THE RISK OF MEDICATIONS IMPAIRING ROAD TEST PERFORMANCE AMONG COGNITIVELY INTACT OLDER ADULTS

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Importance: Older adults are increasingly prescribed medications that have adverse side-effects. Prior studies have found higher risks associated with motor vehicle crashes. Objective: This 10-year study determined whether specific medication classes were associated with performance decline assessed by a standardized road test in a community-sample of healthy, cognitively-normal older adults. Design, Setting, and Participants: This was a prospective cohort study of 198 cognitively-normal older adults ≥ 65 years old with a valid driver's license who were followed annually, with rolling enrollment. Exposure: Potentially driver impairing medications. Main outcomes and measures: The primary outcome measure was performance (pass or marginal/fail) based on the Washington University Road Test. Multivariable Cox proportional hazards models evaluated the association between PDI medication use and road test performance. Results: Among the 198 older adults (mean [SD] baseline age, 72.6 [4.6] years; 87 females [43.9%]; and 19 Black participants [9.5%]), 70 participants [35%] received a marginal/fail rating on the road test over an average follow up of 5.70 years. Any antidepressant (HR, 2.81; 95% CI, 1.67-4.71), SSRI/SNR (HR, 2.73; 95% CI, 1.56-4.77), sedatives/hypnotics (HR, 2.70; 95% CI, 1.40-5.19), or NSAIDs/Acetaminophen (HR, 2.80; 95% CI, 1.34-5.83) use had at least a 2.5 greater risk of receiving a marginal/fail rating on a road test compared to controls. Conclusion and relevance: In this prospective cohort study, specific medication classes increased the longitudinal risk of failing a road test. Patients should be counseled about perceived driving difficulty and risk when prescribed these medications by clinicians.