

# Following stroke or TIA can patient screening & enhanced risk factor management prevent subsequent memory decline.

<b>Submission date</b> 15/04/2015	<b>Recruitment status</b> No longer recruiting	<input checked="" type="checkbox"/> Prospectively registered <input type="checkbox"/> Protocol
<b>Registration date</b> 16/04/2015	<b>Overall study status</b> Completed	<input type="checkbox"/> Statistical analysis plan <input checked="" type="checkbox"/> Results
<b>Last Edited</b> 21/09/2020	<b>Condition category</b> Circulatory System	<input type="checkbox"/> Individual participant data

## Plain English summary of protocol

### Background and study aims

Previous research indicates that many patients who have suffered from a stroke or mini-stroke (Transient Ischemic Attack [TIA]) are already showing signs of cognitive decline (problems with thinking, reasoning and remembering) at the time of diagnosis. Previous research also indicates that about a third of stroke patients who have normal cognition at diagnosis go on to develop dementia as early as 3 months after stroke. The aim of this study is to find out if the early detection of cognitive decline at the time of stroke or mini-stroke (TIA) diagnosis can prevent, slow down or even reverse the onset of dementia. The study hopes to find out if improved monitoring and control of vascular risk factors such as high blood pressure, high cholesterol, irregular heart beat (atrial fibrillation) and diabetes, can slow down cognitive decline.

### Who can participate?

Adult patients with mild ischemic stroke or TIA

### What does the study involve?

At the time of stroke/TIA diagnosis a simple cognitive screening test is carried out. The score the patient gets determines what part of the study they can participate in. Patients with a score of less than 20 are not able to take part in the study. Patients with a score of 26 or over are invited to participate in the observational study. Patients with a score of 20-25 are invited to participate in the feasibility study.

The goal of the observational study is to see if there is a link between vascular risk factors, control of these risk factors and cognitive function after stroke/TIA. Participants in the observational study have their vascular risk factors (e.g. high blood pressure, high cholesterol, irregular heart beat [atrial fibrillation]) and diabetes assessed at the start of the study and after 1 year.

The goal of the feasibility study is to evaluate the feasibility of conducting a hospital-based study of stroke/TIA patients who are at risk of further cognitive decline. Participants are randomly allocated to one of two groups: an intervention group and a control group.

Participants in the intervention group have targets set for each of their risk factors which are monitored by the hospital and by their GP. Participants in the control group receive standard care. The cognitive test is repeated after 6 months and 1 year.

What are the possible risks and benefits of taking part in this study?

Participants with a score of 26 or over will be reassured that they have normal cognition.

Participants with a score of 20-25 who are allocated to the feasibility intervention group will have the benefit of closer and frequent monitoring of risk factors which may possibly reduce risk of a further stroke/TIA. They might also have the advantage of reducing further cognitive decline. Participants with a score of less than 20 will be referred to their GP and to appropriate services if required. Participants scoring less than 26 may experience some anxiety. Referral and support will be given. By doing so, we hope that the anxiety will be reduced.

Where is the study run from?

Norfolk and Norwich University Hospital (NNUH) (UK)

When is the study starting and how long is it expected to run for?

August 2015 to April 2017

Who is funding the study?

National Institute for Health Research (UK)

Who are the main contacts?

1. Prof. John Potter
2. Prof. Phyo Myint

## Contact information

### Type(s)

Public

### Contact name

Prof John Potter

### Contact details

Norfolk and Norwich University Hospital NHS Trust  
Colney Lane  
Colney  
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## Additional identifiers

### Protocol serial number

18803

## Study information

### Scientific Title

SERVED Memory: Feasibility study of Screening & Enhanced Risk management for Vascular Event related Decline in Memory

## **Acronym**

SERVED Memory

## **Study objectives**

This study sets out to assess if the early detection of cognitive decline (memory problems) following a recent stroke or transient ischaemic attack (TIA or ministroke) can be prevented, slowed down or potentially reversed by addressing vascular risk factors (VRF) more intensively.

## **Ethics approval required**

Old ethics approval format

## **Ethics approval(s)**

15/EE/0061

## **Study design**

Randomised; Interventional; Design type: Treatment

## **Primary study design**

Interventional

## **Study type(s)**

Treatment

## **Health condition(s) or problem(s) studied**

Topic: Stroke; Subtopic: Prevention; Disease: Therapy type

## **Interventions**

In both study groups at the start of the study and after 12 months a 24 hour blood pressure recording will be taken.

At the start of the study and after 12 months pulse wave velocity (PWV) measurements will be made to examine the stiffness of the participants arteries.

Participants with an irregular heart rhythm (atrial fibrillation) will have 10 minute beat to beat variation in blood pressure measurements recorded using a Taskforce monitor at the start of the study and at 12 months.

Participants assigned to the Intervention group will be given risk factor targets which will be re-assessed at 3, 6, 9 and 12 months by the research team. If participants are not reaching their target levels, their GP will be informed.

Participants from all study groups will be asked to complete a health-related quality of life questionnaire (called EQ-5D), a dementia-specific quality of life questionnaire (called DEMQOL), a geriatric depression scale questionnaire (called GDS) and a resource use cost questionnaire at baseline and 12 months. At the end of the study, participants will also be asked to complete the Bristol Activities of Daily Living Scale and the study team will carry out a short questionnaire that is used for the diagnosis of vascular dementia (Hachinski Test).

**Intervention Type**

Procedure/Surgery

**Primary outcome(s)**

Changes in Cognition and in CV risk factors over 1 year follow-up; Timepoint(s): Changes in Cognition and in CV risk factors over 1 year follow-up

**Key secondary outcome(s)**

N/A

**Completion date**

31/12/2018

**Eligibility****Key inclusion criteria**

All adult patients admitted to the participating centre with confirmed stroke (first/recurrent) or TIA will be considered for the trial.

**Inclusion criteria**

1. Normal cognition (MoCA score  $\geq 26$ ) and no evidence of moderate/severe depression (GDS  $< 9$ ). Patients with normal cognition (MoCA score  $\geq 26$ ) will be informed of their normal cognition status and will be managed routinely by the clinicians with regards to their risk factors. They will be invited to participate in the observational study (defined as GROUP O). If they agree, written informed consent will be obtained.
2. Intermediate cognition (MoCA score 20-25). Patients with MoCA score of 20-25 will be informed of their cognitive status and be invited to participate in the feasibility trial. Those who agree and provide written informed consent will be randomised into one of two groups; control arm (GROUP C) and intervention arm (GROUP I).

**Participant type(s)**

Patient

**Healthy volunteers allowed**

No

**Age group**

Adult

**Sex**

All

**Total final enrolment**

167

**Key exclusion criteria**

Those with following conditions will be excluded on ethical grounds:

1. Severe cognitive deficit (MoCA  $< 20$ ). Patients with severe cognitive deficit (MoCA  $< 20$ ) will be informed of their cognition status and their GP will also be informed for further appropriate action. Hospital teams will be liaised with and an appropriate level of community support at discharge will be organised. By doing so, we hope that the anxiety of knowing their cognitive

deficit will be reduced. They will be excluded from the trial as it is not ethical to include them in the feasibility stage.

2. Established Dementia / MoCA score <20

3. Moderate/severe depression

4. Life expectancy <1 yr (e.g. severe stroke/terminal cancer)

5. Unable to perform MoCA (aphasic patients)

**Date of first enrolment**

01/08/2015

**Date of final enrolment**

01/04/2017

## **Locations**

**Countries of recruitment**

United Kingdom

England

**Study participating centre**

**Norfolk and Norwich University Hospital NHS Trust**

Colney Lane,

Colney

Norwich, Norfolk

United Kingdom

NR4 7UY

## **Sponsor information**

**Organisation**

Norfolk and Norwich University Hospital NHS Trust

**ROR**

<https://ror.org/01wspv808>

## **Funder(s)**

**Funder type**

Government

**Funder Name**

National Institute for Health Research

### Alternative Name(s)

National Institute for Health Research, NIHR Research, NIHRresearch, NIHR - National Institute for Health Research, NIHR (The National Institute for Health and Care Research), NIHR

### Funding Body Type

Government organisation

### Funding Body Subtype

National government

### Location

United Kingdom

## Results and Publications

### Individual participant data (IPD) sharing plan

#### IPD sharing plan summary

Not provided at time of registration

#### Study outputs

Output type	Details	Date created	Date added	Peer reviewed?	Patient-facing?
<a href="#">Results article</a>	results	17/09/2020	21/09/2020	Yes	No
<a href="#">HRA research summary</a>			28/06/2023	No	No