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LKS Faculty of Medicine
Department of Pharmacology
& Pharmacy
香港大學藥理及藥劑學系

IMMUNISATION TRAINING PROGRAMME FOR REGISTERED PHARMACISTS

Standards and Framework

Second Edition (February 2021)

Edited by Janet KT Wong & Jody KP Chu

In partnership with



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Editors of the Immunisation Training Programme For Registered Pharmacists – Standards and Framework

Editors: Janet KT Wong & Jody KP Chu

Assistant Editor: Jason Lam

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Department of Pharmacology and Pharmacy, The University of Hong Kong

L02-56, 2/F, Laboratory Block, LKS Faculty of Medicine
21 Sassoon Road, Pokfulam, Hong Kong SAR

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Contents

Acknowledgement.....	4
Intended Audience.....	4
Aims	4
Objectives of Immunisation Training	5
Standards for Immunisation Training	5
Immunisation Training Programme	6
Part A: Immunisation Certificate Course	7
- Core Domains.....	7
- Component 1: Vaccine Administration and Immunisation Practice Workshop	9
- Component 2: Immunisation Best Practice for Healthcare Providers	11
Part B: Supervised Immunisation Practice	14
- Competency Assessment Checklist for Supervised Immunisation Practice	14
References.....	16
Immunisation Training Log	17

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Members of the Hong Kong Pharmacist Immunisation Training Working Group

Chairmen	Dr FAN Ning Founder, Health In Action Ms Jody Chu Lecturer, Department of Pharmacology and Pharmacy
Secretary	Ms Janet Wong Lecturer, Department of Pharmacology and Pharmacy Senior Pharmacist, Health In Action
Members	Mr Philip Chiu Chief Pharmacist, Mannings Mr William Chui President, Society of Hospital Pharmacists of Hong Kong
Advisors	Mr Dennis Fong Vice President, Hong Kong Society for Travel Medicine Mr Alex Leung President, Hong Kong Society for Travel Medicine

Intended Audience

This document sets out the general standards and framework for the professional training to prepare a Hong Kong registered pharmacist with role in immunisation.

Aims

To outline the framework of immunisation training for Hong Kong registered pharmacists to ensure confidence, competence, safety and effectiveness of the promotion and administration of vaccinations in different healthcare settings.

Objectives of Immunisation Training

By the end of immunisation training, the participating registered pharmacists will be able to:

- Ensure safe and effective immunisation practice with regard to patient care, vaccines storage and handling, administration, and documentation
- Provide accurate and up-to-date information about the relevant diseases and vaccines to individuals and/or their caregivers
- Support individuals to make informed decision about vaccination
- Promote public awareness and confidence in vaccination

Standards for Immunisation Training

Registered pharmacists who advise on and/or administers immunisations must have completed and obtained a pass in the Immunisation Certificate Course and have been assessed as competent in a period of Supervised Immunisation Practice by registered healthcare practitioner(s) who is/are experienced, up-to-date and competent in immunisation.

According to Australian Public Health England's National Minimum Standards and Core Curriculum for Immunisation Training for Registered Healthcare 2018, the duration of immunisation training programme is tailored for the previous experience, knowledge, clinical skills and the role in immunisation programme of the healthcare professionals in training. With reference to the immunisation training frameworks in the North America, the United Kingdom and Australia, the foundation immunisation training can be delivered in a mixed mode with face-to-face sessions with or without e-learning components, self-directed or trainer-led activities.

Updates of training would be required in case of substantial changes to the vaccination practice standards, local immunisation programmes, and guidelines.

The Immunisation Training Programme discusses the practice emergency plan and resuscitation procedures. While certification in Basic Life Support (BLS) and equivalent qualification in medical emergencies is not part of this training, the registered pharmacists are highly encouraged to pursue the certification to provide additional support to potential on-site emergency situations.

Immunisation Training Programme

A registered pharmacist will be regarded as competent in immunisation once he/she has:

- Completed and achieved the required passing marks in the skill and knowledge assessments in the **Immunisation Certificate Course (Part A)**, and;
- Completed **Supervised Immunisation Practice (Part B)** which consists of five vaccine administrations in at least two immunisation sessions on separate days, until the new immunisation provider meets the competency standards as per self-assessment and supervisor review for each of the vaccines to be advised on or administered.

Part A: Immunisation Certificate Course

The Immunisation Certificate Course comprises two components that make up of a total of 14 hours of study plus 2 hours of assessments:

- Component 1: Vaccine Administration and Immunisation Practice Workshop
- Component 2: Immunisation Best Practice for Healthcare Providers

A **Certificate of Completion** will be awarded to a candidate who completes the Immunisation Certificate Course and obtains a pass in the assessments. The **Certificate of Completion** represents the successful completion of immunisation training that is comparable to those offered to other healthcare providers.

Part B: Supervised Immunisation Practice

The completion of and obtaining a pass in the Immunisation Certificate Course are the prerequisite for the Supervised Immunisation Practice.

In the Supervised Immunisation Practice, a candidate will complete five vaccine administrations in at least two immunisation sessions on separate days. A candidate shall identify the immunisation supervisor(s) who is a registered healthcare practitioner(s) who is/are experienced, up-to-date and competent in immunisation.

A **Certificate of Competence** (valid for 2 years) will be awarded to a candidate who completes the Supervised Immunisation Practice and the competency assessment checklist (Page 14).

Part A: Immunisation Certificate Course

The Immunisation Certificate Course comprises two components, covering **four core domains of immunisation knowledge and competencies**:

- **Component 1: Vaccine Administration and Immunisation Practice Workshop**
- **Component 2: Immunisation Best Practice for Healthcare Providers**

Which make up a total of 14 hours of study plus 2 hours of assessments.

Core Domains

This section outlines the core domain of immunisation knowledge and competencies, and respective learning outcomes, of the Immunisation Training Programme.

Domain 1 – The International and Local Context for Immunisation

- 1.1 Immunisation and Public Health
- 1.2 Hong Kong Childhood Immunisation Programme and Vaccination Subsidy Scheme
- 1.3 Strategies to optimise immunisation uptake

Learning outcomes

- Demonstrate an understanding of the impact of immunisation programmes as a public health intervention
- Demonstrate knowledge of the Hong Kong Childhood Immunisation, Vaccination Subsidy Scheme, and how to keep abreast of the updates of these local initiatives
- Describe strategies for improving vaccine uptake

Domain 2 – The Immune System and Immunisation

- 2.1 The immunological principles of immunisation
- 2.2 Vaccine preventable diseases
- 2.3 Vaccine types and components
- 2.4 Current issues or controversies in immunisation

Learning outcomes

- Explain the immune response to vaccines
- Describe how vaccines provide individual and community protection
- Describe and recognise key features of vaccine preventable diseases and the nature and frequency of their acute and long-term complications
- Explain the different types of vaccines, their components and the indications and contraindications
- Describe the relevant and current issues or controversies in immunisation

Domain 3 – Legal and Ethical Issues in Immunisation

- 3.1 Supply of vaccines
- 3.2 Clinical governance

Learning outcomes

- Describe the local legal requirements with respect to the supply of vaccine products
- Describe the clinical governance in an immunisation programme

Domain 4 – Immunisation Practice

- 4.1 Information resources and communication
- 4.2 Storage, handling, and transport of vaccines
- 4.3 Administration of vaccines
- 4.4 Clinical care considerations for immunisation
- 4.5 Infection control
- 4.6 Management of anaphylaxis and adverse reactions
- 4.7 Documentation and reporting
- 4.8 Needle stick injury prevention and management
- 4.9 Clinical waste handling and disposal

Learning outcomes

- Describe relevant information resources on immunisation policy and good practice
- Demonstrate knowledge of the cold chain and implement the current local guidelines when storing, handling and transporting vaccines
- Demonstrate competences in vaccine administration and reconstitution
 - Appropriate selection, preparation and disposal of vaccine and vaccine equipment
 - Safe practice in checking and verifying the vaccine to be administered
 - Assessment of suitability of vaccine recipient prior to administration based on medical and medication history
 - Correct positioning of clients for safe and effective vaccine administration
 - Determination of appropriate immunisation site and needle size
 - Correct techniques of administering oral, intranasal, subcutaneous, and intramuscular vaccines
 - Knowledge and practice of infection prevention and control measures
 - Practice of appropriate care after vaccine administration
- Communicate with clients about potential adverse reactions following the receipt of a vaccine, and the respective prevention and management
- Describe and recognise the signs and symptoms of adverse reactions to vaccines
- Manage various adverse reactions appropriately, e.g., fainting and anaphylaxis
- Maintain appropriate documentation, record keeping and reporting of vaccine administration
- Describe when and how to report an adverse event associated with vaccination
- Understand the appropriate procedures to prevent and manage needle stick injury
- Describe and implement safe clinical waste handling and proper disposal procedures

Component 1: Vaccine Administration and Immunisation Practice Workshop

Training Specifications

- Mode: Face-to-face
- Contact hours: At least 4 hours
- Instructor: Local or overseas healthcare professional(s) who is/are experienced in immunisation practice and training

Learning Objectives

By the end of the workshop, participants will be able to:

- Describe relevant information resources on immunisation policy and good practice
- Demonstrate knowledge of the cold chain and implement the current local guidelines when storing, handling and transporting vaccines
- Demonstrate competences in vaccine administration and reconstitution
 - Appropriate selection, preparation and disposal of vaccine and vaccine equipment
 - Safe practice in checking and verifying the vaccine to be administered
 - Assessment of suitability of vaccine recipient prior to administration based on medical and medication history
 - Correct positioning of clients for safe and effective vaccine administration
 - Determination of appropriate immunisation site and needle size
 - Correct techniques of administering oral, intranasal, subcutaneous, and intramuscular vaccines
 - Knowledge and practice of infection prevention and control measures
 - Practice of appropriate care after vaccine administration
- Communicate with clients about potential adverse reactions following the receipt of a vaccine, and the respective prevention and management
- Describe and recognise the signs and symptoms of adverse reactions to vaccines
- Manage various adverse reactions appropriately, e.g., fainting and anaphylaxis
- Maintain appropriate documentation, record keeping and reporting of vaccine administration
- Describe when and how to report an adverse event associated with vaccination
- Understand the appropriate procedures to prevent and manage needle stick injury
- Describe and implement safe clinical waste handling and proper disposal procedures

Workshop Outline

- Vaccine supply and clinical governance
- Information resources and communication
- Practical management of vaccination programme
- Storage, handling, and transport of vaccines
- Clinical care considerations for immunisation
- Vaccine administration
 - Positioning of vaccinations and injection sites
 - Intramuscular injection technique
 - Subcutaneous injection technique
 - Intranasal administration technique
 - Reconstitution technique
- Infection control
- Management of anaphylaxis and adverse reactions
- Documentation and reporting
- Needle stick injury prevention and management
- Clinical waste handling and disposal
- Case Illustration
- Competencies-based assessments and feedback sessions

Assessment

- Format: Objective Structured Clinical Examination
- Duration: 1 hour
- Assessed areas: Clinical assessment, vaccine preparation and administration, and documentation

Component 2: Immunisation Best Practice for Healthcare Providers

The Immunisation Best Practice for Healthcare Providers will be delivered via self-directed learning on international and local practice of the use of vaccines in disease prevention and control of vaccinations, and the application of knowledge to handle vaccine-related problems in clinical practice. The completion of training is defined by obtaining a pass in an online multiple-choice question assessment.

Training Specifications

- Mode: Self-paced online learning
- Hours of study: Approximately 10 hours

Syllabus

- Immunisation and Public Health
- Principles of vaccination
- Legal and ethical considerations
- General best practice guidelines and vaccine safety
- Clinical care considerations for immunisation
- Management of anaphylaxis and adverse reactions
- Vaccine storage and handling
- Vaccine administration
- Infection Control
- Needle stick injury prevention and management
- Clinical waste handling and disposal

Instructions

Candidates will complete the self-paced learning before completing the online assessment. Key materials and resources are listed below:

- Specified chapters of the Pink Book: Course Textbook (Epidemiology and Prevention of Vaccine-Preventable Diseases, Centers for Disease Control and Prevention)
 1. Principles of Vaccination
 2. General Recommendations on Immunization
 3. Immunization Strategies for Healthcare Practices and Providers
 4. Vaccine Safety
 5. Storage and Handling
 6. Vaccine Administration
- Text version: <https://www.cdc.gov/vaccines/pubs/pinkbook/index.html>
- Webinar (Slides and recording): https://www.cdc.gov/vaccines/ed/webinar-epv/index.html#modalIdString_CDCTable_0
- Supplementary: E-learning course on Vaccine Safety Basics, World Health Organization https://www.who.int/vaccine_safety/initiative/tech_support/ebasic/en/

- Refer to the following local and institutional guidelines or reference:
 - Hong Kong Reference Framework for Preventive Care for Children in Primary Care Settings - Module on Immunisation, Primary Care Office, Food and Health Bureau, HKSAR:
https://www.fhb.gov.hk/pho/rfs/tc_chi/pdf_viewer.html?file=download107&title=string127&titletext=string84&htmltext=string84&resources=25_Module_on_Immunisation_Children
 - Scientific Committee on Vaccine Preventable Diseases, Centre for Health Protection, Department of Health, HKSAR:
<https://www.chp.gov.hk/en/static/24008.html>
 - 2020/21 Vaccination Subsidy Scheme Doctors' Guide. Centre for Health Protection, Department of Health, HKSAR: <https://www.chp.gov.hk/en/features/45838.html>
 - Guide to Infection Control in Clinic Setting (Last update: June 2020). Centre for Health Protection, Department of Health, HKSAR:
https://www.chp.gov.hk/files/pdf/guide_to_infection_control_in_clinic_setting.pdf/
 - Recommendations on Hand Hygiene and Use of Gloves in Health Care Settings. Centre for Health Protection, Department of Health, HKSAR:
https://www.chp.gov.hk/files/pdf/recommendations_on_hand_hygiene_and_use_of_gloves_in_health_care_settings.pdf
 - Prevention of Sharps Injury and Mucocutaneous Exposure to Blood and Body Fluids in Healthcare Settings. Centre for Health Protection, Department of Health, HKSAR:
https://www.chp.gov.hk/files/pdf/prevention_of_sharps_injury_and_mucocutaneous_exposure_to_blood_and_body_fluids.pdf
 - Recommendations on the Management and Postexposure Prophylaxis of Needlestick Injury or Mucosal Contact to HBV, HCV and HIV. Centre for Health Protection, Department of Health, HKSAR:
https://www.chp.gov.hk/files/pdf/recommendations_on_postexposure_management_and_prophylaxis_of_needlestick_injury_or_mucosal_contact_to_hbv_hcv_and_hiv_en_r.pdf
 - Code of Practice for the Management of Clinical Waste (Small Clinical Waste Producers), Environmental Protection Department, HKSAR:
http://www.epd.gov.hk/epd/clinicalwaste/file/doc06_en.pdf/

Apart from the key materials and resources, candidates are highly recommended to further explore various online resources, such as:

- Green Book (Immunisation against infectious disease):
<https://www.gov.uk/government/collections/immunisation-against-infectious-disease-the-green-book#the-green-book/>
- Communicable Diseases. Centre for Health Protection, Department of Health, HKSAR:
<https://www.chp.gov.hk/en/healthtopics/24/index.html>
- Vaccines & Immunizations. Centers for Disease Control and Prevention
<https://www.cdc.gov/vaccines/index.html>

Assessment

- Format: Online assessment consisting of 50 multiple-choice questions
- Duration: 1 hour
- Passing mark: 80%
- Re-assessment: Maximum a total three attempts for each candidate

Immunisation Certificate Course – Summary Table

Activity	Description	Vaccine Administration and Immunisation Practice Workshop	Immunisation Best Practice for Healthcare Providers
	Mode	Face-to-face	Self-paced; Online
	Duration	4 Hours	10 Hours
Assessment	Mode	OSCE	Online MCQ
	Duration	1 Hour	1 Hour
Domain 1 – The International and Local Context for Immunisation			
1.1	Immunisation and Public Health		√
1.2	Hong Kong Childhood Immunisation Programme and Vaccination Subsidy Scheme		√
1.3	Strategies to optimise immunisation uptake		√
Domain 2 – The Immune System and Immunisation			
2.1	The immunological principles of immunisation		√
2.2	Vaccine preventable diseases		√
2.3	Vaccine types and components		√
2.4	Current issues or controversies in immunisation	√	√
Domain 3 – Legal and Ethical Issues in Immunisation			
3.1	Supply of vaccines	√	√
3.2	Clinical governance	√	√
Domain 4 – Immunisation Practice			
4.1	Information resources and communication	√	√
4.2	Storage, handling, and transport of vaccines	√	√
4.3	Administration of vaccines	√	√
4.4	Clinical care considerations for immunisation	√	√
4.5	Infection control	√	√
4.6	Management of anaphylaxis and adverse reactions	√	√
4.7	Documentation and reporting	√	√
4.8	Needle stick injury prevention and management	√	√
4.9	Clinical waste handling and disposal	√	√

Part B: Supervised Immunisation Practice

After completing and passing the assessment of the **Immunisation Certificate Course**, the new immunisation provider will need to complete a **total of five supervised vaccine administrations** in **at least two immunisation sessions** on separate days, until the new immunisation provider meets the following competency standards as per self-assessment and supervisor review for each of the vaccines to be advised on or administered.

The new immuniser can observe and learn from the practice of supervisor(s) and receive feedback from the supervisor(s) on vaccine administration techniques. This assessment checklist will be completed by both the new immuniser and the immunisation supervisors by the end of second immunisation session.

Competency Assessment Checklist for Supervised Immunisation Practice

Clinical Skills, techniques, and Procedures	Not Applicable	Self-Assessment		Supervisor review		
		Meets or Exceeds	Needs to improve	Meets or Exceeds	Needs to improve	Action Plan
Care and Education						
1. Greet the vaccine recipient and verify the type and route of vaccine to be given						
2. Answer questions and accommodate needs of the recipients to make them feel comfortable and informed about the procedure						
3. Screen for contraindications						
4. Review post-vaccination care, monitoring, provide instructions, and invite questions						
Institutional Protocols						
5. Describe how to access to the protocol, relevant guidelines and medical information when needed						
6. Identify location of the adrenaline preparation, its administration technique, and clinical situations where its use is indicated						

7. Demonstrate knowledge of proper vaccine supply, handling, and storage condition						
Vaccine Preparation						
8. Performs proper infection control measures, e.g. hand hygiene prior to preparing vaccine						
9. Check temperature when removing vaccines from refrigerator or freezer						
10. Check the client's identity, and expiry date, label, and content of vaccine prior to injection (Refer to 3 checks 7 rights principles)						
11. Maintain aseptic techniques throughout the vaccine preparation						
Vaccine Administration						
12. Proper hand hygiene						
13. Demonstrate knowledge of appropriate route for each vaccine						
14. Position the client						
15. Correctly identify the injection site (e.g. deltoid)						
16. Disinfect injection site with alcohol wipes						
17. Proper injection techniques						
18. Proper post-injection care to improve comfort and safety						
19. Proper disposal of sharps and vials (if applicable)						
Record and Documentation						
20. Fully document each vaccination: date, batch number, expiry date, manufacturer, site, etc						
Statement of Competence						
Name of individual _____ has shown appropriate knowledge, skill and competence to safely administer vaccinations.				Signature:		Date:
Supervisors carrying out assessment	Name of Supervisor in Session 1: Signature: Date:			Name of Supervisor in Session 2: Signature: Date:		

References

1. Public Health England. National Minimum Standards and Core Curriculum for Immunisation Training. London: Public Health England 2018.
2. Public Health Agency of Canada. Immunization Competencies for Health Professionals. 2008.
3. National Immunisation Committee. National Immunisation Education Framework for Health Professionals. Australia: Department of Health 2017.
4. Immunization Action Coalition. Skills Checklist for Vaccine Administration (Item #P7010 (8/20)). Immunization Action Coalition. Available from www.immunize.org/catg.d/p7010.pdf.
5. Programme Management and Vaccination Division, Centre for Health Protection, Department of Health. 2020/21 Vaccination Subsidy Scheme Doctors' Guide. HKSAR: Centre for Health Protection 2020.

Immunisation Training Log

<u>Part A: Immunisation Certificate Course</u>		
Activity	Date of Completion	Issue Date of Certificate of Completion
Vaccine Administration and Immunisation Practice Workshop		
Immunisation Best Practice for Healthcare Providers		
<u>Part B: Supervised Immunisation Practice</u>		
Immunisation Supervisor 1		Immunisation Supervisor 2
Name:		Name:
Position:		Position:
Organisation:		Organisation:
Registration No.:		Registration No.:
Supervised Practice	Date of Completion	Signature of Immunisation Supervisor(s)
1st vaccine administration		
2nd vaccine administration		
3rd vaccine administration		
4th vaccine administration		
5th vaccine administration		
<u>Basic Life Support or Equivalent Qualifications</u> (Subject to the requirements of individual practice sites)		
Title of Qualification	Validity Period	Issuing Organisation
	Valid from to	