

Changing general practitioner when entering residential aged care: impact on psychotropic medicine use and polypharmacy in 2,250 Australians with dementia

1st Annual
Research
Symposium and
Policy Forum

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Background

Aged care systems around the world are under pressure because of ageing populations and the increasing prevalence of dementia. Systemic weaknesses have been widely recognised,^{1,2} and inappropriate medicine use was among the problems scrutinised by the Australian Royal Commission into the Quality and Safety of Aged Care, particularly the use of antipsychotics and sedatives as chemical restraints.^{2,3} Polypharmacy is common in residential aged care,^{4,5} as is potentially inappropriate prescribing.^{4,6} In Australian aged care facilities, psychotropic medicines (antipsychotics, benzodiazepines, antidepressants) are often dispensed to people with dementia,⁷ especially soon after entry into residential care, a critical transition point.⁸

One potential major adjustment for people during the transition to residential care is a change in general practitioner (GP). GPs are the major prescribers in Australian residential aged care, but little is known about how many residents change GPs when they enter aged care facilities, or the effect this has on their care. We explored GP continuity for people with dementia entering residential care and how it influences their medicine use, examining associations with both overall prescribing (including polypharmacy) and that of psychotropic medicines in particular.

Methods

We included participants from the 45 and Up Study¹¹ with diagnoses of dementia who entered permanent residential aged care during 1 January 2010 – 30 June 2014 and were alive six months after entry, who had been dispensed medications during the preceding two years only as concessional beneficiaries, and for whom at least three GP claims had been lodged prior to entry and at least one after entry into residential care. People with dementia were identified using previously described criteria:¹² any claim for dementia-specific medications (donepezil, rivastigmine, galantamine, memantine), or dementia diagnosis codes in hospitalisation records, aged care assessments, or the Aged Care Funding Instrument (used to assess required level of care) between July 2006 and entry into permanent residential care.

The category of GP most frequently seen by a resident during the six months after residential care entry was determined by comparing Medicare Benefits Schedule (MBS) claims for GP visits during this period with MBS records for the 24 months preceding entry. Three categories were defined:

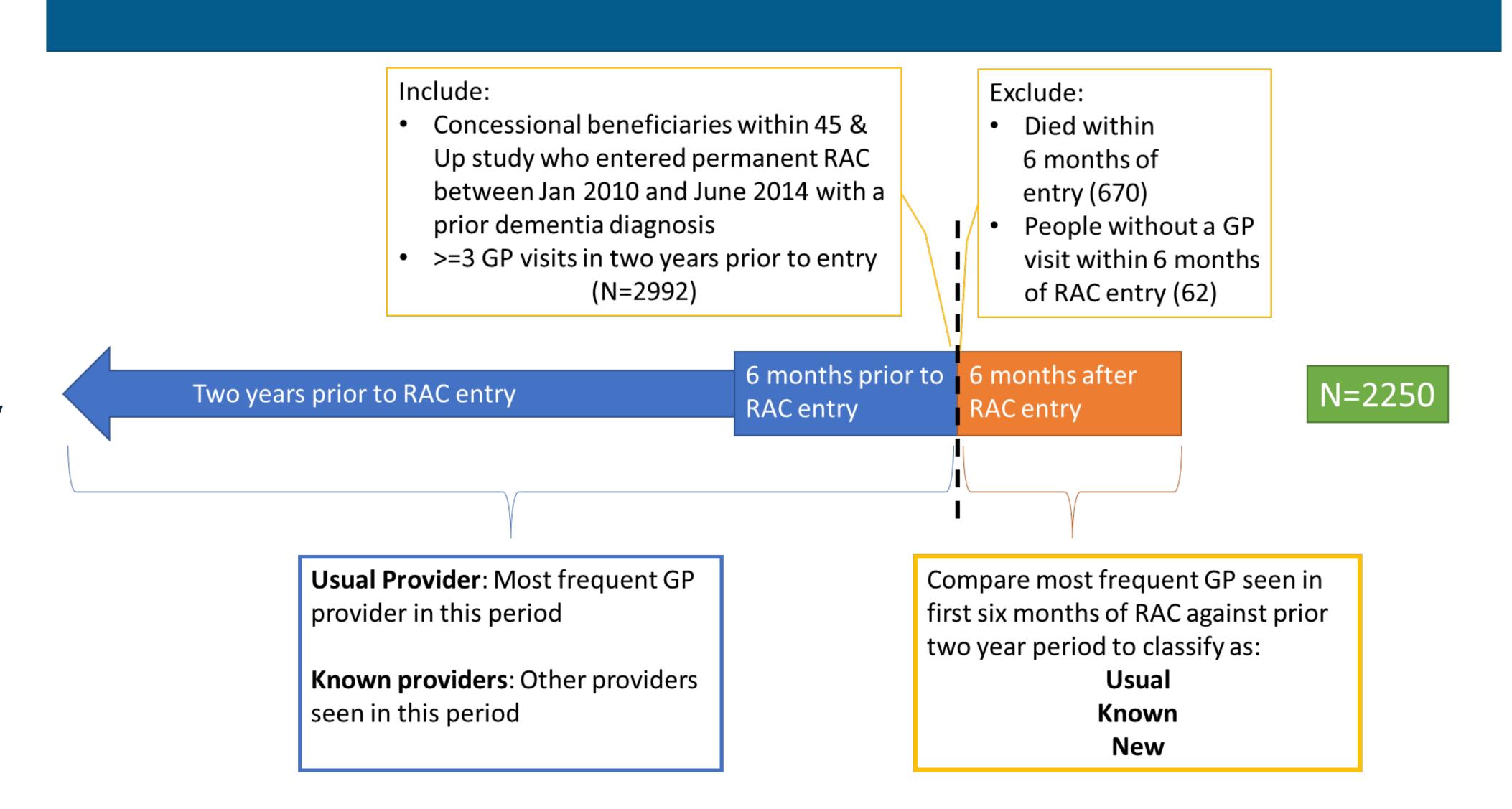
- "usual" when the GP most frequently seen by a resident had also been their most frequent GP prior to entry;
- "known" when the resident had seen the GP prior to entry but the GP was not their usual GP; and
- "new" when the resident had not seen the GP prior to entry to residential care.

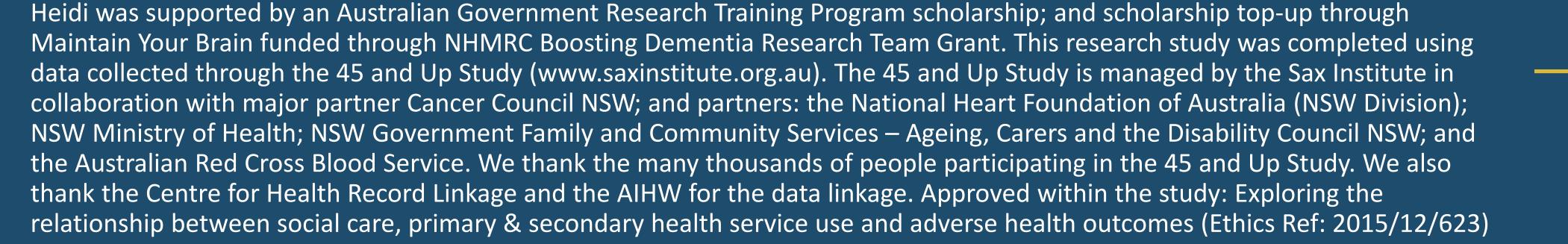
Outcomes – six months after entry to RAC

- 1. Number of unique medicine dispensings (based on 7 digit ATC code)
- 2.Proportion with polypharmacy (>=5 medicines) and hyper-polypharmacy (>=10 medicines)
- 3. Proportion with an antipsychotic/benzodiazepine/antidepressant dispensing

Statistical Analysis

We calculated Inverse Probability of Treatment (IPT) weights to balance group characteristics using a range of covariates from the 45 and Up Baseline Survey, and prior health and social care use based on administrative datasets. The main analyses used IPT weighted regression – Logistic for binary outcomes and Poisson for count data to assess relative differences between groups. These additionally controlled for prior medicine use in the six month period before entry to RAC and prior hospitalisation (using the "survey" package in R).













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Results

A total of 2250 residents with dementia were included in our study. Their mean age was 84.1 years (standard deviation [SD], 7.0 years; 1236 were women (54.9%). The most frequently seen GP in residential care was their usual GP for 625 residents (27.8%), a known GP for 645 residents (28.7%), or a new GP for 980 residents (43.6%).

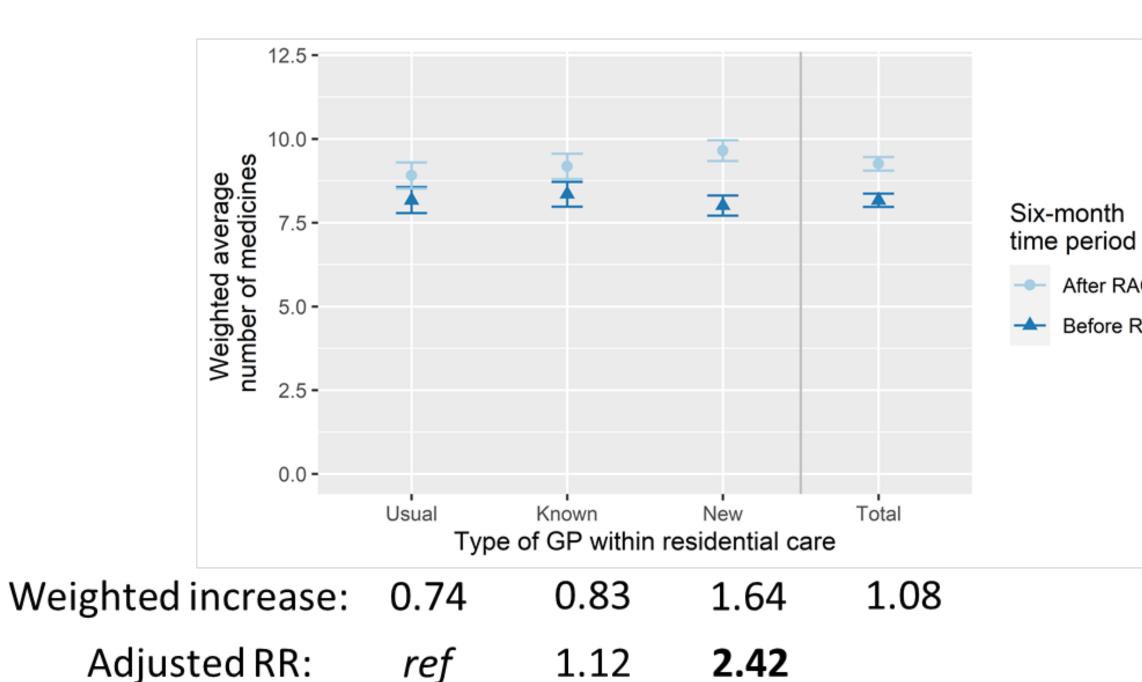
The increase in mean number of medicines for the new GP group (+1.6 medicines; 95% CI, 1.4–1.9 medicines) was larger than for the usual GP group (+0.7 medicines; 95% CI, 0.4–1.1 medicines; adjusted rate ratio [aRR], 2.42; 95% CI, 1.59–3.70); the mean increases for the known (+0.8 medicines; 95% CI, 0.5–1.2 medicines) and usual GP groups were similar (aRR, 1.12; 95% CI, 0.71–1.75) (Panel A).

After weighting and adjusting for pre-residential care levels of poly- and hyperpolypharmacy and for emergency hospitalisation, the odds of polypharmacy (adjusted odds ratio [aOR], 1.53; 95% CI, 1.09–2.14) and hyperpolypharmacy in residential care (aOR, 1.47; 95% CI, 1.14–1.89) were higher for the new GP group than for the usual GP group. Odds for the known and usual GP groups were similar (polypharmacy: aOR, 0.93; 95% CI, 0.64–1.36; hyperpolypharmacy: aOR, 1.21; 95% CI, 0.92–1.60). (Panel B).

After weighting and adjusting for pre-residential care levels of medicine use and prior emergency hospitalisation, the odds of being dispensed any psychotropic medicine (aOR, 1.64; 95% CI, 1.24–2.18), antipsychotics (aOR, 1.59; 95% CI, 1.18–2.12), or benzodiazepines (aOR, 1.69; 95% CI, 1.25–2.30) were each higher for the new GP than the usual GP group; those for the dispensing of antidepressants were similar (aOR, 1.32; 95% CI, 0.98–1.77). For all medicine types, the odds were similar for the usual and known GP groups. (Panel C).

The odds of antipsychotics (aOR, 1.85; 95% CI, 1.31–2.61), benzodiazepines (aOR, 1.89; 95% CI, 1.24–2.90), and antidepressants (aOR, 1.64; 95% CI, 1.10–2.44) being initiated for residents were each higher for the new GP than the usual GP group. The odds of initiating antipsychotics (aOR, 1.31; 95% CI, 0.88–1.96), benzodiazepines (aOR, 1.27; 95% CI, 0.75–2.15), or antidepressants (aOR, 1.41; 95% CI, 0.89–2.21) were similar for the known GP and usual GP groups. (Panel D).

Weighted number of medicines dispensed and Weighted increase (controlling for prior use and prior hospitalisation)

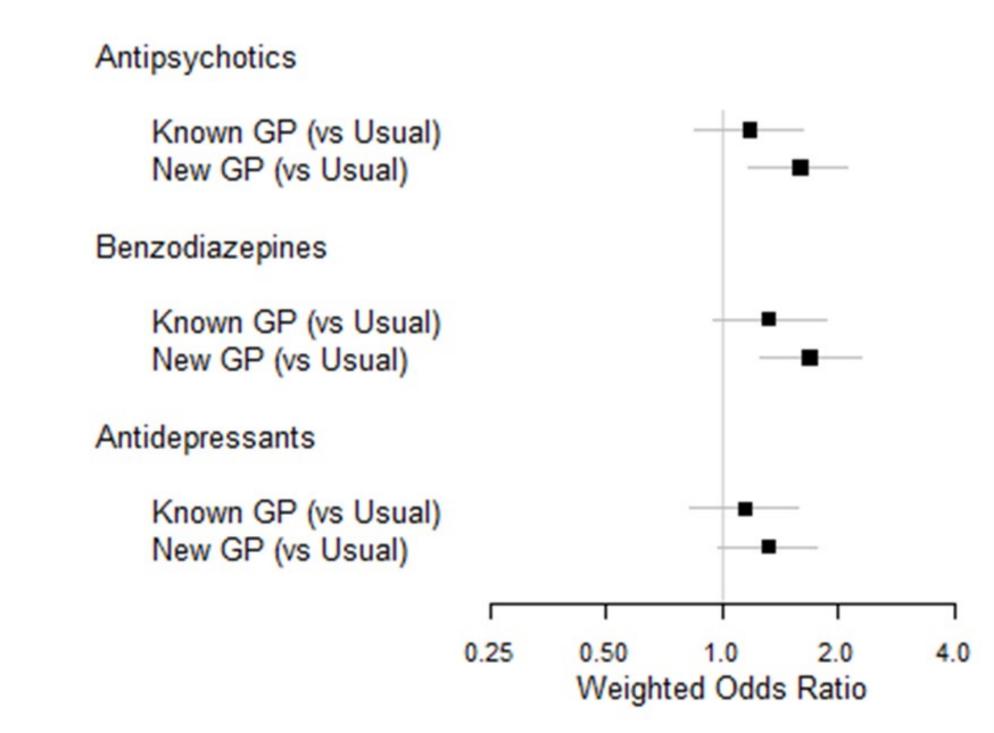


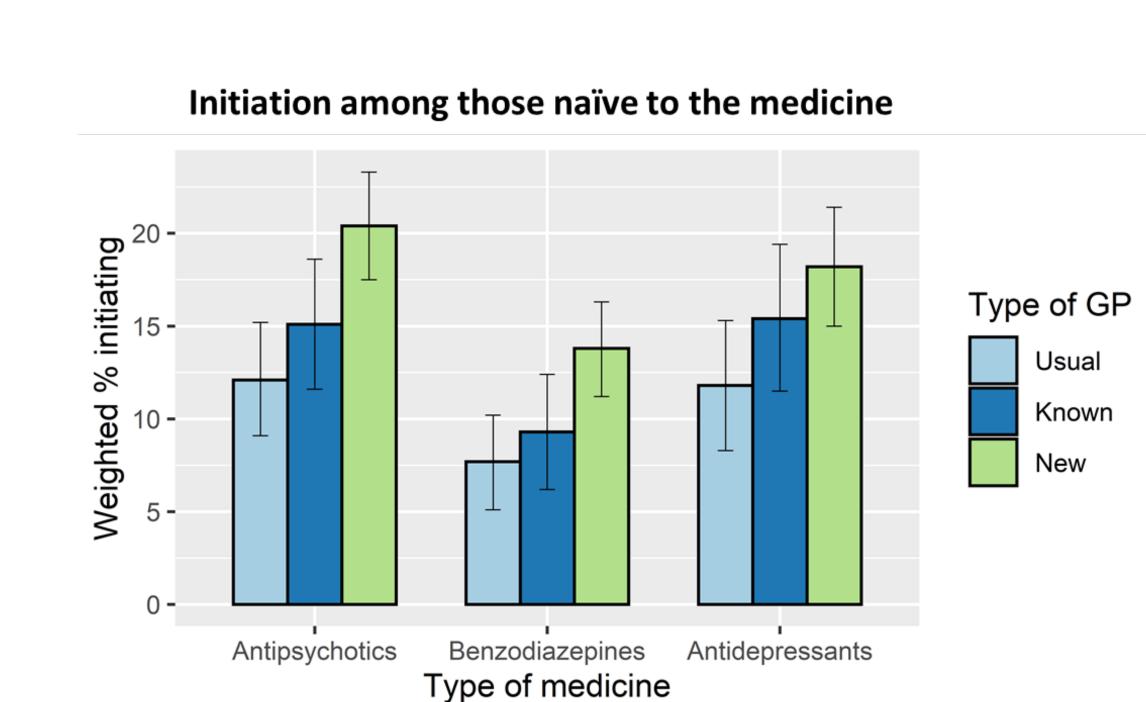
(1.59-3.70)

Weighted % with Polypharmacy and Hyperpolypharmacy before and after RAC entry

GP type	Weighted % with ≥ 5 medicines post-entry	Weighted % with ≥ 10 medicines post-entry
Usual	84.6	33.8
Known	84.6	43.2
New	88.6	46.2

Weighted odds of a psychotropic dispensing in RAC (controlling for prior use and prior hospitalisation)





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Discussion

We found that most people with dementia changed GPs when they entered residential care: 44% to previously unfamiliar GPs, and 29% to GPs known to them but not their usual GPs. There are no national data with which to directly compare our estimates, but an earlier study in South Australia similarly found that 62–76% of patients discharged from hospital to residential aged care facilities changed GPs.¹³

Residents seeing new GPs were dispensed more medicines, including antipsychotics and benzodiazepines than other new residents with dementia, the increase in dispensing after entering residential care was greater for these people, and the proportion subject to polypharmacy was larger. New GPs may appropriately initiate new treatments in response to recent changes in a patient's needs or a differing view of these needs. Polypharmacy in older people can be appropriate, but it also increases the risks of medication errors and hazardous interactions. The expected benefits of antipsychotics and benzodiazepines for older people with dementia are small and the risk of adverse effects is high, prompting recommendations to first try non-pharmacological alternatives.

Conclusions

Medicine use increases to a greater degree and psychotropic drugs are dispensed at higher rates for people with dementia who change GP when they enter residential aged care than for people who continue seeing their regular GP. Facilitating GP continuity of care and better supporting GP handover processes could help prevent potentially inappropriate initiation of psychotropic medicines.

Research	
Psychotropic medicine preso for people with dementia en care: the influence of chang Heidij Welberry ¹ , Louisa R Jorm ¹ , Andrea L Schaffer ¹ , Seba Henry Brodaty AO ^{4,5}	ntering residential aged ing general practitioners
The known: People with dementia in residential aged care are frequently prescribed psychotropic medicines, but significant benefit from such treatment is often unlikely. The new. On entering residential care, the CPs for 72% of people with dementia changed; 44% were attended by CPs previously unknown to them. Polypharmacy and psychotropic medicine initiation were more common for these people than for other aged care residents. The implications: A change of regular CP when entering residential care is an important factor in psychotropic medicine initiation. Better organisation of CP care handover and facilitating continuity of care could prevent potentially inappropriate psychotropic prescribing for aged care residents.	Abstract Objective: To examine relationships between changing general practitioner after entering residential aged care and overall medicines prescribing (including polypharmacy) and that of psychotropic medicines in participal polypharmacy) and that of psychotropic medicines in participal polypharmacy; Design: Retrospective data linkage study. Setting, participants: 45 and Up Study participants in New South Wales with demential who were PBS concession card holders and entered permanent residential aged care during January 2010 – June 2014 and were after some after entry. Main outcome measures: linverse probability of treatment-weighted numbers of medicines dispensed or residents and proportions of residents dispensed antipsychotics, benzodiazepines, and antidepressants in the six months after residential care entry.
ged care systems around the world are under pressure because of ageing populations and the increasing prevalence of dementia. Systemic weaknesses have been widely recognised, and inappropriate medicine use was among the problems scrutinised by the Australian Royal Commission into the Quality and Safety of Aged Care, particularly the use of antipsychoticsandsedativesaschemical restraints. Toph pharmacy is common in residential aged care shall be a supported to the prescribing. In Australian aged care facilities, psychotropic medicines (antipsychotics, benzodiazepines, antidepressants) are often dispensed to people with demential, especially soon after entry into residential care, a critical transition point. Changed prescribing for people entering residential care may reflect events that precipitated their entry or their adjustment to their new surroundings. For example, antipsychotic medicines can be indicated for treating the behavioural and psychological symptoms of dementia, including hallucinations and agitation. However, then the trisk of adverse events (including stoke and death). It is	by most frequent residential care GP category; usual (same as during two years preceding entry), known (another GP, but known to the resident), or new GP. Results: 07:250 new residents with dementia (mean age, 84.1 years; SD, 70 years; 12.56 women [55%]), 625 most frequently saw their usual CPs (28%), 6.55 saw known GP 5:76%), and 9800 saw new GPs (44%). The increase in mean number of dispensed medicines after residential care entry was larger for residents with new GPs (-14.6 medicines; 95% CI, 14.1-9 medicines; 34ms (-14.1-9 medicines; 3
given the risk of adverse events (including stroke and death). The street member of short duration and that non-pharmacological approaches, such as behavioural management therapy, be preferred. Dispite efforts to reduce prescribing of antipsychotics. The remain high in residential aged care. One potential major adjustment for people during the transition to residential care is a change in general practitioner. The GPs are the major prescribers in Australian residential aged care. When the major prescribers in Australian residential aged care. But little is known about how many residents change GPs when they enter aged care facilities or the effect this has on their care. For people with dementia, a new environment can be distressing, and the impact can be exacerbated by having an unfamiliar GP. Assuming care of a new patient with dementia can be difficult for GPs because of communication barriers and lack of familiarity with the patient and the reasons for their admission.	The Royal Commission noted that restraining patients, including pharmacologically, arises from a "lack of knowing the person as an individual person." The importance for high quality primary care of maintaining a continuous patient-GP relationship is widely recognised. However, the Australian Medical Association has recently highlighted concern among Australian GPs regarding their ability to support patients when they enter residential care. While the number of GP consultations in restential agreed has increased. The more than one-third of GPs have reported that they intended to reduce their number of visits. " We explored GP continuity for people with dementia entering residential care and how it influences their medicine use,
1 Centre for Big Data Research in Health, University of New South Wales, Sydney, NSW. ¹ Centre of New South Wales, Sydney, NSW. ⁴ Dementia Centre for Research Collaboration, University of Wales, Sydney, NSW. ⁵ SSB haveberry@univendum = 60c 10.559/ships.3.5153 Podcast with Helid Welberry and Herry Rouday and salbel at mja.com.auhpodcasts	for Primary Health Care and Equity, University of New South Wales, Sydney, NSW. *University New South Wales, Sydney, NSW. *Centre for Healthy Brain Ageing, University of New South

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An associated podcast is available here:

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