



**PRODUCTIVITY
COMMISSION
REPORT ON
MENTAL HEALTH**
PSA SUBMISSION

CONTENTS

Executive Summary	4
Medicines and mental health	6
Problems with use of medicines in mental health conditions	6
Psychotropic medicine use in Australia	6
Mental health and medicines use: adverse effects	7
Role in self-harm	8
Implications for policy	9
Recommendations for reducing burden of mental health on the community	10
Medicine review services to make sure medicines in mental health are used safely and effectively	10
Personalising medicine therapies: pharmacist advice and pharmacogenomics	12
Community pharmacists: Supporting people in mental health crisis	14
Community pharmacists: Supporting early detection and intervention in mental illness	15
Mental health first aid: Building pharmacist workforce capacity in mental health	16
Appendix 1:	
Role of pharmacists in mental health	17
Appendix 2:	
Accessibility of community pharmacists in Australia in supporting mental health issues	19
References	20

ABOUT PSA

PSA is the only Australian Government-recognised peak national professional pharmacy organisation representing all of Australia's 31,000 pharmacists working in all sectors and across all locations.

PSA is committed to supporting pharmacists in helping Australians to access quality, safe, equitable, efficient and effective healthcare. PSA believes the expertise of pharmacists can be better utilised to address the health care needs of all Australians.

PSA works to identify, unlock and advance opportunities for pharmacists to realise their full potential, to be appropriately recognised and fairly remunerated.

PSA has a strong and engaged membership base that provides high-quality health care and are the custodians for safe and effective medicine use for the Australian community.

PSA leads and supports innovative and evidence-based healthcare service delivery by pharmacists. PSA provides high-quality practitioner development and practice support to pharmacists and is the custodian of the professional practice standards and guidelines to ensure quality and integrity in the practice of pharmacy.

ACKNOWLEDGEMENT

PSA's submission has been produced in partnership with Dr Claire O'Reilly FPS, The University of Sydney Pharmacy School. PSA thanks Dr O'Reilly for her contribution to this submission.

EXECUTIVE SUMMARY

The Pharmaceutical Society of Australia (PSA) welcomes the Productivity Commission's commitment to improving prevention, detection and treatment of mental illness. PSA also welcomes the opportunity to respond to the draft report.

Mental health problems cause significant burden on individuals, families and our society and, as highlighted by the draft report, there is significant opportunity to improve how we support people living with a mental illness. However, the draft report failed to tackle the problems with medicine use in mental health, or the challenge of improving the use of medicines in the treatment of mental illness.

People with mental ill health are being denied the best opportunity to improve their health when a medicine is prescribed due to barriers in the use of the expertise of pharmacists, especially in the context of tailoring therapies using personalised approaches. People are also prevented from having the opportunity for regular review of their medicines to ensure that medicines used for mental ill health are delivering their desired effects, helping people, not harming people.

The Australian Commission on Safety and Quality in Health Care (ACSQHC) released a report in 2017 on medicine safety in mental health.¹ The results of this report for people with mental ill health are staggering:

- more than 80% of people with a psychotic illness endure unpleasant side effects from their medicines
- one in three live with moderate to severe impairment due to side effects

The report by the ACSQHC highlighted four areas of focus to improve medicine safety:

- use of electronic health records, My Health Record, for people with mental illness
- developing a culture of medicine safety for people with mental illness across primary care
- better coordination of mental health care, particularly in the interface between acute mental health care and primary care
- facilitation of further pharmacy services specifically for mental health care.

When a medicine is required in mental illness it is important that it is used safely and effectively. Pharmacists are the custodians of medicine safety, and it is essential the skills and expertise of pharmacists are used to help this occur in the Australian community.

There is an opportunity to better use the skills of pharmacists to improve the use of medicines for mental ill health by integrating pharmacists into multidisciplinary mental healthcare teams, in supporting early detection and intervention, being first responders in mental health crises and supporting people to live well with their mental illness through better and safer use of psychotropic medicines.

For this to be achieved, PSA recommends:

1

Develop and implement **regular review of medicines** for people with mental ill health to reduce the time to respond to medication-related problems and to reduce debilitating side effects from medicines which can be preventable.

2

Incorporate **pharmacogenomic testing in primary care** supported by the medicines expertise of pharmacists for people with mental ill health to personalise medicine therapies to improve the safe and quality use of medicines.

3

Integrate **pharmacists in suicide prevention strategies**, including supporting pharmacists in their triage role of providing support to people they encounter in mental health crisis situations.

4

Support pharmacists, who are often one of the only front-line healthcare providers in rural and remote regions to incorporate **early identification, triage and support** for people with mental ill health.

5

Ensure pharmacists, as frontline health professionals in contact with people with mental ill health, have the required expertise such as **mental health first aid**, to support early identification, triage and support for people with mental ill health.

MEDICINES AND MENTAL HEALTH

Problems with use of medicines in mental health conditions

Psychotropic medicine use in Australia

Medicines are a major treatment modality in most mental illnesses. In some mental illnesses such as psychotic disorders they are the first line treatment, where people often require lifelong treatment with medicines to effectively manage their condition. Even in other common mental illnesses such as depression or anxiety disorders, psychotropic medicines play an important role in combination with psychological therapies.

Patterns of use

In 2017-18:

- 37.7 million mental health related medicines were supplied to 4.2 million Australians (16.8% of the population), with approximately two thirds of these being subsidised by the Australian Government under the PBS or RPBs.²
- The majority of these medicines were prescribed by a GP (86.8%), with 70% being antidepressant medicines.²
- The proportion of the population receiving mental health related medicines in Australia has risen by approximately 0.9% each year since 2013-14.²

However, an analysis of PBS claims for concessional beneficiaries of psychotropic medicines between 2007-2015 found a 26.1% decrease in the annual incidence but a 2.6% increase in the prevalence of psychotropic medicine use,³ indicating that psychotropic medicines are being used for longer and at higher doses, particularly antidepressant medicines³; and this is what is contributing to increasing annual prevalence of psychotropic medicines in Australia.

This aligns with other Australian research which found the average length of use of antidepressant medicines was 4 years,⁴ compared to the recommendations in Australian guidelines for treatment for 6-12 months after recovery from an episode of depression.⁵ While longer durations of treatment may indicate better adherence to treatment, there are concerns about overuse or inappropriate use of antidepressant medicines.






Mental health and medicines use: adverse effects

The ACSQHC's 2017 report on medicine safety in mental health¹ highlighted the concerning burden of medicines for people living with mental health issues, finding:

- more than 80% of people with a psychotic illness endure unpleasant side effects from their medicines
- one in three people live with moderate to severe impairment due to side effects
- 43% of people hospitalised for bipolar disorder had been hospitalised for the condition previously and were taking lithium, but had not had a measurement of their serum lithium concentration in the three months before admission [as recommended by clinical guidelines]

- 61% of people admitted for confusion received three or more psychotropic medicines in the three months before admission.

The report makes powerful reading, and the excerpt in **Box 1** further explores the significance and burden which mediocre use of some medicines is having on Australians living with mental health issues:

<p>Focussing on medication use in mental health</p> 	<p>One of the reasons to refocus our efforts on medication safety in mental illness is because the overall use of medicines to treat mental illness has increased significantly over the last 20 years. Antidepressant use has risen 10-fold since 1990, while antipsychotic use has risen two and a half-fold. Use of hypnotics and anxiolytics, however, has declined in recent times. Overall, these increases mean many more people are now taking medicines for mental illness, with the resultant potential for an increase in undesirable medication events, such as errors or adverse events. In addition, there is significant variation in the use. It is not yet clear how much of the variation reflects differences in the prevalence of disease or differences in treatment patterns, but this high level of variation is also suggestive that some use may be inappropriate. [page 16]</p>
<p>Medication-related problems in the community setting</p> 	<p>People with severe mental illness may have between four and eight medication-related problems per person on average, including drug interactions and adverse drug reactions. Several medication safety issues relating to the use of antipsychotics were identified, including use of more than one antipsychotic at the same time, excessive dose and increased 'off-label' use. We found that a considerable number of consumers taking antipsychotic medicines endure unpleasant medication-related side effects, whilst a third of consumers with a psychotic illness live with moderate to severe impairment due to side effects.</p> <p>A separate study examined medication-related problems among 49 people with mental illness living in the community and referred for a pharmacists' 'Home Medicines Review' by their general practitioner. The majority of patients had depression (73%). Pharmacists identified approximately seven medication-related problems per person. The study found inaccuracies in the general practitioner medication history: the general practitioner reported patients to be on an average of eight medicines, while the pharmacists found people to be taking nine medicines on average. This study also reported a high rate of suspected adverse reactions, thought to be present in 47%-55% of people reviewed. Other common problems identified were that the medicine was not the most appropriate for the indication (in 35% of patients) and a potential drug interaction (in 37% of patients). [page 29]</p>
<p>Medication-related problems in mental health unit</p> 	<p>Additional insight into the types of undesirable medication events occurring in mental health units comes from reports by clinical pharmacists. One study involved 47 pharmacists, of whom 62% reported they were specialist mental health pharmacists. The pharmacists provided 277 reports of clinical interventions, within which 322 medication-related problems were identified. The most common problem identified by the pharmacists was medicine selection (37%), followed by dosing problems (18%), under-treatment (14%), side effects (11%), need for education or information (8%), compliance issues (7%), and need for monitoring (5%). [page 23]</p>

Box 1: Excerpts from ACSQHC 2017 report¹

Role in self-harm

Psychotropic medicines can also be a common method in attempts at self-harm and suicidal behaviours with poisoning by drugs the second most common method of death by suicide in Australia.⁶ Self-harm from self-poisonings are of particular concern in children and adolescents.

Recent Australian research from the University of Sydney Faculty of Pharmacy alarmingly found there were more than 33,500 incidents of self-poisoning in children and adolescents in Australia between 2005-2016, an increase of 98% over this time period.⁷ Medicines used in self-poisonings also included over the counter medicines, such as paracetamol or ibuprofen, as well as psychotropic medicines such as antidepressants or antipsychotic medications.⁷

Implications for policy

These trends in overuse and misuse of psychotropic medicines highlights the need to better the skills of pharmacists as medicines experts, and to better integrate them into mental health care teams.

Better use of pharmacists' skills is needed for closer monitoring of real time psychotropic medicine use in the community, along with the opportunity to better support consumers and carers to manage side effects, adherence and the risks of self-harm and poisonings. This was recognised by the National Mental Health Commission Review of Programmes in 2014 which highlighted the potential of pharmacists as one of its key recommendations⁸:

'Pharmacists need to be a part of an integrated approach, working with GPs who are providing continuous follow-up care, and with other members of the multi-disciplinary team.'

'Mental health provides considerable scope for pharmacists to exercise their skills in the medication management cycle. It enables a move away from simply dispensing pharmaceuticals to a long-term sustainable role for pharmacists as key multidisciplinary team members.'

The ACSQHC report identified highlighted four facilitators for improving medicine safety in **Box 2**.¹ PSA considers these enablers as essential to improvement of medicine safety in use of medicines for mental ill health in Australia.

- Use of the personally controlled electronic health record, My Health Record, for people with mental illness
- Developing a culture of medication safety for people with mental illness across primary health care networks
- Coordination and integration of activities across the continuum of care, particularly between the acute mental health care sector and the primary care sector
- Facilitation of further pharmacy services specifically for mental health care.

Box 2: Opportunities to improve medicine safety in mental health. Excerpts from ACSQHC 2017 report¹, p.57

RECOMMENDATIONS FOR REDUCING BURDEN OF MENTAL HEALTH ON THE COMMUNITY

Medicine review services to make sure medicines in mental health are used safely and effectively

Most medicines used for mental illnesses cause many problematic side effects which may persist, cause significant burden, and can be a cause of non-adherence and relapse.

Consequences of poor adherence in psychosis include increased rates of relapse, hospitalisation and suicide.⁹

Psychotropic medicines can cause a range of varying side effects including drowsiness, weight gain, gastrointestinal symptoms, or sexual dysfunction; some which can be overwhelming or intolerable for people to manage. Hence, it is critically important that whenever medicines are used to treat mental illnesses, the expertise of pharmacists is utilised appropriately to ensure safe, effective and quality use of those medicines. However, the Draft Report fails to recognise the important place of medicines in the management of mental health problems, and the challenges in ensuring they are used safely and appropriately.

In 2015, the NSW Mental Health Commission released 'Medication and Mental Illness: Perspectives' which provides insights into the use of psychotropic medications from the perspectives of consumer, carers, families and mental health workers.¹⁰ It highlights concerns about the reliance on medicines in the treatment of mental illness; challenges within the health system that can lead to inappropriate prescribing or polypharmacy, consumers and carers not being informed about side effects, or the lack of medication review; consumers and carers not feeling listened to about medicine concerns and the burden of medicine costs and side effects.¹⁰ It is also important to note that many consumers and carers also highlighted their positive experiences with medicines in this report and how the use of medicines, alongside caring and compassionate clinicians, were an important part of their recovery journeys.

Consumers with severe and persistent mental illness also experience poor physical health, with people living with schizophrenia dying 15-20 years earlier than the general population, and most of this is due to causes we should be able to avoid.¹¹ These issues can often be overlooked or undertreated by health services.

Given over 85% of psychotropic medicines are being prescribed in primary care,² there is a significant opportunity to utilise the trusted and accessible network of community pharmacists in Australia (See Appendix 2) to help close this gap.

Currently the *PharMlbridge* (Bridging the Gap between Physical and Mental Illness in Community Pharmacy project) study is investigating pharmacists' roles with relation to mental health in primary care.

PharMlbridge is a randomised controlled trial across Australia of a pharmacist-led medicine support service for people living with severe and persistent mental illness, with a focus on addressing the physical health needs of consumers. This study is a partnership between the Pharmacy Guild of Australia, the Pharmaceutical Society of Australia, The University of Sydney and Griffith University funded by the Australian Government Department of Health under the Pharmacy Trial Program and is commencing in 2020.

RECOMMENDATION 1

Develop and implement regular review of medicines for people with mental ill health to reduce the time to respond to medication-related problems and to reduce debilitating side effects from medicines which can be preventable.

Based on outcomes from the *PharMlbridge* trial and other research evidence, sustainable service models should be developed and implemented through community pharmacies to utilise the skills of pharmacists to better support the safe and quality use of medicines for people living with mental illnesses.

Personalising medicine therapies: pharmacist advice and pharmacogenomics

Given the potential burden of side effects from psychotropic medicines and the possibility of needing to take medicines for long periods of time, medicine safety practices and strategies for people with mental ill health and across mental health services need improvement.

For example, despite widespread use, approximately 70% of individuals do not respond to their first antidepressant trial.¹² A consequence of this is a high proportion of individuals live with unresolved depressive symptoms, leading to worsening quality of life, inability to work and a decline in overall functioning.

Recent meta-analyses suggests that pharmacogenomic-guided treatment of depression can improve treatment response.^{13, 14} The economic savings of pharmacogenomics testing in depression has been estimated at \$3,962 per individual in the US healthcare system.¹⁵

Delivering pharmacogenomic-guided management for moderate to severe mental illness will allow for effective and efficient treatment, minimising the impact of this condition on the individual and their family/ carers, healthcare system and society. Current treatment guidelines for depression are not personalised, with choice of antidepressant and dosing often based on trial and error. Many individuals experience under-treatment resulting in poor depression management or over-treatment and suffer unnecessary side effects.

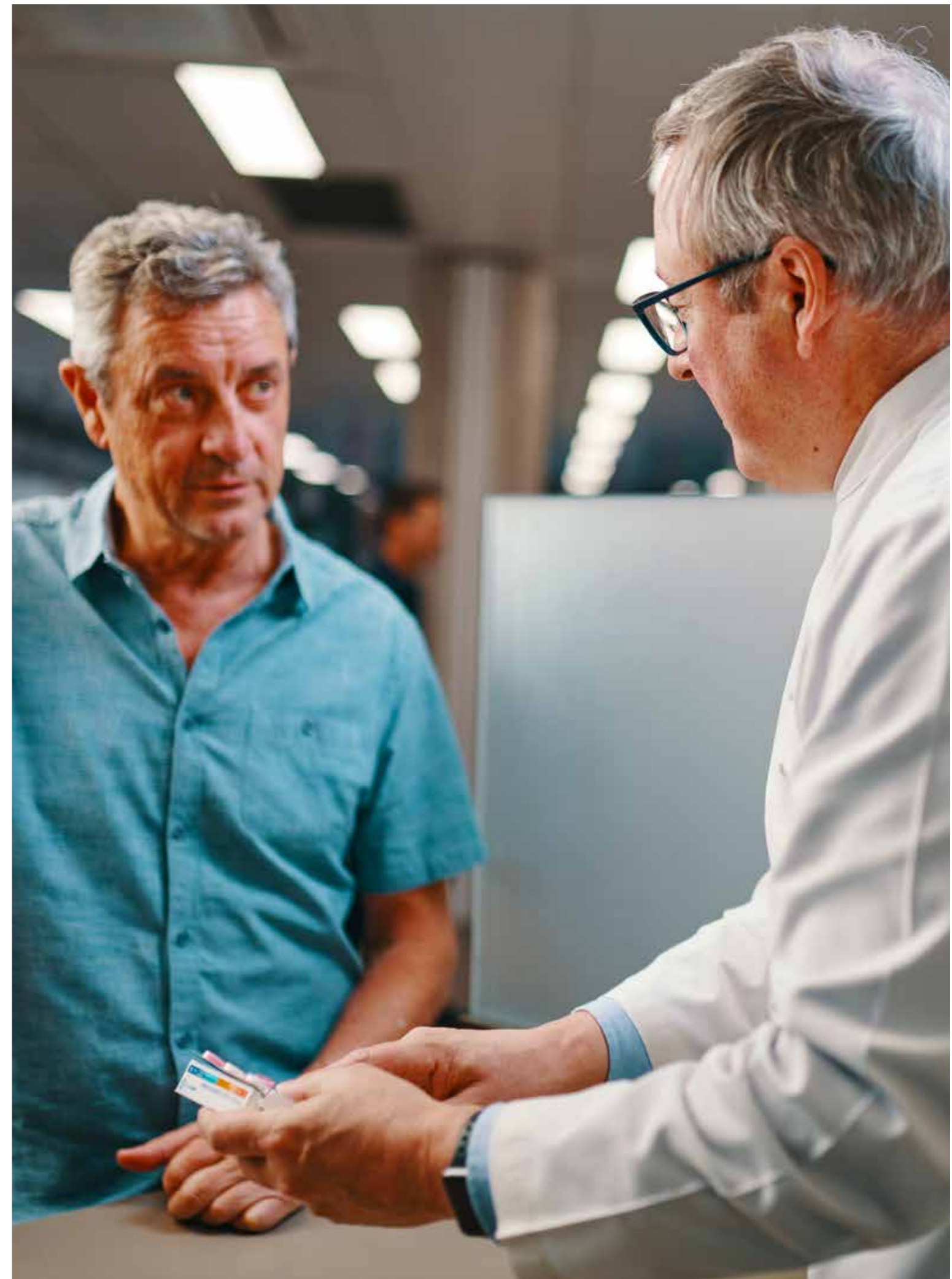
Consumers and carers need more personalised information about their medicines and also need to be more engaged in shared decision making around treatment options, including the use of medicines, monitoring of the effects and side effects of medicines is frequently inadequate. This has been recently highlighted by the ACSQHC report of medicine safety in mental health,¹ which recommended improvements in the medicine safety practices, as well as better communication and engagement with mental health consumers and carers about using medicines safely.

The aim should be to build capacity in primary care for delivery of pharmacogenomic-guided antidepressant treatment in mental illness through an evidence-based model of GP and pharmacist collaboration with consumers in primary care. Addressing this translation gap is fundamental to meeting the objectives of the National Medicines Policy in the context of government policy including the Genomics Health Futures 10 year plan.

RECOMMENDATION 2

Incorporate pharmacogenomic testing in primary care supported by medicines expertise of pharmacists for people with mental ill health to personalise medicine therapies to improve the safe and quality use of medicines.

2



Community pharmacists: Supporting people in mental health crisis

There is growing recognition of community pharmacists' role as important first-responders to mental health crisis situations, due to their accessibility and trust, as well as the common use of medicines as a means for self-harming behaviours.^{16,17} A 2019 Australian and Canadian survey of more than 400 community pharmacists about their experiences of people at risk of suicide found that¹⁸:

- 85% had interacted with someone at risk of suicide at least once
- 10% of pharmacists had interacted with someone at risk of suicide more than 10 times.

Pharmacists were asked about their most prominent experience of someone at risk of suicide, with:

- two thirds of pharmacists reporting concerns arose after the patient directly indicated their thoughts of suicide, while only 14% of pharmacists directly inquired to gather this information themselves
- more than 60% of pharmacists felt uncomfortable about their involvement in the encounter, with 1 in 4 feeling dissatisfied with how they handled the situation.¹⁸

Further qualitative analysis from this study identified the emotional toll these situations can have on pharmacists and that they can often feel isolated and ill-equipped to handle these situations in the pharmacy setting.¹⁹

This research demonstrates the need to better integrate pharmacists as part of suicide prevention strategies and support pharmacists in their triage role in providing support to people they encounter in mental health crisis situations.

RECOMMENDATION 3

Integrate pharmacists in suicide prevention strategies, including supporting pharmacists in their triage role of providing support to people they encounter in mental health crisis situations.

3

Community pharmacists: Supporting early detection and intervention in mental illness

The Draft Report recognises the importance of primary care as the first gateway for many people to access help for mental health problems. However, the report focusses on the role of GPs as both the gateway and gatekeeper in assessing and managing people with mental health problems. Pharmacists also play an important role in recognising potential signs and symptoms of mental ill-health and referring on to their GP for further assessment. Pharmacists are trusted and accessible health professionals, often coming into contact with consumers experiencing mental ill health, particularly consumers with depression.

Previous research has highlighted pharmacists are capable of identifying people at risk of depression and referring on appropriately,²⁰ which is important as at-risk people often delay seeking care from their GP:

- One in five patients who needed to see a GP (22%) indicated that they delayed or avoided seeing the GP for a reason other than cost.²¹
- Reasons for delaying or not booking an appointment with a GP when needed included being too busy, long wait times or unavailability.²¹

Trained pharmacists are capable of identifying people at risk of depression and referring appropriately, helping to improve early detection, diagnosis and treatment.²⁰ Furthermore, people diagnosed with other chronic health conditions who may be at risk of undetected mental health issues frequently consult pharmacists for the supply and optimal use of medicines, including adherence, managing side effects and rationalising drug therapy, and this provides an opportunity for early intervention.

RECOMMENDATION 4

Support pharmacists, who are often one of the only front-line healthcare providers in rural and remote regions, to incorporate early identification, triage and support for people with mental ill health.

4

Mental health first aid: Building pharmacist workforce capacity in mental health

The Draft Report recognises that GPs could be better supported in assessing consumers with mental health problems, managing the side effects of mental health medications and connecting patients into other services. PSA suggests these should be roles that are performed by both a consumer's GP and pharmacist working collaboratively to ensure the best outcome for each consumer is achieved.

The Draft Report also highlights the need for continuing professional development courses to upskill GPs about best practice approaches to managing medications used to treat mental illness. In addition, this should be broadened to support further education and support for all primary healthcare professionals that play an important role in providing mental health care, including GPs and pharmacists.

RECOMMENDATION 5

Ensure pharmacists, as frontline health professionals in contact with people with mental ill health, have the required expertise such as mental health first aid, to support early identification, triage and support for people with mental ill health.

5



APPENDICES

APPENDIX 1:

ROLE OF PHARMACISTS IN MENTAL HEALTH

In 2013 PSA developed *A framework for pharmacists as partners in mental health care*²² in consultation with mental health consumers, carers and care coordinators, mental health policy and practice experts, pharmacists, general practitioners, psychiatrists, psychologists and mental health nurses.

The Framework articulates how we can better integrate pharmacists into the mental health care team and utilise their expertise across a range of areas (**Box 3**).

- Direct services, such as medicine adherence support, crisis intervention or medication review, which are aligned broadly with four main aims for mental health care service delivery:
 - health promotion;
 - supporting early detection and intervention;
 - minimising illness; and
 - maximising recovery.
- Indirect services, including education, academic detailing and policy development.

Box 3: Roles for pharmacists in mental health, Excerpt from *A framework for pharmacists as partners in mental health care*²²

Pharmacists are experts in medicines and have a primary responsibility at all times to see medicines used safely, judiciously and effectively. This role supports the goals and objectives of Australia's National Medicines Policy²³ to 'meet medication and related service needs, so that both optimal health outcomes and economic objectives are achieved'.




The attributes of pharmacists are outlined with the National Competency Standards Framework for Pharmacists in Australia (2016)²⁴:

"Pharmacists use their expertise in medicines to optimise health outcomes and minimise medication misadventure. They apply their knowledge of medicines and poisons to promote their safe use and avoid harm to users and others in the community.

The practice of pharmacy includes the custody, preparation, dispensing and provision of medicines, together with systems and information to assure quality of use. Pharmacists provide health care, education and advice across all settings to promote good health and to reduce the incidence of illness. Pharmacists provide direct care to patients and also have a broader role in enhancing public health and quality use of medicines in the community."

Pharmacists support mental health through their roles in community pharmacies, aged care, general practices and hospital pharmacies. In addition to clinical care roles pharmacy practice can extend to working in management, administration, education, research, advisory, regulatory or policy development roles; and any other role which supports safe, effective service delivery.

Table 1: Role of pharmacists in patient-care roles²⁵

 Supply of medicines	 Patient-level activities	 Clinical governance	 Education and training
<ul style="list-style-type: none"> • Dispense prescribed medicines • Compound medicines for an individual patient • Provide non-prescription medicines • Facilitate complex supply arrangements, such as staged supply, dose administration aids and remote supply • Administer medicines, such as opioid substitution therapy and vaccinations • Procurement of medicines and therapeutic devices. 	<ul style="list-style-type: none"> • Identify, resolve, prevent and monitor medication use and safety problems • Reduce polypharmacy and optimising medication regimens using evidence-based guidelines, recommending cost-effective therapies where appropriate • Support or lead chronic disease medication management consultations • Undertake assessment or referral in primary care • Medicine reconciliation through transition of care • Prescribe medicines within scope of practice. 	<ul style="list-style-type: none"> • Deliver evaluation audits on best practice management for chronic disease (e.g. CVD, diabetes) • Develop and lead clinical governance activities centred around the quality use of medicines • Collaboratively lead and develop systems, processes and communication strategies to reduce the risk of medicine misadventure • Promote and enhance the uptake of electronic and self-directed care at a systems level • Improve the quality of prescribing, such as prescribing of high-risk medicine or high cost therapies including biologics • Lead and undertake research which informs and improves medicine use. 	<ul style="list-style-type: none"> • Develop and lead education and training processes related to quality use of medicines • Deliver education sessions (such as new evidence, guidelines and therapies) • Respond to medicine information queries from other health professionals regarding patients (e.g. switching anticoagulants, antidepressants, opioid equivalence) • Education of undergraduate and postgraduate health professional students.

APPENDIX 2:

ACCESSIBILITY OF COMMUNITY PHARMACISTS IN AUSTRALIA IN SUPPORTING MENTAL HEALTH ISSUES.

Community pharmacists are highly trusted and core members of the primary healthcare team with a vital role through medicine supply and information provision. Given their accessibility, community pharmacists are in an ideal position to adopt a triage-style role and signpost consumers to other health care professionals and services.

There is a growing role for community pharmacists in the support and management of mental illness. Research has shown pharmacists are capable of identifying people at risk of depression and referring appropriately for diagnosis and therapy,^{20,26,27} managing psychotropic medication-related problems,^{28, 29} providing antidepressant adherence support and working within multidisciplinary mental health care teams.³⁰⁻³²

The network of community pharmacies across Australia provide an important avenue for Australians to seek advice regarding symptoms or treatments, or to talk to a trusted primary healthcare professional without the need for an appointment. This aligns with the needs identified in the Draft Report (as well as earlier mental health reform documents such as the National Mental Health Commission Review of Mental Health Programmes and Services 2014)⁸ which highlight the need to shift our focus to wellness, prevention of mental health problems and models of early intervention.

REFERENCES

- Roughead E, Procter N, Westaway K, Sluggett J, Alderman C. Medication safety in mental health Sydney: ACSQHC; 2017.
- Australian Institute of Health and Welfare. Mental health services in Australia. Canberra; 2019.
- Brett J, Karanges EA, Daniels B, Buckley NA, Schneider C, Nassir A, et al. Psychotropic medication use in Australia, 2007 to 2015: Changes in annual incidence, prevalence and treatment exposure. *Australian & New Zealand Journal of Psychiatry*. 2017;51(10):990-9.
- Kjosavik SR, Gillam MH, Roughead EE. Average duration of treatment with antidepressants among concession card holders in Australia. *Australian and New Zealand Journal of Psychiatry*. 2016;50(12):1180-5.
- Malhi GS, Bassett D, Boyce P, Bryant R, Fitzgerald PB, Fritz K, et al. Royal Australian and New Zealand College of Psychiatrists clinical practice guidelines for mood disorders. *Aust N Z J Psychiatry*. 2015;49(12):1087-206.
- Australian Bureau of Statistics. 3303.0 - Causes of Death, Australia, 2014. Canberra; 2014.
- Cairns R, Karanges EA, Wong A, Brown JA, Robinson J, Pearson S-A, et al. Trends in self-poisoning and psychotropic drug use in people aged 5–19 years: a population-based retrospective cohort study in Australia. *BMJ Open*. 2019;9(2):e026001.
- National Mental Health Commission. The National Review of Mental Health Programmes and Services. Sydney, Australia: National Mental Health Commission; 2014.
- Higashi K, Medic G, Littlewood KJ, Diez T, Granström O, De Hert M. Medication adherence in schizophrenia: factors influencing adherence and consequences of nonadherence, a systematic literature review. *Therapeutic Advances in Psychopharmacology*. 2013;3(4):200-18.
- Mental Health Commission of NSW. Medication and Mental Illness: Perspectives. Sydney; 2015.
- Lawrence D, Hancock KJ, Kisely S. The gap in life expectancy from preventable physical illness in psychiatric patients in Western Australia: retrospective analysis of population based registers. *BMJ*. 2013;346.
- Preskorn SH. Treatment Options for the Patient Who Does Not Respond Well to Initial Antidepressant Therapy. *Journal of Psychiatric Practice*. 2009;15(3):202-10.
- Bousman CA, Arandjelovic K, Mancuso SG, Eyre HA, Dunlop BW. Pharmacogenetic tests and depressive symptom remission: a meta-analysis of randomized controlled trials. *Pharmacogenomics*. 2019;20(1):37-47.
- Vilches S, Tuson M, Vieta E, Álvarez E, Espadaler J. Effectiveness of a Pharmacogenetic Tool at Improving Treatment Efficacy in Major Depressive Disorder: A Meta-Analysis of Three Clinical Studies. *Pharmaceutics*. 2019;11(9):453.
- Maciel A, Cullors A, Lukowiak AA, Garces J. Estimating cost savings of pharmacogenetic testing for depression in real-world clinical settings. *Neuropsychiatric disease and treatment*. 2018;14:225-30.
- Kassir H, Eaton H, Ferguson M, Procter NG. Role of the pharmacist in suicide prevention: primely positioned to intervene. *Journal of Pharmacy Practice and Research*. 2019.
- Murphy A.L, Hillier K., Ataya R., Thabet P., Whelan A., O'Reilly C.L., et al. A scoping review of community pharmacists' roles and interventions for suicide. *Canadian Pharmacists Journal / Revue des Pharmaciens du Canada*. 2017;(accepted for publication 31 March 2017).
- Murphy AL, O'Reilly CL, Ataya R, Doucette SP, Burge FI, Salvador-Carulla L, et al. Survey of Australian and Canadian Community Pharmacists' Experiences With Patients at Risk of Suicide. *Psychiatr Serv*. 2019;appips201900244.
- Murphy AL, Ataya R, Himmelman D, O'Reilly C, Rosen A, Salvador-Carulla L, et al. Community pharmacists' experiences and people at risk of suicide in Canada and Australia: a thematic analysis. *Soc Psychiat Epidemiol*. 2018.
- O'Reilly CL, Wong E, Chen TF. A feasibility study of community pharmacists performing depression screening services. *Res Soc Adm Pharm*. 2015;11(3):364-81.
- The Royal Australian College of General Practitioners. *General Practice: Health of the Nation 2018*. East Melbourne, VIC: RACGP; 2018.
- Pharmaceutical Society of Australia. *A framework for pharmacists as partners in mental health care*. Canberra 2013.
- Australian Government Department of Health and Ageing. *National Medicines Policy*. Canberra; 1999.
- Pharmaceutical Society of Australia. *National Competency Standards Framework for Pharmacists in Australia 2016*. Canberra: Pharmaceutical Society of Australia; 2017.
- Pharmaceutical Society of Australia. *Pharmacists in 2023: Roles and remuneration*. Canberra: Pharmaceutical Society of Australia 2019.
- Knox ED, Dopheide JA, Wincor MZ, Han PK, Knox ED, Dopheide JA, et al. Depression screening in a university campus pharmacy: a pilot project. *Journal of the American Pharmacists Association: JAPhA*. 2006;46(4):502-6.
- Rosser S, Frede S, Conrad WF, Heaton PC. Development, implementation, and evaluation of a pharmacist-conducted screening program for depression. *J Am Pharm Assoc*. 2013;53(1):22-9.
- Nishtala PS, McLachlan AJ, Bell JS, Chen TF. Psychotropic prescribing in long-term care facilities: impact of medication reviews and educational interventions. *Am J Geriatr Psychiatry*. 2008;16(8):621-32.
- Gisev N, Bell JS, O'Reilly CL, Rosen A, Chen TF. An expert panel assessment of comprehensive medication reviews for clients of community mental health teams. *Soc Psychiatry Psychiatr Epidemiol*. 2010;45:1071-9.
- Bell J, Rosen A, Aslani P, Whitehead P, Chen TF. Developing the role of pharmacists as members of community mental health teams: Perspectives of pharmacists and mental health professionals. *Res Social Adm Pharm*. 2007;3(4):392-409.
- Finley PR, Rens HR, Pont JT, Gess SL, Louie C, Bull SA, et al. Impact of a collaborative pharmacy practice model on the treatment of depression in primary care. *Am J Health Syst Pharm*. 2002;59 (16):1518-26.
- Gable K, Stunson M. Clinical Pharmacist Interventions on an Assertive Community Treatment Team. *Community Ment Health J*. 2010;46(4):351-5.

PHARMACEUTICAL SOCIETY OF AUSTRALIA LTD
ABN 49 008 532 072

NATIONAL OFFICE

PO Box 42
Deakin West ACT 2600
P: 02 6283 4777

E: psa.nat@psa.org.au

CONTACT

DETAILS

P: 1300 369 772

AUSTRALIAN

CAPITAL TERRITORY

Level 1, Pharmacy House
17 Denison Street
Deakin ACT 2600

NEW SOUTH WALES

32 Ridge Street
North Sydney NSW 2060

QUEENSLAND

Level 2, 225 Montague
Road
West End QLD 4101

SOUTH AUSTRALIA

Suite 7/102
Greenhill Road
Unley SA 5061

TASMANIA

161 Campbell Street
Hobart TAS 7000

VICTORIA

Level 1, 381 Royal Parade
Parkville VIC 3052

WESTERN AUSTRALIA

21 Hamilton Street
Subiaco WA 6008