Giving up the Keys—The Older Adult Driving in a Rural Setting

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CE Earn Up to 6.0 CE Hours. See page 88.

Joe (age 88) and Margaret (age 86) decided to sell the family farm located on the outskirts of a suburban city and move to their lake home in a rural area. Their children had mixed feelings. The "cabin" required less care but also placed their parents 20 miles from the nearest town and more than an hour away from the child who lived the closest to them. Joe and Margaret didn't mind "trips into town," which provided an opportunity to meet with friends, pick up groceries, grab a meal at the local café, participate in fellowship at church, and enjoy their nonurban "retirement."

All was going well until family members started to note scratches and dents on the car and garage entrance. The mailbox had been knocked over several times. More than once Joe and the car were found sitting in a ditch with no indications of a crash or the presence of other drivers. Joe could not remember how he got there. One frantic afternoon the children were summoned from their homes in the city, 60 miles away, to search the countryside for Joe and the car, because he had not returned for several hours.

It quickly became apparent that Joe should give up driving. Unfortunately, Margaret did not drive. This couple, who until this time had been independent, were now trapped 20 miles from the nearest town, without access to their social network, supplies, and health care, because the car keys needed to be taken away.

Several considerations are brought to light by this story: the increased risks associated with the older generation driving, signs it might be time to take the keys away from the older adult, the challenges that occur when the older adult is no longer allowed to drive in a rural area, and options to keep the older adult safe on the roads.

In 2012 more than 36 million people aged 65 years and older were driving vehicles. By 2050, it is estimated that 89 million older adults will be on the roads. In 2012, 5560 older adults were killed and 214,000 were injured as the result of motor vehicle crashes (MVCs). This number is expected to double by 2050. Older adults have been shown to have highest incidents of crashes when data are adjusted for mileage driven, and MVCs are the leading cause of death related to injury for persons ages 65 to 74 years. Falls are the leading cause of death in 75- to 84-year-olds, but MVCs are the second highest cause of death in this age group.[1–3] One study showed that, despite having been involved in only 7% of the crashes, older drivers had the second highest fatality rate.[4]

Physical frailty is one factor that puts the older adult at increased risk of death from fractures, internal bleeding (including intracranial hemorrhage), and chest injuries.[1,3] Other aging factors that contribute to crashes include vision changes (diminished sight, decreased peripheral and night vision, and slower accommodation), cognitive skill changes (decreased ability to process and respond to sensory information and increased distractibility from sensory overload), and reduced or decreased physical ability (limited range of motion, pain in joints as a result of arthritis, decreased strength in limbs, and numbness in extremities). Any of these factors alone, or when several are combined, can have an impact on the ability to recognize the need and the ability to carry out evasive maneuvers or brake while driving, putting older adults at risk.[1,3] Another study noted the frailty of vehicles driven by older adults, which tend to be older, have less safety features, are less structurally sound, and provide less protection for those inside during crashes. This study also noted that safety features in the newer model vehicles may lead to sensory overload, confusion, or distraction.[1,3]

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Medical conditions (eg, stroke, cardiac dysrhythmias, and diabetes) can lead to weakness or confusion. A variety of medications (eg, antihistamines, antipsychotic drugs, tricyclic antidepressants, bowel/bladder antispasmodic agents, benzodiazepines, muscle relaxants, barbiturates, and pain medications) that can affect thinking process are typically part of the older adult's life and place them at risk of a crash. Comorbidities and complications have been shown to increase risk of death, especially in persons older than 85 years.[1,3]

Clues or signs that an older adult may need further assessment and corrective action include but are not limited to failure to yield, improper lane changes, trouble with left-hand turns, "near misses," scrapes and dents along the sides of the vehicle/garage/mailbox/trees, getting lost or the inability to follow a direction just provided, difficulty remembering where they were going, going too slow/fast, yelling at/being yelled at/being gestured at by other drivers, frequent "warnings" from law enforcement, people refusing to ride with them, or need for a "co-pilot."[1,5,6] These situations may be witnessed by a rider, law enforcement, or hospital staff when the older adult drives onto the hospital grounds. Most ED nurses do not have the opportunity to observe an older adult's vehicle or driving habits, but many of these behaviors continue even when they are not driving. The nurse may want to discreetly inquire about these "clues" to assess if it is wise and safe to send the patient back on the road.

Several cognition screening tests are available to help the ED nurse determine if a family member should be called or if an alternative method of getting the patient home should be considered.[1,7–10] Sharing results of the screening and concerns with the family might persuade the older adult and family to obtain further assessment of driving skills and assistance related to transportation. It should be noted that some screening tests only look at cognitive measures; others look at cognition, vision, and physical skills. Because driving involves both physical and mental ability, it would seem appropriate to screen for more than just cognitive skills.

An initial screening test that seems most appropriate for the emergency department is the Physicians Plan for Older Drivers' Safety (PPODS), an algorithm that includes several assessment tools.[1,9] The algorithm starts with questions about medical conditions that may affect driving, the patient's feelings related to driving, driving incidents, and other driving concerns. The second step of the algorithm involves a clinical assessment of medication changes, as well as any visual, sensory, cognitive, range of motion, strength, or physical ability changes in the patient that may affect driving. Once these steps are complete, a "Clinical Assessment of Driving-Related Skills"[1] or "Assessment of Driving-Related Skills"[10] screening is performed. Cognitive tests in the updated Clinical Assessment of Driving-Related Skills algorithm include Montreal Cognitive Assessment, Trail-Making Test Part B, clock drawing, and the maze test[1,10] (see the Table for links to the complete document describing PPODS[1] and another document for a 1-page PPODS[10] algorithm). Based on cognitive and functional findings, the patient can be identified as at risk, not at risk, requiring further

TABLE
Resources related to geriatric driving assessment

- **Cognition and the Older Driver**
  Medscape Education Public Health & Prevention Continuing Education Activity for March 17, 2016
  http://www.medscape.org/viewarticle/859261
- **Clinician's Guide to Assessing and Counseling Older Drivers, 3rd edition**
  A 10-chapter manual and appendixes with the updated Physician's Plan for Older Drivers' Safety (PPODS)
  http://geriatricscareonline.org/events/free-product-now-available-the-clinicians-guide-to-assessing-and-counseling-older-drivers/61
- **Physician's Plan for Older Drivers' Safety (PPODS)**
  Found in *A Physicians Guide to Assessing and Counseling Older Drivers*, 2nd edition, June 2010
  http://www.nhtsa.gov/people/injury/olddrive/OlderDriversBook/pages/Chapter1.html#Anchor-Figur-42435
- **CarFit: Helping Mature Drivers Find Their Safest Fit**
  http://www.car-fit.org/carfit/FAQ
- **Mental Status Assessment in Older Adults: Montreal Cognitive Assessment: MoCA Version 7.1 (original version)**
  https://consultgeri.org/try-this/general-assessment/issue-3.2.pdf
- **Cognitive Assessment Toolkit**
  http://www.alz.org/documents_custom/141209-CognitiveAssessmentToo-kit-final.pdf
- **National Highway Traffic Safety Administration Web Site: Older Drivers**
  http://www.nhtsa.gov/Driving+Safety/Older+Drivers
- **Giving up the Keys: Assessing and Counseling Elder Drivers**
  A PowerPoint program that describes the updated Physician's Plan for Older Drivers' Safety (PPODS)
  http://www.usafp.org/wp-content/uploads/2016/03/Salinas-Driving-Elder-Safety-Final-post.pdf