

Review of Accreditation Standards for Pharmacy Programs 2019: Performance Outcomes Framework draft 2

This document is the second draft of the Performance Outcomes Framework and represents a revision based on the feedback received at the two open consultations sessions in June 2019, and written feedback received from interested stakeholders. Further refinement and targeted consultation will continue to be undertaken.

Introduction and background

Why Performance Outcomes?

Throughout the draft Accreditation Standards for Pharmacy Degree and Intern Training Programs reference is made to the achievement/demonstration of performance outcomes to the appropriate level necessary for safe and socially accountable practice. This document sets out the Performance Outcomes to be achieved and demonstrated by pharmacy degree program graduates and applicants for initial general registration in Australia¹ and forms a companion to the Accreditation Standards. These Performance Outcomes were initially developed following feedback from stakeholders as part of the first and second consultation phases, and are based on the *National Competency Standards Framework for Pharmacists in Australia* (2016) together with a range of supplementary sources.

Following finalisation of the Performance Outcomes Framework in 2019, a process will be implemented that facilitates their regular review and incorporation in a timely manner of new and/or expanded scopes of practice as they develop and emerge.

Purpose

A key principle underpinning the review of the Accreditation Standards was that the Standards should be future-focused and provide significant flexibility to enable education providers to adapt their programs in response to new and emerging scopes of practice. This principle is consistent with and forms part of a commitment to social accountability in the education and training of pharmacists in Australia and New Zealand. Social accountability in pharmacy, as defined in the Glossary to the Accreditation Standards encompasses:

- a willingness and ability on the part of pharmacists to
 - o deliver culturally safe and responsive person-centred care
 - o address the health care needs of individuals and the wider society
 - o assume responsibility for the sustainable use of health care resources
 - o contribute to the ongoing improvement of individual and societal health outcomes
- the obligation of education providers to
 - o provide education and training programs leading to provisional and/or general registration which promote the development of socially accountable pharmacists
 - o undertake research and service activities targeted towards addressing the current and future priority health concerns of society
 - o advocate for, contribute to, and lead practice change for the ongoing improvement of individual and societal health outcomes

¹ In New Zealand, the equivalent document is the Competence Standards for the Pharmacy Profession (PCNZ, 2015). PCNZ will need to ascertain the applicability of the Performance Outcomes Framework to New Zealand degree program providers.

The Performance Outcomes complement the Accreditation Standards and provide a more detailed framework of the means by which pharmacists and pharmacy education providers articulate and enact social accountability at the milestone completion points of degree programs and initial general registration.

Rationale

Education providers must have a framework which allows them to collect and present evidence that their graduates meet the requirements of the profession at a standard commensurate with particular milestones along the path to registration. Specifically, the Performance Outcomes outline what an individual is able to do on successful completion of a relevant degree program and at the point of initial general registration (that is, on completion of all required elements of the intern year). As expressed by the Association of Faculties of Pharmacy of Canada, they are designed to signal curriculum priorities, “focus attention on outcomes that matter to patients, the profession of pharmacy and society” and “aim to advance pharmacy education so that [pharmacists] are prepared to meet the changing expectations of the communities they serve.”²

A Performance Outcome framework offers advantages in comparison to alternative frameworks such as learning outcomes and competency standards in that while considerable overlap exists between them

- performance is visible, demonstrable and observable whereas the learning which underpins performance is implied
- performance of discrete professional activities and behaviours is frequently dependent on the coordinated selection and application of multiple appropriate enabling competencies
- a Performance Outcomes framework allows specific tailoring to the needs of education providers and accreditation authorities while maintaining the integrity of the profession's consensus standards and expectations regarding competency and professional practice

Intent

The intent of publishing a Performance Outcomes Framework as a complement to the Accreditation Standards is to streamline the alignment of curriculum and assessment for providers of pharmacy education programs, and to provide transparency regarding the demonstrable performance to be expected by graduates of degree programs and initial general registrants. This transparency is intended to assist providers of intern training programs (and intern preceptors) in particular, by clarifying the expected entry performance of individuals commencing the intern year irrespective of the degree program from which they have graduated. It is also intended to assist providers to design and implement appropriate and authentic assessments which provide evidence of the achievement of relevant practice capabilities. An equivalent document, *A customised tool of entry-level competencies incorporating guidance on Pharmacy School and Intern Training Provider contributions* (2011), was published as a complement to the previous *National Competency Standards Framework for Pharmacists in Australia* (2010) and assigned responsibilities to pharmacy schools and intern training providers in the preparation and assessment of pharmacy graduates and candidates for initial registration as a pharmacist in Australia. The Performance Outcomes Framework represents the development and evolution of this approach.

² Association of Faculties of Pharmacy of Canada. (2017). AFPC Educational Outcomes for First Professional Degree Programs in Pharmacy in Canada (p. 4). Accessed 20-Feb-19 at https://www.afpc.info/system/files/public/AFPC-Educational%20Outcomes%202017_final%20Jun2017.pdf

The Performance Outcomes Framework does not replace any of the consensus documents endorsed by the pharmacy profession. Specifically, the Performance Outcomes do not represent a revision of the *National Competency Standards Framework for Pharmacists in Australia* (2016). The Performance Outcomes Framework is intended to be a means of:

- facilitating the assessment of competency within pharmacy programs
- assuring the profession that degree program graduates and initial general registrants have demonstrated the capability to undertake practice to the expected level

The Competency Standards Framework remains the definitive standard endorsed by the profession of pharmacy in Australia, and the Performance Outcomes are most appropriately regarded as a re-packaging in a manner that is tailored to serve the needs of education providers in teaching and assessing the achievement of those Competency Standards. Further, the articulation of “performance” highlights the need, in many circumstances, for the appropriate expression of multiple competencies in a coordinated and context-dependent manner to achieve a defined outcome, including for a patient. Where an individual is able to demonstrate all performance outcomes, that individual will have demonstrated achievement of all of the required Competency Standards.

Development of the Performance Outcomes Framework

Feedback from the first consultation phase of the Accreditation Standards Review indicated support for the development of a Performance Outcomes Framework but limited consensus regarding its nature. Respondents strongly expressed the belief that the *National Competency Standards Framework for Pharmacists in Australia* (2016) was appropriate, but were divided regarding the way it was used. Two potential options were endorsed to a similar extent:

- use of the Competency Standards Framework itself
- development of Performance Outcomes derived from the Competency Standards Framework but incorporating relevant material from multiple source documents

During phase 2 of the consultation on the Accreditation Standards, it was apparent that stakeholders viewed the Competency Standards Framework as the definitive standard for the practice of pharmacy in Australia and that the Performance Outcomes Framework must be consistent with and incorporate all of the competencies required for entry into the profession at the point of initial general registration. This requirement has been met through ensuring that all of the enabling competencies of the Competency Standards are covered in the Performance Outcomes Framework. The first draft of the Performance Outcomes framework was mapped to the enabling competencies of the Competency Standards and the final draft will similarly be mapped to ensure correspondence.

The Performance Outcome Framework has also been informed by a range of additional sources in order to provide additional guidance about the scope and nature of the activities or tasks to be performed and assessed. The consultation feedback indicated some support for the Pharmacy Learning Outcomes and Exemplar Standards (PhLOS)³ derived from the Threshold Learning Outcomes for Health, Medicine and

3 Stupans et al (2015) Australian Pharmacy Network: Learning outcomes for pharmacy curriculum. Accessed 31-May-2018 at http://www.olt.gov.au/system/files/resources/SI11-2117_Australian_Pharmacy_Network.pdf

Veterinary Science⁴ and material from this document has been incorporated into the Performance Outcomes. Other sources consulted in the development of the Performance Outcomes Framework include the:

- Professional Practice Standards 2017
- Codes and Guidelines (PharmBA, professional codes)
- General Pharmaceutical Council Accreditation Standards draft 2018 (Learning outcomes)
- Accreditation Council for Pharmacy Education Standards 2016 (Educational outcomes)
- Association of Faculties of Pharmacy of Canada Educational Outcomes 2017
- Graduate/Generic Qualities/Attributes/Capabilities – various Universities

together with feedback from participants in Governance and Reference Group meetings, and phase 2 of the consultation on the Accreditation Standards. The second draft represents a significant revision following specific consultation on the Performance Outcomes Framework during May and June 2019.

Structure

The Performance Outcomes Framework comprises five Domains which are aligned with the five Domains of the *National Competency Standards Framework for Pharmacists in Australia* (2016) as illustrated in the Table below.

Competency Standards Domain	Performance Outcomes Domain
1 Professionalism and ethics	1 Professionalism in practice
2 Communication and collaboration	2 Communication and collaboration
3 Medicines management and patient care	3 Professional expertise
4 Leadership and management	4 Leadership and management
5 Research and education	5 Research, inquiry and education

Each Domain includes a domain descriptor which is a summary statement of the scope of the domain, followed by a list of outcomes which describe the scope in more detail. In order to foreground the continuum of learning and development throughout the five years of the education pathway, two parallel streams have been articulated. The wording of each parallel Outcome in the two streams is consistent but not always identical in order to account for the differential level of performance expected of:

- graduates of approved Australian and New Zealand pharmacy programs, and
- applicants for initial general registration as a pharmacist in Australia

Milestones and assessment

The two milestones articulated in the Performance Outcomes Framework are:

1. completion of an approved Australian or New Zealand pharmacy degree program capable of leading to general registration
2. the point of general registration as a pharmacist in Australia, following completion of all elements of the intern year

⁴ Henderson et al (2011). Learning and teaching academic standards project health, medicine and veterinary science: Learning and teaching academic standards statement. Accessed 2-May-18 at http://www.olt.gov.au/system/files/resources/altc_standards_HMVS_210611_0.pdf

It is important to note that the achievement of milestone 1 clearly correlates with the responsibilities of degree program providers and thus the provider is expected to provide evidence that graduates of its programs have met the Performance Outcomes for that milestone.

The achievement of milestone 2, on the other hand, does not correlate with the responsibilities of intern training program providers, since they comprise one of a number of relevant stakeholders in the intern year, and are not able to dictate or monitor all aspects of interns' participation or performance. This represents a point of difference from the philosophy underpinning *A customised tool of entry-level competencies incorporating guidance on Pharmacy School and Intern Training Provider contributions* (2011), which focused only on education providers. Assessment of the demonstrated achievement of the Performance Outcomes required at the point of general registration is shared between regulatory authorities (APC, PharmBA), preceptors/supervising pharmacists, intern training program providers and interns themselves.

Individual performance in relation to each Performance Outcome must be assessed using appropriate methodologies and by appropriate assessors. Responsibility for assessment of achievement of the Performance Outcomes required at the point of general registration is shared between a number of stakeholders, and close collaboration will be necessary to ensure the assessments are appropriate and comprehensive, particularly as they involve work-integrated learning. The Australian Pharmacy Council and Pharmacy Board of Australia are currently refining the Intern Year Blueprint for assessment of performance during the intern year and the results of this work will be critical in informing the application of the Performance Outcome Framework. Specifically, this work is essential for delineating the roles and responsibilities of the stakeholders involved in assessments undertaken in the intern year, including interns themselves, preceptors and supervising pharmacists, intern training program providers, providers of external assessments (currently the APC and PharmBA) and any other relevant stakeholders. It is noted that the role of intern training program providers in the direct assessment of intern performance is currently limited and it is not anticipated that their role will increase or change substantially.

Underpinning knowledge, skills and behaviours

While the Performance Outcomes Framework describes observable performance, it is essential that the underpinning knowledge, skills and behaviours which comprise the necessary foundation for performance are clearly articulated and appropriate. At the current time, these are articulated in the six Learning Domains published as Appendix 1 of the *Accreditation Standards for Pharmacy Programs in Australia and New Zealand* which have been in place since 2014. It is proposed to retain these Learning Domains and to revise them as part of the current consultation to ensure that they retain contemporary relevance and promote a future focus for the curricula of degree programs in particular. The Learning Domains are found at Appendix A of this paper.

Domain 1 Professionalism in practice

Pharmacists are responsible and socially accountable for achieving and maintaining high standards of behaviour in order to earn and uphold the trust of the public and meet the expectations of the profession.

On successful completion of an approved Australian or New Zealand pharmacy degree program capable of leading to general registration, pharmacy graduates have demonstrated evidence of competency in educational, simulated and/or work-integrated learning environments, in	At the point of general registration as a pharmacist in Australia, pharmacists are competent in and committed to
1.1 promoting both the best interests and safety of patients and the public	1.1 promoting and ensuring both the best interests and safety of patients and the public
Role plays, "hypotheticals", preceptor assessment	Preceptor observation and assessment, role plays
1.2 promoting and advocating for cultural safety, respect and responsiveness, particularly in relation to Aboriginal and Torres Strait Islander and/or Māori peoples	1.2 promoting , maintaining and advocating for cultural safety, respect and responsiveness, particularly in relation to Aboriginal and Torres Strait Islander and/or Māori peoples
Role plays, OSCE	Preceptor observation and assessment, role plays
1.3 recognising the presence and causes of health inequities and disparities, including the impact of social determinants of health	1.3 recognising the presence and causes of health inequities and disparities, including the impact of social determinants of health, and seeking to address them
Assignments, presentations, projects	Assignments, presentations, health promotions

<p>1.4 practising legally by</p> <ul style="list-style-type: none"> a. demonstrating contemporary knowledge and application of legal requirements relating to community and hospital pharmacy practice within their jurisdiction b. demonstrating awareness of the processes for maintaining contemporary familiarity with key legislative instruments 	<p>1.4 practising legally by</p> <ul style="list-style-type: none"> a. complying with all legal obligations in their practice b. maintaining contemporary familiarity with key legislative instruments
<p>Examinations, role plays, OSCE</p>	<p>Examinations, role plays, written exam, oral exam</p>
<p>1.5 practising ethically and with integrity by</p> <ul style="list-style-type: none"> a. identifying potential ethical issues and dilemmas, including conflicts of interest, relating to practice b. considering alternative strategies and choosing an appropriate course of action in response to ethical issues and dilemmas c. demonstrating awareness of relevant professional codes, guidelines and standards and their content d. recognising and formulating strategies to respond appropriately to situations which fall outside their expected scope of practice or competence 	<p>1.5 practising ethically and with integrity by</p> <ul style="list-style-type: none"> a. recognising ethical issues and dilemmas, including conflicts of interest, in practice as they arise b. considering alternative strategies and adopting an appropriate course of action in response to ethical issues and dilemmas c. maintaining current familiarity and compliance with professional codes, guidelines and standards d. recognising and responding appropriately to situations which fall outside their current scope of practice or competence
<p>Examinations, role plays, OSCE, discussion and debates, portfolio</p>	<p>Examinations, role plays, written exam, oral exam</p>
<p>1.6 demonstrating a proactive and reflective approach to developing their own professional competence and expertise</p>	<p>1.6 adopting a proactive and reflective approach to maintaining and developing their own professional competence and expertise in order to remain fit-to-practise</p>
<p>Learning plans, reflective activities, portfolio</p>	<p>CPD Plan and log</p>

<p>1.7 demonstrating awareness of appropriate change management principles and strategies</p> <p>Assignments, presentations, projects</p>	<p>1.7 responding to change in a flexible and adaptable manner</p> <p>Preceptor observation and assessment</p>
<p>1.8 accepting personal responsibility and accountability for decisions and actions in simulated and/or work-integrated learning environments</p> <p>Preceptor assessment, role plays, group tasks, peer assessment</p>	<p>1.8 accepting personal responsibility and accountability for decisions and actions in professional practice</p> <p>Preceptor observation and assessment</p>
<p>1.9 upholding and maintaining the reputation and value of the profession</p> <p>Preceptor assessment, tutor assessment</p>	<p>1.9 upholding and advancing the reputation and value of the profession</p> <p>Preceptor observation and assessment</p>

Domain 2 Communication and collaboration	
Pharmacists communicate appropriately and effectively with others, both within the profession and outside it, and work collaboratively with patients and within inter-professional health care teams in order to optimise patient and societal outcomes.	
On successful completion of an approved Australian or New Zealand pharmacy degree program capable of leading to general registration, pharmacy graduates have demonstrated evidence of competency, in educational, simulated and/or work-integrated learning environments, in	At the point of general registration as a pharmacist in Australia, pharmacists are competent in and committed to
<p>2.1 communicating appropriately and effectively with a socially and culturally diverse range of people in a manner which inspires confidence and trust by</p> <ol style="list-style-type: none"> demonstrating appropriately tailored verbal, written and non-verbal communication engaging with all persons in a respectful, culturally appropriate, compassionate, responsive and empathetic manner demonstrating awareness of and sensitivity to Aboriginal and Torres Strait Islander and/or Māori history, communication styles and community protocols demonstrating appropriate communication and interpersonal behaviours 	<p>2.1 communicating appropriately and effectively with a socially and culturally diverse range of people in a manner which inspires confidence and trust by</p> <ol style="list-style-type: none"> using verbal, written and non-verbal communication which is appropriately tailored to the professional practice context and the capabilities and health literacy of the other person(s) engaging with all persons in a respectful, culturally appropriate, compassionate, responsive and empathetic manner in professional practice engaging in culturally appropriate and sensitive communication with Aboriginal and Torres Strait Islander and/or Māori people in professional practice which respects their history, culture and protocols using appropriate communication and interpersonal behaviours in professional practice interactions
Role plays, OSCE, written assignments, preceptor assessment, tutor assessment, peer assessment	Role plays, OSCE, written assignments, preceptor assessment, tutor assessment, peer assessment
<p>2.2 documenting, communicating and recording relevant information, findings, decisions, recommendations and other information accurately and concisely, taking due account of privacy and confidentiality</p>	<p>2.2 documenting, communicating and recording relevant information, findings, decisions, recommendations and other information accurately, concisely and in a timely manner, taking due account of privacy and confidentiality</p>
Written assignments, OSCE, examinations, medication reviews, dispensing and compounding practical assessments	Written assignments, OSCE, preceptor assessment, medication reviews, dispensing and compounding records

<p>2.3 contributing to the interprofessional collaborative health care team in order to optimise patient outcomes by</p> <ul style="list-style-type: none"> a. demonstrating an understanding and appreciation of the roles of pharmacists and other members of the interprofessional collaborative care team b. creating and maintaining effective intra- and interprofessional relationships, and working in partnership to achieve negotiated, agreed-upon objectives c. demonstrating appropriate teamwork behaviours d. demonstrating appropriate communication at transition points in patient care to reduce risks to patients and ensure safe and effective continuity of patient care 	<p>2.3 contributing to, and taking prominent roles where appropriate in the interprofessional collaborative health care team, in order to optimise patient outcomes, by</p> <ul style="list-style-type: none"> a. respecting and appreciating the complementary roles of pharmacists and other members of the interprofessional collaborative care team b. creating and maintaining effective intra- and interprofessional relationships, and working in partnership to achieve negotiated, agreed-upon objectives c. consistently engaging in appropriate teamwork behaviours d. using appropriate communication at transition points to reduce risks to patients and ensure safe and effective continuity of patient care
<p>Assignments, team-based activities, medication reconciliation, discharge summaries, reflective activities, role plays, medication reviews, simulated case conferences</p>	<p>Preceptor assessment (eg interactions with prescribers), preceptor assessment of interactions with other staff, role plays, medication reconciliation, discharge summaries, medication reviews, case conferences</p>
<p>2.4 collaborating with patients, carers and other clients in shared decision-making by</p> <ul style="list-style-type: none"> a. supporting the rights of patients, carers and other clients to access relevant information and participate in decisions relating to their care b. respecting their choices 	<p>2.4 collaborating with patients, carers and other clients in shared decision-making by</p> <ul style="list-style-type: none"> a. supporting the rights of patients, carers and other clients to access relevant information and participate in decisions relating to their care b. respecting their choices
<p>Assignments, role plays, OSCE, medication reviews</p>	<p>Preceptor observation and assessment, role plays, medication reviews</p>

Domain 3 Professional expertise

Pharmacists are trusted professionals who use their specialist expertise proactively to make clinically, ethically and scientifically sound decisions commensurate with their role and experience, in collaboration where appropriate, in order to deliver socially accountable person-centred care.

For Domain 3, the Performance Outcomes have been clustered under four broad sub-domains.

On successful completion of an approved Australian or New Zealand pharmacy degree program capable of leading to general registration, pharmacy graduates have demonstrated evidence of competency, in educational, simulated and/or work-integrated learning environments, in

At the point of general registration as a pharmacist in Australia, pharmacists are competent and confident in, and committed to

Sub-domain A: Quality Use of medicines, encompassing

3.1 formulating appropriate and effective actions and recommendations which support safe, rational and cost-effective use of medicines and other healthcare options and optimise socially accountable person-centred care by

- a. applying relevant underpinning knowledge
- b. using a systematic approach to access, critically evaluate and apply relevant evidence
- c. applying effective critical thinking, reasoning and problem-solving strategies to conceptualise problems, formulate a range of potential solutions, and support decision-making
- d. making decisions which are tailored to the person's individual circumstances, and reflect a balanced consideration of both the potential benefits and potential harms

3.1 implementing appropriate and effective actions and recommendations which support safe, rational and cost-effective use of medicines and other healthcare options and optimise socially accountable person-centred care by

- a. applying relevant underpinning knowledge
- b. using a systematic approach to access, critically evaluate and apply relevant evidence
- c. applying effective critical thinking, reasoning and problem-solving strategies to conceptualise problems, formulate a range of potential solutions, and support decision-making
- d. making decisions which are tailored to the person's individual circumstances, and reflect a balanced consideration of both the potential benefits and potential harms

Assignments, role plays, OSCE, medication reviews

Assignments, role plays, OSCE, medication reviews

<p>3.2 making and prioritising recommendations to manage health, medical and medication needs of patients, including both pharmacological and non-pharmacological strategies, based on the Quality Use of Medicines Framework and the best available evidence</p>	<p>3.2 making and prioritising recommendations to manage health, medical and medication needs of patients, including both pharmacological and non-pharmacological strategies, based on the Quality Use of Medicines Framework and the best available evidence</p>
<p>Assignments, role plays, OSCE, medication reviews</p>	<p>Preceptor observation and assessment, assignments, role plays, OSCE, medication reviews</p>
<p>3.3 prescribing medications in accordance with current jurisdiction-specific legislation, scope of practice and PharmBA Guidelines</p>	<p>3.3 prescribing medications in accordance with current jurisdiction-specific legislation, scope of practice and PharmBA Guidelines</p>
<p>Appropriate supply of Schedule 2 and Schedule 3 medications according to protocols and guidelines in role play</p>	<p>Appropriate supply of Schedule 2 and Schedule 3 medications according to protocols and guidelines in practice and/or role play</p>
<p>3.4 carrying out systematic medication reviews, informed by the Quality Use of Medicines Framework, in order to identify and resolve potential medication-related issues and optimise the impact of medications on health outcomes in collaboration with patients, carers and other members of the health care team</p>	<p>3.4 carrying out systematic medication reviews, informed by the Quality Use of Medicines Framework, in order to identify and resolve potential medication-related issues and optimise the impact of medications on health outcomes in collaboration with patients, carers and other members of the health care team</p>
<p>Medication review activities</p>	<p>Medication review activities in practice and/or role play</p>

Sub-domain B Person-centred care, encompassing	
<p>3.5 demonstrating the delivery of person-centred care including</p> <ul style="list-style-type: none"> a. respecting the personal characteristics, rights, preferences, values, beliefs, needs and diversity of patients, carers and other persons b. maintaining privacy and confidentiality in interactions with patients, carers and other persons c. optimising as far as is practicable the physical environment in which care takes place d. ensuring that the best interests of patients, carers and other persons are foremost in the provision of care e. ensuring that patients, carers and other persons are provided with sufficient information and advice to enable them to consider options and give informed consent where appropriate f. ensuring that informed consent is obtained, respected and appropriately recorded when appropriate 	<p>3.5 implementing and delivering person-centred care by</p> <ul style="list-style-type: none"> a. respecting the personal characteristics, rights, preferences, values, beliefs, needs and diversity of patients, carers and other persons b. maintaining privacy and confidentiality in interactions with patients, carers and other persons c. optimising as far as is practicable the physical environment in which care takes place d. ensuring that the best interests of patients, carers and other persons are foremost in the provision of care e. ensuring that patients, carers and other persons are provided with sufficient information and advice to enable them to consider options and give informed consent where appropriate f. ensuring that informed consent is obtained, respected and appropriately recorded when appropriate
<p>Assignments, role plays, OSCE, medication reviews</p>	<p>Preceptor observation and assessment, assignments, role plays, OSCE, medication reviews</p>
<p>3.6 obtaining relevant health, medical and medication information from patients, carers and other clients</p>	<p>3.6 obtaining relevant health, medical and medication information from patients, carers and other clients</p>
<p>Medication and medical history, medication review activities, role plays, OSCE</p>	<p>Medication and medical history in practice and/or role play, oral exam</p>
<p>3.7 assessing current health, medical and medication histories and profiles of patients</p>	<p>3.7 assessing current health, medical and medication histories and profiles of patients</p>
<p>Medication review activities, role plays, OSCE</p>	<p>Medication review activities, role plays, OSCE, oral exam</p>

<p>3.8 formulating health, medical and medication management plans in collaboration with patients, carers and other health team members</p> <p>Medication review activities, role plays, OSCE</p>	<p>3.8 formulating and implementing health, medical and medication management plans in collaboration with patients, carers and other health team members</p> <p>Medication review activities, role plays, OSCE, oral exam</p>
<p>3.9 recommending appropriate monitoring of the outcomes of health, medical and medication management plans and recommending adjustments to them where appropriate in collaboration with patients, carers and other health team members</p> <p>Medication review activities, role plays, OSCE</p>	<p>3.9 formulating and implementing appropriate monitoring of the outcomes of health, medical and medication management plans and adjusting them where appropriate in collaboration with patients, carers and other health team members</p> <p>Medication review activities, role plays, OSCE, oral exam</p>
<p>3.10 facilitating patient self-management of health through education, intervention, monitoring and health promotion services in order to optimise patient health outcomes and wellbeing, and reduce the risk of complications</p> <p>Dispensing and medication review activities, role plays, OSCE</p>	<p>3.10 facilitating patient self-management of health through education, intervention, monitoring and health promotion services in order to optimise patient health outcomes and wellbeing, and reduce the risk of complications</p> <p>Dispensing and medication review activities, role plays, OSCE, oral exam</p>
<p>3.11 responding to the needs of individuals and communities by advocating with and for them to optimise health and societal outcomes</p> <p>Role plays, health promotion activities/projects, clinical interventions, medication reviews</p>	<p>3.11 responding to the needs of individuals and communities by advocating with and for them to optimise health and societal outcomes</p> <p>Health promotion activities/projects, patient education and awareness raising, clinical interventions, medication reviews</p>

Sub-domain C: Provision of medications and other management options, encompassing	
3.12 consistently making accurate arithmetic calculations relating to health care	3.12 consistently making accurate arithmetic calculations relating to health care
Examinations, assignments, practical application in a range of contexts	Preceptor assessment, written exam, extemporaneous compounding records
3.13 administering injectable formulations in accordance with current jurisdiction-specific legislation, scope of practice and PharmBA Guidelines	3.13 administering injectable formulations in accordance with current jurisdiction-specific legislation, scope of practice and PharmBA Guidelines
Vaccination training according to jurisdiction	Vaccination training according to jurisdiction (may accept degree level evidence)
3.14 dispensing medicines safely and accurately in accordance with current legislation, scope of practice, PharmBA Guidelines and other relevant jurisdictional requirements to optimise patient outcomes	3.14 dispensing medicines safely and accurately in accordance with current legislation, scope of practice, PharmBA Guidelines and other relevant jurisdictional requirements to optimise patient outcomes
Practical assessments, role plays, OSCE, written assessments, reflective activities, protocols and SOPs, portfolio	Preceptor observation and assessment, error and near miss logs, reflective activities, protocols and SOPs
3.15 preparing and supplying extemporaneously compounded medications safely and accurately in accordance with current legislation, scope of practice, PharmBA Guidelines and other relevant jurisdictional requirements	3.15 preparing and supplying extemporaneously compounded medications safely and accurately in accordance with current legislation, scope of practice, PharmBA Guidelines and other relevant jurisdictional requirements
Practical assessments, written assessments, reflective activities, protocols and SOPs, portfolio	Preceptor observation and assessment, error and near miss logs, reflective activities, protocols and SOPs

<p>3.16 demonstrating awareness of the appropriate conditions for secure and safe storage and distribution of medications to ensure stability and efficacy</p> <p>Practical assessments, written assessments, protocols and SOPs</p>	<p>3.16 storing and distributing medications appropriately, securely, safely and in accordance with the available evidence to ensure stability and efficacy</p> <p>Preceptor observation and assessment, assignments, protocols and SOPs, incident reports, reflective activities</p>
<p>3.17 providing appropriate tailored counselling, information and education to enable safe and effective medication, disease state and lifestyle management</p> <p>Practical assessments, role plays, OSCE, reflective activities</p>	<p>3.17 providing appropriate tailored counselling, information and education to enable safe and effective medication, disease state and lifestyle management</p> <p>Preceptor observation and assessment, role plays, reflective activities, oral exam</p>
<p>3.18 assessing ambulatory conditions and recommending appropriate management approaches, including pharmacological, non-pharmacological and referral options where appropriate</p> <p>Practical assessments, role plays, OSCE, reflective activities</p>	<p>3.18 assessing ambulatory conditions and providing appropriate management approaches, including pharmacological, non-pharmacological and referral options where appropriate</p> <p>Preceptor observation and assessment, role plays, reflective activities, oral exam</p>
<p>3.19 demonstrating the delivery of measures designed to enhance adherence with dosage regimens and support safe and effective administration of medications</p> <p>Practical or simulated assessments of dose administration aids, staged supply, opioid replacement programs, reflective activities</p>	<p>3.19 delivering measures designed to enhance adherence with dosage regimens and support safe and effective administration of medications</p> <p>Dose administration aids, staged supply, reflective or follow-up activities to monitor adherence</p>

Sub-domain D: Health promotion and harm minimisation, encompassing	
3.20 providing evidence-based screening, assessment, prevention and referral services to detect and manage potential risk of adverse medical conditions and outcomes	3.20 providing evidence-based screening, assessment, prevention and referral services to detect and manage potential risk of adverse medical conditions and outcomes
Assignments, presentations, projects, reflective activities	Assignments, presentations, projects, reflective or follow-up activities to evaluate outcomes
3.21 demonstrating the delivery of harm minimisation approaches and strategies to reduce harm to patients and the community from misuse of legal and illegal drugs	3.21 delivering harm minimisation approaches and strategies to reduce harm to patients and the community from misuse of legal and illegal drugs
Assignments, role plays, projects, presentations relating to opioid replacement programs, other dependency conditions (eg benzodiazepines), reflective activities	Delivery of opioid replacement programs, other dependency conditions (eg benzodiazepines) where available; otherwise role plays, projects, presentations, reflective activities
3.22 endorsing and participating in health promotion activities, health services and public health initiatives intended to maintain and improve health	3.22 endorsing and participating in health promotion activities, health services and public health initiatives intended to maintain and improve health
Assignments, role plays, projects, presentations, reflective activities	Delivery of health promotion/public health activities, reflective or follow-up activities to evaluate outcomes

Domain 4 Leadership and management

Pharmacists engage in self-management and management of others actively, responsibly and accountably, and undertake leadership roles commensurate with their context, professional role and experience in order to optimise the quality of health care.

On successful completion of an approved Australian or New Zealand pharmacy degree program capable of leading to general registration, pharmacy graduates have demonstrated evidence of competency, in educational, simulated and/or work-integrated learning environments, in

At the point of general registration as a pharmacist in Australia, pharmacists are competent in and committed to

4.1 undertaking regular reflection as a means of enhancing learning and practice

4.1 engaging in regular and systematic reflection to enhance professional learning and practice

Reflective activities, journals, learning plans, portfolio

Reflective activities, journals, portfolio, CPD Plan and log

4.2 demonstrating awareness of professional limitations and adopting appropriate strategies where necessary, including additional professional education and/or referral of patients to other health care professionals

4.2 identifying and acknowledging professional limitations and seeking appropriate support where necessary, including additional professional education and/or referral of patients to other health care professionals

Reflective activities, journals, learning plans, portfolio

Preceptor observation and assessment, reflective activities, journals, portfolio, CPD Plan and log

4.3 demonstrating self-awareness and self-regulation of personal attributes, strengths and weaknesses which may affect professional performance and/or personal development

4.3 identifying situations where attributes, strengths and weaknesses may affect professional performance and/or personal development and taking appropriate actions (including self-regulation and seeking support where necessary) to minimise risks to public safety

Tutor assessment, reflective activities, journals, learning plans, portfolio, disclosure to appropriate persons where relevant

Preceptor observation and assessment, reflective activities, journals, portfolio, CPD Plan and log, disclosure to appropriate persons where relevant

<p>4.4 demonstrating awareness of the signs which indicate that a potential risk to public safety may exist if observed in another practitioner, and formulating appropriate responses including support, advice, assistance, referral or reporting where necessary</p>	<p>4.4 recognising the signs in others where personal attributes and/or professional limitations pose a risk to public safety, and adopting appropriate strategies including support, advice, assistance, referral or reporting where necessary</p>
<p>Mandatory and voluntary notifications, assignments, examinations, role plays, reflective activities, mental health first aid, complaints processes (performance, conduct, impairment)</p>	<p>Mandatory and voluntary notifications, role plays, reflective activities, mental health first aid, complaints processes (performance, conduct, impairment) (by simulation if no opportunity to demonstrate in practice)</p>
<p>4.5 recognising situations likely to compromise performance and developing effective strategies to minimise their impact</p>	<p>4.5 recognising situations in professional practice likely to compromise performance and implementing effective strategies to minimise their impact</p>
<p>Reflective activities, learning plans</p>	<p>Reflective activities, CPD Plan and log</p>
<p>4.6 evaluating personal health and wellbeing status, identifying situations where health or wellbeing may be challenged, and developing appropriate strategies and mechanisms to minimise their impact on personal and professional life</p>	<p>4.6 evaluating personal health and wellbeing status, identifying situations where health or wellbeing may be challenged, and adopting appropriate strategies and mechanisms to minimise their impact on personal and professional life</p>
<p>Reflective activities, mental health first aid, mandatory and voluntary notifications</p>	<p>Reflective activities, mental health first aid, portfolio, mandatory and voluntary notifications</p>

<p>4.7 demonstrating effective leadership skills, including taking the initiative when appropriate, managing own roles, and understanding and accepting appropriate responsibility and accountability for organising, planning, prioritising, influencing and negotiating within a team context</p> <p>Group tasks with tutor and peer assessment, reflective activities, portfolio</p>	<p>4.7 providing effective leadership by taking the initiative when appropriate, managing own roles, and understanding and accepting appropriate responsibility and accountability for organising, planning, prioritising, influencing and negotiating within a professional team context</p> <p>Preceptor observation and assessment, reflective activities, peer assessment, portfolio</p>
<p>4.8 demonstrating awareness of the importance of, and strategies for, promoting responsible and socially accountable stewardship of health care resources</p> <p>Quality use of medicines, costs of medicines and services, antimicrobial stewardship, cost-effective practice (eg not over-servicing), assignments, presentations/projects</p>	<p>4.8 contributing to the responsible and socially accountable stewardship of resources to promote equitable, viable and sustainable access to health care</p> <p>Antimicrobial stewardship programs, quality use of medicines, cost-effective practice (eg not over-servicing), assignments, presentations/projects</p>
<p>4.9 promoting quality assurance and continuous quality improvement strategies through utilising skills in collaboration, critical thinking, curiosity and creativity</p> <p>Group tasks, tutor and peer feedback, projects, presentations, reflective activities</p>	<p>4.9 contributing to assurance of quality and continuous quality improvement processes through collaboration, critical thinking, curiosity and creativity</p> <p>Preceptor observation and assessment, projects, presentations, reflective activities</p>
<p>4.10 demonstrating awareness of, and complying with appropriate policies, processes and protocols</p> <p>Practical assessments, general compliance with university policies and processes (noting significant incidents of non-compliance)</p>	<p>4.10 contributing to, maintaining, complying with and regularly reviewing appropriate policies, processes and protocols to ensure safe and accountable provision of health care</p> <p>Preceptor observation and assessment</p>

<p>4.11 demonstrating skills in the identification, assessment, monitoring, mitigation and management of risk</p>	<p>4.11 engaging proactively in the identification, assessment, monitoring, mitigation and management of risk to minimise harm and maximise patient and public safety</p>
<p>Assignments, presentations, role plays, general observation of student behavior and compliance</p>	<p>Preceptor observation and assessment, role plays, presentations</p>

Domain 5 Research, inquiry and education

Pharmacists contribute their expertise to the education and development of others, and engage in research and inquiry in response to identified gaps or uncertainties in practice.

On successful completion of an approved Australian or New Zealand pharmacy degree program capable of leading to general registration, pharmacy graduates have demonstrated evidence of competency, in educational, simulated and/or work-integrated learning environments, in

At the point of general registration as a pharmacist in Australia, pharmacists are competent in and committed to

5.1 demonstrating skills as a role model, facilitator and/or mentor which are appropriate to their context

5.1 acting as a role model, facilitator and/or mentor to students, colleagues, other pharmacy team members and other health care professionals

Demonstration of appropriate behaviours in the context of group work (eg facilitator), peer teaching (eg mentor), interactions with others at university or WIL (some overlap with leadership 4.7)

Demonstration of appropriate behaviours in the context of group work (eg interprofessional activities, ITP activities), conversations/counselling others in the workplace (eg other pharmacists, staff, students on placement, patients, carers, other health care professionals)

5.2 demonstrating awareness of effective processes for facilitating learning, including aims, learning outcomes, learning activities, assessment and feedback

5.2 educating others and evaluating the effectiveness of the education

Presentation of peer and/or patient education with appropriate design, presentation, evaluation of outcomes, presentation of research work

Formal educational activities for other pharmacists, staff, students, patients, carers, other health care professionals (eg presentations, articles, other professional development activities), reflective activities and/or follow-up to evaluate outcomes

5.3 demonstrating awareness of the inherent complexity, ambiguity and uncertainty of contemporary and future professional practice

5.3 recognising and responding to the inherent complexity, ambiguity and uncertainty of contemporary and future professional practice

Willingness to explore multiple options, recognition that there may not be a single correct answer in a given situation, evidence of rational process for decision-making

Ability to explore multiple options, recognition that there may not be a single correct answer in a given situation, evidence of rational process for decision-making, acceptance of responsibility for outcome of decisions made

<p>5.4 demonstrating skills in research and inquiry, including</p> <ol style="list-style-type: none"> formulating questions identifying and critically appraising relevant source materials undertaking relevant investigations, where appropriate drawing conclusions by synthesising the results of research and inquiry activities reporting and disseminating the outcomes appropriately identifying ways in which the outcomes can be applied to practice 	<p>5.4 contributing to the evidence base through engaging in research and inquiry, including</p> <ol style="list-style-type: none"> formulating questions relating to gaps and uncertainties in practice identifying and critically appraising relevant source materials undertaking relevant investigations, where appropriate drawing conclusions by synthesising the results of research and inquiry activities reporting and disseminating the outcomes appropriately implementing practice change in response to the outcomes
<p>Could be demonstrated progressively throughout program. Emphasis is on skills development and demonstration, can include literature review, qualitative and/or quantitative methodology, theoretical and/or science-based and/or practice-based. appropriate documentation and write-up, appropriate dissemination of outcomes.</p>	<p>Engaging in research and/or inquiry relevant to context. Does not need to be publishable research, may involve a very wide range of options (including but not limited to underpinning science, medication usage, patient behavior, consumer opinion, other health care practitioners)</p>
<p>5.5 accessing, using, adapting and sharing information and/or other technologies to meet the needs of current and emerging professional practice</p>	<p>5.5 accessing, using, adapting and sharing information and/or other technologies to meet the needs of current and emerging professional practice</p>
<p>Assignments, projects, presentations, research activities. Technologies can be defined broadly</p>	<p>Assignments, projects, presentations, research activities, implementation of technology-enabled services. Technologies can be defined broadly</p>

Notes:

- need to emphasise that multiple POs can be demonstrated in one assessment
- for second milestone, how much do we want to be drawn into the debate about whose responsibility it is to conduct the assessment?

Appendix A: Pharmacy Learning Domains (current degree program Accreditation Standards)

Curriculum content

It is recognised that in developing a curriculum for a pharmacy degree program, there is an increasing move by Schools of Pharmacy to integrate subject matter, providing students with a co-ordinated understanding and the comprehensive knowledge and expertise needed to achieve the pharmacy learning outcomes required for entry to an intern training program. Further, in our rapidly changing health care environment, innovation, responsiveness and flexibility in a School's curriculum needs to be supported. To reflect this, it should be highlighted that the pharmacy learning domains presented here are indicative and not prescriptive. While the items are grouped within the domains to give prominence to the health care consumer and avoid traditional categorisations, this format is not intended to be imposed on Schools' curricula.

The pharmacy learning domains described here were originally based on the Indicative Syllabus for UK pharmacy degrees, as developed and published by the Royal Pharmaceutical Society of Great Britain (RPSGB) in 2002, with minor variations to reflect systems and concerns specific to Australia and New Zealand. The UK syllabus was adopted in the form of an Indicative Curriculum with the permission of the RPSGB. The UK syllabus has since been amended, but without significant changes in the content itself. These pharmacy learning domains are the result of further amendment of the Indicative Curriculum based on feedback provided during the 2012 review of the Accreditation Standards for Pharmacy Degree Programs in Australia and New Zealand. The pharmacy learning domains will be subject to periodic review to reflect developments in the profession and educational needs arising from matters unique to Australian or New Zealand pharmacy practice, and/or health and educational systems.

Learning domain 1: The health care consumer

The health care consumer is central to the degree course, reflecting the importance that a pharmacy graduate focuses on prevention and wellness in all people, as well as the needs of patients. The items grouped under this heading address the biological, environmental, psychological and some of the social foundations of treatment with medicines. The curriculum should address specific consumer needs in diverse multicultural populations, particularly Aboriginal and Torres Strait Islander people in Australia and Māori in New Zealand.

Indicative Elements

- The unique expertise of the pharmacist in ensuring that the consumer achieves optimal health outcomes from medicines and minimises the potential for harm.
- Principles and methodologies of the social sciences relevant to pharmacy.
- Cultural competence and cultural awareness.
- Health and illness: definitions and perceptions.
- Theory and practice of personal and inter-personal skills, including written and oral communication skills to proactively build trust, support, motivate and influence professional colleagues and consumers with varying levels of health literacy, as well as study skills.
- The ideas and approaches of compliance or concordance in health care provision, including as they apply to medicines administration.
- The pharmacist's contribution to the promotion of good health and disease prevention.
- Normal and abnormal bodily function: anatomy, biochemistry, genetics, microbiology, nutrition, immunology, physiology, pathology, pathophysiology and infective processes.
- Aetiology and epidemiology of major diseases and the principles of their treatment.

- Symptoms recognition and management, the principles of differential diagnosis, important diagnostic methods and tests, and medical terminology.
- Disease management and care planning, including application of clinical guidelines, prescribing guidelines, medication review and new models of care.
- Clinical reasoning, collaborative decision making and documentation.
- Complementary therapies.
- Drug and substance misuse, and physiological and psychological dependence. Clinical toxicology associated with drug overdose, drug or substance misuse or accidental exposure.

Learning domain 2: Medicines: drug action

The focus here is on drugs. The first three items in this list are large in scale and high in importance.

Indicative Elements

- Molecular basis of drug action and the actions of drugs within living systems; molecular, cellular, biological and physical aspects.
- Clinical therapeutic uses of drugs and medicines in man, including contraindications for, adverse reactions to, and interactions of medicines and their relevance to treatment.
- Drug absorption, distribution, metabolism and excretion and influences thereon, including formulation, route of administration, dosage regimen, ageing and disease.
- Clinical evaluation of new and existing drugs and medicines, and post-marketing surveillance. Good clinical practice.
- Prospects for new approaches in therapeutics.

Learning domain 3: Medicines: the drug substance

For consumer safety and often for the quality and efficacy of treatment, it is important that the pharmacy graduate, uniquely among the team of health professionals, has an appreciation and understanding of the sources and properties of drugs which form the biologically active and therapeutic components of medicines.

Indicative Elements

- Sources and purification of substances of biotechnological, chemical synthetic, immunological, mineral and plant origin used in medicine.
- Physico-chemical aspects of drugs and biological systems, including thermodynamics and chemical kinetics.
- Specifications of substances used in medicine, including physical and chemical tests.
- Analytical methods: principles, design, development, validation and application.
- Prediction of drug properties, including chemical compatibilities, from molecular structure.
- Drug design and discovery: principles, approaches and future prospects.
- Cell and molecular biology, including genomics, proteomics and gene therapy, relevant to pharmacy.
- Biological methods of measuring drug activity and biological standards.
- Biotechnology and biotechnological processes.

Learning domain 4: Medicines: the medicinal product

The formulation and compounding of medicines, taking the pure drug substance and producing a dosage form for administration to the consumer, are at the heart of pharmaceutical science. For the safety, quality, efficacy and economy of treatment with medicines, all pharmacy graduates need knowledge, understanding and capability in this area.

Indicative Elements

- Sale and supply of medicines, including evaluation and management of risk and provision of advice.
- Medicines: schedules of medicines and controlled substances; PBS (Australia) and Pharmacy scheduling (NZ); consumer protection, including product liability and unapproved medicines.
- Materials used in formulations and devices for the delivery of drugs, their biological, chemical and physical properties, and the development and application of standards.
- Biopharmaceutics, developmental pharmaceutics, pre-formulation and formulation studies; design and standardisation of medicines for administration to the body by different routes and for delivery to specific target sites.
- The influence of manufacture and distribution on product quality with respect to biological safety, bioavailability (including bioequivalence), dosage uniformity and stability.
- Packaging and labelling; purpose, design and evaluation.
- Quality assurance of pharmaceutical products and processes, including Good Laboratory Practice and Good Manufacturing Practice.
- Microbiological contamination: sources, determination, consequences and control.
- Sterilisation procedures and aseptic procedures in the preparation of pharmaceutical products and medical devices; monitoring of sterilisation processes.
- Environmental control in manufacturing facilities and in the supply chain.
- Degradation of medicines; evaluation and control of biological, chemical and physical degradation.
- Immunological, biotechnological and radiopharmaceutical products.
- Dressings and other wound management products.
- Medical devices: their types, regulation and, particularly, their use for the measurement and maintenance of physiological function or medicine delivery.
- Statutes and regulations related to medicines, poisons and controlled substances.

Learning domain 5: Health care systems and the roles of professionals

For pharmacy graduates to be able to practise effectively, efficiently and confidently they need to know about, understand and have some of the skills to operate within health care systems, alongside and together with other health professionals and other scientists. They need to have an appreciation of their responsibility to share and contribute to the knowledge of others.

Indicative Elements

- Health care systems in Australia or New Zealand (as applicable) including roles of pharmacists and other health care professionals in primary, secondary and tertiary health care. Rural and remote health care systems, including Aboriginal Health Services.
- The duty of care to the health care consumer and the wider public: concept, scope and application of professional ethics, including gaining informed consent.
- Professional standards and guidelines for practice. Self-reflection and reflective practice, self-audit, continuing professional development and maintenance of competency.
- Interprofessional communication, teamwork and collaborative decision-making.
- Clinical governance: clinical audit and risk management. Quality assurance and improvement. Managing and learning from errors.
- Use of information technology in pharmacy and more widely in health care.

Learning domain 6: The wider context

The pharmacy graduate needs a realistic and well-informed view of how health care, and pharmacy fits within and operates in the wider world.

Indicative Elements

- The political and legal framework, requirements and processes relevant to pharmacy.
- Health policy and economics, particularly pharmacoeconomics.
- Population health.
- Scientific, clinical, health services and social services research; methods, results and their application as they are relevant to pharmacy.
- Occupational and environmental health and safety.