General Practice Health Assessments of Older Australians: Equitable, Effective, or Improved Care?

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submitted in fulfilment of the requirements for the degree of Doctor of Philosophy at the University of Tasmania

October 2006

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Statement

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Abstract

Introduction

By 2040, it is predicted that people aged over 85 years of age will form four percent of the Australian population. In 2005, they were only 1.5 percent of the Australia population. In this age group, a high proportion, with advanced frailty or disability, will be unable to live independently in the community. As a result, it is predicted that there will be a marked increase in the demand for support mechanisms and residential aged care facility (RACF) places for this age group.

In 1999, the Australian government provided subsidies for all permanent residents of Australia aged 75 or more years to undergo a prescribed health assessment by their general practitioner (GP) with the expectation that this might lower the need for such care. Two types of assessment with identical content were funded. Item 700 assessments were to be performed solely in the GP’s surgery while item 702 assessments required some components of assessment to be conducted in the patient’s home.

This thesis appraises whether these health assessment items for older Australians have resulted in better health outcomes over the three years since their introduction.

Method

The Health Insurance Commission (HIC) supplied data from medical service claims under Medicare and Department of Veterans Affairs (DVA) arrangements over the three twelve month periods commencing 1 October 1999 and ending 30 September 2002. The initial cohort sampling frame was all Australians aged 75 years and over at 30 September 1999, who claimed at least one primary care consultation item between 1 October 1999 and 30 September 2000, and who had not made a claim for an attendance at a RACF between 1 October 1998 and 30 September 1999. This sampling frame was chosen as it
was the most complete sample of those eligible for a health assessment claim that could feasibly be obtained. In each successive 12 month period, those who made no primary care attendance claim or had a claim for an RACF attendance item were censored. Personal data was available for each claimant for gender, age group at the commencement of each 12 month period, Rural Remote and Metropolitan Area classification of post code of residence, Index of Relative Socio-economic Deprivation (IRSD) quartile of postcode of residence and whether the claimant was eligible for treatment under DVA arrangements. Using logistic regression, the personal characteristics associated with a claim for either an item 700 or 702 were determined to elucidate if health assessments had been equitably distributed.

Similarly, using logistic regression to correct for the effects of these personal characteristics, the effect of a health assessment claim on first claims for a RACF attendance over the 36 months of the study was determined. This outcome measure was chosen, as it was a good proxy for permanent admission to a RACF, an outcome shown to be lessened by health assessment in randomised controlled trials.

Finally, the effect of having a health assessment in the period 1 October 2000 to 30 September 2001, on medical service claims in that and the following 12 month period was explored using Poisson regression with correction for over dispersion to control for the effects of differences in personal characteristics between those who had each type of assessment and those who had none.

Results

The study cohort initially comprised 886,185 individuals. Cohort subjects were a virtually complete national sample with the number remaining in the cohort at the time of the 2001 Australian Bureau of Statistics Census being 98% of the census-derived corrected count for this age group living in the community. Over the 36 month period of data
collection, 271,939 (31%) claimed for at least one of the two health assessment items, 72,425 (8%) claimed for at least two, 20,027 (2%) claimed for three and 114,040 (13%) individuals from the initial cohort made a first claim for a RACF GP attendance item. Initially, item 700 claims were more prevalent but by the third data collection period, the number of claims for item 700 and 702 were equal.

Health assessment claims were more common in females, in the age group 80-84 years, in those living in metropolitan and regional Australia, in those living in the most disadvantaged IRSD quartile postcodes, and in those who had entitlement to medical care under the DVA. Those claiming item 700 were more likely to be male, aged from 75-84 years, live in regional Australia, live in the most disadvantaged IRSD quartile postcodes and be entitled to medical care under the DVA. Those claiming item 702 were more likely to be female, aged 80 or more years, live in metropolitan Australia, live in all but the most advantaged IRSD quartile postcodes and be entitled to medical care under the DVA.

Claims for first RACF attendances were more common in those who claimed for an assessment. This was particularly marked for those who claimed an item 702 but was also seen in those who claimed for an item 700 over time.

Those who claimed for an assessment item in the period 1 October 2000 to 30 September 2001, claimed for around 20 percent more medical services than those who made no claim. Those who claimed for an item 702 were more likely to make claims for home visits and after hours emergency visits. However, making a claim did not appear to affect the use of services in the following 12 months.
Analysis

With the exception of those who dwell in rural and remote Australia, health assessments may have improved equity as they were more likely to be claimed by those known to be at risk of poorer health outcomes.

Claiming a health assessment did not protect against RACF admission, as indicated by an increased rate of first claims for a RACF attendance. In particular, an item 702 claim appeared to increase such claims. It seems unlikely that the intervention delivered differed between item 700 and 702. Two plausible explanations for this difference are: either the two items were targeted at different populations or item 702 was better at detection of disability requiring RACF admission. The differences in service usage suggest that those who claimed an item 702 were more likely to be frail. Better detection and grading of dementia, the commonest condition resulting in admission to RACFs in Australia and a condition GPs often under-diagnose or whose severity they underestimate, is the most likely reason why an item 702 claim is associated with an increased rate of admission to RACF care.

Discussion

Health assessments in Australia appear to be worthwhile. They improved the equity of health care services for high risk groups with the exception of those living in rural and remote Australia. While they did not lessen the rate of admission to RACFs as was initially hoped, they may have prevented carer distress and inappropriate crisis hospital admissions by earlier identification of those in need of RACF care. They do not appear to have increased the use of medical services.

RCTs conducted in Australia, applying similar health assessment interventions, also did not show the lowering of RACF admission rates seen overseas. The advantages enjoyed by Australians are the most probable explanation for the failure of health assessment in
Australia to lower the rate of admission to RACFs. Australians experience excellent health adjusted life expectancies, have low personal cost and easy accessibility to high standard health care and social support, and are only admitted to a RACF if they cannot be supported in the community. In other health systems, improvements to the health care system rather than health assessment alone may be a more beneficial way of improving health outcomes for older persons.

An improved influenza immunisation rate is one factor, not reported in published studies, that might explain some of the improvement in health status seen in overseas RCTs of health assessment. Australia has a rate of uptake for influenza vaccine in those aged 65 or more years of around 80 percent, one of the highest rates in the world and well over twice that seen in many other similar developed countries. Influenza is known to accelerate functional decline, and thus result in admission to a RACF. Future trials of measures to lessen these adverse effects should examine the effect of influenza and influenza vaccination on these outcome measures.

In summary, health assessments of older persons in Australia in the first 35 months following their introduction, were widely used, improved equity for at risk groups, appear to improve the identification of those at need of RACF admission, and did not increase claims for out of hospital medical services.
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Figure 5.1 Forest Plot of the Odds Ratios of the effect of any GP health assessment claim on a first claim for a GP attendance at a residential aged care facility in each 12 month data collection period and following the effect in subsequent 12 month data collection periods correcting for age group, gender and RRMA postcode classification. 171

Figure 5.2 Forest Plot of the Odds Ratios of the effect of a MBS item 700 or item 702 GP health assessment claim on a first claim for a GP attendance at a residential aged care facility in each 12 month data collection period and following the effect in subsequent 12 month data collection periods correcting for age group, gender and RRMA postcode classification ........................................................................................................................................... 173
## Common Abbreviations used in this Thesis

<table>
<thead>
<tr>
<th>Abbreviation</th>
<th>Description</th>
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<tbody>
<tr>
<td>ABS</td>
<td>Australian Bureau of Statistics</td>
</tr>
<tr>
<td>ACAT</td>
<td>Aged Care Assessment Team</td>
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<tr>
<td>AIHW</td>
<td>Australian Institute of Health &amp; Welfare</td>
</tr>
<tr>
<td>AMA</td>
<td>Australian Medical Association</td>
</tr>
<tr>
<td>BEACH</td>
<td>Bettering the Evaluation &amp; Care of Health study</td>
</tr>
<tr>
<td>CACP</td>
<td>Community Aged Care Package</td>
</tr>
<tr>
<td>DHAC</td>
<td>Department of Health &amp; Aged Care</td>
</tr>
<tr>
<td>DoHA</td>
<td>Department of Health &amp; Ageing</td>
</tr>
<tr>
<td>DVA</td>
<td>Department of Veterans Affairs</td>
</tr>
<tr>
<td>EPC</td>
<td>Enhanced Primary Care program</td>
</tr>
<tr>
<td>GP</td>
<td>General Practitioner</td>
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<tr>
<td>HIC</td>
<td>Health Insurance Commission</td>
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<tr>
<td>HAOP</td>
<td>Health Assessment of Older Persons</td>
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<tr>
<td>IRSD</td>
<td>Index of Relative Socio-economic Deprivation</td>
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<tr>
<td>MBS</td>
<td>Medical Benefits Schedule</td>
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<tr>
<td>NHMRC</td>
<td>National Health &amp; Medical Research Council</td>
</tr>
<tr>
<td>OMP</td>
<td>Other Medical Practitioner</td>
</tr>
<tr>
<td>RACGP</td>
<td>Royal Australian College of General Practitioners</td>
</tr>
<tr>
<td>RACF</td>
<td>Residential Aged Care Facility</td>
</tr>
<tr>
<td>RCT</td>
<td>Randomised Controlled Trial</td>
</tr>
<tr>
<td>RRMA</td>
<td>Rural, Remote and Metropolitan Area classification</td>
</tr>
<tr>
<td>WHO</td>
<td>World Health Organisation</td>
</tr>
</tbody>
</table>
Acknowledgements

Many people have supported me in this work. It is difficult to acknowledge them all.

Associate Professor Deborah Saltman AM persuaded me to undertake this doctorate.

My two supervisors Associate Professor Dominic Geraghty and Dr Kate Blackmore were very constructive and provided me with the encouragement to keep plugging away.

This PhD was supported by a NHMRC Medical Postgraduate Scholarship no 253926. I am grateful to Professor John Marley and Associate Professor Deborah Saltman AM who acted as my referees when I applied for this grant.

A University of Tasmania Institutional Research Grant Scheme award aided the purchase of data from the Health Insurance Commission.

The Department of Veterans Affairs was also very helpful at granting me access to their service usage data.

The staff at the HIC Statistics Branch were very helpful in seeing the data was correctly extracted.

My two Heads of Departments, Professors Judy Walker and Madeline Ball, and the staff of both the University Department of Rural Health and the School of Human Life Sciences provided encouragement. The University of Tasmania Library staff were excellent at getting me the necessary literature.

Drs Des FitzGerald and Ian Robertson provided critical help on statistics.

Many Australasian General Practice academics and public health physicians also offered encouragement. I would particularly like to thank Associate Professor Helena Britt and her BEACH team from the Family Medicine Research Centre at the University of Sydney, Professor Doris Young and Professor Jane Gunn from the University of Melbourne and Associate Professor Ngaire Kerse from the University of Auckland but there were many others.

As I developed Non Hodgkin’s Lymphoma in the first year of my studies, this thesis would not have been completed with out the skilled medical attention I received from a number of my medical, nursing and radiotherapy colleagues.

All the staff and patients at my practice have been understanding when I was away working at my studies.

But most importantly this could not have been achieved without the tolerance, patience and proof reading from my family. To my parents Rose and Peter, my beloved wife Maria and our children Dominic, Stephen, Anna and Monica, a very special thanks is due.