transportation, in order to retain mobility and social participation. Impairment may need support to stimulate the transition to alternative transportation for patients who were fit to drive and driving cessation of patients who were no longer fit to drive. Assessment strategies were effectively promoting driving continuation of patients who were fit to drive. Recommendations given after fitness-to-drive assessment provide information about individual evaluations. A fitness-to-drive assessment including clinical interview, neuropsychological tests, and driving simulator rides is a promising approach for patients with Alzheimer’s disease (AD). Additionally, for patients with dementia (e.g., vascular dementia, frontotemporal dementia, Lewy body dementia) different assessment strategies must be developed to evaluate their fitness to drive. In this context, the development of technological innovations, in example, for some patients with wayfinding difficulties, driving with a navigation system might facilitate a prolonged duration of driving. Patients with cognitive impairment are at risk for unsafe driving, but a large number of these patients are still allowed to drive. Ultimately, the transition to alternative transportation for patients with cognitive impairment should be driven by patient, family, and society to ensure safe driving. This thesis addresses how fitness to drive should be assessed in patients with Alzheimer’s disease and other neurodegenerative conditions. Although this idea is very attractive, there are many hurdles to take before all traffic will become fully automated. Future automated vehicles, however, may not be suitable for patients who are unfit to drive anymore, therefore, patients with cognitive impairment who are no longer fit to drive may be allowed to travel in fully automated cars in the case of road works (Aeberhard et al., 2015), i.e., in traffic situations in which individual evaluations are not possible. Consequently, the development of assessment strategies for patients with cognitive impairment is crucial to ensure safe driving. The development of assessment strategies for patients with cognitive impairment is crucial to ensure safe driving.

Conclusions

1. Patients with cognitive impairment are at risk for unsafe driving, but a large number of these patients are still allowed to drive. Ultimately, the transition to alternative transportation for patients with cognitive impairment should be driven by patient, family, and society to ensure safe driving.

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Appendix Protocol

Inviting patients

You have received a patient referral from a doctor or the patient has signed up themselves.

Send the patient the information letter along with the participation form and informed consent form by mail, unless the doctor has already given the patient an information letter, participation form, and informed consent form.

Wait until the participation form and informed consent form are sent back. If you have not received anything after two weeks call the patient to inquire whether they have forgotten to send the forms. After sign up is completed you can schedule the patient and call them to make an appointment.

Afterwards send a confirmation by mail along with a copy of the Driving questionnaire. The patient should fill this in and bring it along on the day of testing. Also mention in the invitation that the patient should bring a list of his medication.

Preparation for the day of testing

Two researchers are required to be present on the day of testing:

• The anamnesis supervisor will administer the heteroanamnesis and anamnesis. This supervisor will also be present during the visual field test and driving simulator tests.

• The testing supervisor will administer the neuropsychological tests and is also present during the driving simulator tests.

Both researchers are involved in the driving simulator section. This creates the opportunity for discussion on the driving behaviour and interpretation thereof.

Make sure all of the following items are printed out, write the participant number in the right top corner of each sheet, and place them in the correct order:

• Informed consent form (already filled in by the patient)

• CDR-form

• Addition heteroanamnesis