

## **RELIABILITY OF A ROAD TEST AFTER STROKE**

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### **ABSTRACT**

*Background:* Despite physical, perceptual and cognitive impairments, amongst others, which might affect driving after stroke, some patients have demonstrated the ability to resume safe driving. Such patients are identified following strictly administered predriving evaluations. The road test is generally acclaimed to be the most valid test of driving performance. *Aim:* The purpose of this study was to determine the reliability of the road test when performed by stroke patients in Belgium. *Method:* This was a prospective study of a predriving evaluation at the Belgian Road Safety Institute. Thirty subjects with sequelae of stroke were included. Subjects were accompanied and evaluated during the road test by one of two assessors (A or B) from the road safety institute in an automatic car fitted with a video camera for recording driving performance. Inter-rater reliability was evaluated by comparing results from (1) real-life performance and video recording and (2) between-video judgements. *Results:* Most sub-items of the road test showed >80% scoring agreement between the various evaluations. Intraclass correlation coefficient (ICC) of the items varied from -0.08 to 1.0. ICC of the overall performance was 0.62 when real-life scores were compared with video evaluations and 0.80 in video versus video comparison. *Conclusion:* Driving is important for optimal participation in daily and social activities. The reliability of assessing overall performance of the on-road test is moderately high and better when assessed using same evidence. Yet, the reliability of some items needs further attention.

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