

Returning to driving after a stroke

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 'Guide for health care professionals in Scotland', also 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
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.

Assessment

- *Medical History* – Refer to the DVLA guidelines with regard to the person's current, and any pre-morbid conditions. Medical guidelines for all conditions can be found at <https://www.gov.uk/health-conditions-and-driving> An 'at a glance' guide for medical practitioners can be found at <https://www.gov.uk/government/publications/at-a-glance>
- *Driving History* – ascertain if the person drives an automatic or manual car; what sort of license do they hold; how often do they drive; 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 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. The Scottish Driving Assessment Service (SDAS) is based at the Astley Ainslie Hospital in Edinburgh. Referrals must be completed by a doctor. The SDAS can also advise on car adaptations which may support a person's return to driving.
- *Vision* – Screen for any visual problems. Establish if the person has a hemianopia, quadrantonopia 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.
- *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.
- If a person has achieved a level of recovery where driving can be considered following a rehabilitation programme but has residual physical deficits 3 months post stroke then they should be referred to a specialist assessment centre. (Three months is a guideline only based on expert opinion and is not stated in the DVLA rules)

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.

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.

Davos 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 <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 Stroke Drivers Screening Assessment incorporates the Dot Cancellation test, as a visual screen. Another point worthy of note is that performance on the Compass Cards test from the Stroke Drivers Screening Assessment (SDSA) is based on the stroke survivor first having completed the simpler SDSA Square Matrices 'Directions' test as

a practice (it's not scored) and similarly in practice the TMT B is typically administered following TMT A. Therefore to administer the tests in practice, it is advisable to complete the entire SDSA and both parts of the TMT, using the dot cancellation as a test of visual inattention where no other visual screen has taken place.

The OT-DORA: Occupational Therapy Driver Off-Road Assessment Battery (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)

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' as this gives the impression that the occupational therapist has made the final decision as to whether a person can resume driving or not. 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 therapy assessment/report is important to help inform this decision. The occupational therapist may wish to advise on any issues noted from assessment which suggests that this is required. The person who requires assessment may be eligible for financial support for themselves and a friend to attend the specialised driving assessment service. Contact the local health 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 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.
- 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 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 license until such time as they have made sufficient recovery and can reapply for it. Once a valid application 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.

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 College of Occupational Therapists / BAOT briefing No 26 on 'Guidance for Occupational Therapists regarding fitness to drive and driving cessation' (2012) Available on the COT website <http://www.cot.co.uk/professional-practice/service-users-fitness-drive>
- 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:

- http://www.stroke.org.uk/sites/default/files/F02_Driving%20after%20stroke.pdf
- <http://www.chss.org.uk/stroke-information-and-support/how-we-can-help/living-stroke/driving-stroke/>
- 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 other 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>
- 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 <http://www.shopmobilityuk.org/Index.asp>

- Further information about accessible transport across Scotland can be found at <http://www.transportscotland.gov.uk/public-transport/concessionary-travel/accessible-travel-information-and-links>
- 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:- <http://www.transportscotland.gov.uk/public-transport/concessionary-travel-people-aged-60-or-disability#disabled>

Reference

Devos H, Akinwuntan AE, Nieuwboer A, Truijien S, Tant, M, DeWeerdW. (2011) Screening for fitness to drive after stroke: a systematic review and meta-analysis. *Neurology* 76(February 22): 747-756.

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PROCESS TO SUPPORT PATIENTS RETURN TO DRIVING FOLLOWING A STROKE

Carry out functional and standardised screening assessments

Has the occupational therapist found deficits that would indicate the patient may have difficulty driving?

No

Yes

Do medical staff agree that person has no deficits to preclude return to driving (must be at least 1 month following stroke)?

Does the Occupational Therapist consider it possible that the patient will recover sufficiently or with vehicle adaptations (if physical deficits only) be able to return to driving in the future?

No

Yes

Yes

No

If medical staff have concerns regarding fitness to drive they should refer the patient to the Scottish Driving Assessment Service

The patient should be informed to advise their insurance agent about their stroke but do not need to inform DVLA. They can resume driving after 1 month period.

Medical staff should either refer to Scottish Driving Assessment Service or write in discharge summary requesting GP do so when the patient is ready

Occupational therapist should explain to the person why driving is not appropriate

Is the patient confident to drive?

Yes

No

Occupational therapist may advise the patient to go out in the car with a relative/friend for the first time on returning to driving. May advise a 'graded' approach.

Occupational therapist may advise the patient to book a private lesson with a professional driving instructor. OT may have established links with local instructors who have some understanding of stroke

Medical staff should reinforce why the patient is unable to return to driving and advise patient to inform DVLA and possibly voluntarily submit their driving licence. They should also discuss that if the patient feels they have improved, they should discuss this with their GP as some exceptional circumstances may warrant reassessment after a period of time

Flowchart adapted from NHS Grampian & NHS Fife, occupational therapy service guidelines