Does the diagnosis of AD implies immediate revocation of driving license?

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Abstract:

Successful driving requires various physical and mental capacities to: judge distances, simultaneously manage multiple incoming stimuli, maintain attention for long periods of time, perform sequencing skills, demonstrate immediate reaction in case of adverse events and succeed proper interpretation of traffic signs and signals. While patients with moderate to severe dementia should stop driving, some patients with mild Alzheimer's Disease (AD) seem still capable to drive without an increased risk of accidents compared to healthy elderly. Performance on tests of visuospatial and attentional abilities, executive functioning and memory is associated with the ability to drive safely in these patients. However, due to the moderate relationships of the cognitive tests with driving measures and individual variability, relying only on these tests for making recommendations for restrictions in driving is not adequate and combination with other measures such as findings from neurological assessment is warranted.

Research findings indicate that patients with Mild Cognitive Impairment (MCI) are at risk for driving difficulties although their performance on driving testing was not consistently found worse than that of healthy elderly. Nevertheless, cognitive measures appear to be associated with driving performance in patients with MCI. Our research results suggest that measures of information processing speed, visuospatial memory, psychomotor vigilance and also motor measures of balance and movement coordination (e.g. tandem walking test) as well as measures of quality of sleep and emotional state could serve as useful predictors of driving performance in individuals with MCI as they predict various indexes of driving performance: number of crashes, reaction time, average driving speed, lateral position variation, and headway average time. Finally, compared to healthy elderly, mild AD and MCI patients are more sensible to distraction while driving (e.g. use of mobile phone and conversation). Definition of successful predictors of driving ability in patients with mild AD or MCI will allow the development of thoughtful guidelines and national policies to improve public road safety.