

# Exploring the role of hospital pharmacy technicians and assistants to enhance the delivery of patient centred care

**A White Paper on the findings and outcomes of the 'Pharmacy Technician and Assistant Role Redesign within Australian Hospitals (Redesign) Project'**

November 2016



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# 1 Executive Summary

To continue to deliver effective health care that meets the needs of the public, the pharmacy workforce must evolve to ensure it has the capacity, capability and flexibility to function within an ever-changing healthcare system. Commissioned by SHPA Federal Council in 2015, the 'Pharmacy Technician and Assistant Role Redesign within Australian Hospitals (Redesign) Project', aims to inform this workforce change.

The practice of hospital pharmacy in Australia is evolving. Economic pressures and increasing healthcare requirements from patients demand that the health workforce is used effectively and efficiently. The advancing role of hospital pharmacists is a key driver for discussion around progression of the role of pharmacy technicians and assistants in the Australian hospital setting as identified at the 2014 SHPA Future Summit.

As pharmacists progressively move away from dispensary based supply functions and transition to team based patient-centric roles out of the dispensary, the need to effectively harness the technician and assistant workforce to support advancing hospital pharmacy services strengthens (2). At the Future Summit a key outcome focused on expanding the scope of practice of pharmacy technicians and assistants to enable the development of future models of clinical practice.

Implementation of technology in the pharmacy sector, including dispensing robotics and e-health, add to the factors influencing the changing roles of the hospital pharmacy workforce in Australia. With technology advancing and being utilised more broadly, it is important to begin to consider future workforce implications and anticipate future change to maximise workforce development opportunities.

Further drivers for this work include a realisation that hospital pharmacy technicians and assistants are underutilised compared to their OECD peers, and acknowledgement that there are only limited opportunities for those pharmacy technicians and assistants seeking career advancement in Australia.

This report provides some insight into hospital pharmacy technicians and assistants in the Australian health environment, promoting discussion that will guide SHPA in its role as a professional society in this changing landscape.

This paper aims to:

- **Provide a detailed review of the current roles and influencing frameworks in Australia**
- **With consideration of the global context, identify key areas for development in Australia**
- **Consider changes required to enable development**
- **Provide initial options for how SHPA may contribute to the improved utilisation of Australian hospital pharmacy technicians and assistants**

The Redesign Project was undertaken over a 6-month period (at 0.4FTE) from March to August in 2016, with the content of this report developed from a series of carefully planned activities including: a literature review, a review of supporting frameworks and primary research (national survey, focus groups, structured interviews and mini case studies).

## Key themes in the report

- Pharmacy technicians/assistants are employed in 95% of hospital pharmacies across Australia.
- Pharmacy technicians/assistants are important to the provision of pharmacy services to patients in Australian hospitals and can be instrumental in increasing availability and impact of these services.
- There is a large variation of activities undertaken by pharmacy technicians/assistants in Australian hospitals with some hospitals utilising pharmacy technicians/assistants more widely and with greater responsibilities than others.
- Pharmacy legislation, awards and enterprise bargaining agreements have been developed independently in each state and territory in Australia with significant differences and limited similarities.
- Unlike the pharmacist workforce, the pharmacy technicians/assistant workforce is not regulated nationally.

- Rural and remote environments pose particular challenges for the delivery of pharmaceutical services in Australia with pharmacy technicians/assistants playing a significant role.

### **Overview of the current roles and influencing frameworks in Australia**

This summary provides a broad overview of the results collected as part of the project's key stakeholder engagement activities. It draws on the themes identified in the literature review, national survey, focus groups, structured interviews and mini-case studies undertaken as part of this project.

#### ➤ Roles and responsibilities

- The roles and responsibilities of hospital pharmacy technicians and assistants vary significantly across Australia.
- The absence of a common definition for hospital pharmacy technicians and assistants underpins the disparity in roles and apparent lack of professional identity for this workforce.
- Australian hospitals primarily utilise the pharmacy technician and assistant workforce for traditional technical roles.
- Hospital pharmacy services are clinically focussed but the delivery of clinical activities is not a focus of the pharmacy technician/assistant workforce. This is in contrast to community counterparts, who engage in clinical activities such as facilitating care and advice on Pharmacy Medicines and primary health care medicines routinely.

Summary: Roles and responsibilities of hospital pharmacy technicians and assistants vary significantly in Australia with the workforce largely participating in activities focussed on technical tasks rather than patient focused clinical tasks.

#### ➤ Career structure

- There is concern regarding the lack of career structure of hospital pharmacy technicians and assistants in Australia.
- Most hospital pharmacy departments have a 'flat' personnel structure for pharmacy technicians/assistants.
- High staff turnover is linked to the lack of career opportunities, which is particularly prevalent in rural and remote locations.
- Technicians and assistants are interested in career advancement opportunities.
- Lack of training opportunities, limited incentive to undertake training and few opportunities for progression are reported as major obstacles.
- In some states the ability to establish senior positions are limited by requesting academic requirements that do not routinely exist as part of the technician/assistant curriculum.
- In hospitals that offer senior pharmacy technician/assistant positions it was consistently noted that it was difficult to find pharmacy technicians/assistants with the more developed competencies required for these roles, leading hospitals to seek more highly trained technicians from the United Kingdom or utilising overseas trained pharmacists for senior roles.

Summary: Limited career structure and the lack of opportunities to advance practice stifle the development of this workforce in Australia.

#### ➤ Education and Training

- Although there is a national education system in Australia, the education requirements for employment of hospital pharmacy technicians and assistants are set by state and territory based legislation and enterprise agreements, with no consistency.
- There is general recognition that the curriculum of current course offerings provides a very basic introduction to the skills and knowledge required to work in the hospital environment.
- Stakeholder engagement noted concern regarding the varied quality of delivery of available certificate courses and perceived weakness in approaches to assessment.

- Lack of face to face learning, interaction with pharmacists and workplace environments were noted as concerns.
- There is a call for the development of more practical skills and face to face learning opportunities providing more 'fit for purpose' competencies.
- Current education approaches do not cover some of the more advanced managerial roles undertaken by senior pharmacy technicians and assistants.
- Where states and territories do not mandate the need for minimum education requirements there is no driver for these courses to be undertaken, but rather a reliance on 'in house' credentialing programs.
- Almost universally, Australian hospital pharmacy departments conduct in house credentialing of pharmacy technicians/assistants before allowing employees to engage in 'dispensing', 'sterile manufacture/reconstitution', 'general manufacture' and 'oncology dispensing'.
- Reliance on internal credentialing demonstrates significant 'distrust' in the current education system for hospital pharmacy technicians/assistants.
- In house credentialing is usually institution specific which limits the ability of technicians/assistants to have these skills recognised in other hospitals.
- Suggestions for improving education and training include mandating requirements for employment nationally, setting a minimum entry requirement to undertake national qualifications, delivery of qualifications by hospital pharmacists/pharmacies and accreditation of qualifications by an external national organisation(s).

Summary: Stakeholder engagement noted the role for SHPA in setting national standards for employment with respect to the education and training requirements of hospital pharmacy technicians/assistants. In addition, SHPA could have a role in accrediting qualifications and credentialing individuals that undertake the qualifications to ensure a consistent quality of practice that meets standards. Extension of this role into an advanced practice domain for hospital pharmacy technicians and assistants is expected to follow.

➤ **Legislative and industrial frameworks**

- Legislative and industrial structures have developed independently in each state and territory with significant differences and limited similarities.
- Each state and territory has different industrial instruments (e.g. award, enterprise agreement) which may define the name, role, career structure, education requirements and remuneration of hospital pharmacy technicians and/or assistants with a focus on the public health sector.
- Each private entity in Australia has its own industrial instrument, creating more variation within states and territories.
- Assistant and technician classifications in one state are not necessarily equivalent to classifications in another, creating difficulty in the transference of employees across sites and between states and territories.

Summary: The pharmacy technician and assistant workforce is not regulated nationally, excepting guidelines and standards from professional bodies that mention pharmacy technicians and assistants but are not legislatively enforced. Legislative and industrial changes if required are the responsibility of the states and organisations to which they apply. SHPA can advocate for legislative and industrial change but not be directly involved in jurisdictional industrial negotiations.

**Consideration of global context in identifying key areas for development in Australia**

As pharmacy technician and assistant roles have evolved internationally, so too have the supporting education, training and regulatory frameworks. International pharmacy workforces have demonstrated that mandatory regulation, inclusive of mandatory minimum qualifications can aid in the development of this workforce. Such supports create minimum standards in roles and support the development of advanced roles from a uniform baseline of training and education.



Key to the regulation of this workforce in Australia would be the involvement of a regulatory agency equivalent to the General Pharmaceutical Council in the UK. In Australia, an example agency that could assume these regulatory functions is the Australian Health Practitioner Regulation Agency (AHPRA).

With only 14 professions registered nationally, it is unlikely that pharmacy technicians/assistants will be considered by health ministers as a workforce requiring registration in the short to medium term. It is possible for a professional organisation to assume a professional regulatory role of the workforce it represents. This is performed by many professions including other health professionals such as dietitians. This may include credentialing of roles, continuing professional development, financial incentives, legislative change and potential technician registration with legal responsibility and accountability for technicians/assistants.

Regulation via a professional body such as the SHPA would create standardisation and enable development of hospital pharmacy technicians/assistants. As demonstrated in the UK, advanced technician roles are built on the foundation of professional regulation and training which resulted in the registration of technicians.

Mandating education and training, accreditation of qualifications and credentialing of individuals will standardise roles and responsibilities provided across Australia. With appropriate supporting education and training, the development of roles from a uniform baseline will also create a more structured career path for hospital pharmacy technicians in Australia. Expansion into advanced practice domains should follow which will ultimately shift the roles and responsibilities of technicians and assistants across Australia.

Professional bodies will also need to review and update standards and guidelines that support pharmacy technician/assistant roles and remove statements that obstruct their development in order to advance this workforce.

### **The need for change**

The following points summarise the need and drivers that support SHPA's move to drive the Australian hospital pharmacy technician/assistant role redesign agenda forward:

- Improving the ability of hospital pharmacists to engage in advanced clinical activities and supporting the career development of hospital pharmacy technicians/assistants is consistent with the vision and core strategic foci of SHPA.
- The desire to better utilise pharmacy technicians/assistants in Australian hospitals is a priority of many SHPA members with current development in this area ad-hoc and based at an individual hospital level.
- Compared to our OECD partners Australia has some of the most underdeveloped systems for utilising hospital pharmacy technicians/assistants.
- Currently there is no national approach to hospital pharmacy technician/assistant utilisation with SHPA the national body with an interest and mandate to lead development in this space.
- Current research demonstrates both a need and opportunity for effective change with strong national leadership from SHPA.
- Systematic national development of hospital pharmacy technicians/assistants could drive SHPA's strategic goals, as well as provide further revenue streams for SHPA with opportunities such as a national accreditation system, credentialing and continued professional development for hospital pharmacy technicians/assistants.

### **The future**

- There is a strong belief from Australian hospital pharmacy stakeholders that pharmacy technicians/assistants can have a greater role in technical activities, including the clinical support tasks within 'clinical activities', under existing legislation.
- Any development of pharmacy technicians/assistants must involve pharmacists, who may need to be socialised to the use of pharmacy technicians/assistants as part of the pharmaceutical services team.
- Training and education quality, consistency and availability, needs to be improved.
- Barriers to development include human resources, sourcing technicians/assistants and the limited number of full time equivalent positions.

- Significant change is possible under current arrangements at the individual hospital level where the Director of Pharmacy is able to effectively engage with 'levers of change', including the hospital executive, human resource departments and consider financial implications.
- Hospital pharmacy departments are requesting: 'advocacy tools and management supports', 'professional standards and competencies', 'quality standardised education' and 'finance' to assist in pharmacy technician/assistant role redevelopment.
- Key stakeholder feedback was that consistency of regulation was required to allow the same skills to be developed to grow roles across Australia.
- Expanded scope of practice roles for pharmacy technicians/assistants that the Australian hospital pharmacy workforce would like to engage in include:
  - Clinical roles including medication reconciliation, counselling and inpatient unit technician
  - Accuracy checking technicians
  - Technician led dispensaries
  - Research, data collection and education
  - Dispensing and imprest management.

### **Opportunities for SHPA in Pharmacy Technician and Assistant Role Redesign**

SHPA has the brand and respect among stakeholders to take a leadership role defining standards for pharmacy technician/assistant roles and associated activities, supporting the development of these competencies through appropriate quality supportive training. SHPA could also consider adopting the professional regulatory body role for pharmacy technicians and assistants in Australia. This will enable pharmacists to engage in advanced clinical activities and support the development of an improved professional environment for pharmacy technicians/assistants.

The following opportunities for SHPA were suggested by participants:

- To create a national standard definition of roles, competencies and a framework for credentialing (defining the baseline and advanced technician/assistant roles).
- To influence the education system, create standardisation, mandatory training and continuing education requirements that meet workplace needs.
- To accredit courses and/or administer credentialing exams.
- To be a registered training organisation delivering national qualifications.
- To enable the discussion for change within the hospital system.
- To provide leadership through a change management process.
- To advocate to government regarding technician/assistant roles in hospital pharmacy services.
- To continue to provide ongoing continuing professional development offerings.

### **Suggested interventions**

Significant progress towards greater utilisation of pharmacy technicians/assistants may be achieved with the following SHPA led interventions:

- 1. Update current SHPA Standards and workforce definitions available in the SHPA Standards of Practice for Clinical Pharmacy Services**
- 2. Develop an Australian pharmacy technician/assistant competency standards framework and explore SHPA's role in credentialing individuals for defined competency areas from entry level to advanced level**
- 3. Explore SHPA's role in improving accreditation and delivery of national qualifications**
- 4. Document current innovative and advanced practice in each jurisdiction and consider SHPA support required to broaden this level of practice Australia-wide**
- 5. Hospital pharmacy technician/assistant leadership development**

## **1.1 SHPA vision for Australian hospital pharmacy technicians and assistants for 2026**

**A national environment where entry level technicians/assistants have a sound understanding of their role and access to education that supports the development of entry and advanced level competencies. Where technicians/assistants can undergo credentialing for specific practice areas with national certification, enabling movement between hospitals across Australia. Where technician/assistant leaders are grown from within to assist in the ongoing development of the profession, working in partnership with pharmacists to provide enhanced patient care.**

## 2 Introduction

To continue to deliver effective health care that meets the needs of the public, the pharmacy workforce must evolve to ensure it has the capacity, capability and flexibility to function within an ever-changing healthcare system. Throughout 2016, the Society of Hospital Pharmacists Australia (SHPA) is pursuing three projects that will help drive the transformation of the pharmacy workforce. All three projects emanated from needs identified by members at the 2014 and 2015 SHPA Future Summits (1).

Collectively known as Residency, Research and Redesign, these projects recognise future models of clinical practice as key themes for development by SHPA. Specifically, the SHPA Federal Council determined that in order to develop new and advanced practice roles in integrated care there is an immediate need to build capacity in the pharmacist workforce through developing and expanding the scope of practice of pharmacy technicians and assistants.

To ensure future sustainability, a review of the current roles and frameworks that support hospital pharmacy technicians and assistants in Australia and overseas was required to identify variations in scope of practice, opportunities for future development and inform workforce change.

Commissioned by Federal Council in November 2015, the Pharmacy Technician and Assistant Role Redesign within Australian Hospitals (Redesign) Project, aims to inform this workforce change. The project included a literature review and consulted a range of stakeholders via survey, focus group, interview and case study platforms to identify current practices and requirements to enable the development of roles in the future. The outcomes of the Redesign Project are described by this report.

### 2.1 Australian context

The practice of hospital pharmacy in Australia is evolving. Economic pressures and increasing healthcare requirements from patients demand that the health workforce is used effectively and efficiently. The advancing role of hospital pharmacists is a key driver for discussion around redesigning the role of pharmacy technicians and assistants in the Australian hospital setting.

Further, a realisation that hospital pharmacy technicians and assistants are underutilised compared to their OECD peers, and acknowledgement that there are only limited opportunities for those technicians and assistants seeking career advancement in Australia, provide additional drivers to explore the Australian hospital pharmacy workforce environment.

As pharmacists progressively move away from dispensary based supply functions and transition to team based patient-centric roles out of the dispensary, the need to effectively harness the technician and assistant workforce to support advancing hospital pharmacy services strengthens (2). This debate can be seen as a positive indicator of the progress that the profession has made in clarifying the pharmacist's role as clinical, to deliver patient-centred pharmaceutical care.(3)

Implementation of technology in the pharmacy sector, for example dispensing robotics and e-health, add to the factors influencing the changing roles of the hospital pharmacy workforce in Australia. With this technology advancing and being utilised more broadly, it is important to begin to consider future workforce implications and anticipate future change to maximise workforce development opportunities.

This report provides some insight into hospital pharmacy technicians and assistants in the Australian health environment, promoting discussion that will guide SHPA in its role as a professional society in this changing landscape.

## 2.2 SHPA vision

The SHPA vision is ‘**excellence in medicines management for better health outcomes through leading edge pharmacy practice and research**’ (1). Additionally, the SHPA defines core strategic areas through which the SHPA vision can be achieved. These are:

- **ADVOCATING, LEADING & PARTNERING to influence excellence in medicines management**
- **Enabling a CAPABLE AND COMPETENT WORKFORCE**
- **Supporting the MEMBERSHIP through education, training, development and research**
- **Sustaining the organisation to SUPPORT AND ENHANCE THE PROFESSION**

Exploring and enabling the current hospital pharmacy technician and assistant workforce in Australia to develop is essential to attain better health outcomes through leading edge pharmacy practice, as we seek to serve patients in the hospital health care setting. Via empowering the health workforce to evolve, the Redesign Project epitomises the SHPA core strategic areas that will ultimately enable the realisation of the SHPA vision, with the understanding that effective and sustainable pharmaceutical services delivery can only occur when pharmacists work together with pharmacy technicians and assistants.

## 2.3 Aim of this paper

The overall purpose of this document is to inform the development of the hospital pharmacy technician and assistant workforce in Australia thereby building capacity and improving the ability of Australian hospital pharmacies to meet patient requirements.

This paper delivers this aim by engaging key stakeholder via a variety of forums to:

- **Provide a detailed review of the current roles and influencing frameworks in Australia**
- **With consideration of the global context, identify key areas for development in Australia**
- **Consider changes required to enable development**
- **Provide initial options for how SHPA may contribute to the improved utilisation of Australian hospital pharmacy technicians and assistants**

## 3 Methodology

SHPA commissioned the Redesign Project to address the workforce needs identified at the 2014 and 2015 Future Summits. A Project Steering Committee was formed and a Project Officer appointed. The Redesign Project was undertaken over a 6-month period (at 0.4FTE) from March to August in 2016. Throughout the 6-month period the Redesign Project Steering Committee guided the Project Officer to ensure delivery of the aims of the Redesign Project. The Redesign Project also utilised the skills and expertise of a Health Systems Strengthening Consultant to assist in delivery of aims.

Project Officer: Rachael Raleigh (BPharm, GradCertPharmPrac, MClinPharm Candidate)  
Health Systems Strengthening Consultant: Dr Andrew Brown (PhD, BPharm, GCHE)

This work focuses on hospital pharmacy technicians and assistants only and does not consider those working outside of the hospital setting. For further details regarding the scope of this project refer to the Terms of Reference available in **Appendix 1**.

The content of this Redesign Project report has been gathered from a series of carefully planned activities as outlined below:

### 3.1 Literature review

A literature review was conducted to give an overview of the current roles that hospital pharmacy technicians undertake overseas and in Australia and comment on the main differences. Databases searched included PubMed, Ovid Medline, Embase and Wiley Online Library. Additional searches of specific relevant journals were also conducted on an ad-hoc basis specifically of journals not always available via the mentioned databases such as the Journal of Pharmacy Practice and Research. The search terms used included pharmacy technician, pharmacy assistant, and pharmacy support staff, hospital and inpatient unit and role and task. Using the Boolean phrases 'and' and 'or', these search terms were combined. Results were additionally limited to those available in the English language that were published from 2000 onwards (2000-present).

Literature was selected initially via abstract review and included if the article was capable of outlining roles of hospital pharmacy technicians. Articles and conference proceedings were selected via abstract, and then full text review and the most relevant references were included in this literature review.

### 3.2 Review of supporting frameworks

The Redesign Project reviewed the current frameworks supporting the hospital pharmacy technician and assistant workforce. This included a review of both national, state and territory structures.

The national frameworks reviewed included:

- Professional guidelines (Pharmacy Board of Australia, The Society of Hospital Pharmacists Australia)
- Australian Qualifications Framework
  - National Qualifications for Pharmacy Technicians
    - HLT Training Package: Hospital and Health Systems Support
    - SIR Retail Training Package: Community Pharmacy

The state and territory structures reviewed included legislation and industrial frameworks.

### 3.3 Primary research

A **National Survey**, **Focus Groups**, **Structured Interviews** and **Mini Case Studies** were undertaken to provide the primary research for this report ensuring engagement with key stakeholders.

Focus groups, structured interviews and mini case studies were conducted with representatives from around Australia. See **Appendix 2** for location and hospital classification of those involved.

The aims of these activities were:

- **To validate data already collected on the current hospital pharmacy technician and assistant workforce via an online National Survey**
- **To engage the current pharmacy workforce in the consideration of the future for pharmacy technicians and assistants in the Australian hospital setting**
- **To gain input into the development of SHPA’s future supporting role for the progression of hospital pharmacy technicians and assistants**

#### 3.3.1 National Survey

The Redesign Project conducted a national online survey over a period of three weeks in May 2016. The aim of the 2016 SHPA Survey: ‘Pharmacy Technician and Assistant Workforce in Australian Hospitals’, was to define the current roles of the pharmacy technician and assistant workforce thereby providing a baseline from which these roles can be developed in Australia. The information provided, supplements the understanding of the current situation and needs of the pharmacy technician and assistant workforce in Australia developed from the literature review.

The questions in the national survey were developed by the Project Officer and Steering Committee and were largely based on the SHPA Standards of Practice for Clinical Pharmacy Services (1), the pharmacy specific units of the Hospital/Health Services Pharmacy Support National Qualifications and the recently conducted 2016 FIP Global Survey (2).

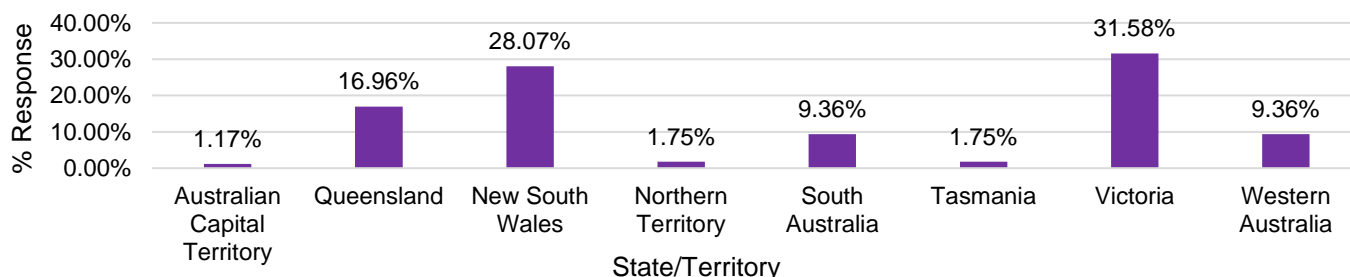
The survey was delivered electronically via Survey Monkey and each hospital was invited to participate via email to the Director of Pharmacy at the site. Reminders were sent via email and highlighted in the SHPA eNews. Participants were required to consent to participate prior to proceeding with the survey completion.

Note: For the purposes of this survey the term technician was synonymous with assistant.

#### Survey demographics

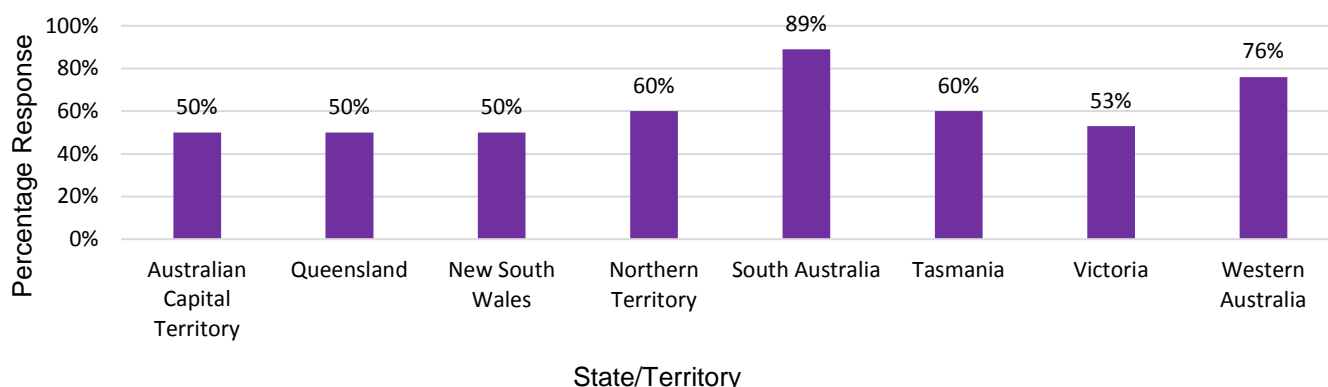
A total of 154 responses representing more than 170 hospital pharmacies across Australia, were collected, reflecting a response rate of 56% of the 308 hospital pharmacies invited to participate. **Graph 1** shows the geographical response rate as a percentage of the overall response rate.

Graph 1: Percentage Of Overall Response by Location



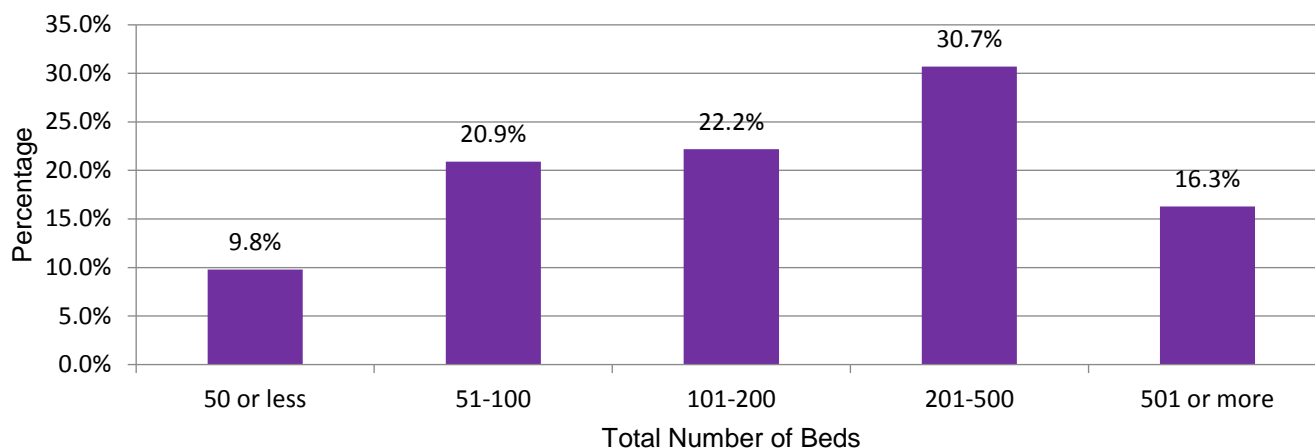
**Graph 2** shows the percentage response rate from each state or territory comparative to the number of hospital pharmacies in that location.

**Graph 2: Percentage Response Rate of State/Territory Response**



Of the hospitals that responded 86.4% were public, 12.3% were private and 1.3% identified as both public and private hospitals. Hospital size as described by bed number was well distributed as is shown by **Graph 3**.

**Graph 3: Hospital size by Bed Number**



### 3.3.2 Focus Groups

Focus groups were held in Sydney, Melbourne and Perth and included 8-14 people in each group across the following roles, from a mix of both public and private hospital pharmacy sector:

- Department of Health representative
- Director of Pharmacy - pharmacist
- SHPA State Branch Chair - pharmacist
- SHPA State Branch National Pharmacy Technician Network Representative – Technician/Assistant
- Technicians and Assistants
- Pharmacists working with technicians and assistants

The Project Officer and the Health Systems Strengthening Consultant facilitated focus groups over a 3-hour time period using a world café approach to elicit information consistent with the aims above. Each individual was asked to comment on a series of questions or statements consistent with the themes recognised in the 2016 SHPA Survey. Importantly this activity focused on details specific to the future roles and how SHPA as an organisation could support the progression of pharmacy technicians and assistants in Australia.



### 3.3.3 Structured Interviews

Selected structured interviews were conducted by the Health Systems Consultant using a semi structured interview approach agreed with the Project Officer.

The invited participants represented multiple locations across a variety of roles in Australia<sup>1</sup>:

- Pharmacy Board of Australia Representative
- National Pharmacy Technician Network Representative – Public Major City Principal Referral Hospital [Victoria]
- Director of Pharmacy - Private Inner Regional Acute Group A Hospital [Tasmania]
- Director of Pharmacy - Public Major City Acute Group A Hospital [South Australia]
- Director of Pharmacy - Public Outer Regional Acute Group C Hospital [Queensland]
- Department of Health Representative [Northern Territory]

### 3.3.4 Mini Case Studies

Four mini-case studies were conducted to provide detailed examples of workforce roles and supports in four different settings across Australia. Each site was invited to participate by completing a template case study that highlighted unique roles technicians and assistants undertake in their hospital. The invited participants included:

- Major City - Principal Referral Hospital [Queensland]
- Outer Regional – Public Acute Group B Hospital [South Australia]
- Major City – Public Acute Group A Hospital [Australian Capital Territory]
- Major City – Private Acute Group A Hospital [New South Wales]

### 3.3.5 Data analysis

Data from the 'National Survey', 'Structured interviews' and 'Focus groups' was analysed using manual thematic analysis with the main themes presented in Section 5 of this paper. The mini case studies were written by the sites listed and provide reflective insight into the variety of how hospital pharmacy technicians/assistants are utilised in partnership with pharmacists for the delivery of pharmaceutical services in various Australian hospital pharmacy settings.

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<sup>1</sup> The classification of hospitals is taken from the AIHW Australian Hospitals Peer Groups: see <http://www.aihw.gov.au/publication-detail/?id=60129553446>

## 4 Overview of current hospital pharmacy technician and assistant roles performed in Australia and overseas – Literature review

Note: For the purposes of this literature review the term technician was synonymous with assistant.

Evidence suggests that the addition of clinical pharmacist services in the inpatient setting results in improved quality, safety and efficiency of patient care (4). Currently, however in Australian hospitals, not all patients are seen by a pharmacist. Several studies have shown that utilising pharmacy assistants increases pharmacist's time spent on clinical tasks (5-11). Advancing roles of pharmacy technicians and enhanced utilisation of this workforce is key for the development of hospital pharmacy services in Australia and the facilitation of pharmacists practising to their full scope (12).

History indicates that progression of the hospital pharmacy technician workforce stems from a complex interplay of training and regulatory changes over several years (12-14). The United Kingdom exemplifies some of the more advanced roles technicians are capable of undertaking (15-18). The roles were built on the foundation of professional regulation and training resulting in a requirement for registration of technicians in the UK (13, 14). The United States of America (USA) similarly displays trends of advanced technician roles but lacks standardisation in training and regulatory requirements thus limiting uniform progression of scope comparative to the UK (5, 6, 14, 19, 20). Australia is elementary in its utilisation of hospital pharmacy technicians comparative to its overseas counterparts and currently lacks the supporting regulatory and training frameworks required to progress this workforce across the nation.

Momentum is building in support of progression of hospital pharmacy technician roles in Australia and change is imminent (21). A review of the current roles of hospital pharmacy technicians in Australian and overseas is required to identify variations and future scope of practice to inform workforce change and ensure optimal outcomes and sustainability into the future.

This literature review aims to give an overview of the current roles that hospital pharmacy technicians undertake overseas and in Australia, comment on the main differences and provides context for the development of this workforce in Australia.

### 4.1 Overview

Traditional roles for hospital pharmacy technicians include technical tasks such as maintaining a pharmaceutical imprest, packing pharmaceutical products, assisting with the dispensing process and compounding pharmaceuticals (7, 12, 18-20, 22-29). In Australia these technical tasks are supported by on the job training and the voluntary completion of Australian Qualifications, provided by the Vocational Education and Training (VET) sector (30). The two main qualifications for hospital pharmacy technicians that outline these traditional roles are the Certificate III and IV in Hospital/Health Services Pharmacy Support (30). **Table 1:** Pharmacy specific units of the Hospital/Health Services Pharmacy Support Certificates, outlines the hospital pharmacy specific units and roles that technicians are trained to complete through these national qualifications (30). It additionally outlines specific literature demonstrating the completion of these roles by technicians around the world.

Ever expanding requirements for clinical pharmacy services and finite resources from which we are able to provide these services, has led to the development of technician roles to include clinical task provision. The Society of Hospital Pharmacists Australia (SHPA) outlines standards for the provision of clinical pharmacy services via the pharmacy technician workforce (28). Although not formal qualifications, these national professional standards outline clinical support tasks deemed appropriate for completion by trained hospital

pharmacy technicians (22, 28). See **Table 2**: Pharmacy technician roles supporting clinical pharmacy services as outlined by the SHPA, for more detail including references reporting these roles.

The need for advancement of pharmacy technician roles has long been recognised overseas in Europe particularly in the United Kingdom and North America (13, 14, 31). Improvements in training and regulation of hospital pharmacy technicians overseas have supported more advanced roles with technicians becoming increasingly involved in more advanced technical and clinical task provision including checking and medication history taking roles (5, 6, 12, 17-20, 23-27, 29, 32).

The additional roles pharmacy technicians have been reported to complete in the literature reviewed are outlined by **Table 3**: Additional hospital pharmacy technician roles outlined in the literature. As is evidenced by Table 3, some Australian hospitals employ in house training to facilitate performance of roles outside the scope of those previously mentioned (7, 10, 33).

Advancements beyond the scope demonstrated by these Australian studies to that of our overseas counterparts will require a national approach but at present Australia lacks the infrastructure in training and regulation to develop such roles. Additionally, current recommendations from the Pharmacy Board of Australia (PBA) and Society of Hospital Pharmacists Australia (SHPA) respectively, state that technician workforce roles 'must be limited to activities that do not require professional judgement or discretion' (34) and 'activities that require clinical judgement such as listening to patients, assessing treatment or counselling patients are not to be undertaken by pharmacy assistants and technicians' (28). At this point in time these statements and the lack of standardised training and regulatory frameworks supporting the development of this workforce obstruct national implementation of extended roles hospital pharmacy technicians undertake overseas.

## 4.2 International Context

Drug distribution/ technical roles for pharmacy technicians and assistants are also a major focus in the international literature. Increasingly though, progressive roles for pharmacy technicians and assistants contributing to clinical pharmacy services are described (2, 3). Pharmacy technicians overseas perform complex roles including technician checking, patient medication history taking, medicine reconciliation and patient education and counselling (6, 14, 17, 29, 32, 35, 36) (See Table 3). The completion of complex roles has led to the requirement of more evidence evaluating the impact of these roles and the importance of technicians in the provision of pharmacy services to ensure optimal patient care in hospitals.

In addition to traditional technical roles completed by Australian hospital pharmacy technicians, overseas technicians perform the final check on medicines in 'tech-check-tech' activities (19, 23, 24). With both groups displaying high levels of checking accuracy, the completion of this task by a trained technician has been found to be just as accurate as a pharmacist final check (23). Evidence also shows that utilising technicians in this role increases the pharmacist time spent on direct patient care activities (23). Specifically, a study by McKee et al found that using a certified pharmacy technician to check unit dose medications prepared by other technicians saved clinical pharmacists in excess of 50 hours per month with a substantially lower error rate comparative to a pharmacist checking (19).

Technicians overseas have advanced substantially in clinical task provision too, having been found to be effective in obtaining and documenting medication histories and performing the process of medication reconciliation (25, 29). This process involves obtaining a precise and actual medication list which may require patient, relative, carer and general practitioner interviews, the review of personal electronic medication profiles and/or patient notes to reconcile differences (16). Given that we know incomplete medication histories obtained on hospital admission are responsible for more than 25% of prescribing errors (16) and not all

patients are seen by a pharmacist, technicians can be used to expand the reach of pharmacy services and improve patient care (4, 5, 7, 9). This has been demonstrated in the preoperative setting where a technician medication history taking and reconciliation program showed a statistically significant reduction in medication discrepancies (35, 37).

Furthermore, evidence to support clinical technician roles on inpatient units has been described by several international papers (8, 15, 17). The presence of clinical technicians on inpatient units has a positive impact on clinical pharmacy service provision and patient care as is shown by a statistically significant increase ( $P=0.001$ ) in pharmacist interventions when working with a technician (38). In the intensive care setting clinical pharmacy technicians reduced the time required for a pharmacist to review a patient by undertaking tasks such as patient data collection, screening and tracking patient progress, therapeutic drug monitoring, adverse drug reaction reporting and ward based troubleshooting (8). The assistance of a technician with these tasks increased the number of patients reviewed by the pharmacist each day (8). Given that clinical pharmacist services in the inpatient setting result in improved quality, safety and efficiency of patient care (4), using pharmacy technicians to increase pharmacist time allocated to direct patient care is important for patient outcomes. Another study similarly found such roles spared pharmacist time by reducing the number of phone calls to the dispensary by 60% and reducing the weekend workload by 23% (15).

#### 4.2.1 Example international role supports for hospital pharmacy technicians

As these roles evolved internationally, so to have the supporting education, training and regulatory frameworks. In the UK, registration of pharmacy technicians is undertaken by the General Pharmaceutical Council (GPhC) and has been mandatory since July 2011 (13, 14). To register the technician must have a GPhC approved qualification or equivalent in addition to a qualifying period of work experience (13, 14). As a registered profession they additionally have ongoing professional development requirements (14). Technicians in the UK also have their own professional leadership body called the Association of Pharmacy Technicians UK (APTUK) which long predates the introduction of mandatory registration (13). APTUK provides developmental support, influences change for the advancement of technicians and promotes the pharmacy technician profession (13). Their structured and regulated profession, inclusive of a technician specific professional body, positions the UK as a leader in the advancement of pharmacy technicians.

The United States of America is not as advanced as the UK in terms of regulation and training. There is no mandatory registration requirement (14) and as such less standardisation of technician roles exists across the country. The formation of the Pharmacy Technician Certification Board (PTCB) in 1995 began formal regulation of pharmacy technicians, however states have the option to opt-in (14, 19, 31). Certification is voluntary but has still been instrumental in the expansion of pharmacy technician roles in the USA (14, 19). The 2013 USA Pharmacy Practice Model Summit outlined key recommendations to advance technician practice including the development of a defined scope of practice, uniform national standards of education and training, mandatory certification and licensing (12). At present, certification requirements differ between states and are not mandatory in the USA thus limiting the uniform expansion of technician roles (19, 31).

USA also has several pharmacy technician specific professional associations e.g. the National Pharmacy Technician Association who advocate for the advancement of technician roles (14). Pharmacy technician registration is also required in other countries including: Canada, Denmark and Singapore (2).

### 4.3 Australian context

In Australia, hospital pharmacy technician roles are historically based on on-the-job training and have developed in areas of workforce need largely due to high pharmacist position vacancy rates (11, 39).

Evidence indicates Australian hospital pharmacy technicians largely perform technical roles such as imprest management and dispensing as outlined by the VET qualifications (see **Table 1**) (30, 39, 40). The literature now also consistently reports involvement in clinical support roles (see **Table 2**) with studies reporting about 10% of hospital pharmacy technician time spent in this area (7, 9, 10, 22, 30, 33, 39-44). As shown in **Appendix 3** the SHPA Standards of Practice for Clinical Pharmacy Services outline clinical support roles appropriately trained hospital pharmacy technicians can perform (28).

It is known that some Australian technicians exceed the scope defined by **Table 1 and 2** and reflect the scope of practice of overseas hospital pharmacy technicians with in-house training but without formal frameworks in education, training and regulation, these individuals are not representative of the mass (21). **Table 3** further highlights the limited involvement of Australian hospital pharmacy technicians in advanced scope of practice roles as reported in the literature.

Specifically, the minimal involvement in clinical roles and expanded scope of practice roles as described overseas is supported by an Australian study of the sub-acute aged care setting from 2012 (22, 43). Elliott et al found that clinical activities such as assisting with medication history and reconciliation, medication chart reviews and screening or documenting laboratory test results were roles rarely completed by a technician (22, 43).

The more advanced roles technicians are reported to complete in Australian hospitals are primarily completed as part of clinical inpatient unit or ward role with many Australian articles supporting the use of technicians in this setting (7, 9-11). Leversha et al described the role of a ward pharmacy technician in non-clinical tasks in 2001 (11). Tasks included identification of patients admitted in previous 24 hours, photocopying drug charts, asking the patient about medication supply, annotating medication charts with location of medicines, ensuring non-imprest medication supply and referral of any questions to the clinical pharmacist (11). Turner et al expanded on these tasks and described additional clinical tasks technicians could be involved in suggesting ward pharmacy technician can effectively assist a pharmacist in achieving optimum clinical care for patients (7). Seaton et al further demonstrated the advantage of using a ward pharmacy technician to facilitate medication delivery, describing the technician role in identifying discrepancies between medication orders and items in the bedside drawers and notifying the clinical pharmacist (10). The incidence of missed doses decreased significantly from 7.9-8.9% to 0% post the implementation of the technician roles in medication delivery, realising a cost saving of 5-11% of the net ward costs per quarter (10).

Elliott et al have further outlined ward pharmacy technician tasks and additionally demonstrated their importance in the provision of clinical pharmacy services in 2014 (9). Tasks completed by the technician included assisting with individual patient medication supply, screening medication charts for changes, assisting with medication reconciliation and recording laboratory data for review by the pharmacist (9). Specific to the inpatient setting, Elliot et al showed that the implementation of an inpatient unit pharmacy technician role in an Australian hospital increased the pharmacist time spent on clinical tasks from 58% to 73.9% ( $P < 0.0001$ ) (9). In an average working day (7.6 hours) that equates to an additional 1.2 hours per day spent on clinical activities. Time released by pharmacy technician utilisation has also been shown to increase the number of patients seen by a pharmacist (8, 9). This study also showed an increase in the median number of pharmacist interventions (9). In addition to improving clinical pharmacy service availability, inpatient unit technician roles have been reported to improve unit satisfaction with clinical pharmacy services & individual staff satisfaction (7).

**Table 1: Pharmacy specific units of the Hospital/Health Services Pharmacy Support Certificates\* (30)**

Course Code		Task	Key elements within task		Literature supporting task		
					Australia	Europe	N America
Certificate III & IV	HLTPHA001	Maintain pharmaceutical imprest stock	1. Monitor imprest stock against requirements 2. Select and dispatch stock	3. Complete documentation process	✓ (7, 9-11, 22, 33, 43, 45)	✓ (15, 17)	✓ (8, 14, 20, 23, 46)
	HLTPHA002	Pack pharmaceutical products	1. Prepare for packaging 2. Pack products	3. Conduct quality control 4. Complete packaging process	✓ (7, 9-11, 22, 33, 43, 45)	✓ (15, 17)	✓ (8, 14, 20, 23, 46)
	HLTPHA003	Assist with dispensing of prescription and medication orders	1. Accept order for dispensing 2. Ensure clinical evaluation by pharmacist	3. Prepare for labelling of meds. 4. Assemble items 5. Finalise dispensing of medicine	✓ (7, 9-11, 22, 33, 43, 45)	✓ (15, 17)	✓ (8, 14, 20, 23, 46)
	HLTPHA004	Order, maintain and distribute pharmaceutical stock	1. Procure stock 2. Process new stock 3. Handle and maintain stock 4. Select and pack item order	5. Dispatch orders 6. Process returned stock 7. Assist in stocktaking procedures	✓ (7, 9-11, 22, 33, 43, 45)	✓ (15, 17)	✓ (8, 14, 20, 46)
Certificate IV only	HLTPHA005	Conduct small scale compounding and labelling of pharmaceutical products	1. Source information on formula 2. Prepare for production process 3. Obtain equipment and supplies 4. Compound products	5. Complete production process 6. Participate in quality control 7. Store and transport released product	✓ (33)	✓ (47)	✓ (8, 14, 20, 27, 46)
	HLTPHA006	Provide assistance in dispensary administration	1. Perform dispensing administration tasks 2. Maintain dispensary information	3. Process pharmaceutical benefits claims	✓ (7, 22, 33, 45)	✓ (17)	✓ (14, 20, 46, 48)
	HLTPHA007	Conduct small – scale compounding and labelling of aseptic pharmaceutical products	1. Source information on formula 2. Prepare for production process 3. Obtain equipment and supplies 4. Prepare for sterile manufacturing 5. Prepare for cytotoxic production	6. Compound products using aseptic techniques 7. Complete production process 8. Participate in quality control 9. Store & transport released prod	✓ (33)	✓ (47)	✓ (8, 14, 20, 46)
	HLTPHA008	Support pharmacist communication with clients and other health professionals	1. Identify client information needs 2. Gather and prepare information to meet client needs 3. Provide specific or prepared information to clients	4. Collect information and provide to other health professionals 5. Confirm that client information needs have been met	✓ (7, 10, 22, 33, 45)	✓ (17)	✓ (46)
	HLTPHA009	Support pharmacists in the collection and presentation of workplace data and information	1. Identify and address requirements for data and information collection 2. Prepare data and information for use	3. Present workplace data and information	✓ (7, 9, 22, 33)	✓ (17)	✓ (8, 20, 46)

\*Note the number of references is not representative of the frequency of completion, merely the references in this review that support the tasks completion by hospital pharmacy technicians.

**Table 2: Pharmacy technician roles supporting clinical pharmacy services as outlined by the SHPA\* (28)**

Tasks Supported by SHPA		Literature Supporting Task		
		Australia	Europe	N America
Medication Reconciliation	<ol style="list-style-type: none"> <li>1. Detect new admissions/patients that require a clinical pharmacy service</li> <li>2. Where there are well-defined protocols, screen patients for their ability to self-medicate</li> <li>3. Communicate medicines supply information with health professionals, e.g. medical and nursing staff</li> <li>4. Ensure all medicines required for the patient are available in the patient care area</li> <li>5. Assist in managing the storage and retrieval of patient's own medicines</li> <li>6. Communicate with external health professionals (GP, community pharmacist, nursing home/hostel staff) to obtain information for a medicine list for review by a pharmacist</li> </ol>	✓ (7, 9-11, 21, 22, 33)	✓ (14, 15, 17)	✓ (14, 20)
Medication Management Plan	<ol style="list-style-type: none"> <li>1. Where there are well-defined protocols, use the checklist in the National Medication Management Plan or similar to identify patients at high risk of medication misadventure</li> <li>2. Where there are well-defined protocols, use the checklist in the National Medication Management Plan or similar to identify patients that would benefit from an HMR referral or other follow-up</li> </ol>	✓ (22, 43)	✓ (15, 16)	✓ (20, 49)
Assessment of current medication management	<ol style="list-style-type: none"> <li>1. Check the medicine order for compliance with legal and local requirements. Identify non-compliant orders and refer to the pharmacist when appropriate</li> <li>2. Annotate medication chart with information on the supply of the medicine, e.g. imprest item</li> </ol>	✓ (9-11, 21, 22)	✓ (14, 15)	✓ (12)
Clinical Review	<ol style="list-style-type: none"> <li>1. Access and record patient specific laboratory data</li> <li>2. Screen lab data for abnormal or unexpected results for the pharmacist by comparing the result with a defined reference range or other parameter to assist the pharmacists clinical review of the patient</li> </ol>	✓ (7, 9, 21, 22, 33, 43)	✓ (17)	✓ (8, 12, 46, 49)
Adverse drug reaction management	<ol style="list-style-type: none"> <li>1. Assist pharmacists with documenting and processing of confirmed ADR reports</li> </ol>	✓ (10, 22, 33, 43)	✓ (37)	✓ (8, 16)
Therapeutic drug monitoring	<ol style="list-style-type: none"> <li>1. Access and record drug levels screen drug levels for abnormal results for pharmacists by comparing with defined reference range</li> </ol>	✓ (7, 9, 21, 22, 33, 43)	✓ (17)	✓ (8, 20, 46)
Provision of medicines information to patients	<ol style="list-style-type: none"> <li>1. Gather consumer medicines information (CMI) leaflets</li> <li>2. Distribute CMI leaflets to patients prior to counselling by pharmacist</li> </ol>	✓ (7, 9, 21, 22, 33, 43)	✓ (14, 17, 36)	✓ (14, 27, 46, 50)
Information for ongoing care	<ol style="list-style-type: none"> <li>1. Identify patients requiring communication with community health professionals</li> <li>2. Identify patients requiring further supply of medicines on discharge and if they consent to accessing these medicines through the PBS</li> <li>3. Assist in preparing information for transfer to community healthcare providers</li> <li>4. Assist in preparing a medicine list for the patient</li> <li>5. Communicate med supply info by phone with community pharmacist &amp; other health professionals</li> <li>6. Communicate by facsimile/e-mail/letter with community pharmacist, GP and nurse after a final check by a pharmacist</li> </ol>	✓ (7, 9, 21, 22, 33, 43, 45)	✓ (15, 17)	✓ (20, 23, 46)
<p>*Participation in interdisciplinary planning and provision of medicines information to health professionals are not represented in this table as no specific support roles to assist clinical pharmacists in these activities are described by the SHPA. *Note the number of references is not representative of the frequency of completion, merely the references in this review that support the tasks completion by hospital pharmacy technicians.</p>				

**Table 3: Additional hospital pharmacy technician roles outlined in the literature**

Additional task	Literature Supporting Task				Literature Supporting Task		
	Australia	Europe	N America		Australia	Europe	N America
Technician Checking	X	✓ (14, 15, 18)	✓ (14, 19, 20, 23, 24)	Select, maintain and program infusion devices for specific patients inclusive of IV compatibility assessments	X	X	✓ (20, 46)
Medication history taking	✓ (21, 43)	✓ (15-17, 38)	✓ (5, 6, 12, 20, 25-27, 29, 32, 35, 49)	Administer medications	X	X	✓ (20, 46)
Medication reconciliation	✓ (9, 21)	✓ (16, 17, 37)	✓ (6, 12, 20, 25, 26, 29, 32)	Pharmacy technician in informatics including data analysis, automation and technology	✓ (33)	X	✓ (14, 20, 23, 48, 51)
Patient education	✓ (21)	✓ (14, 17, 36)	✓ (14, 27, 46, 50)	Phlebotomy	X	✓ (17)	X
Counselling on medication with specific techniques (e.g. inhalers, warfarin, clozapine)	✓ (21)	✓ (17)	✓ (14, 27, 46, 50)	Calculate creatinine clearance	✓ (9)	X	X
Assessment of medical device technique	X	✓ (36)	X	Cell based therapies manufacture for cancer treatments	✓ (52)	X	X
Adherence assessments including self-medication programs management	✓ (43)	✓ (17, 50)	✓ (17, 50)	Radiopharmaceuticals	✓ (33)	X	X
Medication management roles/ clinical pharmacy technicians	✓ (10)	✓ (14, 15, 17, 38)	✓ (8, 14)	Support in the running of outpatient clinics including ambulatory care, anticoagulation, hypertension and osteoporosis clinics	X	✓ (37)	✓ (46, 49, 50)
Participation in Multidisciplinary meetings, nursing handover or discharge planning	✓ (9, 43)	✓ (17)	✓ (46)	Clinical trials coordinator	X	✓ (14, 15)	X
Dose administration aids management	✓ (22, 33)	✓ (15)	✓ (8, 14)	Management, supervision, training, project management, quality improvement and quality assurance	✓ (33)	✓ (14, 15)	✓ (8, 14, 20, 46, 48, 51)
*Note the number of references is not representative of the frequency of completion, merely the references in this review that support the tasks completion by hospital pharmacy technicians.							



This growing body of evidence supports the use of pharmacy technicians in more advanced roles such as those required on inpatient units and could be associated with improved patient care (9).

#### 4.3.1 Australian role supports for hospital pharmacy technicians

As is evident from the literature there is disparity in roles completed by hospital pharmacy technicians in Australia. Similar to the USA, this variance has arisen from multiple factors including differences in state and territory industrial and legislative frameworks and differences in education, training and qualification requirements for employment (14, 39). **Figure 1:** 'Overview of some supports and the relationships governing hospital pharmacy technicians in Australia' briefly overviews some of the legislative bodies, professional bodies and education, training and qualifications influencing pharmacy technician practice in Australia and displays some of the existing relationships between bodies. It is not intended to give a comprehensive overview but merely begin to illustrate the complexities between bodies governing the technician workforce.

As mentioned previously, national qualifications and professional standards for hospital pharmacy technicians do exist in Australia, however they are not mandatory (28, 30, 33, 39). Differences in individual hospital requirements for employment of pharmacy technicians has arisen from a lack of regulation of the pharmacy technician workforce. Across Australian hospitals, there are no mandatory minimum qualifications or performance criteria. This ultimately creates a workforce with limited ability to progress, and little ability for transference of skill across sites due to a lack of standardisation in roles across Australia.

Technicians are interested in career advancement opportunities but previously, a lack of training opportunities has been reported as a major obstacle to technician progression (22, 53). Positively, a series of papers reviewing the Australian hospital pharmacy workforce has found that the number of hospital pharmacy technicians with a formal qualification is gradually increasing from less than 40% in 2003, to over 50% in 2007, with the most recent survey in 2012 of 214 hospital pharmacy technicians in Australia reporting 93% were currently undertaking or held a relevant formal qualification (33, 39, 41). Creating some form of mandatory baseline skill requirement for employment in Australian Hospitals will be crucial to transition this workforce into more complex roles.

#### 4.4 Discussion

It is clear that hospital pharmacy technicians have a broad array of roles across the world (see Tables 1 – 3). The importance of their role for the delivery of hospital pharmacy services and quality patient care has been outlined by several studies (5-11, 32, 38). Australia is less advanced in comparison to other areas of the world in its utilisation of the pharmacy technician workforce in the hospital setting. It is clear that the scope of practice of Australian hospital pharmacy technicians can be developed as evidenced by our overseas counterparts (14, 16, 17, 23, 26).

International pharmacy workforces have demonstrated that mandatory regulation implementation, inclusive of mandatory minimum qualifications can aid in the development of this workforce (13, 14, 31). Such supports create minimum standards in technician roles and support the development of advanced roles from a uniform baseline of training and education. With appropriate supporting education and training, the development of roles from a uniform baseline will also create a more structured career path for hospital pharmacy technicians in Australia. Despite differences in legislative

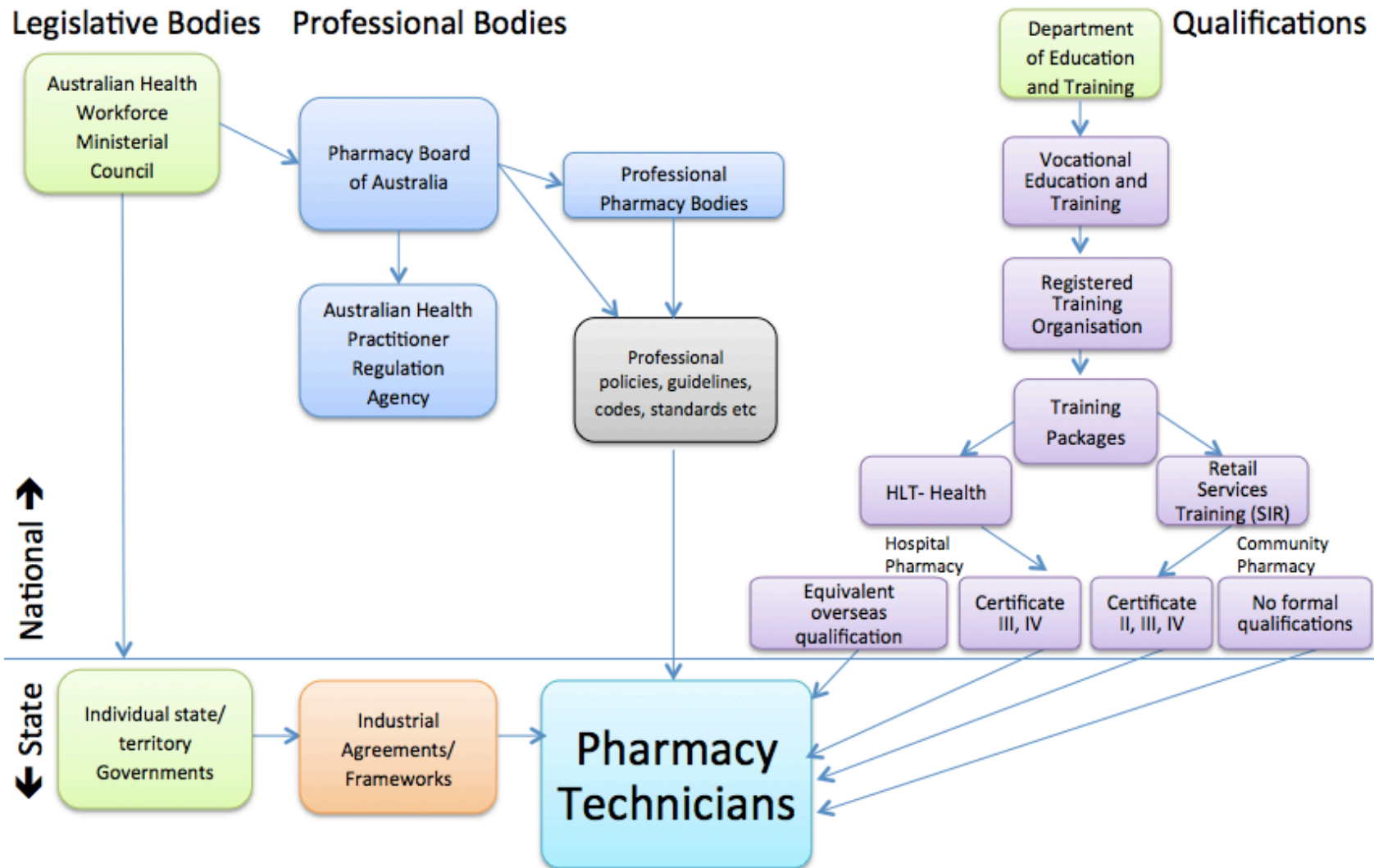


Figure 1: Overview of some supports and the relationships governing hospital pharmacy technicians in Australia (28, 30, 34, 54).

and industrial frameworks, it would also increase the transferability of hospital pharmacy technician skills across states and territories.

Key to the regulation of this workforce in Australia would be the involvement of a regulatory agency equivalent to the General Pharmaceutical Council in the UK (13). In Australia, an example agency that could assume these regulatory functions is the Australian Health Practitioner Regulation Agency (AHPRA) (54). AHPRA is responsible for regulating health professionals in the public interest via the implementation of the National Registration and Accreditation Scheme (50), which at present does not encompass the pharmacy technician workforce. It could be argued that the missing link between AHPRA and pharmacy technicians in Figure 1 could be key to the development of regulatory support pharmacy technicians require to advance their profession.

With only 14 professions registered nationally, it is unlikely that pharmacy technicians will be considered by health ministers as a workforce requiring registration in the short to medium term. It is possible though, for a professional organisation to assume a professional regulatory role through credentialing and accreditation of the workforces it represents. This is already performed by many professions including other health professionals such as dietitians. The adoption of this regulatory role by a professional body is an alternative approach that could provide the required support to enable the development of pharmacy technicians.

Professional bodies will also need to review and update standards and guidelines that support pharmacy technician roles and remove statements that obstruct their development in order to advance this workforce.

It is evident from this review that technicians are important to the provision of pharmacy services to patients in Australian hospitals and can be instrumental in increasing availability and impact of these services (5-11, 38). Change is necessary to support the development of roles completed by Australian hospital pharmacy technicians and expand their scope of practice to that of overseas hospital pharmacy technicians.

## 5 Overview of State and Territory variation

The Commonwealth of Australia is a federal system, with powers divided between the central government and individual states and territories. Governance concerning health services delivery is complex in this system. Hospital care has a further degree of complexity with state and territory authorities responsible for public hospitals while the private hospital system is funded through a 'backbone' of federally funded services including the Pharmaceutical Benefits Scheme (PBS).

The profession of a pharmacist is overseen by a national pharmacy board with federal consistency aligning state legislation (in the most part). In comparison, the practice of pharmacy comes under the jurisdiction of varying state and territory based legislation with the roles and responsibilities of hospital pharmacy technicians and assistants varying significantly across the Commonwealth.

In addition to varying state and territory legislation governing the practice of pharmacy (distribution, dispensing and administration of medicine), each state and territory has a different legal instrument (award, enterprise agreement etc.) which defines the name, role, career structure, education requirements and remuneration of hospital pharmacy technicians and/or assistants with a focus on the public health sector. Each private entity in Australia additionally has its own legal instrument, creating more variation within states and territories (education is discussed in more detail later in this report). This disparity between states means some states/territories utilise only pharmacy assistants, others only pharmacy technicians whilst some employ both assistants and technicians in their hospitals. These complexities are compounded by the fact that the assistant classification in one state is not necessarily equivalent to an assistant classification in another, for example in the public sector in Queensland an assistant - advanced classified as an OO4 based on qualification requirements could be equivalent to a technician level 2 in the Victorian or New South Wales public sector (55, 56).

These structures have developed independently in each state and territory with significant differences and limited similarities. Unlike the pharmacist workforce, the pharmacy technician and assistant workforce is not regulated nationally, excepting guidelines and standards from professional bodies that mention pharmacy technicians and assistants but are not legislatively enforced. In many ways the Commonwealth of Australia could be considered as 'eight countries' when considering the role and careers of hospital pharmacy technicians and assistants. Due to this substantial variation a lack of understanding exists within the profession and creates difficulty in the transferring of employees between states and territories.

The absence of a common definition of hospital pharmacy technicians and assistants underlies the apparent lack of identity for this workforce which has been described more clearly for the pharmacist workforce but is less well studied in the technician and assistant workforce (2). In Australia, community pharmacy is seen as a separate career stream for pharmacy technicians/assistants which adds another layer of complexity for employees seeking to make a career as a pharmacy technician/assistant.

### 5.1 The role of the Pharmacy Board of Australia (PBA)

The PBA does not have a role in dealing directly with pharmacy technicians/assistants. It does not regulate their scope of practice. There is nothing in legislation for the PBA to be involved in the scope of practice of pharmacy technicians/assistants.

The Board does provide guidance to pharmacists in response to what is in the public interest with regard to the practice of pharmacists. Any guidance the Board publishes is in the broader context of the practice of the profession e.g. as described in practice standards such as those developed by professional organisations.

PBA has a guideline for dispensing medicines that includes guidance on using 'suitably trained dispensary assistants, dispensary technicians or hospital pharmacy technicians' but these are not defined in more detail, noting that there may be definitions that apply for other purposes e.g. industry awards.

Guidelines for dispensing medicines (section 12).

[www.pharmacyboard.gov.au/documents/default.aspx?record=WD15%2f17694&dbid=AP&chksum=whuWgDvj9dwviuEOS%2bHzOg%3d%3d](http://www.pharmacyboard.gov.au/documents/default.aspx?record=WD15%2f17694&dbid=AP&chksum=whuWgDvj9dwviuEOS%2bHzOg%3d%3d)

## **5.2 Director of pharmacy as a nationally consistent management approach**

It is interesting to note that the internal governance of hospital pharmacy departments across Australia is remarkably similar. It is the Director of Pharmacy that has the authority to engage with the hospital executive of a specific institution to ultimately decide on the human resources structure of their department. Roles and responsibilities of individuals within the pharmacy workforce are defined under this structure to deliver pharmaceutical services in that hospital under the interpretation of the presiding pharmacy legislation within set financial parameters.

It is this 'autonomy' that reflects the varied structures and use of pharmacy technicians/assistants across different hospitals within the same state or territory jurisdiction. It is these same Directors of Pharmacy that will be the most significant 'levers of change' as the pharmacy workforce evolves into the future.

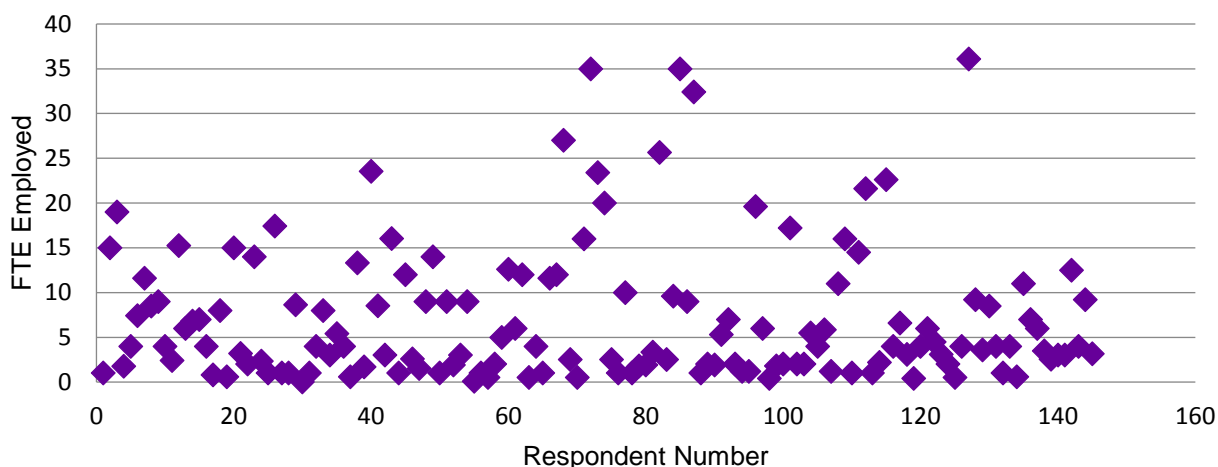
## 6 Themes underpinned by evidence

The main themes that have emerged from the 'National Survey', 'structured interviews' and 'focus groups' are presented in this section.

### 6.1 Roles and responsibilities of hospital pharmacy technicians and assistants

According to the SHPA national survey technicians and/or assistants are employed in 95% of hospital pharmacies across Australia. The primary reason for not employing pharmacy technicians or assistants in the hospital pharmacy workforce was a lack of funding. Of the hospital pharmacies that employed this workforce the total number of Full-Time Equivalent (FTE) positions ranged from 0.1 – 36.1 with the majority of respondents employing between 0.1 to 5 FTE as shown by **Graph 4**. Vacant positions were reported by 36% of respondents, reporting between 0.2 and 3.2 vacant FTE.

Graph 4: Number of FTE employed by respondent



A series of questions related to roles pharmacy technicians and assistants undertake in the hospital pharmacy context were asked in relation to three key areas – clinical, technical and retail. The questions relating to clinical roles were developed based on the SHPA Standards of Practice for Clinical Pharmacy Services, the questions related primarily to technical roles were developed with reference to the Hospital/Health Services Pharmacy Support Certificates available in Australia and the questions related to retail services were developed with reference to the Quality Care Pharmacy Program (QCPP) (57).

There is a large variation of technical activities undertaken by pharmacy technicians/assistants in Australian hospitals with some hospitals utilising pharmacy technicians/assistants more widely and with greater responsibilities than others. This is highlighted further in the mini case studies presented in this report.

Rural and remote environments pose particular challenges for the delivery of pharmaceutical services in Australia with pharmacy technicians/assistants playing a significant role which is being further explored in Queensland, Northern Territory and Western Australia.

#### 6.1.1 Clinical activities

##### **Clinical: Activities described by the SHPA Standards of Practice for Clinical Pharmacy Services**

Chapter 12: Pharmacy Assistants and Technicians supporting Clinical Pharmacy Services (**Appendix 3**) of the Standards of Practice for Clinical Pharmacy Services describes a series of activities related

to clinical services in hospital pharmacy (1). The Redesign Project Survey initially asked respondents to indicate if their pharmacy provided the clinical activity listed. As is evident from the high percentages below, clinical activities were provided by majority of the hospital pharmacies surveyed.

Percentage of hospitals surveyed performing clinical activities:

- Medication Reconciliation – 96.4% (Graph 5)
- Medication management plans – 87.3% (Graph 6)
- Assessment of current medication management – 98.5% (Graph 7)
- Clinical review – 97.8% (Graph 8)
- Therapeutic drug monitoring – 84.4% (Graph 9)
- Adverse Drug Reaction Management – 92.6% (Graph 10)
- Provision of medicines information to health professionals – 100% (Graph 11)
- Supply of medicines information to patients – 99.3% (Graph 12)
- Provision of information for ongoing care – 96.3% (Graph 13)

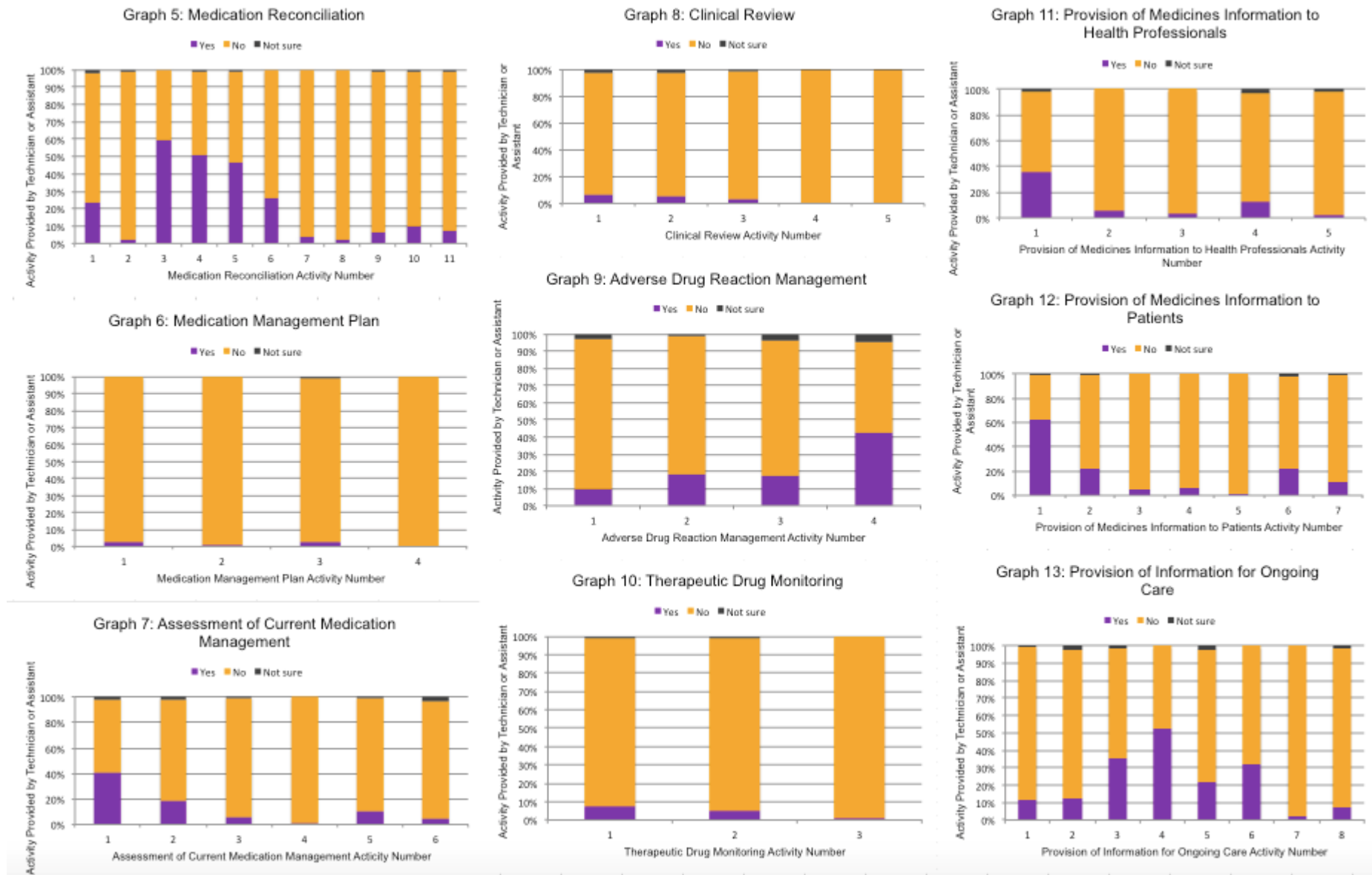
The respondents that indicated provision of the clinical activity by their hospital pharmacy were then asked to indicate whether pharmacy technicians were involved in the provision of specific activities forming that clinical activity by answering: yes, no or unsure. **Figure 2** represent the responses collected. The overwhelming presence of yellow in **Figure 2**, representative of the response: no; illustrates the limited involvement of Australian hospital pharmacy technicians in the support of clinical activity provision.

Even those roles endorsed by the SHPA (See **Appendix 3**) as suitable for appropriately trained technicians and assistants are seldom performed by this workforce. It is clear from these results that hospital pharmacy services are clinically focussed. However as is shown by **Figure 2**, delivery of clinical activities is clearly not a focus of the pharmacy technician and assistant workforce.

These results were further supported through the structured interviews and focus groups which also noted that hospital pharmacy technicians/assistants do not engage in 'clinical activities'. For the purpose of this report 'clinical activities' were defined as: activities that require a degree of judgement such as listening to patients, assessing treatment or counselling patients [for example medication reconciliation, provision of medicines information to patients and assessing patients to self-medicate] (1).

Of note is that SHPA and selected hospitals break down 'clinical activities' undertaken by pharmacists into sub activities that would be considered clinical support activities. For example, medication reconciliation is classified as a 'clinical activity' but the sub activities of contacting the community pharmacy and patient's doctor to have information sent to the hospital and entered into the hospital software, are clinical support activities, with the pharmacist completing the final verification of the clinical activity in its entirety.

In contrast to their community counterparts, who engage in routine Pharmacy Medicines and primary health care counselling, current SHPA Standards clearly indicate that no counselling should be performed by the hospital pharmacy technician/assistant workforce (1). Pharmacy technicians/assistants moving between industries find this unusual. The complexity of health care in the hospital setting is a reason often given for this variation.



**Figure 2: Graphs summarising clinical activity involvement of technicians and assistants**



### **Legend of activities outlined in Figure 2 (1)**

#### **Medication Reconciliation**

1. Detect new admissions/patients that require a clinical pharmacy service
2. Where there are well-defined protocols, screen patients for their ability to self-medicate
3. Communicate medicines supply information with health professionals
4. Assist in managing the storage and retrieval of patient's own medicines
5. Ensure all medicines required for the patient are available in the patient care area
6. Communicate with external health professions to obtain information for medicine list for review by a pharmacist
7. Interview patient/carer to obtain medication history
8. Perform medication history review
9. Interview patient/carer to determine allergies
10. Compare medication history with medication chart
11. Investigate medicines-related problems

#### **Medication Management Plan**

1. Where there are well-defined protocols, use the checklist in the National Medication Management Plan or Similar to identify patients at high risk of medication misadventure
2. Where there are well-defined protocols, use the checklist in the National Medication Management Plan or Similar to identify patients that would benefit from a HMR referral or other follow up
3. Interpret medicine changes in context of the medicines management plan
4. Clinical assessment of medication management

#### **Assessment of Current Medication Management**

1. Check the medicine order for compliance with legal and local requirements. Identify non-compliant orders and refer to the pharmacist when appropriate
2. Annotate medication chart with information on the supply of the medicine
3. Educate medical staff regarding prescription writing and medicine selection
4. Annotate medication chart with clinical information
5. Ensure the medicine order is appropriate with respect to patient's previous medicine, patient-specific considerations, drug, dosage, form and method of administration
6. Ensure all necessary medicines are prescribed

#### **Clinical Review**

1. Access and record patient specific laboratory data
2. Screen laboratory data for abnormal or unexpected results for the pharmacist by comparing the result with a defined reference range or other parameter to assist the pharmacist's clinical review of the patient

3. Screen patient-specific clinical information for the pharmacist by comparing the result with a defined reference range or other parameter to assist the pharmacist's clinical review of the patient
4. Interpret patient-specific laboratory data
5. Interpret patient-specific clinical data

#### **Adverse Drug Reaction Management**

1. Assist pharmacist with documenting and processing of confirmed ADR reports
2. Identify patients who have had a previous ADR
3. Ensure previous ADRs are documented
4. Check ADR history as part of the dispensing process

#### **Therapeutic Drug Monitoring**

1. Access and record drug levels
2. Screen drug levels for abnormal results for pharmacists by comparing with defined reference range
3. Interpret drug levels

#### **Provision of medicines information to health professionals**

1. Receive medicines information queries
2. Search for medicines information without direct supervision of a pharmacist
3. Interpret medicines information
4. Discuss medicines information with nurses
5. Discuss medicines information with medical staff

#### **Provision of medicines information to patients**

1. Gather CMI leaflets
2. Distribute CMI leaflets to patients prior to counselling by pharmacist
3. Distribute CMI leaflets to patients with counselling
4. Conduct counselling on any medicines
5. Conduct counselling on disease state management
6. Identify patients requiring medication counselling
7. Identify patients requiring adherence aids

#### **Information for ongoing care**

1. Identify patients requiring communication with community health professionals
2. Identify patients requiring further supply of medicines on discharge and if they consent to accessing these medicines through the PBS
3. Assist in preparing information for transfer to community healthcare providers
4. Assist in preparing a medicine list for the patient
5. Communicate medicine supply information by telephone with community pharmacist and other health professionals
6. Communicate by facsimile/e-mail/letter with community pharmacist, GP and nurse after final check by a pharmacist
7. Provide information regarding medicines other than supply

## 6.1.2 Technical activities

### **Technical: Activities described by the Hospital/Health Services Pharmacy Support Certificates**

The pharmacy specific units described by the National Qualifications currently available for hospital pharmacy technicians and assistants via the Certificate III and IV in Hospital/Health Services Pharmacy Support, were used as the basis for the questions related to technical activities. The survey initially asked respondents to indicate if their pharmacy provided the activity. Those that indicated provision of the activity by the pharmacy, were then asked to indicate if pharmacy technicians/assistants were involved in provision of the activity and if so, in which specific elements.

**Table 4:** Technical areas of pharmacy technician and assistant activity in Australian Hospitals, outlines the results of this section.

Consistent with the literature review completed, Australian hospitals utilise the pharmacy technician and assistant workforce for traditional technical roles. Interestingly, out of the 9 hospital specific units in the Hospital/Health Services Qualifications only 3 units indicated a performance rate by the hospital pharmacy service less than 90%. The activities 'pack pharmaceutical products, conduct small scale compounding and labelling of pharmaceutical products and conduct small scale compounding and labelling of aseptic pharmaceutical products', were provided by 78.4%, 64.7% and 43.6% of hospital pharmacy services respectively. This could indicate a shift towards outsourcing such activities in Australian hospitals.

The unit activity described as 'Communicate with clients and other health professionals' has large similarities with some of the tasks described by the SHPA Standards of Practice for Clinical Pharmacy Services and supports the notion that hospital pharmacy technicians and assistants in Australia have limited involvement in speaking directly to the patient or other health care professionals. This is exemplified by the low percentage involvement of pharmacy technicians and assistants in the provision of this activity and its elements.

The structured interviews and focus groups noted 'dispensing', 'imprest and ward supply' and 'sterile manufacture' as the most common technical roles for hospital pharmacy technicians/assistants.

### **Retail: Activities typically provided by QCPP pharmacies**

Of the hospital pharmacies surveyed only 5.3% (7) provided a retail pharmacy service open to the public. Of these retail services 57.1% (4) were Quality Care Pharmacy Program (QCPP) accredited and 71.4% (5) use technicians or assistants in the provision of Pharmacy Medicines and appropriate referral for Pharmacist Only Medicines.

### **Private hospital pharmacies, a special note**

During the structured interviews and focus groups it was noted that in private hospital pharmacy there is significant emphasis placed on activities to support Pharmaceutical Benefit Scheme (PBS) compliance as this is the main funding stream for this sector.

**Table 4: Technical areas of pharmacy technician and assistant activity in Australian Hospitals**

Unit activity	% of hospital pharmacies that provide activity	% of hospital pharmacies that use technicians to provide activity	If the hospital pharmacy does use technicians to provide the activity, the activity has been broken into elements and the respondent was specifically asked about the elements within a unit activity.	
			Element	% of hospital pharmacies that use technicians to provide element within unit activity.
<b>Maintain pharmaceutical imprest stocks</b>	99.3%	97.0%	Monitor imprest stock against requirements	98.5%
			Select and dispatch stock	98.5%
			Complete documentation process	92.3%
<b>Pack pharmaceutical products</b>	78.4%	76.9%	Prepare for packaging	99.0%
			Pack products	95.1%
			Conduct quality control	81.4%
			Complete packaging process	91.2%
<b>Assist with dispensing of prescriptions and medication orders</b>	100%	97.7%	Accept order for dispensing	91.5%
			Ensure clinical evaluation by pharmacist	79.2%
			Prepare for labelling of medicines	96.2%
<b>Order, maintain and distribute pharmaceutical stock</b>	100%	98.5%	Procure stock	90.8%
			Process new stock	93.1%
			Handle and maintain stock	94.7%
			Select and pack item order	93.1%
			Dispatch orders	93.9%
			Process returned stock	97.7%
			Assist in stocktaking procedures	99.2%
<b>Conduct small scale compounding and labelling of pharmaceutical products</b>	64.7%	41.4%	Source information on formula	87.7%
			Prepare for production process	97.7%
			Obtain equipment and supplies	93.0%
			Compound products	93.0%
			Complete production process	95.0%
			Participate in quality control	56.1%
			Store and transport released product	93.0%
<b>Assistance in dispensary administration</b>	90.2%	82.7%	Perform dispensing administration tasks	90.0%
			Maintain dispensary information	75.5%
			Process pharmaceutical benefits claims	75.5%
<b>Conduct small scale compounding and labelling of aseptic pharmaceutical products</b>	43.6%	37.6%	Source information on formula	82.0%
			Prepare for production process	96.0%
			Obtain equipment and supplied	96.0%
			Prepare for sterile manufacturing	96.0%
			Prepare for cytotoxic production	84.0%
			Compound products using aseptic techniques	100.0%
			Complete production process	94.0%
			Participate in quality control	66.0%
Store and transport released product	94.0%			
<b>Communicate with clients and other health professionals</b>	99.3%	69.2%	Identify client information needs	38.5%
			Gather and prepare information to meet client needs	38.5%
			Provide specific or prepared information to clients	42.9%
			Collect information and provide to other health professionals	30.8%
			Confirm that client information needs have been met	17.6%
<b>Collect and present workplace data and information</b>	90.2%	50.8%	Identify and address requirements for data and information collection	85.1%
			Prepare data and information for use	76.1%
			Present workplace data and information	62.7%

### **Additional roles performed by technicians and assistants in Australian hospitals**

The National Survey provided evidence that some sites use the pharmacy technician and assistant workforce in a variety of additional roles, stating involvement in:

- Medication safety audits and drug use evaluation
- Clinical trials reconciliation and documentation
- Transport of medication and documentation between sites
- Webster packing
- Ensuring all inpatients have venous thromboembolism prophylaxis assessment
- Administration and documentation of controlled drugs for destruction
- Regional visits to small sites to review stock control
- Administer and maintain PYXIS machines and robotic dispensing systems
- Information technology software support
- Management of staff, including recruitment, orientation, performance review and development
- Dispensary Manager (all staff – pharmacists and technicians)
- Occupational Health Safety officer
- Finance report management
- Project management
- Service development and quality improvement
- Maintenance of pharmacy equipment
- Education sessions for medical/nursing staff on PBS
- Administration activities
- Management of special medicine supply schemes (stock and documentation) including vaccines, blood products, special access scheme, hospital in the home, antimicrobial stewardship program

#### **6.1.3 Career structure**

Within the state based focus groups issues concerning the career structure of hospital pharmacy technicians and assistants were discussed. All three groups noted that the current career structure for hospital pharmacy technicians/assistants was limited with few opportunities for progression.

Limited or no training and no incentive for training was highlighted as a current limitation. Participants who had previous exposure to ‘customers’ in the community pharmacy setting or a wider scope of practice (experience in the United Kingdom), felt under-utilised and uninspired by their current career, while pay scales limited the ability to award high achievers.

High staff turnover was not noted as an issue during focus group discussions. The structured interviews revealed that in more rural and remote environments it was more difficult to obtain suitably skilled staff.

The lack of consistency of pharmacy technician/assistant roles between hospitals makes it difficult for employees to move between institutions and to have their competencies recognised. In some states the ability to establish senior positions may be limited by requesting academic requirements that do not routinely exist as part of the technician/assistant curriculum. For example, in NSW the award requires Level 4 technicians to hold a management qualification.

In hospitals that offered senior pharmacy technician/assistant positions it was consistently noted that it was difficult to find pharmacy technicians/assistants with the more developed competencies required for these roles with hospitals seeking more highly trained technicians from the United Kingdom or utilising overseas trained pharmacists for senior roles.

*'We have a pharmacy technician management position coming up; historically we have looked for overseas trained technicians for these roles due to the Australian qualifications not providing appropriate competencies'* Quote from structured interview

The mini case studies highlight that senior pharmacy technician roles have been developed by some pharmacy departments in such areas as education and dispensary managers but these positions would be considered unusual. In some states senior pharmacy technician levels are noted in the enterprise agreement but these posts are not developed in practice due to limitations in funding and a limited understanding by human resources departments of the role and function of such positions. Most hospital pharmacy departments have a 'flat' personnel structure for pharmacy technicians/assistants and utilise roster rotations which may limit opportunities for specialisation.

## 6.2 Education and training

The National Qualifications Framework (NQF) governs the availability of nationally recognised qualifications in the academic and vocational sectors. These qualifications are delivered by Registered Training Organisations (RTOs) in the vocational sector under the national supervision of the Federal Department of Education and Training. In the case of non-pharmacist education in the pharmacy sector there are two separate learning packages, community and hospital. There is very limited cross recognition between these two qualifications which requires technicians/assistants moving between community and hospital to retrain.

In the community pharmacy stream SIR20116 – Certificate II in Community Pharmacy, SIR30116 - Certificate III in Community Pharmacy, SIR40116 – Certificate IV in Community Pharmacy and SIR 40216 – Certificate IV in Community Pharmacy Dispensary are the qualifications offered.

In the hospital pharmacy stream HLT37115 - Certificate III in Hospital/Health Services Pharmacy Support and HLT47115 - Certificate IV in Hospital/Health Services Pharmacy Support are the qualifications offered.

RTOs obtain approval (scope) from the Federal Department of Education and Training to deliver qualifications according to the approved qualification outline. RTOs are free to interpret the content of the courses against the approved 'competency' areas as outlined in the curriculum. There are currently four organisations registered to deliver Certificate III and IV in Hospital/Health Services Pharmacy Support. Two offer these courses through a distance mode Australia wide:

- Box Hill Institute Polytechnic TEI
- Stanborough Wemyss Contracting Pty Ltd

One provides Certificate IV to Western Australia residents only:

- North Metropolitan TAFE

And the final is registered to provide both Certificates to New South Wales residents only but is currently not actually providing the course

- TAFE NSW - Western Institute

Although there is a national education system in Australia, the education requirements of hospital pharmacy technicians and assistants are set by state and territory based legislation and enterprise agreements. There is currently no consistency across states and territories in this regard. For example in comparing Queensland, Victoria and South Australia it is noted that The Queensland Health Drugs and Poisons Regulation 1996 (legislation) determines that a hospital pharmacy assistant must have a VET qualification under the National Vocational Education and Training Regulator Act 2011 recognising that the person has the skills and knowledge required to perform pharmaceutical imprest

duties (interpreted as completion of the 'imprest module' of the HLT training package). In the public sector to progress to a higher level the Queensland Health Operational Services Manual then requires an 'advanced pharmacy assistant' to have completed a Certificate IV or equivalent (56). In contrast, in Victoria an assistant does not require any formal qualification for employment and a staff member holding a Certificate IV hospital qualification would be classified as a technician level 2 as outlined by the Victorian Award (public sector) (55). South Australian hospitals do not require qualifications for assistant employment either. This demonstrates the qualification requirements, if any, differ greatly between states/territories. The lack of standardisation in educational requirements creates complexities and leads to difficulties in creating workforce definitions for assistant versus technician in terms of both name and role.

Where states and territories do not mandate the need for minimum education requirements there is no driver for these courses to be undertaken, but rather a reliance on 'in house' credentialing programs.

Structured interviews and focus groups noted concern regarding the varied quality of delivery of currently available certificate courses and perceived weakness in approaches to assessment. With a call for the development of more practical skills and face to face learning opportunities providing more 'fit for purpose' competencies. The lack of face to face learning, interaction with pharmacists and workplace environments were noted as concerns.

Where hospital pharmacy departments engaged in the Certificate III and IV courses it was noted that significant engagement of local senior technicians and assistants or pharmacist mentors was required to enable course completion to a level seen as appropriate for that hospital.

There is a general recognition that the curriculum of current course offerings provided a very basic introduction to the skills and knowledge required to work in the hospital environment. Current education approaches do not cover some of the more advanced managerial roles undertaken by senior pharmacy technicians.

*'What is currently missing is judgment and clinical reasoning; a diploma or other qualification would be required to develop these competencies.'* Quote from structured interviews

Almost universally, Australian hospital pharmacy departments conduct in house credentialing of pharmacy technicians/assistants before allowing employees to engage in 'dispensing', 'sterile manufacture/reconstitution', 'general manufacture' and 'oncology dispensing' (even if these staff have completed Certificate III and IV in Hospital Health Services Pharmacy Support). This heavy reliance on internal credentialing demonstrates significant distrust in the current education system for hospital pharmacy technicians/assistants.

In house credentialing is usually institution specific which limits the ability of technicians/assistants to have these skills recognised in other hospitals. Discussions have been underway in South Australia and Western Australia to develop methods to recognise credentialing between hospitals (a learning passport approach).

For private hospitals Certificate III and Certificate IV in Community Pharmacy is preferred as supply is underpinned by the Pharmaceutical Benefits Scheme (PBS) in this sector. Currently, Certificate III and Certificate IV in Hospital Health Services Pharmacy Support include limited PBS competence.

The following prioritised suggestions for improving pharmacy technician/assistant education and training were noted from the focus groups:

- Make education mandatory
- Set minimum education standards with minimum entry requirements (English, mathematics and science)
- Certificates delivered by hospital pharmacists
- Incentives to attend education
- Release from working hours
- Develop a technician apprenticeship to employ student technicians and have TAFE based training on a weekly day release over a number of years
- Utilise a technician level framework to ensure practice is the same across Australia (assumes a competency standard is developed)
- Include a mix of on the job and face to face learning with some therapeutics
- Improve quality of course and make it 'fail-able'
- Develop an SHPA credentialed course based on basic tasks and more advanced tasks and ensure there is rigor in the assessment

Both the focus groups and structured interviews noted the role for SHPA in setting national standards for the use of pharmacy technicians/assistants with supporting accredited training that meets consistent standards. SHPA has a major role to play in addressing some of the above suggestions to enable the development of this workforce.

### 6.3 Other themes from focus groups and structured interviews

There was an overwhelming feeling from within focus groups and structured interviews that pharmacy technicians/assistants are a significant part of the pharmacy workforce and in many contexts underutilised. Participants cited the significant potential in this workforce if given the tools. This may include certification of roles, better education, financial incentives, legislation change and potential technician registration/accreditation with legal responsibility/accountability for technicians.

*'Technicians can't be undervalued. A good technician is a valuable person to have in the workplace. There is no doubt that their role can be expanded. There needs to be structure around advancement.'* Quote from structured interview

Additional comments regarding hospital pharmacy technicians in Australia largely revolved around the need for standardisation across sites and the country, fixed nationwide training, with consistency of roles and consistency of regulation to allow the same skills to be developed to grow roles. Another key theme was the requirement to progress this workforce to enable the progression of the pharmacist role in hospitals again linking back to the initial evolution of the Redesign Project.

Culturally there was significant emphasis from both structured interviews and focus groups that any development of technician roles must involve taking pharmacists technicians/assistants and other stakeholders on the journey. Many pharmacists are not aware of the potential of technicians and are familiar with a working culture where they take full responsibility. A subset of pharmacists and technicians/assistants will be resistant to changing roles and will be content with their current roles and responsibilities. This needs to be balanced against the desire to progress pharmacy technician/assistant roles by those wishing to advance pharmacist roles and those motivated to improve the career prospects for technicians and assistants.

Participants also noted the influence of new technology and the broader concepts of redesigning staff skills mix, not only in the pharmacy department but across the hospital, as factors that could influence the development of pharmacy technician/assistant roles.

#### **6.4 Practice specific examples – mini case studies**

These mini case studies are included to highlight some of the progressive practice roles Australian pharmacy technicians/assistants are gradually adopting across Australia in response to the evolving requirements of hospital pharmacy services.

These case studies highlight the importance of well-trained pharmacy assistants and technicians across a range of hospitals in Australia. Study sites were selected based on geographical location, AIWH Peer Group Classification and survey response to ensure representation across a range of Australian hospitals (58).

Four mini case studies are included:

- **Major City - Principal Referral Hospital [Royal Brisbane & Women's Hospital QLD]**
- **Outer Regional – Public Acute Group B Hospital [Port Augusta Hospital SA]**
- **Major City – Public Acute Group A Hospital [Calvary Public Hospital ACT]**
- **Major City – Private Acute Group A Hospital [Norwest Private Hospital NSW]**

These sites demonstrate advanced utilisation of this workforce and all describe similar challenges in progressing the role of pharmacy technicians and assistants across Australia.



## 6.4.1 Major City - Principal Referral Hospital [Royal Brisbane & Women's Hospital QLD]

**Contributed by Ian Coombes (Director of Pharmacy) and Rachel Merigan (Pharmacy Assistant Team Leader), Royal Brisbane and Women's Hospital.**

### **Overview**

The Royal Brisbane and Women's Hospital is a 900 bed tertiary referral teaching hospital with 2.5 pharmacists to one assistant/ technician. The pharmacy assistant team operate in various dispensaries/satellites across the hospital and in some locations are responsible for all the workflow that takes place. These locations are imprest area (stock picked and prepared all on site), controlled drug vault, clinical trials satellite, mental health centre outpatient pharmacy, cancer care outpatient pharmacy, cancer care aseptic production unit, women's and newborns satellite, general medical and surgical satellite and the main outpatient pharmacy.

The composition of the pharmacy assistant team is as follows:

- 18 X Pharmacy Assistants (full and part time)
- 6 X Advanced Scope Pharmacy Assistants
- 1 X Senior Pharmacy Assistant Team Leader

Technical roles completed by pharmacy assistants at RBWH include:

- Imprest, Controlled drugs, dispensing inpatient, discharges, outpatients
- Generation of Med Action plans, discharge medication action plan, from clinical pharmacist history and reviewed/authorised by a clinical pharmacist
- Manufacturing of aseptic medications
- Manufacturing of pre-package medications

The RBWH has advanced scope pharmacy assistant positions that are relatively new. These positions can work in the areas listed in above but these pharmacy assistants have undertaken further education to work in higher skilled roles, these are;

- Ambulatory services for Chronic Kidney Disease patients and cancer care patients reviewing own medicines and gathering information from primary care community pharmacies and nursing homes for review and interpretation by clinical pharmacists
- Project support for implementation of service redesign re drug supply: Direct to ward delivery and implementation of automated medication distribution systems
- Ward based assistant funded by service lines, cancer care, internal medicine and renal medicine. Operating on the wards, with patient interaction and medication supply being a strong objective. This role ensures that Pharmacists are given more time to conduct better clinical services.
- Education and training assistant that operates at 0.5per week (the other 0.5 is ward based). This role works closely with the senior pharmacy assistant team leader to support the assistant team with best practice initiatives for the technical workflow. Facilitates in creating and maintaining individual portfolios, as well as conducting strong orientation for new and existing employees.

### **Pharmacist/assistant interaction**

Pharmacists supervise daily workload of satellite/dispensary based assistants and ward based assistants but senior technician is responsible for recruitment, development, liaison with pharmacy team leaders.

### **Education requirements**

- Minimum of certificate III in Pharmacy (community based) with the emphasis to enrol into certificate III hospital pharmacy services, as this is preferred.
- Minimum of certificate IV (hospital services) or equivalent for any advanced scope pharmacy assistant positions
- Monthly clinical education provided by pharmacists
- Use of annual Advanced Technician Level Framework (developed by Queensland Safe Medication Practice Unit based on the UK Competency Development and Evaluation Group (CoDEG) tools available) by trained pharmacy educators – who work 0.5 FTE as clinical ward based assistant
- Annual imprest competency checklist and completion
- Annual dispensing competency checklist and completion
- Annual validation (must pass) for aseptic manufacturing and cytotoxic medication production

### **Expanded scope of practice roles/projects**

- Chronic Kidney Disease assistant working in dialysis units and outpatient clinics reviewing patients own medicines, taking medication histories from community pharmacies, residential aged care facilities etc.
- The cancer care advanced scope ward based assistant position was originally a pilot and has very recently been made permanent. In the pilot phase data was collected which provided strong findings of better service delivery from the pharmacy department to cancer care services. This has led to other similar advanced scope pilots currently in the department; it is hoped that these position will become permanent too and lead to further advanced scope roles.

### **Current or emerging challenges regarding pharmacy assistant/technician progression**

- About to undertake checking technician pilot
- Recruitment of suitably trained staff (using UK trained/credentialed staff)
- Lack of widely available hospital certificate III and IV courses.

The lack of opportunity to embark in further education at a certificate III and IV level in hospital pharmacy services is a big concern. The desire for career progression is a big focus for the pharmacy assistant team and is actively supported by all parts in the RWBH pharmacy department however; there is a lack of education available to provide this. Many jobs (especially the advance scope positions) are given to staff that have better education and experience behind them and they are usually from the UK. It is very disheartening that pharmacy assistants who have commenced employment in Australia are not able to access the same type of learning. The future of the pharmacy assistant/technician workforce has the potential to create stronger skillsets that aren't at a pharmacist clinical level but would greatly assist in pharmacists' time management to provide better service delivery. The feedback from many pharmacy assistants is that they want that opportunity but unfortunately are not able to access it but it can be seen that opportunity exists outside Australia.

## 6.4.2 Outer Regional – Public Acute Group B Hospital [Port Augusta Hospital South Aust.]

**Contributed by Tasma Wagner, Chief Pharmacist, Port Augusta Hospital**

### **Overview**

The Port Augusta Hospital pharmacy services up to 80 acute beds with paediatric, obstetric, gynaecological, surgical, emergency unit and general medical units. Satellite Renal dialysis centre (36 patients) and oncology services (6 chairs). Staffing consists of 4 FTE pharmacists, 3 FTE technicians and 1 FTE intern pharmacist. Outreach service (clinical and distribution) provision to a number of smaller hospitals within region.

Technical roles completed by the technicians include:

Stock maintenance, distribution services (to ward and to outreach sites), stock usage monitoring and reports, imprest reviews, pharmacy product file maintenance, financial billing extract assistance, PBS claiming, accreditation activities (cold chain monitoring and reporting, APINCH drug monitoring)

### **Expanded scope of practice roles/projects**

Clinical roles technicians undertake include renal dialysis unit patient follow up of adherence issues and medication profile maintenance for chronic disease aboriginal patients in remote areas.

Innovative roles pharmacy technicians are utilised for included outreach service provision. Technicians assist to maintain adequate stock levels, ordering quantities and storage advice to remote outreach clinics. Where appropriate they also visit remote sites to maintain stock holding requirements and monitor storage conditions. They assist with medication profile maintenance for patients in remote sites (such as Oodnadatta and Marree). General enquiry answering particularly with regard to access to medications remotely (with referral to Pharmacists as well) is also completed by the technician.

### **Pharmacist/technician interaction**

The pharmacists and technicians work collaboratively to provide supportive services with dispensing and distribution. They provide advice on alternative stock availability and costing where appropriate. They support monitoring renal dialysis unit patient adherence and follow up required prescriptions etc. from offsite nephrologists to ensure continuity of care. Monitoring of ward medication distribution systems, medication expiry and usage with particular attention to minimising wastage and maximising cost efficiency of medications utilised.

### **Education requirements**

Training is provided in the form of online SA Health training, dispensing training (ad Hoc), medication profile maintenance training (train-the-trainer), NPS high risk medicines training on line, cytotoxic handling and dispensing training (on line modules) and clinical handover training.

Acknowledge the need to conduct projects on technicians working in rural hospital settings due to the multi-task nature of their role and expanding scope of practice. There is no formal training pathway for career progression and technical staff are limited in how they can advance their career.

### **Current or emerging challenges regarding pharmacy assistant/technician progression**

With the right training pharmacists could be assisted with medication history taking activities (technicians could assist to locate secondary information sources), medication profile creation (technicians could draft profiles for final pharmacist review), medication safety and auditing activities (dose reconciliation etc.) and more formalised process for assisting with hospital accreditation activities.

### 6.4.3 Major City – Public Acute Group A Hospital [Calvary Public Hospital ACT]

**Contributed by Emily Diprose (Lead Pharmacist) and Sarah Smith (Lead pharmacist), Calvary Public Hospital Bruce**

#### **Overview**

Calvary Public Hospital Bruce comprises a 256 bed general hospital as well as a 19 bed hospice – located off the main campus. We are a teaching hospital of the Australian National University, The University of Canberra and the Australian Catholic University. The Hospital is funded by ACT Health Directorate and managed by the Little Company of Mary Health Care.

The hospital provides a range of inpatient, ambulatory care and outreach facilities and services. Our inpatient services include: Emergency medicine, Intensive Care, Cardiology, Hospital in the Home, Obstetrics and Gynaecology, Ophthalmology, Cardiology, Head and neck surgery, Orthopaedics, Anaesthetics, Plastics, Endocrinology, Neonatology, Maternity services, Mental Health, Ear, nose and throat, Neurology, Respiratory, Gastroenterology, Rheumatology, General medicine, Urology, General surgery, and Oncology.

Within the Pharmacy Department there are 28 FTE positions, of which 20 are pharmacist positions and 6.5 are technical officer positions (including our purchasing officer) and 1 ASO position. Pharmacy services to the hospital include ward clinical pharmacy services, patient counselling and continuum of care management, participation in outpatient cardiac rehabilitation education, pharmacotherapy education sessions for hospital staff, aseptic manufacturing services, clinical trials, individual patient dispensing for non-imprest stock, ward imprest supplies, an AMS program and some outpatient dispensing. The aseptic dispensing service is provided using the Department's aseptic room and laminar flow cabinet, with formulation of total parenteral nutrition (TPN), and other IV additives including epidural dose forms.

Pharmacy assistant/technician technical roles:

Technicians at our site are involved in the following:

- Prescription processing including the dispensing of prescriptions for inpatients, patients on discharge and outpatients, and the preparation of medication profiles.
- Sterile and non-sterile compounding of pharmaceuticals
- Pre-packing and labelling of pharmaceuticals
- Servicing the ward imprest system, re-stocking the afterhours cupboard, filling medication requisitions, and delivering medications to wards
- Inventory management through sorting and crediting stock, assisting in ordering and receipt of pharmaceuticals and undertaking stocktakes
- Housekeeping activities including record keeping, archiving, filing and tidying and stocking shelves.
- Ward management of medications dispensed from pharmacy – ordering non imprest items.

Pharmacy assistant/technician clinical roles:

Technicians at our site working in our "Ward Technician" role undertake the following clinical activities

- Medication chart annotation and chart rewrite checking
- Identification of any inappropriate prescriptions (e.g. illegible, prescribed medication not on formulary, patient allergic, dosage error) to be followed up by ward pharmacist

### **Expanded scope of practice roles/projects**

Technicians at our site rotate through our “Ward duties” role. While the current role predominately focuses on supply of medications, it is a step towards future clinical duties as staffing allows. In this rotation, the technician (once credentialed) performs the following:

- Medication chart annotation and re-write checking
- Management of individually supplied (i.e. non-impres) medications
- Storage and labelling of patients own medications
- Transfer of individually dispensed medications if patient’s are transferred between wards
- Return or disposal of medications on patient discharge
- Review of medications storage within the medication rooms (including the refrigerator) and return or disposal of ceased medications
- Flagging of any inappropriate prescribing with ward pharmacist

This role is based on a project from 2011, a prospective, two-phase, observational analysis of time invested by a pharmacist performing ward duties was conducted over two five-week intervals. Phase one data was collected when a pharmacy technician was not present on the ward. A pharmacy technician was then trained for three weeks to conduct ward duties which included medication supply, pathology screening and discharge facilitation and planning. Phase two was conducted with the presence of a ward-based technician for two hours each day. Time-activity ratios were recorded. Interventions and their severity were recorded in accordance with SHPA classification of pharmacy interventions. This project showed an increase in time spent by the pharmacist on medication history taking (+7%), discharge (+6.6%), clinical review (+5.4%), liaising with Medical officers (+3.6%) and patient counselling (+1.8%) during phase two. A decrease of 23.4% was seen in time spent by the pharmacist on medication supply. A 47% increase in interventions was achieved when a technician was present, and 82% of all phase 2 interventions were related to therapeutic or prescribing recommendations compared to 18% relating to cost and formulary issues. Moderate and major (level 3 and 4) interventions made by the pharmacist increased by 28% during phase two. This was presented at a Medicines Management conference (both paper and poster).

### **Pharmacist/assistant interaction**

All technical activity (dispensing, impres, pre-packing, ward duties) has some level of pharmacist oversight or final check. Technicians label and prepare all dispensed/pre-packed medications before a final check by the pharmacist. Ward technicians work closely with their ward pharmacist to determine individual patient supply quantities and in the identification of some medication related issues (i.e. in appropriate prescription, re-write errors, non-formulary stock). Technicians manage all hospital impres levels, however items kept on impres are managed by the formulary pharmacist. Stock holdings for the pharmacy are jointly determined by the purchasing office/data manager and the formulary pharmacist. Aseptic items are made and labelled by the technician before a final check by the pharmacist. Other clinical duties such as medication order review, prescriber liaison, and patient education are undertaken by a pharmacist.

### **Education requirements**

There are no formal educational requirements required to be employed as a technician at our site. Holding a certificate III or IV in hospital pharmacy practice is highly desirable.

Technicians undertaking our ward role are credentialed before undertaking ward duties. This credentialing is done by our senior technician (TO2). See credentialing document below. The technician being trained observes the duties being undertaken before a period of supervised work and then final credentialing.

Technicians working in aseptic dispensing are trained and validated by a pharmacist experienced in this area. This involves a number of theoretical sessions followed by a number of practical sessions in the IV room before final broth testing validation.

### **Current or emerging challenges regarding pharmacy assistant/technician progression**

Balancing technical and clinical roles to keep the job attractive and to be able to recruit highly motivated staff is a currently challenging. With attempts to expand technician roles, also comes managing concerns from pharmacists around levels of training and credentialing, particularly when clinical activities are involved.

The current shortage of experienced, hospital trained pharmacists has had a huge impact on our staffing levels, as well as the training and induction burden of new pharmacist staff with little or no hospital pharmacy experience. Technicians being able to undertake extra duties on the ward (medication counselling, medication history taking), may alleviate some of these issues.

### **Technical Officer Level 1 Ward Duties Competency Check List [Calvary Public Hospital]**

**NAME:** \_\_\_\_\_ **DATE:** \_\_\_\_\_

**You must be able to demonstrate the ability to understand and perform the following:**

- Reflect on and understand the role, processes and responsibilities of the ward technician role
- Understand the difference and be able to determine if a medication is formulary or non-formulary

#### **In the Dispensary**

- Print patient bed lists from ACTPAS
- Liaise with ward pharmacist over pending discharges / transferring patients
- Check medication tubs for ward deliveries

#### **On the Ward**

- Communicate appropriately with ward staff –

***'I am the Pharmacy Technician checking which medications need supplying. You will need to ask / get advice from your clinical pharmacist'.***

- Correctly interpret the ward journey boards
- Locate accurate information of ward imprests either from the medication room, hard copy or iPharmacy
- Sort medications from pharmacy into the correct patient tubs
- Identify and return medications not dispensed to patients currently on the ward

#### **Correctly Interpreting the Medication Chart**

**To be able to determine if pharmacy supply is needed you must be able to understand the following components of a medication chart:**

- Differentiate between current and old medication charts
- Identify a new chart or chart re-write
- Identify all current charts
- Check and amend current ward details on the patient sticker
- Correctly interpret each medication order: drug, dose, route of administration, frequency & time
- Identify which medications are ward stock (Imprest), pharmacy supply, Schedule 4D, Schedule 8 and fridge
- Annotate the medications on the chart with the appropriate shorthand: [WS] [PS] [S4D] [S8] [Fridge]
- Identify ceased medications
- Identify irregular or short term dosing (e.g. *Mon, Wed, Fri or 7 days only*)
- Interpret the administration record with respect to whether the medication has been *withheld [WH]* or *not administered [N]*
- Identify charts that require a 'patch check' to be charted

- Identify the time the next dose is due and if supply is on hand
- Determine the quantity of meds needed for 1 week taking into account strengths available in the pharmacy or on imprest
- Determine the need for supply of PRN medications
- Identify patient's own medication, place it into a Patient's Own Green Bag and label accordingly (UNLESS the medication is required for a *non-formulary medication order – patient's own*)
- Where possible (if old medication charts are still in the folder) check that medication orders have been transcribed correctly from old to new charts, making note of any errors for the clinical pharmacist to follow up

### **Ordering Medications**

- Locate patient medication charts in the nurses' station, from wall racks and in the medication room
- Correctly match the patient name between the selected chart, medication tub and bed list
- Match each medication order with current stock from the patient's tub
- Calculate the quantity to be ordered from pharmacy by subtracting the current quantity on ward from quantity needed.
- Order pharmacy supply medications using numbered sticky labels without covering relevant information
- locate the ward multi-device machine and email relevant medication charts to pharmacy using the email shortcut for **dispensary@calvary-act.com.au**

### **Before Leaving the Ward**

- Review the patient's own green bags and remove non-current bags from the ward for transfer to another ward or to be stored in the patient's own cupboard
- Check the fridge for any non-current patient medications and return them to the dispensary
- Identify and pass on any issues that require the attention of the clinical ward pharmacist

#### 6.4.4 Major cities – Private Acute Group A hospital [Norwest Private Hospital NSW]

**Contributed by Rhiena-Jius Villegas (Pharmacy Manager), Anjana Rao (Client Engagement Manager), Norwest Private Hospital, Bellavista and Alan Tuxford (Associate Partner/Regional Operations Manager), Hospital Pharmacy Services (HPS), Victoria**

##### **Overview**

The Norwest Private Hospital services 204 beds with clinical pharmacy services provided to areas such as emergency, intensive care, coronary care, cardiology, medical, surgical, orthopaedics, maternity & special care nursery units. The pharmacist to technician ratio in the hospital is 1.5 to 1.

The technical roles that pharmacy assistants/technicians undertake include, dispense, Imprest management, Inventory management, Drug distribution, Deliveries, PBS prescription and claim management, Hospital Store/Supply Department Liaison, Account and Billing management & support.

Clinical roles provided by technicians include Medication History administrative support – high risk patient flag, AMS administrative support – traffic light referral register system, Wards rounds for Medication Supply Referral, Identification and Action, Document clinical administrative support activities via electronic pharmaceutical care support system - ClinPod™.

##### **Expanded scope of practice roles/projects**

- a. Medication History administrative support – high risk patient flag  
All newly admitted patients are assessed for medication management risk status by the attending clinician (i.e., nurse, pharmacist, doctor). All high risk patients are referred to the Clinical Pharmacist (CP) and Ward Technician (WT). The WT will liaise with the patient/carer and contact the patient's referring doctor, GP and/or local pharmacy to obtain and file a copy of the latest medication profile/list and/or dispensed medication history for medication reconciliation purposes.
- b. Antimicrobial Stewardship administrative support – traffic light referral register system  
All antibiotic medication orders are identified by the WT and then documented for referral to the CP and AMS nurse via the ward's AMS register. The referral is flagged by the WT according to traffic light system categorisation i.e., green, amber, red (all red flag antibiotics are referred to the Infectious Diseases (ID) team).
- c. Wards rounds for Medication Supply Identification and Action  
WT conducts ward rounds moving from bed to bed to review inpatient medication charts to identify new admissions and new medication orders. WT subsequently alerts the CP via referral process to the existence of a new order(s) for review. All medication orders that have first been reviewed by the CP and subsequently approved for supply by the CP will be identified on the WT ward round and actioned via Inpatient dispensary. The WT will liaise with patient to determine and record health care/safety net card status, preferred brand, billing requirements and health fund status.
- d. Document all clinical administrative support activities via electronic pharmaceutical care system - ClinPod™  
WT records all activities performed per patient against each patient's electronic pharmaceutical care record, in real time utilising ClinPod™.

##### **Pharmacist/assistant interaction**

All technicians work under the supervision of a pharmacist and all activities that affect direct patient care are all verified and approved by a pharmacist. This relationship is managed in an egalitarian and



collaborative manner. Interactions occur verbally, via communication books, referral registers and ClinPod™ alerts. All WT activities have been designed to directly impact the workload and workflow of the CP, so that the CP is able to decrease administrative tasks and to enable the CP to focus and target their activities for the greatest clinical benefit to patients in terms of outcomes, QUM and medication safety. WT also carries the ward deck phone/pager and triages all ward telephone requests on behalf of the CP.

### **Education requirements**

Completion of the Certificate III/IV Community Pharmacy or have completed the Guild Pharmacy Technician Course (would prefer Certificate IV in Hospital Pharmacy). Completion of pharmacy orientation/induction program that includes all eLearning modules. One on one, on-the-job training with mentor and for the WT role – the WT must be a high performing staff member with at the very least 12 months experience of the Norwest Private Hospital Pharmacy and have completed an intensive WT training program with supervised practice and review.

### **Current or emerging challenges regarding pharmacy assistant/technician progression**

Recruitment of trained and experienced staff, retention of trained and experienced staff, and the development of a career path with suitable roles that recognise skills, training, capability and experience. Suitable structure of the Enterprise Agreement (EA) to reflect career path and funding and recognition of new technician roles is also a current challenge in progressing this workforce.

Currently facing increasing demand for expanding comprehensive clinical pharmacy services with finite clinical pharmacist resources in the face of increasing hospital activity. As a result of the above there is increasing need to relieve the clinical pharmacist (CP) from as many administrative/technical functions required of the clinical service so that the CP's activities are targeted to achieve the greatest outcome. However for this to occur, CP's must first have confidence in the skill set of an "advance practice" technician which will require strong and effective leadership to develop.

## 7 Future

Participants in both the structured interviews and focus groups were asked to consider what future technical and clinical roles technicians/assistants could undertake to support advancing clinical roles of pharmacists. The focus groups were also asked to consider potential barriers to developing future roles for pharmacy technicians/assistants. The results of the key stakeholder engagement activities are as follows.

### 7.1.1 How can pharmacy technicians and assistants support pharmacists to increase their clinical role?

*'Why are pharmacists doing technical roles? Where it is possible to move these to a pharmacy technician/assistant then this is a good idea.'* Quote from structured interview

*'Currently pharmacists do a lot of technical tasks such as final check on scripts, order for formulary items, confirming that restricted items are only used according to hospital protocols, preparing medication profiles. All these tasks are protocol driven and could be done by a pharmacy assistant, freeing up the pharmacist.'* Quote from structured interview

*'The practice of pharmacy is not set in stone and perhaps there will be further evolution of practice enabling pharmacists to better serve the public. When it comes to how that works it will depend on the structures and process that are required to support those changes.'*  
Quote from structured interview

There is a strong belief from Australian hospital pharmacy stakeholders that pharmacy technicians/assistants can have a greater role in technical activities, including the clinical support tasks within 'clinical activities' under existing legislation. Redesigning roles in this way would enable the pharmacist to undertake further clinical activities.

In considering the professional relationship between pharmacists and pharmacy technicians/assistants, one stakeholder made the following comment:

*'Wherever we have a pharmacist we should consider how to leverage the partnership to increase the clinical impact. The challenge is the way we train the pharmacists. We train them to work independently rather than work with others.'* Quote from structured interview

Taking the pharmacist, technicians and assistants on a journey to develop hospital pharmacy services will be key for success of future endeavours.

Future directions of the pharmacy technician and assistant workforce was not the focus of the national survey, however this forum was used to gain initial input into future directions, with a single open ended question asking 'Where do you see technician and assistant roles in the future?'

The following themes were identified as the top 5 most frequently cited:

1. Clinical roles including medication reconciliation, counselling and ward technician roles
2. Accuracy checking technicians
3. Technician led dispensaries
4. Research, data collection and education
5. Dispensing and impost management

**Table 5** summarises some of the technical and clinical roles that the focus groups noted as areas where hospital pharmacy technicians/assistants could take on a greater role in the future.

**Table 5: Future roles in Australia - Focus Group Responses**

	New South Wales (Sydney)	Victoria (Melbourne)	Western Australia (Perth)
<i>Future roles that would enhance clinical pharmacist roles in hospitals</i>	Medication history taking and initial medication reconciliation with referral of issues identified to the pharmacist Technician run services including dispensaries and manufacturing units Stock control for inpatients	Initial screening of patient's medications at admission and prioritisation (i.e. location of medications and talk to patients about medication at time of admission) Technician checking Take over all designated drug supply to wards	Medication reconciliation on admission – initial history and screen against history Discharge counselling Supply function of non-imprest meds
<i>Technical Roles in Future</i>	Management roles including performance review of staff Technician checking Drug use evaluation activities under the direction of a pharmacist	Technician managers inclusive of complete technician run dispensaries with pharmacist clinical triage Universal technician checking Running and managing reporting	Technician checking dispensary manager S4/S8 responsibility assembly
<i>Clinical Roles in Future</i>	Counselling patients especially at discharge (would require increase in knowledge base) Best possible medication history taking Liaising with medical team as appropriate	Initiation of medication reconciliation form in obtaining necessary information for listing of admission medicines/ sources/ supply before final review by a pharmacist Therapeutic drug monitoring roles (reviewing data, basic calculations and reporting to pharmacists) Counselling patients	Medication history and medication reconciliation Checking Medication audits/DUEs

Structured interviews further elaborated on some of these potential tasks:

- **Data collection roles.** For example: current medication chart, pathology results, past medical history. This data can be provided to the clinical pharmacist for decision making.
- **Dispensary tech-checking.** Tech check Tech systems for inpatients, IV additives (aseptic transfer) and potentially outpatients.
- **Medication information.** Generation of discharge medication profiles to be checked by pharmacist and protocol driven interactions with patients for a variety of medication counselling roles.
- **Medication reconciliation (MR).** Specifically, gathering information and completing the reconciliation.
- **Management roles.** Technician led dispensaries, staff management, and education management.
- **Patient roles.** Medication history taking, assessing ability to self-medicate, management of patient own medications.

It is interesting to note that many of the roles suggested in this section are roles that pharmacy technicians/assistants currently undertake as part of role development in selected hospitals in Australia. In addition, many of these technical roles can be currently undertaken within the remit of current state based pharmacy legislation.

### 7.1.2 Barriers/limitations

Human resources, sourcing trained technicians and the limited number of full time equivalent positions attributed to technician roles are limiting factors in developing future technician roles. Additionally, training and education quality, consistency and availability, needs to be improved to ensure consistency in task provision across sites. Comments relating to the lack of career progression and remuneration resulting in a lack of appropriate personnel in the roles were also made. A lack of standardisation across the country is a limiting factor for career progression, where progression may involve movement between hospitals. Before advancing the roles of technicians/assistants, a well-recognised education and competency development program is required.

Currently, hospital pharmacy technicians/assistants are not clinically trained nor are they trained as autonomous practitioners, with judgement', 'clinical reasoning' and 'management' competencies currently not addressed through existing qualifications. Under current legislation, errors made by them will still be the responsibility of the pharmacist. If technicians were to greatly expand their role, they need to have the legal responsibility, with liability a significant point of discussion within the focus groups.

As noted earlier in this paper, the current education provisions for pharmacy technicians/assistants fall below what the industry requires for many of the extended roles that these workers can currently undertake, with examples of overseas employees being used to fill this national skills gap. Introducing new qualifications and updating existing qualifications in the National Qualifications Framework is a large undertaking, while the introduction of National Professional Competency Standards and credentialing mechanisms are well within the remit of SHPA.

Any development of pharmacy technician/assistant roles must involve pharmacists, who may need to be socialised to the use of pharmacy technicians/assistants as part of pharmaceutical services provision as a team.

Pharmacists need to 'feel safe on this journey' to ensure they realise that any extension of pharmacy technician/assistant roles is not encroaching on the existing role of pharmacists. Acknowledging that some pharmacists may not be interested in extended clinical roles but would rather stay with an administrative focus is also necessary. In the same way, many pharmacy technicians/assistants do not have a desire to extend their roles beyond their current functions.

In relation to extended scope of practice roles the following comment was made:

*'Perception from some pharmacists is that pharmacy technicians can't take on the roles. Perception from some pharmacy technicians is that they can't take on the roles either'* Quote from structured interview

At the state and territory level pharmacy legislation governs who can undertake certain activities such as dispensing and dangerous drugs movements, while industrial relations instruments such as awards and EBAs determine role definitions, influence activity ranges for cadres, drive education and create the structures for possible career advancement.

At the hospital level the hospital executive, finance considerations and human resources departments are the 'levers of change' that can be engaged by Directors of Pharmacy. Significant change is possible under current arrangements at the individual hospital level where the Director of Pharmacy is able to effectively interact with these levers of change.

State and territory wide change, and the possibility of more harmonised national systems for hospital pharmacy technicians/assistants will require significant advocacy and lobbying for change to take place.

### 7.1.3 Legal considerations

A significant question presented to focus groups and in the structured interviews was, "Extending the role of pharmacy technicians and assistants is a balance of 'accountability' and 'professional responsibility': what role does registration have?"

In Australia the state ministers of health collectively decide which professions should be registered. There are currently 14 registered health professionals as part of the national registration scheme with paramedics currently being considered for national registration. It is unlikely that the role of pharmacy technicians would develop to a threshold where registration would be considered in the Australian context in the near or medium term. There is a limited appetite on the part of health ministers, for admitting further cadres to this scheme (2).

In the Australian context other forms of health professional quality assurance exist. For example, credentialing that is monitored and reviewed by a professional society. Such an approach is a valid way to balance responsibility and accountability. Dietitians and other health professionals are credentialed in such a way.

Workforce development of specific cadres is an organic process where scope of practice and increased activities are driven by a profession with ongoing interaction with key stakeholders. When these activities reach a threshold which significantly affects patient care then the regulators get involved. In the Australian context this would be the ministry of health in each state and territory.

One of the current limitations to increasing scope of practice for hospital pharmacy technicians/assistants is the absence of a mechanism that balances 'accountability' and 'professional responsibility', underpinned by robust competency based education and continuing professional development. Such an absence sees technicians/assistants less engaged in their profession (a lack of professional satisfaction and ownership), particularly those that would like to improve their role.

Addressing this issue at a national level, considering national competencies, and providing professional insurance liability cover to suitably credentialed individuals, would provide a solid platform from which to build the more advanced roles that may be undertaken by hospital pharmacy technician/assistants.

The experience, roles and desires of hospital pharmacy technicians/assistants varies considerably across Australia and as such any system considered needs to initially ensure a solid basic foundation for entry level positions while giving opportunity for advancement for those who wish to move through that process.

#### 7.1.4 What do hospitals need to move forward?

This question was asked through structured interviews and within the focus groups. The themed results can be grouped into three main areas:

**Advocacy tools and management supports** – to support the improved utilisation and expanded scope for hospital pharmacy technicians/assistants (including business case facts and associated evidence). This would include both tools and direct technical support to drive change implementation.

**Professional standards** – that clearly document an agreed set of competencies against set activities, supported by a learning passport to allow movement of staff between hospitals and potentially states and territories.

**Finance** – to support the upskilling of pharmacy technicians/assistants, the time needed for project work and evidence gathering, the change process of role development, and any new positions.

## 8 The role of SHPA

*'We need to have clarity around a pathway for this expanded role. There has never been a roadmap, for the profession to understand and the steps needed to make this happen. Such steps need to be relevant to: pharmacists, pharmacy technicians, departments of health etc. SHPA has an enabling role which in the future they could hand over to health departments. SHPA has the mandate to create this innovation.'* Quote from structured interview

The structured interviews and focus groups clearly demonstrated that SHPA has the brand and respect among stakeholders to take a leadership role defining standards for pharmacy technician/assistant roles and associated activities, supporting the development of these competencies through appropriate quality supportive training and guiding the profession through a process of optimal use of hospital pharmacy technicians/assistants to both free up pharmacists to engage in advanced clinical activities and to support the development of an improved professional environment for pharmacy technicians/assistants.

The following opportunities for SHPA were suggested by participants:

- To influence the education system, create standardisation, mandatory training and continuing education requirements that meet workplace needs.
- To create a national standard definition of roles, competencies and a framework for credentialing (defining the baseline and advanced roles).
- To enable the discussion for change within the hospital system and support the change financially.
- To provide leadership through a change management process; SHPA is the logical choice. (Noting the problems we have now are not different to the problems present 15 years ago)
- To accredit courses and/or administer credentialing exams.
- To be a registered training organisation delivering certificate training.
- To advocate to government what technicians and assistants can do and their role in pharmacy services provision.
- To provide ongoing continuing professional development offerings (once made mandatory).

### 8.1 The case for change

Through the engagement of national stakeholders this paper has:

- Provided a detailed review of the current roles and influencing frameworks in Australia
- With consideration of the global context, identified key areas for development in Australia
- Presented changes that are required to enable development

The following points summarise the need and drivers that would support SHPAs continued involvement to move the Australian hospital pharmacy technician/assistant agenda forward:

- Improving the ability of hospital pharmacists to engage in advanced clinical activities and supporting the career development of hospital pharmacy technicians/assistants is consistent with the vision and core strategic foci of SHPA.
- The desire to better utilise pharmacy technicians/assistants in Australian hospitals is a priority of many SHPA members with current development in this area ad-hoc and individual hospital based.

- Compared to our OECD partners Australia has some of the most underdeveloped systems for utilising hospital technicians/assistants.
- Currently there is no national approach to hospital pharmacy technician/assistant utilisation with SHPA as the only national body with an interest and mandate to lead development in this space.
- Current research demonstrates both a need to develop this space and an opportunity for effective change with strong national leadership from SHPA.
- Systematic national development of hospital pharmacy technicians/assistants could advance SHPA's strategic focus with opportunities such as a national accreditation system, credentialing and continued professional development for hospital pharmacy technicians/assistants.

Systematic health workforce change can be a slow process with the need for significant advocacy and development activities over a number of years. Within the Australian hospital pharmacy landscape there are a number of examples where individual hospitals led by empowered Directors of Pharmacy, have started to make significant local advances for the improved use of hospital pharmacy technicians/assistants.

There is currently an opportunity for SHPA to make considered and measured investments to develop the role of hospital pharmacy technicians/assistants. Investments that build on current developments, that would position SHPA as the professional leadership body in this space, and provide national direction and support that individual hospitals could use to leverage local improvements.

A set of prioritised interventions is proposed.

## 8.2 Prioritised interventions for SHPA to consider

### 8.2.1 SHPA vision for Australian hospital pharmacy technicians and assistants for 2026

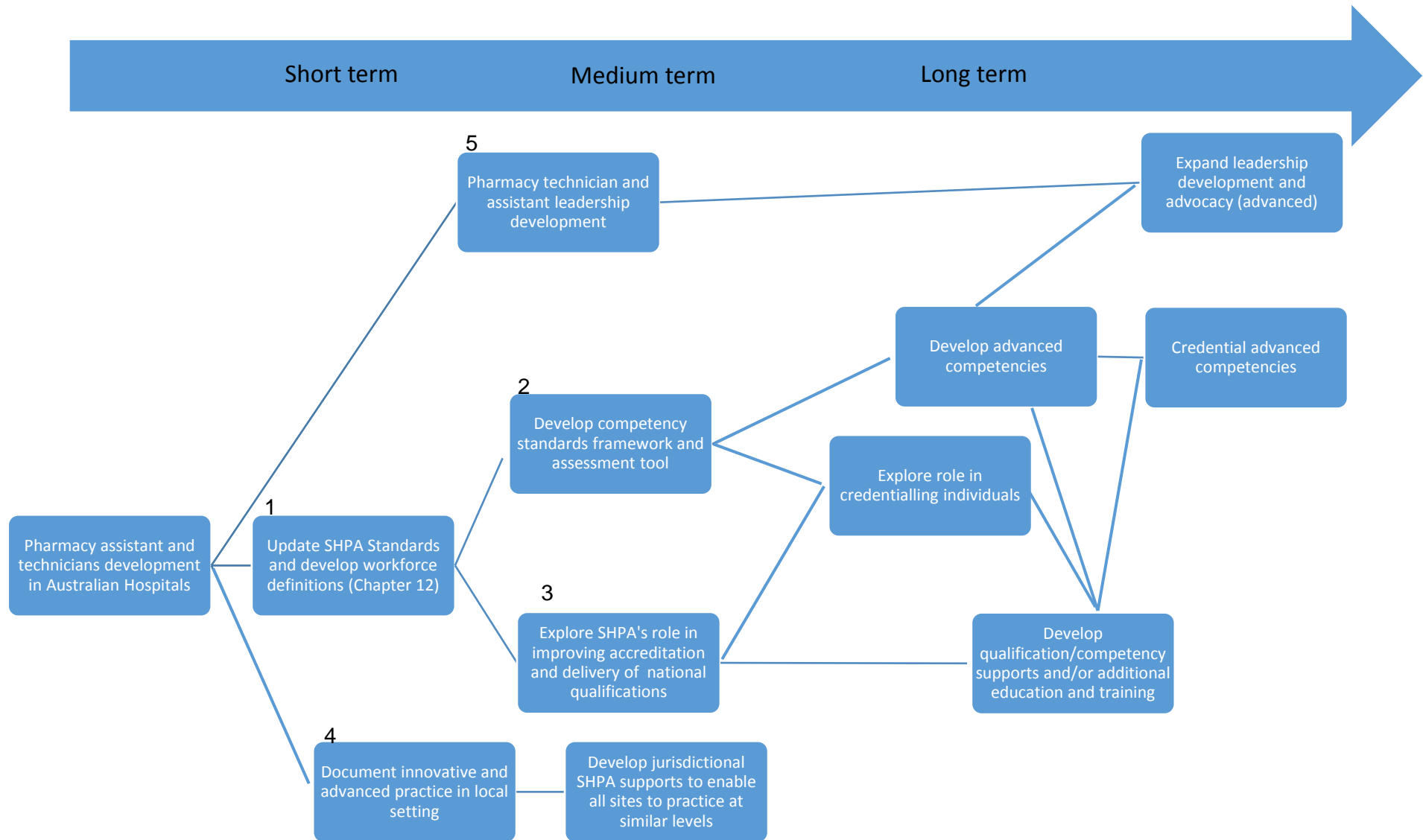
**A national environment where entry level technicians/assistants have a sound understanding of their role and access to education that supports the development of entry and advanced level competencies. Where technicians/assistants can undergo credentialing for specific practice areas with national certification, enabling movement between hospitals across Australia. Where technician/assistant leaders are grown from within to assist in the ongoing development of the profession, working in partnership with pharmacists to provide enhanced patient care.**

Progress towards this vision may be made with the following interventions:

1. **Update current SHPA Standards and workforce definitions available in the SHPA Standards of Practice for Clinical Pharmacy Services**
2. **Develop an Australian pharmacy technician/assistant competency standards framework and explore SHPA's role in credentialing individuals for defined competency areas from entry level to advanced level**
3. **Explore SHPA's role in improving accreditation and delivery of national qualifications**
4. **Document current innovative and advanced practice in each jurisdiction and consider SHPA support required to broaden this level of practice Australia-wide**
5. **Hospital pharmacy technician/assistant leadership development**

These five activities are expanded in the following pages and provide immediate next steps opportunities for SHPA. **Figure 3** provides a visual interpretation of the how each intervention may fit together over time.





**Figure 3: Map of suggested interventions**

## 8.2.2 Intervention 1: Update current SHPA Standards and workforce definitions available in the SHPA Standards of Practice for Clinical Pharmacy Services

### Objective

To ensure SHPA practice standards for pharmacy technicians and assistants are updated reflecting current and future hospital workplace needs and expectations with supporting definitions for key workforce members (e.g. pharmacy technician, pharmacy assistant).

Note: National professional standards must consider jurisdictional variation and explain what is possible within current legislation

### Steps

- Federal Council to commission review
- Working group to be formed
- Review current guidelines in light of the redesign project report
- Prepare updated guidelines with supporting workforce definitions
- Undertake consultation process
- Federal Council to endorse updated standards and definitions
- Publish

### Timeline

Federal Council commission review by November 2016

6 months for completion

### Level of Effort

1 FTE for 10 days

### Stakeholders

- Federal Council
- State Branches
- National Pharmacy Technician Network
- Redesign Project Steering Committee
- SHPA members
- Hospitals and Health Services
- Consumers
- Pharmacy Board of Australia

### 8.2.3 Intervention 2: Develop an Australian pharmacy technician/assistant competency standards framework and explore SHPA's role in credentialing individuals for defined competency areas from entry level to advanced level

#### Objectives

To develop an Australian hospital pharmacy technician/assistant competency standards framework that reflects current and envisioned practice up to 2026, from an entry to advanced level.

To develop practice based competency assessment tools and explore SHPA's role in formally credentialing individuals who practice to standard, from an entry to advanced level.

#### Steps

- 10 year vision/goals (i.e. projection to 2026)
- Build on UK Framework and contextualise into Australian experience
- National consultation and international link with FIP (Education Program)
- Methodology used by FIP in developing competency framework
- Validation process
- Focus group discussion
- Online survey validation
- Federal Council review and approval of competency framework
- Concurrently explore SHPA's role in credentialing individuals for defined competency areas from entry to advanced level

#### Timeline

12 months

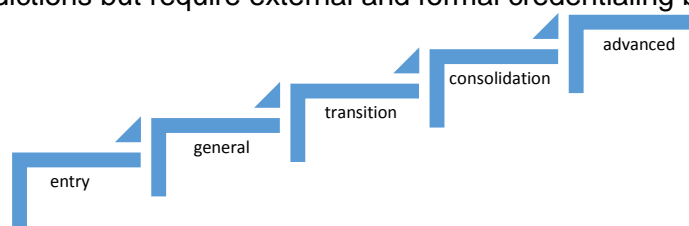
#### Level of Effort

0.5 FTE for 12 months (SHPA grant via National Translational Research Collaborative [NTRC])

#### Stakeholders

- Federal Council
- State Branches
- International Pharmaceutical Federation (FIP)
- National Pharmacy Technician Network
- Steering Committee Redesign Project
- Members
- Hospitals and Health Services
- Consumers

**Note:** Analogous to Advanced Pharmacy Practice Framework – there is a need to develop a stepped approach (see below) to achievement of technician/assistant competencies in Australia. In Australia, there is no measure of performance levels per competency; i.e. to reflect the performance continuum associated with learning and career progression. The use of such principles would better support and guide the professional growth of technicians/assistants, and be more accessible nationally, across multiple sites and jurisdictions but require external and formal credentialing by SHPA.



## 8.2.4 Intervention 3: Explore SHPA's role in improving accreditation and delivery of national qualifications

### Objective

To explore the SHPA's role in improving accreditation and delivery of national qualifications to ensure the development of quality competencies currently sort after by the Australian hospital pharmacy community.

### Long term vision

Improve the quality of national qualifications to ensure the development of quality and consistent competencies in the pharmacy technician and assistant workforce.

### Steps

- Steering committee to be formed and develop terms of reference, which include:
  - Exploration of feasibility to improve accreditation and delivery of national qualifications
  - Development of a recommendation on the role, if any SHPA should take in regards to the accreditation and/or delivery of national qualifications
  - Review of course content and flexibility of pharmacy units to be delivered
- Terms of reference to be approved by Federal Council
- Complete business case to compare feasibility of accrediting and/or delivering qualifications  
Options to consider include:
  - Accreditation of current qualifications delivered by current providers
  - Explore the role of SHPA in improving accreditation and delivery of national qualifications
- Make recommendation on most feasible and practical option in business case
- Outline steps required to progress recommendations
- Federal Council review of business case and decision regarding future direction

### Timeline

20 – 30 days

### Level of Effort

0.4 FTE over 6 months

Will require:

Stakeholder Interviews/financial analysis, including cost of accrediting current qualifications

### Stakeholders

- Federal Council
- State Branches
- National Pharmacy Technician Network
- Pharmaceutical Society of Australia/cooperating registered training organisation
- Members
- Hospitals and Health Services

Note 1: SHPA could therefore have more influence in changing the nature and breadth of qualifications (e.g. beyond Certificate level) and impose greater consistency across Australia. This may be possible through accrediting the qualification.

Early entry of SHPA into this space would position it for a future where pharmacy technician/assistant education was compulsory and where SHPA could support pharmacy technicians/assistants in advanced practice areas.

## 8.2.5 Intervention 4: Document current innovative and advanced practice in each jurisdiction and consider SHPA support required to broaden this level of practice Australia-wide.

### Objective

To document current jurisdictional based innovative and advanced practice in the utilisation of hospital pharmacy technicians/assistants working in partnership with pharmacists. Each case study to detail how the hospital pharmacy service developed the practice of pharmacy technicians/assistants within their local and state context inclusive of:

- Interpretation of legislation
- Interpretation of industrial agreements
- Engagement of executive
- Practical implementation inclusive of barriers for sustainability

### Steps

- Reference group to be formed
- Identify cases from each jurisdiction for each hospital type [urban vs rural] that display innovative or advanced practice use of pharmacy technicians/assistants
- Prepare a template for the case study (e.g. a narrative case overviewing key elements or a structured case study with set headings)
- Template elements/questions to include:
  - How did you interpret the legislation?
  - How did you get executive on board?
  - How the site developed and advanced the role of pharmacy technicians/assistants in the specific state or territory, within the legislative and industrial environment
  - How pharmacist time was released for other duties
- Reference group to review and approve the template developed
- Case studies need to be written up in an accessible and practice based manner
- Collect study data
  - Option 1 – Project Officer goes to site to interview, observe and develop case study with hospital pharmacy site and photo evidence
  - Option 2 – Email template to hospital pharmacy site and review completed templates
- Analyse exemplar cases for trends across the country
- Outcome may include a 1 page ‘steps to success’ or ‘key requirements for success’ as determined by analysing case studies undertaken to look for these common aspects across case studies
- Outline SHPA’s role to ensure the key factors are present in hospitals to enable innovative and advanced practice
- Publish results in an accessible and practice based format

### Timeline

- Identification of cases of best practice by reference group [1 week]
- Preparation of template [1 day]
- Collection of data [Depends on number – days to weeks]
- Analysis of data [2 weeks]
- Publish

### Level of Effort

0.4 FTE over 6 months – possible Master’s Project and/or coordinate with National Translational Research Collaborative (NTRC).

## **Stakeholders**

- Federal Council
- State Branches
- National Translational Research Collaborative
- National Pharmacy Technician Network
- Members
- Hospitals and Health Services
- Consumers

## 8.2.6 Intervention 5: Hospital pharmacy technician/assistant leadership development

### Objective

Enable pharmacy technicians/assistants to drive their own professional development and workforce change within Australian hospitals and the Society of Hospital Pharmacists of Australia by offering support to develop leadership skills.

### Steps

- Decision on which leadership competencies SHPA wishes to focus
  - (Leader, team skills, project management, finance, management, communication etc.)
- Exploration of options for SHPA to promote leadership development, examples:
  - Certificate in health leadership (registered training organisation)
  - Consider relevance of existing development opportunities
  - Scholarships to take up leadership skills from existing opportunities
  - Short courses
  - Mentorship
  - Leadership development days associated with the conference
  - Needs to be relevant and of good quality
- Outline of SHPAs role in making this information accessible

### Timeline

6 months

### Level of Effort

Depends on SHPA focus

### Stakeholders

- Federal Council
- State Branches
- National Pharmacy Technician Network
- Members
- Hospitals and Health Services
- Consumers

## 9 Appendices

### 9.1 Appendix 1: Terms of Reference

#### **TYPE OF COMMITTEE:**

Internal

**PREAMBLE:** The 2014 and 2015 Futures Summit identified Future Models of Clinical Practice as a key theme for development by SHPA. The SHPA Federal Council has determined that in order to develop new and advanced practice roles in integrated care there is an immediate need to build capacity in the pharmacist workforce through developing and expanding the scope of practice of pharmacy technicians and assistants.

The Pharmacy Technician and Assistant Role Redesign within Australian Hospitals project aims to review the current roles and frameworks that support hospital pharmacy technicians across Australia and overseas, identify variations in scope of practice, and barriers to changes in scope. From a national perspective the project will aim to develop Australian pharmacy technician scope with appropriate supporting tools to ensure sustainability into the future.

The project will consult with a range of stakeholders to identify what is required to enable changes to roles to occur in the future. Such requirements may include task definition, mentoring, practice-based competency training, industrial relations and/or legislative changes.

The Redesign Project will ultimately build capacity in the Australian hospital pharmacy workforce and improve our ability to meet the ever expanding requirements for hospital pharmacy services from our patients.

**PURPOSE:** The Re-design Project Steering Committee purpose is to guide the direction of the re-design project, ensure engagement of key stakeholders, provide expert content knowledge and drive the development of tools that will support the progression of the Australian Hospital pharmacy technician workforce.

#### **RESPONSIBLE TO:**

Federal Council

#### **MEMBERSHIP:**

- Chair\*
  - Supporting Councillor
  - National Pharmacy Technician Network Chair (NPTN)
  - Pharmacy Technician member of SHPA
  - Any other person who may be appointed from time to time by the Federal Council.
- \*The Chair may also be the supporting Councillor. If this is the case, an additional Councillor will be appointed.

The Project Officer acts as secretariat to the Steering Committee.

#### **APPOINTMENT:**

The Chair, supporting Councillor and National Pharmacy Technician Network Chair are appointed by Federal Council. Other Steering Committee members are selected by an expression of interest process to SHPA members. The Chair recommends



membership selections for appointment to be ratified by Federal Council. Federal Council will also appoint a Deputy Chair from the Steering Committee membership.

Members are appointed for the life of the project or until otherwise decided by Federal Council. Federal Council reserves the right to withdraw any appointment should it so desire.

**MEETINGS:** Meetings are to be held via teleconference or other electronic means as needed. Face to face meetings may be necessary on occasion. Support and advice will be provided by the Project Officer and other SHPA Secretariat staff.

**QUORUM:** A quorum of the Committee shall consist of a majority of appointed members. At least one Councillor must be present.

**ROLE OF STEERING COMMITTEE:**

- Provide expert advice and guidance to the Project Officer on the direction and scope of the project to ensure high quality outcomes
- Support decision making on the scope of the project based on engagement and communication with key stakeholders
- Monitor timelines for completion of key deliverables and ensure appropriate progression throughout the course of the project
- Report on progress and outcomes of the redesign project to Federal Council and make recommendations to Federal Council on future policies, standards, training, tools and professional supporting systems required to build capacity nationally in the pharmacy support workforce

**TERMS OF REFERENCE:**

- Develop discussion document outlining the current status of hospital pharmacy technician roles in Australia including comment on professional, industrial and legislative frameworks, policies, standards and training that support these roles.
- Use discussion document to provide guidance on the use of existing frameworks, programs and accreditation processes for pharmacy technicians across Australia to inform the direction of the Redesign project.
- Identify and engage key stakeholders in the redesign project from the outset to ensure suitability and sustainability of recommendations of scope and workforce redesign
- Identify future scopes for hospital pharmacy technicians with reference to overseas counterparts that will reflect workplace expectations and requirements
- Develop a blueprint discussion document outlining barriers to changes in scope and changes required to enable development of scope of practice for pharmacy technicians to occur
- Consider the requirements for future standards, policies, procedures, tools and other resources that will support the development of the hospital pharmacy technicians and the models of care that engage this workforce
- Develop strategies for Federal Council consideration about advocating for the progression of this workforce and the models of care that support hospital pharmacy technicians from a national perspective
- Ensure the project is conducted with the highest integrity and the developed guidance documents and tools instil confidence in members and other stakeholders
- Oversee communications, promotion, and any formal publication of the project

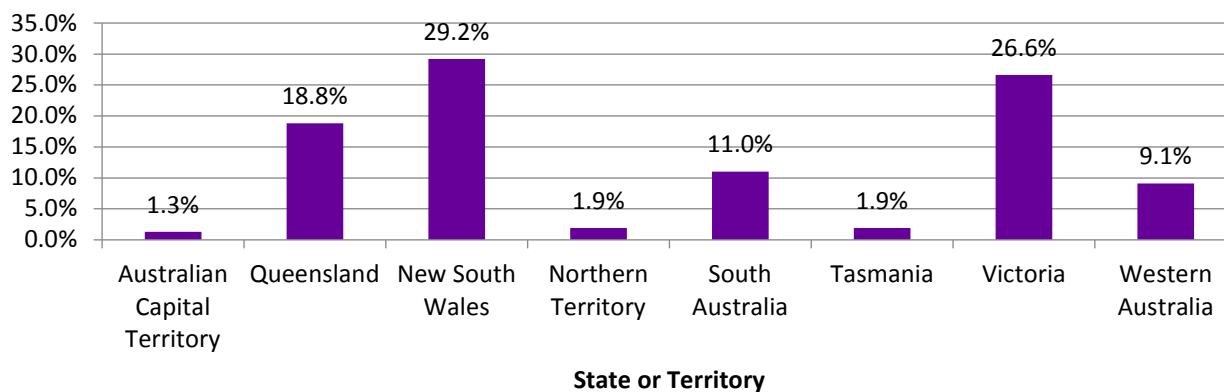
**Please note:** Adherence as relevant to other SHPA policies and guidelines including latest versions on the [SHPA Conflict of Interest](#) ; [SHPA Code of Ethics](#) and [Social Media](#) policy documents.

Author: RRaleigh

## 9.2 Appendix 2: Engagement across Australia

National Survey – representative across Australia

**Graph 1: Percentage of Overall Response by Location**



Focus Groups:

New South Wales, Victoria, Western Australia

Mini Case Studies:

Australian Capital Territory - Major City Public Acute Group A Hospital

Queensland - Major City Principal Referral

New South Wales - Major City Private Acute Group A Hospital

South Australia - Outer Regional Public acute group B hospital

**Structured Interviews:**

Queensland - Outer Regional Public Acute Group C hospital

Northern Territory – Department of Health

South Australia - Major City Public acute Group A hospital

Tasmania - Inner Regional Private Acute Group A hospital

Victoria - Major City Principal Referral Hospital

Additional: Pharmacy Board of Australia

Project engagement across jurisdictions:

- ACT – 1
- QLD – 2
- NSW – 2
- NT – 1
- SA – 2
- TAS – 1
- VIC – 2
- WA - 1

The Redesign Project covers a wide range of hospital from Principal Referral to Group C across a range of locations in both the Public and Private sectors.

## Chapter 12: Pharmacy Assistants and Technicians Supporting Clinical Pharmacy Services

### INTRODUCTION

Pharmacy assistants and technicians have moved from traditional dispensing and supply roles to assisting pharmacists who provide clinical pharmacy services to individual patients. The role of pharmacy assistants and technicians in supporting pharmacists continues to evolve.

### OBJECTIVE AND DEFINITION

#### Objective

When pharmacists and pharmacy assistants or technicians work as a team, the time the pharmacist has to deliver clinical services to individual patients is increased.

#### Definition

The Pharmacy Board of Australia has stated that the role of pharmacy assistants and technicians must be limited to activities that do not require professional judgement or discretion.<sup>1</sup> Activities that require clinical judgement such as listening to patients, assessing treatment or counselling patients are not to be undertaken by pharmacy assistants and technicians.

### EXTENT AND OPERATION

The pharmacist remains legally and ethically accountable for clinical pharmacy services delivered to individual patients. The extent to which pharmacy assistants and technicians can support pharmacists is dependent on the ability of the pharmacist to supervise the work of the pharmacy assistant and technician. The role of the pharmacy assistant and technician should be clearly defined. The supervising pharmacist, pharmacy assistant and technician and management should know the extent and limitations of the role.

Supporting pharmacists to deliver clinical pharmacy services is not considered an entry-level activity but is an advanced practice role for pharmacy assistants

and technicians. Pharmacy assistants and technicians undertaking clinical pharmacy support roles should hold an appropriate qualification (equivalent to the HLT40512 – Certificate IV in Hospital–Health Services Pharmacy Support) and have suitable experience.

To determine if a pharmacy assistant or technician is competent to perform a particular activity that supports a pharmacist who delivers clinical pharmacy services refer to Table 12.1 and consider:

- the pharmacy assistant or technician's qualifications and the workplace training and education they have received
- how the activity can be assigned to ensure direct supervision by a pharmacist
- the benefits and risk of devolving the activity.

Adequate pharmacy assistants or technicians and support staff must be available to perform functions that would be considered technical, such as medicine distribution, supply of medicines for individual patients (during their admission and on discharge and transfer) and data collection and entry.

### POLICY AND PROCEDURE

Recommendations regarding the activities suitable for pharmacy assistants and technicians are summarised in Table 12.1. Roles not specified on this list are not included in any Australian qualification and should be interpreted as not suitable for pharmacy assistants and technicians at this time.

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Clinical activity	Activities suitable for pharmacy technicians	Activities not suitable for pharmacy technicians
Medication reconciliation	*detect new admissions/patients that require a clinical pharmacy service	*interview patient/carer to obtain medication history
	*where there are well-defined protocols, screen patients for their ability to self-medicate	*perform medication history review
	*communicate medicines supply information with health professionals, e.g. medical and nursing staff	*interview patient/carer to determine allergies
	*assist in managing the storage and retrieval of patient's own medicines	*compare medication history with medication chart
	*ensure all medicines required for the patient are available in the patient care area	*investigate medicines-related problems
	*communicate with external health professionals (GP, community pharmacist, nursing home/hostel staff) to obtain information for a medicine list for review by a pharmacist	
Medication management plan	*where there are well-defined protocols, use the checklist in the <i>National Medication Management Plan</i> or similar to identify patients at high risk of medication misadventure	*as per medication reconciliation

Clinical activity	Activities suitable for pharmacy technicians	Activities not suitable for pharmacy technicians
	*where there are well-defined protocols, use the checklist in the <i>National Medication Management Plan</i> or similar to identify patients that would benefit from an HMR referral or other follow-up	*interpret medicines changes in context of the medication management plan *clinical assessment of medication management *as per assessment of current medication management, clinical review, ADR management and TDM
<b>Assessment of current medication management</b>	*check the medicine order for compliance with legal and local requirements. Identify non-compliant orders and refer to the pharmacist when appropriate *annotate medication chart with information on the supply of the medicine, e.g. imprint item	*educate medical staff regarding prescription writing and medicine selection *annotate medication chart with clinical information, e.g. swallow whole, infuse over 30 minutes *ensure the medicine order is appropriate with respect to patient's previous medicine, patient-specific considerations, drug, dosage, form and method of administration *ensure all necessary medicines are prescribed
<b>Clinical review</b>	*access and record patient-specific laboratory data *screen laboratory data for abnormal or unexpected results for the pharmacist by comparing the result with a defined reference range or other parameter to assist the pharmacist's clinical review of the patient *screen patient-specific clinical information for the pharmacist by comparing the result with a defined reference range or other parameter to assist the pharmacist's clinical review of the patient	*interpret patient-specific laboratory data *interpret patient-specific clinical data
<b>Adverse drug reaction management</b>	*assist pharmacists with documenting and processing of confirmed ADR reports	*identify patients who have had a previous ADR as this is encompassed in medication history interview; is of limited value and requires medicine knowledge and clinical interpretation *ensure previous ADRs are documented *check ADR history as part of the dispensing process as this must be performed by a pharmacist
<b>Therapeutic drug monitoring</b>	*access and record drug levels *screen drug levels for abnormal results for pharmacists by comparing with defined reference range	*interpret drug levels
<b>Provision of medicines information to health professionals</b>	*no specific support roles to assist clinical pharmacists in this activity	*receive medicines information queries *search for medicines information without direct supervision of a pharmacist *interpret medicines information *discuss medicines information with patients, nurses or medical staff
<b>Provision of medicines information to patients</b>	*gather consumer medicines information (CMI) leaflets *distribute CMI leaflets to patients prior to counselling by pharmacist	*distribute CMI leaflets to patients with counselling *conduct counselling on any medicines *conduct counselling on disease state management *identify patients requiring medication counselling *identify patients requiring adherence aids
<b>Information for ongoing care</b>	*identify patients requiring communication with community health professionals *identify patients requiring further supply of medicines on discharge and if they consent to accessing these medicines through the PBS *assist in preparing information for transfer to community healthcare providers *assist in preparing a medicine list for the patient *communicate medicine supply information by telephone with community pharmacist and other health professionals *communicate by facsimile/e-mail/letter with community pharmacist, GP and nurse after a final check by a pharmacist	*communicate by telephone with GPs *provide information regarding medicines other than supply.
<b>Participation in interdisciplinary care planning</b>	*no specific support roles to assist clinical pharmacists in this activity as attendance requires gathering data and also the contribution of clinical expertise	

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