



Monday 6 May 2019

Joe Brizzi  
Executive Officer  
Pharmacy Board of Australia  
Australian Health Practitioner Regulation Agency  
111 Bourke St  
Melbourne VIC 3000

Dear Mr Brizzi,

**RE: Public discussion paper on pharmacist prescribing**

The Society of Hospital Pharmacists of Australia (SHPA) is the national, professional, for-purpose organisation for over 5,300 leading pharmacists and pharmacy technicians working across Australia's health system, advocating for their pivotal role improving the safety and quality of medicines use. Embedded in multidisciplinary medical teams and equipped with exceptional medicines management expertise, SHPA members are progressive advocates for clinical excellence, committed to evidence-based practice and passionate about patient care.

In the face of healthcare challenges presented by Australia's ageing population and the need for greater provision of complex care in an acute setting, the value of pharmacists being able to prescribe is potentially significant. Pharmacy is one of the largest health professions with more than 30,000 registered pharmacists in Australia, and each year the workforce has expanded by approximately 3.1 per cent<sup>1</sup>. Pharmacy is a younger profession than other members of the multidisciplinary team with a median age of 39.3 (in contrast to doctors at 45.8 and nurses at 43.9)<sup>1</sup>. And the quality of pharmacy education in Australia is high, indicating pharmacists are highly skilled by completion of their qualification and internship. These statistics show that as a workforce, pharmacists have a key role to play in providing greater expertise in medicines management for the benefit of patients in an acute setting. Internationally this has been recognised with the implementation of prescribing roles limited to hospital settings such as pharmacist prescribing in critical care units in United Kingdom<sup>2</sup>, in New Zealand hospitals<sup>3</sup> and in some provinces of Canada<sup>4</sup>.

In this submission SHPA aims to complement extensive contributions made by other pharmacy and healthcare organisations. Whilst we acknowledge the numerous rationales in support of pharmacy prescribing, in this submission we focus only on those relevant to the acute setting and transitions.

**Support for collaborative prescribing – building on hospital pharmacy excellence**

SHPA supports the formal recognition of the pharmacy workforce capability to undertake collaborative prescribing via prescribing under both a structured prescribing arrangement and prescribing under supervision. SHPA believes the acute setting presents a unique opportunity for collaborative prescribing due to the close collaboration between hospital pharmacists and medical and nursing practitioners as part of a multi-disciplinary team; consistent access to supervision and review in this setting, existence of strong clinical governance frameworks not evident in other pharmacy settings and the high level of skills and experience typically demonstrated by hospital pharmacists.

**Structured prescribing arrangements**



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Over the last two decades, hospital pharmacy practice has moved away from exclusive medication supply functions to direct patient care and medication management at the patient bedside, as part of the multidisciplinary team. This shift to contemporary clinical pharmacy practice, as featured in SHPA's Standards of Practice for Clinical Pharmacy Services<sup>5</sup>, has progressively incorporated elements of collaborative prescribing to improve the quality and safety of medication charting for inpatients and discharge prescribing.

The foundations of clinical hospital pharmacy practice are built upon the principles of structured prescribing arrangements. For example, in providing pharmacy care to hospital inpatients, pharmacists will undertake a comprehensive medication reconciliation process to inform complete and accurate medication charting as patients are admitted to hospital. Through clinical notes and advice provided to prescribers, hospital pharmacists currently provide clinical and prescribing recommendations such as:

- Dose adjustments for medicines requiring therapeutic drug monitoring (e.g. aminoglycoside, warfarin)
- Dose adjustments for medicines in setting of renal or hepatic impairment
- Cessation, changes or dose adjustment of medicines where there are drug-drug, drug-disease state interactions
- Suggest orders for pathology tests and interpret results
- Assessment of appropriateness and dosing for venous thromboembolism prophylaxis
- Opioid analgesia de-escalation for patients with acute pain

In this way, in some facilities, hospital pharmacists are already participating in informal structured prescribing arrangements by suggesting amended dosages after clinical review of test results for prescriber authorisation. A formal structured prescribing arrangement would codify this practice and instituting dose recommendations so they could be prescribed by a pharmacist as directed by test results, interpreted in light of the patient's clinical condition. This increased efficiency is possible in an acute setting due to the existence of strong clinical governance frameworks which underpin all treatment in the hospital setting.

### **Prescribing under supervision**

Whilst the above clinical activities have formed the foundations and staples of hospital pharmacy practice in recent decades, innovation in hospital pharmacy – where the majority of innovation in the pharmacy sector is undertaken – has progressed towards developing care models which closely resemble prescribing under supervision. This is when hospital pharmacist expertise in medicines management is recognised to take on a greater role in delivering safe and quality care.

The informal provision of pharmacy prescribing support whilst overseen by a medical practitioner is well accepted in many Australian hospitals, particularly in outpatient clinics utilising key groups of medicines such as anticoagulants, analgesia medicines and medicines for kidney failure in renal clinics. In this setting, pharmacists are expertly skilled to prescribe under medical supervision, according to guidelines and protocols, after receiving a patient diagnosis from a medical practitioner and considering other patient factors. The close interaction pharmacists have with medical practitioners as part of the multidisciplinary team in a hospital setting is a clear asset. The capacity of pharmacists to undertake these responsibilities is increased by the ongoing digitalisation of healthcare, with hospitals around the Australia implementing electronic medical records, where charting and prescribing is now performed digitally, and it is convenient for medical professionals to monitor and supervise prescribing remotely.

Significantly, whilst non-medical prescribing is proven to be as safe as medical prescribing, and pharmacist charting to be of a higher quality than medical charting, empowering pharmacists to prescribe under supervision could greatly aid efficiency and capacity in an acute setting. Pharmacist prescribing under supervision could provide greater assistance to hospital doctors by increasing their capacity to take on

challenging medical treatment whilst passing routine medicines management to pharmacists. Allowing pharmacists to prescribe under supervision, and chart medicines immediately after they have undertaken reconciliation will significantly reduce the disruption to regular therapies for patients and support a smoother transition into crucial treatment. This would be particularly valuable for smaller and private hospitals, or highly dynamic clinical areas such as Emergency departments.

Furthermore, it is accepted that most prescribing at discharge is undertaken by junior medical officers. The pressures experienced by junior medical officers in hours of work and level of responsibility are well known<sup>6</sup>. Prescribing by hospital pharmacists has the potential to address some of these pressures in either a structured or supervised prescribing framework.

### Evidence and Public Need

SHPA fully supports collaborative prescribing for pharmacists in both a structured prescribing arrangement and under supervision. Support of collaborative prescribing by pharmacists in a variety of settings including hospitals, would assist efforts to tackle the 250,000 medication-related hospital admissions annually which cost the healthcare system \$1.4 billion each year<sup>7</sup> and thus successfully address a high-level need of the Australian community.

The role of a hospital pharmacist is very complex. Many specialist prescribers do not have comprehensive knowledge of medications and the interactions between medications outside their specialty whilst still needing to prescribe. Many junior doctors' knowledge of medication and medication interactions is still developing even as they take on significant prescribing responsibility at discharge or in other acute roles. Hospital Pharmacists play a valuable role as medicines experts supporting these medical practitioners as well as undertaking clinical practice and dispensing medicines. This expert skill level, and the clinical governance frameworks which underpin pharmacy care in an acute setting make hospital pharmacists ideally placed for collaborative prescribing.

Through review of patients and medication reconciliation at admission, Hospital pharmacists ensure patients simultaneously manage new treatment needs as well as treat pre-existing conditions. Hospital pharmacists also develop expertise in speciality practice areas such as cardiology, infectious diseases, oncology, women and newborn medicine, nephrology, critical care, emergency, pain management and surgery to name a few. Given the medical complexity of patients treated in an acute setting, hospital pharmacists are experts in complex medicine use not often seen or used in the community setting, such as:

- Complex intravenous antibiotic regimens requiring pharmacist intervention and frequent therapeutic drug monitoring to protect against toxicity
- Pharmacological venous thromboembolism prophylaxis administered under custodianship of pharmacists post-operatively
- Oral and injectable chemotherapy medicines as per complex chemotherapy treatment cycles and protocols
- Anti-rejection medicines for patients who have received organ transplants

This expertise could better optimised if pharmacists were able to work more collaboratively with the multidisciplinary team in a role which included limited prescribing. Evidence of pharmacy's efficacious and high-quality work with medicine is well known to the Pharmacy Board. Local evidence includes:

- In Queensland, research has demonstrated that collaborative prescribing in a major public hospital in Brisbane resulted in a 90% error-free rate compared to medical prescribing which had a 26% error-free rate<sup>8</sup>.

- Research in a major teaching hospital in Victoria has indicated that hospital pharmacists reduced medication errors in administration chart and discharge summaries from 80% and 60% respectively to 5%<sup>9</sup>.
- An economic evaluation of a partnered pharmacist charting pilot trial across seven public hospitals found the model had the potential to deliver ~\$202 million of efficiencies and savings annually if rolled out comprehensively across Victoria.
- Beyond discharge prescribing and medication charting, research has also shown that hospital pharmacists are able to undertake anticoagulant dosing and therapeutic drug monitoring with comparable clinical results to medical prescribers<sup>9</sup>.

### **Need for pharmacist prescribing in an acute setting to support residential aged care patients**

A proliferation of collaborative prescribing will also improve the timeliness and continuity of medication treatment, especially in care settings where access to medical prescribers is not at capacity such as residential aged care services and private hospitals outside of regular business hours. For example, aged care residents who are discharged back to residential aged care services from hospital are at great risk of being administered medicines from their medication chart prior to admission – due to lack of timely charting after discharge.

To combat this risk and ensure aged care residents are able to continue on their new medicines regimen post-discharge, some hospitals have taken the initiative to prepare interim residential care medication administration charts during the discharge process for aged care nurses to use until the patient is reviewed and their medicines charted on the residential care chart by a doctor. This has led to significant reduction in medication administration errors through reduced missed doses and reduced delayed doses<sup>10</sup>, and its benefits can be delivered nationally if pharmacist prescribing and charting is recognised nationally.

### **Need for pharmacist prescribing in an acute setting to support clinical trials**

Clinical trials in hospitals would also benefit from regulatory reform allowing pharmacists to prescribe. If pharmacists who are embedded in clinical trials were able to prescribe this would enable better informed guided, structured prescribing for trials' participants, reducing the risk of prescribing errors by medical staff which can undermine clinical trial integrity and disqualify clinical trial participant. Many clinical trials involve investigational medicines for rare and/or serious diseases such as rare cancers, where the clinical trials pharmacist has greater experience and proficiency to prescribe these medicines compared to junior medical officers to whom the responsibility is often delegated.

### **Role of electronic medical records in supporting pharmacist prescribing**

Up until recently where paper-based systems in hospital were the norm, legislative and regulatory requirements meant that only medical prescribers were permitted to complete inpatient medication administration charts and discharge prescriptions. Clinical pharmacists would either endorse medication administration charts completed by prescribers after clinical review as per SHPA Standards, or clinically review discharge prescriptions before dispensing. When inaccuracies or errors were detected by pharmacists these be brought to attention to the prescriber for amendment, often a delayed and manual process.

With the introduction of electronic medical records, hospital pharmacists are able to take on a greater role in preparation of discharge prescribing by undertaking the medication selection process for electronic discharge prescriptions. This means prescribers are only required to review what has been prepared by the pharmacist and sign off on it to authorise the prescription. Similarly, electronic medical records have also enabled



partnered pharmacist charting processes where pharmacists have an active role in medication selection after undertaking medication reconciliation upon admission.

### Education and training

The education and training requirements for pharmacists to undertake collaborative prescribing will differ depending on the nature of prescribing and/or type of medicines. This is not dissimilar to other allied health prescribing frameworks where allied health practitioners are only able to prescribe certain medicines after demonstrating competency to do so. SHPA supports the use of existing credentialing for pharmacists with appropriate experience who are seeking to undertake collaborative prescribing in an acute setting.

Many hospital pharmacy departments who have undertaken innovative services such as pharmacist-led therapeutic drug monitoring, medicine dosing and opioid de-escalation, also have local credentialing programs. These tasks are generally medicine-specific and undertaken after the medicine has already been prescribed, and only cover Competency Areas 4 & 5 of the *Competencies required to prescribe medicines* developed by NPS MedicineWise<sup>11</sup>. Education, training and credentialing requirements could require any of or a combination of the following depending on the nature of activity and a clinical risk assessment:

- Minimum practice periods as clinical pharmacist
- Minimum practice periods as a clinical pharmacist in a certain area of specialty practice
- Online training modules
- Undertake clinical practice cases to demonstrate competency
- Undertake assessments based on Objective Structured Clinical Examinations (OSCE)

At present, hospital pharmacist competency to undertake clinical activities such as medication chart review and discharge prescription preparation and review is informed by a mix of formal training programs such as the SHPA Residency Program and informal in-house residency/training programs. Pharmacist-led collaborative charting and prescribing or preparation of discharge prescriptions spans all five prescribing competencies and would necessitate additional education and training. If the Pharmacy Board of Australia supports collaborative prescribing, SHPA believe the SHPA Residency Program is an appropriate avenue to educate, train and credential hospital pharmacists to chart medicines and prepare discharge prescriptions.

Recent changes to CPD requirements necessitate pharmacists to plan their learning to reflect their professional development needs that accounts for their roles and services provided to patients, preferencing quality and relevance over quantity. For pharmacists who undertake prescribing in their practice, an appropriate CPD plan includes activities related to prescribing. Ongoing CPD related to prescribing to maintain competency could meet the need for demonstration of ongoing credentialing and competency.

Whilst the SHPA supports with revision of existing credentialing for pharmacists undertaking collaborative prescribing, independent prescribing would require additional credentialing such as Stage II Advanced Practice or completion of an Advanced Training Residency. SHPA would welcome the opportunity to discuss any proposed credentialing or education related to pharmacist prescribing.

### Regulation

Collaborative prescribing would require governance and oversight from local jurisdictions who likely would need to amend local drugs and poisons act to authorise pharmacists to produce medication orders for supply. This would also likely require oversight by the Pharmacy Board of Australia given the fundamental changes to pharmacy practice and can be denoted via different registration types as for other professions such as medical, dental and podiatry practitioners.



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More broadly, risks associated with pharmacist prescribing such as poor prescribing practices resulting in medication error or medication-related harm can be mitigated through having structured education and training requirements that are commensurate to the prescribing activities undertaken. Whether it is prescribing at discharge or pharmacist-led charting of medications, frameworks developed by government<sup>12</sup> to assess and manage risks, and evaluate outcomes are appropriate for the Pharmacy Board of Australia to apply to pharmacist prescribing.

Whilst the discussion paper validly raises risks associated with pharmacist prescribing, it must also recognise the risks to the healthcare system of not enabling frameworks for pharmacists to practice at the full scope when research continually indicates pharmacists improve the quality and safety of medical prescribing. As demand continues to grow for complex healthcare, SHPA fully supports the expansion of prescribing rights for pharmacists and recognises that the acute setting represents a unique opportunity to test and develop pharmacy prescribing roles and responsibilities within a comprehensive clinical governance framework.

If you have any queries or would like to discuss our submission further, please do not hesitate to contact Johanna de Wever, General Manager, Advocacy and Leadership on [REDACTED]

Yours sincerely,

A handwritten signature in black ink that reads 'K. Michaels'.

Kristin Michaels  
**Chief Executive**



## References

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