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Cessation of Driving is Rare among Older Drivers Seen in the Emergency Department Following Motor Vehicle Collision: A Prospective Cohort Study

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To the Editor

Motor vehicle collisions (MVCs) are one of the leading causes of fatal injury among older adults and, when not fatal, frequently result in persistent pain and functional decline.^{1,2} In order to decrease MVC-related morbidity and mortality, a systematic approach to the identification of high-risk older drivers is needed.³ Performance-based measures or questionnaires can be used to identify high-risk older drivers,^{4,5} such as those with cognitive or functional impairments,^{6,7} but what events should prompt an evaluation is unclear. MVCs, which result in an estimated 250,000 U.S. emergency department (ED) visits by older adults each year,⁸ would seem to be an important indicator of risk for future MVC, but whether older drivers stop driving after experiencing an MVC is not known. We sought to characterize cessation of driving among older drivers presenting to the ED for evaluation after MVC.

We analyzed data from a prospective study of adults aged 65 years or older who received care following an MVC in one of eight U.S. EDs and did not have a life-threatening injury. Detailed methods have been described elsewhere.^{2,9} We assessed driver characteristics via in-person interview in the ED, including age, gender, race, daily medications prior to the MVC, self-reported vision impairment, self-reported severity of vehicle damage, the extent to which drivers perceived the MVC to be life-threatening, and whether they felt they were at fault. We called participants 6 weeks and 6 months after the ED visit and asked if they had stopped driving. All analyses were conducted using STATA version 11.0 (College Station, Texas).

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Data were collected from 132 older drivers between 2011 and 2014. The majority of drivers were white (86%), female (52%), brought by ambulance (76%), and discharged home (85%). Six weeks after the MVC, only 4% of older drivers reported having stopped driving (Table) and none had a driver's license revoked. All those who believed that the MVC was their fault or who reported visual impairment were still driving at 6 weeks. Although 18 drivers reported taking daily opioid pain medications and 45 reported taking 5 daily medications (polypharmacy) prior to their MVC, none believed that their medication use contributed to the collision. Most patients taking opioids (94%) continued to drive at 6 weeks, as did most reporting polypharmacy (93%). None of the 30 patients reporting difficulty with at least one activity of daily living prior to the MVC had stopped driving at 6 weeks. Six months after the MVC, only 5% of older drivers had stopped driving and only one driver had a driver's license revoked.

We observe that older drivers receiving emergency care after MVC are unlikely to stop driving, even if they reported visual impairments or thought the collision was their fault. The potential of emergency providers to identify older individuals who are no longer capable of driving safely appears to be unrealized.

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Table

Driving Status at 6 weeks of Drivers Aged 65 Years Receiving Care in the Emergency Department after Motor Vehicle Collision.

Characteristic	N	Still driving N (%)
All patients	132	127 (96)
Age, years		
65–74	91	89 (98)
75–84	33	30 (91)
85	6	6 (100)
Sex		
Female	68	67 (99)
Male	64	60 (94)
Race		
White	113	109 (96)
Black	17	17 (100)
Other	2	1 (50)
Pre-MVC health		
Opioid use	18	17 (94)
Polypharmacy ^a	45	42 (93)
Visual impairment ^b	5	5 (100)
Hazardous alcohol use ^c	5	4 (80)
Difficulty with ADLs ^d	30	30 (100)
MVC characteristics		
Severe damage to car ^b	69	64 (93)
Life-threatening ^e	76	72 (95)
Perceived at fault	18	18 (100)
Transport by EMS	100	94 (94)
Post-MVC health		
Persistent pain ^f	67	64 (96)

^aDefined as taking 5 medications daily, N=96.

^bAs reported by patient during ED interview, N=96.

^cDefined as >7 drinks a week, N=115.

^dDefined as at least some difficulty with 1 Activity of Daily Living (ADL).

^eDefined as the median score of 5, as reported by patient on a scale of 0–10 during ED visit, N=130.

^fDefined as a pain score 4 on a scale of 0–10, reported at 6 weeks.