



Macao Polytechnic Institute

School of Health Sciences and Sports

Lotus Pharmacy Studentship Program

2020 - 2021

Studentship Training Manual

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1. Contact Details

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2. Introduction and Overview

2.1 Objectives

The studentship training aims to enhance student's pharmacy experience in Macao. The internship site is a **Community** pharmacy called 'Lotus Pharmacy'. Students must:

- actively involved in a real-life working environment;
- learn by observing and reacting;
- apply existing knowledge in community pharmacy practice;
- develop new skills based on evidence-based practice;
- develop appropriate behaviour and attitude for a professional member.

2.2 Description

Students will get to know the pharmacy areas, internal procedures, Macao pharmacy laws and all the team members. The students shall rapidly integrate with the team and improve their teamwork skills. The global knowledge of most important pharmacy laws and ethics will be covered. The students will get to know how and where to look for regulatory affairs information.

The intern will integrate with our Lifelong Learning-Educational Programme, using the online platform model. Computers at Lotus Pharmacy are equipped with SGFAR and Pharmcare programs. Those utilities are crucial for everyday work at a pharmacy. Students will learn how to view and edit product files, customer files and supplier's files. They will learn how to verify stocks, order products, receive orders and return products. The system is also useful to control expiry dates.

At Lotus Pharmacy, over the counter (OTC) products are separated from OPD. Students will become more familiar with both types of products and will learn how to dispense a prescription from a clinical point of view recording all important data and providing all the information needed. There will be presentations of clinical case studies of ordinary and simple situations. This will help to identify common situations at the counter and indicate accurate products.

Students will conduct various projects related to community pharmacy, epidemiology, marketing and scientific information sources. These will develop acquired skills for research, scientific publication, IT, marketing and communication skills.

Coverage of special topics like veterinary medicines and pharmacovigilance will

depend on the availability of real cases in practice.

2.3 Length of the Internship

This internship will last for 15 weeks. Trainees will work 32 hours per week in Lotus Pharmacy and 8 hours per week at Macao Polytechnic Institute. Overall attendance must be over 90%.

2.4 Dress Code

Students must be neat and clean, wear a white coat, tie up long hair and avoid extremes in hairstyles, cosmetics and jewellery. Girls with long hair must tie-up.

3. Guidelines of students' responsibilities

The studentship training is coordinated from the pharmacists and academic staffs of the Lotus Pharmacy and School of Health Sciences and Sports. Students must, therefore:

1. provide a personal contact to his/her supervisor and tutors, including phone number and e-mail address.
2. obey the rules of the Lotus Pharmacy.
3. sign up the attendance sheets which is confirmed by the tutors of Lotus Pharmacy.
4. notify the tutors as soon as possible in the case of absence or lateness.
5. obey guidelines of the School of Health Sciences and Sports for a typhoon or heavy raining conditions. (Appendix 1)
6. respect their tutors, patients and all customers of the Lotus Pharmacy.
7. be tidy and wear appropriate clothing suggested by the Lotus Pharmacy.
8. pay attention to safety and adopt safety measures.
9. respect patient confidentiality
10. meets their supervisors from the School of Health Sciences and Sports periodically.

11. complete their student workbook by the end of studentship.

4. Training Syllabus

All the following contents will be covered in Macao Polytechnic Institute and the clinical internship site.

4.1. Introduction to pharmacy and pharmacy professionals in Macao.

- Overview of pharmacy practice and healthcare system
- Ethics and professionalism
- Pharmaceutical industry
- Community pharmacy
- Hospital pharmacy

4.2. Receiving and interpreting prescriptions

- Receive and identify the prescription
- Check the validity of the prescription according to the law
- Identify the patient and his file on the system
- Identify the Out-Patient Drugs (OPD) prescribed
- Detect potential errors and seek for help/clarification
- Create prescription profiles - patient history/drug information

4.3. Dispensing prescriptions

- Dispense the medicines under the supervision of the pharmacist
- Recognize the situation
- Be aware of drug interactions/contraindications/allergies
- Inform the patient about storage conditions/administration
- Check and calculate dosages
- Promote rational use of medicines
- Give directions to promote compliance

4.4. Communication skills

- Be able to clarify doubts with the pharmacists
- Cooperate with the rest of the team
- Contact and cooperate with other healthcare professionals
- Communicate with the health department
- Notify the authorities when needed
- Communicate in more than one language at the counter

4.5. Recording information

- Realize the importance of keeping records
- Record and monitor physiological parameters
- Use Pharmagest and Pharmcare programs to record information

4.6. Indication skills

- Identify patient problems
- Indicate products to solve minor situations
- Refer to a doctor when needed

4.7. Sales and purchasing skills

- Recommend and counsel skincare products
- Provide information about supplements
- Assess patient's needs
- Provide information and instruct how to use medical devices
- Communicate with sales representatives
- Analysis of cost-effectiveness of products
- Evaluation of product characteristics and quality

4.8. Chinese medicines

- Indicate and know basic Chinese medicines

4.9. Research and information skills

- Be effective while searching drugs information
- Know which sources of information are trustful
- Know how to use IT to obtain required information

4.10. Management skills

- Stocks analysis
- Contact suppliers
- Order material
- Order reception
- Expiry date control
- Temperature and humidity control
- Cleanness supervision
- Follow-up special orders for specific patients

4.11. Quality assurance skills

- Trusted manufacturers
- Trusted suppliers
- Good Pharmacy Practice importance

4.12. Regulatory affairs skills

- Regulatory requirements for special products
- Report quality problems
- Report adverse drug reactions

4.13. Publishing and presentation skills

- Know how to design educational projects
- Know how to get involved with the community
- Produce educational material
- Present case studies to colleagues
- Share information with rest of team

5. Assessments

Assessments of the internship include:

5.1. Continuous Evaluation

Tutors of Lotus pharmacy will assess the performance of trainees throughout the internship using the evaluation form designed by Macao Polytechnic Institute.

5.2. Research and Academic Activities

Trainees will have opportunities to perform research activities organized by Macao Polytechnic Institute. The academic tutor will assess the performance of trainees through observations and verbal evaluation.

6. Potential Sites visit

School of Health Science and Sports **may** organize several visits to pharmacy-related sites in the internship period and students **may** attend these visits. The sites may include:

- Hospital Conde S. Januário
- Kiang Wu Hospital
- Macau University of Science and Technology Hospital
- Health Centers
- Pharmaceutical Industry

7. Reference sources

Macao Polytechnic Institute Library contains numerous medical reference sources, including books, journal articles, database and e-learning facilities. One of the recommended databases for this internship is the “Medicines Complete”, which is an e-resource and can be accessed with internet connection outside the campus (<https://www.medicinescomplete.com/mc/account.htm>). Medicines Complete contains:

- AHFS Drug Information
- British National Formulary
- British National Formulary for Children
- Dietary Supplements
- Drug Administration via Enteral Feeding Tubes
- Handbook on Injectable Drugs
- Herbal Medicines
- Martindale: The Complete Drug Reference
- Pharmaceutical Excipients
- Stockley's Drug Interactions
- Stockley's Herbal Medicines Interactions
- Stockley's Interaction Alerts
- The Merck Index

Appendix 1: Guideline for Rainy & Stormy Weather

http://www.ipm.edu.mo/student_corner/en/typhoons_and_heavy_rain.php

I. Typhoons

1. If typhoon signal No. 8 is hoisted, all classes should be cancelled;
2. If typhoon signal No. 8 changes to signal No. 3 before 13:00, all classes scheduled for 14:30 onward should be held as usual;
3. If typhoon signal No.8 changes to signal No. 3 before 17:00, all classes scheduled for 18:00 onward should be held as usual;

II. Heavy Rain

1. When such warning signal is on, the President of the MPI has the discretion to decide if all classes, tests, and examinations should proceed as scheduled;
2. Such a decision will be announced through the radio, DAMIA “Typhoon and Heavy Rain” webpage, or e-mail to all MPI students;
3. Students who are late for or absent from classes under such circumstances will not be considered as absent for the official record;
4. All academic units should postpone or cancel the tests, examinations and outdoor activities under the discretion from the President of the MPI.