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PHARMACISTS IN RESIDENTIAL AGED CARE FACILITIES (PiRACF) STUDY



FINAL EVALUATION REPORT SUPPLEMENT

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Authors: Kosari S, Naunton M, Koerner J, Haider I, Batten M, Dale M, Wood A, Davey R and the Study Team



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PREFACE

This is the supplement to the final report of the Pharmacists in Residential Aged Care Facilities (PiRACF) study, which includes the evaluation of training materials (conducted in Phase 1 and 2), implementation materials (conducted in Phase 2), pharmacists' activities (conducted in Phase 2) and the impact of the model of care on psychotropic medicine use (conducted in Phase 2). It also provides three recommendations for the future.

The PiRACF study was supported by funding from the Australian Capital Territory's Primary Health Network through the Australian Government's Primary Health Network Program. The PiRACF study was undertaken by researchers from the Health Research Institute at the University of Canberra.

The research team would like to acknowledge and thank residential aged care managers, staff, residents, families and carers, as well as on-site pharmacists, general practitioners, prescribers and health care professionals who participated in the study. We are also grateful for the time and invaluable insights that the Study Governance Committee provided.

The opinions expressed are those of the authors and do not necessarily reflect those of the funding body.

This supplement, along with the final report and implementation resources are available at: www.chnact.org.au/for-health-professionals/pharmacists-in-residential-aged-care-facilities-study



ON-SITE PHARMACIST'S **TOOLKIT**

www.chnact.org.au/wp-content/uploads/2023/03/HRIPiRACFToolKit_LR.pdf

ON-SITE PHARMACIST'S **CLINICAL NOTES**

www.chnact.org.au/wp-content/uploads/2023/03/HRIPiRACFClinicalNotes_LR.pdf

RESIDENTIAL AGED CARE FACILITY'S **HANDBOOK**

www.chnact.org.au/wp-content/uploads/2023/03/HRIPiRACHandbook_LR.pdf

FINAL EVALUATION **REPORT**

www.chnact.org.au/wp-content/uploads/2023/03/HRIPiRACFStudyFinreport_LR.pdf

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The University of Canberra acknowledges the Ngunnawal people, traditional custodians of the lands where Bruce Campus is situated. We wish to acknowledge and respect their continuing culture and the contribution they make to the life of Canberra and the region. We also acknowledge all other First Nations Peoples on whose lands we gather.

CONTENTS

PREFACE III

INTRODUCTION 1

METHODS AND RESULTS 3

- CHARACTERISTICS OF RACFS (PHASE 2) 5
- CHARACTERISTICS OF ON-SITE PHARMACISTS (PHASE 2) 6
- EVALUATION OF TRAINING AND SUPPORT MATERIALS (PHASE 1 & 2) 7
- EVALUATION OF IMPLEMENTATION RESOURCES AND PROCESSES (PHASE 2) 12
- ON-SITE PHARMACISTS' ACTIVITIES (PHASE 2) 16
- IMPACT OF PHARMACISTS' ACTIVITIES ON PSYCHOTROPIC MEDICINE USE 19
- PHARMACISTS' VIEWS ON ACCREDITATION 20

DISCUSSION 21

- TRAINING AND SUPPORT MATERIALS 22
- IMPLEMENTING ON-SITE PHARMACISTS' ROLE IN RACFS 22
- PHARMACISTS' ACTIVITIES AND REDUCTION IN PSYCHOTROPIC MEDICINES 22
- PHARMACISTS' VIEWS ON ACCREDITATION 22
- LIMITATIONS OF THE STUDY 23
- RECOMMENDATIONS FOR NATIONAL ROLLOUT 23

REFERENCES 24

ACRONYMS 25

APPENDICES 27

- APPENDIX 1. ONLINE TRAINING VIDEOS 28
- APPENDIX 2. PHARMACIST'S EDUCATION SURVEY 30
- APPENDIX 3. INTERVIEW GUIDE FOR ON-SITE PHARMACIST FOCUS GROUPS 55
- APPENDIX 4. INTERVIEW GUIDE FOR RACF MANAGER INTERVIEWS 56
- APPENDIX 5. PHARMACIST'S ACTIVITY SURVEY 57

LIST OF TABLES

TABLE 1. Characteristics of RACFs in Phase 2 5
TABLE 2. PiRACF Phase 2 study sample characteristics (at baseline) compared with national data 6
TABLE 3. Pharmacists' perception of training materials (Pharmacist's Education Survey responses, n=13 except where noted) 8
TABLE 4. On-site pharmacists' focus group participant characteristics 9
TABLE 5. Uptake, relevance and usefulness of training videos (Pharmacist's Education Survey responses) 10
TABLE 6. RACF manager interview participant characteristics 12
TABLE 7. Activities of on-site pharmacists in RACFs — Phase 1 and Phase 2 16
TABLE 8. Psychotropic medicine use – baseline characteristics of RACF residents 19
TABLE 9. Phase 2 psychotropic medicine use at baseline and endpoint 20





INTRODUCTION

Australia's rapidly ageing population has resulted in an increasing number of people living in residential aged care (234,800 people in 2017–18[1]). In addition, 20 to 30% of all hospital admissions in people aged 65 years and over are medication-related.[2] Older people living in residential aged care facilities (RACFs) are the most frequent and highest volume users of medicines and are at greatest risk of medication-related harm. Adverse medication events occur in as many as one in four aged care residents and are a major contributor to hospitalisation.[3]

The Pharmaceutical Society of Australia's recent report on medication safety[4] highlights inappropriate medicine use in residential aged care, with 98% of people living in RACFs having at least one medication-related problem identified at review and up to 80% prescribed potentially inappropriate medicines. These potentially inappropriate medications cause 17% of unplanned hospital admissions of RACF residents, incurring a significant cost to the health care system.[4] In particular, the use of psychotropic medicines, specifically antipsychotics and benzodiazepines, is an important indicator of the overall quality of medication management in residential aged care settings.[5]

Given these issues, the PiRACF study (building on pilot work[6,7,8,9]) was designed to test the effect of a new model of care in which an on-site pharmacist was employed in RACFs in the Australian Capital Territory (ACT) and included in RACF care teams. Phase 1 of the study assessed the effectiveness of the model on several medication and non-medication-related outcomes and analysed the cost effectiveness and cost consequence of the model. Phase 2, which is the focus of this supplement, examined the implementation of the model.

Phase 2 of the PiRACF study explored broader implementation of the on-site pharmacist model of care. The aims were to:

- evaluate the training and support provided to on-site pharmacists
- evaluate the implementation process and materials provided to facilities to on-board on-site pharmacists into RACFs
- examine the activities conducted by on-site pharmacists
- examine the impact of on-site pharmacists' activities on psychotropic medicine use, which is a quality indicator of medication management.





METHODS AND RESULTS



Phase 1 of the PiRACF study was a cluster randomised controlled trial (cRCT); seven RACFs were intervention sites that each employed an on-site pharmacist and eight RACFs were control sites that had no on-site pharmacist. In Phase 2, 13 pharmacists were employed in RACFs that were either control sites in Phase 1 or did not participate in Phase 1 of the study. Eligible RACFs were those that met the study inclusion criteria: accredited RACFs located in the ACT.

Ethics approval to conduct the study was obtained from the University of Canberra Human Research Ethics Committee (UC HREC Reference: 2007). Each RACF agreed to participate in the study and provide resident data after being fully informed about the study. The study was given approval to seek consent to participate at the facility level, rather than the individual resident level. This follows National Health and Medical Research Council guidelines for Australia and is consistent with comparable studies.[10,11] Surveys and interviews with RACF staff and pharmacists sought written consent from participants prior to commencement.

This study was conducted in compliance with National Health and Medical Research Council guidelines and the World Medical Declaration of Helsinki, including all amendments.[11,12] Privacy and confidentiality of data complies with the *Privacy Act 1988 (Cth)*, the *Information Privacy Act 2014 (ACT)*, and the *Human Rights Act 2004 (ACT)*. The study is registered with the Australian New Zealand Clinical Trials Group (ACTRN12620000430932). RACF staff and pharmacists were provided with information and induction into ethical considerations, including consent and management of data.

CHARACTERISTICS OF RACFS (PHASE 2)

The characteristics of RACFs in Phase 2 are presented in **Table 1**. Facilities with and without dementia-specific wards participated. At the start of the study, there were 1978 RACF beds in the ACT. The number of beds in Phase 2 facilities was 1276, representing 64.5% of beds in the ACT. National data[13] indicate that the mean bed size for a RACF in Australia is 74 beds (range: 2–333). Phase 2 RACFs had a mean of 98.2 beds (range: 21–170) and therefore were broadly representative of RACFs bed size nationally. A comparison of RACF staff workforce nationally[14] indicates a mean number of 103 staff per facility, which is broadly comparable to facilities in Phase 2 (81.5 staff per facility). This suggests that participants' characteristics are representative of the broader ACT population of RACF residents and findings are likely to be relevant to the ACT and other Australian urban contexts.

TABLE 1. Characteristics of RACFs in Phase 2

Facility	Pharmacist (full-time equivalent)	No. of beds	No. of RACF care staff	Had dementia-specific ward	Study period
1	0.5				July 2021 – June 2022
2	0.4				May 2021 – May 2022
3	0.5				May 2021 – March 2022
4	0.4				September 2021 – March 2022
5	0.4				September 2021 – September 2022
6	0.4				June 2022 – November 2022
7	0.4				June 2022 – November 2022
8	0.5				August 2021 – August-2022
9	0.5				August 2021 – August 2022
10	0.4				August 2022 – November 2022
11	0.4				May 2022 – November 2022
12	0.4				May 2022 – November 2022
13	0.5				September 2022 – November 2022
Mean (Range)	0.44 (0.4–0.5)	98.2 (21–170)	81.5 (3–143)	8 of 13	

Notes: Aggregated data have been presented to de-identify RACFs.
On-site pharmacists were employed in facilities for 12 months but data collection ceased in November 2022 in order to conduct data analysis for this report.

CHARACTERISTICS OF ON-SITE PHARMACISTS (PHASE 2)

For Phase 2, on-site pharmacists were recruited through an expression of interest as well as from pharmacists who participated in Phase 1. Inclusion criteria for pharmacists were similar to Phase 1, but there was no longer a requirement to have Medication Management Review (MMR) accreditation to conduct Home Medicines Reviews and Residential Medication Management Reviews. This was due to the difficulty in recruiting on-site pharmacists with accreditation; in 2022, only about 2000 out of 35,386 pharmacists (6%) in Australia were accredited.[15,16]

Pharmacists were required to meet the following inclusion criteria:

- be registered with the Australian Health Practitioner Regulation Agency
- have a minimum of 1 year experience
- have, or be willing to get, accreditation to administer vaccinations.

On-site pharmacists were recruited through paid advertising and emails distributed by relevant professional groups, including the Pharmaceutical Society of Australia, the Society of Hospital Pharmacists of Australia and the Australian Association of Consultant Pharmacy. A total of 37 pharmacists responded to the expression of interest. Of these, 15 withdrew and 14 did not have the necessary experience or were interstate or overseas. The remaining 8 undertook training in Phase 2. One pharmacist undertook training but did not take up a position. Two pharmacists were recruited and undertook training in Phase 1.

Demographic characteristics of the pharmacists employed in Phase 2 are presented in **Table 2**, with national data[17] for gender provided for comparison.

TABLE 2. PiRACF Phase 2 study sample characteristics (at baseline) compared with national data

Category	Characteristic	No. of respondents (%)	No. of national data(%)
Gender	Male	5 (55.6)	13,033 (37.0)
	Female	4 (44.4)	22,229 (63.0)
Qualifications	MMR accreditation	4 (44.4)	-
	Immuniser	5 (62.5)	-
Experience (years)	1–3	3 (37.5)	-
	4–6	2 (25.0)	-
	7–9	1 (12.5)	-
	10+	2 (25.0)	-

Note: For one pharmacist, no data were available except gender and MMR accreditation; therefore, n=9 for gender and MMR accreditation and n=8 for all other characteristics

EVALUATION OF TRAINING AND SUPPORT MATERIALS (PHASE 1 & 2)

On-site pharmacists were provided with the following training and support materials for their role before working in the facilities:

- 15 online training videos on the role, skills and clinical topics that on-site pharmacists were likely to encounter in aged care, developed in collaboration with the Pharmaceutical Society of Australia (PSA) and hosted on their website (a list of videos is available in **Appendix 1**)
- three-and-a-half hours of face-to-face or online training about the study outcomes and activities
- a RACF handbook with information to integrate the on-site pharmacist into the RACF
- a pharmacist toolkit providing detailed information on study outcomes and activities
- a clinical notes folder to manage clinical record keeping.

The following ongoing support was also provided to on-site pharmacists:

- a Microsoft Teams online discussion forum that allowed pharmacists to post questions to the group of on-site pharmacists
- face-to-face meetings of on-site pharmacists and research team staff (three-and-a-half hours long, held every 3 months at the University of Canberra's Bruce campus)
- telephone and email contact with the UC study team to answer questions.

Quantitative and qualitative data regarding on-site pharmacists' perspectives on the training and support materials were captured via online Qualtrics surveys and focus group interviews.

The survey (see **Appendix 2**) was adapted from existing surveys evaluating pharmacist education.[18,19] On-site pharmacists were asked to complete the survey between 7 October 2021 and 30 November 2022.

The survey assessed training materials provided to on-site pharmacists for:

- relevance — whether the pharmacist used the training materials in their practice
- usefulness — whether the training materials would be useful to others in the on-site pharmacist role
- coverage — whether the training materials covered all the topics necessary for the on-site pharmacist's role
- expectations — whether the on-site pharmacist's expectations were met
- skills and confidence — whether the training material enhanced the on-site pharmacist's skills and confidence in their role
- collaboration — whether the training material helped the on-site pharmacist to work collaboratively within their role.

These six measures were measured using a 5-point Likert scale, ranging from 'strongly disagree' (scored 1) to 'strongly agree' (scored 5).

There was one additional measure:

- uptake — whether the pharmacist watched the video in its entirety.

This was scored as 1 (watched entirely), 0.5 (watched partially) or 0 (not watched at all/cannot recall watching).

The results of the survey are shown in **Table 3**.

TABLE 3. Pharmacists' perception of training materials (Pharmacist's Education Survey responses, n=13 except where noted)

Training material type	Domain	Response (x ± SD)	Range of responses
PSA training videos	Relevance	3.97 ± 0.26	1–5
	Usefulness	4.10 ± 0.20	3–5
	Coverage	4.23 ± 0.60	3–5
	Expectations	3.85 ± 0.90	2–5
	Skills and confidence	4.00 ± 0.82	3–5
	Collaboration	3.85 ± 0.80	3–5
Written folders	Relevance	4.15 ± 0.80	2–5
	Usefulness	4.15 ± 0.80	2–5
	Coverage	4.15 ± 0.69	3–5
	Expectations	4.07 ± 0.76	3–5
	Skills and confidence	4.00 ± 0.71	3–5
	Collaboration	4.00 ± 0.71	3–5
Microsoft Teams online forum	Relevance	3.31 ± 1.03	1–4
	Usefulness	3.77 ± 0.44	3–4
	Coverage	3.38 ± 0.51	3–4
	Expectations	3.38 ± 0.51	3–4
	Skills and confidence	3.38 ± 0.65	2–4
	Collaboration	3.54 ± 0.52	3–4
Face-to-face catchup	Relevance	4.23 ± 0.73	3–5
	Usefulness	4.46 ± 0.66	3–5
	Coverage	4.31 ± 0.63	3–5
	Expectations	4.38 ± 0.65	3–5
	Skills and confidence	4.38 ± 0.65	3–5
	Collaboration#	4.29 ± 0.49	4–5

Note: # n=7

Qualitative data were collected on the usefulness of on-site pharmacists' training and support materials using two focus group interviews (see **Appendix 3** for interview questions) with six on-site pharmacists. NVivo 20 (QSR International) was used to manage data. Transcripts were read, coded into themes and refined to reflect the narratives emerging across the dataset, consistent with Braun and Clarke's reflexive approach to thematic analysis.[20] One focus group with on-site pharmacists ran for ~74.5 minutes and the other for ~66 minutes. Participant characteristics are described in **Table 4**.

TABLE 4. On-site pharmacists' focus group participant characteristics

Position type	Number of participants	Age (years)	Gender	Time at current facility (years)	Professional experience (years)
On-site Pharmacist	6	≤ 40 (3, 50%)	Female (5, 83%)	< 1 (6, 100%)	< 5 (1, 17%)
		> 40 (3, 50%)	Male (1, 17%)	> 1 (0, 0%)	> 10 (5, 83%)

Table 5 shows pharmacists' perceptions of the training videos.



TABLE 5. Uptake, relevance and usefulness of training videos (Pharmacist's Education Survey responses)

PSA training video title	Subdomain (n)	Mean response (x ± SD)	Range of responses
Pharmacists in general practice and aged care part 1	Uptake (n=13)	0.88 ± 0.22	0.5–1.0
	Relevance (n=13)	3.54 ± 0.66	3–5
	Usefulness (n=13)	3.85 ± 0.55	3–5
Pharmacists in general practice and aged care part 2	Uptake (n=13)	0.88 ± 0.22	0.5–1.0
	Relevance (n=13)	3.54 ± 0.66	3–5
	Usefulness (n=13)	3.85 ± 0.55	3–5
Pharmacists in general practice and aged care part 3	Uptake (n=13)	0.88 ± 0.22	0.5–1.0
	Relevance (n=13)	3.54 ± 0.66	3–5
	Usefulness (n=13)	3.85 ± 0.55	3–5
Beers Criteria	Uptake (n=13)	1.00 ± 0.00	0.0–1.0
	Relevance (n=13)	4.15 ± 1.07	1–5
	Usefulness (n=13)	4.46 ± 0.51	4–5
Psychotropic and Anticholinergic deprescribing	Uptake (n=13)	0.88 ± 0.30	0.0–1.0
	Relevance (n=12)	4.33 ± 0.49	4–5
	Usefulness (n=12)	4.42 ± 0.51	4–5
Pain management - Opioids	Uptake (n=13)	0.77 ± 0.39	0.0–1.0
	Relevance (n=11)	4.00 ± 0.45	3–5
	Usefulness (n=11)	4.09 ± 0.30	4–5
Renal function and medication adjustment	Uptake (n=13)	0.88 ± 0.30	0.0–1.0
	Relevance (n=12)	4.00 ± 0.43	3–5
	Usefulness (n=12)	4.17 ± 0.39	4–5
Cardiovascular disorders in the elderly	Uptake (n=13)	0.62 ± 0.46	0.0–1.0
	Relevance (n=9)	4.11 ± 0.60	3–5
	Usefulness (n=9)	4.22 ± 0.44	4–5
Depression, anxiety and sleep in the elderly	Uptake (n=13)	0.62 ± 0.46	0.0–1.0
	Relevance (n=9)	4.11 ± 0.60	3–5
	Usefulness (n=9)	4.22 ± 0.44	4–5
Diabetes and osteoporosis in the elderly	Uptake (n=13)	0.58 ± 0.49	0.0–1.0
	Relevance (n=8)	4.13 ± 0.35	4–5
	Usefulness (n=8)	4.13 ± 0.35	4–5
Gastrointestinal disorders in the elderly	Uptake (n=13)	0.50 ± 0.50	0.0–1.0
	Relevance (n=7)	4.14 ± 0.38	4–5
	Usefulness (n=7)	4.14 ± 0.38	4–5
Parkinson's disease in the elderly	Uptake (n=13)	0.69 ± 0.43	0.0–1.0
	Relevance (n=10)	4.10 ± 0.57	3–5
	Usefulness (n=10)	4.20 ± 0.42	4–5
Respiratory and pneumonia	Uptake (n=13)	0.58 ± 0.49	0.0–1.0
	Relevance (n=8)	4.13 ± 0.35	4–5
	Usefulness (n=8)	4.13 ± 0.35	4–5
Medications and the urinary tract - urinary tract infections in the elderly	Uptake (n=13)	0.54 ± 0.48	0.0–1.0
	Relevance (n=8)	4.00 ± 0.53	3–5
	Usefulness (n=8)	4.00 ± 0.53	3–5
Common wounds in aged care – impact of medications	Uptake (n=13)	0.42 ± 0.49	0.0–1.0
	Relevance (n=6)	3.66 ± 1.03	2–5
	Usefulness (n=6)	3.83 ± 0.75	3–5

Training videos were generally perceived as relevant to the on-site pharmacist's role, with the range of mean responses falling between 3.54 and 4.33. The 'Psychotropic and anticholinergic deprescribing' video was perceived as most relevant. Training videos were also perceived by on-site pharmacists as useful to other on-site pharmacists, with the range of mean responses falling between 3.83 and 4.46. The 'Beers criteria' and 'Psychotropic and anticholinergic deprescribing' videos were perceived as most likely to be useful to others in the on-site pharmacist's role.

Amongst the training and support materials provided, the face-to-face catchups rated highest for the sum of all domains (including relevance, usefulness, coverage, expectation, skills, confidence and collaboration). The written pharmacist's toolkit folder was rated second highest, video training materials rated third highest, and the Teams online forum was rated lowest.

Videos early in the sequence on working in general practice and aged care, and the Beers Criteria had very high uptake. However, uptake declined with videos later in the sequence having much lower uptake scores. This decline could indicate that an excessive amount or number of materials were being delivered or that the sequence may have communicated 'importance' to pharmacists.

Interviews indicated that on-site pharmacists wanted the training to provide a clear picture of their role and the activities they would be undertaking in RACFs. The training resources were generally perceived as helpful in providing guidance on clinical topics, in identifying how to prioritise activities and in learning how to integrate themselves in the facility. Videos on deprescribing and on working with the elderly were seen as particularly relevant.

Consistent with the survey findings indicating that on-site pharmacists struggled to watch all the videos, pharmacists in the focus groups suggested that rather than watching all the videos prior to commencing in facilities, a staggered approach allowing them to watch them over time would be preferable. Pharmacists also stated that it would be beneficial for some of the video topics be delivered in-person:

> *There's 13 of them. Each of them goes for 45 minutes or an hour or something ... So I think make them aware that they're there as a resource and you might not necessarily have to see them all to start. [OSP A.4]*

The written materials were seen as useful in helping; in particular, they helped the on-site pharmacist clarify their role to others:

> *I think the activities list of what I was gonna be doing helped me to explain to people my role. [OSP B.3]*

While the videos and written information were beneficial, contact with the study team and face-to-face meetings with other on-site pharmacists provided practical information on how to operationalise their role:

> *The PSA training gave me all the information as such, like on deprescribing and on elderly issues and things from a clinical perspective. But the UC teams and having the UC study team easily contactable via email at the start was so helpful because as issues came up, I was able to ask someone straight away and that was really, really helpful. [OSP B.3]*
>
> *... in the face-to-face sessions, you, in particular, were instructions where to prioritise your time and how to divide your day into different tasks, I found that the most useful thing out of everything ... [OSP B.2]*

On-site pharmacists identified a number of gaps in training: information about the residential aged care context, systems and processes; expectations from RACFs, including accreditation reporting; working with doctors; medication safety; palliative care; frailty; and managing behavioural and psychological symptoms of dementia.

> *There was one training module that I came across when I was studying. It was from Curtin University. They've got like a simulating nursing home online and then it's got different types of documents like that and different types of charts that a typical nursing home would have … That was very useful, and it helped me visualise what a nursing home looks like and then what charts I can see. It also has that module also got like sample letters from doctors and also sample pathology reports thing. It got me prepared for this role and hopefully when one day there are more pharmacists coming into the aged care sector, they don't come across these – they can be receiving this module and that would be very useful. [OSP B.4]*

EVALUATION OF IMPLEMENTATION RESOURCES AND PROCESSES (PHASE 2)

Qualitative interviews with RACF managers and staff evaluated the usefulness of processes and resources used to implement the on-site pharmacist role into RACFs (see **Appendix 4** for interview questions). Six facility managers were interviewed: 4 in individual interviews and 2 in a dyadic interview. Interviews ranged from 11.3 minutes to 27.3 minutes, and the total duration of interviews was 94 minutes. Participant characteristics are described in **Table 6**.

TABLE 6. RACF manager interview participant characteristics

Position type	Number of participants	Age (years)	Gender	Time at facility (years)	Professional experience (years)
RACF manager	6	≤ 50 (4, 80%)	Female (4, 66%)	≤ 1 (1, 20%)	≤ 15 (5, 100%)
		> 50 (1, 20%)	Male (2, 33%)	> 1 (4, 80%)	> 15 (0, 0%)

Note: Data were not reported for 1 facility manager other than gender, thus n=6 for gender, n=5 for all other characteristics

Transcripts were read in iterations, coded into themes and refined to reflect the narratives emerging, consistent with Braun and Clarke's reflexive approach to thematic analysis.[20]

Interview transcripts indicated that, initially, RACF managers were unsure of how an on-site pharmacist could play a beneficial role within their facility. However, the implementation resources and support were well received by RACF managers, providing clarity about the role and what on-site pharmacists can do in the facility:

> *We've not worked with pharmacists before, so I think it's just a bit hard trying to find where they fit in, but all the resources and everything you gave us, and it was like a suggested position description too, so I actually think it was really beneficial and it was useful. [FM 2]*

In addition to written resources, face-to-face orientation conducted by the study team helped facility managers understand the role and how to integrate the pharmacist into their facility:

> *So, basically, when we had the catch up, you have given me the requirements of the pharmacist as expected, like given me [their] scope of practice and what the uni is expecting. So, getting that knowledge helped me, really to help the pharmacists to settle into [their] role as well, and that helped me and led me to guide them in the right direction, which was a benefit, I think, for [them] and for us absolutely, and I think that was a really useful resource, yes. [FM 1]*

RACF managers said that they found the following resources and processes useful: the onboarding checklist to embed the on-site pharmacist into the facility; introducing the on-site pharmacist at clinical and staff meetings; changing the Medication Advisory Committee dates so that the pharmacist could attend; and sending out letters of introductions to GPs and health care providers:

> *We introduced [them] at clinical meetings, staff meetings, wherever else, everyone knew what [they were] here and we initially just said, "[The on-site pharmacist is] here as a resource for you guys, both for residents and for staff, so if there's anything at all that you're unsure of, [the on-site pharmacist] is gonna be sitting here a couple of days a week and feel free to come and ask [them] and [they'll be] happy to help you to do or whatever". [FM 2]*

> *There was the information to send out to consumers and information for everybody else too, so everyone was — it was easy. It was just me putting together a paragraph and forwarding on the document that you gave us, and it was easy. [FM 2]*

Once the on-site pharmacist settled into the facility, RACF managers had positive views about the impact of the pharmacist, citing their expertise in medication management and role as educator as being of particular benefit to the residents and RACF staff:

> *Embedding the pharmacist in this facility has been a blessing for all of us, for the residents, for the staff and for us, on the whole. [The on-site pharmacist] has really done quite a lot of toolbox talks with medication and the staff are more comfortable to approach [them] to clarify and the residents as well, if they had any concerns with the medicine, they would send an email "Can we see the pharmacist? We just want to have a chat with [them] about this." So, I think totally it has been a blessing and a huge benefit for us. [FM 1]*

Facility managers identified ways that the resources and processes could be improved. Training for on-site pharmacists on the residential aged care context was identified as useful to support a clearer understanding of the pharmacist's role in the facility and what is expected of them. This would include behaviour management, chemical restraints, cytotoxic medicines, manual handling, infection control, aged care standards, codes of conduct, medication management legal requirements, incident reporting, facility accreditation requirements and reporting, and the role of allied health professionals in RACFs:

Pharmacists need to have a thorough understanding about aged care standards and … medication management in aged care … I wanted the medication management legal requirements, scope of practice for the pharmacists and registered nurses and for the aged care facilities. [FM 3]

Understanding of something so simple that it is not hospital, it is residents' home would be very beneficial, and legislation in terms of psychotropics, for example, how it works in the aged care sector, [because] it's very different in hospital and when the pharmacists do work outside in a pharmacy or they work in a hospital, it is [a] completely different scenario as to how psychotropics or antipsychotics are regulated in the aged care facilities. So, I think that would have been very handy if they know that beforehand. So more on aged care. [FM 4]

One RACF manager suggested that on-site pharmacists needed support to do their job well and that a reporting system would also help the RACF manager understand how the on-site pharmacist is assisting residents and staff:

… we need a daily task [list] … the overarching routines or set of tasks … because I know not everybody is proactive. Some people, we need to give information [about] a task to complete to achieve the goal. So what I was thinking that on a daily basis, every medication round, go out there and observe and check whether the practice is correct in compliance with the – okay, for medication, just check the medication chart or the telephone orders within the day. When resident comes back from the hospital, … [check] … that the medication management is correct [FM 3]

There is a need to have a reporting system saying that what I've done this week, what I'm covering, what I've done, all that information or some sort of reporting then we know what they're actually doing. [FM 3]

RACF managers also acknowledged the benefits of having follow-up meetings (e.g., after 3 months) and also that ongoing support and mentorship of the on-site pharmacist would also be useful:

If you identify any gaps after the first three months, then absolutely, I think a catch up would be beneficial … [checking in] just helps to put everybody in the right perspective of how to proceed. [FM 1]

With the pharmacist that we have, [they were] very new within the aged care sector and I was thinking that there should be some sort of mentorship program … for a month, or every month, or a visit from their facilitator or superior who had a further understanding of aged care. [FM 4]



ON-SITE PHARMACISTS' ACTIVITIES (PHASE 2)

Activities were reported regularly by on-site pharmacists through an online diary (see **Appendix 5**). Pharmacists' responses were categorised into broad activities: clinical audit, communication, vaccination, staff education, quality improvement, medication management-related administration, and 'other' including COVID-19 related, with subcategories within each activity type. These categories and subcategories were used in Phase I and Phase 2 (see **Table 7**). Phase 2 data were weighted to account for differences in duration of data collection between Phase 1 and Phase 2 facilities.

In Phase 2, of 3777 total activities performed by pharmacists, comprehensive medication reviews were the most common recorded activity (23.4%), followed by medication management-related administration activities (21.7%), communication (20.2%), training activities (13%), quality improvement activities (8.6%), clinical audits (6.5%), vaccination-related activities (1.5%) and COVID-19-related activities (3.7%).

Comparing pharmacists' activities between Phase 1 and Phase 2 showed that the overall proportion of activities across different categories were similar, except that in Phase 2, pharmacists conducted fewer vaccination activities than those in Phase 1.

TABLE 7. Activities of on-site pharmacists in RACFs — Phase 1 and Phase 2

Activity	Activity subcategories	Phase 1 frequency (%)	Phase 2 frequency (%)*
Medication management activities	Comprehensive medication review	1022 (100.0)	885 (100.0)
	Total	**1022 (24.0)**	**885 (23.4)**
Clinical audit activities	Psychotropics	60 (24.4)	121 (49.2)
	Medication chart audit	36 (14.6)	14 (5.7)
	PIMs	33 (13.4)	37 (15.0)
	Medication management including administration	19 (7.7)	21 (8.5)
	Opioids	19 (7.7)	3 (1.2)
	Medications requiring monitoring	14 (5.7)	4 (1.6)
	PRN	9 (3.7)	14 (5.7)
	Anticoagulants	8 (3.3)	0 (0.0)
	Residents at high risk of hospitalisation	7 (2.8)	1 (0.4)
	Antimicrobial	6 (2.4)	10 (4.1)
	Other	35 (14.2)	21 (8.5)
	Total	**246 (5.8)**	**246 (6.5)**
Communication activities	**Total number of communication activities**	**995 (23.4)**	**763 (20.2)**
	Who pharmacists communicated with:		
	RACF staff	462 (35.7)	360 (36.5)
	GP (including doctor's rounds)	206 (15.9)	160 (16.2)
	Community pharmacy	201 (15.5)	110 (11.2)
	Resident	131 (10.1)	94 (9.5)
	Resident's family	74 (5.7)	60 (6.1)
	Nurse Practitioner	47 (3.6)	42 (4.3)
	Staff at GP reception	20 (1.5)	12 (1.2)
	Research staff	18 (1.4)	16 (1.6)
	Hospital and hospital pharmacy	1 (0.1)	11 (1.1)
	Other	135 (10.4)	120 (12.2)
	Total number persons communicated with	**1295 (100.0)**	**985 (100.0)**

TABLE 7. Activities of on-site pharmacists in RACFs — Phase 1 and Phase 2 *cont.*

Activity	Activity subcategories	Phase 1 frequency (%)	Phase 2 frequency (%)*
Vaccination activities	Staff vaccination activities	23 (20.5)	14 (24.1)
	Resident vaccination activities	21 (18.8)	12 (20.7)
	Staff and resident vaccination activities	4 (3.6)	7 (12.1)
	Other (e.g., preparation, administration)	64 (57.2)	25 (43.1)
	Total vaccination activities	**112 (2.6)**	**58 (1.5)**
	Number of staff vaccinated	225 (59.5)	612 (55.9)
	Number of residents vaccinated	155 (40.8)	482 (44.1)
	Total number of people vaccinated	**380 (100)**	**1094 (100)**
Education activities	RACF staff-related education activities		
	General medication administration (e.g., medication round)	129 (22.6)	145 (29.5)
	Opioids/pain management	31 (5.4)	22 (4.5)
	Psychotropics	30 (5.3)	11 (2.2)
	Specific medical conditions (e.g., dementia/Parkinson's disease/diabetes)	30 (5.3)	26 (5.3)
	Inhalers/drops/ointments	18 (3.2)	6 (1.2)
	Medication crushing	16 (2.8)	7 (1.4)
	Allergies/side effects/interactions	12 (2.1)	5 (1.0)
	Medication dosing/timing/expiry/discontinuation	11 (1.9)	21 (4.3)
	Medication incidents	11 (1.9)	1 (0.2)
	Cytotoxics	10 (1.8)	8 (1.6)
	Medication storage	9 (1.6)	16 (3.3)
	PRNs	9 (1.6)	1 (0.2)
	Guidelines/policies	8 (1.4)	8 (1.6)
	Staff training topics (e.g., clinical skills)	8 (1.4)	59 (12.0)
	Medication changes	7 (1.2)	0 (0.0)
	Antibiotics	5 (0.9)	7 (1.4)
	Other (e.g., software/supplements/use of personal protective equipment)	15 (2.6)	16 (3.3)
	RACF staff-related education activities subtotal	**359 (62.9)**	**359 (73.0)**
	Non-RACF staff education activities		
	Self-education	76 (35.8)	75 (56.8)
	Residents and family education (group or individual)	94 (44.3)	25 (18.9)
	Other health care professionals	34(16.0)	8 (6.1)
	External agencies	1(0.5)	2 (1.5)
	Other (e.g., preparing presentations, education to student nurses)	7(3.3)	22 (16.7)
	Non-RACF staff education activities subtotal	**212 (37.1)**	**132 (26.8)**
	Total staff education activities	**571 (13.4)**	**492 (13.0)**

TABLE 7. Activities of on-site pharmacists in RACFs — Phase 1 and Phase 2 *cont.*

Activity	Activity subcategories	Phase 1 frequency (%)	Phase 2 frequency (%)*
Quality Improvement activities	Reviewing RACF policies and procedures and attending relevant meetings	80 (20.1)	80 (24.6)
	Ward stock related	79 (19.8)	17 (5.2)
	Medication rounds related	78 (19.6)	61 (18.8)
	Developing policies and procedures	79 (19.8)	7 (2.2)
	Schedule 8 related	25 (6.3)	25 (7.7)
	Reviewing medication incident report	13 (3.3)	47 (14.5)
	Other	44 (11.1)	88 (27.1)
	Total	**398 (9.4)**	**325 (8.6)**
COVID-19-related activities	Vaccination roll-out	17 (27.0)	41 (29.7)
	Vaccination information (e.g., adverse effects)	12 (19.0)	8 (5.8)
	Administration of vaccination records (e.g., updating staff COVID-19 vaccination lists)	12 (19.0)	23 (16.7)
	Infection control/outbreak management	9 (14.3)	20 (14.5)
	COVID-19 administration for facility entry (e.g., risk entry forms)	6 (9.5)	0 (0.0)
	Staff training /meeting	5 (7.9)	45 (32.6)
	COVID-19 Care (e.g., counselling residents on impact of lockdown on mental health)	2 (3.2)	1 (0.7)
	Total	**63 (1.5)**	**138 (3.7)**
Medication management-related administration activities	Clinical administration (e.g., S8 count, recording and destruction, Medication Advisory Committee meeting, etc)	520 (62.4)	485 (59.1)
	Study-related administration (e.g., meeting with study team, online diary)	301 (36.1)	185 (22.6)
	Other administration	13 (1.6)	150 (18.3)
	Total	**834 (19.6)**	**820 (21.7)**
Other activities	Other activities (e.g., fire safety training, signing statutory declarations)	11 (0.3)	50 (1.3)
TOTAL		**4252**	**3777**

Notes: * Phase 2 data are time-weighted by individual facility to account for data collection durations in some facilities of less than one full year. Values may not sum to subtotals or 100% due to rounding.
In Phase 1, 5 out of 6 pharmacists (83.3%) were MMR accredited. In Phase 2, 4 out of 9 pharmacists (44.4%) were MMR accredited.
PRN=pro re nata (where necessary)

IMPACT OF PHARMACISTS' ACTIVITIES ON PSYCHOTROPIC MEDICINE USE

Medication-related data were collected from four RACFs that participated in Phase 1 and that also completed the Phase 2 intervention by December 2022. Data from three Phase 2 RACFs were not included, due to delays in commencing because of COVID-19.

The methodology for data collection and analysis is fully described in the Phase 1 final report. The analysis compared the proportion of residents who were receiving at least one inappropriate psychotropic medicine (defined as antipsychotics or benzodiazepine in absence of epilepsy or major psychiatric disorders such as bipolar disorder or schizophrenia) before and after the on-site pharmacist intervention, using point-in-time snapshot data.

Demographics of RACF residents who were included in psychotropic medicine analysis are presented in **Table 8**. At baseline there were 429 residents from 4 RACFs. Of these, 64% were female, 54% had a dementia diagnosis and 23.8% spoke a second language. On average, residents consumed a mean of 8.8 medications per resident.

TABLE 8. Psychotropic medicine use – baseline characteristics of RACF residents

Characteristic at baseline	No. of residents in Phase 2 (n=429)
Age	**n (%)**
65–69	10 (2.3)
70–74	27 (6.3)
75–79	42 (9.8)
80–84	71 (16.6)
85+	279 (65.0)
Gender	**n (%)**
Male	154 (35.9)
Female	275 (64.1)
Aboriginal and Torres Strait Islander status	**n (%)**
Yes	1 (0.2)
No	428 (99.8)
Secondary language	**n (%)**
Yes	102 (23.8)
No	327 (76.2)
Dementia diagnosis	**n (%)**
Yes	232 (54.1)
No	197 (45.9)
Charlson co-morbidity index	**Mean (SD)**
0	53 (12.4)
1	99 (23.1)
2	118 (27.5)
3+	159 (37.1)
Number of regular medications per resident	**Mean (SD)**
< 5	24 (5.6)
5–9	141 (32.9)
≥10	264 (61.5)

The proportions of residents taking antipsychotics and benzodiazepine were also assessed. In Phase 2 there was a statistically significant reduction in the proportion of residents using psychotropic medicines from baseline (25.6%) to endpoint (16.6%) – see **Table 9**). This is consistent with the study hypothesis that on-site pharmacists reduce inappropriate psychotropic medicine use and improve quality of medication management. These findings are also consistent with the results from Phase 1, although it should be noted that Phase 1 was a cRCT design. Phase 2 used a pre-post study design with no control group.

TABLE 9. Phase 2 psychotropic medicine use at baseline and endpoint

Outcome	Phase 2 baseline (95% CI)	Phase 2 endpoint (95% CI)	OR (95%CI), p. unadjusted model	OR (95%CI), p. adjusted model*
Proportion of residents prescribed regular psychotropic (antipsychotic or benzodiazepine)	25.6% (21.5–29.8)	16.6% (12.9–20.2)	0.535 (0.367, 0.780), **p=0.001**	0.507 (0.343, 0.751), **p<0.001**
Proportion of residents prescribed regular antipsychotic	17.2% (13.6–20.8)	10.0% (7–12.9)	0.508 (0.327, 0.788), **p=0.003**	0.492 (0.311, 0.778), **p=0.002**
Proportion of residents prescribed regular benzodiazepine	10.4% (7.6–13.4)	7.3% (4.8–9.8)	0.654 (0.388, 0.101), p=0.11	0.599 (0.348, 1.032), p=0.065

Note: * Outcomes are adjusted for age, gender and dementia diagnosis

PHARMACISTS' VIEWS ON ACCREDITATION

On-site pharmacists' views on the necessity of MMR accreditation for the role were sought in the focus group interviews, and a mix of views was received. Accreditation was highlighted as being beneficial for improved clinical knowledge and clinical care of residents. In particular, accreditation was seen as useful in providing experience on conducting medication reviews and deprescribing.

Some pharmacists believed that the value of accreditation could be conditional based on a pharmacist's experience levels, with more experienced pharmacists seen to be able to adapt to the role of on-site pharmacist without accreditation. Pharmacists also recognised the workforce implications of mandating accreditation and acknowledged the reduction in the pool of potential candidates that would occur as a result. Independent of these views, the findings of Phase 2 appear to support the idea that the benefits of PiRACF's on-site pharmacist model can be realised without the absolute need for accreditation.

> *So I think accreditation is very useful. But not a total prerequisite because there are some pharmacists that have many years of hospital experience or retail experience dealing with aged care that could probably adapt to the role fairly easily, but for a fresh-out-of-uni pharmacist to go straight into aged care and do this role would be very, very difficult, I think. [OSP B.2]*

> *I think if you made it mandatory ... that would cut a lot of people out who may be very well suited, just don't have the accreditation. [OSP A.3]*



DISCUSSION

Phase 2 of the PiRACF study aimed to investigate broader implementation of the on-site pharmacist model of care. This included evaluating on-site pharmacists' training and support resources, evaluating processes for implementing the on-site pharmacist role in RACFs and identifying activities undertaken by on-site pharmacists, and the impact of the model of care on psychotropic medicine use.

TRAINING AND SUPPORT MATERIALS

The study found that the training and support materials provided were well received by on-site pharmacists. There was also a clear indication that changing the delivery of training videos to a staggered approach is warranted. The data highlight a strong preference for email or phone contact support and face-to-face contact with other on-site pharmacists to support role integration. This point was evident in the quantitative data and was also reflected in the qualitative data. Interestingly, the online forum, a common experience for many workers during COVID-19 lockdowns, was the least popular support modality.

IMPLEMENTING ON-SITE PHARMACISTS' ROLE IN RACFS

Facility manager feedback on the processes and materials for implementing the on-site pharmacists' role in RACFs was favourable, with suggestions provided to improve the implementation materials, specifically on the need for training on the residential aged care context and what is expected of on-site pharmacists, including: behaviour management, chemical restraints, cytotoxic medicines, manual handling, infection control, residential aged care standards, codes of conduct, medication management legal requirements, incident reporting, facility accreditation requirements and reporting, and the role of allied health professionals in RACFs. A more specific position description, a reporting system for on-site pharmacists' activities and ongoing mentoring and support for on-site pharmacists were also recommended. These findings should be implemented to support RACFs and on-site pharmacists for broader roll-out of the on-site pharmacist model of care.

PHARMACISTS' ACTIVITIES AND REDUCTION IN PSYCHOTROPIC MEDICINES

Many public health interventions aim to reduce the use of inappropriate psychotropics in RACFs, including NPS MedicineWise education[21] and the RedUSe study,[22] and inappropriate psychotropic medicine use has been highlighted by the recent Royal Commission into Aged Care.[23]

Overall, the range of activities of on-site pharmacists and the decrease in psychotropic medicine use observed in Phase 2 were consistent with the findings in Phase 1, in which a reduction in the prevalence of psychotropic medicine use was observed.

PHARMACISTS' VIEWS ON ACCREDITATION

There was a range of views from pharmacists regarding the necessity of accreditation for the on-site pharmacist's role. The value of accreditation was recognised to enhance pharmacists clinical knowledge and skills, but pharmacists perceived that more experienced pharmacists were more likely to be able to adapt to the role without accreditation. Pharmacists also recognised the workforce implications if accreditation was mandated, commenting upon the reduction in the pool of potential candidates that would result.

LIMITATIONS OF THE STUDY

Some limitations should frame the interpretation of the results. First, on-site pharmacists' activities overlapped with chemical restraint reporting as part of Aged Care Quality Standards. These standards were rolled out during the study and are likely to have resulted in increased surveillance of psychotropic medicines. Second, the study was not able to measure the impact of accreditation status and experience of pharmacists on study outcomes. Further research, preferably at the national level with a larger number of on-site pharmacists, would be required to understand the association between an on-site pharmacist's skills, experience and accreditation status with residential aged care medication management quality indicators or a resident's health outcomes. We also emphasise that the Phase 2 assessment of psychotropic medicines used pre-post study design which did not include a control group and is not robust.

RECOMMENDATIONS FOR NATIONAL ROLLOUT

Based on the findings in Phase 2, the study team proposes that residential aged care stakeholders, including governments and providers, consider the following recommendations:

RECOMMENDATIONS

1. **On-site pharmacist training could use the materials developed in this study, with any necessary adaptations.** Additional training materials are required on the topics of palliative care medicines and talking to residents and family members about death and dying, working with doctors, frailty, and managing behavioural and psychological symptoms of dementia.

   Materials should also be developed on the residential aged care sector, including aged care accreditation standards, legislation, reporting, behaviour management, chemical restraints, cytotoxic medicines, manual handling, infection control, medication management legal requirements, incident reporting, the Serious Incident Response Scheme and the general code of conduct.

   On-site pharmacists should be encouraged to view training resources in an ongoing way, not only before employment in RACFs.

2. **Implementation could use the processes and materials developed in this study, with any necessary adaptations.** Materials should be updated, including revising the on-site pharmacist position description, developing a reporting system for on-site pharmacists' activities, and establishing mechanisms for ongoing mentoring and support (that possibly include face-to-face modalities).

3. **Future research is required to establish the necessity for accreditation in the on-site pharmacist role.**

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ACRONYMS

ACT	Australian Capital Territory
cRCT	cluster randomised controlled trial
MMR	medication management review
PRN	*pro re nata* — when necessary
RACF	residential aged care facility







APPENDICES

APPENDIX 1. ONLINE TRAINING VIDEOS

UNIVERSITY OF CANBERRA

DISTINCTIVE BY DESIGN

Integrating Pharmacists in Residential Aged Care Facilities to improve the quality use of medicines study - Training

Name:

Pharmacists in general practice and aged care - Training Videos			
Activity/Task	Length of Training	Completed	Date Completed
Pharmacists in general practice and aged care part 1	1hr:35min	Yes ☐ No ☐	
Pharmacists in general practice and aged care part 2	1hr:53min	Yes ☐ No ☐	
Pharmacists in general practice and aged care part 3	1hr:25min	Yes ☐ No ☐	
Aged Care Modules			
Activity/Task	Length of Training	Completed	Date Completed
Beers Criteria	17:30min	Yes ☐ No ☐	
Psychotropic and anticholinergic deprescribing	21:52min	Yes ☐ No ☐	
Pain management: opioids	17:43min	Yes ☐ No ☐	
Renal function and medication adjustment	15:06min	Yes ☐ No ☐	

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Aged Care Modules			
Activity/Task	Length of Training	Completed	Date Completed
Cardiovascular disorders in the elderly	37:35min	Yes ☐ No ☐	
Depression, anxiety and sleep in the elderly	31:50min	Yes ☐ No ☐	
Diabetes and osteoporosis in the elderly	34:08min	Yes ☐ No ☐	
Gastrointestinal disorders in the elderly	28:31min	Yes ☐ No ☐	
Parkinson's disease in the elderly	27:20min	Yes ☐ No ☐	
Respiratory and pneumonia	26:28min	Yes ☐ No ☐	
Medication and the urinary tract - urinary tract infections in the elderly	37:01min	Yes ☐ No ☐	
Common wounds in aged care - Impacts of the medications	26:59min	Yes ☐ No ☐	

https://my.psa.org.au/s/training-plan/a110o000008r2P9/its-time-pharmacists-in-general-practice-and-aged-care-act

APPENDIX 2. PHARMACIST'S EDUCATION SURVEY

Thank you for your involvement in the Pharmacists in Residential Aged Care study

Integrating pharmacists in Residential Aged Care Facilities (RACFs) to improve quality use of medicines

Thank you for your involvement in the study.

We invite on-site pharmacists to provide feedback on the education resources used in the study. The survey will take approximately 20 minutes to complete.

Your participation is voluntary. There are no financial incentives provided. You can choose not to participate at any time without penalty or disadvantage.

Your information will be treated confidentially. We do not ask for your name or facility name. Any individual identifying details will be removed prior to data analysis and published findings will not identify individuals or facilities. The results from this study will be presented at conferences and published in reports and scientific journals.

Ethical considerations.
The study has been approved by the Human Research Ethics Committee of the University of Canberra in accordance with the guidelines of the Ethics Committee and the National Health & Medical Research Council. All participants can discuss their participation in this study with the Chief

Investigator by calling 02 6201 2158 or emailing sam.kosari@canberra.edu.au. If any participant would like to speak with an Officer of the University not involved in the study, you may contact the Research Ethics & Integrity Advisor on 02 6206 3916 and quote the project number 2007.

Please send queries to racfstudy@canberra.edu.au

I consent to participate in this survey

- ◯ I consent
- ◯ I do not consent (survey will end)

What is your gender

- ◯ Male
- ◯ Female
- ◯ Other
- ◯ Prefer not to say

What is your age - choose category

- ◯ 21-30 years of age
- ◯ 31-40 years of age
- ◯ 41-50 years of age
- ◯ 51-60 years of age
- ◯ 61 years and over
- ◯ Prefer not to say

Appendix 2. Pharmacist's Education Survey *cont.*

Which phase of the study have you been involved in?

- ◯ Phase 1
- ◯ Phase 2
- ◯ Phase 1 and 2

How many years have you been working professionally as a registered pharmacist? Select pull down option

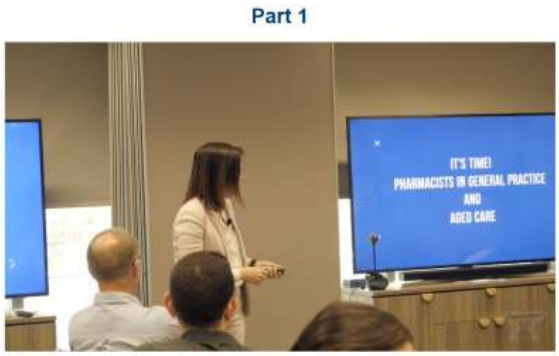
Years

Are you currently accredited by Australian Association of Consultant Pharmacy (AACP) or Society of Hospital Pharmacists Australia (SHPA) to conduct Home Medication Review (HMR) or Residential Management Review (RMMR)?

- ◯ Yes
- ◯ No

What post-graduate pharmacy qualifications do you have (apart from Bachelor of Pharmacy or Master of Pharmacy? Such as diabetes educator etc

The following questions ask your opinion about the online training materials hosted on the Pharmaceutical Society of Australia (PSA) website.



The following questions are about the **PSA online video 'Pharmacists in general practice and aged care Training Video - Part 1'. Some pharmacists received this content in a face-to-face workshop at PSA.**

Did you watch this video/attend this workshop?

- ◯ Yes, completely
- ◯ Partially completed
- ◯ Not completed
- ◯ Don't remember

Please answer your level of agreement to the following statements:

I used the content of this video/face-to-face workshop in my work in the RACF

Strongly disagree	disagree	Neutral	Agree	Strongly agree
◯	◯	◯	◯	◯

Future on-site pharmacists will find the content of this video/workshop useful in their work in the RACF

Strongly disagree	Disagree	Neutral	Agree	Strongly agree
◯	◯	◯	◯	◯

Appendix 2. Pharmacist's Education Survey *cont.*

Part 2



The following questions are about the **PSA online video 'Pharmacists in general practice and aged care Training Video - Part 2'. Some pharmacists received this content in a face-to-face workshop at PSA.**

Did you watch this video/attend this workshop?

- ◯ Yes, completely
- ◯ Partially completed
- ◯ Not completed
- ◯ Don't remember

Please answer your level of agreement to the following statements:

I used the content of this video/workshop in my work in the RACF

Strongly disagree	Disagree	Neutral	Agree	Strongly agree
◯	◯	◯	◯	◯

Future on-site pharmacists will find the content of this video/workshop useful in their work in the RACF

Strongly disagree	Disagree	Neutral	Agree	Strongly agree
◯	◯	◯	◯	◯



The following questions are about the **PSA online video 'Pharmacists in general practice and aged care Training Video - Part 3'. Some pharmacists received this content in a face-to-face workshop at PSA.**

Did you watch this video/workshop?

- ◯ Yes, completely
- ◯ Partially completed
- ◯ Not completed
- ◯ Don't remember

Please answer your level of agreement to the following statements:

I used the content of this video/workshop in my work in the RACF

Strongly disagree	Disagree	Neutral	Agree	Strongly agree
◯	◯	◯	◯	◯

Future on-site pharmacists will find the content of this video/workshop useful in their work in the RACF

Strongly disagree	Disagree	Neutral	Agree	Strongly agree
◯	◯	◯	◯	◯

Appendix 2. Pharmacist's Education Survey *cont.*



The following questions are about the **PSA online video 'Beers Criteria'**

Did you watch this video?

- ◯ Yes, I watched this video completely
- ◯ Partially watched
- ◯ I didn't watch this video
- ◯ Don't remember

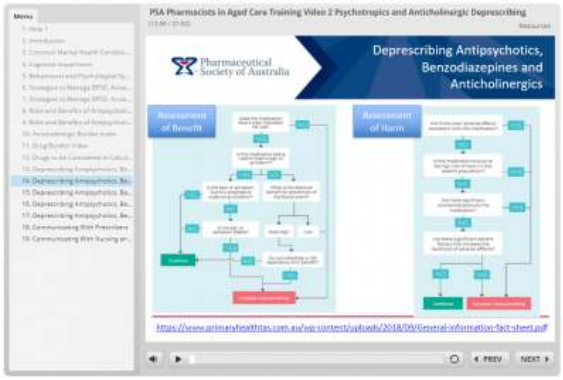
Please answer your level of agreement to the following statements:

I used the content of this video in my work in the RACF

- ◯ Strongly disagree
- ◯ Disagree
- ◯ Neutral
- ◯ Agree
- ◯ Strongly agree

Future on-site pharmacists will find the content of this video useful in their work in the RACF

Strongly disagree	Disagree	Neutral	Agree	Strongly agree
	◯	◯	◯	◯



The following questions are about the **PSA online video 'Psychotropic and Anticholinergic deprescribing'**

Did you watch this video?

- ◯ Yes, I watched this video completely
- ◯ Partially watched
- ◯ I didn't watch this video
- ◯ Don't remember

Please answer your level of agreement to the following statements:

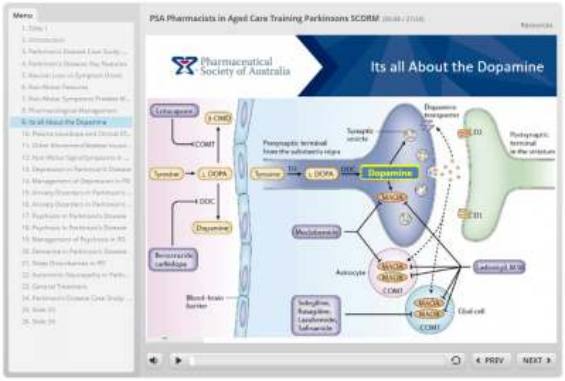
I used the content of this video in my work in the RACF

- ◯ Strongly disagree
- ◯ Disagree
- ◯ Neutral
- ◯ Agree
- ◯ Strongly agree

Appendix 2. Pharmacist's Education Survey *cont.*

Future on-site pharmacists will find the content of this video useful in their work in the RACF

- ◯ Strongly disagree
- ◯ Disagree
- ◯ Neutral
- ◯ Agree
- ◯ Strongly agree



The following questions are about the **PSA online video 'Pain management - Opioids'**

Did you watch this video?

- ◯ Yes, I watched this video completely
- ◯ Partially watched
- ◯ I didn't watch this video
- ◯ Don't remember

Please answer your level of agreement to the following statements:

I used the content of this video in my work in the RACF

Strongly disagree	Disagree	Neutral	Agree	Strongly agree
○	○	○	○	○

Future on-site pharmacists will find the content of this video useful in their work in the RACF

Strongly disagree	Disagree	Neutral	Agree	Strongly agree
○	○	○	○	○



The following questions are about the **PSA online video 'Renal function and medication adjustment'**

Did you watch this video?

- ○ Yes, I watched this video completely
- ○ Partially watched
- ○ I didn't watch this video
- ○ Don't remember

Please answer your level of agreement to the following statements:

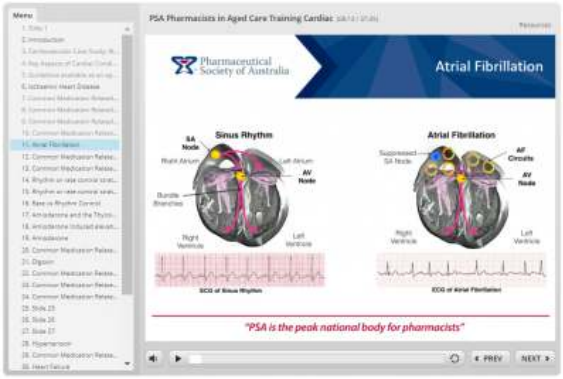
I used the content of this video in my work in the RACF

Appendix 2. Pharmacist's Education Survey *cont.*

Strongly disagree	Disagree	Neutral	Agree	Strongly agree
○	○	○	○	○

Future on-site pharmacists will find the content of this video useful in their work in the RACF

Strongly disagree	Disagree	Neutral	Agree	Strongly agree
○	○	○	○	○



The following questions are about the **PSA online video 'Cardiovascular disorders in the elderly'**

Did you watch this video?

- ○ Yes, I watched this video completely
- ○ Partially watched
- ○ I didn't watch this video
- ○ Don't remember

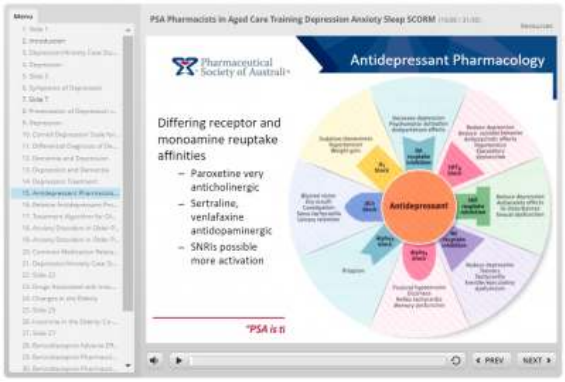
Please answer your level of agreement to the following statements:

I used the content of this video in my work in the RACF

Strongly disagree	Disagree	Neutral	Agree	Strongly agree
	○	○	○	

Future on-site pharmacists will find the content of this video useful in their work in the RACF

Strongly disagree	Disagree	Neutral	Agree	Strongly agree
○	○	○	○	○



The following questions are about the **PSA online video 'Depression, anxiety and sleep in the elderly'**

Did you watch this video?

- ○ Yes, I watched this video completely
- ○ Partially watched
- ○ I didn't watch this video
- ○ Don't remember

Please answer your level of agreement to the following statements:

I used the content of this video in my work in the RACF

Strongly disagree	Disagree	Neutral	Agree	Strongly agree
○	○	○	○	○

Appendix 2. Pharmacist's Education Survey *cont.*

Future on-site pharmacists will find the content of this video useful in their work in the RACF

Strongly disagree	Disagree	Neutral	Agree	Strongly agree
○	○	○	○	○



The following questions are about the **PSA online video 'Diabetes and osteoporosis in the elderly'**

Did you watch this video?

- ○ Yes, I watched this video completely
- ○ Partially watched
- ○ I didn't watch this video
- ○ Don't remember

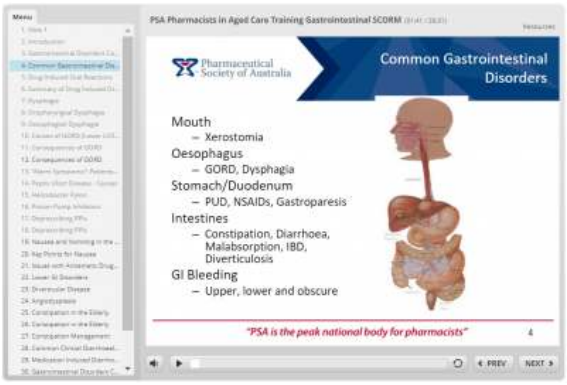
Please answer your level of agreement to the following statements:

I used the content of this video in my work in the RACF

Strongly disagree	Disagree	Neutral	Agree	Strongly agree
○	○	○	○	○

Future on-site pharmacists will find the content of this video useful in their work in the RACF

Strongly disagree	Disagree	Neutral	Agree	Strongly agree
○	○	○	○	○



The following questions are about the **PSA online video 'Gastrointestinal disorders in the elderly'**

Did you watch this video?

- ○ Yes, I watched this video completely
- ○ Partially watched
- ○ I didn't watch this video
- ○ Don't remember

Please answer your level of agreement to the following statements:

I used the content of this video in my work in the RACF

Strongly disagree	Disagree	Neutral	Agree	Strongly agree
○	○	○	○	○

Appendix 2. Pharmacist's Education Survey *cont.*

Future on-site pharmacists will find the content of this video useful in their work in the RACF

Strongly disagree	Disagree	Neutral	Agree	Strongly agree
○	○	○	○	○



The following questions are about the **PSA online video 'Parkinson's disease in the elderly'**

Did you watch this video?

- ○ Yes, I watched this video completely
- ○ Partially watched
- ○ I didn't watch this video
- ○ Don't remember

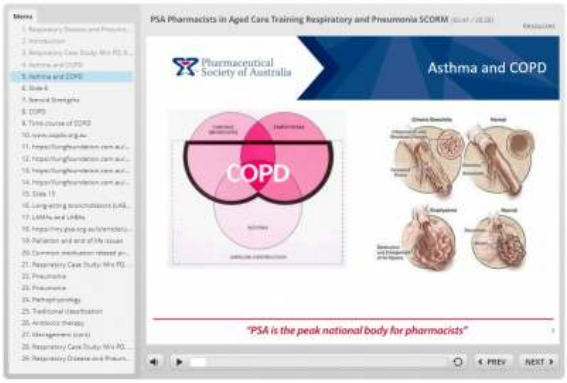
Please answer your level of agreement to the following statements:

I used the content of this video in my work in the RACF

Strongly disagree	Disagree	Neutral	Agree	Strongly agree
○	○	○	○	○

Future on-site pharmacists will find the content of this video useful in their work in the RACF

Strongly disagree	Disagree	Neutral	Agree	Strongly agree
○	○	○	○	○



The following questions are about the **PSA online video 'Respiratory and pneumonia'**

Did you watch this video?

- ○ Yes, I watched this video completely
- ○ Partially watched
- ○ I didn't watch this video
- ○ Don't remember

Please answer your level of agreement to the following statements:

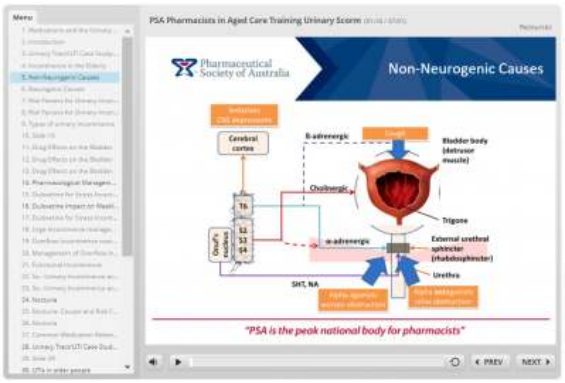
I used the content of this video in my work in the RACF

Strongly disagree	Disagree	Neutral	Agree	Strongly agree
○	○	○	○	○

Appendix 2. Pharmacist's Education Survey *cont.*

Future on-site pharmacists will find the content of this video useful in their work in the RACF

Strongly disagree	Disagree	Neutral	Agree	Strongly agree
○	○	○	○	○



The following questions are about the **PSA online video 'Medication and the urinary tract - urinary tract infections in the elderly'**

Did you watch this video?

- ○ Yes, I watched this video completely
- ○ Partially watched
- ○ I didn't watch this video
- ○ Don't remember

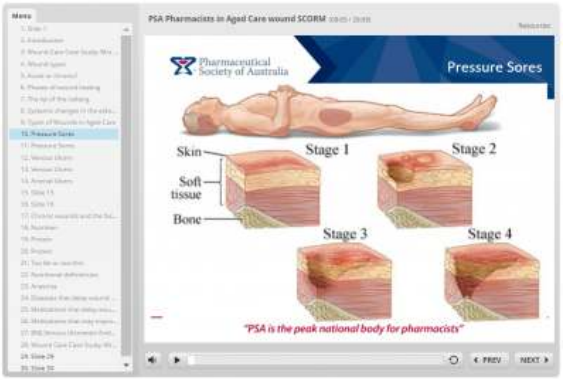
Please answer your level of agreement to the following statements:

I used the content of this video in my work in the RACF

Strongly disagree	Disagree	Neutral	Agree	Strongly agree
○	○	○	○	○

Future on-site pharmacists will find the content of this video useful in their work in the RACF

Strongly disagree	Disagree	Neutral	Agree	Strongly agree
○	○	○	○	○



The following questions are about the **PSA online video 'Common wounds in aged care - Impacts of medications'**

Did you watch this video?

- ○ Yes, I watched this video completely
- ○ Partially watched
- ○ I didn't watch this video
- ○ Don't remember

Please answer your level of agreement to the following statements**:**

I used the content of this video in my work in the RACF

Strongly disagree	Disagree	Neutral	Agree	Strongly agree
○	○	○	○	○

Appendix 2. Pharmacist's Education Survey *cont.*

Future on-site pharmacists will find the content of this video useful in their work in the RACF

Strongly disagree	Disagree	Neutral	Agree	Strongly agree
○	○	○	○	○

The following questions are about the suite of **PSA Online videos.** Please answer your level of agreement to the following statements:

The PSA online training videos provided a good coverage of all the topics I needed in my on-site pharmacist role

Strongly disagree	Disagree	Neutral	Agree	Strongly agree
○	○	○	○	○

The PSA online training videos met my expectations

Strongly disagree	Disagree	Neutral	Agree	Strongly agree
○	○	○	○	○

The PSA online training videos improved my skills and confidence to undertake the on-site pharmacist role

Strongly disagree	Disagree	Neutral	Agree	Strongly agree
○	○	○	○	○

The PSA online training videos helped me to work collaboratively with facility staff and other health professionals

Strongly disagree	Disagree	Neutral	Agree	Strongly agree
○	○	○	○	○

Do you have any other comments about the PSA online training videos including suggestions about what material should be included, excluded or

modified?



The next questions ask about the **written folders - Site file, Pharmacist's toolkit and clinical folder** provided to pharmacists - Please answer your level of agreement to the following statements

I used the written folders in my work in the RACF

Strongly disagree	Disagree	Neutral	Agree	Strongly agree
○	○	○	○	○

Future on-site pharmacists will find the written folders useful in their work in the RACF

Strongly disagree	Disagree	Neutral	Agree	Strongly agree
○	○	○	○	○

Appendix 2. Pharmacist's Education Survey *cont.*

The written folders provided a good coverage of all the topics I needed in my on-site pharmacist role

Strongly disagree	Disagree	Neutral	Agree	Strongly agree
○	○	○	○	○

The written folders met my expectations

Strongly disagree	Disagree	Neutral	Agree	Strongly agree
○	○	○	○	○

The written folders improved my skills and confidence to undertake the on-site pharmacist role

Strongly disagree	Disagree	Neutral	Agree	Strongly agree
○	○	○	○	○

The written folders helped me to work collaboratively with facility staff and other health professionals

Strongly disagree	Disagree	Neutral	Agree	Strongly agree
○	○	○	○	○

Do you have any other comments about the written folders including suggestions about what material should be included, excluded or modified?



The next questions ask about the **Microsoft Teams Pharmacist's online discussion forum** - Please answer your level of agreement to the following statements

I used the Microsoft Teams Pharmacist's online discussion forum in my work in the RACF

Strongly disagree	Disagree	Neutral	Agree	Strongly agree
○	○	○	○	○

Future on-site pharmacists will find the Microsoft Teams Pharmacist's online discussion forum useful in their work in the RACF

Strongly disagree	Disagree	Neutral	Agree	Strongly agree
○	○	○	○	○

The Microsoft Teams Pharmacist's online discussion forum provided a good coverage of all the topics I needed in my on-site pharmacist role

Strongly disagree	Disagree	Neutral	Agree	Strongly agree
○	○	○	○	○

The Microsoft Teams Pharmacist's online discussion forum met my expectations

Strongly disagree	Disagree	Neutral	Agree	Strongly agree
○	○	○	○	○

Appendix 2. Pharmacist's Education Survey *cont.*

The Microsoft Teams Pharmacist's online discussion forum improved my skills and confidence to undertake the on-site pharmacist role

Strongly disagree	Disagree	Neutral	Agree	Strongly agree
○	○	○	○	○

The Microsoft Teams Pharmacist's online discussion forum helped me to work collaboratively with facility staff and other health professionals

Strongly disagree	Disagree	Neutral	Agree	Strongly agree
○	○	○	○	○

Do you have any other comments about the Microsoft Teams Pharmacist's online discussion forum including suggestions about what material should be included, excluded or modified?

The next questions are about the **Pharmacist's catch ups.** Please answer your level of agreement to the following statements:

I used content from the Pharmacist's catch ups in my work in the RACF

Strongly disagree	Disagree	Neutral	Agree	Strongly agree
○	○	○	○	○

Future on-site pharmacists will find the Pharmacist's catch ups useful in their work in the RACF

Strongly disagree	Disagree	Neutral	Agree	Strongly agree
○	○	○	○	○

The Pharmacist's catch ups provided a good coverage of all the topics I needed in my on-site pharmacist role

Strongly disagree	Disagree	Neutral	Agree	Strongly agree
○	○	○	○	○

The Pharmacist's catch ups met my expectations

Strongly disagree	Disagree	Neutral	Agree	Strongly agree
○	○	○	○	○

The Pharmacist's catch ups improved my skills and confidence to undertake the on-site pharmacist role

Strongly disagree	Disagree	Neutral	Agree	Strongly agree
○	○	○	○	○

The Pharmacist's catch ups helped me to work collaboratively with facility staff and other health professionals

- ○ Strongly disagree
- ○ Disagree
- ○ Neutral
- ○ Agree
- ○ Strongly agree

Do you have any other comments about the Pharmacist's catch ups including suggestions about what should be included, excluded or modified?

Appendix 2. Pharmacist's Education Survey *cont.*

What educational format do you prefer - tick all that apply

- ☐ Face-to-face
- ☐ Online eg zoom
- ☐ Self-directed online learning
- ☐ Other, please specify

Are there any other resources that you regularly used during your role as an on-site pharmacist? (eg 'Don't rush to Crush', eMIMS)

Thank you - we appreciate your time and involvement.

Please press the arrow to submit the survey.

Powered by Qualtrics

APPENDIX 3. INTERVIEW GUIDE FOR ON-SITE PHARMACIST FOCUS GROUPS

We want to ask you about the usefulness of that includes the following components:

- **online videos on PSA website**
- **face-to-face or Zoom meeting with study team**
- **study folders given to you including the site file, pharmacist toolkit and clinical folder**
- **Microsoft Teams group and face- to-face catch ups**
- **support from UC study team.**

1. What did you hope to gain from the education resources?

2. Did the PSA online education and UC study team activities & outcomes training meet your needs in your role in RACFs? How?

3. Where did they fall short of your needs and expectations?

4. How have you used what you learned in your work?

5. What aspects of the education materials, resources and support help you to get integrated into working in your facility?

6. What further education materials, resources and support would assist you?

7. Do you see an ongoing need for an on-site pharmacist in RACFs? What is required to facilitate this?

8. What information, support and resources would further assist with integrating the on-site pharmacist into RAC clinical governance processes?

Demographic questions

If you feel comfortable, can you please tell us your age and gender?_____

What accreditation do you have? _____

No. of years working as a pharmacist _____

APPENDIX 4. INTERVIEW GUIDE FOR RACF MANAGER INTERVIEWS

The purpose of this interview is to ask about your experience with the RACF on-site pharmacist education and resources that includes the following components:

- **Study folder**
- **Face-to-face, Zoom and telephone meetings with the study team.**

1. What were your expectations of the study folder/meetings with study team?

2. Did the study folder/meetings with study team assist you in:
   - Understanding how the on-site pharmacist can help with improving the medication management in your RACF?
   - With embedding the pharmacist in your care team and clinical governance processes?
   - To utilize the pharmacist in your team to improve meds management in your facility?

3. How did they achieve or not achieve this?

4. What information, support and resources would further assist you with integrating the on-site pharmacist in your RAC team?

5. What things could the pharmacist have done to integrate themselves into the RACF team?

APPENDIX 5. PHARMACIST'S ACTIVITY SURVEY



Main Page

This form is submitted to the UC research team

Please type in the name of the aged care facility

Date (dd/mm/yyyy)

Email address

What activity would you like to record?

- ○ Medication Management Review
- ○ Clinical Audit
- ○ Communication
- ○ Education
- ○ Quality Improvement
- ○ Vaccination
- ○ Administrative tasks

https://canberrahealth.az1.qualtrics.com/Q/EditSection/Blocks/Ajax/GetSurveyPrintPreview?ContextSurveyID=SV_cuA5DTlWcv94gRL&ContextLibra… 1/14

Appendix 5. Pharmacist's activity survey *cont.*

- ◯ Other
- ◯ Case studies

Note: If you have any support or training needs in conducting any activity, please do not hesitate to forward your concerns or feedback to the support email (**racfstudy@canberra.edu.au**)

Medication Management

Medication Review

Conduct regular Medication Review for residents and record the outcomes in this form (when recommendations were discussed and decided the prescribes). Follow deprescribing guidelines and make recommendations accordingly to reduce patients' harm with a focus on limiting **potentially inappropriate medications** using Beers criteria (e.g. PPIs, NSAIDs, and TCAs) , psychotropics (antipsychotics and benzodiazepines) and anticholinergic burden.

Please make sure that you have kept the hard copy paper version of the full medication review notes in your folder.

Tools you may find helpful

Beers Criteria for potentially inappropriate medications (refer to table 2, table 3 and table 5)

https://geriatrictoolkit.missouri.edu/drug/Beers-Criteria-AGS-2019.pdf

Deprescribing guidelines:

PPIs
http://www.cpsedu.com.au/uploads/Documents/Deprescribing%202016%20Version/11.%20PROTON%20PUMP%20INHIBITO
Deprescribing algorithm for PPI
https://www.open-pharmacy-research.ca/wp-content/uploads/ppi-deprescribing-algorithm-cc.pdf

Antipsychotics for BPSD
http://www.cpsedu.com.au/uploads/Documents/Deprescribing%202016%20Version/4.%20ANTIPSYCHOTICS%20V3.pdf
Deprescribing algorithm for antipsychotics
https://deprescribing.org/wp-content/uploads/2018/08/AP-deprescribing-algorithm-2018-English.pdf

Benzodiazepines
http://www.cpsedu.com.au/uploads/Documents/Deprescribing%202016%20Version/5.%20BENZODIAZEPINES%20V3.pdf
Deprescribing algorithm for benzodiazepines

https://deprescribing.org/wp-content/uploads/2019/03/deprescribing_algorithms2019_BZRA_vf-locked.pdf

TCAs
http://www.nswtag.org.au/wp-content/uploads/2018/06/1.4-Deprescribing-Guide-for-Tricyclic-Antidepressants-TCAs.pdf

NSAIDs
http://www.cpsedu.com.au/uploads/Documents/Deprescribing%202016%20Version/9.%20NSAIDs%20V3.pdf

Anticholinergic Burden

https://www.veteransmates.net.au/VeteransMATES/documents/module_materials/M39_TherBrief.pdf

ACB scale calculator

http://www.acbcalc.com/

Please select resident type

- ◯ Existing Resident
- ◯ New admission
- ◯ Post discharge from hospital

For resident's having a medication review-Is this the first time this resident is having a Medication Review?

- ◯ Yes
- ◯ No
- ◯ I don't know

Please select type of activity (tick all that apply)

- ☐ Medication Review
- ☐ Medication Reconcilation

Appendix 5. Pharmacist's activity survey *cont.*

How many potentially inappropriate medication(s) (PIMs according to Beers criteria) did you identify and discuss/communicate with the prescriber (e.g. GP)?

Please type the number of outcomes accepted by the prescriber in regards to the above PIM(s)

0 Medication(s) deprescribed

0 Alternative medication(s) recommended and accepted

0 Decrease in dose recommended and accepted

How many other recommendation(s) (not related to PIMs) did you discuss/communicate with the prescriber?

Out of the above recommendation(s) (not related to PIM), please type the number of outcomes accepted by the prescriber

0 Medication(s) deprescribed

0 Alternative medication(s) recommended and accepted

0 Decrease in dose recommended and accepted

0 Increase in dose recommended and accepted

0 Change(s) in dosage form and accepted

Please type the name and strength of medication(s) deprescribed (if any)

Write list and strength of medicines

Was My Health Record used for this activity?

- ○ Yes - accessed or retrieved data from My Health Record
- ○ Yes - updated resident's My Health Record
- ○ No

What would be the potential clinical outcome for the resident if this intervention was not made (based on your judgement)?

- ☐ Potentially prevented a hospitalization
- ☐ Potentially prevented a minor adverse drug reaction
- ☐ I don't know
- ☐ None

Is this resident receiving palliative care treatment?

- ○ Yes
- ○ No

To whom did you communicate to complete this activity? (tick all that apply)

- ☐ GP
- ☐ Staff at GP reception
- ☐ Specialist
- ☐ Nurse Practitioner
- ☐ Resident
- ☐ Resident's family

Appendix 5. Pharmacist's activity survey *cont.*

- [ ] Community Pharmacy
- [ ] Hospital
- [ ] RACF staff
- [ ] Other

How did you communicate with the above person?

- [ ] In person
- [ ] Fax
- [ ] Phone
- [ ] Emails
- [ ] Text message
- [ ] Written communication (i.e. progress notes, communication book)
- [ ] Other

Time spent on this activity (in minutes)

Clinical Audit

Clinical Audit / Chart Review

A clinical audit activity is when the pharmacist purposefully identifies residents with certain medications of concern in a systematic way in order to prioritize medication reviews. This can be achieved through conducting chart reviews to identify residents at risk (e.g. taking specific medications or combinations).

The focus on audits should be on deprescribing residents with potentially inappropriate medications. Examples include inappropriate high dose PPIs, antipsychotics, benzodiazepines, NSAIDs, TCAs and etc according to Beers criteria.

Please note this activity involves identification of patients at risk only. Examples include when you spend time doing chart reviews for a large number of residents and shortlist a few with specific medications/medical condition and develop action plan to attend those (do not record individual medication review detail here, record recommendations made for each resident in the 'Medications Management" activity section).

Select type of clinical audit?

- ◯ Antipsychotics for BPSD
- ◯ Benzodiazepines (including Z-drugs)
- ◯ PPIs
- ◯ NSAIDs
- ◯ TCAs
- ◯ Opioids (e.g. for residents who have had a fall or fracture in the past - see Beers Criteria 2019)
- ◯ Other PIMs listed on Beers Criteria
- ◯ Other

Number of residents identified at risk in this audit

Briefly describe the activity (if applicable)

Time spent on this activity (in minutes)

Communication

Appendix 5. Pharmacist's activity survey *cont.*

Communication

This activity involves communication or interaction between pharmacist and other personnel which cannot be classified under any other activity. Counselling of residents or attending to medication-related queries are examples of communication or interaction that can be listed here.
The data will assist the research team to identify the communication pattern between the pharmacist and clients.

Is this a case conference?

- ○ Yes
- ○ No

Who was the communication with? (tick all that apply)

- ☐ GP (including Drs rounds)
- ☐ Staff at GP reception
- ☐ Specialist
- ☐ Nurse Practitioner
- ☐ Resident
- ☐ Resident's family
- ☐ Community Pharmacy
- ☐ Hospital
- ☐ RACF staff
- ☐ UC Research Team
- ☐ Drug Company
- ☐ Other

How did you communicate with the above person?

- ○ In person
- ○ Fax
- ○ Phone
- ○ Emails
- ○ Text message
- ○ Written communication (i.e. progress notes, communication book)
- ○ Other

Please briefly describe this activity

Time spent on this activity (in minutes)

Vaccination

Vaccination

This section is used to record flu (and other) vaccinations conducted by pharmacist in RACF.

Please make sure that you have kept the consent form in your folder.

Number of residents vaccinated

Number of staff vaccinated

Appendix 5. Pharmacist's activity survey *cont.*

Please briefly describe any additional information about this activity

Time spent on this activity (in minutes)

Administration

Administrative tasks

This section is used to record administrative tasks (such as attending different meetings about various topics). If you specifically take action

Administrative tasks

This section is used to record administrative tasks (such as attending different meetings about various topics, report preparation, documentation but this category does not quality improvement activities. If your activity contains a combination of administrative task and quality improvement activity, record each components under separate categories).

Select activity

◯ Meeting - Meeting/preparation with RACF staff to discuss any facility related issues, including participating in relevant policy committees such as Medication Advisory Committee, Falls Committee, Quality and Safety Committee (note that actions to review and change RACF policies and procedures must be recorded under quality improvement).

- ◯ Administrative tasks - such as any documentation (e.g. updating allergies or adverse drug reactions ADRs in residents charts)
- ◯ Filling this online pharmacist diary
- ◯ Meeting with the study team or participating in the online discussion blog
- ◯ S8 count, recording, destruction
- ◯ Other

Please briefly describe this activity

Time spent on this activity (in minutes)

Education block

Education

This section is used to record any educational activities conducted by the pharmacist such as in-service talks, group or individual training sessions for residents/staff, or self-learning sessions (on specific topics you feel you need to up-skill yourself). Other examples include accompanying a new staff on medication rounds or other activities to provide supervision and or education.

Who are you providing education to? (tick all that apply)

- ☐ Resident or family education (group or individual)
- ☐ General practitioner
- ☐ RACF RN/EN staff
- ☐ RACF Carer staff

Appendix 5. Pharmacist's activity survey *cont.*

- [ ] RACF Allied Health staff
- [ ] RACF Executive staff
- [ ] Self - education (inc. CPD on a specific topic)
- [ ] Other

Please provide some details of the activity

Time spent on this activity (in minutes)

Quality improvement

Quality Improvement

This sections is used to record a) any activity the pharmacist performs to improve or review medication-related processes or procedures and b) ward stock management (also known as IMPREST).
Refer to the Pharmacist Toolkit under 'Procedures and Policies to Improve Quality Use of Medications' to find examples of how pharmacists can contribute to RACF policies and procedures.

What was the quality improvement activity

- ○ Ward stock related
- ○ Medication rounds related
- ○ Schedule 8 related
- ○ Reviewing RACF policies and procedures & attending relevant meeting
- ○ Writing policies and procedures
- ○ Implementing policies and procedures
- ○ Other

Please briefly describe this activity

Time spent on this activity (in minutes)

Other activity

Any other Activity

Record any activity that cannot be classified under any other category. This includes COVID related activities (If COVID related, write COVID: in the below box and provide a brief explanation about the actions taken).

Please describe this activity

Time spent on this activity (in minutes)

Case studies

Please provide interesting and challenging case studies that provide insights into your role as an on-site pharmacist - include good news stories as well as difficult stories. Please do not provide names. Examples can include:

- *when you made a change in policies and procedures and it was well or badly received*

Appendix 5. Pharmacist's activity survey *cont.*

- *when you identified or did not identify a medication-related problem that had an impact on resident's health and well-being*
- *when your collaboration made a positive or negative impact to a resident, staff or health professional*
- *when you established new systems or changed communication with community pharmacy or GPs/prescribers*

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