability to operate a moving vehicle. When attempting to evaluate a patient's ability to drive, begin by questioning how much he/she relies on a car for daily activities, if there have been recent traffic violations, accidents or close calls within the past six months, and if they have gotten lost while driving. Ask if they feel comfortable driving, and if this is an activity they wish to continue.

Your review of physical systems should focus on visual problems such as difficulty with glare, problems with peripheral vision or poor vision, problems with audition and mobility issues consistent with neck, shoulder or wrist problems, limb weakness or issues with their balance. Finally, a mini mental test is always a good idea, as patients with mild to moderate dementia are five times more likely to have a collision. If you find that there are signs of imminent impairment, proceed to assess their social backup and options regarding transportation with family members and/or in the community.

Visual acuity and peripheral vision are evaluated in most states as part of the driver's license renewal process. For example, Illinois requires residents age

75 and older to take vision and on-the-road tests each year to renew their license. While this may appear inconvenient, research has shown that states with in-person license renewal requirements are associated with a lower driver fatality rate compared to states that do not take this precaution. Begin by assessing whether the patient has 120 degrees of horizontal peripheral vision and at least 20/40 on a Snellen chart. Next, perform a funduscopy and, if visual acuity is an issue, you may consider a referral for Useful Field of View Test (UFOV), which has shown to be a sensitive predictor of driving safety. Continue with an otoscopy and if there is no cerumen impaction, proceed to a whisper test to see if a referral to an audiologist is needed.

Psychomotor evaluation should include passive and active range of motion of all extremities, and gait assessment with a Get Up and Go Test, which consists of the patient rising from a chair, walking 10 feet, turning around, walking back, and then sitting down within 15 seconds. Drawing two intersecting pentagons and asking the patient to copy them can help assess cognitive function. In order to pass the test, all the sides and angles of the figure should be preserved and the sides should intersect. Medication scrutiny is imperative.

Participation from the patient's family is also important. Ask if they have concerns. You might suggest they assess the patient's driving skills by having the patient drive first in an empty parking lot, then on an empty, rural road and finally progressing to a more congested suburban setting, similar to the way parents assess children first learning to drive. If there is disagreement between the two sides, try to serve as mediator. Suggest the use of available Internet resources, such as the Patient Education Forum, Safe Driving for seniors from the American Geriatrics Society (www.americangeriatrics.org). The American Association of Retired Persons (www.aarp.org) has a program, 55 Alive, which offers eight-hour classes on driving safety for a nominal charge. Regrettably, driving privileges must sometimes be taken away. When this happens the Internet is also an excellent resource to find local transportation options. However, patients suddenly confronted with no longer being able to drive should be closely monitored, as their autonomy and social and mental well-being can be dramatically affected when this right is taken away. Depression is common. Patients and their families should be referred to social services as needed.

Summary

Elderly patients should be routinely evaluated by their primary care physician regarding their ability to drive. With the Baby Boomers now approaching senior citizen status this will be a growing societal concern. Being sensitive to this issue and providing needed guidance can help make the transition from driver to passenger less stressful and painful for everyone involved.

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