

Returning to driving after a stroke

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A guide for occupational therapists when assessing a person's ability in relation to driving following a stroke

This document was developed by the Scottish Stroke Allied Health Professionals Forum (SSAHPF) and is intended to guide occupational therapists with regards to the process required when supporting a person who wishes to return to driving after a stroke. It should be used in conjunction with the 'SSAHPF Driving for the MDT' www.ssahpf.org.uk developed by the SSAHPF and available on the Chest Heart and Stroke Scotland (CHSS) website. The MDT should refer to the DVLA regulations for national guidance on fitness to drive. <https://www.gov.uk/government/publications/at-a-glance> as there are different regulations for specific conditions and vehicle classifications.

Driving after stroke

Driving is a complex instrumental activity of daily living and a person's driving status should be established as part of the occupational therapy assessment process. A comprehensive occupational therapy assessment can provide information which may either support a service user's fitness to drive or raise concerns about their ability to drive safely. This information can be used to support the DVLA decision as to whether a person can return to driving following a stroke and inform a referral for specialist driving assessment is required. In general, people who wish to return to driving after a stroke can be divided into three main groups;

1. Those who can drive and have minimal or no residual deficits from the stroke
2. Those who definitely cannot drive, because of major physical, visual and / or cognitive deficits noted in DVLA guidance as debarring to driving.
3. Those who need specialist assessment at a specialised driving assessment service to determine their fitness to drive and for advice on specialised driving adaptations. The Scottish Driving Assessment Service contact details can be found here:- [Driving Assessment – SMART Centre \(scot.nhs.uk\)](http://Driving Assessment – SMART Centre (scot.nhs.uk))

Assessment

- *Medical History* – Refer to the DVLA guidelines with regard to the person's current, and any pre-morbid conditions. <https://www.gov.uk/government/publications/at-a-glance> Medical guidelines for all conditions can be found at <https://www.gov.uk/health-conditions-and-driving>
- *Driving History* – ascertain if the person drives an automatic or manual car; what sort of licence do they hold; what kind of journeys are they expected to take; is driving a requirement for their employment; are there any concerns the patient or family have regarding driving? What is the impact if unable to return to driving? What are their alternative local transport options? Is another family member or friend able to take on driving duties?
- *Physical Ability* – Establish if the person has any limitations in upper and lower limb motor and sensory function, head, neck and trunk mobility and stability which may affect their ability to control their vehicle. If there are any concerns about a person's physical ability to control their vehicle, they should be referred for specialised driving assessment at an accredited centre.
- *Vision* – Screen for any visual problems. Establish if the person has a hemianopia, quadrantanopia or visual neglect. Find out if the patient has had an eye-test since their stroke. Do they wear glasses? Did they have any issues with night vision pre stroke? If further assessment is required the DVLA will advise on local vision

specialists i.e. opticians / orthoptists & ophthalmologists, who can provide visual assessments to determine whether the person meets the DVLA vision standard for driving. DVLA visual requirements for driving can be found at <https://www.gov.uk/driving-eyesight-rules>

- *Cognition & Perception* – executive functions such as insight, impulsiveness and awareness are key indicators which can affect a person's ability to safely resume driving. (Ref: Stapleton T, et al 'Factors Influencing the Clinical Stratification of Suitability to Drive after Stroke: A Qualitative Study. 2015. Occupational Therapy in Healthcare. Available online at <http://www.tandfonline.com/doi/abs/10.3109/07380577.2015.1036192?journalCode=iohc20>. It is important to screen for other cognitive problems which are known to be important for safe driving including; attention deficits, working memory, slowed information processing speed, impaired judgement, and visual processing speed. Clinically apparent visual inattention is debarring for licensing for all drivers.
- *Confidence* – some people may be able to have a lesson with a qualified driving instructor if confidence to resume driving is an issue (the cost of this is covered by the person).
- *Fatigue* – Consider a person's level of fatigue and its impact on function following stroke. This should be considered when giving advice regarding return to driving particularly related to building up tolerance for driving and long term management in the case of ongoing / chronic fatigue after stroke.

Standardised cognitive assessments

There are several standardised screening tools & assessments which may be used in conjunction with clinical judgement to provide supporting information about a person's abilities in relation to driving. The purpose of these tests is to inform the decision making process and identify which people require more formal assessment on the road at a specialist driving assessment centre. When using standardised cognitive screening tests it is important not to suggest to the person being assessed that the results will indicate if they can resume driving or not. Try to allow enough time for a range of assessments which will contribute to the overall picture of a person's functional status. This will allow the occupational therapist to identify any issues which may affect a person's ability to drive safely. If a screening assessment has been completed then this should form part of the information provided to the Scottish Driving assessment service when referred.

A one off cognitive screen or visual screen can however also identify the presence or absence of deficits that are likely to affect driving fitness.

Devos et al conducted a systematic review and meta-analysis on 'Screening for fitness to drive after stroke' and concluded that The Road Sign Recognition and Compass from the Stroke Drivers Screening Assessment (SDSA) <http://www.nottingham.ac.uk/medicine/documents/publishedassessments/sdsa-manual-2012-uk.pdf> and The Trail Making Test 'B' (TMT B) http://strokengine.ca/assess/module_tmt_psycho-en.html are clinically administrable tests which can be used to identify people who have had a stroke and are at risk of failing an on-road assessment. These remain the screening tools of choice (Devos et al., 2011) to identify which people need an on road driving assessment after stroke. It should be noted that studies investigating fitness to drive often exclude patients with visual impairments. Therefore occupational therapists in clinical practice should ensure that they assess for visual impairments in addition to cognitive tests.

The Occupational Therapy Driver Off-Road Assessment Battery (OT-DORA): (Unsworth et al) is a collection of assessments that allows evaluation of an individual's cognitive, perceptual, behavioural, physical, and sensory skills and abilities that are related to driving, prior to an on-road assessment.

http://myaota.aota.org/shop_aota/prodview.aspx?TYPE=D&PID=87188032&SKU=1261 (This was not however included in the Devos review as it was not independently validated against an on road test). A further study Predicting fitness-to-drive following stroke using the Occupational Therapy – Driver Off Road Assessment Battery (Unsworth et al., 2019) found that scores on the three cognitive subtests: Mini Mental State Examination, Road Law Road Craft Test, Occupational Therapy-Drive Home

Maze Test (OT-DHMT), and one physical test: the Right Heel Pivot Test could be used in combination to predict driving outcomes. These tests can be used to screen an individual's suitability for proceeding to an on-road test following stroke

The Rookwood Driving Battery (RDB) is a standardised screening tool suitable for Occupational Therapist administration. The RDB assesses core cognitive components considered necessary for safe driving and is a reliable outcome predictor (McKenna and Bell, 2007; McKenna, 2009; Lloyd *et al.*, 2020). Typically, higher scoring indicates poorer performance (>10 = 90% chance of failing on road). However, it is not a definitive tool for predicting on road performance, and whilst a higher score can reliably indicate compromised cognition, the opposite cannot be presumed from a low score (<6), and so further clinical opinion should be sought when considering need for further on road assessment. In addition to the above, a fail on any of the subtests indicates a poor performance, with 95% of the normal population scoring higher on that particular subtest. This can be very useful in guiding your decision making especially if their overall score is less than 6

If an individual has communication difficulties

- The Speech and Language Therapist can assess and give advice on strategies to support the person's communication during an assessment of cognitive function related to driving. The SLT may consider whether practising communication based elements of an assessment would be of benefit e.g. following certain commands or instructions.
- If the person is returning to driving and has expressive language difficulties or severe dysarthria, ask if they would benefit from a card explaining this, in case they are stopped while driving.
- If the person is referred to the SDAS, practical advice on how to support the person's communication should be forwarded to the assessment centre. This is to ensure that aphasia, dysarthria or dyspraxia of speech does not negatively impact on their ability to access the assessment. This may be in the form of a report detailing for example: what level of instructions the person can follow; if they require gestures to support their understanding; if they can give verbal responses or use AAC (Alternative and Augmentative Communication).

Informing the person who has had a stroke and doctor of the outcome of screening assessment

When giving feedback ensure a comprehensive picture of the person's overall functional ability. Avoid using 'pass', 'fail', 'competent' or 'not competent'. It may be more appropriate to state 'no issues noted which would affect ability to drive' or 'indicates that' as a guide for the DVLA who make the final decision. Referral for specialised driving assessment is made by the person's doctor, although the occupational therapist can provide the DVLA with information to assess fitness to drive and may advise resumption of driving if no residual effects are noted which would impede a person's ability to drive safely. The person who requires assessment may be eligible for financial support to attend the specialised driving assessment service. Contact the local NHS board to find out how to access this resource.

Informing the DVLA of a Medical Condition

- It is not a requirement to inform the DVLA if a person has made a full recovery from the stroke within 1 month, and their doctor or registered healthcare professional has told them they can return to driving.
- People should be made aware of their responsibility to inform the DVLA of their condition if they have ongoing cognitive or physical issues 1 month after their stroke as per DVLA guidelines.

- If following their medical/clinical assessment, the individual's doctor or health care professional (which can include occupational therapy) consider them safe to drive and be able to meet the relevant licensing standards then they can advise the individual to drive whilst DVLA is investigating the individual's case, provided their last licence had not been revoked or refused for medical reasons / due to not meeting the medical fitness to drive standards. However they have to be clear that their patient is safe to drive and likely to be able to meet the licensing standards but the final licensing decision rests with DVLA once DVLA's assessment is complete. It is advisable to write to the DVLA advising that they have given permission to the patient to resume driving. If however there is any doubt about the persons safety to drive then referral for further assessment at a certified driving assessment centre is advised.
- Many insurance agencies ask to be advised if a person has had a stroke or TIA. Once a person is passed as medically fit to drive it should not adversely affect their premium. Not advising an insurance agent of any medical events such as stroke may affect subsequent claims however, so each person should check their policy and ensure they are complying with their insurance protocol.
- If a person is not ready to consider driving they may voluntarily surrender their licence until such time as they have made sufficient recovery and can reapply for it. Once a valid reapplication has been logged with the DVLA, the person is usually (although not always) given cover to drive under section 88 of the Road Traffic Act whilst medical enquiries are commenced, and with their own doctors agreement. Legislative reform in 2022 to the 'Road Traffic Act 1988 (Provision of Information Relating to Disabilities) Order 2022 resulted in an amendment to allow registered HCPs, as well as registered medical practitioners, to provide the DVLA with information to assess fitness to drive. Clinical practice has informed this change because doctors often refer medical questionnaires to colleagues if they are deemed to have more pertinent information regarding a patient's fitness to drive. This change allows the relevant HCP to provide the information directly to DVLA and thus relieve the burden of only medics being able to provide this information.

Raising concerns

- Occupational therapists can inform the DVLA of any concerns about a person's ability to drive safely. For more information, refer to the Royal College of Occupational Therapists Briefing on Fitness to Drive (2020) <https://www.rcot.co.uk/practice-resources/occupational-therapy-topics/public-health> . You need to be able to log into the RCOT website to view this resource
- A form which can be sent to the DVLA to document the occupational therapists concerns can also be downloaded by following the above link.

Further information on driving after stroke

Written information for patients and professionals can be downloaded from the following links:

- https://www.stroke.org.uk/sites/default/files/publications/f02_driving_v_3.1_web_june_21.pdf
- https://www.chss.org.uk/documents/2014/05/e9_driving_with_a_medical_condition.pdf *Note – this is now aimed at driving with a medical condition but contains stroke-specific information*
- https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/403094/INF188X3_030215.pdf

What to do if driving is not an option

For those people who are unable to return to driving, consideration should be given to the psychological impact of this along with support to access and use other outdoor mobility and transport options. Local Councils will be able to provide information on community transport options such as taxi card schemes, bus passes and door to door community buses.

Other useful links include:

- A person may be eligible for a disabled person's rail card which allows them 1/3 off most rail fares. The card cost £20 for a one year rail card and £54 for a three year railcard. For eligibility and further details go to <http://www.disabledpersons-railcard.co.uk/what-is-a-disabled-persons-railcard>
- A person can apply for a blue badge which can be used with cars that belong to family members, friends or carers. More information can be found at <http://www.bluebadgescotland.org/> <https://www.mygov.scot/apply-blue-badge>
- An appointee for the person may be able to lease a car through the motability scheme if the person who has had a stroke is in receipt of specific benefits e.g. higher rate of the mobility component of the disability living allowance or Enhanced Mobility rate in the Personal Independence Payment (PIP) system the War Pensioners' Mobility Supplement (WPMS) or the Armed Forces Independence Payment (AFIP) and under 65 years old. Further information can be found at <http://www.motability.co.uk/>
- Most local shopping centres have a 'shop mobility' scheme. People can search for availability in their own areas at <https://www.shopmobilityuk.org/find-a-centre/> (up to date link to search for local options) or <https://www.shopmobilityuk.org/> (general website)
- Further information about accessible transport across Scotland can be found at <https://www.transport.gov.scot/our-approach/accessible-transport/>
- The National Entitlement Travel Card
If a person is over 60, or has a disability, they could be eligible for free or subsidised travel to get around Scotland and their local area. The National Entitlement Card allows people aged 60+ and people with a disability to travel for free on local or Scottish long distance buses. Further information can be found at <https://www.transport.gov.scot/concessionary-travel/60plus-or-disabled/>

References

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4. National Clinical Guideline for Stroke for the UK and Ireland. London: Intercollegiate Stroke Working Party; 2023 May 4. Available at: www.strokeguideline.org. (Section 4.14 Driving)

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