



An expanded prescribing role for pharmacists – an Australian perspective

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REVIEW

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Abstract

Expanded pharmacist prescribing is a new professional practice area for pharmacists. Currently, Australian pharmacists' prescribing role is limited to over-the-counter medications. This review aims to identify Australian studies involving the area of expanded pharmacist prescribing. Australian studies exploring the issues of pharmacist prescribing were identified and considered in the context of its implementation internationally. Australian studies have mainly focused on the attitudes of community and hospital pharmacists towards such an expansion. Studies evaluating the views of Australian consumers and pharmacy clients were also considered. The available Australian literature indicated support from pharmacists and pharmacy clients for an expanded pharmacist prescribing role, with preference for doctors retaining a primary role in diagnosis. Australian pharmacists and pharmacy client's views were also in agreement in terms of other key issues surrounding expanded pharmacist prescribing. These included the nature of an expanded prescribing model, the need for additional training for pharmacists and the potential for pharmacy clients gaining improved medication access, which could be achieved within an expanded role that pharmacists could provide. Current evidence from studies conducted in Australia provides valuable insight to relevant policymakers on the issue of pharmacist prescribing in order to move the agenda of pharmacist prescribing forwards.

Key Words

Pharmacist prescribing, Australia, pharmacy clients, Australian pharmacy, non-medical prescribing

Introduction

The traditional role of the pharmacist is rapidly evolving. Pharmacists are developing skills and expertise in evidence based practice and patient care which are enabling them to assume new roles with a focus on patient care.^{1,2} One of these expanded roles is prescribing. In some countries, including Australia, medications previously only prescribed by medical practitioners can now also legally be prescribed by pharmacists.^{1,3,4} There is evidence suggesting that expanded pharmacist prescribing may in fact formalize already existing practices.^{5,6,7} A recent worldwide survey of hospitals in 85 countries indicated that pharmacists often prescribed medications under specific circumstances.^{8,9} Findings of an Australian study also confirmed this, by indicating that de facto prescribing was undertaken by 37% of their study participants who were hospital pharmacists.¹⁰ Potential benefits of expanded pharmacist prescribing have included: improvement of patient care, improved access to medication, optimisation of medication management and better resource utilization.^{1,6,11} Evidence from the recent introduction of pharmacist prescribing in the United Kingdom (UK) has suggested improved patient management.¹² One study has reported improved adherence to drug dosing guidelines with pharmacist supplementary prescribers whereas another reported that doctors believed pharmacist supplementary prescribing can reduce their workload and errors.^{13,14} Support has been consistent since even some decades ago there was evidence in support of pharmacists' prescribing skills.^{15,16}

International developments

A role in expanded pharmacist prescribing is emerging internationally in various stages with the UK leading the way having introduced both supplementary (commenced in 2003) and independent models (commenced in 2006)



of prescribing.^{6,11,17-20} An improvement in patients' access to medicines, better utilisation of pharmacists' skills, as well as easing the burden of GPs were the main objectives for introducing expanded prescribing for pharmacists in the UK.^{6,11,17,18,21,22}

In a supplementary prescribing model there is a partnership between an independent prescriber (i.e. doctor) and the pharmacist. This partnership aims to implement an agreed patient specific clinical management plan where doctors make the diagnosis while pharmacists prescribe according to the agreed plan.^{1,5,17,21} In an independent prescribing model the pharmacist assumes the full responsibility for patients' assessment, diagnosis and clinical management.^{1,22} It should be noted that the English Health Department emphasised that pharmacist independent prescribers must only prescribe within their level of competency in accordance with guidelines published by the Royal Pharmaceutical Society of Great Britain (RPSGB).²² According to the RPSGB standards, pharmacists should separate dispensing from prescribing.

The introduction of an independent prescribing model for pharmacists in the UK has occurred alongside an existing supplementary model and was not designed to replace the supplementary model. The supplementary model was considered suitable for new pharmacist prescribers and for pharmacists working within a healthcare team.¹¹ It was also a suitable model for pharmacists working with patients with chronic conditions such as cardiovascular disease and diabetes. Therefore, this model is intended to have a continued role in the UK healthcare system.¹¹

Pharmacists in the USA are involved in limited prescribing roles with Collaborative Drug Therapy Management (CDTM) being the most advanced model adopted for pharmacists. In this model the doctor diagnoses, while the pharmacist selects, initiates, monitors, modifies and continues or discontinues therapy accordingly.^{1,23,24} This form of pharmacist prescribing is authorised in 45 states in America.^{8,25-27} The main difference between this model and the UK supplementary prescribing model is that for the CDTM model there is a generic management plan for patients whereas the UK supplementary model involves a specific clinical management plan for each patient.⁵

Over the past decade Canada has seen major progress towards an expansion of pharmacists' prescribing roles. The main objective of pharmacist prescribing in Canada has been to improve patients' health through optimising pharmacists' knowledge and expertise.⁸ Currently different provinces are in various stages of granting expanded prescribing roles to pharmacists but most of them have passed legislation enabling implementation of some type of prescribing.⁸ Prescribing models in place allow pharmacists to renew and adapt a prescription, prescribe in emergency situations and initiate or manage drug therapy.^{8,28} In addition to a variation

in prescribing authority granted to pharmacists, there are also different requirements for pharmacists gaining prescribing rights. It should be emphasised that controlled drugs and narcotics are not allowed to be prescribed by pharmacists.²⁸

In New Zealand any registered health professional including pharmacists can enter into dependent forms of prescribing such as protocols and 'standing orders'.¹ Recently the agenda for expanded pharmacist prescribing has progressed. The Pharmacy Council of New Zealand (PCNZ) has successfully completed consultations with stakeholders regarding a proposed 'pharmacist prescriber scope of practice'.²⁹ These consultations indicated a strong support by stakeholders regarding the proposed scope. This proposed model of practice allows qualified experienced clinical pharmacists to prescribe prescription medicines including controlled drugs when working in a collaborative healthcare team environment. The PCNZ has explicitly forbidden pharmacist prescribers to dispense their prescriptions or have a financial interest in a pharmacy.²⁹ An application has already been made by the Council to the Health Workforce New Zealand for pharmacists to gain prescribers' status and a decision is expected in due course.²⁹

Australian perspective

Pharmacists in Australia currently prescribe medications listed under Schedules 2 (S2) and 3 (S3) of the Standard for the Uniform Scheduling of Medicines and Poisons (SUSMP). These medicines are available OTC only from community pharmacies (except in exceptional circumstances such as isolated communities). Australian pharmacists are also able to continue the supply of prescription only medications based on 'emergency supply' and 'repeat prescription' systems. The repeat system of prescribing allows pharmacists to continue to re-fill doctors' initial prescriptions usually monthly for up to 12 months, dependent on the medication and when authorised by the doctor. It should be noted that non-medical prescribing in Australia has already been expanded to include dentists, optometrists, physiotherapists, podiatrists and nurses.

a) Studies exploring pharmacists' views

A number of studies on the issue of pharmacist prescribing have been conducted in Australia. A descriptive study addressed the awareness of international developments in pharmacist prescribing and whether respondents would benefit from prescribing activities.³⁰ Views of Australian hospital pharmacists were



assessed in another study.³¹ Both studies, although limited in representativeness, reported support by pharmacists for expanding their prescribing role. A survey of a large number of hospital pharmacists in Australia found that development of a collaborative prescribing model would be well supported and could improve hospital services by their provision in a more timely manner.¹⁰ According to these authors, hospital pharmacists indicated support for prescribing within their competency with most pharmacists considering prescribing in a specialised clinical area.¹⁰ Another recent study in Australia piloted a UK non-medical prescribing course and also evaluated Australian hospital pharmacists' views on non-medical prescribing.³² These authors reported some positive and negative themes regarding training experiences of their participants.³² Expanded pharmacist prescribing was viewed positively. In this study, participants were not comfortable with the term 'independent prescribing' mainly due to potential perceived reaction from doctors. Potential barriers such as time management and work pressure were also identified.³²

Bessell et al. proposed four models which would allow pharmacists to perform expanded prescribing roles.³⁴ These models were: i) medicine maintenance (a collaborative approach allowing pharmacists to prescribe according to a patient-specific plan designed by the doctor for patients in Residential Aged Care Facilities), ii) advanced practitioner (a model which would allow hospital pharmacists to prescribe medicines in a supplementary fashion), iii) protocol management (a model which would allow pharmacists to prescribe prescription medicines according to a 'defined population-based protocol') and iv) formulary prescribing (an advanced version of currently available S3 prescribing in community pharmacies allowing pharmacists to claim currently prescribed S3 medicines via the Pharmaceutical Benefits Scheme).³³

A study conducted by Hoti et al.³⁴ explored Australian pharmacists' attitudes on different aspects of pharmacist prescribing. This was the first major study which examined the views of a large sample of Australian pharmacists and found an overwhelming support for an expanded prescribing role. This support was not dependent on respondents' location, gender, professional practice area, years of registration as pharmacists or pharmacy ownership.^{34,35} This study showed that a vast majority of respondents indicated they would need further training in order to assume further prescribing roles.

The major reasons cited for expanding the pharmacist scope of prescribing included better utilization of pharmacists' professional skills, easing of the burden from overloaded GPs and pharmacists' drug knowledge.³⁴ Improved access to medications for patients was also an important potential driver to expanding pharmacists' prescribing role.³⁴ This study

reported that currently, inadequate training in disease diagnosis followed by inadequate training in patient assessment and monitoring were perceived to be the strongest barriers to expanded pharmacist prescribing in Australia.³⁴ This study also identified potential drivers to expanded pharmacist prescribing.³⁴

In terms of pharmacist prescribing models preferred, Hoti et al. reported that a majority of pharmacists preferred prescribing in a supplementary model.³⁴ Respondents who supported only an independent prescribing model indicated preference for prescribing only in the areas of pain management, a limited range of infections and to a lesser extent asthma. More therapeutic areas of prescribing were preferred by supporters of a supplementary prescribing model.³⁴ This study also found that both supplementary and independent prescribing models were positive predictors of expanding pharmaceutical services through prescribing with the supplementary prescribing being more strongly associated.³⁴

Hoti et al. explored basic infrastructural implications for accommodating an expanded pharmacist prescribing role. It was found that a majority of respondents believed that additional IT resources were needed and also considered that prescribing and dispensing should be carried out separately. Only a third of respondents considered they have sufficient access to patient information.³⁵

b) Studies exploring patients' views

There is a limited amount of literature data focused on exploring the attitudes of one of the key stakeholders involved in pharmacist prescribing, that is, patients.^{1,6,11,36} In the UK, studies have thus far considered the attitudes of the general public and patients who had already experienced expanded pharmacist prescribing. These studies have reported support and benefits from this role.^{37,38,39,40}

In Australia, Bessell et al. also explored consumers' perspectives. These authors indicated that consumers were supportive of improved access to medications.³³ Hoti et al. reported the views of pharmacy clients who regularly filled at least one prescription medication from a pharmacy and had not experienced expanded pharmacist prescribing.⁴¹ This study found that a vast majority of pharmacy clients indicated high levels of satisfaction with current professional services offered by pharmacists as well as their drug knowledge.⁴¹ Pharmacy clients had positive views in terms of them trusting pharmacists to assume further prescribing roles but felt comfortable with



this role only if the diagnosis had been initially made by a doctor.⁴¹

One third of respondents indicated that they would accept pharmacists both diagnosing and prescribing for the condition diagnosed. Pain management followed by anti-infectives were the only areas that this group of respondents supported pharmacists both diagnosing and prescribing. A majority of pharmacy clients indicated that pharmacists would need further training in order to assume additional prescribing roles.⁴¹

The importance of improved medication access to medicines, highlighted by Bessell et al. was also confirmed by Hoti et al. who found that pharmacy clients considered that their medication access would be improved if pharmacists had expanded prescribing roles (67% agreed/strongly agreed).⁴¹ Furthermore, improved medication access was found to be the strongest positive predictor of pharmacy clients' perception of trust to expanded pharmacist prescribing followed by the supplementary model of prescribing and then the independent model of prescribing.⁴¹ Hoti et al. also found that the Agency theory can be used in the area of pharmacist prescribing in further understanding the relationship between principals (i.e. pharmacy clients) and agents who perform actions on their behalf (i.e. doctors and pharmacists).^{41,42} These authors cautioned that the introduction of an expanded prescribing role for pharmacists, according to this theory, may disrupt the existing relationship between doctors and patients and recommended that this role for pharmacists be introduced in a way that facilitates this existing relationship.⁴¹

This study also indicated that almost half of the respondents were willing to pay a fee to pharmacists for their prescribing services whilst the community pharmacy was the preferred location for pharmacist prescribers (as opposed to their own office or GP's surgery).^{35,41}

Consideration of expanded pharmacist prescribing in Australia seems to be more advanced in the state of Queensland where there are currently two trials in the implementation stage being conducted. These trials are exploring the skills, knowledge and competencies of pharmacist prescribers and are both being conducted in hospital settings.⁴³ Furthermore, in Queensland, approval has been granted to allow pilots of pharmacist prescribing.³²

Discussion

Current evidence suggests that the uptake of expanded pharmacist prescribing in Australia is lagging behind countries such as the UK, USA, Canada and New Zealand.^{1,6,8,10,27} The available literature on expanded pharmacist prescribing in Australia has indicated strong support by the pharmacy profession for this role.^{10,30-32,34,41} Additionally, Australian

studies have also suggested that one of the key stakeholders (i.e. patients) were supportive of an expanded prescribing role for pharmacists with improved medication access to medicines being a strong driver for this support.^{33,41}

Both pharmacists' and pharmacy clients' views are in accordance in terms of key issues surrounding the issue of expanded pharmacist prescribing.^{10,34,41} Pharmacists and pharmacy clients have indicated support for pharmacists having an expanded role in prescribing and both groups indicated strongest support for a prescribing model in which doctors retained their primary role in diagnosis, that is, a supplementary prescribing model. In both groups, supplementary and independent prescribing models were positive predictors of pharmacist prescribing with a supplementary model being a stronger predictor.^{34,41} Weeks et al. has reported that a collaborative form of prescribing was also supported by hospital pharmacists.¹⁰ These data have suggested that a supplementary prescribing model where doctors retain their primary role in diagnosis while pharmacists prescribe collaboratively should initially be considered in Australia. In terms of Bessell et al. proposed models, the above findings by Hoti et al. and Weeks et al. suggest that the 'advanced practitioner' and 'protocol management' prescribing models, in which doctors retain their primary role in diagnosis, would be well received by the pharmacy profession in Australia.^{10,33,34}

The third point of agreement between pharmacists and pharmacy clients reported by Hoti et al. is the therapeutic areas of prescribing.^{34,41} When an independent prescribing model only was supported by pharmacists and pharmacy clients, therapeutic areas of pain management and a limited number of infections were the major areas of prescribing supported (with asthma following in both groups). These findings should be interpreted whilst considering the significance of improved access to medicines in relation to expanded pharmacist prescribing reported by both Bessell et al. and Hoti et al. Improved access to medicines for a limited range of infections and pain management may be more relevant during after hours, weekend and in rural areas and this highlights the need for further research which would evaluate the impact of expanded pharmacist prescribing in these specific circumstances. Finally, both pharmacists and pharmacy clients considered that further training is needed for pharmacists to assume additional prescribing roles, with Weeks et al. reporting that this training should be customised to the Australian setting.^{32,34,41}

The views of the medical profession in Australia regarding expanded pharmacist prescribing have thus far not been



researched. However, the Australian Medical Association (AMA) has in the past indicated that it does not support such a role for pharmacists. An AMA president has pointed out that "doctors must maintain sole responsibility for prescribing medicines to patients".⁴⁴ This was a reaction to a limited pharmacist prescribing extension proposed by the Pharmacy Guild of Australia (PGA), of a list of 20 medicines that pharmacists should be able to prescribe. Patient safety, lack of pharmacist training and a conflict of interest with pharmacists having both dispensing and prescribing rights were emphasized as the main reasons in AMA's stance.⁴⁴ However, it should be noted that the Pharmaceutical Society of Australia and Society of Hospital Pharmacists of Australia (SHPA) have already indicated that prescribing and dispensing roles should be separated.^{45,46} It should be noted that most health professionals have already established limited independent non-medical prescribing rights in Australia. The UK experience with supplementary prescribing suggests that doctors had positive views post-introduction of this form of prescribing.^{14,47}

The available Australian literature has also identified that pharmacists and pharmacy clients prefer doctors retaining their primary role in disease diagnosis.^{10,34,41} This, together with a close collaboration between doctors and supplementary pharmacist prescribers, may address doctors' concerns regarding patients' safety while patients take advantage of the potential benefits of an expanded prescribing role for pharmacists.^{1,6,11-14} A supplementary prescribing model could be implemented in Australia in a different form to that in the UK. This model could be customized to Australian settings whilst taking into consideration potential limitations of the UK supplementary prescribing model reported, such as those involved around the use of clinical management plans.^{6,11,12,48} Considering the UK experience with this model of prescribing, an introduction of such a model in Australia could also result in beneficial outcomes for patients.^{1,11,12}

The concern regarding pharmacists' training was also addressed by Australian pharmacists (and pharmacy clients) who overwhelmingly indicated they needed further training before additional prescribing roles were assumed.³⁵ In addition, the SHPA's position on prescribing by non-medical professionals is that "only health professionals who have undergone credentialing within their defined practice setting, in pharmacology, pharmacokinetics and applied therapeutics, meeting the standard core competencies for safe and effective prescribing, should be registered to prescribe medicines following diagnosis".⁴⁵

Conclusion

Research data on pharmacist prescribing in Australia, has reported that pharmacists' and their clients' views are strongly positive towards expanded pharmacist prescribing. These data provides considerable insight for the relevant policymakers in order for the agenda of expanded pharmacist prescribing to be moved forward. Further research assessing pharmacist prescribing roles for a limited range of infections and pain management should be the next step. In addition, the role of pharmacist prescribing in rural settings, after hours and weekend periods should be considered. There is also a need for research assessing the views of the medical profession in Australia on the issue of pharmacist expanded prescribing. Currently available Australian studies indicated that both pharmacists and their clients prefer expanded pharmacist prescribing being carried out in collaboration with doctors, while doctors retain their primary role in diagnosis. An introduction of pharmacist prescribing should take into consideration the need to preserve existing relationship between doctors and patients.

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CONFLICTS OF INTEREST

The authors declare that they have no competing interests

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