

# Shifting Gears

## Returning to Driving after Stroke

### Investigations into the management of return to driving after acute stroke and transient ischaemic attack



**Janet Lynnette Templeton Frith**

A thesis submitted in fulfilment of the requirements for the degree of Doctor of Philosophy

Discipline of Occupational Therapy

Faculty of Health

University of Newcastle

Newcastle, NSW, Australia

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## Statement of Originality

The thesis contains no material which has been accepted for the award of any other degree or diploma in any university or other tertiary institution and, to the best of my knowledge and belief, contains no material previously published and written by another person, except where due reference has been made in the text. I give consent to the final version of my thesis being made available worldwide when deposited in the University's Digital Repository\*, subject to the provisions of the *Copyright Act 1968*.

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## **Thesis by Publication**

I hereby certify that this thesis is in the form of a series of published papers of which I am a joint author. I have included as part of the thesis a written statement from each co-author, endorsed by the Faculty Assistant Dean (Research Training), attesting to contribution to the joint publications.





## Statement of Contribution

By signing below I confirm that Janet Frith (PhD Candidate) contributed more than 50% to the study design, data analysis and manuscript preparation of the publication listed below. Associate Professor Helen Warren-Forward, Associate Professor Carole James and Dr Isobel Hubbard contributed to the manuscript preparation within the capacity of their roles as PhD supervisors.

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**Frith, J.,** James, C.L., Hubbard, I.J. & Warren-Forward, H. (2016) Returning to drive after stroke or TIA: Knowledge of Australian health professionals. Submitted for publication, November 2016

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# Abbreviations

Austrroads	The Australasian Road Transport and Traffic Agencies and the National Transport Commission of Australia
DLA	Driver Licensing Authority
DVLA	Driver Vehicle Licensing Authority
E-learning	Electronic learning
E-module	Electronic learning module
GP	General practitioner
NSF	National Stroke Foundation
OT	Occupational Therapy/Occupational Therapist
PEOP	Person-Environment-Occupation Performance
RTD	Return to driving
TIA	Transient ischaemic attack





# Abstract

## Introduction

In Australia, all stroke survivors are restricted in driving for four weeks, and persons who experience a transient ischaemic attack (TIA) are restricted in driving for two weeks. All health professionals working in stroke and TIA have a responsibility to provide written and verbal information on return to driving (RTD) to persons with stroke or TIA and provide them with an RTD management plan prior to discharge from hospital.

## Aim

This thesis aims to determine whether Austroads' Fitness to Drive Guidelines and the National Stroke Foundation's Clinical Guidelines for Stroke Management are being met in the multiprofessional team's role in providing RTD education to stroke survivors and in facilitating stroke survivors' adherence to driving restrictions.

## Methodology

Study one is a systematic review of adherence to RTD guidelines and legislation following stroke. Study two reports on a medical record audit of inpatient documentation related to the provision of RTD education and management plans in the acute hospital setting, and the results of an anonymous patient survey of RTD behaviours. Study three presents the findings from a survey of Australian health professionals working in the field of stroke regarding the knowledge and use of RTD guidelines. Study four reports on the development and implementation of an electronic learning module on RTD, targeting Australian health professionals working in the field of stroke.

## **Results**

The systematic review revealed only three studies, all based in the United Kingdom, that investigated the provision of RTD education in the acute hospital setting. The medical record audit revealed that patients with stroke or TIA are not routinely receiving documentation on the provision of education on RTD prior to discharge from hospital. The anonymous patient survey revealed that, if provided with education on RTD, a person with stroke or TIA will follow the advice given. The results of the national survey of health professionals revealed that health professionals lack knowledge about RTD guidelines, and the management of RTD is being deferred to other health professionals. The development of an electronic learning module on RTD after stroke, targeting Australian health professionals, is bridging the practice-evidence gap in the knowledge and use of RTD guidelines after stroke and TIA.

## **Conclusion**

The provision of education on restrictions in driving, and RTD management plans, in patients with stroke and TIA who are discharged directly home from the acute hospital setting is not well-managed. Strategies need to be developed and implemented to ensure all patients with stroke and TIA who are discharged home from the acute hospital setting receive nationally-recommended education on driving restrictions, and RTD management plans.