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The Pharmaceutical Society of Hong Kong
The Practising Pharmacists Association of Hong Kong
The Society of Hospital Pharmacists of Hong Kong

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INSTRUCTIONS FOR AUTHORS

The Hong Kong Pharmaceutical Journal is a journal of the pharmacists, for the pharmacists and by the pharmacists. Submissions are welcome for the following sections:

- Pharmacy Education & Practice
- Drugs & Therapeutics
- Primary Care, OTC & Health
- Pharmaceutical Techniques & Technology
- Medication Safety
- Herbal Medicines & Nutraceuticals
- Society Activities
- New Products

Comments on any aspects of the profession are also welcome as Letter to the Editor.

There is no restriction on the length of the articles to be submitted. They can be written in English or Chinese. The Editorial Committee may make editorial changes to the articles but major amendments will be communicated with the authors prior to publishing.

It is preferable to have original articles submitted as an electronic file, in Microsoft Word, typed in Arial 9pt. Files can be sent to the following address:

e-mail: ***editor@hkpj.org***
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For detail instructions for authors, please refer to the first issue of each volume of HKPJ.

Editorial

News & Short Communications

Primary Care, Over-the-Counter & Health

Primary Care, Over-the-Counter and Health

As the guest editors-in-chief of Hong Kong Pharmaceutical Journal, we are honoured to present this issue, which focuses on the significant topic of community pharmacy development in Hong Kong.

Pharmacists play a very important role in the healthcare system in Hong Kong. The government has spearheaded several policy initiatives on primary healthcare and community pharmacy development through the release of the Primary Healthcare Blueprint, the establishment of the Primary Healthcare Commission, the setting up of a Strategic Purchasing Office, and the future tendering of community dispensing services. In light of this, we are delighted to have included a number of articles with different emphases on community pharmacy development.

The first article by Mr Chiu Philip Kwok Leung, titled 'Primary Healthcare and Community Pharmacy Development in Hong Kong' provides a comprehensive account of the historical role of the pharmacy profession in primary healthcare from 2014 to the present. It also highlights his personal journey and six years of involvement as a member of the Steering Committee of Primary Healthcare.

The second article presents a highly impactful project, the "Jockey Club PHARM+ Community Medication Service Network Project" ("JC PHARM+ Project"), which is initiated and funded by The Hong Kong Jockey Club Charities Trust. It is authored by Mr Tommy Ka-Ho Lee and the project team. This article provides a comprehensive outline of the Project objectives, key services provision, and eight community pharmacy service network partners.

Having involved in the JC PHARM+ Project since its inception as Principal Investigator and Assistant Project Director respectively, we are delighted to witness the growth of this highly innovative project that serves as an excellent model of practice to the pharmacy profession and accelerate the development of primary healthcare in Hong Kong. In the subsequent article by the same Project team, titled "Jockey Club PHARM+ Community Medication Service Network – Roundtable Meeting on Community Pharmacy Good Practice Alignment", the authors share the key insights and significant consensus reached among participating pharmacists during the roundtable meeting. It is encouraging for the profession to identify common operational challenges, discuss best practices and explore effective strategies to improve medication safety and practice.

In her article "HKUMed Launches Hong Kong's First University Community Pharmacy to Advance Primary Healthcare", Ms Cynthia Sum-yi Wu highlights the establishment of community pharmacy within the education sector, serving as a platform for interprofessional healthcare education and research. The initiative is also one of the core developments of HKUMed's Comprehensive Primary Healthcare Collaboratory. We trust that pharmacists are trained professionals who are ready to support the healthcare system of Hong Kong.

Mr Leung Shek Ming and Ms Meyone Yuen-Tung Ng, in their article "Structural Consultation Skills of Hong Kong Pharmacists in Primary Care Setting", evaluate eight consultation models used in primary care pharmacy settings and explore the development of a hybrid consultation model. This model integrates elements from various approaches, incorporating diverse assessment and questioning techniques to improve the quality of pharmacy consultations within the unique context of Hong Kong.

The final article "Gatekeepers of Community Health" (written in Chinese) by Mr Lam Wai Man highlights the vital role of community pharmacies and members of the Hong Kong General Chamber of Pharmacy across Hong Kong's 18 districts in safeguarding the health of the population and promoting public health through different professional services of pharmacists.

With the rapid advancement of primary healthcare in Hong Kong, this is an incredibly exciting time for the pharmacy profession in the region. The future success of community pharmacy and the pharmacist profession will rely on continued knowledge exchange and collaborative efforts among pharmacists and different stakeholders. We hope these articles provide readers with valuable insight into how pharmacists and community pharmacies are entering a new era of primary healthcare development and the pharmacist profession.

Prof Ian Wong Chi Kei
Dr Anchor Hung Tak Fung
Co-editors-in-Chief
24 January, 2025

Prepared by Candice Leung & Branson Fok

FDA Approves FluMist Nasal Spray for Self- or Caregiver-Administration

Date: September 20, 2024

On September 20, 2024, the U.S. Food and Drug Administration (FDA) approved FluMist, a nasal spray influenza vaccine, for self- or caregiver-administration, marking a significant milestone in flu prevention. This is the first flu vaccine that does not require administration by a healthcare provider, offering increased convenience, flexibility, and accessibility for individuals and families. FluMist is approved for the prevention of influenza caused by virus subtypes A and B in individuals aged 2 to 49 years.

Influenza is a common and contagious respiratory disease that typically circulates during the fall and winter in the U.S. The disease can cause a range of symptoms, including but not limited to fever, coughing, sore throat, and runny nose. Annual vaccination is the best way to prevent influenza and the serious complications the disease may lead to.

FluMist contains a weakened form of live influenza virus strains and is sprayed into the nose. It has been in use since 2003, initially approved for individuals aged 5 to 49 years, with its approval expanded in 2007 to include children as young as 2 years old. A prescription is still required, and caregivers aged 18 years or older must administer the vaccine to children aged 2 to 17 years, as self-administration is not permitted for this age group.

FluMist is available through third-party online pharmacies, where individuals can complete a screening and eligibility assessment. Eligible recipients will receive the vaccine along with detailed instructions for storage, administration, and disposal. The most commonly reported side effects include fever in young children, runny nose, nasal congestion, and sore throat in adults.

Influenza remains a significant public health concern, causing millions of illnesses, thousands of hospitalizations, and deaths annually in the U.S. The FDA's approval of FluMist for self- or caregiver-administration reflects its ongoing commitment to improving public health by increasing access to safe and effective vaccines.

Source: www.fda.gov

Tirzepatide Demonstrates Potential Clinical Benefits in Adults with Obstructive Sleep Apnea and Obesity

Date: October 3, 2024

Obstructive sleep apnea is caused by repetitive pharyngeal collapse during sleep, which eventually results in consequent hypoxemia and hypercapnia. Currently, there is no medication being approved for treating obstructive sleep apnea and positive airway pressure therapy remains as the mainstay for symptomatic relief associated with obstructive sleep apnea.

As excess adiposity is considered as the major risk factor for obstructive sleep apnea, substantial weight reduction has been recognized as one of the recommended treatments in various clinical guidelines. Tirzepatide, a long-acting glucose-dependent insulinotropic polypeptide (GIP) receptor and glucagon-like peptide-1 (GLP-1) receptor agonist, has previously demonstrated its significant effect in weight reduction.

The SURMOUNT-OSA trials were two phase 3, double-blind, randomized studies to evaluate the efficacy and safety of tirzepatide in obese adults with moderate-to-severe obstructive sleep apnea. Eligible participants were assigned in 1:1 ratio in both studies, where the treatment group received once weekly subcutaneous tirzepatide (n=234) or placebo (n=235) injection for 52 weeks. The study endpoint included the change in apnea-hypopnea index (AHI) and body weight from baseline, as well as sleep-related patient-reported outcomes.

A significant estimated treatment difference of -20.0 events per hour in terms of AHI was recorded when comparing the tirzepatide and placebo at week 52 (95% confidence interval [CI], -25.8 - -14.2; P<0.001). Adults who received weekly tirzepatide were also found to have a greater percentage decrease in body weight (estimated treatment difference = -16.1%; 95% confidence interval [CI], -18.0% - -14.2%; P<0.001). Mild-to-moderate gastrointestinal-related events were the mostly frequently reported adverse events.

In summary, tirzepatide has showcased its potential benefits in obese adults with obstructive sleep apnea with clinical improvements on sleep-disordered breathing and sleep-related impairments.

Source: www.nejm.org

Finerenone Reduces Worsening Heart Failure Events in Heart Failure Patients with Mildly Reduced or Preserved Ejection Fraction

Date: October 24, 2024

Heart failure with preserved ejection fraction (HFpEF) is clinically characterized as heart failure where the left ventricular ejection fraction exceeds 50%. Currently approved treatment choice for HFpEF management is limited to sodium-glucose co-transporter 2 inhibitors (SGLT2i) which remains an unmet need in this population. Finerenone is a nonsteroidal mineralocorticoid receptor antagonist that has been proven effective in reducing risk of cardiovascular events in patients with chronic kidney disease and type 2 diabetes, and its efficacy and safety among heart failure patients with mildly reduced (HFmrEF) or preserved ejection fraction remains uncertain.

In this international, parallel-group, double-blind and randomized trial, eligible patients were randomly assigned in a 1:1 ratio to receive once daily finerenone (n=3003) or matching placebo (n=2998) in addition to their ongoing usual therapy. Maximum dosing of finerenone in the treatment was 20mg or 40mg daily, depending on the baseline estimated glomerular filtration rate (eGFR). The primary outcome was a composite of total worsening heart failure events and death from cardiovascular causes. Clinical safety of finerenone usage in HFmrEF and HFpEF patients was also evaluated.

The total number of worsening heart failure events was significantly lower in the finerenone group in comparison with the placebo group (rate ratio = 0.82; 95% confidence interval [CI], 0.71 – 0.94; P=0.006) in HFmrEF and HFpEF patients over a median follow-up of 32 months. A sensitivity analysis regarding a composite of the first worsening heart failure event or death from cardiovascular cases also suggested a lower risk in the treatment group (hazard ratio = 0.84; 95% confidence interval [CI], 0.76 – 0.94). Prevalence of serious adverse events were similar in both groups, yet finerenone was found to have a higher risk of developing hyperkalemia during the trial.

In conclusion, finerenone resulted in a significantly lower rate of worsening heart failure events and any associated cardiovascular deaths in HFmrEF and HFpEF patients.

Source: www.nejm.org

Extension of "1+" Mechanism to All New Drugs Comes Effective on November 1, 2024

Date: October 25, 2024

As specified by the Pharmacy and Poisons Ordinance (Cap. 138), any kinds of pharmaceutical products must satisfy the criteria of safety, efficacy and quality and be registered before they can be sold or supplied locally. The "1+" mechanism launched since November 1, 2023 allowed new drugs indicated for the treatment of life-threatening or severely debilitating diseases that are supported by local clinical data to submit approval from one reference drug regulatory authority for applications for new drug registration.

On October 25, 2024, the Department of Health has announced the arrangement for expanding the "1+" mechanism to all new drugs, including vaccines and advance therapy products, based on the new measures in "The Chief Executive's 2024 Policy Address". Relevant consultation services will also be introduced for new drug applications under the "1+" mechanism in the first quarter of 2025 to facilitate the entire application progress.

The extension of "1+" mechanism comes into effect starting from November 1, 2024. It is expected to attract more new drugs seeking approval for local registration and thus giving patients more choices and further strengthening the local capacity for drug evaluation.

Source: www.drugoffice.gov.hk

Once-Weekly Semaglutide in Persons with Obesity and Knee Osteoarthritis

Date: October 30, 2024

Obesity is a known risk factor for knee osteoarthritis, exacerbating pain, inflammation, and joint deterioration. While weight loss is a critical management strategy, achieving sustainable weight reduction remains challenging. There is an unmet need for weight-management medications in individuals with obesity-related knee osteoarthritis. The effects of glucagon-like peptide-1 (GLP-1) receptor agonists in this population are not well established.

This 68-week randomized, double-blind, placebo-controlled trial, conducted at 61 sites across 11 countries, evaluated the efficacy and safety of semaglutide (2.4 mg) in individuals with a BMI ≥30 and diagnosed knee osteoarthritis. Participants were randomly assigned in a 2:1 ratio to receive semaglutide or a placebo once weekly, alongside lifestyle interventions such as dietary adjustments. The primary end points were the percentage change in body weight and the change in the Western Ontario and McMaster Universities Osteoarthritis Index (WOMAC) pain score from baseline to week 68. The secondary end point was the physical-function score on the 36-Item Short Form Health Survey (SF-36).

A total of 407 participants were enrolled (271 in the semaglutide group, 136 in the placebo group). The mean change in body weight from baseline to week 68 was −13.7% with semaglutide and −3.2% with placebo (estimated difference, −10.5 percentage points; 95% confidence interval [CI], −12.3 to −8.6; P<0.001). WOMAC pain scores improved by −41.7 points with semaglutide versus −27.5 points with placebo (estimated difference, −14.1 points; 95% CI, −20.0 to −8.3; P<0.001). SF-36 physical-function scores also improved more with semaglutide (mean change, 12.0 points vs. 6.5 points; estimated difference, 5.5 points; 95% CI, 3.1 to 8.0; P<0.001). Serious adverse events occurred in 10.0% of the semaglutide group versus 8.1% of the placebo group; gastrointestinal events were the most common side effect.

In conclusion, the study highlights semaglutide as a promising treatment option for patients with obesity and knee osteoarthritis, offering dual benefits of significant weight loss and improved joint health.

Source: www.nejm.org

FDA Proposes Removing Oral Phenylephrine as OTC Nasal Decongestant

Date: November 07, 2024

The U.S. Food and Drug Administration (FDA) has proposed removing oral phenylephrine as an approved active ingredient in over-the-counter (OTC) nasal decongestants. This decision follows a comprehensive review of current and historical data, which concluded that oral phenylephrine is not effective for relieving nasal congestion at the recommended OTC dosage. The proposal does not stem from safety concerns but from lack of efficacy.

Oral phenylephrine is widely used in many OTC cold, cough, and allergy medications, either as a single active ingredient or combined with others, such as acetaminophen or dextromethorphan. The FDA's action does not affect these additional active ingredients or phenylephrine used in nasal sprays, which remain unaffected by this proposal.

The FDA's review incorporated findings from a Nonprescription Drug Advisory Committee meeting in 2023, where experts unanimously agreed that the available scientific evidence does not support oral phenylephrine's effectiveness as a nasal decongestant. This re-evaluation challenges conclusions made 30 years ago based on older data.

Consumers are advised to read Drug Facts labels to identify ingredients in medications. The FDA emphasized that many safe and effective treatment options for nasal congestion, such as nasal sprays or alternative medications, remain available. Consumers can consult healthcare providers for advice on managing symptoms.

The FDA has opened a public comment period on this proposed order. If finalized, products containing oral phenylephrine as a nasal decongestant will need to be reformulated or removed from the market. Manufacturers will be given appropriate time to comply.

This action underscores the FDA's commitment to ensuring OTC drugs meet modern standards of safety and efficacy, protecting public health through rigorous scientific evaluation.

Source: www.fda.gov

CE Questions Answer for 312(D&T)

Review of Vaccines against Herpes Zoster: the Efficacy, Safety and Impact on Quality of Life of Shingrix® and Zostavax®

1. C 2. C 3. D 4. C 5. B 6. D 7. D 8. D 9. A 10. A

Primary Healthcare and Community Pharmacy Development in Hong Kong

CHIU, Philip Kwok Leung
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INTRODUCTION

Over the years, I have witnessed the development of primary healthcare and community pharmacy in Hong Kong. The Government's policy in developing primary healthcare could be traced back in 1990 with the release of document "Health for All, the Way Ahead: Report of the Working Party on Primary Health care".[1] Since then, the Government has released several consultant reports, including "Your Health, Your Life Consultation Document on Healthcare Reform" in 2008 and "Our Partner for Better Health – Primary Care Development in Hong Kong: Strategy Document" in 2010.[2, 3] However, the involvement of pharmacists was limited in these discussions, as there were no representatives from the pharmacy profession.

BREAKING NEW GROUND FOR PHARMACY SERVICE IN PRIMARY CARE

The turning point was the Hong Kong Pharmacy Conference in 2014, themed "Breaking New Ground for Pharmacy Service in Primary Care". A press conference was held during the event to feature and introduce the role of primary care pharmacists and various services models (e.g. Pharmacist supervised monitored dosage system, Visiting pharmacist service, Medication Management for the Elderly, etc) to the public. The media response was positive with more than 10 newspapers and media coverage reported the press conference. The success was the joint effort from the three professional societies (The Pharmaceutical Society of Hong Kong (PSHK), The Society of Hospital Pharmacists of Hong Kong (SHPHK) and The Practicing Pharmacist Association of Hong Kong (PPA)), the two universities (The University of Hong Kong (HKU) and the Chinese University of Hong Kong (CUHK)) and the two chain store pharmacies (Mannings and Watsons). Following the press conference, subsequent meeting was held with the Head of Primary Care Office, as our continual efforts to advance the development of primary care pharmacy.

***Photo 1**. Press Conference at the Hong Kong Pharmacy Conference in 2014*

From 2015 to 2017, it is my honor to serve as the President of the PSHK. One of the objectives of PSHK is to promote the pharmacy profession in Hong Kong. We engaged and lobbied with various stakeholders including Food and Health Bureau, Drug Office, member of Legislative Council, patient group, etc. In addition, we participated in every year's Government budget consultation and policy address consultation, sharing our views and recommendations with the Chief Secretary for Administration, the Financial Secretary and the Secretary for Food and Health. We continued to liaise with the Government, on one hand to support the development of primary healthcare, and on the other hand to emphasize the importance of involving pharmacy profession in the development.

THE STEERING COMMITTEE ON PRIMARY HEALTHCARE DEVELOPMENT

The Chief Executive's 2017 Policy Address highlighted the focus on primary healthcare development, including establishment of a steering committee on primary healthcare development to comprehensively review the existing planning of primary healthcare services, and provide healthcare services via district-based medical-social collaboration in the community, and plan to set up a district health centre in Kwai Tsing District under a

brand new operation mode.[4] The Steering Committee on Primary Healthcare Development was subsequently established on 1 December 2017.The membership list of the Steering Committee on Primary Healthcare Development is as follows:

Chairperson

Professor Sophia Chan Siu-chee (Secretary for Food and Health)

Non-official members

Mr Philip Chiu Kwok-leung (President, Pharmaceutical Society of Hong Kong)

Mr Chua Hoi-wai (Chief Executive, Hong Kong Council of Social Service)

Dr Lam Ching-choi (Chairman, Elderly Commission)

Professor Cindy Lam Lo-kuen (Head, Department of Family Medicine and Primary Care, University of Hong Kong)

Professor Gabriel Matthew Leung (Dean, Li Ka Shing Faculty of Medicine, University of Hong Kong)

Dr Donald Li Kwok-tung (President-elect, World Organization of Family Doctors)

Mr Shum Ho-kit (Chairman, Yuen Long District Council)

Professor Hector Tsang Wing-hong (Professor and Head, Department of Rehabilitation Sciences, Hong Kong Polytechnic University)

Professor Frances Wong Kam-yuet (President, Hong Kong Academy of Nursing Limited)

Professor Samuel Wong Yeung-shan (Head, Division of Family Medicine and Primary Healthcare, Jockey Club School of Public Health and Primary Care, Faculty of Medicine, Chinese University of Hong Kong)

Dr Zhu En (Chairman, Hong Kong Registered Chinese Medicine Practitioners Association)

Ex-officio members

Permanent Secretary for Food and Health (Health)

Permanent Secretary for Labour and Welfare (or representative)

Director of Health (or representative)

Director of Home Affairs (or representative)

Head, Primary Care Office, Department of Health (or representative)

Chief Executive, Hospital Authority (or representative)

Chief Manager (Nursing), Hospital Authority (or representative)

The membership of the steering committee consisted of medical doctors, nurse, allied health professions and for the first time, pharmacist was also included in this Government-initiated steering committee for future primary healthcare development. The first meeting of the steering committee was held on 9 Dec 2017.

***Photo 2**. Members of the Steering Committee on Primary Healthcare Development*

The steering committee had four subgroups: Community Engagement, Manpower and Infrastructure Planning, Collaboration Model, Planning and Evaluation Framework. One of the committee's key focuses was establishing a District Health Centre (DHC) in Kwai Tsing District, under a new operational model. As a pharmacist representative, I shared my insight on the role of pharmacists in primary healthcare and services that we can support the patients in the community. Pharmacists became core team member in DHCs and it is a tender requirement to recruit pharmacist for every DHC. The first DHC in Kwai Tsing District was opened on 24 Sep 2019. Subsequently, other DHCs and DHC Express were established in all 18 districts.

***Photo 3**. The Opening of the first DHC in Kwai Tsing District on 24 Sep 2019*

Another major role of the steering committee was to conduct comprehensive analysis of the structural situation of our primary healthcare system and to provide constructive recommendations to the Government for developing a blueprint for the sustainable development of local primary healthcare services. From 2020 to 2023, the COVID-19 pandemic impacted all of us and also our healthcare system. This further demonstrated the importance of setting up a robust primary healthcare system in Hong Kong. During the pandemic, community pharmacists played a crucial role in the primary healthcare system by providing delivery of medications and drug counseling to Hospital Authority patients. Community pharmacies also supported the public

during pandemic by supplying and educating on hygiene products, COVID-19 test kits, OTC medications, etc. All these contributions were shared in the steering committee meetings. I believe the pharmacy profession can strengthen our role in the primary healthcare system and this should be reflected in the blueprint.

GOVERNMENT RELEASES PRIMARY HEALTHCARE BLUEPRINT

The release of the Primary Healthcare Blueprint in 2022 by the Government marks a significant milestone for the pharmacist profession in Hong Kong. It outlined five major directions of primary healthcare reform: Developing a community-based primary healthcare system, Strengthening primary healthcare governance, Consolidating primary healthcare resources, Reinforcing primary healthcare manpower and Improving data connectivity and health surveillance.[5] The Blueprint specifically highlighted the Government support for community pharmacy development in Hong Kong, detailing the role of pharmacists in primary healthcare, such as providing medication advice and counseling for polypharmacy patients, drug refill and counseling support, smoking cessation, health promotion and disease prevention services, etc.[6] The Government will prioritize developing sub-directories for pharmacists in primary care register. A certificate course in primary healthcare for pharmacists was later developed by the University of Hong Kong in 2023, to enhance pharmacist knowledge and skills to support the development of future primary healthcare services.

Photo 4. *Primary Healthcare Blueprint*

As recommended in the Blueprint, the Primary Healthcare Office under the Health Bureau was transformed into the Primary Healthcare Commission (PHC Commission) in July 2024. The PHC Commission oversees the strategic planning and provision, standard setting and quality assurance of primary healthcare services, training of primary healthcare professionals, as well as service planning and resource allocation through strategic purchasing supported by the Strategic Purchasing Office of the Health Bureau. Upon completing my six-year term and stepping down after my last steering committee meeting on 18 Apr 2024, I am pleased with the appointment of Professor Ian Wong, Professor of Department of Pharmacology and Pharmacy at the University of Hong Kong, as the member of the Primary Healthcare committee, to represent the pharmacy profession and assist the Commission in performing its functions.

CONCLUSION

The Primary Healthcare Blueprint serves as a strategic roadmap for the future development of primary healthcare in Hong Kong. The PHC Commission is actively implementing the Blueprint's recommendations. With the leadership from Professor Wong and the support from the pharmacy profession, I am confident in the future development of community pharmacy in Hong Kong primary healthcare system.

Author's background

CHIU, Philip Kwok Leung *graduated with Bachelor of Pharmacy Degree from The Chinese University of Hong Kong. He then obtained a Master Degree in Community Pharmacy from Queen's University Belfast, UK. He is currently the Head of Professional Service of Dairy Farm Retail Group. His email is Philip.chiu@dfiretail.group.com, telephone (852) 2299 3229.*

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Introduction to Jockey Club PHARM+ Community Medication Service Network Project

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About the Project

The Hong Kong Jockey Club Charities Trust has initiated and funded the Jockey Club PHARM+ Community Medication Service Network (the Project) for five years with approved funding of over HK$415 million. Starting in 2024, the Project will establish Community Pharmacies in multiple districts to provide accessible and affordable dispensing services. It will provide medication consultation, advice on chronic diseases and minor ailments, and promote health literacy and safe use of medication. The Project is expected to serve over 110,000 individuals in need and provide training to over 5,400 professionals, including pharmacists, pharmacy students and relevant healthcare service providers within five years. It will organise public education activities to enhance public knowledge of proper medication use and raise awareness of public health. The Project's community-based medication service network will form the first line of defence in disease management to help to build a healthier community.

To achieve its aims, the Project has collaborative partners including The University of Hong Kong, The Chinese University of Hong Kong, and eight non-governmental organisations, namely Aberdeen Kai-fong Welfare Association Limited, Health In Action Limited, Haven of Hope Christian Service, Hong Kong Sheng Kung Hui Welfare Council Limited, Hong Kong Young Women's Christian Association, The Lok Sin Tong Benevolent Society, Kowloon, Pok Oi Hospital and St. James' Settlement.

Led by The University of Hong Kong and in collaboration with non-governmental organisations, the Project is committed to developing operational guidelines for Community Pharmacies, evaluating project effectiveness and promoting professional development to ensure service quality, efficiency, and consistency.

Project Objectives

- Establish Community Pharmacies to provide accessible and affordable medication support to the public, easing the economic pressures on patients in need of medication support
- Provide medication management services and offer timely support to patients and their caregivers through the development of personalised health and medication management plans tailored to individual needs
- Provide advice on health and minor ailment management, offer guidance on the use of over-the-counter medications, provide lifestyle recommendations, and make medical referrals to suitable healthcare resources when necessary
- Promote health literacy on proper medication use and chronic disease management and raise awareness on public health

What services are provided in the network community pharmacy under the Project?

The Project provides personalised medication consultation, dispensing service and referral to other

healthcare resources to support patients with chronic diseases and minor ailments. The network community pharmacies will provide:

Medication Management Services

It is a person-centered community pharmacist-led service in optimising patient's medication use and improving health outcome by focusing and reviewing on the accessibility, appropriateness, effectiveness, safety and adherence of the medication therapy.

The service aims to:

- Empower patients and/or their caregivers with better knowledge and literacy in self-management, health-related decision-making and health promotion
- To optimize and review the accessibility, appropriateness, effectiveness, safety and adherence of medication therapy of the patients
- To support patients and/or their caregivers in a holistic healthcare approach (e.g. addressing psychosocial concerns of individuals) through better utilization of other community resources

Community pharmacists help to handle enquiries and resolve difficulties in medication management, for example:

- Effectiveness and side effects of medications
- How to manage adverse drug reaction
- Tips on proper use of medications
- Consolidate medication history
- Potential drug interaction
- How to manage missing of dose
- How to schedule time to take the medications
- Whether medications be cut or crushed
- How to store the medications
- How to handle expired medications
- How to make good use of pill box and technology for health management

Self-Care & Minor Ailment Service

Minor ailments are generally defined as non-complicated medical conditions that can be reasonably self-diagnosed and self-managed with over-the-counter medications. With the support of community pharmacists, professional and reliable health advice can be provided to facilitate the management of these conditions.

The service aims to provide easily accessible, timely and affordable healthcare services for individuals with common and self-limiting health conditions, including individualized advice on use of over-the-counter medications and lifestyle modifications. It also aims to facilitate early detection and referral of conditions requiring further medical attention or support from other professionals.

The common health conditions encountered in community pharmacy:

Categories	Examples
Gastro-intestinal Discomfort	Indigestion, heartburn, bloating, gastric reflux, constipation, diarrhea, hemorrhoid
Respiratory Tract Infections	Cold and flu symptoms such as fever, headache, sore throat, cough, runny nose, blocked nose
Nasal Cavity Discomfort	Allergy symptoms such as itchy nose, runny nose, blocked nose, sneeze
Eye Discomfort	Dry eyes, red eyes, itchy eyes, eyelid inflammation, stye
Oral Health	Mouth ulcers, gum inflammation, cold sore
Women's Health	Vaginal thrush
Skin Conditions	Athletes foot, ringworm, fungal nail infections, scalp conditions, acne, eczema, dry skin, contact dermatitis, insect bites, verrucas
Pain	Back pain, joint pain, muscle pain

Community Dispensing Service

In addition to providing reliable and affordable prescription medications to the public (including self-finance items from the Hospital Authority), over-the-counter medications and health supplies, pharmacists also assess the individual needs of the public and provide medication and health advice to help them manage minor ailment, chronic conditions, and medication usage. This enhances self-care capacity and medication safety.

Community dispensing service usually does not require appointments. Individuals can visit the pharmacy during designated opening hours without prior arrangement, or contact the pharmacy via phone to inquire about service details or confirm medication availability.

Community pharmacy provides a variety of medications and health supplies to meet the needs of different individuals in the community. Pharmacists may also offer professional advice based on individual circumstances:

- Prescription-only medications
- Over-the-counter medications (including medications to be dispensed with or without the supervision of pharmacists)
- Travel medication kits or home medications
- Smoking cessation products
- Nutritional products

- Skin care products
- Wound care and first aid products
- Medical compression stocking
- Medical devices, such as blood pressure monitors and blood glucose meters
- Diagnostic aids

Service Network Partners

There are 8 network pharmacy services providers under the Project:

- **A-Lively Community Pharmacy**
  Address: Store No. 114, G/F, Wah On House, Wah Fu Estate, Aberdeen
  Phone number: 35505460
- **Health In Action Community Pharmacy**
  Address: Room 901, Millennium Trade Centre, 54-56 Kwai Cheong Road, Kwai Chung
  Phone number: 36129515
- **PHARM+ Haven of Hope Community Pharmacy**
  Address: Shop No. G32, Ground Floor, MCP Discovery, 8 Mau Yip Road, Tseung Kwan O
  Phone number: 21562280
- **PHARM+ Hong Kong Sheng Kung Hui Community Pharmacy**
  Address: Shop 3, Cheung Ying Alley, 110 Lung Cheung Road, Wong Tai Sin
  Phone number: 21160382
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Jockey Club PHARM+ Community Medication Service Network - Roundtable Meeting on Community Pharmacy Good Practice Alignment

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INTRODUCTION

In the Jockey Club PHARM+ Community Medication Service Network Project, the Department of Pharmacology and Pharmacy, The University of Hong Kong (HKU) is committed to develop operational guidelines for community pharmacy, evaluate project effectiveness and promote professional development to ensure service quality, efficiency and consistence. Taking a leading role in fostering the establishment of primary care pharmacy model, HKU creates a network among providers of community pharmacy services to foster knowledge exchange, collaborative learning and stakeholder engagement. Regular roundtable meetings are organised for different stakeholders to exchange ideas and resources on service delivery, interprofessional collaboration and medication safety.

Organised by HKU, Roundtable Meeting on Community Pharmacy Good Practice Alignment (the Roundtable) was successfully held online on 6th September 2024. Bringing together frontline pharmacists and key stakeholders in the industry to discuss and explore better pharmacy practices in the community, this meeting aims to:

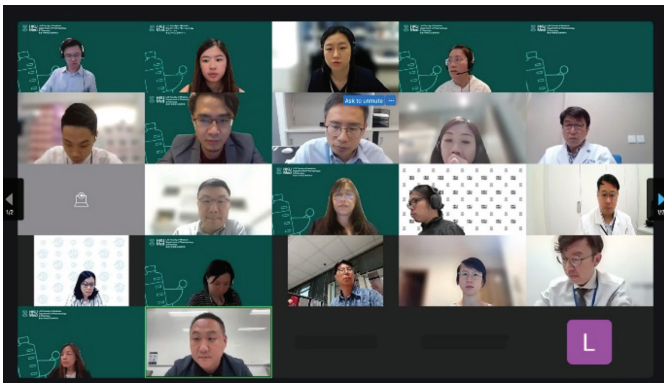
- Identify common operational challenges faced by community pharmacies and discuss good practice to overcome them
- Discuss successful and effective strategies for improving medication safety and practice in community pharmacy
- Foster good practice alignment in operation of community pharmacy

The meeting has invited guest speakers and participants from non-governmental organisation (NGO) pharmacies, chain pharmacies and district health centres. During the roundtable meeting, HKU shared findings of pre-event survey and several frontline community pharmacists shared their experience and practice in different areas of a community pharmacy:

- Labelling of the dispensed medicines
- Handling of prescription
- Record keeping

During the event, speakers and the participants contributed valuable opinions and exchanged ideas through the group discussion sessions.

This report presents key insights and significant consensus made in the Roundtable Meeting regarding alignment of good pharmacy practice.



KEY INSIGHT AND CONSENSUS

Good Practice on Labelling of Dispensed Medicines

Current Challenge

The essential requirement for labelling of dispensed medicines is set in the Code of Practice for Authorized Seller of Poisons (the Code), which provides the information to be printed on the drug labels. However, currently there is no reference or guidance on how the information can be presented to the patient. For example, one may refer to a medication by its generic name, while another may use the brand name. This inconsistency can cause confusion when transferring patients between healthcare settings, leading to errors in medication administration or documentation. Another common aspect is precautionary statement. One medication label may use “Do not crush” to indicate that the medication should not be crushed before administration, while another label may use the phrase “Swallow whole” to convey the same precautionary information.

Standardising drug labelling across the industry is significant in terms of communication and quality assurance. This facilitates clear and effective communication between different healthcare providers and patients. When community pharmacies use similar labelling format and terminology, there is less room for misunderstandings or errors in medication management. In the meantime, consistent drug labelling standards could promote uniformity and accuracy in medication management practice.

Key Insights

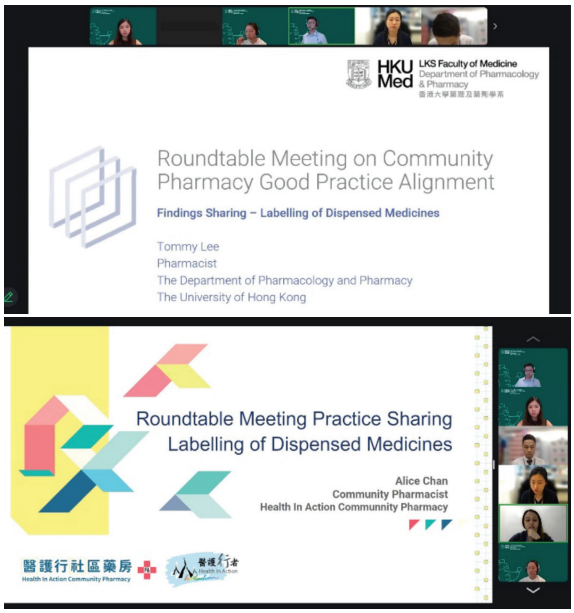
- Displaying legal classification of the medicines on the drug label can better educate the public about proper drug access in the community. For example:

Legal Classification	English Wordings	Chinese Wordings
Part 1 Third Schedule Poisons	Prescription Drug	處方藥物
Part 1 Poisons, Part 1 First Schedule Poisons	Drug Under Supervised Sales	監督售賣藥物

- Precautionary statements are significant information on drug labels to ensure medication safety. To enhance the readability and understandings of the precautionary statement in layman's terms, concerted efforts among the pharmacy professional should be made to establish a common reference so that individual pharmacies could adopt and prepare a tailor-made precautionary list for their own use.
- The development of precautionary statements can be based on some tertiary reference such as British National Formulary and Lexicomp, and product insert.
- The following suggestions are good features for labelling of dispensed medicines:
  - o The labels should be printed with single language, for example, Chinese or English, to fit the needs of the clients
  - o Maximise the font size of the words
  - o Given limited space on the labels, additional information can be supplemented by corresponding leaflets or other resources

The Way Forward

- Developing Community Pharmacy Operation Manual that outlines the standards and guidelines of a community pharmacy in Hong Kong, HKU serves to drive the collaborative change and establish knowledge that transform pharmacy practice. The consensus and good practice on labelling made during the Roundtable will be incorporated into the development of Community Pharmacy Operation Manual.



Good Practice on Dispensing Against Prescription

Current Challenge

Community dispensing service is one of the crucial elements in the primary care pharmacy model. Dispensing against prescription requires diligence and care in reviewing, assembling, checking and recording of prescription. Frontline pharmacists reflected that generic substitution, expiry of prescription and communication with prescribers were the major challenges faced by them during daily operation.

While the Code stated that where a prescriber specifies a particular branded product on the prescription, the registered pharmacist is required to dispense the product specified. Pharmacists cannot supply a different equivalent brand without consulting prescriber, however, there is grey area about the method of consultation with prescriber. It is not uncommon that the patients would like to use generic drugs and the prescribers has no concerns, unfortunately it is often that prescription of brand drug is written unintentionally. This becomes hurdles for frontline pharmacists that they have no choice but to reject dispensing of generic drugs.

At the same time, pharmacists might discover some clinical problems while reviewing the prescription, unfortunately there is no established mechanism for pharmacists to communicate with prescribers.

Generic Substitution for Prescription

- Patient interest and willingness are always the priority. Given that the patient is willing to use generic drug, pharmacist shall consult the prescriber before supplying a different equivalent brand to the patient, if that is not specified on the prescription.

This suggestion does not apply to prescription of dangerous drugs.

- Consulting prescriber can be achieved through any forms of communication such as phone call, email and fax. Appropriate documentation of the communication should be made on the prescription.
- The documentation might include:
  - Who to confirm with?
  - When does confirmation be done?
  - How to consult with prescriber?
  - What has been confirmed?
  - Which pharmacist confirms the substitution arrangement?
- Examples of proper documentation:

Scenario	Example
Directly consult with prescriber	c/w *(Prescriber Name)* on *(Date and Time)* via *(Communication Channel e.g. phone call)*, that generic substitution is allowed. By *(Pharmacist Name)* *(Signature of Pharmacist)*

- Appropriate documentation (e.g. intervention letter) should be sent to the prescriber as well to ensure such information is well-documented in the prescriber setting.

Expiry of Prescription

- Although the statutory requirements do not highlight the expiry of a prescription, it is agreed that the expiry date should be taken into account for checking validity of a prescription, which is based on the prescribed period and clinical judgement.
- In general, if there is no relevant statement or instruction regarding expiry on prescription, the prescribed duration and prescribing date shall conclude the validity of the prescription.
- For prescriptions issued by Hospital Authority (HA), specifically the self-financed items (SFIs), there is a statement 'This prescription is only valid for one month from the date of issue'. The statement brings ambiguity to the community pharmacies when the patient comes late for purchasing. Reasons of purchasing drugs late are discussed and summarised below:
  - Patients have own stock on hand and only purchase when the drugs are running out of stock at home
  - Drugs has been received from private clinics or hospital earlier, hence delay the time to use HA SFI prescription
  - Poor compliance leads to overstocking of the drugs at home
  - Hospitalisation during the prescribed period with supply of the SFI drugs leads to accumulation home stock
- Given the long follow up period in some specialty in Hospital Authority, separate dispensing might be necessary as the expiry date of drugs may not be long enough to cover the entire prescribing period. The statement about validity of prescription confuses the community pharmacy and patient.
- The overdue HA SFI prescription does not necessarily imply that the patient is not clinically suitable for the drug. Instead, with clinical judgement of pharmacists and evidence from the patient, pharmacists shall dispense the drug if it deems appropriate for the sake of patient safety.
- To dispense an overdue, yet within the validity, HA SFI prescription, the following practices are suggested:
  - Review the medication history of patients from eHealth and/ or HA Go to ensure that there are no changes recently regarding the corresponding drug and learn about the follow-up date of the corresponding specialty.
  - Based on the professional judgment, drugs can be dispensed to patients according to the instructions from prescriber
  - Appropriate documentation should be made on the prescription. Information includes:
    - When does the decision be made? (Date and Time)
    - What is the decision made?
    - What has been noticed and reviewed?
    - Which pharmacist confirms?
    - Signature of the corresponding pharmacist
  - Examples of proper documentation:

Scenario	Example
Overdue, yet within the validity, HA SFI prescription	c/w *(name of prescriber)* or checked *(eHealth/ HA Go)* and drug of sufficient quantity is dispensed based on instruction from prescriber. By *(Pharmacist Name)* *(Signature of Pharmacist)*

Amendment of Prescription and Pharmacist Intervention on Prescription

- In addition to checking statutory requirements of a prescription, pharmacists also review the clinical appropriateness upon receiving the prescription. The following situations are occasionally encountered:
  - Inappropriate dose
  - Inappropriate dosage form
  - Inappropriate frequency
  - Inappropriate treatment regimen (e.g. stepping up, stepping down)
  - Inappropriate drug choice
  - Missing drugs
- Patient's safety is always the primary focus of the process of medicine dispensing upon a prescription. Pharmacist intervention is of uttermost importance to safeguard the patient's health conditions. It is

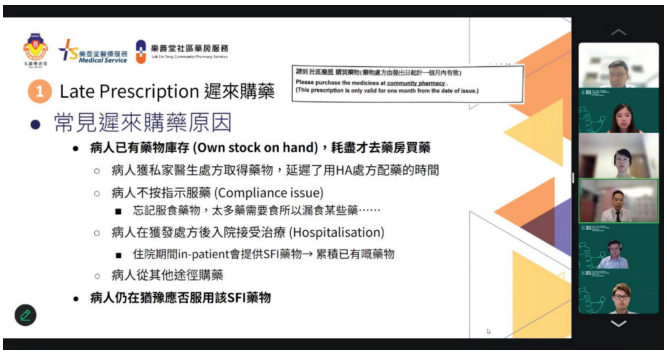
encouraged that pharmacists go the extra mile in resolving the medication therapy problems identified in the prescription, apart from solely reverting the patient back to the prescriber for further follow-up.

- Effective communication with prescribers is the key to success for pharmacist interventions. There are often challenges for community pharmacists to reach out to the prescribers as they are not working under the same healthcare units, especially doctors working in Hospital Authority. Meanwhile, proper documentation of the dialogue and consensus between community pharmacists and prescribers is difficult as there is no shared system or platform, which might pose negative impacts on the accuracy of the clinical documentation.
- Understanding that limitations exist currently, the following suggestions, which is not applicable to prescription of dangerous drugs, are made in the Roundtable:
  - o Classify the potential medication therapy problem identified in the prescription according to the severity on patient's safety and respond as follows:

Severity on Patient's Safety	Example	Action
Minor	• Spelling mistake of the drug name • Overseas brand-name drug of which active ingredient is available in Hong Kong	1. Communicate with prescriber via any form of communication (e.g. phone conversations, email) to confirm the right drug to be dispensed. 2. Make appropriate documentation on the prescription for the intervention: • Who to confirm with? • What has been reviewed and confirmed? • Who confirm it? • Signature of the corresponding pharmacist • When does the confirmation be made?
Major	• Inappropriate dosage • Inappropriate frequency • Inappropriate regimen	1. Communicate with prescriber verbally. 2. Based on the discussion with prescriber, either: • Pharmacy informs the doctor to reach out to the patient and issue a new prescription to him/her; or • Prescriber sends a copy of amended prescription to the pharmacy via telecommunication (e.g. instant message, email) and pharmacist attaches it to the original copy of the prescription as a supporting document; or • Prescriber sends an original copy of amended prescriptions via mail to the pharmacy so that the pharmacy can dispense accordingly.

The Way Forward

- Resources can be made available to the community pharmacy to facilitate appropriate documentation of intervention. HKU will develop relevant templates such as intervention letters which respective community pharmacy could take reference from.
- Ensuring patient's safety is the primary focus of the process of medicine dispensing upon a prescription. The better the layout and composition of a prescription, the more efficient the community pharmacy can dispense against prescription. The format of HA SFI prescription (e.g. the statements on 1-month validity and generic substitution) could be further reviewed and improved to suite the latest practice in community pharmacy. Playing an indispensable role in connecting the community pharmacy sector and HA, HKU serves to lead and reinforce communication with HA.
- The consensus and good practice on handling prescription during the Roundtable will be incorporated into the development of Community Pharmacy Operation Manual.
- Strengthening communication between community pharmacy and prescriber is important. Establishing a communication platform or mechanism will be crucial and further exploration is needed.



Good Practice on Record Keeping

Current Challenges

Traditionally pharmacy-related records such as Prescription Book and Poison Book are kept as hard copies in a handwritten manner. On the one hand this is not efficient in operation, especially when handling large volumes of dispensing services, and on the other hand the handwritten records are difficult to trace, search and review. There is certainly ambiguity regarding how to conduct proper recordkeeping as the Code only mentions what is to be recorded and the duration of recordkeeping. Whether electronic recordkeeping is allowed remains unclear to the community pharmacy.

Key Insights

- Digitalisation of pharmacy-related records is highly encouraged.

- A phase-by-phase approach is suggested for digitalisation of pharmacy-related records. Prescription Book and Poison Book could be piloted in the first place.
- Eletronic record could be accessed via an electronic system, or a file stored in the local drive of the computer of the community pharmacy. A printed record can also be kept physically in the community pharmacy. This could streamline the dispensing process and enhance the accuracy and traceability of the record. Both electronic records and printed records should be made readily available for inspection by the Department of Health.
- The printed record could be made available at a designated time point (e.g. every day or every week). Related personnel shall then sign and date on the printed record.
- Information technology security is a key to driving the advancement of digitalisation of pharmacy-related records. The following aspects are identified for further review and discussion:
  - o Access control
  - o Audit trail
  - o Protection of personal privacy

The Way Forward

- It is promising that digitalisation of record keeping will be the mainstream practice. More information regarding IT security is needed to support the implementation of digitalisation of pharmacy-related records.

SUMMARY

The Roundtable showcases the importance of collaboration, knowledge sharing, and continuous improvement in community pharmacy practice. Fostering the establishment of primary care pharmacy model in Hong Kong, HKU will continue creating networking opportunity among providers of community pharmacy services to enhance the service quality through concerted efforts.

Author's background
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HKUMed Launches Hong Kong's First University Community Pharmacy To Advance Primary Healthcare

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The HKUMed Community Pharmacy, the first community pharmacy established by a local university, under the Department of Pharmacology and Pharmacy of the LKS Faculty of Medicine, the University of Hong Kong (HKUMed), has commenced operation on 11 November, 2024. It is situated in the HKUMed Academic Building on 3 Sassoon Road, adjacent to Queen Mary Hospital. Managed by the Department's pharmacists, the Community Pharmacy serves as a platform for interprofessional healthcare services and research. Providing comprehensive primary healthcare services and complying with the 'prevention-oriented and community-based' strategies, it will strengthen primary healthcare services in Hong Kong and empower the public to get involved in self-health management.

Grand Launching Ceremony with Officiating Guests

The grand opening ceremony was officiated by Dr Libby Lee Ha-yun, Under Secretary for Health, the Health Bureau, HKSAR Government; Dr Donald Li Kwok-tung, Chairman of the Elderly Commission; Dr Manny Lam Man-chung, Acting Assistant Director (Elderly Health), Department of Health; Dr Pang Fei-chau, Commissioner for Primary Healthcare, the Health Bureau; Professor Chak-sing Lau, Vice-President & Pro-Vice-Chancellor (Health) and Dean of Medicine, HKU; and Professor Ian Wong Chi-kei, from the Department of Pharmacology and Pharmacy, HKUMed. The officiating guests and other representatives from Health Bureau and HKU also visited the pharmacy.

***Photo 1**. Grand opening cermony with officiating guests*

***Photo 2**. Guests visit HKUmed community pharmacy*

Role of HKUMed Community Pharmacy in pharmacy education, research and services

The HKUMed Community Pharmacy aims to establish a sustainable operational model that integrates interprofessional teaching, research and services, while strengthening the role of pharmacists in community and primary healthcare and alleviating the burden on hospitals and the entire healthcare

system. The initiative is one of the core development strategies of HKUMed's Comprehensive Primary Healthcare Collaboratory.

Establishing community pharmacies was a pivotal initiative in the 2024 Policy Address on primary healthcare development. This innovative project will serve as a key platform for primary healthcare education and provide the community with comprehensive health-related services, including disease prevention, chronic disease and minor ailment management, medication consultation, care and treatment, which in turn, will empower the public to manage their own health and prevent diseases. Pharmacists at the HKUMed Community Pharmacy will enhance medication compliance through consultation, provide personalised medication counselling, and monitor and collect data on adverse drug reactions and effectiveness as part of their drug dispensing and reconciliation service for the reference of family doctors. They can also provide data and expert opinions in collaborative research and facilitate research on related diseases.

Professor Ian Wong Chi-kei said, 'Through establishing the HKUMed Community Pharmacy, we aim to extend our interprofessional education programmes to more community pharmacies and District Health Centres (DHCs), setting a benchmark for future primary healthcare education and services. To align with the government's community pharmacy programme in the 2024 Policy Address, based on the treatment plan set by doctors, pharmacists can evaluate their prescribing patterns and patients' use of medication and collaborate with DHCs in developing a community drug formulary. By sharing practical experience and insights with allied healthcare professionals, pharmacists can drive further interprofessional cooperation, leading primary healthcare services and education to scale new heights.'

Interprofessional Education Model at the Pharmacy

Through its pioneering Interprofessional Education (IPE) Model, HKUMed is committed to nurturing students with diverse knowledge and skills. The HKUMed Community Pharmacy provides a novel environment for pharmacy students to engage in practice and learning. Led by the Department of Pharmacology and Pharmacy, this IPE model seeks to strengthen collaboration with the School of Clinical Medicine and the School of Nursing, enhancing students' clinical skills and interprofessional collaboration, thus enabling them to excel in primary healthcare services.

Author's background

Cynthia Wu *obtained her Bachelor of Pharmacy (BPharm), then further completed her Master of Clinical Pharmacy at the University of Hong Kong (HKU). With her past experience in running a non-profit making community pharmacy and her passion in teaching, Cynthia has led her team of pharmacy student assistants in establishing the first university campus teaching community pharmacy, HKUMed Community Pharmacy. The pharmacy is located on the Sassoon Road campus as an on-site teaching community pharmacy. Not only is it the dedicated teaching site for pharmacy students but is also an in-house training site for interprofessional education programme with other curricula under the LKS Faculty of Medicine. Collaborating with healthcare professionals from the HKU Health System Clinical Centre, Cynthia will be building innovative interdisciplinary service models to pioneer primary healthcare teaching and research at HKU. Her email address: cynwsy@hku.hk*

Structural Consultation Skills of Hong Kong Pharmacists in Primary Care Setting

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ABSTRACT

Pharmacists play a crucial role in primary care settings by providing critical healthcare services, including medication management, patient education, and self-care empowerment. However, there is a lack of standardized consultation models intended for pharmacists in Hong Kong's primary care settings. This article evaluates eight major consultation models for their suitability in primary care pharmacy settings using the PharmaCAT assessment tool. Models like the Calgary-Cambridge guide and Pendleton method, which provide comprehensive and patient-centered consultation, are potentially suitable. Additionally, question-asking skills acronyms from Canadian models, such as WWHAM and QuEST-SCHOLAR, are discussed. The article suggests developing a hybrid consultation model combining elements from various models to enhance primary care pharmacist consultations in Hong Kong.

Keywords: *Consultation models, PharmaCAT, Pharmacy practice, Primary health care, Question-asking skills*

INTRODUCTION

Pharmacists play a crucial role in primary care settings by providing critical healthcare services, including medication management, patient education, and self-care empowerment. The effectiveness and safety of healthcare interventions are directly influenced by the quality of pharmacist-patient interactions. There is a lack of standardized consultation models intended for pharmacists in Hong Kong's primary care settings. As a result, consultations are frequently unstructured, potentially resulting in the omission of questions aiding differential diagnosis and treatment decisions. The definition of consultations varies between professionals. In pharmacy consultations, the two major directions are gathering information from patients and giving recommendations according to patients' conditions. Currently, there is no study evaluating the consultation performance of community pharmacists in Hong Kong. In a study from Australia about the response to complaints of insomnia, most pharmacists were scored poorly in asking questions prior to supply. Pharmacists had very low scores in asking sleep-specific questions.[1] Some suggest that a guided algorithm or clinical practice guideline for pharmacists are needed to improve consultation.[2,3]

In contrast to Hong Kong, many foreign countries have successfully implemented consultation models for pharmacists in primary care settings. These models have demonstrated improved consistency in consultations and enhanced patient outcomes. The adoption of a clearly defined consultation model could direct the consultation flow, ensuring that no significant information is overlooked during the process of differential diagnosis and treatment decision-making.

The purpose of this literature review is to investigate the need for primary care settings to employ a consultation model that has been tailored for Hong Kong pharmacists. Their potential influences on consultation quality and patient care outcomes will be discussed by evaluating their advantages, limitations, and feasibility in Hong Kong.

METHODOLOGY

Since there is no commonly used consultation model in Hong Kong, this study investigated and discussed overseas models from the United Kingdom (UK) and Canada. The aim is to identify a suitable consultation model or blend components from various models to enhance the quality of pharmacy consultations in Hong Kong's primary care settings.

The PharmaCAT assessment tool, which was developed by modifying the 'Royal College of General Practitioners' Video Assessment Tool,[4,5] was used to evaluate the consultation models. A set of 12 evaluation criteria were chosen and modified to fit the context of pharmacist consultations in Hong Kong.

Eight consultation models recommended by the Centre for Pharmacy Postgraduate Education (CPPE) of UK were evaluated.[6] These models include the bio-medical model, Balint theory, transactional analysis model, anthropological model, Calgary-Cambridge guide, the Pendleton method, Roger Neighbour's inner consultation model, and also the BARD model. Each model was subjected to the PharmaCAT assessment tool to determine its features, advantages, and disadvantages.

In addition to comparing the models, this study provided a brief introduction and discussed the practical toolkits of the UK and Canadian models.[7] The findings were contextualized with regard to the challenges faced by pharmacists at Hong Kong. Recommendations were made for potential adjustments or adaptations to fit the regional healthcare system and cultural considerations.

RESULTS

All 8 models were assessed by the 12 criteria in PharmaCAT as shown in **Table 1**. Among these, a high degree of similarity in consultation flow while performing differential diagnoses and making treatment decisions was discovered. All consultation models, except the Balint Theory, provide pharmacists with a structured approach to gather information from patients for differential diagnosis while encouraging patient participation. BARD, Roger Neighbour's Inner Consultation and Pendleton method fulfils all 12 requirements, while the Calgary-Cambridge guide fulfils 9, and the anthropological model and transactional analysis model fulfils 7 requirements. The Balint Theory and bio-medical model fulfils 4 and 3 requirements respectively.

The bio-medical model consists of history taking, physical examination and laboratory testing before diagnosis and treatment.[8] It considers history taking on its own as sufficient to determine the cause. It focuses on the physical characteristics of the patient but not the psychological and social factors. This model is effective in acute settings that need quick decision making. However, it has significant limitations as it ignores the psychological and social aspects of patient care.

The Balint theory is not a structured model or framework but rather a collection of ideas about the consultation process. It emphasizes the importance of the healthcare professional-patient relationship and the psychological aspects of patient care. Key concepts include:[9]

- the importance of attentive listening,
- recognizing the "hidden agenda" behind a patient's initial complaint,
- being aware of physical complaints that may result from emotional distress,
- viewing the consultation itself as a therapeutic tool, and
- suggesting the use of long consultation.

While this approach helps healthcare professionals connect and empathize with patients, it requires more

Table 1. Comparison of the eight models suggested by CPPE using PharmaCAT.

Severity on Patient's Safety	Bio-medical Model	Balint Theory	Transactional Analysis Model	Anthropological Model	Calgary-Cambridge Guide	Pendleton (Method)	Roger Neighbour's Inner Consultation	BARD
1. Encouraging patient contribution	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
2. Using psychological and social information	No	Yes	Yes	Yes	Yes	Yes	Yes	Yes
3. Exploring patient's health understanding	No	Yes	Yes	Yes	Yes	Yes	Yes	Yes
4. Establishing clinical reason and assessment	Yes	No	Yes	Yes	Yes	Yes	Yes	Yes
5. Obtaining information for new diagnoses	Yes	No	Yes	Yes	Yes	Yes	Yes	Yes
6. Explaining clinical condition in appropriate language	No	No	Yes	Yes	Yes	Yes	Yes	Yes
7. Incorporating patient's health beliefs	No	Yes	Yes	Yes	Yes	Yes	Yes	Yes
8. Developing appropriate management plan	No	No	No	No	Yes	Yes	Yes	Yes
9. Involving patient in management decisions	No	No	No	No	Yes	Yes	Yes	Yes
10. Confirming patient's understanding of diagnosis	No	No	No	No	No	Yes	Yes	Yes
11. Enhancing compliance and adherence	No	No	No	No	No	Yes	Yes	Yes
12. Specifying follow-up or review conditions	No	No	No	No	No	Yes	Yes	Yes

time and specialized skills to implement effectively and may be less practical in fast-paced environments.

The transactional analysis model categorizes interactions into three roles: parent, adult, and child. The "parent" role is authoritative and nurturing, often giving instructions or advice. The "child" role is more emotional and reactive, expressing feelings and needs. The "adult" role is rational and objective, focusing on facts and problem-solving.[10] This model reminds pharmacists that effective communication happens when both the healthcare professional and the patient interact from the "adult" role, ensuring a respectful and cooperative exchange. This model helps improve understanding and reduce conflicts but requires awareness and adaptability to apply consistently.

The anthropological model in pharmacy consultation is about understanding the patient's cultural and social background to better understand their health beliefs and behaviors.[11] It encourages pharmacists to be aware of their own biases and to respect the patient's views and experiences. This helps in providing care that is more personalized and sensitive to the patient's cultural context.

A consultation is considered satisfactory if the pharmacist can answer the following questions:

- What has happened?
- Why has it happened?
- Why has it happened to me?
- Why has it happened now?
- What would happen if nothing was done?
- What should I do about it?
- Who should I consult for further help?

The Calgary-Cambridge guide emphasizes effective communication and comprehensive patient care through five stages:[12]

1. **Initiating the session**: Prepare, introduce, establish rapport, identify reasons for consultation.
2. **Gathering information**: Explore problems, elicit the patient's perspective.
3. **Physical examination**: Conduct if necessary.
4. **Explanation and planning**: Provide information, check understanding, develop an action plan.
5. **Closing the session**: Summarize, agree on a plan, safety-netting (e.g. when to have follow up or seek emergency help).

Verbal and non-verbal skills are essential at each stage. The guide is based on extensive research from fields such as psychology and medicine. These stages help pharmacists conduct thorough consultations covering all aspects of patient care, though mastering them may require additional training and practice.

When eliciting the patient's perspective, the **ICE (Ideas, Concerns, Expectations)** acronym can be applied:

- **Ideas**: "What do you think is causing your symptoms?"
- **Concerns**: "Is there anything in particular that worries you about your symptoms?"
- **Expectations**: "What do you hope to achieve from this consultation?"

The ICE approach can also be used to explore perception on medication treatment before providing information on the medication, assisting pharmacist to screen for misconception and address concerns.

The Pendleton method outlines seven tasks for pharmacists to complete during consultations.[13] Widely used in pharmacy training, it helps pharmacists use time and resources effectively while involving patients to achieve a shared understanding. This method fosters strong patient connections.

Pendleton's Framework:

- Discover the reason for attendance
- Consider other problems
- Choose an appropriate action
- Achieve a shared understanding
- Involve the patient in management
- Use time and resources appropriately
- Establish or maintain a relationship

Roger Neighbour's Inner Consultation model outlines five key steps that pharmacists should follow during a consultation to ensure effective communication and patient care. These steps are:[14]

1. **Connecting**: Establishing a rapport with the patient to create a comfortable and trusting environment.
2. **Summarizing**: Recapping the patient's concerns and the information discussed to ensure mutual understanding.
3. **Handing Over**: Sharing the management plan with the patient, ensuring they understand and agree with the proposed actions.
4. **Safety Netting**: Providing advice on what to do if things do not go as planned, including when and how to seek further help.
5. **Housekeeping**: Reflecting on the consultation to manage personal emotions, thoughts, and behaviours, ensuring self-care and continuous improvement.

The BARD model is a structured approach to communication that stands for Background, Assessment, Recommendation, and Decision. It helps clarify problems and provide evidence-based solutions, facilitating decision-making. This model enhances clear and concise communication between pharmacists, patients, and other healthcare professionals.[15]

BARD:

- **Background**: Provide context and relevant information.
- **Assessment**: Analyse the situation or problem.
- **Recommendation**: Offer evidence-based solutions.
- **Decision**: Agree on the next steps and actions.

QUESTIONING SKILLS IN CANADIAN AND UK CONSULTATION MODELS

Effective questioning is a cornerstone of pharmacy consultations, enabling pharmacists to gather comprehensive information and provide appropriate care. Yet, the above models do not discuss the details on the skills. Several Canadian models offer structured approaches to questioning, each with unique strengths.[7]

WWHAM:[7]
The WWHAM model is a straightforward mnemonic that helps pharmacists quickly gather essential information:

- **Who is it for?**
- **What are the symptoms?**
- **How long have the symptoms been present?**
- **Action already taken?**
- **Medication being taken?**

This model ensures that pharmacists obtain a clear understanding of the patient's condition and any prior actions taken, which is crucial for making informed recommendations.

QuEST:[7]
The QuEST model provides a more detailed framework for assessing and managing patient care:

- **Quickly and accurately assess the patient**: This involves asking about the current complaint using the **SCHOLAR** method (mentioned below), as well as inquiring about **HAM**
  - Medical **H**istory,
  - **A**llergies, and
  - other **M**edications or products (e.g. herbal and supplements) being used.
- **Establish that the patient is an appropriate self-care candidate**: Ensure there are no severe symptoms, persistent or recurrent symptoms without an identifiable cause.
- **Suggest appropriate self-care strategies**: Recommend suitable medications and/ or general care measures, like lifestyle modification.
- **Talk with the patient**: Discuss medication action, administration, adverse effects, expected outcomes, and appropriate follow-up.

SCHOLAR:[7]
The SCHOLAR method is integrated within the QuEST model to delve deeper into the patient's symptoms:

- **Symptoms**: What are the main symptoms?
- **Characteristics**: What are the symptoms like?
- **History**: What has been done so far? Has this happened in the past?
- **Onset**: When did it start?
- **Location**: Where is the problem?
- **Aggravating factors**: What makes it worse?
- **Remitting factors**: What makes it better?

Additional Considerations:
Incorporating elements from the CPPE guidelines from UK,[6] it is important to ask about recent changes in the patient's lifestyle, such as sleep, diet, tobacco, alcohol, exercise and medications. These factors can be critical in identifying underlying causes and risk factors for the patient's complaint.

DISCUSSION

The evaluation of the eight consultation models highlights their unique strengths and the potential for a complementary approach in Hong Kong's primary care settings. Given the challenges of rising demand for health services, staffing and resource constraints, and stringent pharmaceutical product regulations, it is crucial to adopt models that enhance the quality and safety of pharmacy practice.

In fast-paced environments, models like WWHAM and QuEST-SCHOLAR are particularly effective. These models provide structured frameworks for quickly gathering essential information, ensuring that no critical details are missed. This is vital in Hong Kong's busy healthcare settings, where pharmacists must make swift, informed decisions, especially during over-the-counter (OTC) recommendation at community pharmacy.

- **WWHAM** focuses on key questions to quickly assess the patient's condition.
- **QuEST-SCHOLAR** offers a detailed approach to patient assessment and management, integrating comprehensive questioning techniques.

For more thorough consultations, like during medication management services (MMS) at pharmacy or district health centre, models such as the **Anthropological Model, Calgary-Cambridge Guide**, and **Pendleton Method** are more suitable. These models emphasize understanding the patient's cultural and social background, effective communication, and patient involvement in the consultation process.

- The **Anthropological Model** helps pharmacists provide culturally sensitive care by considering the patient's background and health beliefs.
- The **Calgary-Cambridge Guide** ensures comprehensive patient care through its structured stages, promoting effective communication and thorough information gathering.
- The **Pendleton Method** involves patients in the decision-making process, fostering a shared understanding and strong patient-pharmacist relationships.

CONCLUSION

The eight consultation models evaluated offer valuable insights and can be adapted to Hong Kong's unique healthcare system. The busy environment necessitates efficient and effective models.

Question-asking acronyms like WWHAM and QuEST-SCHOLAR are crucial for comprehensive information gathering and informed recommendations.

Adopting a hybrid model combining elements from various models can enhance pharmacy consultations, addressing unique challenges and improving patient care outcomes.

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社區健康把關人

在香港十八區緊守前線服務市民，一直是社區藥房肩負的使命。在街坊的支持和信任下，有「℞」符號的社區藥房一直提供健康新資訊，為市民的健康福祉把關。我們以誠信為核心價值，抱著「便民、為民」的使命，與各持份者為推動基層醫療發展而努力。

社區藥房的營運方式並非只是與消費者單純的買賣交易，實際上，我們的使命和成效已超越零售層面。透過與街坊的日常接觸，我們靈活發揮社區藥房的特色和功能，增加彼此溝通確認互信關係，讓街坊更了解社區藥房的背景和職責，明白我們的藥劑師及職員均樂意提供專業諮詢服務，讓大眾獲得適切的醫療資訊和用藥指引，集中社會資源，從而減輕公營醫療系統壓力，達致雙贏局面。

藥劑師是藥物專家，他們一直用心為街坊提供專業諮詢服務；街坊若在醫院取藥後忘記服用方式、對藥物種類及藥物相冲或效用有疑問時，只要透過社區藥房內坐陣的藥劑師便可得到答案。另一方面，我不時留意到街坊對於各種小病小痛，均有掉以輕心或諱疾忌醫的心態；若情況持續沒改善，我們會讓藥劑師提供專業的意見，或轉告其家人留意，提醒求醫，貫徹做到「行多一步，好客之道」的理念。

為了普羅大眾的健康福祉，港九藥房總商會自1973年成立以來，與我們的藥房會員一直致力鞏固香港「正藥之都」的美譽，為各區街坊提供可靠的藥房選擇。此外，我們亦與香港專業教育學院IVE合辦「社區配藥專業證書課程」，透過結合理論和實踐的系統化課程，培訓及裝備前線藥房配藥員，為街坊提供更專業的資訊和服務。

作為社會的一份子，商會秉持「取諸社會，用諸社會」，每當察覺社會有需要時便迅速回應，譬如在疫症初期轉贈口罩予醫管局，讓前線醫護人員無後顧之憂；又在人人盲目搶購某牌子的退燒藥時，我們主動向街坊解釋其實市面上仍有不同牌子的退燒藥，藥物成分同樣有退燒或止痛的效果，以穩定民心及減少混亂。此外，商會多年來亦參與公益事務，關顧本地院舍長者及弱勢社群，同時亦投入國內的教育及扶貧工作，包括捐建學校、鋪設供水設施及籌募助學款項等等。

為回應政府推動基層醫療發展，商會將繼續與同業們一起攜手合作，發揮社區藥房的便民功能，努力在社區最前線成為守護街坊的健康把關人，共同建設健康社區。

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