Singapore Pharmacy Council

COMPETENCY STANDARDS

for pharmacists in Singapore
(Entry to practice)

Version 1.2

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Table of Contents

1 Introduction

The Singapore Pharmacy Council (SPC) is committed to strengthening professional excellence of pharmacists practising in Singapore. The local and international healthcare landscape is changing rapidly and patient / consumer expectations are increasing. To support the development of pharmacy practice in this environment, the structure and statements of professional standards need to be defined.

This framework was developed with the following objectives:
- establish minimum competency standards of pharmacists for entry to practice
- establish desired outcomes of pharmacists' pre-registration training
- describe exit criteria for pharmacists-in-training to enter the Singapore Register of Pharmacists.

Pharmacists are competent when they have the skills, knowledge and abilities required for lawful, safe and effective professional practice without supervision.

This document is intended for pre-registration pharmacists who are seeking to enter the Singapore Register of Pharmacists.

1.1 How was this developed?

This framework is the result of a comprehensive review of literature on competencies, and thorough analyses of competency frameworks in pharmacy practice internationally. In the final assessment, it was thought that the *Competency Standards for Pharmacists in Australia 2003,* developed by the Pharmaceutical Society of Australia, captured the essential competencies required and was structured in a manner which was detailed and most appropriate to our setting. With its kind permission, we made extensive use of this document with some parts adapted for our local environment.

The development of this document has also gone through a consultation process with all the accredited training centres, academia and the Pharmaceutical Society of Singapore (PSS). The document is expected to evolve and be updated periodically to maintain currency of pharmacy practice and professional standards.

1.2 What is a competency framework?

A competency framework is defined as a combination of skills, knowledge, attitudes and values required to perform a job effectively.

This competency framework describes the collection of competencies which are central to the effective performance of a practising pharmacist in Singapore. The competencies should be acquired during initial training and maintained or further improved upon for higher professional performance.

1.3 Competency framework and its uses

Training centres are expected to use this competency framework for development of the pre-registration pharmacist training programme, which prepares the trainee for entry into the Singapore Register of Pharmacists. This will ensure that the trainee receives sufficiently broad and relevant practical experience for entry to the many areas of pharmacy practice.

All candidates considered for registration are expected to demonstrate these competencies. These include previously registered pharmacists who are seeking restoration to the register after a period of non-practice, as well as foreign-trained pharmacists applying for registration in Singapore.

We envisage that this competency framework can be used for:

- Training and development
  - ➢ To help identify learning outcomes and training needs
  - ➢ To identify gaps in competencies
- Performance review
  - ➢ As a formal appraisal system to assess competence and identify training needs

Other potential application(s):

- Recruitment
  - ➢ To provide for the design of assessment tool/criteria for use in a recruitment interview

2 Structure of the Framework

2.1 Competency Standards (9 Functional Areas)

The framework comprises nine *Functional Areas*, which are general areas of responsibilities of practising pharmacists. Each Functional Area brings together *Competency Units* associated with it. Competency Units are further segmented into *Elements*, which describe details of the roles and activities involved. While the *Elements* provide further details, they do

not describe specific performance expectations. The *Performance Criteria* specifies the level of performance expected of a competent pharmacist. This is clarified further by the *Evidence Guide*, which provides the interpretation and context to help in the assessment of the competency.

The nine Functional Areas are:

1. Promote optimal use of drugs

2. Dispense medication

3. Compound pharmaceutical products

4. Provide drug information and education

5. Provide primary healthcare

6. Manage drug distribution and supply

7. Apply organisational skills in the practice of pharmacy

8. Practise in a professional and ethical manner

9. Manage work issues and interpersonal relationships

Functional areas 1 - 4 form the major roles of a practising pharmacist in pharmaceutical care. Most pharmacists are involved in functional areas 5 and 6 in varying degrees. To perform all these roles effectively, one requires the competencies described from functional areas 7 - 9. These competency standards are adopted to help establish the minimum standards and exposure to professional practice for pre-registration pharmacists who may be receiving their training in either hospital or community sectors.

2.2 Competency Assessments

Preceptors are able to assess if the pre-registration trainee meets the criteria based on evidence reference to the competency standards. Competency assessments should be focused on performance and outcomes. In order to make that judgement, various methods can be used to ensure that sufficient evidence is gathered.

The competencies may be assessed by the preceptors using a minimum of 4 out of 6 of the following methods. Note that *compulsory* assessment methods are marked with asterisks.

a) Supervisor observation*
b) Written assignments
c) Learning log*
d) Oral interview / Viva voce
e) Project work
f) Written test

2.2.1 Supervisor Observation

The supervisor will appraise trainees on aspects of competency against a prepared checklist over a period of time, taking into account varying conditions in the workplace. Attitudes, professional behaviour and quality of work should be observed.

Click *here* for a copy of the checklist.

2.2.2 Written Assignments

This involves the submission of various types of assignments which are practice-based as assigned by preceptors (e.g. reports, case studies, operational workflow) to assess broad areas of competence.

2.2.3 Learning Log

Practical experience and course certification (e.g. First Aid course) should be recorded in the *learning log*. This will be the documented evidence of learning and reflective notes which provide evidence of achieving competence. The records must be compiled by each trainee and reviewed by his/her assigned preceptor. It is important that the trainee should include as wide a range of common conditions as possible in this log to provide the variety and exposure of learning needed for future professional practice as a pharmacist.

The records should ideally be drawn from real practical experience but this may not always be feasible given the variety of training centres and sectors. The next best sources are based on simulations of professional practice.

See Appendix B for further details on Learning Log and its applications.

Click *here* for the recommended formats.

2.2.4 Oral Interview / Viva Voce

This will assess the communication skills, knowledge, application of theory to practice, professional decision-making, judgement and attitudes of the trainee. At least two preceptors should conduct this together and agree on the trainee's level of competence.

2.2.5 Project Work

Trainees undergoing training for nine months or more will be required to complete at least one project. This project should be either practice-based or answer a specific research question. It should involve literature research, planning and methodology, data collection, statistical analysis, oral presentation and a formal write-up.

2.2.6 Written Test

Competency-based written tests may also be another method to assess the trainee.

Training centres are strongly encouraged to conduct their own competency tests to assess the trainee.

3 Final Evaluation

Upon satisfactory completion of all competency assessments, each trainee's assigned preceptor should appraise the trainee's performance using the _evaluation form_ and submit the evaluation result and recommendations to SPC.

4 Examination

All trainees shall be required to sit for and pass the competency examination conducted by the Singapore Pharmacy Council. Examination details, instructions to candidates and syllabus would be given in a separate document.

5 Revisions and Updates

For future revisions and updates to the Competency Standards Framework and related documents, please refer to the Singapore Pharmacy Council website (http://www.spc.gov.sg).

Appendix A: Competency Standards (9 Functional Areas)

SPC Competency
Standards

Appendix B: Learning Log

Objectives

The learning log is one of the 6 assessment methods that SPC uses for competency assessment of pre-registration pharmacists who are seeking to enter the Singapore Register of Pharmacists. This provides the documented evidence of competency for various elements in different domains of the SPC Competency Framework.

Besides direct supervisor observation, the learning log allows the preceptor to evaluate the achievement of the competency elements in the following functional areas:

- Promote optimal use of drugs
- Dispense medication
- Provide primary healthcare
- Provide drug information and education
- Prepare pharmaceutical products

Requirements

The onus is on the trainee to provide a variety of evidence on learning. This should be done using sufficient number of records. The number of records may be adjusted for pre-registration pharmacists requiring a shorter period of internship as approved by the Singapore Pharmacy Council.

The following are the guidelines on the requirements for the learning log. The *format of the records* is provided for reference (see Appendix C).

The learning log should include the following records:

Table 1   Components & Requirements of the Learning Log

Description	*Minimum* requirements for training periods ≥ 39 weeks	Adjusted *minimum* requirements for training periods < 39 weeks
Prescriptions	35 cases (at least 3 cases from each of the 7 core medical conditions)	10 cases (at least 1 case from each of the 7 core medical conditions)
Interventions	20 cases	5 cases
Case reviews	5 cases	2 cases
Minor ailments	20 cases (at least 2 cases from each of the 6 core categories)	6 cases (at least 1 case from each of the 6 core categories)
Drug information	Min. 10 cases (at least 1 primary literature search)	3 cases (at least 1 primary literature search)
Pharmaceutical preparations	2 preparations (1 syrup and 1 reconstitution, under supervision)	None required

(A) Dispensed Prescriptions

The trainee is required to keep records of counselling for 35 dispensed prescriptions. A minimum of 3 prescription records each should be selected from the following 7 core medical conditions:
1. Cardiovascular
2. Gastrointestinal
3. Renal
4. Endocrine
5. Respiratory
6. Dermatological
7. Neurological

The trainee may select any other conditions for the rest of the 14 prescriptions. The trainee should try to select cases with different problems within each medical condition.

(B) Interventions

The trainee is required to record 20 interventions performed in the **TITRS** format (**T**-Title, **I**-Introduction, **T**-Text, **R**-Recommendation, **S**-Signature).

Table 2   Details of TITRS format

The details of TITRS are:

Title:	State the reason for intervention. E.g. Drug interaction.
Introduction:	A brief background of the use and dose of the medication or condition. E.g. Patient was given warfarin for DVT. INR stable. Now started on erythromycin for upper respiratory tract infection.
Text:	Refers to the intervention to be made. E.g. Erythromycin will inhibit the metabolism of warfarin, resulting in a higher INR.
Recommendation:	Suggested recommendation. E.g. To monitor INR when erythromycin is started and completed.
Signature:	Signature of the person making the intervention (if applicable).

Interventions recorded should preferably involve specific suggestion or adjustment to patient's drug regimen rather than a simple clarification of the prescription (e.g. dose / frequency omission, illegible handwriting). The trainee should select examples of interventions involving adverse events, drug interactions, drug allergy, contraindications, therapeutic duplication, etc.

The trainee is strongly encouraged to record different types of interventions and to record interventions performed by them or in discussion with the preceptor.

(C) Drug Information

The trainee is required to record 10 drug enquiries performed in the recommended format including the enquirer, type and detail of enquiry, response and references. He / she should include at least one enquiry that required primary literature search.

(D) Counselling of Minor Ailments

The trainee is required to record 20 cases of minor ailments counselled in the **SOAP** format (**S**-Subjective, **O**-Objective, **A**-Assessment, **P**-Plan).

At least 2 cases should be selected from each of the following 6 core categories (totalling 12 cases):
1. Gastrointestinal
2. Dermatological
3. Cough, Cold and Allergy
4. Pain, Fever and Headache
5. Eye care, Contact Lens
6. Home monitoring devices

The trainee may select any other category for the rest of the 8 cases. The trainee is strongly encouraged to record cases of counselling of minor ailments they have participated in. A copy of the presentation slides can be accepted as evidence if the case has been used for presentation.

(E) Case Reviews

The trainee is required to record 5 case reviews in the SOAP format. A copy of the presentation slides can be accepted as evidence if the case has been used for presentation.

The trainee is strongly encouraged to record case reviews where he/she has made some interventions or given inputs.

(F) Pharmaceutical preparations

The trainee is required to record a minimum of 2 pharmaceutical preparations done (1 syrup and 1 preparation for reconstitution). A copy of the order or prescription should be attached, and documented together with the calculations and preparation steps.

(G) Others

A copy of any course certification (e.g. First Aid course, PSS Pre-registration Pharmacist Training Programme) should also be included in the learning log file.

Guidelines for the trainee

The records in the learning log should ideally be drawn from real practical experience. While this might not always be feasible given the variety of training centres and sectors, conscious efforts should be made to seek out relevant exposures for practice before simulations of professional practice scenarios are employed.

The trainee should protect the confidentiality of all patients and healthcare professionals involved at all times. Actual names, identification number or details (e.g. prescription number) which will eventually lead to the identification of patient or healthcare professional, should not be used. When a copy of the prescription or order is attached, the trainee should ensure that patient and physician particulars and prescription number are obliterated.

The Learning Log should be completed and submitted to the preceptor for review and certification of competency before the final appraisal is done. It is the responsibility of the individual trainee to ensure completeness of his/her Learning Log. Trainees are, therefore, strongly encouraged to be consistent in completing their log of learning activities, and not

procrastinate to the eleventh hour towards the end of the training period.

Guidelines for the preceptor

The preceptor is responsible for reviewing the learning log and ensuring that the log sufficiently documents the competency of the trainee in the tasks performed, according to the competency framework requirement. The preceptor is responsible to ensure the trainee has had the exposure to the various practice experiences required to fulfil the learning requirements. In the event that real practice experiences are not encountered, the preceptor may use simulations of professional practice. The preceptor may exercise discretion to increase the number of cases in each category as set out in the learning log if he or she deems that the trainee requires more practical experience in any specific area.

During the review, the preceptor should assess the evidence presented to decide if it indicates competence, or if there is a need for further guidance or practice. The preceptor should discuss any improvement required with the trainee. The preceptor shall sign the learning log when he/she is satisfied that the trainee meets the SPC competency standards.

Performance Appraisal

In the competency-based approach, one of the primary methods of assessment is direct observation. The _detailed document_ lists the competencies and the relevant evidences to guide the preceptor during the process of appraising the trainee. The format is only a reference for the training centres and may be adapted according to the needs of the centre, as long as all the competencies are listed and appraised.

It is recommended that the trainee's performance be appraised on a periodic basis so that regular feedback may be given to the trainee on achievements and areas for improvement. Appraisal forms must be signed and completed by both the trainee and preceptor.

Upon completion of the pre-registration training, the preceptor is responsible for evaluating the trainee's overall competence, and making recommendations to the SPC on the suitability of the trainee to be registered to practise as a pharmacist in Singapore. The preceptor is required to submit an _evaluation form_ to the Singapore Pharmacy Council.

If there are significant areas for improvement, the preceptor may make recommendations to SPC for the trainee to require extension of his/her pre-registration training period until satisfactory achievement of the competence.

Appendix C: Attachments

Learning Log	Learning Log
Evaluation Form	Evaluation Summary for Pre-Reg.pdf

Competency Standards	Promote optimal use of drugs Dispense Medication Compound Pharmaceutical Pdts
	
	  Drug Info & Education Provide Primary Healthcare Manage Drug Distribution & Supply
	
	  Apply Organisational Skills Professional and Ethical Manner Manage work issues and relationships

Appendix D: Acknowledgements

The Singapore Pharmacy Council wishes to acknowledge the members of the Competency Standard Workgroup who have spent considerable time and effort in developing this framework.

Chairperson:

Ms Chan Soo Chung
General Manager, National Healthcare Group Pharmacy

Workgroup Members:

Ms Annie Chia
Pharmacy Manager, Tan Tock Seng Hospital

Ms Lim Siew Woon
Principal Pharmacist, National University Hospital

Dr Lou Huei-Xin
Principal Clinical Pharmacist, Singapore General Hospital

Ms Tan Mui Ling
Instructor, Pharmacy Department, National University of Singapore

Ms Tan Yin Yin
Pharmacy Practice Manager, Guardian Health and Beauty

Secretary:

Ms Chan Siu Hung
Pharmacy Board Executive, Ministry of Health

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