

良好配藥操作手冊 Good Dispensing Practice Manual

第二版
2nd Edition

修訂版
Amended Version



香港醫學會
The Hong Kong Medical Association

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1 PREFACE

The rapid changes in patients' demand and work environment has raised HKMA's concern about safe dispensing. We take this opportunity to amend our Manual for the profession's needs. We hope members will read it to protect themselves and their patients. This edition adds clauses on the way of handling medicine for external use and compounding.

Furthermore, colleagues would note that there are new courses on drug dispensing for clinical assistants in this edition. You are strongly advised to introduce the courses to your clinic assistants to update their knowledge on safe dispensing for the benefit of your patients and the society as a whole.

2 PREFACE TO FIRST EDITION

The Hong Kong Medical Association has formed a working group to review the process of dispensing and to make recommendations on safety in dispensing. We have come to the conclusion that an effective system of safe dispensing with checking and double-checking of all dispensed medicine is very important. The doctor should be in charge of the system and be able to supervise all clinic staff to adhere to the system. It is the doctor's responsibility to ensure that the drugs are properly dispensed to the patient. The system should be updated regularly and the importance of adherence be monitored and stressed regularly.

One of the important steps we emphasize is that medications be double-checked by doctors before dispensing. We also try to identify each and every step which could go wrong in the process. Some of them might seem trivial. However a chain would break in its weakest link. The presumption is that human error cannot be eliminated completely. So what can be done is to pick up errors by cross-checking and to prevent the result of mishaps from happening. To identify more steps which could go wrong and to take precautions would help to minimize the burden of wrongful events flowing to the more important steps.

The following serves to provide some general guidance and each user should review his own system according to individual setting with his staff.

3 THE PREMISES

The premises on which a dispensing service is provided would reflect the quality of service and inspire confidence in the nature of the health care that is delivered. Every dispensing staff is recommended to maintain the premises in a clean and tidy manner.

1. Safety

Working conditions are recommended to be so arranged as to take into consideration the safety and health of the public and people working on the premises. Guidelines on the Occupational Safety and Health Ordinance should be adhered to.

2. Condition

The walls, floors, windows, ceiling, woodwork, drainage and all other parts of the premises are recommended to be kept clean and hygienic by regular cleansing with appropriate agent to prevent, as far as is reasonably practicable, any risk of infestation and contamination. Waste should be properly kept and timely disposed of. Walls are recommended to be finished in a smooth impervious material.

3. Tidiness

All parts of the premises are recommended to be maintained in an orderly and tidy condition. Food and drinks should be kept away from dispensing areas.

4. Environment

Pharmaceutical products are recommended to be protected from the adverse effects of light, freezing or other temperature extremes and dampness. Levels of light, heat, noise, ventilation, etc., are recommended not to exert adverse effects on personnel.

5. Size

Dispensaries in clinics would be designed to accommodate the anticipated increase in workload. In dispensaries with space constraints, maximization and effective use of available space by good planning could be explored.

6. Security

Careful consideration is to be given to the overall security of the dispensary and the stores. Special attention must be paid to the Dangerous Drugs Stores, which must be kept separately from other drugs and be locked properly.

4 DISPENSARY DESIGN AND EQUIPMENT

The dispensary, its fittings and equipment should be adequate for the purpose of dispensing.

Working surface and shelves

Working surfaces, cupboards and shelves need to be in a good state of repair and in a clean and tidy condition. They are recommended to be smooth, washable and impervious to moisture. A clear area of bench space is recommended to be set aside for dispensing.

Water supply

The dispensary is recommended to be provided with distilled and/or purified water.

Dispensing equipment

All dispensing equipment is recommended to be of suitable material, clean and in a good state of repair. Below is a suggested list and can be extended according to the requirements of individual dispensaries:

1. Tablets and capsules counting devices. They should be cleaned regularly so that cross contamination between products is avoided.
2. A range of graduated, stamped/or plastic measures.
3. A refrigerator equipped with a maximum/minimum thermometer and capable of storing products at temperatures between 2°C and 8°C. The refrigerator needs to be cleaned and checked periodically to ensure efficient running.
4. A suitable range of dispensing containers for pharmaceutical products with separate sets for internal and external use.

5 STORES PROCUREMENT AND STOCK MANAGEMENT

Stores procurement

The Doctors in-charge are responsible for the requisition of pharmaceutical stores. It is recommended that the ordering of drugs from suppliers be made in writing, the written order to be kept for checking by the doctor against the drugs delivered and for future reference. (A sample order form is attached on P.16 for reference.)

Stock management

The purpose of good stock management is to bring about a safe and effective dispensing service. Over-stocking of stores should be avoided and optimum stock quantities should be maintained to ensure a continuous supply. To ensure proper stock management, the following measures are recommended:

1. To ensure that the correct medicine is received:
 - a. The medicine label, including the expiry date, should be checked before receiving stores.
 - b. Unlabelled medicines should be rejected and the supplier should be informed of it.
2. To avoid mixing-up of medicines:
 - a. Medicines for internal use should be stored separately from medicines for external application.
 - b. External products should be distinctively labeled with the cautionary statement "For External Use Only".
 - c. The label of a medicine should be checked before putting it on the shelf.
 - d. Similar looking medicines should be stored separately from each other.
 - e. Different strengths of the same medicine should be highlighted appropriately to avoid mixing-up.
 - f. Staff should be notified if the shape and/or colour of any medicine has been changed.
 - g. Expired medicines should be labeled properly and put aside for proper disposal as chemical waste according to the guidelines of the Environmental Protection Department.
3. To avoid product deterioration:
 - a. Medicines should be stored in a clean and good condition.
 - b. The temperature of the store and the refrigerator should be regularly checked.
4. To ensure effective use of stock:
 - a. Stock rotation should be carried out right after stores receiving.
 - b. The expiry dates of medicines should be regularly monitored.
5. To ensure safe custody of Dangerous Drugs:
 - a. Dangerous Drugs should be stored separately under lock and key.

6 THE DISPENSING OF MEDICINE

Dispensing includes all of the activities, which occur from the time the prescription is received in the dispensary until the medicine or other prescribed items have been collected by the patients. It therefore includes: the review of the prescription; any action taken to address concerns so identified; the correct dispensing of the medicine in an appropriate container with a correct label; and the provision of information and advice as appropriate.

Supervision of dispensing

Doctor in clinic is responsible for supervising drug dispensing.

The doctor should ensure that a dispensed product will still be within the expiry date at the end of the treatment period, where this is predictable.

Counselling/information and advice

When a medicine is supplied to a patient, information should be given to the patient or his/her agent to enable the correct and effective use of the medicine. Most importantly, it is recommended to make sure that the directions on the label of the dispensed medicines are understood. Relevant information pamphlets may be provided to the patient as appropriate.

Dispensing containers

1. All containers intended for medicinal products should be properly stored and free from contamination.
2. All stock bottles should be regularly cleansed or replaced when necessary.

Labelling of dispensed medicines

Labelling of dispensed medicines should be clear and legible. All medicines should normally be labeled with the following particulars:

- a. name of doctor or means of identifying the doctor who prescribes the medication;
- b. a name that properly identifies the patient;
- c. the date of dispensing;
- d. the trade name or pharmacological name of the drug;
[If a generic drug is used, a doctor may add the term "generic substitute for (name of patent drug)" on the label to further facilitate identification of the generic drug. Reference could be made to the "Compendium of Pharmaceutical Products" which lists all the drugs registered in Hong Kong and is published by the Department of Health.]
- e. the dosages, where appropriate;
- f. the method and dosage of administration;
- g. strength and/or concentration of medicine where applicable; and
- h. precautions where applicable.

6 THE DISPENSING OF MEDICINE

Storage

1. All medicines (not only external-use ones) should preferably be stored in the manufacturer's original containers. If, in exceptional cases, the contents need to be transferred to other containers, care must be taken to avoid contamination and all relevant information should be clearly marked on the new containers. Furthermore, cross checking should be undertaken by another staff whenever possible, or double-checked by the staff himself/herself. Care should be taken to avoid mixing up products of different batches.
2. All medicines should be stored under suitable conditions, appropriate to the nature and stability of the material concerned. They should be protected from contamination, sunlight, moisture and adverse temperatures.
3. Any substances which have deteriorated, or which have reached their expiry dates should be segregated for proper disposal as chemical waste.

Compounding

Since chemical interactions may occur among constituents of different medicines in liquid form and stability data are generally insufficient, the mixing of different liquid medicines should preferably be avoided.

Diluting of liquid medicines

Since the diluting of a liquid medicine may result in an unpredictable change of stability of the medicine, such as weakening or annihilating the preservatives in the original medicine, such diluting should be done only when necessary. If a medicine needs to be diluted before dispensing, the manufacturer of the medicine should be consulted on the appropriate diluent to be used.

Reuse of medicine

Under no circumstances should medicines brought in by patients be accepted for reissue to other patients.

Defective medicines

1. Doctors are recommended to inform the drug companies of hazards, which come to their attention, in particular suspected defective or counterfeit medicines for return.
2. Examples of defective medicines are: foreign bodies embedded in tablets, mould or glass visually seen in vials of injections, abnormal odour and colour variation detected in tablets, etc.

6 THE DISPENSING OF MEDICINE

Dispensing procedure

The dispensing of prescriptions involves both interpretation of the prescriber's instructions and the technical knowledge required to carry out these instructions with accuracy and safety to the patient. There is a considerable variety of factors that require close attention in dispensing, and proficiency requires the establishment of a routine system which can be followed safely even under stress. The following is a useful basis for the development of a satisfactory routine:

1. Filling of prescription
 - a. Match the labels with the prescription.
 - b. Select the appropriate containers or envelopes.
 - c. Read the label on the drug bottle when selecting the drug. Ensure that the drug to be dispensed will not expire within the period of treatment.
 - d. Prepare one drug item at a time.
 - e. When dispensing capsules or tablets, count out the correct number of the capsules or tablets.
 - f. The labels of all containers of stock drugs, should be checked when selected from and replaced in stock, as well as at the time of actual dispensing, making three checks in all.
 - g. Attach the label neatly, rechecking the directions against the prescription as you do so.
 - h. Decide whether any additional labelling is required.
 - i. It is important that the prescription must be filled not against the generated labels, but against the prescription.
 - j. Always handle one prescription at one time.
2. Issuing of drugs
 - a. Ask the patient to give his/her name and check his/her name with that on the prescription. If in doubt, ask for HK Identity Card or proof of identify for identification.
 - b. Check drug labelling details against the prescription.
 - Correct patient's name
 - Drug name
 - Dose
 - Route
 - Frequency
 - c. Check the right drug and right quantity against the prescription.
 - d. Counsel patient or his/her guardian on proper use and storage of prescribed drugs.
 - e. Issue drug information pamphlets, if required.
 - f. effects where appropriate.

6 THE DISPENSING OF MEDICINE

The principle of three checks and seven rights

In dispensing, the following principle of "three checks and seven rights" should always be observed. These are:

1. First check of the container label before taking container from the shelf.
2. Second check of the container label against the prescription during actual dispensing.
3. Third check of the container label before putting the container away.
4. Right date
5. Right patient
6. Right drug
7. Right dose
8. Right route
9. Right frequency
10. Right container

7 INCIDENT REPORTING

Complaints made against the dispensary service

When there is a complaint made against the dispensing service, the doctor is recommended to investigate and find out the nature and cause of the complaint. Prompt feedback to the patient and apologise as appropriate are recommended.

Medication errors

Medication error is defined as any deviation from the physician's intended prescription. It can occur in any step from prescriptions to the actual administration of drugs to patients.

The contributing factors to medication errors include illegible handwriting, misinterpretation of abbreviations, misreading of label, carelessness, distraction, failure to follow procedures, mathematical errors in dosage calculations and lack of drug knowledge.

Medication errors associated with prescribing could be due to:

- a. Sloppy, illegible handwriting of the physician.
- b. Ambiguity or abbreviations resulting in misinterpretation.
- c. Prescribing the wrong or inappropriate drugs, dosage, frequency or route of administration.

Medication errors associated with dispensing could be due to:

- a. Labelling errors where the label does not match the content of the drug product.
- b. Misreading prescription leading to dispensing of a wrong drug or a correct drug in wrong strength, dosage form or quantity.
- c. Dispensing to one patient the drugs intended for another patient.

Medication errors can have damaging effects on patients. The magnitude of risk will depend on the potential toxicity of the drug, the route of administration, the amount administered and the clinical status of the patient. Instead of the desired therapeutic effect, it can have fatal effects on the patient. The liability implications can be high and the widespread public attention will have negative impact on the Doctor. Needless to say, unnecessary suffering and loss of patients' lives cannot be measured in monetary terms.

Dispensing errors

Dispensing error includes any of the following: dispensing of wrong drug, wrong dosage form, wrong strength, wrong quantity, wrong label information, drug omission, double dispensing and dispensing the drug to the wrong patient.

7 INCIDENT REPORTING

Incident management

When a major incident of dispensing error occurs, it is vital that staff follow an established procedure for responding. The Doctor is judged not only by the details of the incident, but also by the response to it. The first priority must be an appropriate clinical response to the incident. The well being of the patient is the most important, and mistakes must be immediately acknowledged and the appropriate clinical intervention initiated.

All staff must be aware of their responsibilities to respond both clinically and administratively.

Attitude towards patient

When a patient has to be contacted for correcting a dispensing error, he/she should be provided with information about what has occurred and an apology given. Even though the full details may be uncertain, it is still important to assure the patient that Doctor will be thorough in its investigation, and open and honest in its communications. Always be frank with the patient and remember that their well-being is the most important.

If the patient has taken the medicine, inform the Doctor for medical assessment of the patient. Ensure that all patients whom may be affected are contacted.

Dispensing error reported by patient

1. In the event that the dispensing error is reported by the patient, find out the nature of the error and ask whether the patient has taken the medicine.
2. If the patient has not taken the medicine, apologise to the patient and change the medicine for the patient if necessary.
3. If the medicine has been given to other patients, pick out the prescriptions of the affected patients and follow step 2 above.
4. All incidents must be recorded and reported to the Doctor.

Dispensing error detected by dispensing staff

1. In the event that the dispensing error is detected by dispensing staff, investigate on the extent and nature of the error and find out whether the medicine has been given out to patients.
2. If the medicine has been given out to patient, find out if it has been given out to one or more patients. Pick out the prescription(s) of the patient(s) affected. Report to the doctor in order to contact the patient(s).
3. If a patient has taken the medicine, he/she should be referred to the doctor for medical assessment if necessary.

7 INCIDENT REPORTING

4. If the patient has not taken the medicine, apologise to the patient and change the medicine for him/her.
5. All incidents must be recorded and reported to the Doctor.

Monitoring of dispensing errors

It is important to take measures in the prevention of dispensing errors by improving control systems and following procedural guidelines. It is also beneficial to learn from mistakes that have been committed. In this regard, a voluntary medication incident reporting mechanism is recommended in all clinics to collect information on episodes of dispensing errors and to identify the causes and trends in order to prevent future occurrences. The information collected would be forwarded to the doctors' respective membership association for attention and analysis. Members of the Hong Kong Medical Association can do it on an anonymous basis to the Association Secretariat via e-mail to hkma@hkma.org or via fax to 2865 0943.

Please fill in the attached form (See P. 17) and fax or mail to the Hong Kong Medical Association. Incidences would be collected, analyzed and reported to members on an anonymous basis. You can report to us without giving the names of patients or doctors involved. However it would be more helpful if we could contact the supplier of information.

It is important to take prompt action for any dispensing error so as to limit the damage done to the patient involved, the doctor and the public. Assistance would be provided by the Hong Kong Medical Association and the Medical Protection Society.

The Hong Kong Medical Association

Tel : (852) 2527 8285
 Fax : (852) 2865 0943
 E-mail : hkma@hkma.org
 Address : 5/F Duke of Windsor Social Service Building
 15 Hennessy Road
 Wanchai
 Hong Kong

Medical Protection Society

Tel : (44) 0845 605 4000
 Fax : (44) 0113 241 0500
 E-mail : querydoc@mps.org.uk
 Address : Granary Wharf House
 Leeds LS11 5PY
 United Kingdom

8 EDUCATION, TRAINING AND DEVELOPMENT

Members of staff involved in the dispensing process need to be adequately trained for the purpose. All dispensing staff are recommended to avail themselves of all opportunities to undergo continuing education and training. This is necessary to enable them to provide competently the professional services being offered.

The following are examples of courses which have been organized:

Course name/duration	Fee/hours	Organized by	Enquiry
Basics in Dispensing & Pharmacy Practice I Basics in Dispensing & Pharmacy Practice II	\$3,500 75 hours \$3,500 75 hours	Hong Kong Institute of Vocational Education (Chai Wan)/ VTC ¹	2595 8210
Certificate Course for Medical Clinic Assistants	\$8,000 112 hours	Hong Kong Doctors Union & Open University of Hong Kong ²	3120 9988
Diploma Course for Medical Clinic Assistants	\$15,900 210 hours	Hong Kong Doctors Union & Open University of Hong Kong ³	3120 9988
Basic Knowledge of Drug Usage for Health Care Personnels	\$200 16 hours	Skills Upgrading Scheme, Education and Manpower Bureau ⁴	2836 1234
Drug Dispensing Skills for Health Care Personnels in Clinics	\$190 15 hours	Skills Upgrading Scheme, Education and Manpower Bureau ⁵	2836 1234

Updated information is also available at the HKMA web site at <http://www.hkma.org>.

¹ To be held when there is sufficient enrolment. For information on related course, please refer to http://asweb.vtc.edu.hk/webpage/page_c_02.htm

² For details, please refer to http://www.ouhk.edu.hk/WCM/?FUELAP_TEMPLATENAME=tcSingPage&ITEMID=CCLIPACECONTENT_57019946&lang=eng&s=1

³ For details, please refer to http://www.ouhk.edu.hk/WCM/?FUELAP_TEMPLATENAME=tcSingPage&ITEMID=CCLIPACECONTENT_57019946&lang=eng&s=1

⁴ There are some more courses suitable for Clinical Assistants. For details, please refer to <http://www.emb.gov.hk/sus>

⁵ There are some more courses suitable for Clinical Assistants. For details, please refer to <http://www.emb.gov.hk/sus>

9 RELATIONSHIP WITH PATIENTS, PUBLIC AND OTHER HEALTH CARE PROFESSIONALS

Health care advice to the public should be accurate and appropriate. Dispensing staff are recommended to be prepared and be available to give advice on health related matters and answer enquiries. Try to be patient and courteous at all times. Supervisors should coach staff on courtesy and means to resolving difficulties.

10 ADMINISTRATION AND MANAGEMENT

A sound management structure should be established to ensure the efficient operation of the clinic dispensary. Doctors should adopt an open attitude in management. They should be ready to listen to staff concerns and make improvement as appropriate. Good and effective communication within the clinic is also essential to bring about overall service improvement.

11 ACKNOWLEDGEMENT

The Association is deeply indebted to the following members of the Task Force on Drug Dispensing for their advice and guidance, without which the timely publication of this manual would not have been possible:

Mr. Anthony Chan, Chief Pharmacist, Department of Health	Dr. Vivien W. Gam, Principal Lecturer, Hong Kong Institute of Vocational Education - Chai Wan
Dr. Leung Hip Hung, Chief Industrial Training Officer, Skills Upgrading Scheme Secretariat, Education and Manpower Bureau	Ms. Anna Wong, Hospital & Clinic Nurses Association
Dr. Cheng Chi Man	Dr. Cheng Man Yung
Dr. Cheung Hon Ming	Dr. Choi Kin
Dr. Ho Chung Ping	Dr. Leung Chi Chiu
Dr. Li Sum Wo	Dr. Tse Hung Hing
Dr. Yeung Chiu Fat	

Last but not least, we would like to thank the Department of Health for their permission to make use of their Good Dispensing Practice Manual as first blueprint for us to work on.

MEDICAL PRODUCTS ORDER FORM

From : Dr _____

To : _____

Date : _____

This is to place an order for the following medical product(s):

1. _____

2. _____

3. _____

4. _____

Please confirm by replying to Dr / Ms _____

Tel : _____ or _____

Fax : _____

(Signature / Chop)

Dr _____

THE HONG KONG MEDICAL ASSOCIATION DISPENSING ERROR INCIDENT REPORT

(Doctor's name not required)

Incident Date _____

A. Incident for patient type: General Practice Specialty Practice

Description of the incident

(What, when, where, how, why - without mentioning names)

B. Incident Reported By Doctor Clinic Assistant Patient Others
Incident Detected By Doctor Clinic Assistant Patient Others

C. Type of Error

Prescribing		Incomplete Prescription	
Unclear/Wrong Drug Name	<input type="checkbox"/>	Missing Drug Strength	<input type="checkbox"/>
Wrong Dosage Form	<input type="checkbox"/>	Missing Dosage Form	<input type="checkbox"/>
Wrong Strength/Dosage	<input type="checkbox"/>	Missing Duration/Qty	<input type="checkbox"/>
Wrong Duration	<input type="checkbox"/>	Missing Frequency	<input type="checkbox"/>
Wrong Frequency	<input type="checkbox"/>	Missing Dose	<input type="checkbox"/>
Wrong Route	<input type="checkbox"/>	Missing whole item claimed by patient and confirmed with doctor	<input type="checkbox"/>
Wrong Abbreviation	<input type="checkbox"/>	Incomplete or missing name of patient	<input type="checkbox"/>
Unclear/Wrong Instruction	<input type="checkbox"/>	Missing Date	<input type="checkbox"/>
Wrong Patient	<input type="checkbox"/>	Others _____	<input type="checkbox"/>
Double Entry	<input type="checkbox"/>		
Others _____	<input type="checkbox"/>		
Dispensing		Administration	
Wrong Drug	<input type="checkbox"/>	Wrong Drug	<input type="checkbox"/>
Wrong Dosage Form	<input type="checkbox"/>	Wrong Dosage Form	<input type="checkbox"/>
Wrong Strength/Dosage	<input type="checkbox"/>	Wrong Dose	<input type="checkbox"/>
Wrong Quantity	<input type="checkbox"/>	Wrong Patient	<input type="checkbox"/>
Wrong Patient	<input type="checkbox"/>	Wrong Route	<input type="checkbox"/>
Wrong Label Information	<input type="checkbox"/>	Wrong Time	<input type="checkbox"/>
Double Dispensing	<input type="checkbox"/>	Extra Dose	<input type="checkbox"/>
Drug Omission	<input type="checkbox"/>	Dose Omission	<input type="checkbox"/>
Expired Drug Issued	<input type="checkbox"/>	Others _____	<input type="checkbox"/>
Others _____	<input type="checkbox"/>		

THE HONG KONG MEDICAL ASSOCIATION DISPENSING ERROR INCIDENT REPORT *(Continued)*

D. Contributing factors to error

Inadequate Knowledge or Skills	<input type="checkbox"/>	Stock Management	<input type="checkbox"/>
Failure to comply with policies or procedures	<input type="checkbox"/>	Not familiar with Item Code of Drug	<input type="checkbox"/>
Failure in communication/ Misinterpretation of order	<input type="checkbox"/>	Wrong Dose Mislabelling	<input type="checkbox"/>
		Lack of Supervision	<input type="checkbox"/>
Distraction	<input type="checkbox"/>	Illegible Handwriting	<input type="checkbox"/>
Stress	<input type="checkbox"/>	Unclear Prescription	<input type="checkbox"/>
Similar Drug Name/Appearance	<input type="checkbox"/>	Commercial Packaging/Product Labelling	<input type="checkbox"/>
Transcription	<input type="checkbox"/>		
Incorrect Computer Entry	<input type="checkbox"/>	Deterioration of Drug/Storage Problem	<input type="checkbox"/>
		Others _____	<input type="checkbox"/>

E. Patient Outcome

Incident discovered before medication reaches patients _____

Incident discovered after medication reaches patient _____

Patient condition prior to incident: Satisfactory Fair Critical

Action Taken: _____

F. Incident Reported to: HKMA Department of Health

G. Remarks:

一 前言

在病人需求和工作環境迅速轉變的情況下，香港醫學會對安全配藥更表關注。因此，我們藉此機會修訂良好配藥手冊以應同業的需要，並希望會員細閱此手冊，以保障自己和病人。此版加入了有關外用藥物的處理方法和混合藥品的條文。

此外，同業應留意到這版加插了一些為診所助理而設的配藥課程。我們強烈建議你們將有關課程資料介紹給貴診所助理修讀，讓他/她們更新安全配藥的知識，令你的病人，以致整個社會得益。

二 第一版前言

香港醫學會成立了一個工作小組，檢討配藥過程及提出有關安全配藥建議。我們認為「一個有效的監控系統（當中包括各個配藥程序的覆核）最為重要。」

醫生應負責管理此系統和監督所有診所職員遵守此系統。醫生有責任確保病人獲配發正確的藥物，醫生亦應定期更新系統、監督和強調員工遵守此系統的重要性。

我們認為十分重要的一個步驟，是藥物發給病人前，醫生需要親自重覆檢查藥物。我們亦嘗試指出配藥過程每一個可能出錯的步驟，其中有些看似瑣碎，但同業亦不應忽視。

我們無法完全避免人為錯誤。所以就要倚靠重覆查核，點出人為錯誤並加以修正，防止發生不幸事故。若能辨認出容易出錯的步驟，並採取預防措施，便可減低鑄成大錯的機會。

以下是一些建議，用者可根據各自的環境，與其職員設計及檢討自己的配藥系統。

三 診所

提供配藥服務的診所將反映配藥服務的質素，並影響病人對服務的信心；所有配藥員應保持診所整潔。

一. 安全

診所之工作環境應顧及公眾和工作人員的安全及健康，也要遵守「職業安全及健康條例」；

二. 狀況

盡量保持診所的牆，地面，窗，樓頂，木傢俬，渠管及其他室內地方清潔、衛生，並經常使用有效的清潔劑以防止任何細菌滋生和污染。要把廢物裝妥和及時倒清。牆身應固以不滲透物件；

三. 整齊

保持事務所內之擺設整潔；應禁止放置飲料和食物於配藥的工作範圍。

四. 環境

應避免把藥物放有陽光直射，過冷或過熱、溫差大及潮濕的地方。而室內光度，溫度，聲音及氣流等，亦不應對工作人員產生負面的影響；

五. 面積

診所配藥房的設計應可應付將來工作量增加後的需要；而對於現存的配藥房，地方雖有限，仍可透過週全的計劃善用空間；

六. 保安

應加強配藥房及儲物室的保安，尤其是儲存危險藥物室，更要把它和普通藥物分開並鎖好。

四 配藥房的設計及裝備

配藥房的裝修和裝備一定要足夠應付配藥所需。

工作櫃面及擺物架

應保持工作枱面，櫃及擺物架妥當和整潔、平滑、容易清洗以及防潮。

供水

配藥房應設有蒸溜和／或潔淨水。

配藥房的裝備

所有裝備應採用合適的物料，並保持清潔。以下是建議中最基本的裝備，可視乎個別需要而加添其他裝備：

- 一．應該定期清潔藥片及藥膠囊之數量計，以防止藥物間交叉污染；
- 二．一套由小至大分等級、有蓋印和塑膠造的的量杯；
- 三．一個裝有最高／最低溫度儀，並且能在攝氏兩度至八度間儲存藥物的冰箱。為確保冰箱有效操作，應經常清潔和檢驗冰箱是必需的。
- 四．一系列配藥用之容器，要分為外用藥及內服藥兩類。

五 訂購藥物及存貨管理

訂購藥物

應由主診醫生負責訂購藥物，我們建議以書面方式向藥物供應商訂購，並保留訂購記錄以核對所供應的藥物及以作將來參考之用。（請參考第三十三頁的「訂購藥物表格」）

存貨管理

良好的存貨管理能確保安全和有效的配藥服務。應避免儲存過多藥物，只需適量地存放，就可以保持供應充足。以下是一些可行的措施：

一. 確保收取了正確的藥物

- 甲) 當收取藥物時，要檢查藥物上之標籤及其有效日期；
- 乙) 應退回未有標籤之藥物，並通知供應商。

二. 避免混淆藥物

- 甲) 應把內服藥和外用藥分開存放；
- 乙) 外用藥物應以提醒字句「只供外用」明顯標籤註明；
- 丙) 在把藥物擺上架前，要先行檢查其標籤；
- 丁) 應把外觀甚為相似，但不同類的藥物分開存放；
- 戊) 為避免混淆，應適當地突出不同濃度的同一種藥物；
- 己) 任何藥物的形狀及顏色有任何更改，便要通知各位員工；
- 庚) 應小心標籤過期藥，依據環保處之指引，要被抽起來，當作化學廢料棄置。

三. 防止藥物變壞

- 甲) 應把藥物放在清潔的地方；
- 乙) 定期檢查儲存室和冰箱的溫度是否恰當；

四. 確保善用存貨

- 甲) 當收到新貨後，便要順先後次序擺放存貨；
- 乙) 定期監管藥物上之有效日期；

五. 嚴密監管「危險藥物」之安全性；

- 甲) 應把「危險藥物」分開擺放在鎖櫃裡。

六 配藥

配藥流程是指由處方起，直至把藥物或處方所訂的東西交予病人，過程中包括：檢討處方、任何爲了改良而作跟進的行動，把所配的藥物放入合適及有標籤的容器內，和提供合適之資料與建議。

監管配藥

監管配藥是由醫生負責的，要確保及計算所配之藥物直至最後一次療程時，仍未過期和失效。

輔導/提供資料和建議

當發藥物給病人時，必須向該病人或其代表說明有關藥物的資料，以確保病人能正確並有效地服用藥物。最重要的是要確保病人明白列在藥物標籤上的服用指示。如適用的話，也可提供相關的資訊小冊子給病人。

藥物容器

- 一. 應妥當儲存所有藥物容器，以避免污染；
- 二. 應定期清潔所有儲存的盛載瓶或於有需要時加以補替。

配藥後所加上的標籤

標籤一定要寫得清楚及易讀，通常應具備以下資料：

- 甲) 主診醫生之姓名或供作識別處方醫生的方法；
- 乙) 可識別的病人全名；
- 丙) 配藥日期；
- 丁) 藥物商用名稱或藥物學名稱，如藥物有其通用名稱，醫生可在標籤上專利藥物名稱旁加上「別稱」作進一步的識別；可參閱由衛生署出版的「藥物綱目」，它詳列了所有再港註冊的藥物；
- 戊) 劑量（如適用者）；
- 己) 服用方法及劑量；
- 庚) 藥物的強度及 / 或濃度（如適用）；及
- 辛) 注意事項

六 配藥

存放

- 一. 應盡量把所有藥物〔不只是外用藥物〕存放在生產商的原裝容器內，在特殊的情況下，才可將藥物轉放，但要小心處理以防污染，並在新的容器上，清楚註明所有有關資料。此外，應盡可能讓另一名職員覆驗或由該職員再三核對，小心避免將不同批號的藥物混淆。
- 二. 應把藥物儲存在適合的環境下，以配合其藥性和穩定性，更應避免污染、日光、濕氣、及惡劣的溫度；
- 三. 應隔離任何變壞和過期的藥物，並當作化學廢料妥當地棄置。

混合藥物

因不同液體藥物中的成份之間可能產生化學作用，在缺乏有關藥物穩定性的數據的情況下，如非必要，應盡可能避免混合液體藥物。

稀釋藥物

由於稀釋藥物可能令藥物的穩定性產生不可預計的變化，例如減低或消除原有藥物的防腐劑，應在有必要時才對藥物進行稀釋。如有需要在配藥前稀釋藥物，應向藥物製造商查詢有關合適的稀釋劑。

藥物之再用

任何情況下都不可以將一位病人所退回的藥物，再轉給另一位病人。

不妥之藥物

- 一. 如收到不妥或假冒的藥物，醫生應通知有關藥廠，並要求退貨；
- 二. 不妥的藥物包括：藥片沾上了外物、注射小瓶裏發霉或有玻璃碎、藥物發出異味及變色等等。

六 配藥

配藥步驟

配藥步驟包括了解處方者之指示及擁有適當的知識、技術去準確及安全地執行配藥。在配藥時，需要兼顧多方面的因素，且更要確立一個循規之系統，以確保在任何壓力下仍可安全地跟進。以下是一些有可依循的方法：

一. 依據處方配藥

- 甲 處方和標籤應配對；
- 乙 選擇適用之容器和包袋；
- 丙 當選擇藥物時，請閱讀盛藥瓶上之標籤，確保藥物到療程完畢之前仍未過有效期；
- 丁 在同一時間只配備一種藥物；
- 戊 配藥丸時定要數清楚其數目；
- 己 要在取藥或補充藥物時，加以核對藥物容器的標籤，並在派發藥物時再對一次，總共核對三次；
- 庚 在貼上標籤時，要貼得妥當，並再重覆查核處方之指示；
- 辛 決定是否需要再添加標籤；
- 壬 最重要的要依據處方，而非按照打印出來的標籤配藥；
- 癸 在同一時間內，只可處理一張處方。

二. 派發藥物

- 甲 問病人的姓名然後核對處方上的姓名；若有懷疑，便應要求對方出示身份證或其他身份證明文件，以確認身份；
- 乙 根據處方來查核藥物標籤之內容：
 - 準確的病人姓名
 - 藥物名稱
 - 服用量
 - 方法
 - 次數
- 丙 根據處方，去查核藥物及藥量是否正確；
- 丁 教導病人或其監護人如何正確使用和存放所配之藥物；
- 戊 若有需要，可以派送有關藥物資料之單張；
- 己 如適用者，列出藥物之副作用。

六 配藥

有關三查核和七個正確之原則

在配藥時，一定要遵守以下「三個查核、七個正確」的原則：

- 一. 第一查核藥物容器之標籤後，才把它從架上取下來；
- 二. 第二查核是在配藥時，核對藥物容器上的名稱和處方上的名稱是否相同；
- 三. 第三查核是要再一次核對藥物容器上的標籤，才把它放回架上；
- 四. 正確日期；
- 五. 正確病人；
- 六. 正確藥物；
- 七. 正確份量；
- 八. 正確使用法；
- 九. 正確次數；
- 十. 正確藥物容器

七 報告事故

對配藥服務不滿之投訴

如有任何對配藥服務不滿的投訴，應展開調查去找出投訴之性質和原因。應立刻回覆病人及作出適當的道歉。

藥物處理失當

所謂藥物處理失當是指偏離了原先醫生所定之處方。這類事情可以在開處方起直至把藥物交給病人的任何一個過程中發生。

導致藥物處理失當原因很多，包括難認的手寫字、誤讀簡寫字、誤讀標籤、不小心、分心、沒用依足步驟處理，在計算服用量時出錯和缺乏藥物知識。

與處方有關之錯失：

- 甲) 醫生字體潦亂難認；
- 乙) 含糊或簡寫字引致的誤解；
- 丙) 所開處方的藥名是錯的或份量不對，次數不對或服用方法錯誤；

與配藥有關的錯失：

- 甲) 標籤上的錯誤，包括標籤上所寫的，有異於所盛載的藥物；
- 乙) 讀錯處方引致配錯藥，又或藥物正確但錯配藥的強烈度、份量或服用量；
- 丙) 交錯藥給另一位病人。

藥物處理失當可以對病人產生負面的影響，危險的程度就視乎藥物之殺傷力、服用方法、服用量及病人當時的病況。出錯後不但治不好病人，反可加劇病情。需要承擔的後果可以很大，而輿論的壓力也會帶給主診醫生負面的沖擊。無辜病人所受的痛苦或甚至死亡所帶來損失，更不可以金錢來衡量。

配藥失當

配藥失當包括了以下任何一種情況：配藥時，用了另外一種藥，錯誤的藥性強弱度、錯誤份量、錯誤標籤資料、漏缺藥品、雙重配藥及所配之藥給予另外一位病人。

七 報告事故

事故之管理

當發生配錯藥的重大事故時，最重要的是職員要遵守既定程序作出反應。主診醫生如何提供事故詳情，甚至他如何作出回應，也會被審核在內。首先要做的是如何作出恰當、醫理上的回應，當然病人的健康才是最重要的，所以一旦出了錯，就要承認事實和恰當地處理。

對待病人之態度

如要向一位病人糾正配藥的錯失時，他／她應知悉發生事故之詳情，並要向病人致歉。即使尚未完全掌握資料，仍然要向病人保證主診醫生會展開全面調查，並且應保持開放而誠實的态度互相溝通。切記要對病人坦誠，並以病人之健康利益為重。如果病人已服用了配錯的藥，便要通知主診醫生，然後為病人作一次醫理上的評估。也要確保聯絡了所有可能受事故影響的病人。

由病人報告配藥失當事故

- 一. 如有病人報告配藥失當事故，就要找出錯失的性質以及詢問該病人是否曾服用過配錯的藥；
- 二. 如果病人尚未服用配錯的藥，就要先向病人致歉，在需要時，要更換藥物；
- 三. 如果錯配的藥已發給了別的病人，就要找出所有受影響病人的處方，並依據上述的第二個步驟處理；
- 四. 一定要把所有事故紀錄下來，並向主診醫生報告。

由配藥員察覺到的配藥失當事故

- 一. 當配藥員察覺到配錯藥，就要對事故的影響程度和失當的性質進行調查，並要找出配錯的藥是否已發給病人；
- 二. 如果已把配錯的藥發給了病人，就要找出是否已把此藥發給了一位或以上的病人。也要找出受影響病人的處方，向主診醫生報告，以便聯絡這些病人；
- 三. 如果病人已服用了配錯的藥，在需要時，病人就要被主診醫生作醫理上的評估；

七 報告事故

- 四. 如果病人並無服用配錯的藥，就要立刻向病人道歉，並替病人更換適當藥物；
- 五. 一定要把所有的事務紀錄下來，並向主診醫生報告。

配藥失當之監控

爲了要避免配藥失當，採取一些如改良控制系統及依循步驟指引等等的預防措施是十分重要的。從錯誤中學習也是有益的，因此，在各診所內應設有自願性藥物失當事故通報機制，以便收集有關配藥失當的資料，了解事故起因和趨勢去防止將來再次發生同類事件。所收集好的資料最好是轉送到醫生所屬的學會以作處理和分析。而香港醫學會會員可以不記名方式，透過電郵（hkma@hkma.org）或傳真（二八六五零九四三）把資料交予香港醫學會秘書處。

請填妥第三十四頁的附件二「藥物事故申報表格」後，把表格傳真或郵寄到「香港醫學會」。收集好的表格，將會用作分析，並以不記名的方式，向會員報告。您所提交的報告，可以不用提及病人或醫生的名字。然而，若醫學會能夠聯絡到資料提供者則更好。

配藥失當事故發生後，迅速採取行動是很重要的，這才能減低對受影響的病人、醫生和公眾所造成的損害。以下的機構均能提供有關協助：

香港醫學會

電話：（八五二）二五二七 八二八五

傳真：（八五二）二八六五 〇九四三

電郵：hkma@hkma.org

地址：香港灣仔軒尼詩道十五號溫莎公爵社會服務大廈五樓

Medical Protection Society

電話：（四四）〇八四五 六〇五 四〇〇〇

傳真：（四四）〇一一三 二四一 〇五〇〇

電郵：querydoc@mps.org.uk

地址：Granary Wharf House
Leeds LS11 5PY
United Kingdom

八 教育，培訓及發展

配藥員需要接受充足的訓練，才能達致提供有效專業服務之目的。因此，配藥員要爭取每一個機會去接受持續教育和培訓。

以下是一些有關配藥的課程：

課程名稱	學費/ 修讀鐘數	舉辦機構	查詢
Basics in Dispensing & Pharmacy Practice I Basics in Dispensing & Pharmacy Practice II	3,500元/ 75 小時 3,500元/ 75 小時	香港專業教育學院 (柴灣分校)/職業訓練局 ¹	2595 8210
診所助理證書	8,000元/ 112 小時	香港西醫工會及 香港公開大學 ²	3120 9988
診所助理文憑	15,900元/ 210 小時	香港西醫工會及 香港公開大學 ³	3120 9988
護理人員醫藥基礎認識	200元/ 16 小時	教育統籌局技能提升計劃 ⁴	2836 1234
診所醫護人員配藥技巧	190元/ 15 小時	教育統籌局技能提升計劃 ⁵	2836 1234

可瀏覽香港醫學會網站 <http://www.hkma.org> 獲得最新資料。

¹ To be held when there is sufficient enrolment. For information on related course, please refer to http://asweb.vtc.edu.hk/webpage/page_c_02.htm

² 詳情請參閱網站
http://www.ouhk.edu.hk/WCM/?FUELAP_TEMPLATENAME=tcSingPage&ITEMID=CCLIPACECONTENT_57019946&lang=eng&s=1

³ 詳情請參閱網站
http://www.ouhk.edu.hk/WCM/?FUELAP_TEMPLATENAME=tcSingPage&ITEMID=CCLIPACECONTENT_57019946&lang=eng&s=1

⁴ 還有更多適合診所助理的課程，詳情請參考網站 <http://www.emb.gov.hk/sus>

⁵ 還有更多適合診所助理的課程，詳情請參考網站 <http://www.emb.gov.hk/sus>

九 病人，公眾和其他健康專業人仕之關係

給予公眾的健康忠告必定要準確和恰當，配藥職員應該隨時準備對有關健康的事宜，作出忠告和解答疑難。於任何時刻都能夠保持耐性和有禮貌。主管或上司們應教導下屬們以禮待人和解決難題的方法。

十 行政及管理

應成立一個良好的管理架構，以確保診所內的配藥房有效地運作。醫生們應採取開放的態度來管理。他們應願意聽取職員所關心的問題並予以改善。診所內良好和有效的溝通必定能提升整體的服務質素。

十一 致謝

香港醫學會非常感激下列來自配藥守則研究工作小組的成員，因著他們寶貴的建議和指導，才能及時出版了這本手冊：

陳永健藥劑師	甘吳慧珠博士
梁協雄博士	黃再英女士
鄭志文醫生	鄭文容醫生
張漢明醫生	蔡 堅醫生
何仲平醫生	梁子超醫生
李深和醫生	謝鴻興醫生
楊超發醫生	

最後，香港醫學會謹向衛生署致謝，允許醫學會使用其《良好配藥操作手冊》，作為此手冊參考的藍本。

訂購藥物表格

訂購人：醫生 _____

致：_____

日期：_____

本人欲訂購下列藥物：

一. _____

二. _____

三. _____

四. _____

請向 _____ 醫生／小姐／女士確認此訂購單。

電話：_____ 或 _____

傳真：_____

(簽名／蓋章)

醫生 _____

藥物事故申報表格

(無需提出醫生姓名)

事發日期 _____

甲. 事故病人類別 門診 專科

敘述事故

(何事、何時、何地、如何、為何 – 不記名的方式)

乙. 事故是由誰報告 醫生 護理 病人 其他

事故是由誰察覺 醫生 護理 病人 其他

丙. 錯失的類別

處方	不完全的處方
不清楚/錯誤藥名 <input type="checkbox"/>	缺漏藥物強烈度 <input type="checkbox"/>
錯誤服藥量形式 <input type="checkbox"/>	缺漏服藥量形式 <input type="checkbox"/>
錯誤強烈度/服藥量 <input type="checkbox"/>	缺漏服用期/份量 <input type="checkbox"/>
錯誤服用期 <input type="checkbox"/>	缺漏次數 <input type="checkbox"/>
錯誤次數 <input type="checkbox"/>	缺漏服藥量 <input type="checkbox"/>
錯誤次序 <input type="checkbox"/>	缺漏醫生簽名 <input type="checkbox"/>
錯誤簡寫 <input type="checkbox"/>	缺漏全項 <input type="checkbox"/>
不清楚/錯誤指示 <input type="checkbox"/>	(病人所聲稱和醫生所確認的)
給錯病人 <input type="checkbox"/>	缺漏日期 <input type="checkbox"/>
雙重入數 <input type="checkbox"/>	不完全或缺漏病人的名字 <input type="checkbox"/>
其他 _____ <input type="checkbox"/>	其他 _____ <input type="checkbox"/>
配藥	行政
錯誤藥物 <input type="checkbox"/>	錯誤藥物 <input type="checkbox"/>
錯誤服藥形式 <input type="checkbox"/>	錯誤服藥形式 <input type="checkbox"/>
錯誤強烈度/服藥量 <input type="checkbox"/>	錯誤服藥量 <input type="checkbox"/>
錯誤數量 <input type="checkbox"/>	給錯病人 <input type="checkbox"/>
錯給病人 <input type="checkbox"/>	錯誤次序 <input type="checkbox"/>
錯誤標籤/資料 <input type="checkbox"/>	錯誤時間 <input type="checkbox"/>
雙重配藥 <input type="checkbox"/>	額外的服藥量 <input type="checkbox"/>
缺漏某藥物 <input type="checkbox"/>	缺漏服藥量 <input type="checkbox"/>
給予過期藥 <input type="checkbox"/>	其他 _____ <input type="checkbox"/>
其他 _____ <input type="checkbox"/>	

藥物事故申報表格

丁. 導致錯失之成因

知識或技術不足	<input type="checkbox"/>	儲存管理	<input type="checkbox"/>
未能依足政策或步驟	<input type="checkbox"/>	未熟習藥物項目編碼	<input type="checkbox"/>
溝通失敗/誤解了指示	<input type="checkbox"/>	計算錯誤	<input type="checkbox"/>
分心	<input type="checkbox"/>	貼錯服藥量之標籤	<input type="checkbox"/>
壓力太大	<input type="checkbox"/>	缺乏監管	<input type="checkbox"/>
藥名相似/藥物外觀相似	<input type="checkbox"/>	手寫文字不清楚	<input type="checkbox"/>
抄寫	<input type="checkbox"/>	處方不清楚	<input type="checkbox"/>
輸入電腦的資料不正確	<input type="checkbox"/>	商業包裝/產品標籤	<input type="checkbox"/>
		藥物變壞/儲存問題	<input type="checkbox"/>
		其他 _____	<input type="checkbox"/>

戊 病人情況

在藥物給病人之前已被發現出錯 _____

在藥物給病人之後才被發現出錯 _____

發生事故前病人之情況： 滿意 普通 嚴重

所採取之行動： _____

己 已把事故報告給： 香港醫學會 衛生署

庚 備注：

