SENIORS AND DRIVING

Three Stories, Three Outcomes

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Physicians who care for older patients may find themselves being asked to make a judgment about whether a person is able to continue driving. Discussing this topic is rarely easy for the physician or the patient. One option for physicians who find themselves in this situation is referring the patient for an evaluation by a driver rehabilitation specialist. This article describes what this entails and how such an evaluation might help clarify whether a patient can safely remain behind the wheel.

For many older adults, driving means independence and being able to participate in social, medical, religious, work or volunteer activities. But there may come a time when a person’s ability to drive safely needs to be addressed. Because safe driving requires integration of the visual, physical, mental and cognitive systems, each of which may be affected by aging, disease, medication or traumatic injury, driving ability tends to decline with age. Statistics show that older drivers have more accidents per mile driven than the rest of the driving population and that their accidents often are related to inattention or slowed visual processing speed. Equally concerning is that the rate of fatalities increases with age: Because our bodies become more fragile as we get older, we become less able to withstand the forces involved in a vehicle crash.

Having an accident, getting lost or experiencing a health problem may prompt an older adult or a family member to become concerned about driving performance. In some cases, the family member may turn to their loved one’s physician for help and advice. In Minnesota, physicians are encouraged, but not required, to report patients who have medical conditions that may have an impact on their ability to drive safely to the Minnesota Department of Public Safety’s (DPS) Medical Unit. Physicians who report a patient in good faith have immunity from legal repercussion; and the identity of the reporting physician will remain confidential unless a court subpoenas the DPS records. When reporting a patient, the physician need only disclose the patient’s name, date of birth, home address, and a brief statement such as “I, as his physician, recommend this person’s driving privileges be revoked” or “I have concerns regarding this person’s driving safety.”

Individuals reported to DPS are notified of this in writing. They usually have 30 days to comply with the requests in the letter, one of which may be to obtain a statement about their fitness to drive from a physician. A physician who does not feel qualified to make a judgment about a patient’s ability to drive may recommend that the individual have a driving assessment.

During a driving assessment, the driver’s abilities are evaluated by a driver rehabilitation specialist, often a health care professional (such as an occupational therapist), and/or a driving instructor who has been trained to plan, develop, coordinate and implement driver rehabilitation services for people with disabilities or who are aging.

The driver rehabilitation specialist will typically complete a three-hour comprehensive assessment that begins with a client interview. The driver, and sometimes a family member, may be asked about the driver’s health, medications, functional abilities, current driving habits and the reason for the assessment.

After the interview, an occupational therapist performs clinical testing to assess the person’s visual, physical and cognitive skills. During that assessment, the driver’s visual acuity, peripheral vision, color recognition, depth and visual perception, visual tracking ability and contrast sensitivity will be evaluated. If the driver does not meet Minnesota vision standards (acuity and peripheral vision) for driving, he or she is referred to an optometrist or ophthalmologist for an eye exam. If that vision specialist documents that the driver meets state vision standards, the driver may return to complete the driving assessment. If the driver does not meet the state’s vision standards, then he or she is ineligible to continue driving.

The driver’s physical abilities, including upper and lower body coordination, strength, range of motion, endurance, reaction time and ability to turn to look around are also evaluated. If an individual’s mobility is impaired, his or her potential to drive with adaptive equipment will be assessed. For example, someone with right hemiparesis from a stroke may be able to drive using a left-foot accelerator pedal and a spinner knob on the steering wheel. Such equipment modifications might be contraindicated if there is
concern about the person's ability to learn new tasks.

Cognition testing includes assessment of a person’s insight into his or her functional abilities, ability to divide their attention, information processing speed, memory, orientation and problem-solving skills.

The behind-the-wheel assessment is done using a vehicle outfitted with safety equipment including an evaluator brake. During the on-the-road portion, the driver rehabilitation specialist assesses the driver’s ability to apply the rules of the road, their awareness of their environment and their physical ability to control the vehicle. The driver rehabilitation specialist may provide instruction on safe driving to see if the person being tested can improve his or her driving and retain new information.

After the drive, the driver rehabilitation specialist reviews the findings, identifies concerns and makes recommendations. Among the options:

- Return to or continue driving with no restrictions
- Return to or continue driving with restrictions such as no night driving, no rush hour driving, driving familiar routes only, driving only a certain distance from home or no freeway driving
- Complete lessons to further determine driving safety
- Complete lessons to train a driver to use adaptive equipment
- Refer for therapy
- Cease driving.

If the driver rehabilitation specialist recommends that a person stop driving, information about alternative transportation such as Metro Mobility or other services available in their area is provided. These resources, as well as family and community support, are critical to helping a person adjust to the change in lifestyle and remain as involved in their usual activities as possible.

Three Cases
The following examples illustrate how the process works for individuals who have different needs and problems.

E.K., an 85-year-old retired researcher, was referred by his physician for a driving assessment after he received a letter from the State of Minnesota requesting a physician's statement about his fitness for driving. A good Samaritan had reported that E.K. had fallen asleep at a traffic light. During his assessment, he admitted he was exhausted that day because he was caring for his wife who had been ill. He said he hoped to continue driving familiar routes, including freeways and downtown, but that he already avoided night driving.

Vision testing revealed that he met the state's standards for driving in terms of peripheral vision and visual acuity but that he had difficulty with binocular fusion, depth perception and contrast sensitivity. He scored within functional limits for sign recognition, judgment, problem solving, visual perception, short-term memory, orientation, map reading and for the physical skills used in driving. He scored in the low-to moderate-risk category on a visual divided attention task in which he was asked to discriminate between two objects in the central field of view while simultaneously identifying the location of an object in the peripheral vision. Drivers use this skill when they have to discriminate between a red or green light and notice a pedestrian on the side of the road.

During testing, E.K.’s processing speed varied and he had difficulty with situations requiring divided attention. He remained alert and attentive throughout clinical testing and did not appear drowsy. During the on-the-road assessment, E.K. applied the rules of the road and was aware of his environment. A slight delay was noted in his identification of traffic control at various intersections especially on unfamiliar routes.

The driver rehabilitation specialist recommended that E.K. be allowed to continue driving familiar routes only during the day time, and that he avoid freeways as well as driving in bad weather and during rush hour. The specialist also discussed the effect fatigue can have on driving safety and alternatives to driving including contacting a family member for assistance or using alternative transportation. E.K. was receptive to the feedback and is expected to comply with the recommendations.

Seventy-six-year-old G.W. was referred for a driving assessment by his physician after his wife had expressed concerns. G.W. had been involved in an accident. He totaled his vehicle and took out a stop sign as he tried to avoid hitting a deer. After the accident, G.W. drove home—about 30 miles—without his prescription eyeglasses, which he needs to meet state standards for driving in terms of peripheral vision and visual acuity. G.W. reported that he sometimes uses a portable eye glasses, which he needs to meet state vision standards. The accident occurred in the early morning when it was still dark. It was also raining. He did not contact the police.

G.W.’s medical history includes two strokes about 10 years ago, resulting in decreased mobility in his right foot as well as speech changes. Family members also reported potential for cognitive impairment. After his strokes, G.W. stopped driving for a period on his physician's recommendation. Then, he switched physicians and his new doctor gave him the OK to return to driving. Family members refuse to ride with G.W.

G.W. reported that he sometimes uses his left foot on the gas pedal because of the impaired mobility in his right leg. His insight was poor in terms of recalling events leading to the driving assessment, and he seemed to lack appreciation for the accident and his actions.

A Great Resource for Physicians
G.W. met the state's vision requirements for driving, but his binocular fusion and depth perception were impaired. He had impaired contrast sensitivity as well. Testing revealed poor sign recognition, difficulty with visual perception and slowed processing. He also scored in the high-risk category on a cognitive divided attention task but within functional limits for problem solving.

During the on-the-road assessment, the evaluator intervened several times to prevent potential accidents because of G.W.'s high-risk driving behaviors. Twice at two-way stop-sign-controlled intersections, the driving evaluator applied the brake when G.W. failed to yield to cross traffic that was not required to stop. Because of challenges with divided attention, his visual scanning was limited, resulting in him missing important traffic signs. He lacked awareness of the risk when he approached utility vehicles parked on the side of the road, and he did not shift his path of travel away from the workers. Depth perception issues were also noted. G.W. used his left foot to brake a couple of times. This is a concern because it can slow reaction time and increase a driver's risk of hitting the wrong pedal.

The driver rehabilitation specialist recommended that G.W. cease driving. G.W. declined to sign a consent form allowing release of the report to his physician and instead said he would provide a copy to his doctor. The evaluator was concerned that he would not comply with the recommendation. Family members were present (G.W. had given consent for this) to hear the recommendation and were provided with information about alternative transportation options. They also were encouraged to follow up with G.W.'s health care team.

F.D., a 76-year-old retired mechanic, suffered a traumatic brain injury nine months prior to presenting for a driving assessment. Two months after his initial brain injury, F.D. was hospitalized for a subdural brain bleed. After both the injury and the subsequent bleed, he participated in inpatient and outpatient occupational, physical and speech therapy. F.D. denied any residual deficits from the brain injury. His wife, however, reported that he had slower processing speed and decreased receptive language skills. He had also elected to stop his therapies. He received approval from his physician to drive in a parking lot with a family member but wanted to return to unrestricted driving. He was referred for a driving assessment.

In testing, F.D. met vision standards for driving. His physical ability to operate a motor vehicle was sufficient; however, his gas-to-brake reaction time was slower compared with that of other men in his age group. The driving evaluator needed to repeat directions because F.D. had difficulty comprehending them. He also had significant trouble recognizing signs, solving problems, and performing a divided-attention task. He also exhibited slowed processing, impaired short-term memory, poor concentration, vision problems and inability to complete a map-reading task.

During the on-the-road assessment, the evaluator needed to use the brake when F.D. did not yield to cross traffic at an intersection. In addition, he turned the car very slowly. At one intersection, when the left-turn arrow turned green, he proceeded through the intersection so slowly that the light turned red before he cleared it. F.D.'s ability to manage speed during turns did not improve following feedback from the evaluator. Several times he crossed the center line into the oncoming traffic lane and slowed when there was no need. The evaluator needed to cue him that he was driving on the shoulder of the road instead of in the actual lane and intervened to avoid hitting a curb on a right turn. Overall, F.D. lacked insight about his driving and any safety issues it might be causing.

The driver rehabilitation specialist advised F.D. not to drive at this time. He recommended that F.D. and his spouse follow up with his health care team to determine if he could restart therapy. Then, if his abilities improved, he could be reassessed for a return to driving. In the meantime, alternative transportation options were discussed.

Discussion

These case studies illustrate the fact that aging drivers are not all alike and that age alone does not define one's ability to drive safely. Rather, a person's vision, cognition, physical abilities and insight are the critical factors to consider in determining driving safety.

If a physician feels a patient is unsafe to drive, the physician may report that person to the Minnesota DPS or recommend an evaluation by a driver rehabilitation specialist who can provide an objective assessment of the patient's abilities.

In some cases, such as that of G.W., the evaluation may indicate that the person should stop driving altogether. In others, it may mean that they need to restrict their driving to familiar places and daylight hours or that they need to fit their car with adaptive devices. In the case of F.D., for example, a therapeutic intervention might allow him one day to return to driving.

Transitioning to being a nondriver can be life-changing. Older individuals may be afraid to try using alternative forms of transportation and may discontinue doing activities they used to enjoy. Persons who are told they can no longer drive may feel angry, fearful and frustrated and may experience depression as a result. Physicians are encouraged to offer assistance to patients who experience negative feelings after they cease driving.

Physicians often are asked to make determinations about whether an older patient should continue driving. These are not always easy decisions to make, and conversations with patients or their family members about driving can be difficult. Enlisting the help of a driver rehabilitation specialist, who can help quantify driving ability and skill, can be helpful. The goal in all cases is to make sure that the patient and the public remain safe.

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