

2011

SINGAPORE PHARMACY COUNCIL



Annual

Report

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PRESIDENT'S MESSAGE

The year 2011 saw the completion of the term of the first Singapore Pharmacy Council (SPC) from 1st September 2008 to 31st August 2011 and the start of the term of the second Council from 1st September 2011 to 31 August 2014.

- a. We also saw the change of the Chief Pharmacist from Ms Ang Hui Gek who was the Registrar of the first Council from 1st September 2008 to March 2011, to Asst Prof Lita Chew. Ms Ang had served the Singapore Pharmacy Board (SPB) from 2003 to September 2008 as the President and Registrar. She continues to serve on the second Council as a member. Assistant Professor Lita Chew Sui Tjien took on the post of the Chief Pharmacist as well as the Registrar of the SPC from 1st April 2011.
- b. The various professional regulatory boards were amalgamated as one corporate administrative entity on 1 April 2011 for operational efficiency and administrative cost savings. The Singapore Medical Council took over the management of human resources services for the corporate entity. Professional decisions continue to reside with the respective professional boards.
- c. Since 2004, SPC has organised several sessions of the annual preceptor training workshops and 576 preceptors have been trained so far. Four sessions were held in April and May 2011 and 73 pharmacists from hospital, community and polyclinic pharmacies were trained. The preceptor plays an important role in shaping the life of a pre-registration pharmacist through the sharing of knowledge, skills and values. The quality of tutoring and attitude of the preceptor is pivotal in determining the training experience for the pre-registration pharmacist and the quality of pharmacists produced.



- d. As at 31st Dec 2011, there were 2,013 pharmacists on the register, a net increase of 199 over that of 2010. Of this number, 87 were foreign-trained graduates. The total number of foreign trained pharmacists on the Register as at 31st December 2011 was 445. Compared to five years ago, where the total number of pharmacists was 1300, there is now a 54.8% increase or an average of 11% increase per annum.
- e. The third Pharmacist's Pledge Affirmation Ceremony was held on 26 May 2011 with Mr Hawazi Daipi, the Senior Parliamentary Secretary, Ministry of Health and Ministry of Manpower, as the guest of honour. Of the 162 newly registered pharmacists, 101 were NUS graduates and 61 were foreign trained pharmacists. In his address, Mr Hawazi Daipi stated that while the number of pharmacists in Singapore has increased, the numbers have not kept up with demand. He said, "The ageing population, rising health-care costs and innovative developments in science, technology and medication meant that there are new roles for pharmacists to fulfil."
- f. The pre-registration pharmacists training review committee (PTRC) headed by A/Prof Chui Wai Keung from Department of Pharmacy, National University of Singapore has completed its report and presented it to the Council. The 10 recommendations were accepted by the Council. (See Annex 1)
- g. A Pre-Registration Training Implementation Workgroup was set up by the SPC and the Chief Pharmacist Office to study the details of the PTRC's recommendations and to make it operational. The Workgroup includes relevant stake holders in patient care and indirect patient care areas of pharmacy practice. A pilot study will be conducted in 2012 to test the feasibility and sustainability of the proposed training plan. A detailed study on centralisation and matters of funding is also planned.



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- h. To help meet the requirement for more pharmacists, SPC has endorsed the "NUSAGE Postgraduate Certificate in Pharmacy Practice" (PCPP) as the official SPC bridging programme for pharmacists with non recognised qualifications who seek to work in Singapore as pharmacists. The "Overseas Pharmacists Assessment Programme" (OPAP) leading to "NUSAGE Postgraduate Certificate in Pharmacy Practice" (PCPP) commenced in August 2011 with 4 candidates. Their basic qualifications were from Saint Louis University (Philippines), University of Santo Tomas (Philippines), University Teknologi Mara (Malaysia) and University of Szeged (Czechoslovakia).
- i. The Council hosted the President and Secretary from the Nepal Pharmacy Council in December 2011 and discussed matters of common interest with regards to the constitution of SPC, its roles, functions and details about registration of pharmacists.

I would like to thank all the Council Members, pharmacists who serve in the various SPC committees and workgroups, preceptors and all pharmacists who have given of their time and effort for the profession unselfishly.

With best wishes,

Mr Wu Tuck Seng
President, Singapore Pharmacy Council



INTRODUCTION

The Singapore Pharmacy Council is the professional council established under the Pharmacists Registration Act 2007 to maintain a Register of Pharmacists and to investigate into any complaints against pharmacists for professional misconduct. Pharmacists found guilty of professional misconduct may be reprimanded, suspended or removed from the Register.

The Council also renews practising certificates and issues certificates of good standing. The Council specifies pre-registration requisites, approves pre-registration training centres and directs continuing education for pharmacists.

Under the current Pharmacists Registration Act 2007, the Singapore Pharmacy Council comprises eleven members. Two ex-officio members stipulated in the Act are the Chief Pharmacist, Ministry of Health and the Head of Department of Pharmacy, National University of Singapore. By statute, the Chief Pharmacist is also the Registrar of the Council. The other nine members are pharmacists chosen from the private and public sectors. They are appointed for a term of three years by the Minister for Health.

FUNCTIONS OF THE SINGAPORE PHARMACY COUNCIL

- Keep and maintain registers of registered pharmacists;
- Approve or reject applications for registration under the Pharmacists Registration Act or to approve any such application subject to such restrictions as it may think fit;
- Issue certificates of registration and practising certificates to registered pharmacists;
- Make recommendations to the appropriate authorities on the courses of instructions and examinations leading to a Singapore degree;
- Prescribe and implement measures, guidelines and standards for the training of persons seeking registration as pharmacists under the Pharmacists Registration Act;
- Make recommendations to the appropriate authorities for the training and education of registered pharmacists;
- Determine and regulate the conduct and ethics of registered pharmacists; and
- Generally to do all such acts and matters and things as are necessary to be carried out under the Pharmacists Registration Act.



QUALITY STATEMENT

The Singapore Pharmacy Council strives to achieve quality output of pharmacists through an efficient registration process and overseeing pharmacists' continual development to attain professional standards benchmarked amongst the best in the world.

VISION

To continually improve professional competencies and standards of registered pharmacists to be the best in the world.

MISSION

To achieve quality output of pharmacists through an integrated, comprehensive, efficient and effective registration and regulatory process.

CORE VALUES

The Council adopts the core values of the Ministry of Health, namely:

- Dedication** - We desire to serve.
We believe in giving our best.
We are passionate in what we do.

- Professionalism** - We seek to develop a high level of expertise.
We are objective in decision-making.
We do that which is best for Singapore and Singaporeans.

- Integrity, Care & Compassion, Teamwork** - We take responsibility for our work.
We go the extra mile to show we care.
We work together for the best outcomes.



THE PHARMACIST'S PLEDGE

The Pharmacist's Pledge is made up of ten statements which are formulated around the acronym "PHARMACIST" and describes the values, ethics, vision and professionalism which should be embraced by all pharmacists. The pledge serves to remind pharmacists of their duties and responsibilities toward their patients, colleagues and the society.

Pharmacists solemnly pledge to:

- P**ractise my profession with honesty, integrity and compassion;
- H**onour traditions and embrace advancements in my profession;
- A**bide by the governing laws and Code of Ethics;
- R**espect and keep in confidence patient information;
- M**aintain a high standard of professional competence through lifelong learning;
- A**lways place patient's interests first and treat them equally;
- C**ollaborate with other healthcare colleagues to achieve the desired treatment outcomes;
- I**mpart my knowledge, experience and skills to nurture future pharmacists;
- S**trive to provide high quality and cost-effective health services and products;
- T**ranslate scientific advances into better healthcare.



**MEMBERS OF THE FIRST SINGAPORE PHARMACY COUNCIL (SPC)
FROM 1ST SEPTEMBER 2008 TILL 31ST AUGUST 2011**

Position	Name and background
President	Mr Wu Tuck Seng Deputy Director, Pharmacy Department, National University Hospital <i>B Pharm (Hons), University of London</i> <i>Master of Health Science (Management), University of Sydney</i>
Registrar (Ex-officio) (till 31 st March 2011)	Ms Ang Hui Gek Chief Pharmacist, Ministry of Health Director, Allied Health Division, Singapore General Hospital. <i>BSc (Pharm), National University of Singapore. Graduate Dip Clinical Pharmacy, Australia. MBA, University of Hull, UK</i>
Registrar (Ex-officio) (from 1 st April 2011)	Asst Professor Lita Chew Sui Tjien Head, Pharmacy Department, National Cancer Centre Singapore <i>BSc (Pharm), National University of Singapore</i> <i>MMedSc (Oncology), University of Birmingham (UK)</i>
Member (Ex-officio)	Associate Professor Chan Sui Yung Head, Department of Pharmacy, National University of Singapore <i>BSc (Pharm) (Hons) and MBA, National University of Singapore.</i> <i>PhD (Pharmaceutics), Queens University of Belfast, UK</i>
Member	Dr Ellick Wong Chee Kik Principal Consultant, PharmaWork Consultants <i>BSc (Pharm), National Taiwan University. MSc, University of Manchester, UK .PhD (Pharmaceutics), University of Wales, UK</i>
Member	Mr Sia Chong Hock Division Director, Audit & Licensing Division Health Products Regulation Group, Health Sciences Authority <i>BSc (Pharm), National University of Singapore</i> <i>MSc Healthcare Management, University of Wales, UK</i>
Member	Ms Linda Seah Siew Hong Managing Director, Baxter Healthcare (Asia) Pte. Ltd. <i>BSc (Pharm) (Hons), National University of Singapore</i>
Member	Ms Chan Soo Chung General Manager, National Healthcare Group Pharmacy <i>B Pharm (Hons), University Science Malaysia</i>
Member	Mr Koe Khoon Poh Managing Director, ICM Pharma Pte. Ltd. <i>B Pharm, National University of Singapore</i>
Member	Mrs Chan Yiam Moi General Manager, NTUC Healthcare Co-operative Ltd <i>BSc (Pharm), National University of Singapore</i>
Member	Dr Christina Tong Mei Wen (Dr Christina Lim) Deputy Group Director, Health Products Regulation Group Health Sciences Authority <i>B Pharm, National University of Singapore.</i> <i>PhD (Pharmacodynamics), University of Montpellier, France</i>



**Members of the first Singapore Pharmacy Council
from 1st September 2008 till 31st August 2011**

From left to right:

Asst. Professor Lita Chew (Registrar, from 1st April 2011), Mr Koe Khoon Poh, Ms Chan Soo Chung, Dr Ellick Wong, A/Prof Chan Sui Yung, Mr Wu Tuck Seng (President), Ms Ang Hui Gek (Registrar, till 31st March 2011), Ms Linda Seah, Mr Sia Chong Hock, Dr Christina Lim, Mrs Chan Yiam Moi



**THE MEMBERS OF THE SECOND SINGAPORE PHARMACY COUNCIL (SPC)
FROM 1ST SEPTEMBER 2011 TILL 31ST AUGUST 2014**

Position	Name and background
President	Mr Wu Tuck Seng Deputy Director, Pharmacy Department, National University Hospital <i>B Pharm (Hons), University of London</i> <i>Master of Health Science (Management) , University of Sydney</i>
Registrar (Ex-officio)	Assistant Professor Lita Chew Sui Tjien Chief Pharmacist, Ministry of Health Head, Pharmacy Department, National Cancer Centre Singapore <i>B.Sc (Pharmacy), National University of Singapore</i> <i>MMedSc (Oncology), University of Birmingham (UK)</i>
Member (Ex-officio)	Associate Professor Chan Sui Yung Head, Department of Pharmacy, National University of Singapore <i>B.Sc (Pharmacy) (Hons) and MBA, National University of Singapore.</i> <i>PhD (Pharmaceutics), Queens University of Belfast, UK</i>
Member	Ms Ang Hui Gek Director, Allied Health Division, Singapore General Hospital. <i>BSc (Pharmacy), National University of Singapore.</i> <i>Graduate Dip Clinical Pharmacy, Australia. MBA, University of Hull, UK</i>
Member	Ms Chan Soo Chung Executive Director, National Healthcare Group Pharmacy <i>B Pharm (Hons), University Science Malaysia</i>
Member	Mrs Chan Yiam Moi General Manager, NTUC Healthcare Co-operative Ltd <i>B.Sc (Pharm), National University of Singapore</i>
Member	Mr Ng Cheng Tiang Regional Quality Assurance Manager, Mundipharma Pharmaceuticals Pte. Ltd. <i>B. Sc (Pharmacy) (Hons), M Sc (Safety, Health & Env. Tech.),</i> <i>National University of Singapore</i>
Member	Mr Sia Chong Hock Division Director, Audit & Licensing Division and Director (Quality Assurance Office), Health Products Regulation Group Health Sciences Authority <i>B.Sc (Pharmacy), University of Singapore</i> <i>MSc Healthcare Management, University of Wales, UK</i>
Member	Ms Linda Seah Siew Hong Managing Director, Baxter Healthcare (Asia) Pte. Ltd. <i>B.Sc (Pharmacy) (Hons), National University of Singapore</i>
Member	Dr Christina Tong Mei Wen (Dr Christina Lim) Senior Director, International Relations, Health Products Regulation Group, Health Sciences Authority <i>B Pharm, University of Singapore.</i> <i>PhD (Pharmacodynamics), University of Montpellier, France</i>
Member	Dr Ellick Wong Chee Kik Principal Consultant, PharmaWork Consultants <i>B.Sc (Pharm), National Taiwan University. MSc, University of Manchester,</i> <i>UK PhD (Pharmaceutics), University of Wales, UK</i>



**Members of the second Singapore Pharmacy Council
from 1st September 2011 till 31st August 2014**

From left to right:

Mr Ng Cheng Tiang, Ms Ang Hui Gek, Dr Ellick Wong, Dr Christina Lim, Mrs Chan Yiam Moi, Mr Wu Tuck Seng (President),
Asst Professor Lita Chew (Registrar), A/Prof Chan Sui Yung, Ms Chan Soo Chung, Ms Linda Seah, Mr Sia Chong Hock



REPORT ON THE SINGAPORE PHARMACY COUNCIL'S ACTIVITIES

A summary of the Council's activities during the year 2011 is presented under the following headings:

- Council Meetings
- Activities
 - Professional
 - Training
 - Examinations
 - Miscellaneous
- Registration
 - Inactive Status
- Matters of Professional Misconduct

Council's Meetings

A total of 6 meetings were held in the year 2011 in the months of January, March, May, July, September and November.

Major issues discussed during these meetings were:

Amalgamation of Services of Professional Boards

Services like Human Resource (HR), financial, Information & Technology (IT), etc of the professional boards (i.e. Singapore Pharmacy Council (SPC), Singapore Medical Council (SMC), Singapore Dental Council (SDC), Singapore Nursing Board (SNB) and Traditional Chinese Medicines Practitioners Board (TCMPB) were amalgamated from 1st April 2011. This is to reduce the costs of operations and to increase efficiency.

Re-appointment of SPC Committees

Mr Kelvin Tan & Ms Tan Mui Ling were re-appointed to the Board of Examiners (Forensic) for a further 2-year term.



Ms Tan Mui Ling was re-appointed as the Chairperson of the CPE Accreditation Committee for a further 2-year term. The other members were reappointed.

Ms Mariam Binte Ahmad Alkhatib from Unity Healthcare was invited to join the CPE Accreditation Committee.

Code of Ethics Sub-committee

The Code of Ethics sub-committee has completed their task and their term has ended.

Activities

Professional

Re-certification of Accredited Pre-registration Training Centres

All 14 pre-registration training centres were re-certified for a period of 2 years from 1st May 2011 to 30th April 2013.

Listing of Recognised Pharmacy Qualifications

The Council reviewed the basic pharmacy degrees fully accredited by (pharmacy education) accreditation agencies in United States of America, United Kingdom, Canada, Australia and New Zealand. A total of 138 programs from 135 pharmacy schools were recognised by SPC for the purpose of registration in Singapore.

Pre-Registration Training Review Committee (PTRC) (See Annex 1 for details)

The Pre-Registration Training Review Committee (PTRC) under the chairmanship of A/Prof Chui Wai Keung completed its work and presented a report to the Council.

The PTRC Committee reviewed the current training programme for pre-registration pharmacists in Singapore in order to assess the adequacy and relevance of the training programme (for entry to the profession) with respect to the roles and responsibilities of registered pharmacists in an integrated health system and the pharmaceutical industry. Ten recommendations were made to transform the pre-registration pharmacists' training in Singapore.



The 10 recommendations are:

1. SPC to introduce and adopt a set of national objectives for pre-registration pharmacists' training.
2. SPC to introduce and adopt a set of overall individual core qualities that are consistent with the SPC competency standards framework.
3. SPC to adopt a modular rotation-model that allows the pre-registration pharmacists to be exposed to more than one area of practice and preferably in different training sites. The recommendation is for 2 essential rotations in acute care and 2 elective rotations e.g. in nursing home, specialty care rotation, pharmaceutical manufacturing and marketing and health products regulation.
4. Each pre-registration pharmacist shall go through 4 rotations over the period of 12 months. Each rotation shall last for 3 months. The two essential rotations will expose pre-registration pharmacists to the roles and responsibilities of pharmacists in primary and acute tertiary/secondary care of patients. The elective rotations aim to expose pre-registration pharmacists to services in specialty institutions and other pharmaceutical sectors.
5. SPC to provide guidelines for setting up rotations as a means of standardizing training programmes.
6. SPC to consider setting up a central management unit in SPC/MOHH. This unit shall approve training centres and training programmes, coordinate the rotations, recruit and train preceptors, collate and check assessment results, budget for training and operations and set up and manage a central repository.
7. SPC to obtain central funding to create more training places in the training sites (as training funds available in each institution is usually the limiting factor for them to take in more pre-registration pharmacists, besides the number of preceptors available in each institution). This will cater to the increase output of graduates from NUS in the coming years.
8. SPC to develop training manuals for preceptors & pre-registration pharmacists.



9. SPC to remove the requirement to undertake a project as a registration pre-requisite because rotation period will be short and all undergraduates should already have project experience.
10. SPC to work more closely with the university on curriculum development so as to make transition into pre-registration training more seamless and graduates can appreciate that education and training is a continuum.

Pre- Registration Training Implementation Workgroup (PTIW)

Subsequent to the PTRC report, a Pre-Registration Training Implementation Workgroup was set up by the SPC and the Chief Pharmacist Office to study the details like whether a central model is workable and how to make this operational. It includes relevant stakeholders in patient care and indirect patient care areas of pharmacy practice.

Members of the Pre- Registration Training Implementation Workgroup

Chairperson	
Chief Pharmacist and Registrar	Asst Prof Lita Chew
Advisors	
Council Member	Ms Ang Hui Gek
Council Member	Ms Chan Soo Chung
NUS Pharmacy Department	A/Prof Chui Wai Keung
Members	
Changi General Hospital	Mr Lim Wee Heng
Guardian Health and Beauty	Ms Lee Moh Wah
Institute of Mental Health / Woodbridge Hospital	Ms Emily Liew Kai Suen
Alexandra Hospital (Jurong Health)	Ms Goh Zhining
Khoo Teck Puat Hospital	Ms Claudine Oh
KK Women's and Children's Hospital	Mr Hie Szu Liang
National Cancer Centre, Singapore	Dr Vivianne Shih/ Ms Yeoh Ting Ting
National Healthcare Group Pharmacy	Ms Lim Li Ching
National University Hospital	Ms Wong Yuet Peng
Parkway Health Group	Mr Peter Yap
Singapore General Hospital	Dr Chan Hong Ngee
Tan Tock Seng Hospital	Ms Annie Chia
Unity NTUC Healthcare Pharmacy	Ms Tan Zhenyin Joyce



Members	
Watson's Personal Care Stores Pharmacy	Mr Loh Yew Meng
Health Sciences Authority (HSA)	Dr Chan Wai Yee
Singapore Pharmaceutical Manufacturers Association (SPMC)	Mr Lee Loh Meng
Singapore Association of Pharmaceutical Industries (SAPI)	Ms Lee Hwee San

The **Terms of Reference of the PTIW** are as follows:

- 1) Implement the Singapore Pharmacy Council endorsed recommendations proposed by the Pre-Registration Training Review Committee.
- 2) Promulgate the overall core qualities and standards to be achieved by pre-registration pharmacists that are consistent with the Singapore Pharmacy Council's "Competency Standards for Pharmacists in Singapore (entry to practice)" framework.
- 3) Recommend a method for accreditation of essential and elective rotation sites as well as categorisation of training centres.
- 4) Articulate a detailed plan for implementing the essential and elective rotations including coordination, funding, training, and monitoring.
- 5) Establish guidelines for a standardised training programme including assessments and reporting.
- 6) Develop the training curriculum and training manuals for preceptors and pre-registration pharmacists.
- 7) Develop the framework for a pilot study and to assess feasibility and sustainability of the training model including performance indicators. Also, to establish criteria to monitor the outcome.
- 8) Propose evaluation and monitoring framework for the training of pre-registration pharmacists and preceptors.

A pilot study will be conducted in 2012 to test the feasibility and sustainability of the proposed training plan. A detailed study on centralisation and matters of funding is planned.

[The new Singapore Pharmacy Council website was updated](#)

Several of the Healthcare Professionals websites including the SPC's website were updated in September 2011.



Training

NUS Bridging Course for pharmacists with qualifications that are not recognised by the SPC

SPC has endorsed the "NUSAGE Postgraduate Certificate in Pharmacy Practice" (PCPP) as the official SPC bridging programme for pharmacists from non recognised qualifications who seek to work in Singapore as pharmacists. The "Overseas Pharmacists Assessment Programme" (OPAP) leading to "NUSAGE Postgraduate Certificate in Pharmacy Practice" (PCPP) commenced in August 2011 with 4 candidates.

NUS has made a special provision to accept applicants who are employees of all SPC-certified pre-registration training centres including those in the private sector e.g., Unity, Guardian, Watsons, private hospitals and others into the NUSAGE OPAP programme.

When the supply of pharmacists in Singapore is sufficient to meet national demand, NUSAGE will be required to stop new admissions to this course on being given notice by the SPC. The details of the Overseas Pharmacists Assessment Programme leading to the NUSAGE Postgraduate Certificate in Pharmacy Practice can be found in the link:

<http://www.nusage.nus.edu.sg/opap/>

Preceptor Training Workshops

A total of 4 preceptor training workshops were held on 15th, 18th and 19th April and 5th May 2011. The trainer was Mr Tim Egold of Dale Carnegie Training. 73 pharmacists were trained in 2011, bringing the total number of trained preceptors to 576.

Examinations

Forensic Examinations for Foreign-Trained Pharmacy Graduates

In 2011, three forensic examinations were held for a total of 109 candidates. The examinations were conducted on 4th April (51 candidates; 3 failed), 1st August (36 candidates; all passed) and 8th November 2011 (22 candidates; 4 failed).



Competency Examinations for Foreign-Trained graduates

The Singapore Pharmacy Council continued to administer the Competency Examinations as part of the requirements for entry into the pharmacy register. This is to ensure competency and fitness to practise. A total of 39 pre-registration pharmacists sat for the exams in 2011. The 4 examinations were conducted on 28th February (8 candidates), 30th May (14 candidates), 29th August (5 candidates) and 28th November 2011 (12 candidates). All candidates passed the examinations.

All de-registered pharmacists (both local & foreign trained) who have not held a practising certificate for more than 5 years and who wish to restore their names to the Register are required to pass the forensic and competency exams.

Miscellaneous

Appointment of New Chief Pharmacist and Registrar

Asst Prof Lita Chew Sui Tjien was appointed as the Chief Pharmacist, Ministry of Health, with effect from 1st April 2011. According to the Pharmacist Registration Act (PRA) (Chapter 230), the Chief Pharmacist shall be the Registrar of Singapore Pharmacy Council.

Asst Prof Lita Chew has served as a Council member on the Singapore Pharmacy Council since its formation on 1st September 2008. She is the Head of Pharmacy Department at the National Cancer Centre, Singapore and Assistant Professor at the Department of Pharmacy, National University of Singapore. Ms Chew is an active member of the Pharmaceutical Society of Singapore, having served as the Treasurer from 2010 to 2011 and Vice President from 2009 to 2010. Ms Ang Hui Gek has relinquished her role as Chief Pharmacist as at 1st April 2011 and has returned to her full-time work as Director, Allied Health Division in Singapore General Hospital (SGH). Ms Ang will continue to serve the Singapore Pharmacy Council (SPC) as a member of the Council.

Ms Ang served as a Board member on the Singapore Pharmacy Board from 1st April 2002 to 31st March 2003. She was appointed as the Chief Pharmacist on 1st April 2003 and became the President/Registrar of the then Singapore Pharmacy Board from 1st April 2003 to 31st August 2008.



When the Singapore Pharmacy Council was constituted as a statutory board on 1st September 2008, Ms Ang took on the ex-officio position of Registrar and Mr Wu Tuck Seng was appointed as the President.

The Second Singapore Pharmacy Council

Term: 1 September 2011 to 31 August 2014

The Council comprises of 11 members:

President: Mr WU Tuck Seng

Registrar: Asst Prof Lita CHEW (ex-officio)

Members:

Assoc Prof CHAN Sui Yung (ex-officio)

Ms ANG Hui Gek

Ms CHAN Soo Chung

Ms CHAN Yiam Moi

Dr Christina LIM

Mr NG Cheng Tiang

Ms Linda SEAH

Mr SIA Chong Hock

Dr Ellick WONG

Mr. Koe Khoon Poh, who served as a member of SPC from September 2008 to August 2011 and as a member of Singapore Pharmacy Board (SPB) from 1993 to 1996, stepped down on 31 August 2011. Mr. Ng Cheng Tiang took over as the new member of SPC.

SPC's Third Pharmacist's Pledge Affirmation Ceremony

The Singapore Pharmacy Council's third Pledge Affirmation Ceremony was held on 26th May 2011 with Mr Hawazi Daipi, the Senior Parliamentary Secretary (SPS), Ministry of Education and Ministry of Manpower, as the guest of honour. A total of 260 people attended the pledge ceremony. This number comprised of 101 local National University of Singapore (NUS) graduates, 61 foreign trained pharmacists. Other attendees included guests, media, SPC Council members and pharmacists.



Mr Hawazi Daipi gave the address and Mr Wu Tuck Seng, the President of SPC gave out the Pledge Certificates. The recently appointed Registrar, Asst Prof Lita Chew congratulated the newly registered pharmacists.

The Council issued a press release for the pledge ceremony and the event was covered by the various local media. There was extensive publicity for the pledge ceremony as coverage of the event appeared in the Straits Times, Today, Berita Harian, Media Corp and Channel News Asia. In addition, media interviews were conducted and appeared in the Malay and Chinese television and radio news.

Citation for Ms Ang Hui Gek

At the Pledge Ceremony the President gave a Certificate and a Token of Appreciation to Immediate Past Registrar Ms Ang Hui Gek who had served the Singapore Pharmacy Board from 2003 to September 2008 as the President and Registrar. She then served on the Singapore Pharmacy Council, as the Registrar from September 2008 to March 2011. The citation recognised the years of Ms Ang's contribution to the pharmacy profession from 2003 to 2011 and was read by Asst Prof Lita Chew.

Five pharmacists received the National Day Awards 2011

The recipients of the Public Administration Medal (Bronze) are:

- Ms Ang Hui Gek - Director, Allied Health at SGH and the Immediate Past Registrar of SPC; the Former Chief Pharmacist at MOH
- Ms Chan Cheng Leng - Assistant Group Director, Health Products Regulation Group and the Director, Vigilance, Compliance & Enforcement Division at HSA
- Mrs Chew-Koh Kwee Tiang - Chief Operating Officer at KTPH

The Commendation Medal went to:

- Mdm Hong Mok Shiang - Senior Manager, Operations at NHG Pharmacy
- Ms Law Hwa Lin - Principal Pharmacist (Clinical) at TTSH



Registration

Compulsory Continuing Professional Education (CPE) for Pharmacists

The current Qualifying Period for CPE is from 1st September 2010 to 31st August 2012 and the Practising Certificate is due for renewal at the end of 2012.

Inactive Status

Eighty four pharmacists were granted "Inactive Status" in 2011.

An inactive status is applicable to the following only:

- a) Pharmacists who are not working;
- b) Pharmacists who are working in non-pharmacy sectors.
- c) Pharmacists who had been residing overseas for at least a year

The definitions of practice of pharmacy as stated in the Pharmacists Registration Act (PRA) are:

Applying the knowledge and science of pharmacy in: —

- 1) Interpreting, evaluating and implementing prescriptions of persons authorised by law to prescribe medication;
- 2) Compounding, labelling, dispensing, distributing and administering medication;
- 3) Initiating and modifying medication therapy in accordance with the collaborative practice agreements established and approved by health care facilities or voluntary agreements with persons authorised by law to prescribe medication;
- 4) Patient assessment and counselling for the purpose of recommending and dispensing medication;
- 5) Managing medication therapy;
- 6) Evaluating medication use;
- 7) Manufacturing and distributing medicinal products; and
- 8) Quality assurance of medicinal products.



The minimum CPE requirements for pharmacists holding Inactive Status is 20 CPE points per Qualifying Period as compared to 50 CPE points per Qualifying Period for pharmacists holding an "Active Practising Certificate".

Matters of Professional Misconduct

1. Disciplinary case of a pharmacist who was convicted of minor theft

The Council established a Disciplinary Committee to look into the case of a pharmacist who was convicted in court and sentenced to 5 days imprisonment for an offence made under section 381 of the Penal Act. The Disciplinary Committee deliberated and decided to suspend her for a period of 12 months. The Disciplinary Committee arrived at this judgement as she had 2 previous convictions for theft.

2. Complaint about alleged malpractice of a pharmacist

A member of the public complained to SPC about a pharmacist at a private hospital who allegedly took it upon herself to take on the role of a doctor and denied vital medication to a psychiatric patient. The complainant alleged that the pharmacist did not consult the psychiatrist even though she said she did. This denial of medication had allegedly caused the patient's mental condition to worsen (resulting in symptoms such as panic attacks, depression and high anxiety). The complainant also alleged that the pharmacist continued to argue with him on the phone even after being told she was directly causing him stress and anxiety.

A Complaints Committee was appointed to look into this complaint.

The Complaints Committee had received a letter of explanation from the psychiatrist in charge of the patient who agreed that the drugs should not have been issued as opined and decided by the pharmacist.

The Complaints Committee had also deliberated on whether the pharmacist had violated the Code of Ethics (Clauses 1, 2, 3, 4, 6, 7 and 9) and unanimously concurred that there was no case against the pharmacist.



3. Complaint against a pharmacist who was alleged to be found at work under the influence of alcohol

The Council received a complaint from a colleague of a pharmacist who was found to be working under the influence of alcohol on 2 occasions. A Health Committee was appointed to look into this case and it is currently waiting for a medical report on the pharmacist. The Health Committee had decided not to activate an Interim Order Committee (IOC) as the pharmacist is currently not working and no harm to the public was reported in relation to the complaint.

4. Complaint from Health Sciences Authority (HSA) against a pharmacist, whose website publicity, is alleged to show that he may have practised beyond his scope of competence

The Council received feedback from an officer from the Ministry of Health that a pharmacist was featured in his company website, as part of the medical team, providing hair transplant procedures. It allegedly showed that he may have practised beyond his scope of competence. The case is being investigated by the SPC.



THE PHARMACISTS REGISTER FOR THE YEAR 2011

Total Number of Registered Pharmacists

At 31st Dec 2011, there were 2,013 pharmacists on the register, a net increase of 199 over that of the previous year. This included the registration of 87 foreign-trained graduates. The increasing trend is a good sign for Singapore as we need more pharmacists for our frontline work force.

The number of pharmacists registered in Singapore over the past 5 years is shown in Table 1.

Table 1
Number of Registered Pharmacists in Singapore (2007-2011)

Year	Total Number of Pharmacists on the Register	Net Increase (+) / Decrease (-) over the previous year	Net Increase (+) / Decrease (-) over the previous year (%)
2007	1483	+62	+4.4
2008	1546	+63	+4.3
2009	1658	+112	+7.2
2010	1814	+156	+9.4
2011	2013	+199	+11.0



Number of Foreign-Trained Registered Pharmacists

The total number of foreign trained pharmacists on the Register as at 31st December 2011 was 445.

Table 2 shows the number of newly registered foreign trained pharmacists over the last 15 years.

87 foreign trained pharmacists had registered with the Council in the year 2011, an increase of 34% over that of 2010.

Table 2
Total Number of Foreign-Trained Pharmacists (1997-2011)

Year	Number of Pharmacists
1997	28
1998	22
1999	15
2000	27
2001	17
2002	11
2003	15
2004	5
2005	9
2006	21
2007	21
2008	15
2009	31
2010	65
2011	87



Profile of Registered Pharmacists

The profile of registered pharmacists in 2011 is shown in Table 3. The population of registered pharmacists in Singapore comprised approximately 24% male and 76% female pharmacists.

Majority of the pharmacists are Chinese (93.5%). Indian pharmacists make up 3.6% and Malay pharmacists 1.4%. Of the 2,013 registered pharmacists, nearly 68.2% are Singaporeans while 26.7% are Malaysians.

Table 3
Profile of Registered Pharmacists

General Profile	Number	Percentage (%)
Total Number	2013	100
Sex		
Male	481	23.9
Female	1532	76.1
Ethnic Group		
Chinese	1882	93.5
Indian	73	3.6
Malay	27	1.4
Others	31	1.5
Nationality		
Singaporean	1374	68.2
Malaysian	537	26.7
Others	102	5.1
Age Group		
20-29	481	23.9
30-39	803	39.9
40-49	386	19.2
50-59	220	10.9
60 and above	123	6.1



Employment Status

The statistics on employment status of registered pharmacists at end of Dec 2011 is shown in Table 4.

A total of 1,667 (82.8%) of registered pharmacists were engaged in full-time employment and 153 (7.6%) were in part-time employment.

Table 5 shows the age distribution of the number of registered pharmacists who were not working.

Table 4
Working Status of Registered Pharmacists

Working Status	Number	Percentage (%)
Total Number	2013	100
Full-time employment	1667	82.8
Part-time employment	153	7.6
Not working	193	9.6

Table 5
Age Distribution of Registered Pharmacists who are not working

Age Group	Female	Male	Total
20 – 29	19	5	24
30 – 39	59	10	69
40 – 49	48	4	52
50 – 59	20	2	22
60 and above	14	12	26
Total	160	33	193



Fields of Employment

Table 6 shows the fields of employment of pharmacists in the private and public sectors.

Private Sector

The majority of pharmacists in the private sector were employed in wholesale and retail (30.1%), followed by regulatory affairs (11.8%) and marketing (10.1%).

Public Sector

The majority of the public sector pharmacists were employed in patient-care services: hospitals (64.1%) and polyclinics (10.4%). 8.8% of pharmacists were employed in pharmaceutical regulation. The remaining 16.7% were employed in academia, administration, non-pharmaceutical, procurement & distribution and health information services. There was an increase of 3.1% in the pharmacists employed in hospitals in 2011 as compared to the number in 2010.

Table 6
Fields of Employment of Registered Pharmacists in the year 2011

Fields of Employment	Number	Percentage (%)
Private Sector	978	100
Wholesale & Retail	294	30.1
Regulatory Affairs	115	11.8
Marketing	99	10.1
Wholesale	80	8.2
Clinical Research	73	7.5
Hospital	71	7.3
Other Pharmaceutical Field*	56	5.7
Non-pharmaceutical	50	5.1
Manufacturing	32	3.3
Volunteer Welfare Organisation	15	1.5
Locum	14	1.4
Health Information Services	13	1.3
Consultancy	8	0.8
Medical Clinic	6	0.6
Training	6	0.6
Procurement & Distribution	4	0.4
Others (including those working overseas)	42	4.3
Public Sector	842	100
Hospitals	540	64.1
NHG & SingHealth Polyclinics	88	10.4
Pharmaceutical Regulation	74	8.8
Academia/Research	69	8.2
Administration	48	5.7
Non-pharmaceutical	10	1.2
Procurement & Distribution	9	1.1
Health Information Services	3	0.4
Not Applicable (Temporary Registration)	1	0.1



Annual Report 2011

* Example: medical publishing, medical market research, teaching



Basic Degrees

The pharmacists registered in Singapore obtained their basic pharmacy degrees from a range of countries/areas. Almost 78% of our registered pharmacists obtained their basic pharmacy qualifications in Singapore. This is followed by Australia (7.5%), the United Kingdom (5.5%), Malaysia (4.7%) and the United States (1.6%).

Table 7
Basic Degrees (by country/area) of Registered Pharmacists in the year 2011

Country/Area	Number	Percentage (%)
Singapore	1568	77.9
Australia	151	7.5
United Kingdom	110	5.5
Malaysia	94	4.7
United States	32	1.6
New Zealand	19	0.9
Taiwan	15	0.7
Canada	11	0.5
Thailand	5	0.3
India	5	0.3
Others (Ireland, Jordan & Spain)	3	0.1
Total	2013	100



Post-Basic Degrees

Table 8 shows the number of pharmacists on the register who had obtained higher qualifications in pharmacy. A total of 115 post-basic pharmacy degrees were recorded, with Clinical Pharmacy being the most common speciality (38.2%). This was followed by Pharmaceutics (13.9%), Pharmacology (12.1%), Pharmaceutical Chemistry (10.4%) and Pharmaceutical Technology (7.0%).

Table 8
Number of Pharmacists by Speciality of Post-Basic Degree

Specialty	Masters Number/ Percentage (%)	PhD/ Pharm D Number/ Percentage (%)	Other Qualifications Number/ Percentage (%)	Total Number/ Percentage (%)
Clinical Pharmacy	32 (27.8%)	6 (5.2%)	6 (5.2%)	44 (38.2%)
Pharmaceutics	7 (6.1%)	9 (7.8%)	0 (0%)	16 (13.9%)
Pharmacology	5 (4.3%)	9 (7.8%)	0 (0%)	14 (12.1%)
Pharmaceutical Chemistry	6 (5.2%)	6 (5.2%)	0 (0%)	12 (10.4%)
Pharmaceutical Technology	4 (3.5%)	4 (3.5%)	0 (0%)	8 (7.0%)
Pharmacy Practice	2 (1.7%)	4 (3.5%)	1 (0.9%)	7 (6.1%)
Hospital Pharmacy	1 (0.9%)	1 (0.9%)	2 (1.7%)	4 (3.5%)
Bio-pharmacy	1 (0.9%)	2 (1.7%)	0 (0%)	3 (2.6%)
Community Pharmacy	1 (0.9%)	0 (0%)	0 (0%)	1 (0.9%)
Nutrition Support Pharmacy	0 (0%)	0 (0%)	1 (0.9%)	1 (0.9%)
Pharmaceutical Microbiology	0 (0%)	1 (0.9%)	0 (0%)	1 (0.9%)
Pharmacodynamics	0 (0%)	1 (0.9%)	0 (0%)	1 (0.9%)
Pharmacognosy	1 (0.9%)	0 (0%)	0 (0%)	1 (0.9%)
Pharmacotherapy	0 (0%)	0 (0%)	1 (0.9%)	1 (0.9%)
Pharmacy	0 (0%)	1 (0.9%)	0 (0%)	1 (0.9%)
Total	60 (52.2%)	44 (38.2%)	11 (9.6%)	115 (100%)



Pharmacists Residing Overseas

By end 2011, 165 pharmacists on the register were residing overseas (compared to 168 in 2010); a 1.8% decrease as compared to 2010. Table 9 shows the countries/areas of residence of these pharmacists. The majority of our pharmacists were residing in Australia (28.6%), followed by Malaysia (22.4%), United States (14.6%), Hong Kong SAR (7.3%) and United Kingdom (5.5%).

Table 9
Countries/Areas of Residence of Registered Pharmacists Residing Overseas

Country/Area	Number	Percentage (%)
Australia	47	28.6
Malaysia	37	22.4
United States	24	14.6
Hong Kong SAR	12	7.3
United Kingdom	9	5.5
People's Republic of China	7	4.2
Switzerland	7	4.2
Thailand	3	1.8
New Zealand	2	1.2
Dubai	2	1.2
Germany	2	1.2
Brunei	1	0.6
Canada	1	0.6
Denmark	1	0.6
Indonesia	1	0.6
Ireland	1	0.6
Japan	1	0.6
Mauritius	1	0.6
Panama	1	0.6
Pakistan	1	0.6
Sri Lanka	1	0.6
South Africa	1	0.6
Spain	1	0.6
Vietnam	1	0.6
Total	165	100



Table 10 shows the reasons cited for residing overseas. The most common reason was "Work" (60.0%) followed by "Accompanying spouse/family" (23.0%).

In 2011, 165 pharmacists (compared to 168 in 2010) left Singapore to reside in other countries/areas, a decrease of 1.8% over 2010.

There was a significant decrease of 11.6 % in the number of pharmacists who accompany their spouse / family to reside overseas (38 in 2011 compared to 43 in 2010).

Table 10
Reasons for Residing Overseas

Reasons	Number	Percentage (%)
Work	99	60.0
Accompany spouse/family	38	23.0
Further studies	15	9.1
Return to home country	8	4.9
Migration	3	1.8
Residing Overseas	2	1.2
Total	165	100

**Annex 1****PRE-REGISTRATION TRAINING REVIEW COMMITTEE (PTRC)
REPORT - JANUARY 2011****Committee Members**

A/Prof Chui Wai Keung (Chairman)
 Asst Prof Lita Chew
 Ms Chong Yi San
 Mr Koe Khoon Poh
 Mr Lee Jet Tong
 Ms Charmaine Leong
 Ms Janice Lim Chai Huang
 Mr Lim Mun Moon
 Mr Sia Chong Hock
 Ms Tan Lay Kheng

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Annex 1- PTRC Report - continued

EXECUTIVE SUMMARY

The Singapore Pharmacy Council assembled a 10-member Pre-registration Training Review Committee (PTRC), chaired by A/Prof Chui Wai Keung, to review the current training programme for pre-registration pharmacists in Singapore. The main aim was to assess the adequacy and relevance of the training programme (for entry to the profession) with respect to the roles and responsibilities of registered pharmacists in an integrated health system and in the pharmaceutical industry. Where appropriate, the committee has been tasked to make recommendations to enhance the learning outcomes and experiential training opportunities for pre-registration pharmacists.

The committee conducted a SWOT analysis on the current training programme and an assessment was carried out based on the components of the analysis. Details of the SWOT analysis are presented in the report. It was unanimously felt that the strengths of the current programme are essential elements for a good training programme and therefore should be retained. The following points are some weaknesses that were identified. The present 2-component in-course and post-course training model is deemed to be ineffective, hence, a new model is needed. The current programme trains pre-registration pharmacists only in patient-care settings and does not expose trainees to other pharmaceutical sectors which employ 51.2% of economically-active registered pharmacists. Training outcomes are very much dependent on the quality of the preceptors. There is a concern that with the increase in pharmacy graduates from NUS, placement of graduates for pre-registration training may become a challenge if there is lack of coordination among the training sites. The committee has identified several opportunities to enhance the training programme. The shifting of roles and responsibilities of pharmacists to other healthcare professionals is believed to be an imminent threat.

The committee recommends to SPC to adopt a set of National objectives for training and to target core qualities to be achieved upon completion of the training. Two essential and two elective rotations of 3-month duration each are recommended to be completed by each pre-registration pharmacist over a period of 12 months. Clear and measurable learning outcomes for each rotation are to be stipulated and disseminated to the training sites. This will assist in standardization of the training programmes across the training institutions. A central management unit is recommended to be set up that will coordinate the placement of trainees, the recruitment and training of preceptors, the acquisition of training, operational budgets as well as other administrative activities. The preparation of training manuals for preceptors and trainees is recommended.



Annex 1- PTRC Report - continued

The removal of the project as a requirement for registration is recommended so that trainees can focus on sharpening their practice and cognitive skills. Closer working ties between the practitioners and the educators are also recommended as this can help smoothen out the transition of the graduates from education to practice.

Generally the adoption of these recommendations requires a change of mindset in the way training is to be conducted. For more effective training outcomes, a shift from duration-based training to competency-based and outcome-focused training is warranted. The committee has constructed essential and elective rotational modules of which the essential rotations will hone the core skills required in primary and acute care of patients. The elective rotations provide choices for the trainees to pursue areas of their interest. The rotational system will also assist the training sites to evaluate their strengths in training, so that the trainees will receive the best training possible from a particular site. As a projection into the future, when a site develops a new strength in practice, the site can begin by offering a new elective rotation for training. In addition, the rotational system is also more flexible in bridging the continuum between education and practice. Rotating the trainees will allow them to be exposed to the integrated healthcare system as well as the pharmaceutical industry and the regulation system in Singapore. This overview will provide a holistic perspective of the roles and responsibilities of the pharmacy profession and we hope that the trainees will gain a greater sense of affiliation to the profession. In particular, as the trainees enter the profession and aspire to develop their career path, this initial induction period will offer more experiential learning opportunities for them. The recommendation of setting up a central management unit for pre-registration training is a milestone that will transform the way trainees are placed at various sites.



A. INTRODUCTION

Pre-registration Training

The Pharmacist Registration Act 2007 stipulates that all practising pharmacists, in Singapore, must be registered with the Singapore Pharmacy Council (SPC). As a registration pre-requisite, among other requirements, graduates holding a recognised pharmacy degree must complete a mandatory period of pre-registration training to the satisfaction of the SPC before registration can be approved. Each graduate will undertake his/her training, as a pre-registration pharmacist, at an accredited training site. The training site is responsible for the setting up the training programme and the learning outcomes of the pre-registration pharmacists who are placed under its charge. Upon satisfactory completion of the training at the training site, the preceptors will certify the competency of the pre-registration pharmacist and he/she will be able to apply for registration with the SPC.

The Current Pre-registration Programme

Undergraduate students who are studying at the National University of Singapore (NUS) currently undertake their pre-registration training in two parts. The first part is carried out while they are studying in the NUS and this component constitutes 3 months of the 12- month training period. This component is made up of 6-week retail pharmacy/polyclinic attachment and another 6-week attachment at a hospital. During the attachment, students have to complete a set of prescribed activities and submit a report to the university. Upon graduation from NUS, the graduates are required to complete the remaining 9 months of training at an accredited training site. The two components, together, fulfil the 12-month requirement for pre-registration training stipulated under the Pharmacists Registration Act.

During the 9-month post graduation training period, each pre-registration pharmacist is employed by a training site. The training site provides the training programme and assesses the competency of the pre-registration pharmacist. Under this scheme, if a pre-registration pharmacist was employed by a retail pharmacy, he/she would spend majority of the time training at the retail pharmacy. While provisions were made to expose the trainee to practice in a hospital, such exposure was for a limited period. Likewise, pre-registration pharmacists employed by hospitals would have



limited exposure to community/retail/polyclinic practice; only large hospitals are able to provide more rounded training programmes.

Annex 1- PTRC Report - continued

While the current training programme has served its purpose of preparing and strengthening the competency of the graduates for entering the pharmacy profession, the SPC feels that it is time to review the adequacy and relevance of the pre-registration training programme. The following are some reasons for reviewing the current programme:

- (a) The 2-component pre-registration training programme has been conducted for the past 13 years. This approach was adopted to provide some experiential learning opportunities for the undergraduates and at the same time reduce the post-graduation training period when the curriculum at the university was extended from a 3 year programme to a 4 year. Feedbacks from the training sites indicated that the 9-month post-graduation training was not adequate and the training sites would like SPC to review the current training programme.
- (b) In 2006, the SPC established a set of entry-to-profession competency standards for pharmacists in Singapore. These are minimum competency standards that are required to be achieved at the end of the pre-registration period. The SPC has advised the accredited training sites to embrace this set of competency standards as a guide to train and assess the pre-registration pharmacists. SPC feels that it is timely to review how the elements of the competency standards are incorporated into the training programmes from the various training sites.
- (c) Another reason for initiating the review is related to the changing landscape of the biomedical science (BMS) industry in Singapore which impacts on the demand of the employability of registered pharmacists. As such the relevance of the pre-registration training programme will be critical in preparing the pharmacists for different work environments. The four main sectors of the BMS industry, namely the pharmaceutical cluster, the biotechnology cluster, the medical devices cluster and the health services cluster are known to actively employ registered pharmacists. There is an acute increase in demand for pharmacists in the healthcare services sector. The current pre-registration training programme is hosted primarily by the hospitals, polyclinics and retail pharmacies; therefore, the training is focused in patient care. Registered pharmacists are known to stay in the healthcare services sector for an average of 3.6 years upon



registration. Many develop their future career in the other three clusters. Hence, it is important that the pre-registration training

Annex 1- PTRC Report – continued

provide training opportunities related to all clusters to facilitate the movement of registered pharmacists into these areas.

- (d) The Chief Pharmacist's Office (CPO), Ministry of Health, has recommended to SPC to consider centralizing the training of pre-registration pharmacists. Centralizing the training may help in better coordination of the various training sites. This is particularly useful since the number of graduates from NUS will increase over the next few years and placement of graduates at training sites may become a challenge. A central body may assist in placing the pre-registration pharmacists and coordinating other administrative activities. This is another reason for a review of the current programme to evaluate the feasibility of such endeavour.

The Pre-registration Training Review Committee

Therefore the SPC has decided to set up a pre-registration training review committee with the following **terms of reference**:

- (a) Review current programme with respect to current and future needs and to recommend appropriate model.
- (b) Evaluate training programme with respect to SPC Competency Standard Framework.
- (c) To review adequacy of pre-registration postings, venues and duration.
- (d) To make recommendations on the operation and governance of the programme.
- (e) To make recommendations on the quality assurance and sustainability of the programme.

The pre-registration training review committee comprised of the following members:

- (a) A/Prof Chui Wai Keung (Chairman) – Academic Representative
- (b) Asst Prof Lita Chew – SPC Member
- (c) Ms Chong Yi San – Chief Pharmacist Office Representative
- (d) Mr Koe Khoo Poh – Industry Representative
- (e) Mr Lee Jet Tong – SAPI Representative
- (f) Ms Charmaine Leong – Preceptor (Community)
- (g) Ms Janice Lim Chai Huang – Preceptor (Hospital)
- (h) Ms Lim Mun Moon – Pharmacy Manager, SGH
- (i) Mr Sia Chong Hock – Regulation Representative
- (j) Ms Tan Lay Kheng – Preceptor (Polyclinic)



Secretarial support was provided by:

Ms Felicia Ling – SPC Executive Secretary
Ms Shiamala Govindasamy – SPC Manager

Annex 1- PTRC Report – continued

The committee convened for the first time on 18 June 2010. During the first meeting, the President of SPC, Mr Wu Tuck Seng, was present to welcome the committee and briefed the members of the committee on the terms of reference. The chairman, A/Prof Chui Wai Keung, proposed a working plan that included a review phase, an evaluation and construction phase and finally a recommendation phase. Based on this work plan, a timeline between June and December 2010 was drawn up as a guide for the committee. On 9th September 2010, the committee presented an update on the work in progress to the Council. The Council provided some feedback to the committee for further consideration. This report consolidated all the activities conducted and recommendations proposed by the committee.

B. REVIEW PHASE

As the committee comprises members who represent different fields of pharmacy practice, it was a good opportunity to provide an update to all members, information on the current pharmacy education curriculum and the current pre-registration training programmes offered by various training sites in Singapore. This exercise also provided an overview of the continuum of education and training that would lead to the registration of pharmacists in Singapore.

Following this presentation a SWOT analysis was conducted on the current pre-registration training programme and the results of the analysis are:

Strengths

- (i) Each site has planned training programme that is approved by SPC and is reviewed regularly.
- (ii) Keeping of training log – such documentation is excellent for tracking progress.
- (iii) The training provides opportunity to foster close good preceptor-preceptee relationship.
- (iv) Learning outcomes are defined in training sites.
- (v) Rotations within each training site are planned so that the trainees are exposed to a variety of working environments where they can learn different skills.
- (vi) The 9 functional areas from the standard competency framework are addressed in the training programme.
- (vii) Assessment methods – there are choices, flexible tools of assessments and multi-component assessments.



- (viii) Project work – good for pre-registration pharmacists to learn about research skills.

Annex 1- PTRC Report – continued

- (ix) Special consideration available for extension of the pre-registration training duration due to health, ability, knowledge, skills, behaviour, values.

Weaknesses

- (i) Overall national training objective is not well-defined.
- (ii) The overall individual core qualities of the pre-registration pharmacist that need to be achieved are not defined.
- (iii) Split training duration is less effective (i.e. 3 months + 9 months).
- (iv) Learning outcomes are not clear in some cases.
- (v) Learning outcome is preceptor dependent.
- (vi) Quality of preceptors varies.
- (vii) There are variations in the teaching and training quality offered by the different training sites and preceptors.
- (viii) Accountability by preceptor is not enforced.
- (ix) The written competency examination tests knowledge and not skills.
- (x) Final viva is not centrally administered, therefore standards can vary.
- (xi) There is a lack of standardization in the assessment of the pre-registration pharmacists.
- (xii) The Standard Competency Framework only looks at patient-care areas.
- (xiii) There is no training exposure to sectors such as regulation, manufacturing, sales and marketing, and logistics management, even though registered pharmacists are employed in these sectors.
- (xiv) Placement is dependent on multiple factors: market demand, budget and uneven distribution of preceptors among training sites.
- (xv) There is a large variation in the quality of the project work carried out by the pre-registration pharmacists.

Opportunities

- (i) To establish a Central Repository for tracking pre-registration pharmacists' training log, assessment and posting etc.
- (ii) To provide more self-study time for the pre-registration pharmacists during the training period. This will inculcate self-directed learning attitude among the trainees.
- (iii) To provide better definition on the experiential roles and responsibilities of the pre-registration pharmacists so that they can manage their expectations.



- (iv) To encourage independent learning, through on-line modules, that includes assessments.

Annex 1- PTRC Report – continued

- (v) To expose pharmacy students earlier to experiential learning at a variety of practice sites, in particular early exposure to patients will be good. This can be done through coordination and collaboration with NUS.
- (vi) To sharpen inter-personal skills with the patients/customers.
- (vii) To include problem-based learning and team-based learning during the training.
- (viii) To foster greater interaction and harmonising between the university, industry, hospital and retail sites.
- (ix) To expose trainees to more areas of practice during training period.

Threats

- (i) Pharmacy education & training must meet national needs; if pre-registration training is not relevant, graduates will not be able to fit into the professional roles and provide effective services. Pharmacists may even lose essential skills and roles to other healthcare professionals.
- (ii) Limiting training to one sector will give the trainee a narrow perspective and will not provide an overview of the integrated healthcare system.
- (iii) Industrial pharmacists may become extinct if pre-registration pharmacists are not given opportunities to encourage them to move into the pharmaceutical industry.

C. EVALUATION AND CONSTRUCTION PHASE

The committee evaluated the results of the SWOT analysis and more time was spent to address the weaknesses of the current pre-registration programme. Comments on the SWOT analysis are provided below.

- (i) The committee unanimously feels that the strengths of the current pre-registration programme should be retained as they are essential elements for a good training programme.
- (ii) While currently there are training objectives from each training site, it is believed that it will be good to have common overall training objectives for the pre-registration training programme. Hence, a set of National pre- registration training objectives will help training sites to align their training with these objectives.
- (iii) In order to help graduates form an expectation of the outcome upon completion of the pre-registration training process, it will be good to



identify overall core qualities which each pre-registration pharmacist should aim to achieve.

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- (iv) New training models will need to be considered if the 2-component (in-course and post-course) training programme is deemed to be less effective.
- (v) Standardized learning outcomes may be needed to ensure that training programmes across the different training sites are aligned with overall objectives.
- (vi) Selection and training for preceptors will be necessary to ensure better quality preceptors are recruited.
- (vii) Evaluation and assessment of training may also be standardized to avoid large variations between training sites.
- (viii) The current competency standards refer only to patient care. Competency standards for industrial pharmacy and regulation should be devised.
- (ix) Inclusion of rotation in regulation, sales and marketing, manufacturing and logistics management should be considered.
- (x) A central body to coordinate the placement of trainees into various training sites should be considered.
- (xi) The need for each pre-registration pharmacist to complete a project during the pre-registration training period has to be re-considered.
- (xii) All the points identified under opportunities are considered to be valid and should be incorporated into the recommendations where possible.
- (xiii) All the points under threats are real and recommendations to address these threats are essential.

D. RECOMMENDATIONS

Based on the evaluation of the SWOT analysis results, the following recommendations have been proposed.

1. SPC to introduce and adopt a set of national objectives for pharmacists' pre-registration training.



Annex 1- PTRC Report – continued

National Objectives for Training of Pre-registration Pharmacists

- 1.1. To provide opportunities for placement of pre-registration pharmacist in suitable practice sites where, with proper supervision under a preceptor, he/she shall learn to acquire a combination of skills, knowledge, attitudes and values which meet the minimum standards that are stipulated in the Singapore Pharmacy Council Competency Standards Framework for entry into the register of pharmacists in Singapore.
- 1.2. To provide exposure for each pre-registration pharmacist to a broad-based and competency-based training programme so that they may enter the profession with a good sense of self-confidence in terms of the services that they render in the healthcare sector or pharmaceutical sector.
- 1.3. To instil in each pre-registration pharmacist the awareness of the pharmacist's roles and services in the care chain of an integrated healthcare system in Singapore.
- 1.4. To instil in each pre-registration pharmacist that quality and safety of the health products are paramount to achieving optimal therapeutic outcome.

Comments

(a) Training sites will use this set of national objectives to align their training objectives as much as possible.

2. SPC to introduce and adopt a set of overall individual core qualities that are consistent with the SPC competency standards framework.
The training programme must instil the following core qualities to each pre-registration pharmacist so that he/she will be able to:
 - 2.1. Provide primary healthcare and promote optimal drug use through pharmaceutical care.
 - 2.2. Dispense medication accurately with appropriate counselling so as to ensure compliance.
 - 2.3. Compound pharmaceutical products of high quality.
 - 2.4. Provide up to date evidence-based drug information as advice for health professionals and patients.
 - 2.5. Manage the drug supply chain with good practices.



Annex 1- PTRC Report – continued

- 2.6. Ensure the quality control, safe use and reduce misuse /abuse of drugs.
- 2.7. Apply organizational skills to ensure that tasks and services are delivered with timeliness and high quality.
- 2.8. Practise the profession lawfully, ethically & professionally.

Comments

- (a) This set of core qualities will help bench mark the learning outcomes to be achieved from the training programmes.
 - (b) This set of core qualities will also help pre-registration pharmacists formulate the expectations of their training end-points for entry into the profession.
3. SPC to adopt a modular rotation-model that allows the pre-registration pharmacists to be exposed to more than one area of practice and preferably in different training sites. The following rotations have been identified:

Essential Rotations

- 3.1. Acute Care Rotation (potential providers: National University hospital (NUH), Singapore General hospital (SGH), Tan Tock Seng hospital (TTSH), Khoo Teck Puat Hospital (KTPH), Parkway Hospitals)
- 3.2. Ambulatory Care Rotation/ Primary Care Rotation (potential providers: Polyclinics, Guardian Health & Beauty, Unity NTUC Healthcare, Watsons Personal Care Stores)

Elective Rotations

- 3.3. Nursing Home Rotation (potential providers: Polyclinics)
- 3.4. Specialty Care Rotation (potential providers: Institute of Mental Health (IMH), National Cancer Centre Singapore (NCCS), Kangar Kerbau Women's and Children's Hospital (KKH), National Heart Centre Singapore (NHCS), Singapore National Eye Centre (SNEC)
- 3.5. Pharmaceutical Manufacturing Rotation (potential provider: Integrated Contract Manufacturing (ICM))
- 3.6. Pharmaceutical Company Rotation (potential providers: MNC Pharma companies)
- 3.7. Health Products Regulation Rotation (potential provider: Health Sciences Authority (HSA))



Annex 1- PTRC Report – continued

Comments

- (a) *As pharmacists may develop their careers in many different paths during their professional lives, the period of pre-registration training should provide experiential opportunities to expose the trainees to different practice environments. While this can provide a broad-based training programme, it is also important to strengthen individual essential knowledge and cognitive skills in patient-care. Therefore a programme that comprises both essential and elective rotations will be able to fulfil such objectives. As the pharmacy profession is evolving to include new roles and responsibilities for pharmacists; the recommended modular rotation-model has incorporated flexibility in introducing training opportunities in the newly evolved areas.*
- (b) *Elective rotations are not limited to these proposed examples. Hospital, polyclinics and retail pharmacies may propose elective rotations that are consistent with the learning outcomes and core qualities as stipulated in recommendations 1 and 2 above. As far as possible, elective rotations should not involve operational activities only.*
- (c) *It is possible that a training site may offer both essential and elective rotations. For example:*
- (i) a retail pharmacy may offer Primary Care Rotation (essential) and a Health Promotion Rotation (elective)*
 - (ii) a polyclinic may offer Ambulatory Care Rotation (essential) and Nursing Home Rotation (elective)*
- (d) *The modularisation of the training programme into rotations has the following advantages:*
- (i) The objectives and learning outcomes of a rotation can be clearly defined.*
 - (ii) The pre-registration pharmacists are exposed to more than 1 practice sites.*
 - (iii) The parent training site is not under pressure to look for a partner training site to assist in providing training in an area which the parent training site cannot deliver.*
 - (iv) The modular rotation-model offers more flexibility in placement of trainees.*



- (v) *As an extension to foreign pharmacists who are seeking registration in Singapore, SPC may stipulate that the individual may need to complete one or both of the essential rotations, depending on his/her experience.*

Annex 1- PTRC Report – continued

4. SPC to consider adopting the following implementation model based on the essential and elective rotations described in recommendation 3 above.

Each pre-registration pharmacist shall go through 4 rotations over the period of 12 months. Each rotation shall last for 3 months.

The two essential rotations will expose pre-registration pharmacists to the roles and responsibilities of pharmacists in primary and acute tertiary/secondary care of patients. The skills acquired through these rotations are considered essential for patient care. The purpose of the Acute Care rotation is to allow trainees to gain experience, develop knowledge and skills in various roles in which a pharmacist contributes to patient care in an inpatient setting. Ambulatory Care rotation will focus on outpatient pharmacy services and Primary Care rotation will focus on community pharmacy services.

The elective rotations aim to expose pre-registration pharmacists to services in specialty institutions and other pharmaceutical sectors. Each pre-registration pharmacist will select two rotations.

Comments

- (a) *Placement at different rotational sites will also give the pre-registration pharmacists an appreciation of the roles and responsibilities of the pharmacists in different care systems (ranging from primary care to acute care). This way, the trainees will be able to clearly see the seamless transition of patients from one healthcare institution to another within an integrated healthcare system.*
- (b) *SPC may wish to seek feedback on the feasibility of the implementation model from the training sites. Once there is agreement on the implementation model, SPC may consider drawing up a timeline for phasing in the implementation. A central management unit may oversee this task (see point 6 below).*
- (c) *While it may appear that the new training model has shortened the duration at various training sites, it is important to appreciate and accept that a shift away from duration-based training to competency*



and outcome based training will be more effective. Acceptance of this concept will definitely require a change of mindset of the trainers and training sites.

Annex 1- PTRC Report - continued

5. SPC to provide guidelines for setting up rotations as a means of standardizing training programmes. The committee has constructed a set of guidelines for the various rotations. It is recommended that SPC should disseminate these guidelines to the training sites for reference.

Comments

- (a) *These are working guidelines for the training sites, especially for new training sites who want to offer rotations.*
 - (b) *These guidelines also serve as a self-evaluation tool for the training site. The guidelines are set up as bench marks and each training site can reflect on whether they have the capabilities to deliver the kind of training that is required.*
 - (c) *The guidelines are constructed such that each learning outcome is related to a functional area in the SPC competency standards. Therefore if that learning outcome is achieved, it is deemed that the trainee has also achieved competency in that particular area.*
 - (d) *The guidelines also provide possible assessment modes for each activity; this is a way to standardise the assessment mode.*
 - (e) *In this review exercise, new rotations in pharmaceutical manufacturing, pharmaceutical company and health product regulation are suggested. As such learning outcomes for each of these rotations are defined. These are examples of how new rotations can be constructed in the future.*
6. SPC to consider setting up a central management unit in SPC/MOHH. This unit shall provide the following functions:
 - 6.1.1. To approve training centres and training programmes
 - 6.1.2. To coordinate the assignment of rotations
 - 6.1.3. To recruit preceptors and provide training for preceptors
 - 6.1.4. To collate and check assessment results
 - 6.1.5. To budget for training and operations
 - 6.1.6. To set up and manage a central repository
 - 6.1.7. To manage crises



Annex 1- PTRC Report - continued

Comments

- (a) *Today, the placement for pre-registration pharmacists depends on the availability of vacancies at the training sites, which in turn is dependent on the training budget of the site. As the number of graduates will increase over the next few years, the number of vacancies may not be able to absorb all the graduates.*
 - (b) *The central management unit can also serve as the nerve centre for pre-registration training providing administrative services as described above.*
- 7.** SPC to obtain central funding to create more training places in the training sites (as training funds available in each institution is usually the limiting factor for them to take in more pre-registration pharmacists, besides the number of preceptors available in each institution). This will cater to the increase output of graduates from NUS in the coming years.

Comments

- (a) *The central management unit described in recommendation 6 will have access to a central training budget that will be able to ensure all graduates are placed during the pre-registration training period.*
- 8.** SPC to develop training manuals for preceptors & pre-registration pharmacists
- 8.1.** The committee recommends that the central management unit prepares different manuals for both preceptors and pre-registration pharmacists.
 - 8.2.** This manual serves to provide general information, training objectives, learning outcomes, assessment components, training completion requirements and other useful information.

Comments

- (a) *These manuals will serve to disseminate relevant information to the respective groups of people directly involved in training.*



9. SPC to the remove of the requirement for project as a registration pre-requisite because rotation period will be short and all undergraduates should already have project experience.

Annex 1- PTRC Report - continued

Comments

- (a) *Currently, the quality of the projects varies significantly across the training sites. The learning outcomes may not be clear and consistent throughout.*
 - (b) *With the adoption of the rotation-model, there will not be sufficient quality time for the pre-registration pharmacists to carry out a good project.*
10. SPC to work more closely with the university on curriculum development so as to make transition into pre-registration training more seamless and graduates can appreciate that education and training is a continuum.

Comments

- (a) *With the adoption of the modular rotation-model, the university and SPC may consider working closer to facilitate a smoother transition from education to practice.*

FINAL COMMENTS

Overall, the objectives of the recommendations are aimed at improving the coordination and administration of the pre-registration training programmes; aligning learning outcomes of the training with the functional areas described in the SPC Competency Standard Framework; consolidating training objectives to achieve essential learning outcomes; providing elective opportunities for pre-registration pharmacists to train in specialty care areas and non-patient care sites.

As education and training begin to merge as an integral part of a professional programme like pharmacy, it is important that future development of education and training will need to be in tandem to ensure the continuity of transition. To illustrate further, residency training in pharmacy practice has appeared in our local context. Residency training is offered as a one-year multiple experiential rotations programme that is learning-outcome based. Therefore, it is consistent that the entry-to-profession training should follow the rotation-model. This way,

the pre-registration pharmacist will see the connection to their future continuing professional development (CPD). At the same time, for example, adoption of an ambulatory care/primary care rotation in the pre-registration training



programme may catalyze the development of an ambulatory care/primary care residency programme in the future.

Annex 1- PTRC Report - continued

Finally, the 12-month pre-registration training programme is in fact an induction of the graduates into the profession. Therefore to ensure a seamless transition from education to practice is an important objective. While it is essential to engage the pre-registration pharmacists intensively during the training, it is also important not to overload them with daily operational tasks. Therefore, the preceptors must be properly trained to mentor, guide and evaluate the trainees. As the pre-registration pharmacists will form the future generations of pharmacists and preceptors, it is important to instil in them a strong and faithful affiliation to the profession so that they will be proud of calling themselves pharmacists, regardless of whether they develop their career in a patient-care or non patient-care area.

E. ACKNOWLEDGEMENTS

On behalf of the Pre-registration Training Review Committee, the chairman, A/Prof Chui, would like to express his gratitude to the Singapore Pharmacy Council for its appointment of the committee to review the training programme for pre-registration pharmacists.

The chairman would like to thank Ms Felicia Ling and Ms Shiamala Govindasamy for providing secretarial support to the committee.

Last but not the least; the chairman would like to thank all the members of the committee for their active participation and kind cooperation.



CODE OF ETHICS (2009)

A. PRACTICES & RESPONSIBILITIES

- 1. A pharmacist shall make the care of patients as the first consideration.**
 - 1.1. A pharmacist shall consider and act in the best interest of the individual patient.
 - 1.2. A pharmacist shall endeavour to provide professional patient-focused care to optimize health outcomes.
 - 1.3. A pharmacist shall seek to ensure safe and timely access to medicines and be satisfied of the clinical appropriateness of medicines supplied to the patient.
 - 1.4. A pharmacist shall encourage the effective use of medicines and be satisfied that patients, or those who care for them, know how to use their medicines appropriately.
 - 1.5. A pharmacist shall provide professional advice and counselling on medications at every opportunity, and shall only refrain from doing so when deemed to be in the best interest of the patient.
 - 1.6. A pharmacist shall not supply to any member of the public any substance, medicinal product or medical appliance which the pharmacist knows, or has reason to believe, is intended to be used in a manner which would be detrimental to health.
 - 1.7. A pharmacist shall not encourage a member of the public to purchase or obtain more of a medicinal product than is required.
 - 1.8. A pharmacist shall seek consultation with fellow pharmacist(s), and/or with other healthcare professionals, when deemed to be in the best interest of the patient.
- 2. A pharmacist shall respect and treat all patients equally, and protect their dignity and privacy.**
 - 2.1. A pharmacist shall treat patients without prejudice of race, religion, creed, social standing, disability or socio-economic status; and not allow personal beliefs to influence the management of patients. Where a pharmacist feels unable to continue to care for a patient due to such beliefs, the patient should be referred to another pharmacist who is able and willing to care for the patient.



Annex 2 CODE OF ETHICS (2009) - continued

- 2.2. A pharmacist shall ensure that confidential information is not disclosed without consent, apart from where permitted to do so by the law or in exceptional circumstances.
 - 2.3. A pharmacist shall take all reasonable steps to prevent accidental disclosure or unauthorised access to confidential information.
 - 2.4. A pharmacist shall use information obtained in the course of professional practice only for the purposes for which it was given or where otherwise lawful.
 - 2.5. A pharmacist shall not discuss the therapeutic efficacy of prescriptions or provide patient counselling in such a manner as to impair confidence in the prescriber or other healthcare professionals.
- 3. A pharmacist shall comply with legal requirements, professional standards and embrace best practices in the relevant field.**
- 3.1. A pharmacist shall keep up-to-date and comply with the laws that govern practice in the course of discharging his professional duties.
 - 3.2. A pharmacist shall be familiar with best practice guidelines and aim to achieve the professional pharmacy practice standards endorsed by Singapore Pharmacy Council (SPC).
 - 3.3. A pharmacist shall ensure that the premise of practice must fulfil professional practice guidelines and standards so as to enable the provision of safe, high quality and cost effective health services and products.
- 4. A pharmacist shall strive to achieve and maintain high professional practice standards in the promotion and provision of health services and products.**
- 4.1. A pharmacist shall take responsibility for all work done personally and ensure that those under his direct supervision are able to carry out their duties competently.
 - 4.2. A pharmacist shall be satisfied that appropriate protocols exist to ensure that the care and safety of the patient is not compromised.
 - 4.3. A pharmacist shall refrain from accepting conditions of service which may compromise his professional independence, judgement or integrity.
 - 4.4. A pharmacist offering online pharmacy services and/or telepharmacy services shall ensure that online aspect of operations comply with similar good pharmacy practice standards as stipulated in the guidelines for telepharmacy.



Annex 2 CODE OF ETHICS (2009) - continued

- 4.5. A pharmacist shall, when providing information in his professional capacity in the public domain (websites, blogging, public speaking, broadcasting, writing, etc), ensure that the information conforms to the following criteria:
 - a. Factual
 - b. Accurate
 - c. Verifiable
 - d. No exaggerated claims
 - e. Not misleading
 - f. Not sensational
 - g. Not persuasive
 - h. Not laudatory
 - i. Not disparaging
- 4.6. A pharmacist shall abide by governing laws, standards and guidelines pertaining to the research, manufacture, distribution, sale, promotion and advertising of all health services and products; in addition, the information provided shall comply with the criteria listed in 4.5.
 - 4.6.1. A pharmacist shall not advertise himself in any manner that explicitly suggests his professional skill is of a higher order than those of other pharmacists; or in a manner reflecting adversely on the skill or ability or professional services rendered by other pharmacists.
 - 4.6.2. A pharmacist shall restrict the publication, distribution or exhibition of an advertisement concerning his practice to the standards approved by SPC.
 - 4.6.3. A pharmacist shall not mislead the public by promoting or criticising any health product or services, through advertisements or other endorsements.
5. A pharmacist shall be responsible for personal fitness to practise.
 - 5.1. A pharmacist who is aware that he is suffering from a condition that renders him unfit to practise shall seek appropriate treatment.
 - 5.2. A pharmacist is responsible, if he is of sound mind, to disclose to the SPC if he has been diagnosed with any medical condition that may render him unfit to continue practice.
 - 5.3. A pharmacist who has reasonable grounds to believe that another pharmacist may be putting patients at risk shall inform



B. PROFESSIONAL QUALITIES

- 6.** A pharmacist shall act with honesty and integrity, adhere to accepted standards of professional conduct, uphold public trust and confidence, and maintain the reputation of the profession.
 - 6.1. A pharmacist shall not engage in behaviour or activity likely to bring the profession into disrepute or undermine public confidence in the profession.
 - 6.2. A pharmacist shall avoid conflicts of interest or situations which may compromise professional relationships with patients and colleagues or influence the objectivity of professional judgement.
- 7.** A pharmacist shall keep abreast of advancements in pharmaceutical knowledge so as to maintain a high standard of competency in professional practice for the assurance of effective outcomes and safety in patients.
 - 7.1. A pharmacist shall embrace continuous professional development as a form of personal responsibility to ensure knowledge and skills are kept up-to-date and relevant to the field of practice.
 - 7.2. A pharmacist shall keep up with and be prepared to engage new technology in delivering quality services and products to his patients.
 - 7.3. A pharmacist shall be prepared to learn and apply new knowledge and skills to expand his roles and responsibilities in the healthcare system.
- 8.** A pharmacist shall ensure that research activities are conducted in accordance to best practice guidelines that are applicable to the area of research.
 - 8.1. A pharmacist shall conduct research activities with integrity and honesty so as to gain the acceptance and respect of the research community and maintain the confidence of the public.
 - 8.2. A pharmacist shall ensure that the necessary approvals from the appropriate regulatory authorities for conducting research activities have been obtained.
 - 8.3. A pharmacist shall ensure proper safeguards of patients' safety and integrity when conducting research and comply with research ethical guidelines issued by the relevant institutions and organizations.



C. INTER-PROFESSIONAL RELATIONSHIPS

- 9.** A pharmacist shall collaborate with other healthcare professionals, patients and caregivers to achieve optimal treatment outcomes for their patients.
 - 9.1. A pharmacist shall explain the treatment plans and available options in a clear manner and take reasonable steps to ensure information shared is easily understood by patients and caregivers so as to empower them to make informed decisions about their own health management.
 - 9.2. A pharmacist shall maintain effective professional relationships with his colleagues and other healthcare professionals and offer assistance when called upon for advice.
 - 9.3. A pharmacist shall refrain from publicly criticising his colleagues and other healthcare professionals.
 - 9.4. A pharmacist must seek clarifications from colleagues and other healthcare professionals if they have reason to believe that such decisions could compromise the safety or care of his patients.

- 10.** A pharmacist shall impart his knowledge, experience and skills to nurture future and new pharmacists.
 - 10.1. A pharmacist shall contribute to the education, training and professional development of future and new pharmacists through sharing of relevant knowledge, skills and expertise.
 - 10.2. A pharmacist preceptor shall endeavour to educate and train future and new pharmacists to meet prescribed competency standards.



Annex 3

REQUISITES FOR PRE-REGISTRATION PHARMACIST TRAINING CENTRES

1. Premises suitable for pre-registration training include:
 - ◆ Hospital/Institutional Pharmacies
 - ◆ Retail Pharmacies
 - ◆ Pharmaceutical Manufacturing Plants and Pharmaceutical Companies

2. The institutions providing pre-registration training shall comply with the following requirements :
 - ◆ The premises for training are approved by the Singapore Pharmacy Council.
 - ◆ A comprehensive programme of training by the institution has been approved by the Singapore Pharmacy Council.
 - ◆ Registered pharmacists with at least three years of service are available as preceptors who will be directly responsible for the supervision and training of pre-registration pharmacists.
 - ◆ Each preceptor shall not supervise more than two pre-registration pharmacists.



APPROVED INSTITUTIONS FOR PRE-REGISTRATION TRAINING

<p>RESTRUCTURED HOSPITAL Department of Pharmacy Changi General Hospital 2 Simei Street 3 Singapore 529899 Tel: (65) 6850 1888 Fax: (65) 6786 2485</p>	<p>RESTRUCTURED HOSPITAL Department of Pharmacy Institute of Mental Health / Woodbridge Hospital 10 Buangkok View Singapore 539747 Tel: (65) 6385 2073 Fax: (65) 6385 1027</p>
<p>RESTRUCTURED HOSPITAL Jurong General Hospital at Alexandra Hospital 378 Alexandra Road Singapore 159964 Tel: (65) 63794337 Fax: (65) 63794331</p>	<p>RESTRUCTURED HOSPITAL Department of Pharmacy Khoo Teck Puat Hospital 90 Yishun Central Singapore 768828 Tel: (65) 6602 2622 Fax: (65) 6602 3688</p>
<p>RESTRUCTURED HOSPITAL Department of Pharmacy KK Women's and Children's Hospital 100 Bukit Timah Road Singapore 229899 Tel: (65) 6394 2460 Fax: (65) 6394 2465</p>	<p>RESTRUCTURED HOSPITAL Department of Pharmacy National Cancer Centre, Singapore 11 Hospital Drive Singapore 169610 Tel: (65) 64368091 Fax: (65) 6220 1347</p>
<p>RESTRUCTURED HOSPITAL Department of Pharmacy National University Hospital 5 Lower Kent Ridge Road Singapore 119074 Tel: (65) 6772 5008 Fax: (65) 6873 7121</p>	<p>RESTRUCTURED HOSPITAL Department of Pharmacy Singapore General Hospital Outram Road Singapore 169608 Tel: (65) 6321 4815 Fax: (65) 6227 4330</p>
<p>RESTRUCTURED HOSPITAL Department of Pharmacy Tan Tock Seng Hospital 11 Jalan Tan Tock Seng Singapore 308433 Tel: (65) 6357 2010 Fax: (65) 6256 6460</p>	<p>POLYCLINIC National Healthcare Group Pharmacy 11 Lorong 3 Toa Payoh #03-22/23/24 Block B Jackson Square Singapore 319579 Tel: (65) 6478 2478 Fax: (65) 6254 2191</p>
<p>RETAIL PHARMACY Guardian Health and Beauty 21 Tampines North Drive 2 #03-01 Singapore 528765 Tel: (65) 6891 8318 Fax: (65) 6784 4460</p>	<p>PRIVATE HOSPITAL Parkway Group Healthcare Academy Parkway 168 Jalan Bukit Merah Towers 3 #02-05 Singapore 150168 Tel: (65) 6508 6918 Fax: (65) 6278 6075</p>
<p>RETAIL PHARMACY Unity NTUC Healthcare 55 Ubi Avenue 1 #08-08 Singapore 408935 Tel: (65) 6846 1128 Fax: (65) 6846 9313</p>	<p>PRIVATE HOSPITAL Raffles Hospital 585 North Bridge Road Singapore 188770 Tel : (65) 63111780 Fax: (65)</p>
<p>RETAIL PHARMACY Watson's Personal Care Stores 1 Coleman Street #08-07 The Adelphi Singapore 179803 Tel: (65) 6430 5285 Fax: (65) 6337 1914</p>	



SCHEDULE OF FEES

Registration Fee	\$200
Pre-registration Training Fee	\$ 80
Renewal of Practising Certificate Fee for 2 years	\$400
Late Payment Fee 1 (one month before expiration)	\$ 75
Late Payment Fee 2 (after expiration)	\$200
Restoration Fee	\$250
Examination Fee (Competency and Forensic)	\$300
Fee for Certified True Copy of any Certificate	\$ 50



**AUDITED ACCOUNTS
OF THE SINGAPORE PHARMACY COUNCIL
STATEMENT OF COMPREHENSIVE INCOME
FOR THE YEAR ENDED 31 MARCH 2012**

	<u>Note</u>	<u>2012</u> \$	<u>2011</u> \$
Operating income			
Registration fee		64,040	58,360
Practising certificate fee		375,500	355,435
Restoration fee		250	750
Late payment fee		800	4,875
Certificate of Good Standing		1,150	800
Certified Copy of Certificate		100	350
Course & programme fee		21,535	-
Examination fee		44,700	33,000
Other income		2,080	-
		----- 510,155 -----	----- 453,570 -----
Deduct: Operating expenses			
Accountancy fee		-	4,280
Audit fee		2,033	2,033
Bank charges		785	3,927
CPF		-	34,009
Ceremony & other celebration		9,718	9,272
Conference		10,268	-
Course & programme cost		19,918	-
Depreciation		1,251	1,314
Examination/examiner's fee		15,020	12,942
General expenses		692	91
Management fee	3	320,669	-
Medical fee		-	638
Postage & courier		655	2,448
Printing & stationery		6,347	8,671
Refreshments		882	644
Rental of equipment		2,447	4,591
Rental of premises		79,265	79,691
Repairs & maintenance		2,945	3,941
SDL		-	459
Salary	3	-	307,209
Software maintenance/development		106,785	96,635
Staff training		-	481
Staff welfare		-	800
Telecommunications		2,458	2,652
Transport		257	402
Utilities		9,995	9,482
		----- 592,390 -----	----- 586,612 -----

The notes to financial statements form an integral part of these financial statements.



**STATEMENT OF COMPREHENSIVE INCOME
FOR THE YEAR ENDED 31 MARCH 2012**
(Continued)

	<u>2012</u> \$	<u>2011</u> \$
Deficit before grant	(82,235)	(133,042)
Government grant receivable from Ministry of Health	133,042	-
	-----	-----
Surplus/(deficit) before contribution to consolidated fund	50,807	(133,042)
Contribution to consolidated fund, note 4	-	-
	-----	-----
Surplus/(deficit) for the year	50,807	(133,042)
Other comprehensive income	-	-
	-----	-----
Total comprehensive income for the year	50,807 =====	(133,042) =====

The notes to financial statements form an integral part of these financial statements.



**STATEMENT OF CHANGES IN FUNDS
FOR THE YEAR ENDED 31 MARCH 2012**

	<u>Capital fund</u> \$	<u>General fund</u> \$	<u>Total</u> \$
Balance at 31 March 2010	30,848	(30,848)	-
Total comprehensive income for the year	-	(133,042)	(133,042)
Balance at 31 March 2011	30,848	(163,890)	(133,042)
Total comprehensive income for the year	-	50,807	50,807
Balance at 31 March 2012	30,848	(113,083)	(82,235)

The notes to financial statements form an integral part of these financial statements.



STATEMENT OF FINANCIAL POSITION AS AT 31 MARCH 2012

	<u>Note</u>	<u>2012</u> \$	<u>2011</u> \$
ASSETS			
Non-current assets			
Office equipment	5	5,923	7,174
		-----	-----
Current assets			
Other receivables	6	34,407	34,999
Grant receivable from MOH		133,042	-
Cash & bank balances		133,580	466,905
		-----	-----
		301,029	501,904
		-----	-----
Total assets		306,952	509,078
		=====	=====
FUNDS AND LIABILITIES			
Funds			
Capital fund		30,848	30,848
General fund		(113,083)	(163,890)
		-----	-----
		(82,235)	(133,042)
		-----	-----
Current liabilities			
Advance fees received		302,100	633,120
Expenses payable		87,087	9,000
		-----	-----
		389,187	642,120
		-----	-----
Total funds and liabilities		306,952	509,078
		=====	=====

The notes to financial statements form an integral part of these financial statements.



**STATEMENT OF CASH FLOWS
FOR THE YEAR ENDED 31 MARCH 2012**

	<u>2012</u>	<u>2011</u>
	\$	\$
CASH FLOWS FROM OPERATING ACTIVITIES		
Deficit before grant	(82,235)	(133,042)
Adjustments for:		
Depreciation	1,251	1,314
Government grant receivable	133,042	-
	-----	-----
Operating surplus/ (deficit) before working capital changes	52,058	(131,728)
<i>Changes in working capital:</i>		
Other receivables & grant receivable from MOH	(132,450)	1,091
Advance fees received	(331,020)	366,745
Expenses payable	78,087	(53,748)
	-----	-----
<i>Net cash (used in)/from operating activities</i>	(333,325)	182,360
	-----	-----
CASH FLOWS FROM INVESTING ACTIVITIES		
	-	-
	-----	-----
CASH FLOWS FROM FINANCING ACTIVITIES		
Government grant received	-	76,423
	-----	-----
<i>Net cash from financing activities</i>	-	76,423
	-----	-----
NET (DECREASE)/INCREASE IN CASH & BANK BALANCES	(333,325)	258,783
BANK BALANCE AT BEGINNING OF YEAR	466,905	208,122
	-----	-----
CASH & BANK BALANCES AT END OF YEAR	133,580	466,905
	=====	=====

The notes to financial statements form an integral part of these financial statements.



NOTES TO FINANCIAL STATEMENTS - 31 MARCH 2012

1. GENERAL

The Council is established under The Pharmacists Registration Act 2007 (No. 48 of 2007), The financial statements are expressed in Singapore dollars and are authorised for issue by the Council on the date stated on the Statement by Council's Management on page 2.

The principal activities of the Council are to regulate and promote the interests of registered pharmacists in Singapore.

2. SIGNIFICANT ACCOUNTING POLICIES

(a) *Basis of accounting*

The financial statements of the Council have been prepared under the historical cost convention except as disclosed in the accounting policies below. The fair values of financial assets and liabilities approximate their carrying amounts recorded in the financial statements.

The financial statements of the Council comply with Singapore Financial Reporting Standards (FRS). During the year, the Council adopted, where applicable, the new or revised FRS and Interpretations to FRS (INT FRS) that are effective for the current accounting period. The adoption did not result in any change in accounting policies. For new FRS and INT FRS that are not yet mandatory, there is no impact on the financial statements.

(b) *Accounting estimates and judgements*

The preparation of financial statements in conformity with FRS requires management to make judgements, estimates and assumptions that affect the application of policies and reported amounts of assets, liabilities, income and expenses. The estimates and associated assumptions are reviewed on an on-going basis and are based on historical experience and various other factors that are believed to be reasonable under the circumstances, the results of which form the basis of making the judgements about carrying amounts of assets and liabilities that are not readily apparent from other sources. These estimates and assumptions are not expected to have a significant risk of causing a material adjustment to the carrying amounts of assets and liabilities within the next financial period.

(c) *Income*

Income from practising certificate fees, which are levied on pharmacists on a two yearly basis, is recognised in the financial statements on an accrual basis.

Other types of income are recognised as and when services are rendered.

Revenue from training and workshop is recognised when the courses takes place or over the period of instruction.

(d) *Office equipment*

All items of office equipment are initially recorded at cost. The cost of an item is recognised as an asset if, and only if, it is probable that future economic benefits associated with the item will flow to the Council and the cost of the item can be measured reliably. Subsequent to recognition, office equipment are measured at cost less accumulated depreciation and accumulated impairment losses.



NOTES TO FINANCIAL STATEMENTS - 31 MARCH 2012

Depreciation begins when the assets are available for use and is calculated on the straight line basis over their estimated useful lives as follows:-

Computers	-	3 years
Office equipment	-	8 years
Ceremony gowns	-	8 years

The useful lives, residual values and depreciation method are reviewed at the end of each reporting period and adjusted prospectively, if appropriate.

The carrying values of office equipment are reviewed for impairment when events or changes in circumstances indicate that the carrying values may not be recoverable. Impairment losses or reversal of previously recognised impairment losses are recognised as loss or profit in the statement of comprehensive income.

An item of office equipment is derecognised upon disposal or when no future economic benefits are expected from its use or disposal. Any gain or loss on de-recognition of the asset is included in the statement of comprehensive income in the year the asset is derecognised.

(e) **Government grants & subsidies**

Grants and subsidies from the government are recognised at their fair value where there is reasonable assurance that the grant/subsidy will be received and all attaching conditions will be complied with. When the grant or subsidy relates to an expense item, it is recognised as income over the periods necessary to match them on a systematic basis to the costs which it is intended to compensate. Where the grant or subsidy relates to a depreciable asset, the grant is recognised in the statement of comprehensive income over the life of the depreciable asset by way of a reduced depreciation charge through the reduced carrying amount of the asset.

(f) **Leased assets**

Operating lease payments are charged to the statement of comprehensive income on a straight line basis over the lease term.

(g) **Other receivables**

Other receivables are classified and accounted for as loans and receivables under FRS 39 and are initially recognised at invoiced values or amounts paid and, where applicable, subsequently measured at amortised cost using the effective interest method except that short-duration non-interest bearing receivables are not usually re-measured unless the effect of imputing interest would be significant. An allowance is made for uncollectible amounts when there is objective evidence that the Council will not be able to collect the debt. Bad debts are written off when identified.

(h) **Employee benefits**

Defined contribution plan

The Council contributes to Central Provident Fund (“CPF”), a defined contribution plan regulated and managed by the Singapore Government. The Council’s obligation in regard to CPF is limited to the amount it has to contribute to it. CPF contributions are recognised as an expense in the same period as the employment that gives rise to the contributions.



NOTES TO FINANCIAL STATEMENTS - 31 MARCH 2012

3. MANAGEMENT FEE

On 1 April 2011 under a restructuring program, all staff of the Council was transferred to the Singapore Medical Council which then provide management services to the Council and charge a management fee.

4. CONTRIBUTION TO CONSOLIDATED FUND

The income of the Council is exempted from income tax under Section 13(1)(e) of the Singapore Income Tax Act. In lieu thereof the Council is required to contribute to the Consolidated Fund in accordance with the Statutory Corporations (Contributions to Consolidated Fund) Act (Chapter 319A). It has not been necessary to contribute to the Consolidated Fund on the surplus for the year as the Council has accounting deficits brought forward from previous years.

At 31 March 2012, the Council has estimated accounting deficits totalling \$122,000 (2011: \$172,000) available to offset future operating surpluses.

5. OFFICE EQUIPMENT

	<u>Computers</u>	<u>Office equipment</u>	<u>Ceremony gowns</u>	<u>Total</u>
	\$	\$	\$	\$
Cost				
At 31.3.10, 11 & 12	187	1,985	8,026	10,198

Accumulated depreciation				
At 31.3.10	124	239	1,347	1,710
Depreciation charge for the year	63	248	1,003	1,314

At 31.3.11	187	487	2,350	3,024
Depreciation charge for the year	-	248	1,003	1,251

At 31.3.12	187	735	3,353	4,275

Net carrying amount				
At 31.3.12	-	1,250	4,673	5,923
=====				
At 31.3.11	-	1,498	5,676	7,174
=====				



NOTES TO FINANCIAL STATEMENTS - 31 MARCH 2012

6. OTHER RECEIVABLES

	<u>2012</u>	<u>2011</u>
	\$	\$
Prepayments	4,001	3,093
Deposits	18,620	18,620
Due from a member for legal costs	11,786	13,286
	-----	-----
	34,407	34,999
	=====	=====

7. FINANCIAL RISKS AND MANAGEMENT

(i) *Interest rate risk*

The Council has no exposure to interest rate risk as it does not have interest-bearing borrowings nor assets.

(ii) *Credit risk*

The Council has no significant credit risk as the main portion of its receivables is due from pharmacy practitioners.

(iii) *Foreign exchange risk*

The Council has no exposure to foreign exchange risk from transactions denominated in foreign currencies.

(iv) *Liquidity risk*

The Council monitors and maintains sufficient working capital to fund its operations and is primarily dependent on government grants to subsidise costs of operations.

8. CAPITAL MANAGEMENT

The Council is not subject to any externally imposed fund requirements other than that it is expected to be self funding. Should there be any deficit; the Council can request the Ministry of Health (MOH) for reimbursement of the yearly deficit.

Contact Information

Office Opening Hours	Mondays to Fridays: 8.30 am - 5.30 pm
Official Address	Singapore Pharmacy Council 16 College Road #01-01 College of Medicine Building Singapore 169854
For visits, normal and registered mail and couriered services	Singapore Pharmacy Council 81 Kim Keat Road NKF Centre, #09-00 Singapore 328836

Kindly make an appointment with our staff before you visit our office

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CPE Enquiries	(65) 6478 5066
Registration Enquiries	(65) 6478 5067
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