# TABLE OF CONTENTS

1. **PREFACE**
   - Preface to Fifth Edition 3
   - Preface to Fourth Edition 5
   - Preface to Third Edition 8
   - Preface to Second Edition 11
   - Preface to First Edition (JCIMT) 14

2. **BASIC PHYSICIAN TRAINING**
   - General Guidelines 25
   - Training Guidelines 27

3. **HIGHER PHYSICIAN TRAINING**
   - Specialty Boards 34
   - General Guidelines 35

4. **GUIDELINES FOR HIGHER PHYSICIAN TRAINING IN**
   1. Advanced Internal Medicine 42
   2. Cardiology 53
   3. Clinical Pharmacology and Therapeutics 66
   4. Critical Care Medicine 70
   5. Dermatology & Venereology 78
   6. Endocrinology, Diabetes and Metabolism 81
   7. Gastroenterology and Hepatology 85
   8. Geriatric Medicine 91
   9. Haematology and Haematological Oncology 96
   10. Immunology & Allergy 100
   11. Infectious Disease 103
   12. Medical Oncology 107
   13. Nephrology 113
   14. Neurology 119
   15. Palliative Medicine 123
   16. Rehabilitation 127
   17. Respiratory Medicine 133
   18. Rheumatology 138

5. **INTERIM AND EXIT ASSESSMENT PROTOCOL**
   1. Interim and Exit Assessment 143
   2. Trainees’ training report and evaluation by supervisors 165
I. Preface
The first edition of the Hong Kong College of Physicians (HKCP) Guidelines on Postgraduate Medical Training was published in July 1993 by the Joint Committee on Internal Medicine Training (JCIMT), just in time for the inauguration of the Hong Kong Academy of Medicine in December 1993. Since then, the Education and Accreditation Committee (E&AC) had implemented structured training programmes in Basic Physician Training (BPT), and Higher Physician Training (HPT). The Intermediate Examination (IE) of HKCP continued to be conducted in the form of a Joint Examination with the Membership Examination of the Royal College of United Kingdom [MRCP(UK)]. Success at this examination is required for completion of the three years of BPT. All successful candidates are awarded two certificates, allowing them to join both HKCP and the Royal Colleges in UK as members. The continuation of this linkage guarantees the high international standard of our Basic Physician Training programme.

In the past four years E&AC has received valuable opinions on the training programmes and assessment format during HPT. Recognising the rapid changes in the knowledge in the medical specialties, E&AC and all the Specialty Boards have further revised and updated their training guidelines in the current fifth edition of the College’s Training Guidelines. The following points about the current edition are worthy of note.

1. To avoid a detailed list of individual clinical conditions under the “knowledge” section, most guidelines have been amended to reflect the broad disease categories with individual conditions quoted as examples.

2. To ensure a broad based approach to Internal Medicine training, the College has directed that trainees undergoing concurrent training should choose Internal Medicine or Geriatric Medicine as one of the specialties.

3. The format of Assessment has been revised by reducing the former two Annual Assessments for each HPT specialty to one Interim Assessment for each specialty.

The College deeply appreciates the efforts and contribution made by E&AC and Specialty Boards to update the training guidelines. The College thanks the devotion and ceaseless support from all Programme Directors, Assistant Programme Directors, Chiefs of Service (Medicine), Trainers and the administration of Hospital Authority, to assist in the implementation of these modified training programmes so as to train high calibre physicians to serve the community.

Finally, the College will continue to seek reciprocal recognition of our training programmes with national accreditation bodies in other parts of the world, and strive to maintain for generations into the future the excellent reputation that Hong Kong physicians now enjoy internationally.

Dr Loretta Yam
Chairman
Education and Accreditation Committee

Dr Patrick Li
President

March 2011
MEMBERSHIP OF
THE EDUCATION AND ACCREDITATION COMMITTEE

March 2011

Chairman: Dr Loretta Yam
Vice-Chairman: Dr CS Li
Secretary: Professor Anthony Chan
Members: Dr KM Ho
Professor David Hui
Dr Emily Kun
Professor KN Lai
Dr MS Lai
Dr ST Lai
Dr Patrick Li
Prof Philip Li
Dr SK Li
Dr PW Ng
Dr SC Tiu
Professor Richard Yu
PREFACE TO THE FOURTH EDITION

The first edition of the Hong Kong College of Physicians (HKCP) Guidelines on Postgraduate Medical Training was published in July 1993 by the Joint Committee on Internal Medicine Training (JCIMT), just in time for the inauguration of the Hong Kong Academy of Medicine in December 1993. Since then, the Education and Accreditation Committee (E&AC) had implemented structured training programmes in the first three years of Basic Physician Training (BPT), and introduced the Trainee Log Book as well as yearly review and assessment of trainees. The Intermediate Examination (IE) of HKCP, which can be taken after the first two years of training, continued to be conducted in the form of a Joint Examination with the Membership Examination of the Royal Colleges of United Kingdom [MRCP(UK)]. Success at this examination is required for completion of the three years of BPT. All successful candidates are awarded two certificates, allowing them to join both HKCP and the Royal Colleges in UK as Members. This linkage has continued to guarantee the high international standard of our Basic Physician Training programme.

Since the publication of the Third Edition of the Guidelines on Postgraduate Training in Internal Medicine in 2002, E&AC has gained valuable feedback from local and overseas examiners and trainees on the training programme and the Annual and Exit Assessment exercises. Recognising the rapid changes in the knowledge in the medical specialties, E&AC and its Specialty Boards have further updated all existing Guidelines in the Fourth Edition of the College’s Training Guidelines. The following points about the current edition are worthy of note.

1. The training guideline in Clinical Pharmacology and Therapeutics has undergone major revisions to reflect the current emphasis on Toxicology.

2. Guidelines on the following advanced invasive procedures have been amended to clarify the conditions for accreditation towards College certification.
   - Guidelines for Certification of Advanced Training in Invasive Cardiac Electrophysiological Studies & Intervention
   - Guidelines for Certification of Advanced Training in Percutaneous Cardiovascular Interventions
   - Guidelines on Certification in Advanced Diagnostic and Therapeutic Gastrointestinal Endoscopy

3. The updated marking systems of the Annual and Exit Assessments are included in Section V for reference by examiners, trainers and trainees.

The College wishes to express its deepest appreciation to E&AC and Specialty Boards for contributions towards the updating of our Training Guidelines. The College appreciates the hard work and dedication of all Programme Directors, Assistant Programme Directors, as well as the support and understanding of Chiefs of Service (Medicine) and the administration of Hospital Authority, to enable the implementation of these training programmes towards the production of high calibre physicians for the medical services in Hong Kong. The College appreciates the hard work and dedication of Ms Gloria Ng,
Administrative Manager and staff of the College Secretariat, without whom it will not able to function and thrive.

Finally, the College will continue to seek reciprocal recognition of our training programmes with national accreditation bodies in other parts of the world, and strive to maintain for generations into the future the excellent reputation that Hong Kong physicians now enjoy internationally.

Dr Loretta Yam  
Chairman  
Education and Accreditation Committee

Professor KN Lai  
President

April 2007
MEMBERSHIP OF
THE EDUCATION AND ACCREDITATION COMMITTEE

March 2007

Chairman: Dr Loretta Yam
Vice-Chairman: Dr CS Li
Secretary: Professor Anthony Chan
Members: Dr LY Chong
Professor Annie Kung
Professor KN Lai
Dr MS Lai
Dr ST Lai
Professor WK Lam
Professor CS Lau
Dr Patrick Li
Professor Philip Li
Dr ML Szeto
Dr CP Wong
Professor CM Yu
Professor Richard Yu
PREFACE TO THE THIRD EDITION

The first edition of the Hong Kong College of Physicians (HKCP) Guidelines on Postgraduate Medical Training was published in July 1993 by the Joint Committee on Internal Medicine Training (JCIMT), just in time for the inauguration of the Hong Kong Academy of Medicine in December 1993. Since then, the Education and Accreditation Committee (E&AC) of HKCP had implemented structured programmes in the first three years of Basic Physician Training (BPT), and introduced the Trainee Log Book as well as yearly review and assessment of trainees. The Intermediate Examination (IE) of HKCP, which can be taken after the first two years of training, continued in the form of a Joint Examination with the Membership Examination of the Royal Colleges of United Kingdom [(MRCP(UK)]. Success at this examination is required before completion of the three years of BPT. All successful candidates are awarded two certificates, allowing them to join both HKCP and the Royal Colleges in UK as Members. This linkage has continued to guarantee the high international standard of our Basic Physician Training programme.

Following the replacement of the JCIMT by the E&AC in May 1996 and the establishment of the Specialty Boards, structured training programmes in Higher Physician Training (HPT) became progressively implemented. As from 1998, every HPT trainee has to undergo Annual Assessments before the Exit Assessment at the end of the three-year training period. The Exit Assessment, comprising of viva and a dissertation, is held twice yearly. The second edition of the Hong Kong College of Physicians Guidelines on Postgraduate Training in Internal Medicine was published in June 1998. The guidelines provided comprehensive outlines of the objectives, structure, knowledge, skill and institutional requirements of eighteen specialties. Four of these, namely, Clinical Pharmacology & Therapeutics, Infectious Disease, Palliative Medicine, and Rehabilitation, are administratively under the Board of Internal Medicine.

E&AC has gained valuable feedback from experiences of examiners (local and overseas) and trainees on the annual and exit examinations over the last five years. Recognising the rapid development of new knowledge and technology and the need of subspecialisation especially in invasive procedures, E&AC and its Specialty Boards have further updated the existing Guidelines, and the result is now published as the third edition of the College’s Training Guidelines. The following points are worthy of note.

1. The Hong Kong Academy of Medicine and the Medical Council of Hong Kong have further approved the following as distinct specialties in Medicine. Qualified physicians practising these specialties are recognised as specialist in these areas. These include:

   Clinical Pharmacology & Therapeutics    Infectious Disease
   Palliative Medicine                 Rehabilitation

2. The Board of Internal Medicine has developed two programmes of training in Internal Medicine in response to the need for ambulatory and community-orientated care:

   Hospital-based Internal Medicine Physician
   Community-based or Ambulatory Care Physician (ACP)
3. Three new guidelines have been revised to reflect the beginning of conjoint training programmes with other Academy Colleges. They include collaboration with microbiologists (College of Pathologists) in Infectious Diseases, laboratory immunologists (College of Pathologists) in Immunology and Allergy, and Orthopaedic surgeons (College of Orthopaedic Surgeons) in Rehabilitation.

4. Due to the complexity and the additional skills required for physicians to perform invasive procedures, new guidelines have been developed in three areas. Qualified physicians will be awarded certificates upon completion of one-year of relevant supervised training. These include:

Advance training in percutaneous cardiovascular interventions
Advance training in invasive cardiac electrophysiological studies & intervention
Training in advanced diagnostic and therapeutic gastrointestinal endoscopy

5. Due to the introduction of advance training programmes in percutaneous cardiovascular interventions and cardiac electrophysiological studies & intervention, the core training period in Cardiology has reverted back to two years, similar to the JCIMT Guidelines of July 1993.

6. The issues of medical ethics and clinical auditing have been emphasized strongly in the new edition of training guidelines.

7. The marking system of the Exit Assessment is enclosed for easy reference by both trainers and trainees.

We congratulate members of the E&AC and Specialty Boards on updating our College Training Programmes into the present degree of maturity within the short space of three years. The College thanks their continuing efforts and the hard work of the Programme Directors, as well as the support and understanding of the Chiefs of Service (Medicine) in public hospital and the administration of Hospital Authority, to enable these programmes to come to fruition so as to produce high calibre physicians for the medical services in Hong Kong.

Finally, the College will continue to seek reciprocal recognition of our training with similar training programmes in other parts of the world, and strive to maintain for generations into the future the excellent reputation that Hong Kong physicians now enjoy internationally.

Professor KN Lai                           Professor Richard Yu
Chairman                                  President
Education and Accreditation Committee

January 2002
MEMBERSHIP OF THE EDUCATION AND ACCREDITATION COMMITTEE

January 2002

Chairman: Professor KN Lai
Deputy Chairman: Dr CS Li
Secretary: Dr Loretta Yam
Members: Dr LY Chong
Professor Karen Lam
Professor WK Lam
Dr Patrick CK Li
Professor Raymond Liang
Dr ML Szeto
Dr CP Wong
Dr Lawrence KS Wong
Professor KS Woo
Professor Richard Yu (Ex-officio)
Dr H Yuen
PREFACE TO SECOND EDITION

The first edition of the Hong Kong College of Physicians (HKCP) Guidelines on Postgraduate Medical Training was published in July 1993 by the Joint Committee on Internal Medicine Training (JCIMT), just in time for the inauguration of the Hong Kong Academy of Medicine in December 1993. Since then, the Education and Accreditation Committee (E&AC) of the HKCP has implemented structured programmes in the first three years of Basic Physician Training (BPT), and introduced the Trainee Log Book as well as yearly review and assessment of trainees. The Intermediate Examination (IE) of the HKCP, which can be taken after the first two years of training, continued in the form of a Joint Examination with the Membership Examination of the Royal Colleges of United Kingdom [MRCP (UK)]. Success at this examination is required before completion of the three years BPT. All successful candidates are awarded two certificates, allowing them to join both the HKCP and the Royal Colleges in UK as Members. Continuation of this valuable linkage will serve to guarantee the high international standard of our basic physician training programme.

In May 1996, the E&AC took over the function of the JCIMT, and established 12 Specialty Boards which were charged with the review of individual Training Guidelines, appointment of trainers, overseeing the trainees and their programmes, as well as accrediting Fellows in the respective specialties. This task has largely been completed. At the 70th Council Meeting held on 14 January 1997, it was determined that all higher physician trainees will be required to register with the College starting from 1 July 1997. Annual Assessment in Higher Physician Training (HPT) is to be introduced in 1998. All trainees who complete Higher Physician Training after December 1997 will have to pass an Exit Assessment in the respective specialties. Exit Assessment will be held twice yearly, and the first Assessment will take place in May-June 1998.

With experience gained in the first year of structured training, the E&AC and Specialty Boards have deliberated on and modified the 1993 JCIMT Guidelines, and the result is now published as the second edition of Training Guidelines. The following points are worthy of note.

1. The Hong Kong Academy of Medicine has resolved in 27 February 1997 that the term “Subspecialty” is to be replaced by “Specialty” to avoid misunderstanding by the community. The College duly revised our nomenclature, and the “Subspecialty Boards” were also re-named “Specialty Boards” after ratification at an Extraordinary General Meeting on 29 May 1997.

   Twelve Specialty Boards have been set up to oversee the eighteen specialties.

2. The College also revised the nomenclature of the following specialties.

   Internal Medicine (IM)  Formerly General Internal Medicine
   Immunology and Allergy  Formerly Clinical Immunology

3. In general, the objectives, structure and contents of training in each specialty in the current Guidelines are similar to the previous edition.
Programme Structures are more clearly defined, especially for Medical Oncology, Infectious Disease, and Immunology and Allergy. Three new specialties, Clinical Pharmacology, Rehabilitation Medicine and Palliative Medicine have been added.

In some specialties where certain aspects of training require knowledge and skills in highly technical and complex procedures, special training programmes followed by Competence Certification will be introduced. Examples include: Interventional Cardiology, Blood and Marrow Stem Cell Transplantation, Therapeutic Endoscopy, etc.

In order to prevent fragmentation in patient care delivery and to avoid the problems of superspecialisation, the College is encouraging trainees to be dually trained in IM in addition to another Specialty. Such dual accreditation would require a longer duration of 4-5 years of HPT after completion of the first three years of BPT. The College is convinced that a trainee dually accredited in IM and a Specialty has a wide perspective in managing patients than another who is trained solely in a single specialty. Furthermore, physicians competent in IM will have a more fulfilling practice in the long run. Hence, it is worthwhile for trainees to spend the extra time and effort in obtaining accreditation in both IM and another Specialty.

Some related specialties also allow trainees to undertake dual accreditation programmes with corresponding longer training duration. Training programmes in each specialty should comprise not less than two years of structured training. Some dual accreditation programmes of this nature are offered by Respiratory Medicine and Critical Care Medicine (four years); Cardiology and Critical Care Medicine (five years); Haematology & Haematological Oncology and Medical Oncology (four years); Rheumatology and Immunology and Allergy (four years); Geriatric and Rehabilitation Medicine (four years), and Internal Medicine and Palliative Medicine (four years).

Members of the E&AC and Specialty Boards should be congratulated for bringing our College Training Programmes into the present degree of maturity within the short space of four years. The College would need their continued effort, the hard work of the Programme Directors and College Advisors, as well as the support and understanding of the Chiefs of Service (Medicine) in public hospital and the administration of Hospital Authority, to enable these programmes to come to fruition, to produce high calibre physicians for the medical services in Hong Kong.

Finally, the College will continue to seek reciprocal recognition of our training with similar training programmes in other parts of the world, and strive to maintain for generations into the future the excellent reputation which Hong Kong physicians now enjoy internationally.

Dr Richard YH Yu  
Chairman  
Education and Accreditation Committee

Professor TK Chan  
President

June 1998
MEMBERSHIP OF
THE EDUCATION AND ACCREDITATION COMMITTEE

June 1998

Chairman: Dr Richard Yu
Secretary: Dr Loretta Yam
Members: Professor TK Chan
          Professor KN Lai
          Professor Karen Lam
          Professor SK Lam
          Professor WK Lam
          Dr MF Leung
          Dr CS Li
          Dr Patrick Li
          Dr KK Lo
          Dr TF Tse
          Dr SP Wong
          Professor Jean Woo
          Dr EK Yeoh
          Dr H Yuen
PREFACE TO FIRST EDITION

Preamble

The Hong Kong College of Medicine was established in 1887 for the purpose of training local Chinese in Western Medicine. This pioneering effort of its founders was amongst the earliest in this part of the World. The College was incorporated as the Faculty of Medicine of the University of Hong Kong (HKU), founded in 1912, and continued as the only institute for the training of undergraduate medical students for seven decades. It was joined in 1980 by the Faculty of Medicine of the Chinese University of Hong Kong (CUHK). At present, the two Faculties produce about 300 medical graduates per annum, and both the MB, BS degree granted by HKU and the MB, ChB degree granted by CUHK are fully registrable by the General Medical Council (GMC) in United Kingdom (UK). This attests to both the standard of teaching of the two Medical Faculties as well as the standard of their graduates. While the GMC will recognise these degree fully up to 1997, the Hong Kong Medical Council needs to take over this role and seek recognition internationally for these degrees.

In Hong Kong, the compulsory internship year was introduced in 1952, and one year of supervised training in two major disciplines, Medicine or its equivalent and Surgery or its equivalent, are required before full registration. In 1988, a split internship of three months each in two related specialties was introduced, which served to broaden the experience of the intern.

Postgraduate training in Internal Medicine in Hong Kong follows the practice in the UK. An apprentice system of practical learning in Academic Units or Medical Units in Public Hospitals, with proper supervision for a period of two to three years, would qualify a candidate to sit the MRCP examination in the UK, and gain recognition as a specialist in Medicine. The pass rate of the previous MRCP examinations (e.g. MRCP, London, Edinburgh, etc) was low, and most candidates would need four to five years experience in Medicine before they passed. In the 1970’s, the Royal Colleges recognised that the MRCP examination, which can be taken after two years of clinical experience, is but an entry requirement for further training in a subspecialty. Accreditation of specialists after three to six years of higher medical training was introduced, and further refinement of guidelines has been made in recent years. The CMO Working Group on Specialist Medical Training in the UK has recently recommended the award of a Certificate of Completion of Specialist Training (CCST) on exit from an approved training programme.

Since 1985, the entire MRCP(UK) examination can be taken in Hong Kong once a year in October. The pass rate has been relatively high, approximately 30%, and the standard of the candidates is good. Hence the completion rate of basic physician training in regional public hospitals in Hong Kong is high. The problem of higher specialist training still exists. Up to now, we have depended heavily on sending our trainees overseas to Institutes in the UK, USA and Australia. This period of overseas training is followed by further in-service and/or self-learning experience in Hong Kong. This has resulted in a large pool of internationally recognised specialists and enhanced the standard of medical practice.
The Hong Kong College of Physicians was formed in October 1985 by the majority of the trained specialists in Internal Medicine. With the formation of the Academy of Medicine in August 1992, the time has come for the College of Physicians to take on the additional function of examination and advise on structured training locally. We recognise at the outset of our deliberations that overseas training is very useful for our higher specialist trainees and should be encouraged; that our training programme should be recognised internationally, and the excellent standard of our doctors should be maintained.

While the Hong Kong College of Physicians is given the power and duties of setting standard and accrediting training post and trainees, the majority of the trainees and trainers are in public hospitals, which, since 1991, have been under the auspices of the Hospital Authority. It seems reasonable that the training committee of both these organisations should work together if only to avoid duplication of effort. The Joint Committee on Internal Medicine Training (JCIMT) was formed in January, 1993 and this document is the result of deliberations of the JCIMT and its co-opted Subspecialty Advisory Groups which advised on each of the subspecialty training programmes. The membership and terms of reference of the JCIMT are listed in Appendix A. The Council of Hong Kong College of Physicians has endorsed continuation of the JCIMT and has also supported the formation of Subspecialty Advisory Committee (SACs) as subcommittees of the JCIMT, with membership and terms of references as listed in Appendix B.

TK Chan
Chairman, JCIMT

July 1993
MEMBERSHIP OF
THE EDUCATION AND ACCREDITATION COMMITTEE

July 1993

Chairman: Dr EK Yeoh
Secretary: Dr Loretta Yam
Members: Dr WK Lam
         Dr CS Li
         Dr SP Wong
         Dr J Woo
         Dr R Yu
1 **MEDICAL EDUCATION** is a continuum from Undergraduate through internship to Structured Postgraduate Medical Training, which is further divided into two stages: basic and higher professional training. In fact, self-learning aided by Continued Medical Education (CME) programmes, should continue throughout the career of a medical practitioner and re-training is desirable whether re-certification is mandatory or not. This concept is depicted in the schematic diagram as follows:-

![Schematic Diagram]

**STAGES IN TRAINING**

- Undergraduate → Internship → Structured → CME Training
- Postgraduate Training
  - Basic-Higher

**YEARS**

- 5 → 1 → 3 → 3 → Life Long

This should not be construed to mean that doctors are not adequately trained for their job at graduation or on exit from higher professional training, but that Medicine is complex and evolving; therefore, continued update, review and re-education are mandatory in the Medical Profession.

2 This document only deals with the **Structured Postgraduate Medical Training** in Internal Medicine.

3 **Basic Physician Training**, which lasts for three years, aims at a broad-based training in general internal medicine. Experience in other disciplines which interact with Internal Medicine and can enrich the trainees should be encouraged and accredited.

4 The correct **Attitude** should be inculcated early; re-inforced during higher specialist training and practised throughout a physician’s career. Minor differences in emphasis in each of the subspecialties are due to the different nature of illnesses treated.

5 We agreed that for the initial years, the MRCP(UK) type of examination shall be **Intermediate Examination** to test competence in basic clinical skills, attributes of a physician and an adequate level of basic knowledge in general medicine. This can be taken after 2 years’ training and the HKCP has agreed on a Joint Examination with MRCP(UK) starting from February 1994, to be held twice a year, in February and October, in Hong Kong.

6 A pass in the joint MRCP(UK)-HKCP/HKCPaed examination and three years of accredited basic physician training shall be the requirement for entry to Higher Training in a Subspecialty.

7 Guidelines for **Higher Subspecialty Training** are drawn up according to the same format. These are listed in the following sections.
As to the **STRUCTURE** of each programme, all the **SUBSPECIALTY ADVISORY GROUPS** support periods of training abroad as well as periods of research in relevant topics, which will be accredited up to 6 months. In certain cases, training programmes may be approved on an individual basis.

The **CONTENTS** of each subspecialty need to be updated regularly because of the rapid progress of Medicine.

**INSTITUTIONAL REQUIREMENTS:** Flexibility in training programmes should be entertained because, for most cases, completion of specified training may require training in more than one institution.

**ASSESSMENT OF TRAINERS, EVALUATION OF TRAINING PROGRAMMES** in each subspecialty should, as far as possible, use similar guidelines. Assessment of trainees would be based on **COMPETENCE** and therefore best performed by the individual trainers involved.

**ASSESSMENT FORMS AND CHECK LIST** for each subspecialty will change from time to time and trainees and trainers should use the most updated forms. Suggested forms are appended at the end of this document.

The processes for **COMPLAINTS AND APPEALS** are as follows.

1. Complaints on training facilities, supervision or other related matters can be made by the trainees either at the regional level, through Programme Directors and Regional College Advisors, or directly to the Council of the HKCP.

2. Appeals against unsatisfactory progress reports, discontinuation of training and failure of final accreditation should be made directly to the HKCP Council.

These Guidelines are written for **TRAINEES, TRAINERS** and **EXECUTIVES OF INSTITUTES** and will be regularly updated.

TK Chan
Chairman, JCIMT

July 1993
A TERMS OF REFERENCE
1 To formulate guidelines for basic physician training.
2 To formulate guidelines for higher medical training in the subspecialties.
3 To advise on the format of examination and continued assessment of trainees.
4 To advise on institutional requirements for training posts.
5 To recommend procedures for monitoring and accreditation of trainees and training programmes.
6 To keep the above issues under constant review.

B MEMBERS

HKCP Education & Accreditation Committee
Chairman Dr EK Yeoh
Members Dr WK Lam
Dr Loretta Yam
Dr Richard Yu

HA-CCIM Training Subcommittee
Chairman Prof TK Chan (Chairman, Dept of Medicine, HKU)
Members Prof D Anderson (Chairman, Dept of Medicine, CUHK)
Dr M Tsang (HK)
Dr SP Wong (Kowloon) Regional Training Directors
Dr Jean Woo (NTE)
Dr SCR Kapoor (NTW)
Dr CS Kay/Dr KM Lam (Kowloon) Co-opted member
Dr KO Cheung (Kowloon) Co-opted member
Dr Lawrence Lai (DCDO, Professional Training)

Secretary Mr Wong Tai Wai (Senior Human Resources Manager, T&D)

Prof TK Chan acted as Co-ordinator/Chairman of JCIMT
SUBSPECIALTY ADVISORY COMMITTEES (SACs)

These are standing subcommittees of the JCIMT.

TERMS OF REFERENCE

1. To determine and review the guidelines for the training of subspecialties in Internal Medicine.

2. To consider and recommend trainees for accreditation.

3. To consider training posts in the subspecialty submitted by Institutions and Units and recommend accreditation status.

4. To consider and advise on any matter referred from the JCIMT.

MEMBERSHIP

Three members recommended by JCIMT (at least one being a member of JCIMT) and three members nominated by subspecialty association and/or academic units and approved by Council of HKCP.

The subspecialty association of various subspecialties are listed below and this list will be reviewed periodically.
<table>
<thead>
<tr>
<th>SUBSPECIALTY</th>
<th>SUBSPECIALTY ASSOCIATIONS</th>
</tr>
</thead>
</table>
| Cardiology                         | Hong Kong College of Cardiology  
                                              Hong Kong Cardiological Society |
| Dermatology and Venereology        | Hong Kong Society of Dermatology and Venereology                                        |
| Diabetes, Endocrinology and Metabolism | Society for the Study of Endocrinology, Metabolism and Reproduction                     |
| Gastroenterology and Hepatology    | Hong Kong Society of Gastroenterology  
                                              Hong Kong Society for the Study of Liver Diseases |
| Geriatrics                         | Hong Kong Geriatric Society                                                             |
| Haematology                        | Hong Kong Society of Haematology                                                        |
| Neurology                          | Hong Kong Neurological Society                                                          |
| Nephrology                         | Hong Kong Society of Nephrology                                                         |
| Respiratory Medicine               | Hong Kong Thoracic Society  
                                              American College of Chest Physicians  
                                              (Hong Kong & Macau Chapter) |
| General Internal Medicine (including Infectious Diseases, Medical Oncology, Clinical Pharmacology, Rheumatology Immunology & Allergy) | Hong Kong Cancer Chemotherapy Society  
                                              Hong Kong Society of Rheumatology |
| Critical Care Medicine             |                                                                                         |
| Accident and Emergency Medicine    |                                                                                         |
| Rehabilitation Medicine and Hospice Care |                                                                                     |
### SUBSPECIALTY ADVISORY GROUPS (SAG’s) FOR FORMULATION OF GUIDELINES

<table>
<thead>
<tr>
<th>SAG</th>
<th>MEMBERS</th>
</tr>
</thead>
</table>
| Cardiology                    | Dr SP Wong (Chairman)  
                                  | Dr CH Cheng, Dr PTH Ko, Dr CP Lau,  
                                  | Dr WH Leung, Dr GYK Mak,  
                                  | Dr PWY Pau, Dr CO Pun, Dr YT Tai |
| Critical Care Medicine        | Dr Jane CK Chan (Chairman)  
                                  | Dr Mary Ip, Dr WK Lam, Dr Loretta Yam |
| Dermatology & Venereology     | Dr KK Lo (Chairman)  
                                  | Dr Avery Chan, Dr LY Chong, Dr CF Lai |
| Endocrinology, Diabetes and Metabolism | Dr Karen Lam (Chairman)  
                                  | Prof D Anderson, Dr C Cockram,  
                                  | Dr J Ma, Prof R Young |
| Gastroenterology & Hepatology | Prof SK Lam (Chairman)  
                                  | Dr CK Chan, Dr CL Lai, Dr Nancy Leung,  
                                  | Dr Joseph Sung, Dr CW Tsang |
| Geriatric Medicine            | Dr Jean Woo (Chairman)  
                                  | Dr NS Ng |
| Haematology & Haematological Oncology (Haem/Onc) | Prof TK Chan (Chairman)  
                                  | Dr CH Chan, Dr LC Chan,  
                                  | Dr EKW Chiu, Dr RHS Liang |
| Infectious Disease            | Dr CW Tsang (Chairman)  
                                  | Dr WK Kwan, Dr JY Lai |
| Clinical Pharmacology         | Prof CR Kumana, Dr J Critchley |
| Medical Oncology              | Prof PJ Johnson (Chairman)  
                                  | Dr EKW Chiu, Dr J Critchley, Dr CL Lai,  
                                  | Dr WK Lam, Dr RHS Liang, Dr M Sham |
| Nephrology                    | Dr CS Li (Chairman)  
                                  | Dr IKP Cheng, Prof KN Lai, Dr R Yu |
| Neurology                     | Dr YL Yu (Chairman)  
                                  | Dr YW Chan, Dr CM Chang,  
                                  | Dr YS Chan, Dr R Kay, Dr Patrick Li |
Respiratory Medicine  
Dr WK Lam (Chairman)  
Dr Jane Chan, Dr WNK Chan,  
Dr Mary Ip, Dr CY Tse, Dr L Yam, Dr WW Yew

Rheumatology  
Dr CS Lau (Chairman)  
Dr Edmund Li, Dr Raymond Wong

Clinical Immunology  
Dr SS Lee, Dr J Lawton

The assistance of the above Fellows of the Hong Kong College of Physicians is gratefully acknowledged.
II. Basic Physician Training
II. BASIC PHYSICIAN TRAINING

GENERAL GUIDELINES

1 Entry requirements

The trainee should possess MBBS, MBChB or equivalent plus one year of internship experience. Prior experience in one or more related disciplines may be accredited as detailed in the Training Guidelines under (II) Structure. Overseas Basic Physician Training experience will only be assessed by the Basic Physician Board when the Hong Kong applicant has a full-time structured training post in the two universities or the Hospital Authority in Hong Kong.

2 Programme Director

2.1 A Programme Director shall be appointed by the Council of the Hong Kong College of Physicians to oversee Basic Physician Training within each service network of acute and extended care institutions. Depending on the number of institutions within the service network, Deputy Programme Directors shall be appointed to assist the Programme Director in training-related matters. Assistant Programme Directors shall also be appointed to supervise Basic Physician Training within individual hospitals and networking institutions.

2.2 The Programme Director shall be responsible for enforcing the training requirements, facilitating and coordinating training rotation within the service network, collating and reviewing Trainee assessment reports submitted by Trainers, and advising Trainees, Trainers and institutions on training-related matters.

2.3 In the case of Trainees undergoing training rotations across service networks, the Programme Director of the recipient network shall be responsible for overseeing the training progress and monitoring and reporting on performance during the elective rotation. The original Programme Director shall be responsible for overall coordination of the Trainees’ training programme including elective rotations within and across service networks.

3 Assessment of Trainees

3.1 Trainees should register with the College as soon as possible when they join a Basic Physician Training Programme. All prior training experience in related disciplines or overseas institutions should be submitted to the Basic Physician Board for vetting and consideration of accreditation.

3.2 Trainees should use a Log Book to maintain records of their experience in bedside diagnostic and therapeutic procedures and attendance at educational activities. Their Trainers and Programme Directors should periodically review their Log Books to assess training progress and recommend remedial action where appropriate.

3.3 Trainees should submit 6-monthly reports of their training progress to their Trainers for assessment and certification and then to the respective Programme Directors for review. Both Programme Director and Trainee should keep a copy of the training records. Copies of these reports may also be submitted to the
Department Head and Hospital Management where appropriate.

3.4 The Programme Directors should regularly review the assessment reports of their Trainees, particularly in case of suboptimal performance and when certifying completion of Basic Physician Training.

3.5 Programme Directors should counsel Trainees with unsatisfactory training progress and submit relevant reports and recommended remedial action through the Basic Physician Board to the Education and Accreditation Committee, as well as to the Trainees’ Department Heads and Hospital Management.

4. **Accreditation of Trainers**

4.1 A Trainer must be a Fellow who possesses at least two years of relevant post-Fellowship experience and is accredited in Internal Medicine and/or a Specialty under the Hong Kong College of Physicians.

4.2 A Trainer must be actively engaged in, and actively contributing to, full-time institutional practice in Internal Medicine and/or its specialties in accredited training programme(s).

4.3 A Fellow cannot perform the role of a Trainer in Basic Physician Training while he/she is undergoing training in a medical specialty.

5. **Accreditation of Training Programme**

5.1 The Education and Accreditation Committee of the Hong Kong College of Physicians is empowered by the Council to accredit individual training programmes, and monitor their performance through review of reports on individual Trainees and visits to the respective institutions.

5.2 Training programmes must be organised by accredited Trainers. The Trainer to Trainee ratio should not be lower than 1:2 at any time.

5.3 Training institutions shall be accredited based on evaluation of their specialty casemix, spectrum of disease, emergency admissions, patient volume and turnover, quality of training programme, and institutional infrastructure and facilities.

5.4 The College will periodically review and publicise the status and duration of accreditation of individual training programmes in accordance with their conformity to College requirements.

6. **Complaints and appeals**

6.1 Avenues shall be open to Trainees to lodge complaints regarding training facilities, programme content, Trainer supervision or related matters to the Basic Physician Board through their Programme Directors and directly to the Council of the Hong Kong College of Physicians.

6.2 Appeals against unsatisfactory training assessment reports, discontinuation of training and failure at the Intermediate Examination shall be directed to the Council of the Hong Kong College of Physicians.
TRAINING GUIDELINES

(I) OBJECTIVES

1. To provide a broad experience in General Internal Medicine, including its inter-relationship with other disciplines.

2. To enhance medical knowledge, clinical skills, and competence in bedside diagnostic and therapeutic procedures.

3. To achieve the professional requirements of the Intermediate Examination and prepare for Higher Physician Training in one or more specialty in Internal Medicine.

4. To cultivate the correct professional attitude and enhance communication skill towards patients, their families and other healthcare professionals.

5. To enhance sensitivity and responsiveness to community needs and the economics of health care delivery.

6. To enhance critical thinking, self-learning, and interest in research and development of patient service.

7. To cultivate the practice of evidence-based medicine and critical appraisal skills.

8. To inculcate a commitment to continuous medical education and professional development.

(II) STRUCTURE

The basic physician training programme should be organised with flexibility. Exposure to various medical specialties and other related disciplines is encouraged.

1. The core programme consists of three years of supervised training.

2. The Trainees should have at least two years of training in units dealing with general medical problems, of which at least one year should be spent in a unit dealing with a comprehensive range of acute medical emergencies. They should also attend general and specialty medical clinics for no fewer than five hours per week throughout the three years of training, unless they are engaged in training in non-physician specialties or highly specialized physician training units like Accident and Emergency Department and Intensive Care Unit. The requirement for general and specialty medical clinics exposure applies to trainees working in all (acute or non-acute) training institutions.

3. The Trainees should have no less than 3 month working experience in General Medical Units of Hospitals with Obstetric and acute surgical services in their 6 years of physician training (BPT+HPT) [Note: This applies to Trainees who start BPT from 1 July 2009 onwards]. They should also possess the knowledge of handling medical problems and preparation of patients requiring obstetric and surgical operations or procedures.

4. Exposure to various medical specialty services in parallel with duties in general medicine should be encouraged. Trainees should preferably have the
opportunity for training rotation to critical care settings including ICU/CCU/HDU and rehabilitation services.

5 Supervised training in a full-time specialty service under Department of Medicine approved by the College may be accredited for up to six months each for a total of not more than 12 months. Examples include Bone Marrow Transplant, Coronary Care, Dermatology, Geriatric Outreach Programmes, Intensive Care, Medical Oncology and Renal Dialysis Service.

6 Supervised training in related disciplines may be accredited for a total of not more than 12 months, provided there is no overlap with full-time specialty postings during training within the Department of Medicine, as stated in Item 5 above. Training experience in Anaesthesiology, Clinical Oncology, Dermatology, Emergency Medicine, Intensive Care Medicine, Paediatrics, Pathology, Psychiatry and Radiology may be accredited for up to six months each. Family Medicine training modules in Internal Medicine, Emergency Medicine, Paediatrics and Psychiatry may also be accredited for up to six months each, up to a total of not more than 12 months. Such training modules must be conducted in programmes accredited by the respective Colleges and is subject to assessment by the Basic Physician Board with regard to their training element and clinical exposure.

7 Trainees should acquire competence through supervised performance of the required numbers of diagnostic and therapeutic procedures during their Basic Physician Training.

8 Trainees should attend the mandatory Scientific Meetings and fulfill the annual Self-Learning Tool (SLT) requirement of the College during their Basic Physician Training. The Self-Learning Tool (SLT) is a web-based interactive training modules jointly developed by the College and the Hospital Authority. It consists of clinical scenarios in different subspecialties with the aim of helping the trainees to identify and prevent risks in clinical decision and ultimately improve in their clinical management.

(III) CONTENTS

(A) Knowledge

1 Aetiology, clinical manifestation, disease course and prognosis, investigation and management of common medical diseases.

2 Scientific basis and recent advances in pathophysiology, diagnosis and management of medical diseases.

3 Spectrum of clinical manifestations and interaction of multiple medical diseases in the same patient.

4 Psychological and social aspects of medical illnesses.

5 Effective use and interpretation of investigation and special diagnostic procedures.
6 Critical analysis of the efficacy, cost-effectiveness and cost-utility of treatment modalities.

7 Patient safety and risk management

8 Medical audit and quality assurance

9 Ethical principles and medicolegal issues related to medical illnesses.

(B) Skills

1 Ability to take a detailed history, gather relevant data from patients, and assimilate the information to develop diagnostic and management plans.

2 Competence in eliciting abnormal physical signs and interpreting their significance.

3 Ability to relate clinical abnormalities with pathophysiologic states and diagnosis of diseases.

4 Ability to select appropriate investigation and diagnostic procedures for confirmation of diagnosis and patient management.

5 Skills in performing important bedside diagnostic and therapeutic procedures and understanding of their indications. Trainees should acquire competence through supervised performance of the required number of each of the following procedures during the 3-year training period and should record them in the Trainee’s Log Book.

At least 10 times during the three-year training period:
   Cardiopulmonary resuscitation
   Central venous cannulation
   Marrow aspiration and trephine biopsy
   Abdominal paracentesis
   Pleural tapping and biopsy
   Endotracheal intubation

At least 6 times during the three-year training period:
   Lumbar puncture
   Chest drain insertion

6 Ability to present clinical problems and literature review in grand rounds and seminars.

7 Good communication skills and interpersonal relationship with patients, families, medical colleagues, nursing and allied health professionals.

8 Ability to mobilise appropriate resources for management of patients at different stages of medical illnesses, including critical care, consultation of medical specialties and other disciplines, ambulatory and rehabilitative services, and community resources.

(C) Attitudes
The well-being and restoration of health of patients must be of paramount consideration.

Empathy and good rapport with patient and relatives are essential attributes.

An aspiration to be the team-leader in total patient care involving nursing and allied medical professionals should be developed.

The cost-effectiveness of various investigations and treatments in patient care should be recognised.

The privacy and confidentiality of patients and the sanctity of life must be respected.

(IV) INSTITUTIONAL REQUIREMENTS

To be recognised for Basic Physician Training, a medical department in an institution or a rotational programme in more than one institution should fulfil the following criteria:

1. Sufficient number of beds to admit patients of both genders and with a variety of medical diseases.
2. Organised ambulatory care, outpatient follow-up clinics and link with extended care facilities for rehabilitation and chronic care.
3. Facilities for care of critically ill patients, e.g. CCU, ICU, HDU.
4. Consultations from a broad range of Surgical discipline.
5. Sufficient number of Trainers directly supervising trainees in patient management during regular ward rounds, emergency calls, ambulatory care and outpatient services.
6. Resident emergency duties for the trainees at a frequency of at least four times per month.
7. Regular medical audits to review the outcome of treatment and interventional procedures, and referral to the pathologists to perform autopsies to resolve diagnostic problems.
8. Laboratory diagnostic support, including chemical pathology, immunology, haematology, microbiology and histopathology services.
9. Diagnostic imaging support, including radiology, ultrasonography, computed tomography, magnetic resonance imaging and nuclear medicine imaging.
10. Maintenance of complete and high quality medical records with easy and prompt accessibility at all times.
11. Structured education programmes including case presentation, journal club and grand round, x-ray meeting and clinicopathological conference.
12. Availability of the following facilities:

12.1 Residential facilities for call duties

12.2 Medical library with core journals in Internal Medicine and computerised literature search systems.

12.3 Meeting rooms with adequate facilities including audiovisual aids for educational activities.

12.4 Information technology facilities for preparation of clinical presentations/seminars.

(V) INTERMEDIATE EXAMINATION

The Intermediate Examination of the Hong Kong College of Physicians is held jointly with the Membership of the Royal Colleges of Physicians of the United Kingdom [MRCP(UK)] Examination. Applicants for PACES must have passed the MRCP(UK) Part I Examination within 7 years, or have exemption from it, and have spent not less than 12 months after registration in continuing care of emergency medical patients. It is recommended that candidates have commenced 18 months in Basic Physician Training before attempting PACES. In addition to the award of MRCP(UK) certificate, an Intermediate Examination Certificates will be awarded by the Hong Kong College of Physicians to candidates who have successfully completed all three sections of the Intermediate Examination.

(VI) COMPLETION OF TRAINING

After completing three years of accredited Basic Physician Training and passing the Intermediate Examination, the trainee should report, through the Programme Director, to the Basic Physician Board for certification of training completion. Within 3 months after certifying completion of Basic Physician Training, the trainee should apply to the College for admission as Member of the Hong Kong College of Physicians before proceeding to Higher Physician Training in one or more specialty in Internal Medicine.
Programme Director of Basic Physician Training

Programme Directors should be in full-time practice as Trainers in accredited training programmes of the respective specialty.

Functions and Responsibilities

1. To advise and endorse basic physician training programmes submitted from training units within the hospital/hospital cluster.

2. To liaise with Trainers, Chiefs-of-Service and hospital administration on appropriate postings and other training requirements.

3. To liaise with Programme Directors of other hospitals/hospital clusters and advise on trainee rotation in cases which so require. In the case of Trainees undergoing training rotations across service networks, the Programme Director of the recipient network shall be responsible for monitoring the training progress and reporting on performance during the elective rotation. The original Programme Director shall be responsible for overall coordination of the Trainee's training programme including elective rotations within and across service networks.

4. To provide the Education & Accreditation Committee with authoritative evaluation on the appropriateness and effectiveness of basic physician training & the respective training programmes within the hospital/hospital cluster.

5. To co-ordinate basic physician training
   5.1 To recommend admission of candidates into the basic physician training programme.
   5.2 To hold regular meetings with trainees to discuss issues of training.
   5.3 To monitor training programmes and progress of training.
   5.4 To counsel failed trainees.
   5.5 To review trainees' records and certify satisfactory completion of training.

6. To receive suggestions and complaints from trainers and trainees and to recommend to the Education and Accreditation Committee, through the Basic Physician Board, appropriate response or action.

7. To assume a teaching and motivating role in basic physician training, through direct contact with trainees and trainers within the hospital/hospital cluster.

8. To be responsible for all other matters pertaining to basic physician training within the hospital/hospital cluster.

9. To hold office for a period of 2 years, subject to renewal.

Accountability

The Programme Director is accountable to the Basic Physician Board, the Education & Accreditation Committee and the Council of the Hong Kong College of Physicians.
III. Higher Physician Training
SPECIALTY BOARDS

1  Advanced Internal Medicine
   Clinical Pharmacology and Therapeutics
   Infectious Disease
   Palliative Medicine

2  Cardiology

3  Critical Care Medicine

4  Dermatology and Venereology

5  Endocrinology, Diabetes and Metabolism

6  Gastroenterology and Hepatology

7  Geriatric Medicine
   Rehabilitation

8  Haematology and Haematological Oncology

9  Medical Oncology

10 Nephrology

11 Neurology

12 Respiratory Medicine

13 Rheumatology
   Immunology and Allergy
General Guidelines

1 Entry Requirements

Three years of accredited structured basic training in Internal Medicine, plus a pass in the Intermediate Examination of the Hong Kong College of Physicians or equivalent qualification and Membership of the Hong Kong College of Physicians.

2 Assessment of Trainees

2.1 Continuous assessment will be undertaken by the respective trainers. Standard assessment forms should be completed at six-monthly intervals, or at the end of a training period under a specific trainer if the period falls short of six months. A log book to record clinical and procedural experience should be used for assessment of competence.

Trainees are encouraged to keep up with medical advances. They should understand that teaching and research are important activities in advancement of knowledge.

2.2 Log book

A record of clinical and procedural training should be kept by each trainee for signature by his/her trainer(s) and regular review by the respective Programme Directors, as well as by the Interim & Exit Assessment Panels.

2.3 A Programme Director in each Region should be appointed by the Council to oversee the Higher Physician Training, to be responsible for collation of assessments from various trainers throughout the training period.

2.4 The Programme Director shall be responsible for the enforcement of training requirements, facilitation and coordination of training rotations within the respective service network, collation and review of Trainee Assessment Reports submitted by Trainers, and advice to Trainees, Trainers and institutions on training-related matters.

2.5 The Programme Director shall regularly review the assessment reports of the Trainees, in particular when suboptimal performance is identified.

2.6 The Programme Director and a panel appointed by the relevant Specialty Board will be responsible for yearly review of the trainee’s progress. The trainee must attain Grade 5 or above in the evaluation of clinical and professional competence before he/she can proceed with further training.

2.7 Exit Assessment

At the end of the training, a final appraisal of each trainee will be conducted by the respective Specialty Boards, in the form of an assessment of a dissertation
(where appropriate), oral examination and review of log book and previous Interim Assessments, to determine his/her competence before certification of specialist status.

3 Accreditation of Trainers

3.1 A Trainer must be an accredited Fellow and Specialist recognised by the Hong Kong College of Physicians, who has been in active full-time institutional practice in the respective specialties for not less than two years after specialist accreditation. A Trainer cannot be undergoing Higher Physician Training in any other specialties within the College.

3.2 A Trainer must be actively engaged in the full-time institutional practice of Internal Medicine and/or its specialties, be able to conduct training in accredited training programmes, and is recognised to be actively contributing to the discipline.

3.3 A Trainer should spend at least 50% of his/her time in the specialty and a Fellow cannot hold Trainer status in more than two specialties.

4 Evaluation of the Training Programme

4.1 Training programmes must be organised by Trainers who have not less than two years’ experience after the award of certification in a specialty, and are in active practice in accredited training units. The minimum trainer to trainee ratio should be 1:2.

4.2 Training programmes rather than specific units or institutions shall constitute the foundation of accreditation. Supervision by more than one trainer and in more than one unit is encouraged. Units which fail to satisfy all training requirements for an individual specialty may formulate programmes which are networked with other hospitals.

4.3 The Education and Accreditation Committee of the HKCP, through its Specialty Boards, is empowered by the Council to evaluate each training programme, and to monitor its results through review of reports on individual trainees and visits to the respective institutions.

4.4 Accredited programmes will be publicised regularly by the College, and the status of each programme, eg full, provisional, suspension and withdrawal of accreditation, will be used to ensure institutional conformity to College requirements.

4.5 Overseas training

This is encouraged but prior approval should be obtained from the respective Specialty Boards. The duration of recognised overseas training should normally be
six months, though a maximum of 12 months of overseas training may be recognised on a case-by-case basis upon the discretion of the relevant Specialty Boards.

4.6 Clinical & Laboratory Research

Relevant research programmes are encouraged and may be accredited for a maximum of six months in each 3-year Higher Physician Training programme.

5 Complaints and Appeals

5.1 Complaints on training facilities, supervision or other related matters should be made available to trainees both at the regional level through Programme Directors and Specialty Boards, and directly to the Council of HKCP.

5.2 Appeals against unsatisfactory progress reports, discontinuation of training and failure of final accreditation should be made directly to the HKCP Council.

6 Advanced Training in Internal Medicine (AIM) and one other specialty

6.1 Concurrent Training

6.1.1 This would require a minimum of four years of supervised training.

To be considered for dual certification, each four-year higher physician training programme should comprise 24 months (cumulative) of core training in Internal Medicine and 24 months (cumulative) of core training in one other specialty. All trainees who undergo dual training must choose either AIM or Geriatric Medicine as one of the specialties.

Dual training programmes must be approved by the AIM Board as well as the Board in the other specialty. Such a programme will normally consist of periods in which 50% of time is spent in IM or Geriatric Medicine and the other 50% in the other specialty, as well as periods of full time training in either one or both of the specialties.

In the context of concurrent training, a trainee may apply to undergo Exit Assessment in one of the two specialties after not less than three years of Higher Physician Training, provided the full period of 24 months (or 36 months as required by the specialty of Dermatology & Venereology) of core training has been completed in that specialty. Exit Assessment for the second specialty may be undertaken at the end of the fourth or (fifth) year of training, again with the provision that the required period of core training has been completed.

6.1.2 Exceptionally, a trainee may receive certification in two or more related specialties in addition to Internal Medicine after completion of all training requirements. Such programmes and subsequent certification
shall require vetting and approval by the respective Specialty Boards and the Education & Accreditation Committee.

6.2 Sequential Training

A Fellow may apply to individual Specialty Boards to undertake sequential training in AIM or another specialty after award of certification in either of these specialties.

7 Training in two related specialties

7.1 Concurrent training may be undertaken in the same manner as specified under Section 6.1, provided approval is obtained from the relevant Specialty Boards.

7.2 Sequential Training

A Fellow accredited in any one specialty after three years of training may undertake sequential training in a second or third specialty, and obtain accreditation by completing the core training requirements of the subsequent specialty/specialties.
**Specialty Programme Director of Higher Physician Training**

Specialty Programme Directors should be in full-time active practice as Trainers in accredited training programmes of the respective specialty.

**Functions & Responsibilities**

1. To advise and endorse higher specialty training programmes submitted by trainees within the Region.

2. To liaise with Trainers, Chiefs-of-Service and hospital administration on appropriate postings and other training requirements.

3. To liaise with Specialty Programme Directors of other Regions through the respective Specialty Boards, and advise on trainee rotation in cases which so require.

4. To provide the Education & Accreditation Committee, through respective Specialty Boards, with authoritative evaluation on the appropriateness and effectiveness of higher physician training & the respective training programmes within the Region.

5. To co-ordinate higher physician training in the respective Specialty within the Region.
   5.1 To recommend admission of candidates into the higher physician training programme.
   5.2 To monitor training programmes and progress of training.
   5.3 To counsel failed trainees and to recommend remedial action.
   5.4 To review trainees’ records and certify satisfactory completion of training.
   5.5 To keep and update a central file of trainees within the Region.
   5.6 To report to the Specialty Board biannually.
To receive suggestions & complaints from trainers and trainees, and to recommend to the Education and Accreditation Committee, through the respective Specialty Board, appropriate response or action.

To conduct and chair the Interim Assessment processes in the respective Region.

To be responsible for all other matters pertaining to higher physician training in the respective specialty within the Region.

To hold office for a period of 2 years, subject to renewal.

**Accountability**

The Specialty Programme Director is accountable, through the appropriate Specialty Board, to the Education & Accreditation Committee and the Council of the Hong Kong College of Physicians.
IV. Guidelines for Higher Physician Training
ADVANCED INTERNAL MEDICINE (AIM)

(I) OBJECTIVES

1. To provide a broad training and in-depth experience at a level for trainees to acquire competence and professionalism of a specialist in Advanced Internal Medicine especially in the diagnosis, investigation and treatment of medical problems towards the delivery of holistic patient care.

2. To acquire competence in managing acute medical emergencies and identifying medical problems in patients referred by primary care and other doctors, and in selecting patients for timely referral to appropriate tertiary care or the expertise of another specialty.

3. To develop competence in the inpatient and outpatient management of medical problems and in selecting patients for referral to tertiary care facilities and treatment modalities requiring high technology and/or the expertise of another specialty.

4. To equip the trainees to manage patients in general medical units in regional/district hospitals; to be a leader in the health care delivery team and to work closely with networking units which provide convalescence, rehabilitation and long term care.

5. To encourage the development of skills in communication and collaboration with the community towards total health care delivery.

6. To foster the development of skills in the critical appraisal of new methods of investigation and/or treatment.

7. To reinforce self-learning and commitment to continued updating in all aspects of Internal Medicine.

8. To encourage contributions aiming at advancement of knowledge and innovation in medicine through basic and/or clinical research and teaching of junior trainees and other health related professionals.

9. To acquire professional competence in training future trainees in AIM.

(II) STRUCTURE

This will entail a total of not less than three years of training, which should consist of

1. At least 18 months of core training in acute general medicine in general medical units receiving acute admissions and having facilities similar to the institutional requirements listed in Guidelines for Basic Physician Training. Such units should require trainees to: i) function at increasing grades of seniority and exercise correspondingly enhanced responsibilities, ii) undertake regular resident on-call duties for inpatients, iii) take up primary responsibility in the management of inpatients, iv) manage patients attending Specialist Medical Outpatient Clinics and v) participate in research. Because of increasing emphasis on community-based health-maintenance, AIM trainees are
encouraged to undertake the option of Ambulatory Care Physician (ACP) training after completion of the 15-month core component of AIM training. Important aspects of the requirements for a 36-month AIM training programme are detailed in Appendix 1.

2 At least 3 months of training in aspects of extended care and/or rehabilitation and/or palliative medicine and/or ambulatory care physician.

3 At least 3 months of working experience in ICU/CCU/HDU/HDU equivalent during HPT or BPT.

4 At least 3 months of working experience in a medical unit in a hospital with obstetric and acute surgical services during HPT or BPT for trainees commencing BPT from 1 July 2009 onwards. They should possess the knowledge of handling medical problems and preparation of patients requiring obstetric and surgical operations or procedures.

5 Trainees should attend mandatory scientific meetings and perform annual Self-Learning Tool (SLT) assessment as part of the requirement for Interim and Exit Assessment in the specialty. The Self Learning Tool is a web-based interactive training modules jointly developed by the College and the Hospital Authority. It consists of clinical scenarios in different subspecialties with the aim of helping the trainees to identify and prevent risks in clinical decision making and ultimately improve in their clinical management.

6 Experience obtained through working in other medical specialties in parallel with AIM is encouraged and will be accredited accordingly.

7 For single accreditation in AIM, periods of full-time training in other accredited medical specialty training units (normally for a period of 3-6 months in any one specialty), and in related clinical or laboratory research (maximum six months), may be accredited for up to a total of one year.

(III) CONTENTS

(A) Skills and knowledge should be acquired in the following.

1 Competence in the diagnosis and management of emergency medical problems, in particular cardiorespiratory problems, stroke, organ failures, infection and shock, gastrointestinal bleeding, metabolic disorders and poisoning.

2 Competence in the diagnosis and management of acute and chronic medical problems as secondary care in a regional/district hospital.

3 Diagnostic skills to effectively manage complex cases with unusual presentations.

4 Updated knowledge on evidenced-based medicine and its implications for diagnosis and treatment of medical patients.

5 Familiarity with different care approaches and types of health care
facilities towards the total care of patients with medical illnesses, including convalescence, rehabilitation, palliation, long term care, and medical ethics.

6 Ability to implement strategies for preventive care and early detection of diseases in collaboration with primary and community care doctors.

7 Skills in performing important diagnostic and therapeutic procedures and understanding of their indications. The trainee should record the following procedures performed in the Trainee’s Log Book.

- Cardiopulmonary resuscitation
- Endotracheal intubation
- Central venous cannulation
- Marrow aspiration and trephine biopsy
- Pleural tapping and biopsy
- Chest drain insertion
- Lumbar puncture
- Abdominal paracentesis

8 Ability to understand medical statistics and critically appraise published work and clinical research on disease presentations and treatment outcomes. Experience in basic and/or clinical research within the training programme should lead to publications and/or presentation in seminars or conferences.

9 Knowledge on patient safety and clinical risk management.

10 Awareness and concern for the cost-effectiveness and risk-benefits of various advanced treatment modalities.

11 Familiarity with the concepts of administration and management, medical audit, and overall forward planning for a general medical unit in a regional/district hospital.

(B) Attitudes

1 Enhancement and reinforcement of the attitudes inculcated during Basic Physician Training.

2 Ability to appreciate the importance of the effect of disease on the psychological and socio-economic aspects of individual patients and to understand patients’ psycho-social needs and rights, as well as the medical ethics involved in patient management.

3 Willingness to keep up with advances in Internal Medicine and other Specialties.

4 Willingness to refer patients to the appropriate specialty in a timely manner.

5 Ability to recognise and appreciate the importance of cost-effectiveness of treatment modalities.
6 Aspiration to be the team leader in total patient care involving nursing and allied medical professionals.

7 Recognition that teaching and research are important activities for the advancement of the profession.

(IV) INSTITUTIONAL REQUIREMENTS

To be recognised for AIM Training, a medical department in an institution or a rotational programme in more than one institution should fulfil the following criteria:

1 Sufficient number of medical and specialty beds to admit patients of both genders and with a variety of medical diseases.

2 Organised ambulatory care, medical outpatient follow-up clinics and link with extended care facilities for rehabilitation and chronic care.

3 Facilities for care of critically ill patients, e.g. CCU, ICU, HDU, HDU equivalent.

4 Consultations from a broad range of surgical disciplines.

5 Sufficient number of Trainers directly supervising trainees in patient management during regular ward rounds, emergency calls, ambulatory care and outpatient services. The trainer to trainee ratio should not be lower than at least 1:2.

6 Regular medical audits to review the outcome of treatment and interventional procedures, and referral to the pathologists to perform autopsies to resolve diagnostic problems.

7 Laboratory diagnostic support, including chemical pathology, immunology, haematology, microbiology and histopathology services.

8 Diagnostic imaging support, including radiology, ultrasonography, computed tomography and magnetic resonance imaging and nuclear medicine imaging.

9 Maintenance of complete and high quality medical records with easy and prompt accessibility at all times.

10 Structured education programmes including case presentation, journal club and grand round, x-ray meeting and clinicopathological conference.

11 Availability of the following facilities:

11.1 Residential facilities for call duties

11.2 Medical library with core journals in Internal Medicine and computerised literature search systems.

11.3 Meeting rooms with adequate facilities including audiovisual aids for educational activities.

11.4 Information technology facilities for preparation of clinical presentations/seminars.
## Core Programme

The five components of the Core Programme for training in AIM must be fulfilled within a 24-month period which may or may not be continuous.

### Table 1  Core Programme of Training in AIM

<table>
<thead>
<tr>
<th>Component</th>
<th>Programme</th>
<th>Duration</th>
</tr>
</thead>
<tbody>
<tr>
<td>I</td>
<td>Acute general medicine with primary responsibility for and adequate exposure to patient management in acute general medical wards with 24-hour emergency call admissions* including a. Resident emergency on-call duties, at least 4 times per month, and b. Responsibility to attend to medical consultation requests from other hospital departments * A general guideline is to be in charge of 10 or more beds in such wards</td>
<td>Minimum 18 months (or 15 months + 3 months in ICU/CCU/HDU/HDU equivalent)</td>
</tr>
<tr>
<td>II</td>
<td>Management of new and old cases attending general and specialty medical outpatient clinics which serve patients of all adult age groups.</td>
<td>Minimum 5 hours per week for 24 months throughout the core programme (except during ICU training)</td>
</tr>
<tr>
<td>III</td>
<td>Experience of working in ICU/CCU/HDU/HDU equivalent</td>
<td>Minimum 3 months during Basic or Higher Physician Training or Maximum 6 months (of which 3 months should be within the 18 months specified in item I above)</td>
</tr>
<tr>
<td>IV</td>
<td>Experience with aspects of extended care and/or rehabilitation and/or palliative medicine and/or Ambulatory Care Physician (ACP) Programme (see Section 2b below)</td>
<td>Minimum 3 months</td>
</tr>
<tr>
<td>V</td>
<td>Experience of working in a medical unit in hospital with obstetric and acute surgical services for trainees who start BPT from 1 July 2009 and onwards</td>
<td>Minimum 3 months during Basic or Higher Physician Training</td>
</tr>
</tbody>
</table>
2 Training in AIM for Single Accreditation

In addition to the mandatory hospital-based component of the core programme, trainees may opt to undertake one of the two possible streams of programmes aiming at single accreditation in Internal Medicine: the Hospital-based AIM Training Programme or the Community-based Ambulatory Care Physician (ACP) Programme. All trainees should specify their choice to the Board on entry into the HPT programme.

2a Hospital-based AIM Training programme

Hospital-based training programme in AIM may be undertaken in both acute and non-acute hospitals, where ward and call duties, outpatient clinic activities, and consultations from other hospital departments provide opportunities for trainees to refine their skills in patient management. Full-time training in other medical specialties, up to a maximum of six months for each specialty, for a total duration of 12 months, is encouraged.

2b Community-based Ambulatory Care Physician (ACP) Programme (Appendix 2)

In addition to core training requirement, trainees have to spend a total of at least 12 months in ambulatory care training, and should undergo a comprehensive and in-depth structured training programme as recommended by the Specialty Board, including medical outpatient clinics and outreach programmes for the elderly and patients with medical disability in the community. They are to be well-equipped to maintain health and reduce the hospitalization needs of patients suffering from chronic medical illnesses.

3 Training in AIM and one Additional Specialty

The College encourages training in another medical specialty to be undertaken concurrently with AIM. The concurrent training programme must be approved by the AIM Board as well as the Board of the second specialty. Applications for training in AIM after completion of training in another specialty will be individually assessed by the AIM Board.

4 Training in ACP for Fellows accredited in AIM with or without another specialty

Fellows already accredited in AIM with or without another specialty require 12 months of ACP training, as stipulated in 2b, in order to be accredited as ACP. No formal assessment is required but all components of training must be verified by the respective supervisors and endorsed by the AIM Board.

5 Training in another specialty for Fellows solely accredited in AIM (hospital-based or ACP)

Fellows solely accredited in AIM (hospital-based or ACP) may apply for additional training in other specialties. Such applications will be assessed by the respective Specialty Boards.
Table 2  Summary of Training Programmes in AIM

<table>
<thead>
<tr>
<th>Status of Trainee</th>
<th>Training Programme</th>
</tr>
</thead>
<tbody>
<tr>
<td>Concurrent Training</td>
<td>The programme normally consists of a 48-month training period of which 50% of time is spent in AIM and the other 50% in a second specialty</td>
</tr>
<tr>
<td>Sequential Training</td>
<td>The programme normally consists of periods of full-time training in AIM and another specialty</td>
</tr>
<tr>
<td>Fellow accredited in other Medical Specialty</td>
<td>24 months core training programme in AIM</td>
</tr>
<tr>
<td>Single Accreditation in AIM only</td>
<td>36 months training programme including:</td>
</tr>
<tr>
<td>- Hospital-based</td>
<td>a) 24 months core training programme and b) 12 months full-time hospital-based training. Full time training in other specialties (normally for a period of 3-6 months for each specialty) and related clinical or laboratory research (max accreditation of 6 months), may be accredited for a total duration of 12 months</td>
</tr>
<tr>
<td>Single Accreditation in AIM only</td>
<td>36 months training programme including:</td>
</tr>
<tr>
<td>- Community-based ACP</td>
<td>a) 24 months core training programme (including 3 months of ambulatory care)</td>
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<tr>
<td></td>
<td>b) 12 months in ACP programme</td>
</tr>
<tr>
<td>Status of Trainee</td>
<td>Interim Assessment</td>
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<td>-----------------------------------</td>
<td>------------------------------------------------------------------------------------</td>
</tr>
<tr>
<td>Concurrent training</td>
<td>i) At least 12 months accredited training in AIM, e.g., at least 50% of 24 months should be spent in AIM</td>
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<tr>
<td></td>
<td>ii) Complete annual requirement for SLT</td>
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<tr>
<td>Sequential training</td>
<td>i) At least 12 months accredited training in AIM</td>
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<tr>
<td></td>
<td>ii) Complete annual requirement for SLT</td>
</tr>
<tr>
<td>Single Accreditation in AIM only</td>
<td>i) At least 12 months training in AIM</td>
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<tr>
<td>- Hospital-based</td>
<td>ii) Complete annual requirement for SLT</td>
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<tr>
<td>Single Accreditation in AIM only</td>
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<tr>
<td>- Community-based ACP</td>
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<tr>
<td>Fellow accredited in one other</td>
<td>i) At least 12 months training in AIM</td>
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<tr>
<td>medical specialty</td>
<td>ii) Complete annual requirement for SLT</td>
</tr>
<tr>
<td>Fellow accredited in two or more</td>
<td></td>
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<tr>
<td>other medical specialties</td>
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</tbody>
</table>

Note: Candidates are allowed to take the exit assessment up to 3 months earlier than the date of completion of AIM training. The deficient training time must be made up after passing the exit assessment before the candidates are eligible for accreditation.
### Core Training Programme

1. Primary responsibility for and adequate exposure to patient management in acute general medical wards with 24-hour emergency call admissions including:
   - (a) Resident emergency on-call duties, at least 4 times per month, and
   - (b) Responsibility for responding to medical consultation requests from other hospital departments.

2. Management of new and old cases attending general and specialty medical outpatient clinics which serve patients of all adult age groups.

3. Experience of working in ICU/CCU/HDU/HDU equivalent

4. Experience of working in a medical unit in a hospital with obstetric service for trainees who start BPT on 1 July 2009 and onwards

* A general guideline is to be in charge of 10 or more beds in such ward.

### Training Programme for Care of Common Chronic Medical Illnesses

<table>
<thead>
<tr>
<th>Major specialties</th>
<th>Major areas to be covered</th>
<th>Procedures/understanding of the indications for, and interpretation of results</th>
<th>Major activities e.g. medical OPD outreach programmes</th>
<th>Other activities e.g. case reports</th>
<th>Minimum 15 months</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cardiology*</td>
<td>Coronary artery disease/IHD</td>
<td>Echo Treadmill Holter Cardiac catheterization Swan Ganz Hypertension clinic Lipid disorder clinic Cardiac clinic</td>
<td>Cardiac rehab programme CCU exposure</td>
<td></td>
<td>≥ 3 to ≤ 6 months for each specialty</td>
</tr>
</tbody>
</table>
| Dermatology       | Dermatitis/eczema/skin eruption Psoriasis Skin manifestations of systemic disease Fungal infection and other infections Common STD | Skin biopsy Scraping Other sample collections Dermatology clinic STD clinic | Record of 5-10 cases managed | | For all specialties, it is recommended to have:
1. ≥ 5 hr clinic/outreach programme/week
2. Consultations
3. Exposure to relevant acute conditions
4. Chances to acquire the skill of interpretation of X-ray/blood/other investigation findings, and to learn the indications for referral for special test/specialist advice |

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**Appendix 2**

Ambulatory Care Physician Training Programme part of the AIM training programme for Higher Physician Training

Minimum 18 Months

Minimum 5 hours/week for 18 months

Minimum 3 months and maximum 6 months (of which 3 months should be within the 18 months specified in 16) above during Basic or Higher Physician Training

Minimum 3 months during Basic or Higher Physician Training
| Appendix 2 |
|-----------------|-----------------|-----------------|-----------------|-----------------|
| **Endocrinology**<sup>*</sup> | DM and complications Thyroid disease Lipid disorder Osteoporosis Obesity Hypopituitarism | DM complication assessment/screening Endocrine function test Bone density Dynamic function tests Insulin class & DM education | DM clinic Thyroid clinic Endocrine clinic | Continuous attendance of General Medical Clinic (with case-mix including HT, DM, thyroid disease, cardiac, COAD/asthma) throughout the 36-month training is mandatory |
| **Gastroenterology** | Peptic ulcers, GERD, dyspepsia Hepatitis, cirrhosis CIB Hepatobiliary infections/cancer Irritable bowel syndrome Nutrition | OGD USC Colonoscopy ERCP Liver biopsy | Hepatitis clinic GI clinic | X-ray/Pathology meetings |
| **Geriatric**<sup>*</sup> | See below | | | |
| **Haematology** | Anaemia Bleeding tendency Common malignancies | Bone marrow | Haematology & anticoagulation clinic | |
| **Infectious Disease** | Common infections Community-acquired infections Use of antibiotics STD Notifiable communicable disease TB Hepatitis | Microbiology lab Specimen collection | Infectious disease clinic Travel medicine clinic Consultations e.g. opportunistic infections | Communication skills e.g. counselling for HIV |
| **Nephrology** | Proteinuria/hematuria Nephritis CRF UTI Fluid, electrolyte, acid-base disorders | Urine microscopy CAPD HD Renal biopsy Acute dialysis | Renal clinic CAPD clinic | Drug prescription in renal failure Pathology/X-ray meeting |
| **Neurology** | Stroke/TIA Parkinson's disease Dementia Epilepsy Headache Common muscle/nerve problems | NCS/EMG LP EEG CT/MRI EP | Neuro clinic Stroke Rehab Programme | Exposure to Critical Care Neurology |
| **Respiratory** | COAD/asthma | Lung function test | Asthma clinic | X-ray Chest |
### Appendix 2

<table>
<thead>
<tr>
<th>Medicine*</th>
<th>Sleep apnoea</th>
<th>Bronchiectasis</th>
<th>Ca lung</th>
<th>Pneumonia</th>
<th>Allergic rhinitis</th>
<th>Interpretation</th>
<th>Pulmonary Rehabilitation</th>
<th>Interpretation</th>
<th>X-ray meeting</th>
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<td>Pleural tap &amp; Biopsy</td>
<td>Respiratory clinic</td>
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<td>Chest drain</td>
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<td>Bronchoscopy</td>
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<td>O, therapy</td>
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<tr>
<td>Rheumatology</td>
<td>SLE</td>
<td>Rheumatology clinic</td>
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<td>Joint aspiration &amp; injection</td>
<td>Daily inpatient management</td>
<td>Journal club</td>
<td>X-ray &amp; histology meetings</td>
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<td>RA</td>
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<td>Interpretation of rheumatologic tests</td>
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<td></td>
<td>Gout</td>
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<td>Spondyloarthropathies</td>
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<td>Dermatomyositis</td>
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<td>Polymyositis</td>
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<td>Scleroderma</td>
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<tr>
<td>Palliative Medicine</td>
<td>Management of symptoms, psychological, social and spiritual problems, emergencies, hospice philosophies, ethics in palliative care, care for carers</td>
<td>Thoracocentesis</td>
<td>Home care</td>
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<td>Multi-disciplinary conference</td>
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<td></td>
<td>Abdominal paracentesis</td>
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<td>Communication family care</td>
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<tr>
<td>Rehabilitation</td>
<td>Rehabilitation programmes in 1) Stroke and complications, 2) Common neuromuscular disorders, 3) Cardiopulmonary disorders, 4) Common soft tissue and arthritic disorders</td>
<td>Disability assessment</td>
<td>1) General or Special e.g. stroke, cardiac rehabilitation (day hospital, ambulatory or outreach visits)</td>
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<td>Case conference – multi-disciplinary</td>
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<td></td>
<td>Swallowing videofluoroscopy and endoscopy</td>
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<td>Common simple orthotics</td>
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<tr>
<td></td>
<td></td>
<td>Common simple orthotics</td>
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<td></td>
<td>Prescription of assisted devices</td>
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<tr>
<td>Geriatrics*</td>
<td>(I) Each trainee should preferably undergo full-time training for not less than three months in a recognised training institution for Geriatric Medicine. The training should include the following: a. Acute management of common geriatric problems such as dementia, acute confusion states, incontinence, falls, pressure sores, stroke, tube feeding, Parkinsonism, iatrogenesis and polypharmacy, etc. b. Skills and knowledge in Comprehensive Geriatric Assessment and Geriatric Evaluation/Management Services. c. Attendance in Specialist Geriatric Clinics and subspecialist clinics such as continence clinic, memory clinic, fall clinic and frail elderly clinics for at least 2 sessions per week, d. Multidisciplinary and holistic approaches in geriatric care and rehabilitation of chronic disabling diseases in the elderly, including case conferences. e. Terminal care and long term care for the elderly. f. Domiciliary visits. g. Geriatric Day Hospital management of patients requiring ambulatory rehabilitative services. h. At least 2 sessions per week training in Community Geriatric Assessment Service providing support to Elderly Residential Homes and elderly patients on waiting list for infirmaries living in community.</td>
<td>2) Journal club</td>
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<td>(II) Throughout the ACP training programme, the trainees should have accumulated experience of not less than 50 sessions of Community Geriatric Assessment Team (CGAT) service.</td>
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</table>
CARDIOLOGY

(I) OBJECTIVES

1 To provide a broad training and in-depth experience at a level sufficient for trainees to acquire competence and professionalism of a specialist in Cardiology.

2 To enable trainees to make accurate clinical bedside diagnoses, appropriate ordering of decisive investigations, to be sensitive to unique features of individual patients and to integrate all data into a well organised management strategy.

3 To develop in the trainees the humanistic, moral and ethical aspects of medicine.

4 To foster the appreciation of cost-effectiveness of various investigational, therapeutic and preventive aspects of intervention.

5 To provide further experience in critical thinking by active participation in research.

These objectives in philosophy, knowledge, skills and experience are essential to provide a solid foundation in Clinical Cardiology before advancing to focus on more subspecialised areas.

6 To acquire professional competence in training future trainees in Cardiology.

(II) STRUCTURE

1 A period of two years full-time supervised and accredited training in Cardiology is required. The core curriculum consists of two components: “Clinical Cardiology & training in special diagnostic and therapeutic skills” as detailed below and summarised in Appendix 1.

2 Clinical Cardiology training consists of a least two years full-time working experience under supervision in one or more accredited hospitals, of which six months must be in a hospital with 24 hours general accidents and emergency service. There should be strong emphasis on educational interaction, preferably at the cluster level, including grand clinical round and discussion, seminars and clinical audit or CME programmes. Full-time training in rehabilitation related to cardiovascular medicine may be accredited up to a maximum of six months.

3 Training in special diagnostic & therapeutics skills should be in form of modules, to be undertaken sequentially or concurrently with Clinical Cardiology training and of varying durations up to a total of two years. Each module of training programme as listed below will be individually assessed according to its scope and content, and accredited prospectively for up to a maximum of three, six or nine months. A specified minimum period of training in each module must also be fulfilled.

Coronary Care Unit
Nuclear Cardiology and Cardiovascular Diagnostic Radiology
Non-invasive Cardiology
Electrophysiological Studies and Intervention
Pacing
Echocardiology
Cardiac Catheterization
Interventional Procedures
Pre- and Post-Cardiovascular Surgery Patient Care.

4 Subject to approval by the Specialty Board, basic research relevant to Cardiology may be accredited for up to a maximum of six months as core curriculum training.

5 One year of further training in specialised and advanced techniques is highly desirable after Core Cardiology accreditation, for example, in interventional or electrophysiological procedures towards additional accreditation through award of relevant certificates (See Appendix 2: Guidelines for Certification of Advanced Training in Percutaneous Cardiovascular Interventions, and Appendix 3: Guidelines for Certification of Advanced Training in Invasive Cardiac Electrophysiological Studies & Intervention).

(III) CONTENTS

(A) Knowledge

1 Training in Patient Care and Management

1.1 Skill in obtaining a comprehensive history and performing complete cardiovascular examination.

1.2 Familiarity with the role of psychological factors in the genesis of symptoms, and the emotional and physical response of patients to cardiovascular diseases.

1.3 Familiarity with the preventive and rehabilitative aspects of managing hospital patients with established or potential cardiovascular disease.

1.4 Experienced in addressing consultations from other physicians and non-physician specialties.

1.5 Direct patient care responsibility in Cardiology under the supervision of accredited trainer(s).

2 Training in the Understanding, Diagnosis, Prevention and Treatment of Cardiovascular Diseases

The trainee must be well-educated in the

Pathogenesis and pathology
Risk factors
Natural history
Diagnosis by history, physical examination and laboratory methods
Medical management and principles of surgical management
Complications
Prevention
Rehabilitation of cardiovascular conditions, including
  Coronary artery disease
  Hypertension
  Valvular heart disease
  Congenital heart disease
  Cardiac arrhythmias
  Cardiomyopathy
  Involvement of cardiovascular system by systemic diseases
  Infective endocarditis
  Diseases of the great vessels and peripheral blood vessels
  Diseases of pericardium
  Pulmonary heart disease
  Cardiovascular complications of chronic renal failure
  Traumatic heart disease
  Cardiac tumours

3 Training in Coronary and Critical Cardiac Care

At least six months of supervised working experience with patients undergoing acute coronary care and critical care of other acute cardiovascular disorders.

4 Training in Follow-up Care

Continued responsibility for cardiovascular outpatient management and consultation.

4.1 Each trainee should attend to outpatients with cardiac problems at no fewer than two sessions per week for the entire core training period, or an equivalent period to be approved by the Board.

4.2 Experience with longitudinal follow-up of patients is desirable.

4.3 Exposure to a wide age span of patients ranging from adolescence through old age.

4.4 Exposure to a variety of cardiovascular cases including hypertension, lipid disorder, cardiac arrhythmias, pacemaker follow-up, post myocardial infarction, post-surgical follow-up, anticoagulation, post-percutaneous transluminal coronary angioplasty, valvuloplasty etc.

5 Training in Electrocardiography

Skill in the performance and interpretation of

  Surface Electrocardiography
  Ambulatory Electrocardiography
  Exercise electrocardiographic tests
  Signal-averaged Electrocardiography (preferable).
6 Training in Cardiac Catheterisation Laboratory: A fully-equipped and staffed angiographic and haemodynamic laboratory dedicated to cardiological procedures is required.

6.1 Direct experience under supervision in an adult cardiac catheterization laboratory which performs

6.1.1 Right and left heart catheterisations and haemodynamic studies.

6.1.2 Ventriculography and angiography including coronary and major vessels arising from the aorta.

6.2 Development of a sound knowledge of the fundamentals of cardiovascular physiology as related to clinical disease, analysis of haemodynamic records and interpretation of angiographic images.

6.3 Development of a sound knowledge of the principles of radiation safety.

6.4 Cardiovascular surgery must be performed in, or be readily accessible to, the institution to which the accredited training unit belongs.

6.5 Performances of the following procedures are also required.

Pulmonary artery catheterization with flow-directed catheters
Temporary right ventricular pacing
Pericardiocentesis
Myocardial biopsy
Intra-aortic balloon counterpulsation.

7 Training in Echocardiography

7.1 Participation in the performance of echocardiography including M-Mode and 2D-echocardiography
Doppler echocardiography
Colour flow imaging
Transoesophageal echocardiography, exercise stress
Echocardiography and pharmacological stress echocardiography (preferable).

7.2 Development of a sound knowledge in the fundamental principles of ultrasound imaging, analysis and interpretation of echocardiographic records in relation to clinical disease.

8 Training in Diagnostic Radiology and Nuclear Medicine

Development of a sound knowledge of the principles, indications and limitations of nuclear cardiovascular procedures and magnetic resonance imaging (MRI) studies and computed tomography imaging.
9 Training in Cardiac Pacing and Implantable Devices

9.1 Development of a sound knowledge of the principles and limitations of, and indications for cardiac pacemakers.

9.2 Development of a sound knowledge of the principles and limitations of, and indications for implantable cardioverter defibrillators.

9.3 Direct experience under supervision in the implementation of single and dual chambers permanent cardiac pacemakers.

9.4 Development of a sound knowledge of the principles of management of patients with implanted pacemakers, troubleshooting when complications occur, and optimal programmes of implanted pacemakers in accordance with patients’ physiological and pathological conditions.

10 Training in Electrophysiology

10.1 Development of a sound knowledge of the indications for, limitations of and skill in, the selection of patients for electrophysiologic studies.

10.2 The trainee should be well-educated in the principles of electrophysiologic studies in relations to the manifestations of clinical diseases and patient management.

11 Training in Peripheral Vascular Disease

11.1 Development of a sound knowledge of the clinical features and treatment of peripheral vascular disease.

11.2 Competence in the history and physical examination of patients suffering from diseases of the arterial and venous systems.

11.3 Education in selecting and interpreting peripheral angiography, and other imaging and Doppler vascular studies.

12 Training in Cardiovascular Research

All trainees should participate actively in research activities.

13 Training in Related Sciences

13.1 Understanding of the normal physiology of the circulatory system, including adaptation of the cardiovascular system to exercise, stress, pregnancy, ageing, as well as renal and pulmonary abnormalities.

13.2 Continuing education in basic sciences including the aspects of anatomy, physiology, pharmacology, pathology, biophysics and biochemistry that are pertinent to Cardiology.

13.3 Experience with programmes in computer sciences and biostatistics is desirable.
14 Training in Related Fields of Medicine


14.3 Anaesthesia: Close collaboration with anaesthesia colleagues in the pre- and post-operative management of patients with cardiac disease.

14.4 Pulmonary: Solid knowledge of basic pulmonary disease physiology. Interpretation of pulmonary function testing, blood gases, pulmonary angiography and radioactive lung scanning. Experience in the management of acute pulmonary problems.

14.5 Obstetrics: Experience in the clinical management of pregnant patients with heart disease.

14.6 Physiology: Physiology of the cardiovascular system, its response to exercise and stress, and its alterations produced by disease.

14.7 Pharmacology: The pharmacology and interactions among cardiovascular as well as other drugs.

14.8 Pathology: Familiarity with the gross and microscopic pathology of all major forms of heart disease.

(B) Specialty Clinical Skills

Further subspecialisation in specific areas in Cardiology is encouraged and will require additional training.

(C) Attitudes

Enhance and re-inforce the attitudes inculcated during basic physician training.

(IV) INSTITUTIONAL REQUIREMENTS

1 Clinical Cardiology training aims to provide comprehensive exposure to various fields of Cardiology practice, exchange of experience and facilitation of peer discussion, review and audit.

1.1 The training unit should therefore have a comprehensive range of training activities and spectrum of in-patients and out-patients with a variety of cardiac problems.

1.2 Sufficient number of accredited trainers for training in Clinical Cardiology.

1.3 Adequate facilities for the management of all common cardiac conditions and emergencies.
2 Units offering specific training modules will be regularly assessed and accredited by the Specialty Board according to

2.1 Facilities and equipments.
2.2 Scope and volume of activities in the programme.
2.3 Experience of trainers in the relevant subspecialty field.

3 Each trainee should be under supervision of more than one trainer in Cardiology. For training in Clinical Cardiology, the minimum trainer: trainee ratio should not be less than 1:2.

4 In the assessment of training units/programmes, the Specialty Board in Cardiology will also consider the availability of and participation in inter-hospital/interdepartmental conferences, meetings and lectures as well as networking activities.
Core Curriculum Summary

A. Clinical Cardiology

- Two years, of which six months must be in hospitals with 24 hours emergency service.
- Cardiac rehabilitation may be accredited for up to a maximum of six months.

B. Training in special diagnostic & therapeutics skills

- Completion of two years training of programme modules in special fields, sequentially or concurrently with training in Clinical Cardiology.
- Basic research may be accredited as core curriculum training up to a maximum of six months.

C. Advanced cardiology techniques

- Further training for one year post-Core Cardiology accreditation in one or more of the following special procedures is desirable but not mandatory.
  (a) Percutaneous coronary intervention.
  (b) Electrophysiological Intervention (eg. RF ablation).
GUIDELINES FOR CERTIFICATION OF ADVANCED TRAINING IN PERCUTANEOUS CARDIOVASCULAR INTERVENTIONS

From the Specialty Board in Cardiology, Hong Kong College of Physicians

(I) INTRODUCTION

With major and dramatic development and advancement over the past two decades, percutaneous coronary interventions (PCI) have become an important mode of coronary revascularisation. The formulation of clinical practice guidelines for PCI due emphasis on continuous educational activities are essential and to promote a high standard of training in Cardiology which is accountable to the public.

Due to varying characteristics in disease pattern, socio-economical status, organisation of service delivery and the availability of alternatives in Hong Kong, these College guidelines must be based on medical evidence, experts’ views and due considerations of their applicability to medical system in Hong Kong. These guidelines will thus have to be modified periodically as medical technology continues to evolve.

(II) TRAINING INSTITUTION REQUIREMENT

It is essential that each provider institution should have:

2.1 A quality assurance programme in place to determine the quality and the efficacy of its overall performance, and that of its individual operators.

2.2 A co-ordinator appointed for such procedures.

2.3 On-site surgical cover is desirable but not mandatory, as long as arrangement for prompt patient transfer for coronary surgery is effective with minimal delay.

2.4 A well-equipped cardiac catheterization laboratory and facilities to cater for optimal treatment and peri-operative care.

2.5 The annual volume of intervention should be of international standard.

2.6 At least two qualified interventional trainers; each with percutaneous cardiovascular experience of international standard.

(III) TRAINING REQUIREMENT FOR COMPETENCE

It is essential for a competent interventional cardiologist to have the cognitive and technical skills as listed below:

3.1 Cognitive Skills Required To Perform Coronary Intervention:

Knowledge of :

- The anatomy, normal physiology and pathophysiology of the cardiac chambers and coronary circulation.
- Current indications for the procedure and likelihood of success in individual cases.
- Contraindications to the procedure.
- The strength, limitations and the applicability of commonly used devices.
- Preprocedural evaluation, including reasons for selecting percutaneous revascularisation over potential alternatives.

Ability to:
- Communicate in the risk, benefits and results of the procedure in the medical records, to the patients, to others involved in the care of the patients, so that appropriate informed consent can be obtained.
- Recognise complications of cardiac catheterization and intervention.
- Manage complications promptly.

3.2 Technical Skills Required to Perform Coronary Intervention

- Manual dexterity.
- Operational skill in the use of x-ray and the relevant imaging equipment in a safe manner.
- Significant experience in cardiac catheterization and coronary angiography.
- Demonstrated competence to perform coronary intervention.
- Technical skill for the management of complications.

(IV) STANDARD FOR CARDIOLOGY TRAINEES WITH INTENTION TO ACQUIRE PROFICIENCY IN PERCUTANEOUS CORONARY INTERVENTION

The Trainee should have:

4.1 Completed two years of core cardiology training.

4.2 Undertaken a structured training program in coronary intervention of at least one-year duration in an environment as specified hereafter in this document.

4.3 Been involved in coronary interventional procedures, a proportion of which with primary responsibilities in accordance with international standard as required by the Board. If the specific number of procedures could not be met during the training period, the remaining number of procedures performed within the first two years post-fellowship may be included to meet the requirement.

(V) PERCUTANEOUS PERIPHERAL INTERVENTION

Technical skills necessary to perform Coronary Angioplasty are readily transferable to the peripheral vasculature.

The trainee should have:

5.1 An understanding of the natural history of peripheral vascular diseases, patient and lesion selection criteria, and knowledge of other treatment alternatives which are essential elements required to perform these procedures safely and effectively.

5.2 Judgements regarding the indications, timing, and risk-to-benefit ratio of procedures.

5.3 Familiarisation with the appropriate preparation, training and indication of a team approach as situation may arise.
GUIDELINES FOR CERTIFICATION OF ADVANCED TRAINING IN INVASIVE CARDIAC ELECTROPHYSIOLOGICAL STUDIES & INTERVENTION

From the Specialty Board in Cardiology, Hong Kong College of Physicians

(I) INTRODUCTION

For most of the time in the past, Cardiac electrophysiology has been a very specialised subspecialty activity in cardiology as their concepts are complex, such that mastering them demands considerable teaching and experience in addition to general clinical Cardiology. The very rapid and continuous development in technology and understanding of arrhythmia anatomy and physiology has created difficulties in the establishment of training and continuing competence guidelines. Diagnostic electrophysiology study (EPS) was established in 1969. The advent of ablation as a catheter-based treatment for arrhythmias in 1980, and in particular, the availability of radiofrequency energy as the ablation energy source in the past decade, have dramatically promoted the profile of clinical cardiac electrophysiology and attracted more trainees and resulted in the establishment of more centres. It is inappropriate to define competence guidelines for catheter ablation together with imperative diagnostic EPS, since both procedures are inextrinsically interlinked and are together defined as invasive EPS.

Cardiologists involved in performing EPS should be aware of its indications, contraindications, and complications in assessing the risks and benefits of EPS in individual patients. Expertise in EPS requires not only the ability to safely perform the catheterization procedure necessary for intracardiac recording and cardiac stimulation, but also a deep understanding and correct interpretation of the gathered data. The latter in particular requires an ongoing effort to stay abreast in this rapidly evolving field. Such effort is essential for accurate diagnosis and prognostication of arrhythmia problems, as well as for appropriate selection and application of state-of-the-art therapy for arrhythmia management. As the scope of knowledge widens, interpretation of data acquired in the electrophysiology laboratory has become increasingly complex. A high quality of diagnostic information is thus essential to provide a good foundation for different therapeutic approach.

(II) TRAINING INSTITUTIONAL REQUIREMENT

The institution should have:

2.1 An interactive training programme accredited by the Specialty Board in Cardiology.

2.2 A quality assurance program in place to determine the quality and efficacy of its overall performance and that of its individual operators.

2.3 A coordinator appointed for such procedures.

2.4 A well equipped cardiac intervention laboratory with appropriate monitoring facilities and X-ray equipment to cater for optimal treatment and perioperative care of acute cardiac and coronary complications.
2.5 Facilities for temporary and permanent pacemaker insertion.

2.6 Comprehensive case mix of supraventricular and ventricular arrhythmias.

2.7 The annual volume of invasive electrophysiology procedures should be of international standard.

2.8 At least two qualified trainers; each with electrophysiologic intervention experience of international standard.

(III) TRAINING REQUIREMENT FOR COMPETENCE

It is essential for a competent electrophysiologist to have the cognitive and technical skills as listed below:

3.1 Cognitive Skills Needed to Perform EPS

Knowledge of :

- Normal and abnormal cardiac anatomy and physiology.
- The pharmacology of antiarrhythmic drugs.
- Current indications and contraindications.
- The indication for, and complication of, ablation therapy and therapy with antiarrhythmic devices.
- Complications and management of such complications.
- Various methods of programmed electrical stimulation.
- Sensitivity and specificity of electrophysiological testing in various arrhythmias and clinical syndromes.
- Results of recent clinical trials that affect the selection of patients for EPS and antiarrhythmic therapy.

Ability to :

- Understand the intracardiac electrocardiographic signals.
- Obtain appropriate recordings from various locations.
- Measure conduction intervals and refractory periods and knowledge of their significance in functional and pathological states.
- Interpret data derived from electrophysiological testing.
- Safely perform programmed electrical stimulation.

3.2 Technical Skills Needed to Perform EPS

- Operational skills to perform right and left heart catheterisation using percutaneous technique via femoral and other vascular access sites.
- Manual dexterity to safely place and manipulate electrode catheters in the appropriate cardiac chambers for EPS.
- Proficiency in the use of external defibrillation and intravenous cardiac medications.
- Proficiency in the testing, interrogation and programming of implantable antiarrhythmic devices, including pacemakers and defibrillators.
- Technical knowledge regarding the use of recording equipment, including knowledge of electrical safety and pertinent radiation-related issues.
(IV) STANDARDS FOR CARDIOLOGY TRAINEE WITH INTENTION TO ACQUIRE COMPETENCE IN INVASIVE EPS

The trainee should have:

4.1 Completed two years of core cardiology training (including EPS module) and

4.2 Undertaken a structured program in invasive cardiac electrophysiology of at least one-year but not more than three years in institutions accredited for invasive EPS by the Hong Kong College of Physicians.

4.3 Been involved in a training module with performance of a number of invasive procedures which is up to international standard as required by the Board. If the specific number of procedures could not be met during the training period, the remaining number of procedures performed within the first two years post-fellowship may be included to meet the requirement.
CLINICAL PHARMACOLOGY AND THERAPEUTICS

(I) OBJECTIVES

1 To provide a broad, in-depth training at a level sufficient for the trainee to acquire the competency and professionalism of a specialist in Clinical Pharmacology and Therapeutics, so as to be able:

1.1 To provide a consultative and advisory service to general physicians and other specialists regarding drug therapy, particularly with respect to safe and cost-effective use of drugs, evidence-based therapeutics, adverse drug reactions, drug-drug interactions and therapeutic drug monitoring.

1.2 To provide clinical toxicology services at local and regional levels, including poison treatment service for in-patients and out-patients, poison information service to health care professionals, consultative service for the management of poisoning and toxicovigilance.

1.3 To provide an acute general medical service with responsibility for medical in-patients and input into specialist clinics that are relevant to Clinical Pharmacology and Therapeutics.

1.4 To provide advice to local and regional hospitals and health authorities on drug- and clinical toxicology-related issues.

1.5 To engage in diverse types of clinical activities that will contribute to new drug evaluation, clinical pharmacology, clinical toxicology, drug safety, pharmacovigilance, pharmacoepidemiology, pharmacoeconomics and pharmacogenetics.

1.6 To lead a multidisciplinary team of health care professionals in promoting rational use of drugs and safe medication practices.

2 To develop skills, knowledge and competence in Clinical Pharmacology and Therapeutics at a specialist level.

3 To develop an interest in quality assurance, audits, cost-effectiveness and evidence-based medicine in relation to drug use and prescribing, with a view to the development and continued refinement of hospital formularies, drug policies, guidelines and shared care protocols.

4 To promote a commitment to continued medical education and to provide suitably qualified teachers in Clinical Pharmacology and Therapeutics for undergraduates and postgraduates.

5 To develop an infrastructure for future commitment to clinical and laboratory research in Clinical Pharmacology and Therapeutics, with a view to promoting safe and cost-effective use of drugs and introducing and evaluating new drug therapy, poison prevention and control.
6 To acquire professional competence in training future trainees in Clinical Pharmacology & Therapeutics.

(II) STRUCTURE

(A) Concurrent training in Clinical Pharmacology and Therapeutics with Advanced Internal Medicine (AIM)

1 This period consists of at least four years of supervised and accredited training under recognised trainer(s).

2 A minimum of two years (cumulative) should be spent in a Clinical Pharmacology Service and Clinical Toxicology Service under the supervision of recognised trainer(s). During this period, up to one year may be spent in a recognised Clinical Pharmacology or Clinical Toxicology training centre overseas.

2.1 The trainee should have primary responsibility for and adequate exposure to patient management and poison information and consultations within a Clinical Toxicology Services for a minimum of 12 months, including

a Resident emergency on-call duties, at least 4 times per month

b Responsibility for patients with acute or chronic poisoning

c Contribution to poison information service for hospitals and community doctors

2.2 Training in investigational skills and supervised research in Clinical Pharmacology and Therapeutics and Clinical Toxicology may be accredited for a cumulative maximum of six months.

3 Two years should be spent in an accredited training programme in Advanced Internal Medicine, including rotations to medical subspecialties that are particularly relevant to Clinical Pharmacology and Therapeutics, such as Cardiology, Critical Care Medicine, Endocrinology, Diabetes and Metabolism, Geriatrics, Haematology, Medical Oncology, Nephrology, Neurology and Respiratory Medicine.

(B) Training in Clinical Pharmacology and Therapeutics after accreditation in Advanced Internal Medicine (AIM) or AIM plus a medical subspecialty (sequential training)

1 A minimum of two years should be spent in a Clinical Pharmacology Service and Clinical Toxicology Service under the supervision of one or more recognised trainer(s).

2 During this two-year period, up to one year may be spent in a recognised Clinical Pharmacology or Clinical Toxicology training centre overseas.

(III) CONTENTS
During the training in Clinical Pharmacology and Therapeutics, the trainee is expected to acquire knowledge and practical skills in the following areas:

1. Knowledge and understanding of the principles of basic and clinical pharmacology and toxicology.
2. The principles and specialised techniques essential to the assessment of drug pharmacokinetics and pharmacodynamics.
3. The principles and methods to promote rational and cost-effective use of drugs at all levels, e.g. developing and maintaining drug formularies and participating in drug and therapeutics committee.
4. The management, investigation and prevention of drug-related problems, including adverse drug reactions, drug-drug, food-drug and herb-drug interactions, therapeutic failure and drug non-compliance.
5. The key actions required to improve medication safety and the key components of a safe medication-use system.
6. The principles and applications of pharmacovigilance, pharmacoepidemiology, pharmacogenetics, pharmacoeconomics and outcomes research.
7. The management, investigation and prevention of acute poisoning from drugs, chemicals and natural toxins and other toxicological problems.
8. Drug and poison consultative and advisory service to health care professionals.
9. Laboratory methods of measurement of drugs, chemicals and their metabolites in biological fluids and data interpretation for the purposes of therapeutic drug monitoring, clinical toxicology, pharmacokinetic and other studies.
10. Analysis of bioavailability and pharmacokinetic data with a view to advising on the choice of appropriate pharmaceutical preparations and drug dosage regimens, and on problems encountered in special patient groups such as the elderly or those with renal impairment.
11. Audits, quality assurance, cost-effectiveness, epidemiological studies and applied statistics in Clinical Pharmacology and Clinical Toxicology.
12. Research methodology and evaluation in clinical trials, including design, execution, data interpretation and analysis of adverse events.
13. Investigation skills required for pharmacological studies in accordance with Good Clinical Practice.
14. The principles and role of pre-marketing studies of drugs and post-marketing surveillance.
15. An understanding of the potential problems associated with the use of herbal medicines, including toxicological problems and herb-drug interactions.
16. An understanding of the ethical and regulatory aspects of drug prescribing,
clinical trials and research.

(B) Attitudes

1. The basic requirements are the same as Advanced Internal Medicine (AIM) and the general attitudes required of a doctor regardless of specialty.

2. An impartial attitude in the interactions between the Clinical Pharmacologist and the pharmaceutical industry.

3. A good understanding of the role of Pharmacists both in hospital and in the community.

4. An appropriate attitude, demonstrating an awareness and understanding of the ethical issues in relation to the use of drugs in the management of patients and conduction of clinical trials.

(IV) INSTITUTIONAL REQUIREMENTS

1. Sufficient number of general medical beds to admit patients of both genders and with a variety of medical disease, with consultations from a broad range of surgical disciplines, and where consultations in Clinical Pharmacology and Clinical Toxicology are called upon on a regular basis.

2. An acute hospital with medical subspecialties and multidisciplinary teams, where interspecialty and interdisciplinary liaison with clinical pharmacologists is important in patient care.

3. Organised ambulatory care, specialist outpatient follow-up clinics in Medicine and Clinical Pharmacology and Clinical Toxicology, and linking with extended care facilities for rehabilitation and chronic care.

4. An Intensive Care Unit where full cardiorespiratory support is provided for critically ill patients including those suffering from drug overdose.

5. A sufficient number of fully trained staff with specialist accreditation and trainer status in Clinical Pharmacology and Therapeutics, to provide a minimum trainer to trainee ratio of 1:2 at any one time. The trainee should have the opportunity of experiencing all aspects of patient management in Clinical Pharmacology and Clinical Toxicology, including ward rounds, emergency calls and consultations and out-patient services.

6. General laboratory and diagnostic facilities including chemical pathology, haematology, microbiology, histopathology, diagnostic radiology, and access to laboratory facilities for assays of plasma drug concentrations and toxicological analysis.

7. Regular medical audit procedures and quality assurance programmes.

8. A structured continuing educational programme including attendance and participation in seminars, journal clubs and grand rounds in General Internal Medicine, Clinical Pharmacology and Clinical Toxicology.

9. Adequate educational facilities including access to medical libraries with computerised search systems and specialised databases for information on drugs and poisons.
CRITICAL CARE MEDICINE

(I) OBJECTIVES
1. To provide a broad training and in-depth experience at a level sufficient for trainees to acquire competence and professionalism of a specialist in Critical Care Medicine.
2. To enhance knowledge and clinical competence in all specialties in Internal Medicine which are relevant to critical care practice, and to inculcate a multidisciplinary approach to the management of patients with acutely life-threatening conditions and multiple organ failure.
3. To ensure procedural competence in Critical Care Medicine.
4. To ensure mastery of the physiology of vital organs and interventional modalities available, including drugs and artificial support systems, in the management of vital organ failure.
5. To ensure practical and technical familiarity with monitoring and support equipment and devices in the intensive care unit.
6. To inculcate critical thinking, self-learning, enthusiasm for research, and a commitment to continuing medical education in knowledge and technologic innovations in Critical Care Medicine.
7. To enhance the trainees’ sensitivity to issues of critical care delivery in the local community, and to inculcate a sense of responsibility and leadership in related policy making and implementation.
8. To acquire professional competence in training future trainees in Critical Care Medicine.

(II) STRUCTURE
1. This consists of 36 months of supervised and accredited training.
2. For a minimum period of 24 months, the trainee is required to assume direct patient care responsibility of critically ill patients for at least 44 hours per week in a general intensive care unit of an acute hospital as defined in Section IV. Clinical training in intensive care units overseas is acceptable, provided such training programmes fulfill College accreditation requirements.
3. For a minimum of three months, the trainee is required to assume inpatient and consultative responsibilities in each of the following medical specialties based in acute hospitals:
   - Cardiology
   - Nephrology
   - Respiratory Medicine. Part of the training in Cardiology should preferably involve direct patient care in a coronary care unit.
4. An elective period totaling no more than three months is allowed in one or more of the following:
   - Internal Medicine
Anaesthesia
Bone Marrow Transplantation Unit
Cardiothoracic Intensive Care Unit
Neurologic/Neurosurgical Intensive Care Unit
Traumatology
Basic or clinical research in Critical Care Medicine

All elective programmes must be formally accredited by the respective Colleges and/or Specialties.

5 Participation in basic and/or clinical research in Critical Care Medicine during the training period is encouraged.

6 Concurrent Training with Internal Medicine

6.1 For the minimum period of 24 months of Critical Care Medicine training, the trainee is required to go through training as specified in Structure II. (2) & (5).

6.2 During the 24 months of Internal Medicine training, the trainee is required to assume a minimum of three months of meaningful inpatient and consultative responsibilities in each of the following medical specialties based in acute hospitals: Cardiology, Nephrology and Respiratory Medicine. Part of the training in Cardiology should preferably involve direct patient care in a coronary care unit.

7 Sequential training subsequent to accreditation in other medical specialties

7.1 For the minimum period of 24 months of Critical Care Medicine training, the trainee is required to go through training as specified in Structure II, (2) & (5).

7.2 For a minimum of three months, the trainee is required to assume inpatient and consultative responsibilities in each of the following medical specialties based in acute hospitals during his/her higher physician training period:

Cardiology, Nephrology and Respiratory Medicine. Part of the training in Cardiology should preferably involve direct patient care in a coronary care unit. If the trainee is already accredited as fellows in related specialties include Cardiology, Nephrology and Respiratory Medicine, he/she would be exempted from the three month training in his/her accredited specialty(ies).

(III) CONTENTS

(A) Knowledge

Knowledge to be acquired includes the following broad categories:
1. Management of the critically ill status of all major systems
2. Monitoring and medical instrumentation
3. Psychosocial and emotional effects of critical illness
4. Ethical, economic, and legal aspects of critical illness
5. Administrative and technical organisation of critical care units.

The following list is not exclusive and represents commonly encountered or important conditions or scenarios in the intensive care units.

1. Management of the critically ill status of all major systems
   1.1 Cardiovascular Medicine

   Various types of shock; myocardial infarction; cardiac arrhythmias and conduction disturbances; pulmonary embolism; cardiogenic and noncardiogenic pulmonary edema; cardiac tamponade and other pericardial diseases; acute valvular disorders; acute complications of cardiomyopathies and myocarditis; hypertensive emergencies; complications of angioplasty and other coronary interventional procedures; use of thrombolytic therapy; use of vasoactive and inotropic therapies

   1.2 Respiratory Medicine

   Acute hypoxaemic and hypercapnoeic respiratory failure; status asthmaticus; smoke inhalation, airway burn; aspiration and chemical pneumonitis; bronchopulmonary infections; upper airway obstruction; drowning; oxygen therapy; interpretation of arterial and venous blood gases; physiologic principles of non-invasive positive and negative pressure ventilation.

   1.3 Renal

   Renal failure (acute and chronic): prerenal, renal and postrenal; acid-base and fluid and electrolyte physiology, pathophysiology and therapy; principles of haemodialysis, peritoneal dialysis and continuous renal replacement therapy. anticoagulation for extracorporeal circuit; interpretation of urine electrolytes.

   1.4 Neurology and Neurosurgery

   Differential diagnosis and acute management of coma; diagnosis and acute management of stroke; drug overdose including barbiturates, narcotics, tranquilizers, organophosphates; brain death certification; management of status epilepticus, Guillain-Barré syndrome and myasthenia gravis.

   1.5 Endocrine and Metabolic

   Disorders of thyroid function: thyroid storm, myxoedema and the sick euthyroid syndrome; adrenal crisis; disorders of antidiuretic hormone; diabetic ketoacidosis, hyperosmolar coma, and hypoglycaemia; phaeochromocytoma; insulinoma.

   1.6 Infectious Diseases

   Basic knowledge of microbiology; systemic sepsis; tetanus; hospital acquired infections in the critically ill; opportunistic infection in
the immunocompromised patient; emerging infectious diseases; infection control in critical care units; use of antimicrobial agents: indications, dosing, adverse effects, and interpretation of antibiotic levels and sensitivities.

1.7 Haematology
Management of haemostatic defects including disseminated intravascular coagulation; management of massive transfusion and principles of blood component therapy; acute haemolytic disorders; acute haematologic disorders of immunosuppressed patients; oncologic emergencies; indications and principles of therapeutic aphaeresis.

1.8 Gastrointestinal, liver and pancreas
Acute pancreatitis with shock; gastrointestinal bleeding including variceal bleeding; acute and fulminant hepatic failure; acute perforations of gastrointestinal tract; ruptured oesophagus; acute inflammatory diseases of the intestine; stress ulcer prophylaxis.

1.9 Immunology and Transplantation
Principles of organ transplantation, including organ donation, procurement, preservation, transportation, implantation; immunosuppression.

1.10 Others
Pharmacokinetics and dynamics in critical illness; management of condition related to environmental emergencies e.g. heat stroke, hypothermia; critical care nutrition; management of anaphylaxis and acute allergic reactions; principles and management of trauma; critical obstetric and gynaecologic disorders.

2. Understanding of various ICU monitoring systems including invasive arterial pressure monitoring, pulse oximetry, capnography, intracranial pressure monitoring and electroencephalogram. Various common scoring systems in ICU including the APACHE systems.

3. Psychosocial and emotional effects of critical illness.

4. Ethical, economic, and legal aspects of critical illness, including withholding and withdrawal of treatment.

5. Administrative and technical organisation of critical care units.

(B) Skills
To be conversant with the indications, contraindications, complications, and limitations of the following procedures and to acquire the technical skills necessary to perform the following.

1 Airway
1.1 Maintenance of open airways in nonintubated, unconscious, paralyzed patients.
1.2 Endotracheal intubation via oral and nasal routes.
1.3 Percutaneous tracheostomy (Preferable).

2 Breathing & ventilation
2.1 Ventilation by bag and mask.
2.2 Mechanical ventilation, including pressure-cycled, volume-cycled, and time-cycled mechanical ventilators. Ventilation modes including inverse-ratio ventilation and pressure-support ventilation.
2.3 Use of nasal continuous positive airway pressure mask to deliver positive pressure ventilation.
2.4 Use of reservoir masks and positive end-expiratory masks for delivery of supplemental oxygen, humidifiers, nebulizers, incentive spirometry.
2.5 Management of pneumothorax using transthoracic needle drainage, chest tube insertion and thoracostomy drainage systems.
2.6 Basic and advanced cardiopulmonary resuscitation.
2.7 Fibreoptic laryngotracheobronchoscopy.
2.8 Use of high-frequency mechanical ventilation and non-invasive negative pressure ventilation (Preferable).

3 Circulation
3.1 Arterial puncture and bleeding sampling.
3.2 Insertion of central venous, arterial, and pulmonary artery catheters; management of venous air embolism.
3.3 Cardiac output determinations using thermodilution technique.
3.4 Cardioversion.
3.5 Transvenous pacemaker insertion.
3.6 Transcutaneous pacing.
3.7 Application of intra-aortic assist devices (Preferable).

4 Parenteral nutrition.

5 Monitoring/bioengineering
5.1 Utilization, zeroing, calibration of transducers.
5.2 Use of amplifiers and recorders.

6 Pericardiocentesis (Preferable).

7 Peritoneal dialysis, continuous arterio-venous and veno-venous haemofiltration.
Peritoneal lavage (Preferable).

Insertion of haemodialysis catheters.

Therapeutic aphaeresis (Preferable).

Basic echocardiography

Basic ultrasonography

(C) Attitudes

1 Critical Care Medicine aims to deliver total patient care. Trainees and physicians should be in charge of their patients continuously throughout their stay in the unit. The training process should emphasize on the holistic care of the patients and ICU operator should ensure continuity of care and enhance exposure of trainees to their trainers. Shift duty is thus not a preferable mode of operation in the practice of this specialty.

2 To provide the best possible care to the critically ill. Critical care physicians should learn to adopt a special attitude to cope with the high levels of stress and high patient mortality.

3 Empathy, communication and good rapport with patients and relatives are crucial to helping them adjust to the stressful, unfamiliar, and ‘hi-tech’ intensive care environment.

4 Critical Care Physicians should

4.1 Be team leaders of nursing and allied medical professionals in the total care of the critically ill.

4.2 Respect and observe the privacy and confidentiality of patients and the sanctity of life.

4.3 Respect the legal definition of brain death.

4.4 Be ready to admit the limitations of medical interventions in clinical conditions which are deemed to be irreversible by consensus of their peers.

(IV) INSTITUTIONAL REQUIREMENTS

For recognition as a training unit in Critical Care Medicine, the training hospital should fulfill the following criteria.

1 The hospital should be an acute care hospital with the following facilities:

1.1 A general intensive care unit defined in (2) below.

1.2 An Accident and Emergency Department with active patient service 24 hours a day.

1.3 Beds of both sexes, admitting patients with a comprehensive range of medical and surgical diseases.

1.4 24-hour access to emergency consultative services including the various
specialties in Medicine, Surgery and Anaesthesia.

2 The intensive care unit should admit patients with a variety of critical illnesses. It should be attended daily by trained critical care physicians with regular clinical input from related physician-based specialties. In hospitals where there are administratively independent medical and surgical intensive care units, the training programme should be based in the medical intensive care unit, but provision for the trainee to obtain regular exposure to surgical intensive care patients is also encouraged.

3 The general intensive care unit should have the following organisation and be equipped with, or have access to, the following facilities.

3.1 Fellows accredited in Critical Care Medicine as trainers, to provide a minimum trainer to trainee ratio of 1:2 at any one time. To ensure efficient, timely and consistent delivery of critical care services, the trainers should be directly supervising all aspects of critical care practice, including a minimum of twice daily rounds; acute management of newly admitted patients; performance of technical procedures; initiation, maintenance, and discontinuation of life support devices and systems; critical evaluation and analysis of data obtained from monitoring devices; regular conferences with families; regular conferences with other members of the care team; emergency calls; in-service teaching; triage and bed allocation; as well as other administrative activities.

3.2 Trainer and trainee should have adequate contact time to allow teaching, supervision and assessment of trainee performance. Trainer-trainee contact time is defined as the total duration within a week during which both the trainer and trainee are physically present within the hospital performing clinical critical care duties. The maximum accredited durations of core CCM training in CCM training centres recommended by the College are as follows:

<table>
<thead>
<tr>
<th>Number of CCM trainer</th>
<th>Contact time per week in hours</th>
<th>Maximum duration of core CCM training accredited</th>
</tr>
</thead>
<tbody>
<tr>
<td>Two or more</td>
<td>More than 30</td>
<td>24 months</td>
</tr>
<tr>
<td>Two or more</td>
<td>Between 22 to 30</td>
<td>18 months</td>
</tr>
<tr>
<td>Two or more</td>
<td>Less than 22</td>
<td>0 month</td>
</tr>
<tr>
<td>One</td>
<td>More than 30</td>
<td>18 months</td>
</tr>
<tr>
<td>One</td>
<td>Between 22 to 30</td>
<td>12 months</td>
</tr>
<tr>
<td>One</td>
<td>Less than 22</td>
<td>0 month</td>
</tr>
</tbody>
</table>

The contact time of supervisors having CCM Fellowship but had not become CCM trainer would be counted as half the contact time of accredited trainers.

3.3 Well-trained nursing staff at patient-to-nurse ratio of no more than 2:1.

3.4 Life support devices and systems including mechanical ventilators, intra-
aortic balloon pump, haemodialysis, peritoneal dialysis and temporary transvenous pacemaking facilities.

3.5 Haemodynamic monitoring devices, including monitoring of blood pressure, pulse, cardiac output, pulmonary artery occlusion pressure, mixed venous oxygen saturation.

3.6 Respiratory monitoring devices including arterial oxygen saturation, respiratory mechanics while on mechanical ventilation, end-tidal or transcutaneous PCO₂.

3.7 Neurologic monitoring including intracranial pressure monitoring.

3.8 Facilities for the following diagnostic and therapeutic procedures.
   3.8.1 Haemofiltration
   3.8.2 Charcoal haemoperfusion/Molecular adsorbent recirculation system (MARS)
   3.8.3 Plasmapheresis
   3.8.4 Bedside fibreoptic bronchoscopy.

3.9 24-hour access to laboratory for arterial blood gas analysis, and cell count and biochemistry of body fluids.

3.10 24-hour blood banking facilities and imaging services (X-rays, CT Scan).

3.11 Ready access to total parenteral nutrition service.

3.12 On-call facilities close to the unit for trainees.

4 Laboratory and diagnostic facilities
   4.1 Radiology/imaging (X-rays, CT Scan, radionuclide scans, pulmonary angiogram, ultrasound).
   4.2 Pathology, including exfoliative cytology.
   4.3 Microbiology.
   4.4 Clinical Chemistry.
   4.5 Haematology.

5 Regular medical audit procedures and performance of autopsies to resolve diagnostic problems.

6 Maintenance of adequate and high quality medical records with easy and prompt accessibility at all times.

7 Structured educational programme including teach-ins, journal clubs and grand rounds in Critical Care Medicine.

8 Adequate educational facilities, which include
   8.1 Access to medical library facilities and computerized search system.
   8.2 Space and equipments for educational activities.
Dermatology and Venereology

(1) OBJECTIVES

1. To provide a broad training and in-depth experience at a level sufficient for trainees to acquire competence and professionalism of a specialist in Dermatology and Venereology.

2. To enhance knowledge, clinical skills and procedural competence in Dermatology & Venereology.

3. To provide an opportunity for postgraduate continuing medical education in Dermatology & Venereology.

4. To understand the various health care delivery issues concerning Dermatology & Venereology in the community.

5. To acquire professional competence in training future trainees in Dermatology and Venereology.

(II) STRUCTURE

1. This period consists of no fewer than 36 months of supervised and accredited training in Dermatology & Venereology.

2. The trainee should undergo a minimum of 24 months of full-time training in a recognised Dermatology Centre, and a minimum of six months of full-time training in a recognised Venereology Centre.

3. A maximum of 12 months may be accredited for experience in a recognised training out-patient clinic for sexually transmitted diseases (STD) and infections.

4. A maximum of three months may be accredited for experience in a recognised in-patient and out-patient service for Leprosy or HIV infection.

5. Basic research relevant to dermatology, HIV medicine and STD may be accredited for a maximum of three months.

6. A maximum of three months may be accredited in a recognised training institution for Dermatopathology, Dermatosurgery or cutaneous mycology.

7. The period of core training in Dermatology & Venereology for trainees who apply for training in more than one specialty at the same time (eg. Internal Medicine and Dermatology & Venereology), should not be fewer than 36 months.

(III) CONTENTS

(A) Knowledge

There should be ample opportunities for the trainee to observe, manage, and assume continuing responsibility for patients with a wide variety of dermatological diseases, skin manifestations of systemic illness & STD in in-patient and out-patient basis.
A thorough knowledge of the following as applied to the skin and genital tract: Anatomy, Physiology, Histopathology, Bacteriology, Mycology, Pharmacology and Therapeutics, Radiotherapy, Clinical Dermatology & Venereology (including principles of aesthetic dermatology and skin care) should form a sound basis for the clinical practice of the Specialty.

(B) Skills

1. Minor surgery on the skin & genitalia: Excisional Biopsy, Shave biopsy, Punch biopsy, Electrosurgery, Cryosurgery, Curettage.
2. Skin scraping and KOH microscopy examination and interpretation.
3. Laser surgery on skin.
4. Phototherapy and photochemotherapy on skin.
5. Wood’s light examination.
6. Skin patch and prick tests.
8. Therapeutic and diagnostic techniques, including prostatic massage, application of acetic acid to demonstrate aceto-white area, performing cervical smear and preparation and application of podophyllin resin to treat condylomata acuminata,
9. Technical skills in collecting and sampling discharge in genitalia, performing smears of various types from the genitalia and their interpretation under microscopic examination including dark field examination, preparation of gram stain and interpretation.
10. Lumbar puncture for cerebrospinal fluid examination.
11. Skills in interpretation of STD-related laboratory tests and counselling to patients and families with sexually transmissible diseases including HIV infection.

(C) Attitudes

The attitudes inculcated during Basic Physician Training should be enforced and enhanced.

(IV) INSTITUTIONAL REQUIREMENTS

The Dermatology/Venereology Centre or Out-patient Clinics of the training programme should fulfil the following criteria.

1. The Dermatology Centre or Institution should have the following features.
   1.1 A day care centre with a Dermatology out-patient department which accepts the referral from in-patient consultations.
   1.2 The day care centre should be equipped with minor surgery facilities,
phototherapy or cutaneous laser unit, to provide phototherapy, photochemotherapy and other special dermatological treatment.

2 Supporting facilities available in the Dermatology Centre or Out-patient Clinic.

2.1 Affiliated hospital beds for Dermatology patients should be available for severe cases.

2.2 Laboratory and diagnostic facilities: Wood’s light, microscopy.

2.3 Pathology, radiology and other medical tests, including affiliated supportive laboratory for Clinical chemistry, Haematology.

2.4 Adequate educational facilities: Audiovisual aids, slide production for clinical presentation, space for education and library for Dermatology references with adequate books and journals in Dermatology.

2.5 Maintenance of a high quality medical record system with easy and prompt accessibility at all times.

3 The Venereology/HIV Centre or Out-patient Clinic should have the following features.

3.1 A laboratory attached to the Clinic, to provide dark field examination, gram stain smear microscope examination, and wet smear examination.

3.2 A counselling & contact training service provided by trained health nurses.

4 Supporting facilities available in Venereology/HIV Centre:

4.1 A central laboratory to provide services on serological tests, bacteriology and virology cultures, Fluorescent Treponemal Antibody Absorption tests, Tests for Chlamydia Trachomatis, HIV and other relevant diagnostic tests.

4.2 Adequate educational facilities: Audiovisual aids, slide production for clinical presentation, space for education and library for Venereology references.

4.3 Maintenance of adequate and high quality medical records with easy and prompt accessibility at all times but confidentiality is maintained throughout.

4.4 Affiliated hospital beds for Venereology patients for special cases.

5 Structured educational programme including case presentations, teach-in sessions, and journal club in Dermatology & Venereology.

6 A sufficient number of fully trained fellows with specialist accreditation in Dermatology & Venereology, to provide a minimum trainer to trainees ratio of 1:2 at any one time with direct supervision.

7 A sufficient number of nurses trained in Dermatology & Venereology, to be available in the Clinic or Centre.
ENDOCRINOLOGY, DIABETES AND METABOLISM

(I) OBJECTIVES

1 To provide a broad training and in-depth experience at a level sufficient for trainees to acquire competence and professionalism of a specialist in Endocrinology and Diabetes.

2 To ensure a thorough and up-to-date understanding of the normal physiology of the endocrine system including the physiology and biochemistry of hormones and their actions.

3 To ensure that the trainee understands the principles and practice of hormone assay methods and the use of diagnostic tests.

4 To encourage critical thinking, self-learning and a commitment to continuing medical education in Endocrinology and Diabetes.

5 To provide an understanding of the various health care delivery issues regarding diabetes care and education in the community.

6 To lay the ground work for in-depth scientific research, both clinical and basic, in Endocrinology and Diabetes.

7 To acquire professional competence in training future trainees in Endocrinology and Diabetes.

(II) STRUCTURE

1 The three years of first-hand practical experience in a recognised training programme should include EITHER two years of training in Endocrinology (and Metabolism) plus one year in diabetes, OR two years of training in Diabetes plus one year in Endocrinology (and Metabolism).

For dual accreditation in both Endocrinology and Internal Medicine, the equivalence of at least one year of full-time training in Endocrinology plus one year of full-time training in Diabetes is required.

2 A minimum of six months should be spent in a hospital with a comprehensive integrated training programme in clinical endocrinology and metabolism which includes some practical experience in an endocrine laboratory.

3 Experience in basic research relevant to Endocrinology or Diabetes may be accredited for a maximum of six months.

(III) CONTENTS

(A) Knowledge

This should include a thorough understanding of, and updated knowledge in, the normal physiology of the endocrine system, including the physiology and biochemistry of hormones and their actions.

There should also be ample opportunities for the trainee to observe, manage
and assume continuing responsibility for patients with the following disorders in Endocrinology, Diabetes and Metabolism.

1 **Endocrinology** - Disorders affecting the Thyroid gland
   Neuroendocrine system, hypothalamus and pituitary gland
   Adrenal gland
   Gastrointestinal hormones including insulin
   Endocrine function of the gonads
   Hormonal control of blood pressure
   Endocrine system in pregnancy, growth, development and malignancy.

2 **Diabetes and its complications**
   Retinal, neurological, vascular and kidney disease
   Acute diabetic complications
   Diabetic pregnancy and antenatal care
   Care of diabetic children and adolescents
   Perioperative care of the diabetic patient
   Diabetes education.

3 **Metabolism**
   Metabolic bone disease and calcium disorders
   Lipid disorders
   Obesity and anorexia nervosa
   Fluid and electrolyte disorders
   In-born errors of metabolism.

(B) **Skills**

1 Understanding of basic principles and practice of hormone assay methods.
2 Practical experience in an endocrine laboratory.
3 Supervision and interpretation of endocrine function tests including the combined pituitary function tests, CRF and GRF tests, water deprivation test, short synacthen and long synacthen stimulation tests, dexamethasone suppression test, oral glucose tolerance test and other clinical endocrine tests.
4 Interpretation of endocrine imaging techniques, including CT scan, MRI, ultrasonogram, radio-isotopic scanning of the endocrine organs and bone densitometry.

(C) **Additional knowledge in the following is desirable subject to the availability of training facilities.**

1 Management of infertility.
2 Disorders of sexual differentiation and puberty.
3 Molecular biology.

(D) **Attitudes**
1 The well-being and health of patients are of paramount considerations.

2 Empathy and good rapport with patients and relatives is important.

3 Ability to recognise the importance of a multidisciplinary approach in the management of endocrine and metabolic diseases, and collaborate with medical professionals in internal medicine and other specialties in providing optimal care to patients.

4 Ability to act as team-leader in total patient care involving allied health professionals, including nurses, dieticians, chiropodists, clinical psychologists, social workers and physiotherapists.

5 Ability to recognise the cost-effectiveness of various investigation and treatment modalities in the consideration of patient care.

6 Ability to respect and observe the privacy and confidentiality of patients and the sanctity of life.

(IV) INSTITUTIONAL REQUIREMENTS

1 The training programme may be completed in one or more hospitals, which provide accredited training for Endocrinology and/or Diabetes.

2 In all hospitals providing training programmes in Diabetes, the following provisions must be available.

   2.1 Inpatient and outpatient service for patients with diabetes, of both genders, including children and pregnant women.

   2.2 Adequate facilities for the detection and management of diabetes and its complications, including an up-to-date service in clinical chemistry, ambulatory diabetes care and education, dietetic, podiatric and ophthalmological services. Most of these facilities should be on-site.

   2.3 Sufficient number of trainers in Diabetes and Endocrinology, to provide a minimum trainer to trainee ratio of not less than 1:2 at any one time, directly supervising all aspects of patient management, including daily ward rounds, consultations, emergency calls, perioperative and antenatal management of patients with diabetes, ambulatory diabetes care and education, and out-patient service in a specialist Diabetes Clinic.

3 In all hospitals providing training programmes in Endocrinology, the following provisions should be available.

   3.1 Inpatient and outpatient service for patients of both genders, who suffer from a wide variety of endocrine and metabolic disorders as listed under 2.1 and 2.2 of Section IV.

   3.2 Sufficient number of trainers in Endocrinology and Diabetes, to provide a minimum trainer to trainee ratio of 1:2 at any one time, directly supervising all aspects of patient management, including daily ward rounds and emergency calls, perioperative management of pituitary,
thryoid, adrenal and other endocrine diseases, endocrine consultations and out-patient service in a specialist Endocrine Clinic.

3.3 Laboratory and diagnostic facilities

3.3.1 An up-to-date, comprehensive hormone assay and clinical chemistry service within the hospital to provide quality-controlled hormone assays. Availability of a senior chemical pathologist for consultation on-site is preferred.

3.3.2 Availability of a metabolic and endocrine investigation unit in which there are well-trained specialist nurses to carry out special endocrine and metabolic function tests.

3.3.3 Access to radiology services, most of which should be on-site, including X-rays, CT scan, MRI, ultrasonogram, radio-isotopic scans, angiograms, and selective venous sampling for localisation of endocrine tumours; pathology service including aspiration cytology and facilities for measuring bone density.

3.4 Therapeutic facilities

Easy access to medical, radiotherapeutic, surgical, neurosurgical and gynaecological support for the optimal and up-to-date management of endocrine and metabolic disorders.

4 Hospitals providing training programmes in either Diabetes or Endocrinology, should have the following provisions.

4.1 Regular medical audit activities and performance of autopsies to assure the quality of care.

4.2 Maintenance of high quality medical records with easy and prompt accessibility at all times.

4.3 Structured educational programme including teach-ins, journal club, grand rounds, and, if possible, research-meetings in Endocrinology and/or Diabetes.

4.4 Adequate educational facilities which include

4.4.1 Access to medical library facilities and computerised literature search systems.

4.4.2 Space and equipment for continuing education including computers and audiovisual aids for the production and presentation of clinical or research materials.

4.5 Networking with other hospitals providing training for Endocrinology and/or Diabetes is highly desirable. This may involve exchange of trainees among different training centres (between Endo/DM and Endo/DM, or between Endo/DM and IM) and joint meetings to discuss cases.
GASTROENTEROLOGY & HEPATOLOGY

(I) OBJECTIVES

1. To develop a broad as well as in depth experience in Gastroenterology and Hepatology, including inter-relationship with other specialties such as Gastrointestinal Surgery, Histopathology, Microbiology and Radiology, at a level sufficient for trainees to acquire competence and professionalism of a specialist in Gastroenterology and Hepatology.

2. To develop clinical skills, knowledge and competence in Gastrointestinal Endoscopy including oesophago-gastro-duodenoscopy, sigmoidoscopy, colonoscopy, and endoscopic retrograde cholangio-pancreatography (ERCP), as well as in other procedures such as ultrasonography and liver biopsy.

3. To develop commitment in continuing medical education and to cultivate enthusiasm in research related to patient management.

4. To acquire professional competence in training future trainees in Gastroenterology and Hepatology.

(II) STRUCTURE

1. The programme consists of three years of supervised training in a CORE module and a series of OPTION modules.

2. The duration of CORE training should not be less than 24 months and that of OPTION module not less than 12 months. Some OPTION modules can be undertaken concurrently with the CORE module.

3. The programme can be undertaken concurrently with Internal Medicine in a 48-month programme which will consist of 24 months core training in each of the two specialties. This structure will allow trainees to develop their own interest within the specialty while ensuring that they will have a broad background in Internal Medicine.

(III) CONTENTS

1. CORE

(A) Scientific basis and clinical knowledge

Trainees will be expected to have broad knowledge-based education in the normal structure and function of the gastrointestinal tract and the aetiology, pathophysiology, natural history, clinical manifestation, investigation and management of the entire spectrum of diseases of the gastrointestinal system.

(B) Clinical care and expertise

Trainees should have supervised practical experience in the clinical care of inpatients and outpatients with gastrointestinal disorders. Clinical
experience must be gained in recognized posts linked with appropriate clinical responsibilities.

(C) Skills

(i) Basic diagnostic endoscopy techniques

Trainees will be expected to be competent in upper endoscopy, sigmoidoscopy and diagnostic colonoscopy. Exposure to endoscopic retrograde cholangio-pancreatography (ERCP) is expected. Trainees should understand the principles of disinfection, safety and sedation in endoscopic procedure.

(ii) Basic therapeutic endoscopy techniques

This should include stricture dilatation, injection or banding of varices, haemostatic techniques for peptic ulcer bleeding and polypectomy. The indications, contraindications, and complications of these procedures should be understood.

(iii) Non-endoscopic techniques

Trainees will be expected to be competent in liver biopsy, paracentesis and abdominal ultrasound. Knowledge in other investigative techniques such as manometry, pH monitoring, gastrointestinal breath tests, gastric and intestinal function tests, pancreatic and biliary secretory tests, radiological examinations, nuclear medicine procedures, percutaneous cholangiogram, biliary drainage procedures and capsule endoscopy, is also required.

2 OPTION MODULES

Trainees will be required to undertake a variety of OPTION modules after discussion with their trainers. Some of the OPTION modules are run on a full-time basis. Others are part-time based, which permit training in both CORE and OPTION modules to be undertaken concurrently.

The OPTION modules are
a. Gastrointestinal (GI) Oncology.
b. Advanced Gastroenterology, eg. inflammatory bowel disease, oesophageal and pancreatic diseases.
c. Advanced Hepatology, eg. liver transplantation.
d. *Physiological measurement, e.g. manometry, gastric and pancreatic function testing.
e. Advanced diagnostic and therapeutic gastrointestinal endoscopy (Additional post-accreditation certification in this module required: See Appendix)
f. *GI Imaging, e.g. ultrasound, endoscopic ultrasound, CT, MRI, nuclear medicine.
g. *GI Infection and Immunology, e.g. AIDS, tropical diseases, H. pylori infection.
h. GI Research, including basic and/or clinical research.
i. *GI Histopathology.
j. *Nutrition.
k. *Paediatric and adolescent gastroenterology.

* OPTIONS that can only be accredited for a maximum of six months.

(IV) INSTITUTIONAL REQUIREMENTS

1. Staffing in the training unit should include at least one fully trained gastroenterologists with trainer status, and one surgeon with special interest in gastrointestinal surgery but there is no stipulation for 24 hour service for emergency surgery. The trainer to trainee ratio should not be less than 1:2. The unit should receive gastroenterological consultations from other clinical services in the hospital and operate gastroenterological clinics.

2. Modern endoscopic equipment should be available in the training unit. Fluoroscopy, not necessarily in an endoscopy unit, should be available for selected cases such as ERCP and endoscopic intubation. At least one video endoscopy system should be available.

3. The training unit should perform adequate diagnostic and therapeutic upper gastrointestinal endoscopies and diagnostic and therapeutic colonoscopies. The number of such procedures performed per year should be of international standard.

4. Where endoscopy is taught, it should be part of an overall gastroenterology service with co-operation among gastroenterologists, surgeons, radiologists and pathologists.

5. The training unit should have a structured educational programme including regular GI ward rounds and joint gastrointestinal conferences attended by other specialists such as surgeons, radiologists and pathologists.

6. The hospital of the training unit should have all the facilities needed for physician training in general medicine, such as access to medical library and computerised literature search systems.

7. Opportunities for gastroenterology research should be available.
Guidelines on Certification in
Advanced Diagnostic and Therapeutic Gastrointestinal Endoscopy

The Gastroenterology and Hepatology Specialty Board of the Hong Kong College of Physicians (the Board) has developed recommendations to uphold the standards of training, to recognise training centres and trainers, and to maintain a registry of training centres, qualified gastrointestinal endoscopists and trainees.

All training programmes will be regularly assessed by the Board to ensure that the trainees should have the necessary guidance and accessibility to adequate facilities for training to become competent in performing gastrointestinal endoscopy.

Performance of an arbitrary number of procedures does not guarantee competency, and the number of procedures performed to obtain competency will vary between trainees. The number required may also vary as skills and techniques are developed. The Board will therefore determine from time to time the number required for certification, which will always be expected to reach the international standard prevalent at the material time.

General Recommendations

1. The Training in Advanced Diagnostic and Therapeutic Gastrointestinal Endoscopy is included within the 3 years’ Higher Physician Training period.

2. Advanced endoscopy training may be integrated with training in the specialty of Gastroenterology and Hepatology for a minimum period of not less than twelve months with separate certification. The benefit of interdisciplinary meetings among histo-pathology, radiology and surgery should be emphasised.

3. Physicians who perform advanced endoscopy should have received formal training in training centres approved by the Board.

4. Training in Advanced Diagnostic and Therapeutic Endoscopy includes therapeutic oesophago-gastroduodenoscopy, therapeutic sigmoidoscopy and colonoscopy, diagnostic and therapeutic endoscopic retrograde cholangiopancreatography, and the management of sedation and complications.

5. Trainees will be expected to be knowledgeable about the indications, techniques, interpretations of the findings and writing of reports, and be competent in the skill required to perform various procedures.

6. In-service experience should be supplemented by attendance at approved courses in order to update knowledge and skill.

7. Trainees will be required to perform a minimum number of endoscopic procedures as required by the Board. If the specified number of procedures could not be met during the training period, the remaining number of procedures may be performed within the first two years post-fellowship to meet the requirement.

8. Trainees will be required to maintain an accurate logbook of their experience, using the content and layout recommended and supplied by the Board.
9. Competence will be determined by objective criteria and as far as possible direct observation.

10. Trained practitioners in Advanced Diagnostic and Therapeutic Endoscopy are expected to maintain their knowledge through commitment to Continuous Medical Education.

11. Only accredited Fellows in Gastroenterology and Hepatology are eligible to obtain certification in Advanced Diagnostic and Therapeutic Gastrointestinal Endoscopy.

**Requirement of Training Centres**

1. The recognised institution should have emergency admissions, intensive care units, and modern laboratory, radiology and pathology facilities.

2. The number of endoscopic procedures performed in the centre, including oesophago-gastro-duodenoscopy, sigmoidoscopy, colonoscopy and endoscopic retrograde cholangiopancreatography, should be up to international standards.

3. There should be the presence of at least two skilled, experienced and accredited endoscopy trainers as endorsed by the Board.

4. There should be an adequate provision of appropriately trained ancillary personnel.

5. Modern, functioning and well-maintained equipment should be available.

**Training in Therapeutic Oesophago-gastro-duodenoscopy (OGD)**

1. Trainees should attend regular weekly (or more frequent) sessions for at least twelve months.

2. Trainees should have performed a number of OGD examinations under supervision that is up to international standards, and further examinations independently for a number that is up to international standards, before undertaking training in therapeutic OGD.

3. Trainees undergoing training in all forms of therapeutic endoscopy should be appropriately instructed by trainers certified in therapeutic endoscopy. Procedures should be performed initially under supervision and subsequently independently.

4. Trainees should have experience in therapeutic OGD for a number that is up to international standards.

5. Trainees will be asked to log their procedures both observed and performed, together with formal records of actual procedures they have done. Assessment will include complications of procedures.

**Training in Therapeutic Sigmoidoscopy and Colonoscopy**

1. Trainees should attend regular weekly (or more frequent) sessions for at least twelve months.
2. Trainees should have completed training in diagnostic colonoscopy skills. Trainees should perform colonoscopies under supervision for a number that is up to international standards and be achieving a high percentage of success before performing the procedure independently.

3. Trainees should perform polypectomy procedures as the primary operator for a number that is up to international standards. Multiple polypectomies in one procedure will be counted as one procedure.

4. Trainees will be asked to log their procedures, both observed and performed, together with formal records of actual procedures they have done. Assessment will include complications of procedures.

Training in Endoscopic Retrograde Cholangiopancreatography (ERCP) and Therapeutic ERCP

1. Trainees should have completed training in diagnostic gastrointestinal endoscopy before starting ERCP training.

2. Trainees should have performed under supervision a number of ERCP procedures that is up to international standards and achieved a high percentage of success before performing the procedure independently.

3. Trainees should perform sphincterotomy procedures and insertion of endoscopic stents as the primary operator for a number that is up to international standards.

4. Trainees will be asked to log their procedures, both observed and performed, together with formal records of actual procedures they have done. Assessment will include complications of procedures.
GERIATRIC MEDICINE

(I) OBJECTIVES

To provide a comprehensive training coverage for trainees to develop specialist expertise in the following:

1 To develop the knowledge, skill and attitude to understand the specific physical and psychosocial needs of elderly patients and be able to provide holistic care with respect to these aspects.

2 To assess and manage elderly patients in acute, post-acute, rehabilitative, and post-discharge phases, as well as in planning transfers of care and ongoing care outside hospital.

3 To coordinate the management of elderly patients across the whole continuum of care settings including inpatient, outpatient, day hospital, community programs and institutions.

4 To contribute to medical education as well as continuing personal professional development through critical review of literature and evidence based practices, and conducting researches and audits.

5 To lead an interdisciplinary team to provide holistic service in meeting the needs of elderly patients.

6 To acquire the ability to perform administrative duties relevant to a consultant’s function.

(II) STRUCTURE

1 This period consists of three years of supervised and accredited training in Geriatric Medicine.

2 A minimum of 24 months Core Training should be spent full time, or as part-time equivalents, in clinical posts approved for Higher Physician Training in Geriatric Medicine. Such posts must include responsibility for the care of elderly patients in all relevant settings, including acute medical care (emergency admissions to a district general hospital with all appropriate facilities), rehabilitation, day hospital, outpatient, community geriatrics, and long-term hospital-based infirmary care.

3 The Specialty Board in Geriatric Medicine will adopt a modular approach in the accreditation of training units/programmes. The minimum requirements for the modules to be completed are detailed in Appendix I.

4 Accreditation of candidates trained overseas will be considered on a case by case basis by the Specialty Board in Geriatric Medicine according to the guidelines set by the College.
(II) CONTENTS

To attain the stated objectives, the contents of the training should include the following:

(A) Knowledge

1  The epidemiology of ageing – worldwide and local, its implication.
2  Normal ageing (physical, psychosocial) and its clinical significance.
3  Preventive aspects including compression of morbidity, strategies for personal and population illness prevention.
4  Atypical presentation and multi-factorial nature of elderly presentation.
5  Common system disorders in elderly people.
6  Common geriatric problems and syndromes: instability, falls and syncope including fractures and osteoporosis; immobility including movement disorders; incontinence; intellectual decline (delirium and dementia), iatrogenesis and polypharmacy; impaired vision/ hearing; insomnia; impaired mood; isolation; impecunity (poverty); ill-treatment (elder abuse); immune deficiency; inanition (malnutrition), impaired feeding; failure to thrive; stroke; and pressure sores.
7  Comprehensive geriatric assessment with competence in using assessment tools (physical, mental, functional, psychosocial).
8  Appropriate use of investigations and treatment (both pharmacological and non-pharmacological), balancing risk against benefit to suit an individual elderly patient.
9  Drug therapy: A working knowledge of the basic principles of therapeutics including adverse drug reactions, drug interactions, and effects of ageing and disease states on drug pharmacokinetics. Ability to explain the indications, effectiveness, potential adverse effects, potential drug interactions and alternatives for medications commonly used in elderly patients.
10 Rehabilitation as applied to acute and chronic illness management of elderly people. The concept of impairment of body structure and function (body level), limitation of activities (individual level) and restriction of participation (society level).

Knowledge of the method of prevention and management of complications of acute illness and collaboration with other relevant specialties and disciplines.
11 Appreciate the importance of collaborative and interdisciplinary team approach and the role of interdisciplinary case conference and communication for care planning and discharge planning for elderly patients.
12 Determinants of successful transfers of care outside hospital which meet
patient and carer perspectives and needs. Suitability for different levels of care within the community.

13 Understand the specific aspects of institutional care for elderly people.

14 Understand the complex interaction between normal ageing, disease processes, medical treatment and related psychosocial factors in offering optimal patient centred care to elderly patients.

15 Proper management of frail elders with complex and multi-factorial (medical, functional, psychological and socioeconomic) health problems requiring comprehensive geriatric assessment by the geriatrician and an interdisciplinary geriatric team.

16 Clinical significance of social factors such as caregiver stress, elder abuse, social isolation and support networks, surrogate decision making including the Guardianship application.

17 Knowledge in advance care planning (including advance directive) and good end of life care for elderly people; understand the underlying principles and ethical considerations.

18 The principles of infection control and the principles of preventing infection in high risk groups.

19 Continuous update of medical knowledge and guidelines and understanding the implication of these to the caring of the elderly people.

(B) Skills

1 Comprehensive geriatric assessment including the evaluation of physical health, mental health, functional status, socioeconomic status and environmental factors related to illnesses in old age, as applied to the various settings of acute, post-acute and rehabilitation, out-patient, geriatric day hospital, and home visits.

2 Ability to solve complex clinical problems related to the characteristics of elderly patients.

3 Clinical decision-making skills, including appropriate application of ethical principles related to the clinical care of elderly patients.

4 Care planning and discharge planning skills.

5 Communication and counselling skills to elderly patients, care-givers, para-medical & other colleagues of the health care team.

6 Research skills, including quality assurance, audit, and presentation skills.

7 Managerial and organizational skills including leadership in interdisciplinary team approach of patient management and conducting case conferences, and organizing geriatric services in different care settings.
8 Skills in safe prescribing and medication management aiming to prevent, detect and address medication-related problems and to achieve optimum use of medicines.

(C) Attitude

1 To manifest the appropriate attitudes required for managing elderly patients and their families.

2 To adopt a comprehensive and holistic approach to the care of elderly patients.

3 To appreciate the importance of a multidisciplinary team for optimal management of elderly patients in all care settings and take up the role of team leadership.

4 To appreciate the need for continuity of care across different care settings for elderly people.

5 To be alert to socioeconomic changes that would affect the health care of elderly people especially issues of health inequalities and ageism; to act as an advocate for elderly people.

6 To demonstrate sensitivity to the balance between prolongation of life and quality of life, and to understand the concept of end-of-life issues. Be compassionate to the suffering of elderly patients and their caregivers and assist them to make sound balance between risk and benefits of medical investigation and treatment.

(IV) INSTITUTIONAL REQUIREMENTS

A hospital-based Geriatric Training Centre with the following provisions under the supervision of a Geriatric specialist and may not necessarily be located physically in one site:

1 Acute Geriatric beds: acute beds with A&E admissions for elderly patients.

2 Post-acute and rehabilitation beds for elderly patients.

3 Long-term care beds for elderly patients. The criteria required for training purpose are: at least one clinical session per week under supervision by a trainer in Geriatric Medicine.

4 Geriatric Day Hospital. The criteria required for training purpose are: geriatrician-run, not less than 20 day-place for at least 5 days per week.

5 Outpatient clinic, and inpatient consultation Service.

6 Community Geriatrics: e.g. Community Geriatric Assessment Service, Discharge Support Program, Home Visits & Assessments. The criteria for training purpose are: interdisciplinary case conferences and management.
Close working relationships with psychiatry, orthopaedics and other specialties.

Access to all necessary investigations and procedures without age limits.

Adequate staffing: Within the training centre, a minimum of two physicians accredited as trainers in Geriatric Medicine supported by a multidisciplinary team including (but not exclusively) nurses, therapists, social workers, and community nurses. The trainer to trainee ratio should not be less than 1:2 at any one time. For an institute with a single trainer, either joint training with other institutes to provide additional trainers or the trainee needs to rotate outside his/her institute for at least half of the training time.

Access to adequate medical literature support either through medical library service or a web-based one.

Availability of programs for the participation in inter-hospital or inter-departmental clinical meetings and presentation.

Appendix I

Minimal requirements for the modules to be completed for accreditation of training units/programmes

(The modules may be conducted concurrently)

<table>
<thead>
<tr>
<th>Modules</th>
<th>Minimum Requirement</th>
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<tbody>
<tr>
<td>Weekly geriatric specialist rounds</td>
<td>24 months</td>
</tr>
<tr>
<td>Weekly interdisciplinary case conferences</td>
<td>24 months</td>
</tr>
<tr>
<td>Geriatric consultations/assessments</td>
<td>24 months</td>
</tr>
<tr>
<td>Acute inpatient geriatrics</td>
<td>12 months</td>
</tr>
<tr>
<td>Geriatric specialist outpatient clinics</td>
<td>24 months</td>
</tr>
<tr>
<td>In-patient rehabilitation</td>
<td>6 months</td>
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<tr>
<td>Geriatric day hospital</td>
<td>3 months</td>
</tr>
<tr>
<td>Home visits and assessments</td>
<td>10 visits</td>
</tr>
<tr>
<td>Community Geriatric Assessment Service</td>
<td>6 months</td>
</tr>
<tr>
<td>Long-term care (hospital-based infirmary care)</td>
<td>3 months</td>
</tr>
</tbody>
</table>
HAEMATOLOGY AND HAEMATOLOGICAL ONCOLOGY

(I) OBJECTIVES

1. To provide a broad training and in-depth experience at a level sufficient for trainees to acquire competence and professionalism of a specialist in Haematology and Haematological Oncology (Haem/Onc).

2. To enhance clinical and procedural skills, practical and scientific knowledge and proper attitudes in the management of patients with Haem/Onc disorders.

3. To inculcate and enhance critical thinking, self-learning, and commitment to continuing medical education in Internal Medicine in general and Haem/Onc in particular.

4. To encourage and provide opportunities in the pursuance of scientific enquiry and basic research in Haem/Onc.

5. To inspire trainees to be leaders of teams of health care workers for the holistic management of patients with Haem/Onc disorders; to respond to the cost-effective issues of various treatment modalities; to be sensitive to community needs and to plan for future services in Haem/Onc.

6. To provide supervision, guidance and opportunities to acquire the necessary competence for accreditation in this specialty.

7. To acquire professional competence in training future trainees in Haematology and Haematological Oncology.

(II) STRUCTURE

1. This 3-year supervised training should expose a trainee to a comprehensive service in Haematology/Haematological Oncology which should take place in, most instances, in more than one institution.

2. A minimum of two years should be spent in a clinical unit with clinical and laboratory support for the management of patients with a full spectrum of diseases of the blood, eg, Haematology or Haematological Oncology Division in a medical department.

3. Experience in the following is required.
   a. Bone Marrow Transplantation: A minimum of three months full-time or part-time equivalent service in a unit of international standard. Training in this area can be accredited for a maximum of six months.
   b. Laboratory Haematology: A minimum of three months full-time or part-time equivalent service in a laboratory which offers a full range of diagnostic services in Haematology. Training in this area can be accredited for a maximum of six months.
   c. Blood Transfusion: One month of full-time service in a blood bank with comprehensive service and laboratory support. Attachment to the Hong
Kong Red Cross Blood Transfusion Service is encouraged.

Experience in these areas should be recorded in the log-book and continual interaction with a laboratory haematology service is expected throughout the period of training.

4 The following experiences are optional and can be accredited for training for up to six months each.

a Immunology: Clinical or laboratory service in a regional hospital.
b Infection: Clinical or laboratory service in a regional hospital.
c Laboratory or Basic Research in a topic related to Haem/Onc, especially when this leads to a higher academic degree, eg, PhD or MD.

(III) CONTENTS

(A) Knowledge

There should be ample opportunities for the trainee to observe, manage and assume responsibility for the investigation and treatment of patients suffering from a wide variety of acute and chronic haematological and haemic-oncological problems in a Haematology Unit or Medical Unit which deliver expert specialised care to such patients.

The knowledge required can be addressed by competence in the following areas of activities of the Haem/Onc specialist.

1 In-hospital management of patients with suffering from various blood disorders, including anaemias, abnormalities in white cells and platelets, marrow failures, leukaemias and lymphomas, chronic myeloproliferative diseases, chronic lymphoproliferative diseases, splenomegalies as well as thromboembolic disorders.

2 Chemotherapy and supportive management of patients suffering from leukaemias and lymphomas.

3 Competence in interpretation of morphological haematology and routine and specialised haematological tests.

4 Ambulatory care of patients and special outpatient follow-up.

5 Consultation by other specialties on general haematology, bleeding and blood transfusion problems.

6 Anticoagulant clinic for the management of acquired and inherited thrombotic diseases.

7 Haemophilia Centre for the management of inherited bleeding diseases.

8 Working and advanced knowledge in the following specialised areas.

a Bone marrow transplantation.
b  Plasmapheresis and apheresis procedures.
c  Blood component collection, processing and blood banking.
d  Routine as well as specialised haematological laboratory procedures.

(B) & (C) Skills and Attitudes

1  Competence in eliciting relevant clinical features and in interpreting of morphology of peripheral blood smears and marrow biopsy.

2  Appropriateness in the ordering and interpretation of special haematology tests, eg,
   a  Measurement of haematinics, including serum ferritin, serum B12 and folate, Schillings tests.
   b  Immune causes of cytopenias including characterisation of antibodies to red cells and platelets.
   c  Red cell enzyme deficiencies.
   d  Immunophenotyping and cytogenetics of leukaemias and lymphomas.
   e  HLA typing for marrow matching.
   f  Coagulation factor assays and tests for inhibitors.
   g  Tests for thrombophilias.
   h  Molecular diagnosis of haematological disease.

3  Procedural skills including marrow aspiration and trephine biopsy, management of venous assess catheters, plasmapheresis and cytophersis, marrow harvest and marrow processing, intrathecal administration of drugs.

4  Cost effectiveness of cytotoxic therapy for haemic malignancy.

5  Risk-benefits of different treatment modalities.

6  Assessment of new and innovative therapies for various blood disorders.

7  Choice of drugs and procedures for management of immuno-suppressed patients with opportunistic infections.

8  Counselling of patients and relatives on alternative strategies for the treatment of malignant and non-malignant blood diseases.

9  Ability to communicate with patients and relatives in handling expectation, emotional problem and ethical issues relating to the management of malignant blood diseases.

10 Ability to deal with treatment failures, to manage and give appropriate counselling in “do not resuscitate” cases, and to provide bereavement support.

11 Ability to communicate and cooperate with medical, scientific and
technical staff in haematology laboratory.

(IV) INSTITUTIONAL REQUIREMENTS

1. The minimum trainer to trainee ratio should not be less than 1:2 at any one time.

2. The institution should normally be able to satisfy the requirements for Basic Physician Training.

3. Sufficient haematology beds supervised by fully trained haematologist/haematological oncologist for acute and clinical admissions of patients with non-malignant and malignant blood disorders. This can take place in an independent haematology unit or as part of a General Medical Unit.

4. Sufficient reverse isolation facilities for the management of patients with immuno-suppression and agranulocytosis.

5. Access to intensive or high dependency care.

6. Access to 24-hours laboratory and imaging services for management of acute haematological problems including hypercalcaemia, hyperviscosity, disseminated intravascular coagulation and bleeding problems.

7. Access to specialised procedures for the acute and chronic management of blood diseases, including plasmapheresis and cytapheresis, bone marrow transplantation, etc.

8. Access to services of specialised haematology diagnostic laboratory, blood transfusion services and drug level monitoring.

9. Active medical audit and postgraduate education programmes.

10. Access to library and audiovisual facilities.
IMMUNOLOGY AND ALLERGY

(I) OBJECTIVES

1 To provide a broad training and in-depth experience at a level sufficient for trainees to acquire competence and professionalism of a specialist in Immunology & Allergy.

2 To provide broad-based education towards the understanding of immunological mechanisms underlying clinical diseases.

3 To provide in-depth supervised training in managing patients suffering from immunological disorders.

4 To enhance the appropriate and effective use of immunological investigations in clinical diagnosis and treatment.

5 To stimulate research in Clinical Immunology.

6 To acquire professional competence in training future trainees in Immunology & Allergy.

(II) STRUCTURE

1 This consists of two years of supervised and accredited core training in Immunology & Allergy.

2 The trainee should rotate through a minimum of two units/institutions to ensure optimal exposure to the practice of Immunology and Allergy.

3 The trainee should acquire clinical experience and become competent in the major areas of immunological practice. These areas are listed in Section (III)A. A maximum of 24 months can be accredited in at least two of these specific areas. Provisions for supervised training in the remaining three major immunological practice areas shall be made throughout the other two years of AIM training.

4 A maximum of six months may be accredited in an elective area in any medical specialty outside the major immunological practice areas listed in (III)A. Training in these elective areas must be planned in immunological perspective. Examples of these areas include Dermatology, Infectious Diseases, Gastroenterology, Rheumatology, Nephrology and Hepatology.

5 Laboratory experience constitutes an integral part of the training programme. This can be attained through any one of the following pathways:

5.1 Full-time training in an immunology laboratory which performs a broad spectrum of immunological investigations on a regular basis, for a minimum of six months.

5.2 Part-time engagement in laboratory immunology while undergoing training under (III)A or other parts of the training, for a minimum of 12 months. The attachment may be undertaken on a regular and session basis.
5.3 Participation in research project(s) on subject(s) in Immunology and Allergy, which employs a comprehensive range of laboratory immunology methods, for a minimum of six months (full time) or 12 months (part-time).

(III) CONTENTS

(A) Knowledge

The trainee shall acquire a thorough understanding of the structure and functions of the immune system, mechanisms of immunological tissue damage and immunopathogenesis of common diseases. The trainee should be familiar with the following areas which constitute major immunological practices:

1. Autoimmune and immune-complex diseases.
2. Primary and secondary immunodeficiency, including HIV/AIDS.
3. Transplantation.
4. Lymphoproliferative diseases.
5. Allergy and hypersensitivity.

(B) Experience

The trainee should be directly involved in the management of at least two of the five areas of major immunological practices in Section (III)A. He/she should develop competence in the diagnosis, management and the use of immunologically-based therapeutic intervention.

(C) Skills

The trainee must acquire sufficient background knowledge in basic and applied immunology through guided learning and exposure to laboratory immunology. He/she should become familiar with diagnostic techniques in Immunology and Allergy, their interpretation and quality assurance and their relevance in the major immunological practices areas. Such immunological investigations include:

1. Autoimmune serology.
2. Immunochemistry.
3. Cellular immunology techniques, including flow cytometry, lymphocyte and neutrophil function tests.
4. Tissue typing.
5. Various forms of skin tests for hypersensitivity.

(D) Additional Knowledge

Commitment to on-going improvement in clinical immunological practices
requires that the trainee be involved in research relevant to his/her area of practice. There should be exposure to the development of research strategies, methodology and evaluation. Such opportunities should be available throughout the training period, and may be accredited as training in laboratory as per Section (II).5.

(IV) INSTITUTIONAL REQUIREMENTS

A trainee in Immunology and Allergy should enrol in at least two College recognised units/institutions.

1. The unit/institution providing training must be staffed by a College-accredited trainer in Immunology and Allergy. It must either have its own immunology laboratory, or be closely affiliated with one in its daily operation. The trainer must be a Fellow of the College who possesses at least two years of relevant post-Fellowship experience, and must be a College accredited specialist in Immunology and Allergy. The trainer to trainee ratio should be no less than 1:2 at any one time.

2. Elective training in a clinical specialty with an immunological perspective which falls outside the scope listed in Section IV.2 should be supervised by a College-accredited trainer in that specialty together with a College-accredited trainer in Immunology and Allergy throughout the training period.

3. In all training units for programmes detailed in section (III), there should be the following provisions:
   
   3.1 Education activities to provide the necessary grounding in basic and clinical immunology in general;
   
   3.2 Relevant laboratory facilities in Immunology and Allergy;
   
   3.3 Library and facilities for clinical meetings and presentations;
   
   3.4 Affiliation with extended care facilities;
   
   3.5 Quality assurance programmes.

4. An immunology laboratory described under Section (II) 5 and (III) C shall be a service laboratory which provides a full range of diagnostic investigations on a routine basis. A trainee may acquire the experience through rotation to more than one laboratory if a full service laboratory is not available or accessible. For those who choose to gain laboratory experience through research, a project which employs a reasonably broad range of immunological investigations should be organised. Supplementary laboratory attachment shall be arranged should the above facilities fail to give adequate exposure to a comprehensive range of immunological investigations.

5. Approval of the Specialty Board should be sought in advance if training in any part(s) of the programme is planned to be undertaken in an overseas institution.
INFECTIONOUS DISEASE

(I) OBJECTIVES

1. To provide a broad training and in-depth experience at a level sufficient for the trainee to acquire competence and professionalism of a specialist in Infectious Disease.

2. To develop clinical skills, knowledge and competence in the management of Infectious Disease.

3. To acquire the fundamental concepts of epidemiology of Infectious Diseases, hospital antimicrobial policies, administrative decisions on infection control and prevention.

4. To inculcate in trainees a commitment to continuing medical education and scientific research in Infectious Disease.

5. To acquire professional competence in training future trainees in Infectious Disease.

(II) STRUCTURE

A period of three years of supervised and accredited training in Infectious Disease is required, of which two years are devoted to core training.

1. The 2-year core programme in Infectious Disease consists of

   1.1 A period of 12 months of modular training in specialised areas of Infectious Disease in College-recognised institutions and units. The modules include:

      1.1.1 Six months of training in notifiable infectious diseases such as cholera, typhoid fever, malaria, etc. with at least 3 months in the Hospital Authority Infectious Disease Centre

      1.1.2 Three months of training in HIV infection and acquired immunodeficiency syndrome (AIDS) medicine

      1.1.3 Three months of training in the inpatient and outpatient management of tuberculous disease

   1.2 A period of 12 months of training in General Infectious Disease is required. The trainee should have full-time duties in the Internal Medicine service to gain experience relating to a wide range of infectious diseases. A 3-month period in these 12 months should be dedicated to the management of infection in immunocompromised patients who are recipients of chemotherapy or organ transplants. Another 3-month period should be dedicated to the management of infections in critical care patients. The trainee should also act as liaison officer on infection with the microbiologists by maintaining a close link with them, consulting for advice when necessary.
1.3 Throughout the two years of core training, there should be ample interaction with the microbiologists and time set aside for training in a College-recognised microbiology laboratory:

1.3.1 The trainee should spend three months in the microbiology laboratory to learn about relevant methods and techniques, infection control and antimicrobial policy.

1.3.2 During these three months of laboratory training, the trainee is required to attend the combined Infectious Disease/Microbiology ward rounds.

1.3.3 The trainee should maintain clinical involvement in these three months by taking emergency calls in his/her parent medical unit after office hours.

2. There should be training in the management of sexually transmitted disease for a minimum of 20 clinic sessions, to be undertaken throughout the training period in College-recognised units.

3. Trainees are required to attend at least one College-approved course in Infectious Disease/Infection Control/Epidemiology during the period of training.

4. The 12-month training outside the core-training programme should be spent in acute general medicine, with rotations to specialties closely related to Infectious Disease, including Gastroenterology & Hepatology, Nephrology and Respiratory Medicine.

5. Trainees enrolled in concurrent training with AIM should also undergo training in specialties closely related to Infectious Disease specified under Item 4, in addition to other specialties of their choice.

(III) CONTENTS

During the course of training, the trainee is expected to acquire experience, knowledge and skills related to the field of Infectious Disease. Familiarity with inter-related subjects is also expected.

(A) Knowledge

1. Aetiology, pathophysiology, pathogenesis, natural history, clinical manifestations, investigations, and management of various global and endemic infectious diseases, including clinical tropical medicine.

2. Knowledge in epidemiology of common and important infections in the territory as well as epidemiology of nosocomial infections. The trainee is required to design, execute and analyse at least one epidemiological study during the training period.

3. The mechanisms and pathobiology of infection.

4. Hospital antimicrobial policies, clinical pharmacology of antimicrobials and their use in different clinical settings.
5. Hospital infection control and territory-wide infection control
6. Diagnostic techniques and other laboratory experience in clinical microbiology, virology and parasitology
7. Immunological investigations, concepts in immunopathogenesis and clinical management of immunocomprised patients
8. Vaccinology
9. Travel medicine
10. Knowledge of nuclear medicine and radiological methods pertaining to the diagnosis of infections
11. Basic knowledge of clinical research methods and statistics
12. Concepts of quality assurance and cost-effectiveness in the practice of Infectious Disease

(B) Skills
1. Acute management and routine care of patients suffering from severe infection and its sequelae
2. Management of severe infection in a critical care setting
3. Management of patients with communicable and tropical infections, e.g. cholera, malaria, etc.
4. Care of immunocompromised patients, including neutropenic and those with HIV infection / AIDS
5. Management of nosocomial infections through knowledge in infection control and appropriate liaison with laboratory services
6. Practical knowledge of common clinical procedures, e.g. sigmoidoscopy, lumbar puncture, central line insertion, etc.
7. Essential staining and culture techniques for common micro-organisms in different specimens
8. Microscopic examination of important infectious agents, e.g. malaria parasites, meningococci, etc.

(IV) INSTITUTIONAL REQUIREMENTS
1. The training programme may involve more than one recognised training hospital/institution. A training institution for Infectious Disease should be an acute care hospital with the following features:
   1.1 Twenty-four-hour emergency admission
   1.2 General medical and surgical beds, for which Infectious Disease consultations are called upon on a regular basis
1.3 Isolation facilities
1.4 Outpatient referral clinic for Infectious Disease management including travel associated infections
1.5 A designated team composed of infectious disease physicians and microbiologists responsible for the management of a wide spectrum of infectious diseases
1.6 Laboratory support including microbiology, virology, parasitology, histopathology, biochemistry and haematology
1.7 Radiology support
1.8 Bronchoscopy and gastrointestinal endoscopy facilities

2. In all training institutes for Infectious Disease, the following features should be available:

2.1 Staffed by at least one fellow of the College who has been accredited as trainer in Infectious Disease. Regular ward rounds, supervised emergency calls and outpatient services should be provided. The minimum trainer to trainee ratio should not be less than 1:2

2.2 Laboratory and diagnostic facilities including radiology, histopathology, microbiology, clinical chemistry and haematology

2.3 Adequate educational facilities such as access to medical library, computerised literature search systems, educational equipment, etc.

2.4 Regular education programmes and audit meetings

2.5 Opportunities for research throughout the training period
MEDICAL ONCOLOGY

(I) OBJECTIVES

Recognising that Oncology is also practised by various specialties outside the sphere of a Medical Oncology Unit, including Surgery, Gynaecology, Paediatrics, Haematology and Radiotherapy, training should aim

1 To provide a broad training and in-depth experience at a level sufficient for the trainee to acquire competency and professionalism as a specialist in Medical Oncology, so as to be able
   a To provide a consultative and advisory oncological service to physicians and surgeons in general hospitals in terms of available diagnostic and therapeutic modalities and the appropriateness of tertiary referral.
   b To provide specific oncologic therapy and support for intensive chemotherapy of solid tumours and haematological malignancies.
   c To provide input into multidisciplinary clinics conducted in conjunction with other specialties towards the provision of multi-modality anticancer treatment.
   d To provide service for, and advise on, palliative management of incurable disease and terminally-ill cancer patients.

2 To inculcate and enhance critical thinking, self-learning and a commitment to continuing medical education in Medical Oncology.

3 To lay the groundwork for future in-depth commitment to scientific research in Medical Oncology.

4 To understand the health care delivery issues concerning Medical Oncology in the community.

5 To develop a sense of responsibility and leadership in relevant policy-making, implementation and public education regarding cancer prevention.

6 To acquire professional competence in training future trainees in Medical Oncology.

(II) STRUCTURE

Three years supervised and accredited training, comprising

A A two year “core period”, with
   1 18 months in a recognised Medical Oncology training unit with major clinical activities.

Or

18 months combined supervision in individual units (minimum of six months full-time or part-time equivalent periods in each unit) with major clinical activities in the following.
a Haematology/Haematological Oncology/Haematopoietic Stem Cell transplantation

b Solid tumours (e.g. gastrointestinal, lung, breast, liver, nasopharyngeal carcinoma (NPC), central nervous system (CNS), gynaecological, urinary and prostate).

These units must be accredited by the respective Specialty Boards and recognised to have sufficient volume of work in Medical Oncology to be suitable for training. Trainees in these units may be under the supervision of other Academy Colleges, as well as the combined supervision of an Academy trainer in the Specialty concerned, together with a College recognised trainer in Medical Oncology.

2 Radiotherapy planning and delivery

Preferably a minimum of three months full-time or part-time equivalent as member of radiotherapy team.

3 Palliative Care and Hospice

Up to three months full-time or part-time equivalent as member of palliative care team and experience in a hospice unit.

B An elective period of one year, which may comprise 3-6 month in two or more of the following.

Surgical oncology.

Gynaecological oncology.

Paediatric oncology.

Clinical Pharmacology of anticancer drugs.

Basic laboratory research.

Tumour pathology/molecular biology/tumour imaging, or

A further period in one or more of the core curriculum subjects.

(III) CONTENTS

During the three-year period, the trainee would be expected to gain experience in the following areas.

(A) Knowledge

1 Elements of cancer biology, including the mechanisms of oncogene activation, tumour suppressor genes, signaling pathways, stepwise evolution of invasive neoplasia, etc.

2 Principles of cytotoxic chemotherapy (systemic and regional), hormonal and immunotherapy and use of Biological Response Modifiers and

3 Elements of radiation physics; principles and practice of radiotherapy including late effects and complications of radiotherapy and their management; normal tissue tolerance.

4 Research methodology and evaluation. Design, execution and critical analysis of clinical trials together with elements of statistics as applied to cancer trials and cancer epidemiology. Stages of drug development and post marketing surveillance.


6 Methods of assessing tumour response and treatment-related toxicities; clinical, radiological and biochemical.

7 Management of oncological emergencies, paraneoplastic syndromes and the neutropenic patient.

8 Supportive care and rehabilitation including psychosocial aspects and symptomatic control of pain and emesis.

9 General principles of transplantation as applied to cancer treatment.

10 Preventive medicine in relation to oncology, mass screening and early detection.

11 Pathology of malignant disease.

12 Access to, and use of, Cancer Databases.

13 Planning and management of health care for cancer patients.

14 Audit and quality assurance in oncological practice.

(B) Skills

1 Principles of management of cancers of specific sites
   Head and Neck and central nervous system.
   Endocrine
   Breast
   Thorax
   Gastrointestinal tract and hepatobiliary system
   Genitourinary system
Bone and soft tissue sarcomas
Haematological malignancies
AIDS related malignancy

Practical knowledge, techniques and skills

Biopsy – Skin, pleural and liver, aspiration bone-marrow aspiration and biopsy.

Cytology – fine needle aspiration.

Methods of vascular access.

Pleural tap and drainage.

Diagnostic and therapeutic lumbar puncture.

Cyctotoxic drug preparation and administration.

Bereavement counselling, talking to dying patients and their families.

Approaches to nutritional support, enteral and parenteral.

 Supervision of plasmapheresis, harvesting of haematopoietic stem cells.

(C) Attitudes

1 The recovery of health of the patient should be of paramount consideration; but active total care of the patient and his/her family when the medical expectation is not to cure and the primary aim of treatment is no longer to prolong life, is also central to the management of most cancer patients.

2 Ability to act as team-leader in a multidisciplinary approach to offer total patient care which encompasses physical, psychological and spiritual support during life and in bereavement. The team should involve allied medical professionals including physiotherapists, nurses, social workers, home care personnel and counsellors. The trainee should also be aware of the stress encountered by junior colleagues and allied health professionals in the management of patients with cancer.

3 Ability to recognise the cost-effectiveness, indications, contraindications, and potential complications of various procedures in the course of patient care.

4 Ability to respect and observe the privacy and confidentiality of patients and the sanctity of life.

5 Ability to be aware of the conflicts between the rights of individual and the interest of society as a whole in the treatment of cancer, in particular in clinical trials.

6 A mature and reasoned attitude to the interaction of a Medical Oncologist...
with the pharmaceutical industry and its representatives.

(IV) INSTITUTIONAL REQUIREMENTS

1  For Palliative care

   1.1 Presence of a qualified trainer in Hospice Care. A recognised hospice care trainer must be a Fellow of the College and must be recognised by the College to have suitable experience and training in this area.

   1.2 Regular referrals of sufficient numbers of patients with incurable cancer.

   1.3 Presence of either home care, day care or outpatient clinical facilities.

   1.4 Regular academic activities and evaluation.

2  For Radiotherapy

   2.1 These must be training units accredited by the College of Radiologists for training in Clinical Oncology, and the presence of an accredited specialist in Clinical Oncology recognised by the College of Physicians or the College of Radiologist as trainer. There should be sufficient numbers of radiographers and physicists in each unit. To render training, there should be regular new case loads of sufficient size and spectrum of malignancies from different organs.

   2.2 Radiotherapy facilities with a range of equipment the College would consider to be sufficient.

   2.3 Regular academic activities.

   2.4 Presence of regular interdisciplinary activities in the form of meetings and clinics.

3  For Medical Oncology

   3.1 Beds of both sexes to admit patients with a wide variety of oncology related diseases, with 24-hour admission for emergency cases.

   3.2 Regular out-patient clinics in various aspects on oncology, with emphasis on joint clinics conducted in collaboration with other departments.

   3.3 A sufficient number of fully trained staff with specialist accreditation and trainer status to provide a trainer to trainee ratio of not lower than 1:2 at any one time.

   3.4 Laboratory and diagnostic facilities

       Radiology (Plain XR, CT scan, radionucleotide scan, ultrasound mammography, magnetic resonance imaging) and preferably, positron emission scanning.

       Diagnostic histopathology, including cytology, immuno-histochemistry, and access to molecular/cytogenetic/FISH/CISH Studies.
Microbiology.
Clinical chemistry, including tumour marker service.

Haematology.
Endoscopic, bronchoscopic, neurological and cardiac services.

3.5 Regular medical audit and structured continuing education including journals clubs and grand rounds.

3.6 Affiliation with hospice care.

3.7 Library with access to Oncology databases.

4 For Haematology

4.1 Presence of qualified haematology trainer recognised by the College.

4.2 Recognised centre for treatment of acute leukaemia, lymphoma and plasma cell dyscrasias.

4.3 Recognised laboratory haematology service.

4.4 Access to specialised services including haematopoietic stem cell transplantation and plasmapheresis.

5 For Clinical Pharmacology

5.1 Facilities for therapeutic drug monitoring.

5.2 Regular drug utilisation review and audit.

5.3 Patient consultation related to drug management.

5.4 Involvement with drug overdose and extravasation management.

5.5 Access to drug information database.
NEPHROLOGY

(I) OBJECTIVES

1. To provide a broad training and in-depth experience at a level sufficient for trainees to acquire competence and professionalism of a specialist in Nephrology.

2. To facilitate a trainee to acquire the knowledge, clinical skills, procedural competence and professional attributes in Nephrology.

3. To cultivate a commitment to continuous medical education and self-learning, critical thinking and a drive towards advancing knowledge and clinical excellence in Nephrology.

4. To enhance understanding of all healthcare issues related to the practice of Nephrology for holistic patient care, including healthcare administration, policy making and implementation.

5. To acquire professional competence in training future trainees in Nephrology.

(II) STRUCTURE

1. The training programme comprises three years of supervised and accredited training.

2. A minimum of two years should be spent in training positions with patient care responsibility in Nephrology, of which up to one year may be spent in approved training centre(s) overseas.

3. Within this 2-year period of CORE training, the trainee should devote: (a) a minimum of 12 months to general Nephrology; (b) a minimum of six months to dialysis; and (c) a minimum of six months to renal transplantation in an accredited renal transplant unit/institution, which can be local or overseas.

4. A maximum of 12 months of OPTIONAL elective training may include training in AIM OR fields which have renal implications. Research and/or clinical training in hypertension, cardiovascular medicine, metabolic medicine, endocrinology, immunology or infection may be included as optional subjects. Prior approval by the Specialty Board in Nephrology is required.

(III) CONTENTS

There should be ample opportunities for the trainee to observe and directly manage, and take on continuing responsibility for both outpatients and inpatients with a wide variety of acute and chronic kidney diseases. The trainee should acquire and develop the following knowledge, skills and attributes.

(A) Knowledge

1. Diagnosis of renal diseases, including the assessment of renal function, interpretation of haematology and biochemistry data, renal histology,
radiology, ultrasound, renal angiography, CT, MRI radionuclide imaging, and other imaging results.

2 Identification and management of different clinical renal syndromes.

3 Management of hypertension including hypertensive disorders in pregnancy.

4 Problems of fluid, electrolyte, and acid-base disorders.

5 Management of acute renal injury, including acute renal replacement therapies and continuous renal replacement therapy (CRRT).

6 Management of chronic renal failure, including its complications and preservation of renal function.

7 Management of endstage renal failure with dialysis, including the different modes of haemodialysis (intermittent haemodialysis, short daily haemodialysis, nocturnal home haemodialysis and haemodiafiltration), and the different modes of peritoneal dialysis (continuous ambulatory peritoneal dialysis CAPD, nocturnal intermittent peritoneal dialysis NIPD, continuous cyclic peritoneal dialysis CCPD).

8 Renal transplantation – preparation, peri-operative and long-term management of recipients, life donors and deceased donors.

9 Other renal diseases, examples include urinary tract disorders, and urolithiasis.

10 Knowledge of managing renal problems in surgical, obstetrics and gynaecological, and oncology patients.

11 Collaborative management with surgical colleagues in pre- and post-operative urological problems, and knowledge of surgical procedures employed in the management of urinary tract diseases.

12 Renal physiology, pathology, immunology, microbiology, pharmacology and therapeutics.

13 Rehabilitation and palliative care for renal patients.

14 Renal disorders in pregnancy.

15 Alterations in drug metabolism in renal disease and nephrotoxicity.

16 Cardiovascular risk factors and consequences in chronic renal failure.

17 Nutrition: general, enteral and hyperalimentation in renal failure.

18 Quality assurance in renal services.

(B) Procedural Skills and Knowledge

1 Renal biopsy

To understand the indications and contraindications, and be competent in the techniques, preparation for, and post-biopsy care of native and transplant kidney biopsies, including the management of complications.
To understand the diagnostic and prognostic implications of the light microscopic, immunofluorescent and electron microscopic findings in renal biopsies.

A trainee must have performed no fewer than 20 native kidney biopsies and no fewer than 5 allograft kidney biopsies prior to the Exit Assessment.

2 Peritoneal dialysis

To be competent in prescribing peritoneal dialysis treatment, including manual fluid exchange and cycler-assisted dialysis regimens.

3 Extra-corporeal renal replacement therapy

Creation and care of temporary vascular access for haemodialysis, continuous veno-venous haemofiltration or haemodiafiltration, haemoperfusion, plasmapheresis and related procedures.

A trainee must have performed no fewer than 25 haemodialysis catheter insertion procedures prior to the Exit Assessment.

4 Extracorporeal shock wave lithotripsy (ESWL) and percutaneous nephrostomy.

To understand the principles and practice of these procedures.

5 Interventional radiology, e.g. angioplasty for renal artery stenosis or arteriovenous fistula.

To understand the principles and practice of these procedures.

(C) Clinical Skills

1 Ability to obtain and present precise, reliable and thorough medical history, including relevant psycho-social issues.

2 Ability to conduct expert and focused physical examination that are directed towards patients’ problems.

3 Ability to demonstrate understanding and proficiency, while minimizing risks and discomforts to patients, in the choice and performance of diagnostic and technical procedures.

4 Ability to integrate medical facts and clinical data, and to develop a logical plan for evaluation and for immediate and long-term management.

(D) Professional Attitudes

1 Ability and willingness to describe the diagnosis and likely clinical course to patients and their families.

2 Ability and willingness to explain to patients and their families all available therapeutic options, including their potential benefits, risks and side effects.

3 Ability and willingness to prepare comprehensive consultation notes in medical records and letters to referring physicians, patients and appropriate agents.
(E) Humanistic Qualities

1. Be empathetic.
2. Ability to gain patient’s trust.
3. Ability to listen to and appreciate patients’ wishes and concerns.
4. Ability to maintain credibility and support for patients and families.

(F) Commitment to Continuing Medical Education and Continuing Professional Development

1. Commitment to the maintenance and updating of clinical skills throughout one’s professional career.
2. Commitment to the acquisition of new knowledge by reading current medical literature, and attending clinical and scientific meetings.
3. Commitment to participation in clinical and/or basic science research.
4. Commitment to the maintenance and improvement in standards of renal services, through implementation of quality assurance and other relevant methodology.
5. Commitment to the critical evaluation of new medical and scientific information relevant to the specialty.

(G) Management Skills

1. Ability and willingness to assume leadership roles in total patient care that involves the participation of other professionals including nurses, dietitians, social workers, and other allied health professionals.
2. Ability and willingness to recognise the cost-effectiveness of alternative treatment modalities.

(IV) INSTITUTIONAL REQUIREMENTS

A hospital will be accredited to provide full or partial training in Nephrology if it contains some or all of the following facilities.

1. General Nephrology

1.1 Provision of inpatient (emergency and non-emergency) and outpatient Nephrology services.

1.2 Regular outpatient subspecialty clinics in Nephrology.

If a centre does not offer the full 12-month training program in general nephrology, arrangements must be made for trainees to be seconded to an accredited training centre in order to complete the 12 months of core training in general nephrology.
A trainee should have worked in a hospital that provides obstetrics service for a period of not less than 3 months during the course of nephrology training.

2 Dialysis

2.1 Haemodialysis (HD)

2.1.1 This includes acute and chronic haemodialysis treatment as well as other related treatment modalities, including plasmapheresis, haemoperfusion and haemofiltration etc. The setting should also allow trainees to accumulate experience in the management of patients with acute kidney injury, multi-organ failure, and those who require intensive or high-dependency care.

2.1.2 Centres with 8 or more active haemodialysis stations may be accredited for a maximum of 6 months in HD training. Centres with 4-7 active haemodialysis stations may be accredited for a maximum of 3 months.

2.2 Peritoneal Dialysis (PD)

2.2.1 This includes acute and chronic PD treatment.

2.2.2 The centre must have an active PD training program with a PD population of approximately 100 or more patients.

If renal replacement activities, whether HD or PD or both, in a centre are deemed insufficient for the purpose of nephrology training, arrangements must be made for trainees to be seconded to an accredited dialysis unit for at least 3 to 6 months of training as required.

3 Renal Transplantation

3.1 This includes live-donor, either related or unrelated, and deceased-donor kidney transplantation.

3.2 Involvement in donor and recipient investigations and preparation, and the maintenance of potential deceased-donor, is required.

3.3 The centre setup must allow a trainee to acquire the necessary experience in the prevention, diagnosis, and management of peri-operative and later complications after kidney transplantation.

3.4 If a centre does not offer renal transplantation, arrangements must be made for a trainee to be seconded to a renal transplant centre for at least 6 months.

3.5 For a centre to be accredited for training in renal transplantation, it must perform no fewer than 8 renal transplantations annually.

4 The training hospital should also provide the following expertise.
4.1 A sufficient number of fully trained staff with accredited trainer status in Nephrology, to provide a minimum trainer to trainee ratio of not lower than 1:2 at any one time. Trainers should directly supervise trainees in all aspects of patient management, including daily ward rounds, consultations, acute care to patients with renal emergencies, and outpatient service. There should also be an accredited urological service within the hospital to provide regular combined case conference or ward round on a regular basis.

4.2 Designated renal beds.

4.3 Laboratory and diagnostic facilities which include:

4.3.1 radiology service (i.e. X-ray, radionuclide scan, ultrasound, CT Scan, MRI, renal angiogram)

4.3.2 histopathology service including renal biopsy interpretation

4.3.3 microbiology service

4.3.4 clinical Chemistry service

4.3.5 haematology service

4.4 Regular medical audit procedures.

4.5 Maintenance of a high quality medical record system permitting prompt accessibility at all times.

4.6 Structured educational program, including journal club, biopsy review, radiology review, and case conference. Research meetings can be included in the training programme.

4.7 Adequate educational facilities, which include:

4.7.1 access to medical library facilities and computerised literature search systems

4.7.2 space and education equipment including audiovisual aids for clinical or research presentations
NEUROLOGY

(I) OBJECTIVES

1. To provide a broad training and in-depth experience at a level sufficient for trainees to acquire competence and professionalism of a specialist in Neurology.

2. To ensure a high level of clinical skills as well as procedural competence in Neurology.

3. To promote critical thinking, self-learning, and a commitment to continuing medical education in Neurology.

4. To enhance scientific knowledge as a necessary groundwork for research in Neurology.

5. To develop an awareness of health care issues concerning Neurology in the community, and a sense of responsibility and leadership in related policy-making and implementation.

6. To acquire professional competence in training future trainees in Neurology.

(II) STRUCTURE

1. This period consists of three years of supervised and accredited training in Neurology. The duration of core training should not be less than 24 months.

2. The trainee should have adequate exposure to the wide spectrum of diseases in Neurology. It is desirable to have part of the training acquired from overseas or other local training centres, which offer complementary training.

3. The trainee is required to take regular emergency on-call service to have adequate exposure in management of patients with acute neurological emergencies.

4. A minimum of 18 months should be spent in an acute care hospital as defined in Section IV below.

5. A maximum of six months may be accredited for experience relevant to Neurology, e.g. neurorehabilitation, research, etc.

(III) CONTENTS

(A) Knowledge

There should be ample opportunities for the trainee to observe, manage, and assume continuing responsibility for patients suffering from a wide variety of acute and chronic neurological diseases as listed below. The trainee should acquire knowledge of the aetiology, pathophysiology, clinical manifestations, investigations, and management, including cost-effectiveness of treatment modalities of the following.

1. Cerebrovascular disease.

2. Epilepsy.
3 Movement disorders.
4 Infections of the nervous system.
5 Neurological emergencies.
6 Pain disorders.
7 Dementia and other cognitive disorders.
8 Neoplasms.
9 Spinal cord disorders.
10 Peripheral nerve disorders.
11 Disorders of the neuromuscular junction.
12 Muscle diseases.
13 Genetic diseases of the nervous system.
14 Degenerative diseases.
15 Demyelinating diseases.
16 Neurological manifestations of systemic diseases.
17 Trauma of the nervous system.
18 Occupational, environmental and drug-induced neurological diseases.
19 Sleep disorders.
20 Neurological rehabilitation.
21 Psychiatry and clinical psychology.
22 Interventional Neurology.

(B) Skills – Number of studies required
1 Lumbar puncture.
2 Muscle biopsy.
3 Nerve conduction study (NCS) / Electromyography (EMG).
5 Electroencephalography (EEG) – Interpretation.
6 Neuroradiology (Interpretation).
7 EEG telemetry.
8 Botulinum toxin injection.
9 Neurosonology.

(C) Additional experience in the following are desirable, subject to availability of training facilities
1 Neurorehabilitation.
2 Neurosurgery.
3 Paediatric neurology.
4 Neuro-intensive care.
5 Neuroradiology.
6 Neuro-ophthalmology.
7 Neuropathology.
8 Epilepsy Surgery.
9 Deep Brain Stimulation.
10 Endovascular intervention.
11 Acute Stroke Service with organized treatment for hyper-acute stroke.
12 Clinical or laboratory research.
(D) Additional procedural skills in the following is desirable, subject to availability of training facilities

1. Sleep studies (interpretation).

(E) Attitudes

1. The ability to respect the sanctity of life and dignity of the patient, and to ensure adherence to the Hippocratic Oath and its spirit.
2. The ability to establish rapport and effective communication with patients and families.
3. The ability to assume a leading role in the multidisciplinary effort towards providing total patient care.

(IV) INSTITUTIONAL REQUIREMENTS

For recognition on core specialty training in Neurology, the training programme consisting of one or more hospitals should fulfill the following criteria.

1. Acute care hospitals providing Neurological training should have the following facilities.

   1.1 An intensive care unit where full facilities are provided for critically ill patients.
   1.2 General medical and surgical beds for which neurological consultations are called upon on a regular basis.

2. In training hospitals, the following features should be available. The facilities may be either on-site or with access in networking hospitals.

   2.1 Beds admitting patients with a variety of neurological diseases. Neurology patients should be under the direct care of the trainee and supervised by accredited Neurology trainers.

   2.2 Regular outpatient subspecialty clinics in Neurology.

   2.3 Sufficient number of fully trained staff with specialist accreditation and trainer status in Neurology, to provide a minimum trainer-to-trainee ratio of 1:2 at any one time, directly supervising all aspects of patient management, including ward rounds, emergency calls, critical care, and out-patient service.

   2.4 Laboratory and diagnostic facilities.

      2.4.1 Clinical neurophysiology: EEG, EMG, NCS, EP.

      2.4.2 Radiology: Computed tomography (CT) on site, access to Magnetic resonance imaging (MRI), cerebral angiography, interventional radiology, ultrasonography, radionuclide scans.

      2.4.3 Neuropathology.
2.4.4 Microbiology.
2.4.5 Clinical chemistry.
2.5 Regular quality control procedures including medical audit and autopsy.
2.6 Maintenance of high quality medical records with easy accessibility.
2.7 Affiliation with extended care facilities which provide neurological rehabilitation and hospice care.
2.8 Structured educational programme including teach-in, journal club and grand rounds in Neurology.
2.9 Adequate educational facilities which include
   2.9.1 Access to medical library facilities and computerised literature search systems.
   2.9.2 Conference facilities including audio-visual aids.
PALLIATIVE MEDICINE

(I) OBJECTIVES

1. To provide a broad-based training and in-depth experience at a level sufficient for the trainee to acquire competency and professionalism as specialist in Palliative Medicine so as to be able:

   1.1 To provide consultative and advisory service to physicians and surgeons in general hospitals regarding the palliative care of patients and their significant, the modalities of palliative care service available and the appropriateness of referral.

   1.2 To provide specialist palliative care service in palliative care and non-palliative care wards, clinics, day settings and residences.

2. To cultivate compassion, and to enhance critical thinking, self-learning and a commitment to continuing medical education in Palliative Medicine.

3. To encourage contributions which aim at advancement of knowledge in Palliative Medicine and the teaching of trainees.

4. To develop a sense of responsibility and leadership in the service development of palliative care.

5. To acquire professional competence in training future trainees in Palliative Medicine.

(II) STRUCTURE

This consists of a 4-year dual accreditation programme in conjunction with Advanced Internal Medicine (AIM), and should include

1 A minimum of two years’ training in Palliative Medicine under the supervision of a trainer in Palliative Medicine recognised by the Hong Kong College of Physicians.

2 A minimum of two years of core training in Advanced Internal Medicine.

3 Exposure to Medical Oncology and/or Haematological Oncology is encouraged.

4 Palliative Medicine trainees have to complete training in AIM before they are eligible to be College Fellows. If trainees wish to take the Exit Assessment in Palliative Medicine as first specialty, they are eligible to be admitted as College Fellow only after they have also completed AIM training and passes its Exit Assessment, i.e., at least after a total of 4 years after entering into Higher Physician Training. Should Palliative Medicine trainees wish to become College Fellow three years after entering into Higher Physician Training, they may opt to take the Exit Assessment with dissertation in AIM three years after Higher Physician Training. A second dissertation has to be subsequently written for Palliative Medicine.
(III) CONTENTS

(A) Knowledge

1. Pharmacology of drugs used for symptoms control.

2. Understanding symptoms in terms of:
   2.1 Prevalence, complexity and progression along the trajectory of disease, including those prevalent at end-of-life (EOL).
   2.2 Symptom as multidimensional in nature and symptom distress as unique experience of patients.
   2.3 Elucidation of underlying causes and mechanisms of various symptoms.
   2.4 Methods of assessment, diagnosis and management of various symptom complexes.
   2.5 Development of appropriate management strategies taking into consideration the personal priorities of the patient.
   2.6 Identification of potential refractory symptoms.


4. The role of disease-specific treatments in the practice of Palliative Medicine for cancer (such as palliative surgery, radiotherapy, chemotherapy, hormonal therapy, anaesthetic techniques) and non-cancer chronic debilitating diseases including end-stage renal, respiratory, heart and neurological diseases.

5. Psychological response of the patients and their families to terminal illness, including psychological morbidities and grief reactions.

6. Understanding of the spiritual element as an integral part of palliative care.

7. Effects of religious beliefs and cultural influences.

8. Ethical principles including beneficence, non-maleficence, the principle of double effect, equity, privacy and confidentiality, respect for autonomy, respect for life, and issues related to request to hasten death, physician assisted suicide and euthanasia.

9. Familiarity with Drug Ordinances related to use of controlled or dangerous drugs.

10. Familiarity with the various modes of palliative care provision, including inpatient care, outpatient care, home care, day care and consultative services.

11. Functions of the multidisciplinary team, including the role of rehabilitation in palliative care.

12. Characteristics of a palliative care team, team dynamics and conflict resolution.
13. Knowledge concerning staff stress and burnout.

14. Knowledge in research and evaluation methods relevant to palliative care.

(B) Skills

1. Ability to use drugs for symptom relief, including strong opioids, in a safe and effective manner; and to formulate a care plan for potentially refractory symptoms.

2. Ability to perform bedside diagnostic and therapeutic interventions, e.g. thoracocentesis and abdominal tapping for symptom relief.

3. Communication skills with respect to other health care professionals in palliative care consultation: regarding information and knowledge transfer to facilitate on-site management, and facilitation of patient’s psychological transition from curative to palliative care.

4. Ability to communicate with empathy and compassion in breaking bad news and prognosis telling to patients and families.

5. Counselling skills to enhance the patient’s and the family’s coping with terminal illness, to facilitate communication among family members including holding family conferences.

6. Ability to elicit the values and preferences of patients and families, balance between benefits and burdens of treatments, and take into consideration the prognosis in advance care planning and in making do-not-resuscitate (DNR) and difficult treatment decisions.

7. Ability to apply sound ethical and legal decision making to situations arising from symptom management and withholding and withdrawing life-sustaining treatment.

8. Ability to resolve conflicts over futility and requests for hastening death, assisted suicide and euthanasia.

9. Ability to guide the family during the patient’s final hours and provide support for anticipatory grief.

10. Ability to identify family members who are at risk of complicated grief and to refer for appropriate professional service.

11. Ability to work in a multi-disciplinary team to handle team dynamics and team conflicts, and to support the team in crisis.

12. Ability to undertake clinical audit and take appropriate actions arising from the audit exercise.

13. Ability to manage staff stress and burnout arising from the provision of palliative care, including self care and support of other team members.
(C) Attitudes

1. To recognise that all days of human life are deserving of dignity, meaning and concern and that dying is a normal phase of life.

2. To recognise that when cure is not possible, active total care of the patient and the family is central to patient management, and quality of life is more important that quantity.

3. To recognise the limits of medicine, including symptom control measures.

4. Awareness of the importance of assessing cost-effectiveness and risk-benefits of various treatments based on best evidence and the patient’s values and preferences.

5. To recognise that hastening and artificial termination of life should not be the intention of care or as a method of symptom control.

6. To respect and observe the privacy and confidentiality of patients.

7. To be empathic and to have self awareness.

8. To be willing to advocate for the dying.

(IV) INSTITUTIONAL REQUIREMENTS

1. Presence of a trainer who possesses specialist accreditation in Palliative Medicine recognised by the Hong Kong College of Physicians with a trainer to trainee ratio of at least 1:2 at any one time.

2. Sufficient numbers of regular referrals of patients with incurable cancers.

3. Presence of a multidisciplinary team comprising medical, nursing and allied health professionals, in particular clinical psychologists, social workers, counsellors and workers from religious sectors to assist the trainer in the training of junior doctors, in communication skills and family and bereavement care.

4. Presence of home care and out-patient clinic facilities in addition to designated in-patient facilities.

5. Designated time for regular academic activities and evaluation.

6. Presence of regular interdisciplinary activities including inpatient and home care conferences.

7. Adequate educational facilities including library and audio-visual facilities.

8. Maintenance of high quality medical records with easy and prompt accessibility.
REHABILITATION

(I) OBJECTIVES

1 To provide a broad training and in-depth experience at a level sufficient for trainees to acquire competence and professionalism of a specialist in rehabilitation.

2 To develop clinical skills in the assessment and management of patients with impairment, disability and handicap.

3 To provide practical experience in the establishment and co-ordination of various streams and programmes of rehabilitation.

4 To develop competence in fostering close working relationship with allied health and nursing professionals to deliver effective rehabilitation service using team approach.

5 To enhance the skills in organisation and management of multidisciplinary teams.

6 To promote interest in research and understanding of the literature in rehabilitation.

7 To acquire professional competence in training future trainees in Rehabilitation.

(II) STRUCTURE

1 Path A: Dual Accreditation in Geriatric Medicine and Rehabilitation

   1.1 Two years of supervised training in Rehabilitation plus two years of supervised training in Geriatric Medicine.

   AND

   1.2 Fulfillment of the core training requirements of the two specialties. (Rehabilitation: vide infra Item 3.1; Geriatric Medicine: Re Geriatric Medicine Training Guidelines).

2 Path B: Dual Accreditation in Internal Medicine (AIM) and Rehabilitation

   2.1 Two years of supervised training in Rehabilitation plus two years of supervised training in AIM.

   AND

   2.2 Fulfillment of the core training requirements of the two specialties. (Rehabilitation: vide infra Item 3; Advanced Training In Internal Medicine: Re Training Guidelines).

3 The two years of core training in Rehabilitation should include the full-time equivalents of supervised training in the specialty programmes listed under 3.1-3.4. The training should take place in rehabilitation settings which provide demonstrable exposure to multidisciplinary or interdisciplinary approach in the performance of patient assessment and management, discharge planning, and active psychosocial care processes in in-patient, out-patient, out-reach settings.
and community rehabilitation.

3.1 Neurological Rehabilitation  (6 months)
3.2 Cardiac and/or Pulmonary Rehabilitation  (3 to 6 months)
3.3 Geriatric Rehabilitation  (3 to 6 months)
3.4 Musculoskeletal and Spinal Rehabilitation,  (6 months)
3.5 Elective: Either one of the following is acceptable  (3 months)
Rehabilitation as listed under 3.1.1-3.1.4
Rehabilitation after fracture and joint replacement
Rehabilitation after amputation
Rehabilitation after spinal injury
Rehabilitation after nerve injury
Rehabilitation of cancer patients
Rehabilitation treatment of pathological conditions, related to lifestyle, exercise, recreation and stress.

4 Rehabilitation Medicine trainees have to complete training in AIM/Geriatric Medicine before they are eligible to be College Fellows. If trainees wish to take the Exit Assessment in Rehabilitation Medicine as first specialty, they are eligible to be admitted as College Fellow only after they have also completed AIM/Geriatric Medicine training and passes its Exit Assessment, i.e., at least after a total of 4 years after entering into Higher Physician Training. Should Rehabilitation Medicine trainees wish to become College Fellow three years after entering into Higher Physician Training, they may opt to take the Exit Assessment with dissertation in AIM/Geriatric Medicine three years after Higher Physician training. A second dissertation has to be subsequently written for Rehabilitation Medicine.

(III) CONTENTS

(A) General Knowledge and Skills in Medical Rehabilitation

1 Knowledge and skills in assessment of impairment, limitation of activity and participation through the World Health Organisation - International Classification of Functioning, Disability, and Health (WHO-ICF) model or equivalent.

2 Knowledge and skills of application of appropriate measures in assessing functions and outcome for a broad range of impairment groups.

3 Skills in planning and leading a multidisciplinary/interdisciplinary rehabilitation programme, and mediating constructive exchange of multidisciplinary clinical perspectives.

4 Knowledge and understanding of the allied health disciplines to effectively integrate their contributions into the process of rehabilitation.

5 Skills in liaising with community care providers to meet the psychosocial
needs of disabled persons, and to formulate effective pre-discharge planning.

6 Understanding and application of concepts of community re-integration including occupational and vocational rehabilitation needs.

7 Understanding of the behavioral and social sciences as they relate to rehabilitation and carer dynamics, psychopathology, motivation and learning in relation to adjustment, and compensation for lost or impaired mental and social abilities associated with physical disabilities.

8 Knowledge and skills in the prescription of therapeutic exercises in neurological and musculoskeletal disabilities, and understanding of the concept of aerobic exercise and its relationship to management of chronic heart, lung, kidney diseases, diabetes mellitus and obesity.

9 Knowledge of the prescription of, and indications and contraindications for, the use of adaptive devices and training required for their use.

10 Knowledge of the prescription of, and indications and contraindications for prosthetic and orthotic devices, together with their biomechanical principles, methods of assessment, follow-up and check out procedures.

11 Knowledge of physical modalities employed in the treatment of musculoskeletal disorders including prescription, indications and contraindications of heat and cold therapy, transcutaneous electrical nerve stimulation (TENS) and interferentials.

12 Knowledge and skills in the management of specific rehabilitation problems and complications such as spasticity, swallowing disorder, neurogenic bladder and bowel incontinence.

13 Basic knowledge in neuropsychology as related to the practice of neurorehabilitation.

14 Knowledge of the indications for, and skills in, the administration of soft tissue injections, intra-articular injections and motor/nerve blocks are encouraged.

15 Knowledge in the pathophysiology of conditions related to lifestyle, exercise, recreation and stress.

16 Other related areas of knowledge and skills

16.1 Knowledge and design of architecture which affects persons with disabilities.

16.2 Rehabilitation engineering principles, which are relevant to clinical rehabilitation, especially mechanical, electrical and hydrodynamic principles.

16.3 Understanding the concepts of quality assurance and peer review.

16.4 Understanding of clinical research designs, programme evaluation and interpretation of scientific data.
Knowledge and Skills in Specialised Rehabilitation Programmes

1 Cardiac Rehabilitation

1 Knowledge of the set-up and operations of inpatient, outpatient cardiac rehabilitation, as well as the maintenance phase in the community.

2 Knowledge of clinical components of cardiac rehabilitation programmes.

3 Understanding of the concepts of aerobic exercise, activities counselling and behavioral modification as applied to cardiac patients.

4 Knowledge and skills in the assessment of suitability for entry into rehabilitation programmes, risk stratification, exercise prescription, and the performance of exercise testing.

5 Understanding of outcome evaluation of cardiac rehabilitation programmes.

6 Other general rehabilitation knowledge and skills as relevant to the rehabilitation of the cardiac patients.

2 Pulmonary Rehabilitation

1 Knowledge of pathophysiological basis of pulmonary rehabilitation including alteration of lung gaseous exchange and control of ventilation in normal and disease states.

2 Knowledge and skills in the performance and interpretation of static and dynamic pulmonary function tests and the interpretation of radiological findings of common pulmonary diseases.

3 Knowledge of the clinical components of pulmonary rehabilitation programmes and understanding of the various strategies for smoking cessation.

4 Knowledge and skills in prescribing exercise, and conducting and interpreting exercise tests for pulmonary patients.

5 Knowledge of the prescription and application of long-term oxygen therapy and devices for domiciliary ventilation support.

6 Understanding of outcome evaluation of pulmonary rehabilitation programmes.

7 Other general rehabilitation knowledge and skills relevant to the rehabilitation of the pulmonary patient.

3 Neurological Rehabilitation

1 Understanding the natural history, treatment and prognosis of neurological disorders which result in chronic disability. These include
vascular, traumatic, degenerative, infective, and immunologic diseases.

2. Functional anatomy and pathophysiology of the central and peripheral nervous system, including the autonomic system.

3. Knowledge of and preferably skills in performing diagnostic techniques including special investigations such as electrodiagnostic studies (NCS, EMG), video-fluoroscopy and fibro-endoscopic examination in assessing swallowing problems, and urodynamic studies in evaluating urinary problems.

4. Selection and interpretation of the results of investigations related to diagnosis of neurological disorders including neuro-imaging studies, EEG, CSF analysis, muscle and nerve biopsies.

5. Knowledge and skills of clinical pharmacology with particular emphasis on drugs used in the treatment of spasticity, chronic pain, incontinence, chronic infection, adverse drug reactions that might occur and problems related to the long term use of such medications.

6. Knowledge and appropriate selection of various surgical and pharmacological interventions for neurological disorders and understanding of their limitations and complications.

7. Knowledge of neuropsychology with respect to the management of major neuropsychological syndromes, and the skill to perform a comprehensive cognitive assessment of patients with cognitive impairment.

4. Musculoskeletal Rehabilitation

1. Understanding the necessary basic science and clinical knowledge required for competent clinical practice in the following musculoskeletal disorders:
   - Spinal cord and peripheral nerve injuries
   - Acute and chronic spinal pain or painful conditions of the limb
   - Rheumatological diseases
   - Amputations and joint replacement
   - Common musculoskeletal injuries and fractures and related complications
   - Normal and abnormal gait and postures

2. Knowledge and skills to obtain and perform a relevant and organized physical and functional history and examination of the musculoskeletal system and to select appropriate investigations and accurately interpret the results.

3. Knowledge and skills to prescribe appropriate medical, physical, occupational and psychosocial treatments, and adaptive devices for the management of disability, including orthotics and prosthetics,
and the administration of soft tissue and intra-articular injection.

4. Understanding the limitations of conservative managements and to identify surgical options available based on the understanding of the biomechanics and pathomechanics of the musculoskeletal diseases.

(C) Attitudes

1 Attitudes acquired during basic physician training should be reinforced.

2 Capacity for self-examination, and ability to recognise and acknowledge the expertise and contribution made by other team members including the families and friends of the patient.

3 Ability to communicate effectively at all levels with staff members, the patient and family, and medical and surgical colleagues.

4 Ability to view the problems of the disabled as a challenge and with empathic and supportive attitudes.

5 Ability to view specialisation as a continuing process of education and skill enhancement.

(IV) INSTITUTIONAL REQUIREMENTS

1 Core Training

1.1 The two years of the core programme (Paths A and B) must provide active inpatient rehabilitation service in a multidisciplinary setting, under direct supervision by trainers who are Fellows of the College accredited in Rehabilitation. The trainer to trainee ratio should not be less than 1:2 at any one time.

2 Treatment and Training Facilities

2.1 There should be adequate treatment areas for physical, occupational and other rehabilitation-related therapies. The design of rehabilitation units should be appropriate to the rehabilitation programmes offered and should be accessible to disabled persons.

2.2 Physical therapy equipment, gait training equipment, equipment for training in activities of daily living and for recreation should be provided.

2.3 For cardiac and pulmonary rehabilitation, appropriate equipment for functional testing should be provided.

2.4 Access to medical library, which contains updated journals and textbooks in Rehabilitation as well as computerised literature search systems, is essential.

2.5 Case conferences, in-service training programmes and continuous quality improvement meetings should be part of the regular activities of the training unit.
RESPIRATORY MEDICINE

(I) OBJECTIVES

1 To provide a broad training and in-depth experience at a level sufficient for the trainee to acquire competence and professionalism of a specialist in Respiratory Medicine.

2 To enhance scientific knowledge, clinical skills, and procedural competence in Respiratory Medicine.

3 To inculcate and enhance critical thinking, self-learning, and a commitment to continued medical education in Respiratory Medicine.

4 To lay the groundwork for future in-depth commitment to scientific research in Respiratory Medicine.

5 To understand the various health care delivery issues concerning Respiratory Medicine in the community, and to develop a sense of responsibility and leadership in related policy-making and implementation.

6 To acquire professional competence in training future trainees in Respiratory Medicine.

(II) STRUCTURE

1 This period consists of three years of supervised and accredited training.

2 Each three year programme shall normally comprise not less than two-thirds of the time (24 months) in the core training of respiratory medicine. This programme may be undertaken in combination and/or concurrently with higher physician training in Internal Medicine, wherein an additional year (fourth year) of training is required.

3 The trainee should rotate between a minimum of two training hospitals to ensure a broad exposure to the wide spectrum of acute and chronic respiratory diseases and their management. The maximum accreditation period for any training centre is 30 months. The training hospitals should be complementary in their provision of the various aspects of training. Part of the training may be acquired from training centres overseas, which may be accredited for a maximum of six months.

4 A minimum of 12 months should be spent in an acute hospital as defined in Section V below. Within this period, a minimum of three months should be spent in a College-accredited critical care facility.

5 A minimum of three months should be spent in a facility which provides tuberculosis care, and another minimum of three months in a facility which provides pulmonary rehabilitation training.

6 A cumulative maximum of 12 months may be accredited for training undertaken in an ambulatory or extended care facility which provides tuberculosis care (maximum six months), pulmonary rehabilitation (maximum six months),
chronic ventilatory care, and hospice care (maximum three months).

Basic and clinical research relevant to Respiratory Medicine may be accredited for a maximum of six months.

(III) CONTENTS

(A) Knowledge

There should be ample opportunities for the trainee to observe, manage and assume continuing responsibility for patients with a wide variety of acute and chronic respiratory diseases as listed below on an outpatient and inpatient settings.

The aetiology, pathophysiology, clinical manifestations, investigations, and management, including critical analysis of cost-effectiveness and cost-utility of treatment modalities of

1. Chronic obstructive pulmonary disease.
2. Asthma and allergic rhinitis.
3. Pulmonary infections in immunocompromised hosts.
4. Upper and lower respiratory tract infections.
5. Tuberculosis/other mycobacterium infection.
7. Carcinoma of lung and other intrathoracic malignancies, and hospice care.
8. Respiratory failure and oxygen therapy.
9. Respiratory critical care, including mechanical ventilation.
10. Interstitial lung diseases.
11. Restrictive lung diseases from chest wall or neuromuscular problems.
12. Sleep-related breathing disorders.
13. Pleuropulmonary manifestations of systemic diseases.
15. Pulmonary vascular disease.
16. Disorders of the pleura and mediastinum.

Trainees should acquire the knowledge and develop clinical skills of

1. Clinical approach to common respiratory symptoms, including cough, dyspnoea, haemoptysis and chest pain.
2. Approach to respiratory emergencies.
3. Pre-operative respiratory assessment and post-operative respiratory care for pulmonary and general surgery.
4. Pulmonary rehabilitation.
5. Ethical issues

(B) Procedural skills in the following are required unless otherwise specified. Trainees are expected to be conversant with all diagnostic and therapeutic procedures available but are not expected to become expert in all techniques.

1. Lung function tests (understanding of technical procedures and interpretation of results) including spirometry, static lung volumes, diffusing capacity, flow-volume loops, airway resistance and lung compliance using body plethysmograph.

2. Exercise lung function tests (supervision and interpretation).

3. Flexible bronchoscopy and related procedures.

4. Thoracic ultrasonography and USG-guided intervention if indicated

5. Pleural tap and biopsy.

6. Chemical pleurodesis.

7. Endotracheal intubation.

8. Mechanical ventilation including set-up, monitoring and weaning from commonly used modes.


10. Central venous line insertion.

11. Arterial punctures and interpretation of arterial blood gas

12. Arterial line insertions.

13. Pulmonary arterial line insertion and pressure monitoring.

14. Chest imaging - interpretation of CXRs; interpretation of CT imaging for important respiratory diseases; and interpretation of other imaging results e.g. PET scan


16. Sleep studies and CPAP titration – indications, techniques of performing the tests and interpretation of results.

17. Skin tests – tuberculin tests and atopy skin tests.

18. Percutaneous needle lung aspiration -- indication and understanding of the procedure.

19. Rigid bronchoscopy -- indications and understanding of the procedure.

20. Pleuroscopy --indications and understanding of the procedure.

21. Endobronchial Ultrasonography, EBUS-TBNA and other endobronchial therapy -- indications and understanding of the procedure.
(C) Additional knowledge in the following in relation to Respiratory Medicine is desirable, subject to the availability of the training facilities

1. Palliative medicine.
2. Microbiology.
3. Pathology.
4. Immunology.
6. Molecular medicine.
7. Anaesthesia.
8. Lung volume reduction surgery
9. Video assisted thoracic surgery
10. Lung transplantation.
11. Infection control.
12. Pulmonary oncology

(D) Attitudes
To enhance and reinforce the attitudes inculcated during basic physician training.

(IV) INSTITUTIONAL REQUIREMENTS
To be recognised for specialty training in Respiratory Medicine, the programme should be completed in two or more hospitals fulfilling the following criteria.

A. At least one hospital should be an acute care hospital with the following facilities.

1. A general or medical intensive care unit where full cardio-respiratory support is provided for the critically ill patients.

2. General medical and surgical and obstetric beds for which respiratory consultations are called upon on a regular basis.

B. In all training hospitals, the following features should be available.

1. Beds of both sexes for admitting patients with a variety of respiratory diseases.

2. Regular specialty outpatient clinics in Respiratory Medicine.

3. A sufficient number of fully trained staff with specialist accreditation and trainer status in Respiratory Medicine to provide a minimum trainer to trainee ratio of 1:2 at one time, directly supervising the trainee in all aspects of patient management, including daily ward rounds, emergency calls, Intensive Care Unit care, and outpatient service.
4 Laboratory and diagnostic facilities.

a Pulmonary function laboratory:-
   Mandatory: Spirometry, flow-volume loop, static lung volumes and diffusing capacity.
   Preferable: Exercise testing, skin tests, bronchial challenge test, sleep studies, airway resistance and lung compliance.

b Bronchoscopy facilities, including fluoroscopy.

c Radiology, including X-rays and ultrasound. Access to CT Scan, radionuclide scans and pulmonary angiograms should be available.

d Pathology, including exfoliative cytology.

e Microbiology.

f Clinical chemistry.

g Haematology.

5 Regular medical audit procedures and perform autopsies to resolve diagnostic problems.

6 Maintenance of high quality medical records with easy and prompt accessibility at all times.

7 Affiliation with facilities for thoracic surgery.

8 Affiliation with facilities providing tuberculosis care and extended care, including pulmonary rehabilitation, chronic ventilatory care and hospice care.

9 Structured educational programme including teach-in, journal club and grand rounds in respiratory medicine.

10 Adequate educational facilities which include

a Access to medical library facilities and computerized literature search systems.

b Space and education equipment including audiovisual aids, and slide production for clinical presentation.
RHEUMATOLOGY

(I) OBJECTIVES

1. To provide a broad-based training and in-depth experience at a level sufficient for the trainee to acquire competency and professionalism of a specialist in Rheumatology.

2. To enhance scientific knowledge, clinical skills, and procedural competence in Rheumatology.

3. To inculcate and enhance critical thinking, self-learning, and a commitment to continued medical education in Rheumatology.

4. To lay the groundwork for future in-depth commitment to scientific research in Rheumatology.

5. To understand the various health care delivery issues concerning rheumatological diseases in the community, and to develop a sense of responsibility and leadership in related policy making and implementation.

6. To acquire professional competence in training future trainees in Rheumatology.

(II) STRUCTURE

1. This consists of two years of supervised and accredited core training in Rheumatology.

2. The trainee should rotate between a minimum of two training units or hospitals and must spend not less than three months in either unit or hospital to ensure adequate scope of exposure to a wide spectrum of rheumatological diseases. The training units or hospitals should be complementary in the provision of various aspects of training. Part of the training may be acquired from training centres overseas for a maximum of six months.

3. Within the two-year training period, six months must be undertaken on a full-time basis in an accredited rheumatology training centre without concurrent training in other specialty.

3.1 During the 6-month full-time training, exposure to the following options or areas is encouraged.

   i) Laboratory medicine, particularly Immunology.
   ii) General or specialist medicine eg Neurology or Renal Medicine.
   iii) Orthopaedic surgery.
   iv) Physical medicine.
   v) Rehabilitation medicine.
   vi) Radiology.
   vii) Nuclear medicine.
   viii) Epidemiological surveys.
ix) Clinical pharmacology.

x) Clinical or basic research relevant to Rheumatology.

(III) CONTENTS

(A) Knowledge

There should be ample opportunities for the trainee to observe, manage, and assume continuing responsibility for patients with a wide variety of acute and chronic rheumatological diseases in outpatient and inpatient settings as listed below.

The aetiology, pathophysiology, clinical manifestations, investigations, and management, including critical analysis of cost-effectiveness and cost-utility of treatment modalities of

1. Connective tissue disorders including systemic lupus erythematosus and variants, systemic sclerosis and related syndromes, Sjogren’s syndrome, syndrome, inflammatory myopathies, primary and secondary vasculitic syndromes.
2. Rheumatoid arthritis.
3. Spondyloarthropathies.
4. Degenerative bone and joint disorders.
5. Crystal arthropathies.
6. Soft tissue rheumatism including fibromyalgia.
7. Juvenile rheumatological disorders including juvenile idiopathic arthritis and systemic Still’s disease.
8. Rheumatic manifestations of systemic disease.
9. Pharmacological and non-pharmacological therapies for rheumatological disorders.

(B) Skills

1. Interpretation of skeletal and soft tissue radiographs and other imaging modalities, including ultrasound and Dual Energy X-ray Absorptiometry (DEXA) scan.
2. Familiarity with the techniques of synovial, bone and muscle biopsy and their pathological interpretation.
3. Joint aspiration and injection techniques.
4 Examination of synovial fluid and its pathological interpretation.
5 Sound knowledge in immunological tests and clinicohistopathological correlations relevant to rheumatological disorders.
6 Familiarity with the interpretation and/or use of electrophysiological diagnostic tests.
7 Physical methods used in the treatment of patients with musculoskeletal disorders.

(C) Additional knowledge in the following is desirable, subject to the availability of training facilities
1 Microbiology.
2 Pathology.
3 Immunology.
4 Molecular biology.
5 Physical medicine including physiotherapy and occupational therapy.
6 Clinical psychology.

(D) Attitudes
To enhance and reinforce the attitudes inculcated during Basic Physician Training.

(IV) INSTITUTIONAL REQUIREMENTS
To be recognised for specialty training in Rheumatology, the programme should be completed in two or more hospitals which should fulfil the following criteria.

1 At least one hospital should be an acute care hospital with the following facilities.
   1.1 General medical and surgical beds, for which Rheumatological consultations are called upon on a regular basis.
   1.2 A full complement of facilities for Rehabilitation Medicine, including physiotherapy and occupational therapy.

2 In all training hospitals, the following features should be available
   2.1 Beds of both sexes for admission of patients with a variety of rheumatological diseases.
   2.2 Regular subspecialty outpatient clinics in Rheumatology.
   2.3 A sufficient number of fully trained staff with specialist accreditation and trainer status in Rheumatology, to provide a minimum trainer to trainee ratio of 1:2 at any one time, directly supervising the trainee in all aspects of patients management, including daily ward rounds, emergency calls, and outpatient service.
2.4 Laboratory and diagnostic facilities

2.4.1 Radiology (X-rays, CT Scan, radionuclide scans, angiography, ultrasound)

2.4.2 Pathology, including immunopathology

2.4.3 Microbiology

2.4.4 Clinical chemistry

2.4.5 Haematology.

2.5 Regular medical audit procedures and facilities to perform autopsies to resolve diagnostic problems.

2.6 Maintenance of high quality medical records with easy and prompt accessibility at all times.

2.7 Affiliation with extended care facilities for physical rehabilitation.

2.8 Structured educational programme including teach-ins, journal clubs and grand rounds in rheumatology.

2.9 Adequate educational facilities which include

2.9.1 Access to medical library facilities and computerised literature search systems.

2.9.2 Space and education equipment, including audiovisual aids and facilities for slide production to assist in clinical presentations.
V. Interim and Exit Assessment Protocol
INTERIM AND EXIT ASSESSMENT

Before 1 July 2011, every Higher Physician Trainee (HPT) should attempt and pass two Annual Assessments and one Exit Assessment for each specialty that they have enrolled in. In 2011, the College has changed the format of assessment from two Annual Assessments to one Interim Assessment during Higher Physician Training, to be applicable to trainees who enter into higher physician training programme on or after 1 July 2011.

In addition, AIM Trainees should complete all requirements from AIM Board regarding Self Learning Tool (SLT). Since Geriatric Medicine is regarded as AIM for the elderly, Trainees may opt to substitute Geriatric Medicine for AIM as the broad-based specialty in Dual Specialty Training. Under such circumstances, Geriatric Medicine trainees should also complete SLT before proceeding to Interim and Exit Assessment in the specialty.

At Interim Assessment in other physician specialties, individual Specialty Boards may require, but will not award formal scores to, documented evidence of continuing training activities including attendance/case presentation at inter-hospital or society meetings, portfolios of cases seen, etc. The submission of case reports is not required. Details on the dual specialty training and single specialty training are enclosed in Appendix 1.

SPECIALTY BOARD

1 In relation to Interim and Exit Assessment, the following terms of reference for the Specialty Boards of the Education & Accreditation Committee are relevant:

   a) To admit trainees and monitor their progress, and where appropriate, recommend remedial action.
   b) To receive and monitor results of Interim and Exit Assessment of individual trainees and to recommend to the Education & Accreditation Committee regarding completion of training.

2 Specialty Programme Directors (SPD), preferably one each for Hong Kong, Kowloon and New Territories, are appointed by every Specialty Board to update the trainer/supervisor/trainee list, monitor the training programmes and progress of training. They are responsible to maintain a central file of trainees, organise and chair the Interim Assessment Interview of trainees in their respective regions, and report to the Specialty Board biannually.

   One or two SPD may be appointed for specialties which do not envisage a significant number of trainees.

   Assistant Programme Directors may be appointed by the Specialty Boards to assist the Specialty Programme Directors.

CONTINUOUS ASSESSMENT

1 Every trainee’s progress throughout the course of training will be judged on the basis of continuous assessment. There will be a formal Interim Assessment and a formal Exit Assessment on completion of training.
A Training Record Book (Log Book) will be supplied to every trainee at the commencement of specialty training. It will become the property of the trainee, on which he/she will record:

a) All supervised procedures.

b) Additional special experiences, including interesting cases and journal reading.

c) Postgraduate educational sessions, lectures, clinical meetings/conferences.

At regular intervals (i.e., every three months), the trainee should complete a Record of Higher Training (IA Training Record), documenting statistics on clinical service, procedures, educational sessions, participation in research and attendance of conferences. The Records must be countersigned and validated by the supervisor and submitted to the relevant Specialty Programme Director.

At the end of six months of each year of training and whenever the trainee completes his/her training programme, the supervisor should complete an Evaluation of Clinical & Professional Competence Form (IA Supervisor Evaluation), assign grades according to the trainee’s clinical competence, humanistic qualities, professional attitudes, commitment to continuing medical education and scholarship, and leadership. The evaluation must be discussed with the trainee before submission to the relevant Specialty Programme Director. Trainees who cannot achieve the passing score of 5, should be reviewed by their trainers and counselled by the respective Programme Directors to decide on whether or not they can be allowed to proceed to the following Interim Assessment exercise.

At least twelve months’ training in each specialty is required before attempting Interim Assessment in that specialty. As far as possible, trainees should undergo Interim Assessment of the two specialties at least six months apart.

Candidates on overseas training may write to the respective Specialty Boards, through their Specialty Programme Directors, to apply for postponement of Interim Assessment. He/she should then attempt the first available Interim Assessment exercise on return to Hong Kong.

There are no limits to the number of repeats in Interim/Exit Assessments each candidate may undergo throughout his/her training.

Candidates must have attained a pass in Interim Assessment before they are allowed to sit the Exit Assessment. This requirement does not apply to overseas candidates who had undergone recognised Higher Physician Training prescribed by the relevant national accreditation bodies and had duly acquired the respective specialist qualifications.

INTERIM ASSESSMENT PROCESS

1. The Interim Assessment Process will normally take place in June and/or December each year.

2. The Assessment takes the form of an interview of the trainee by an Assessment Board for 30 minutes.
The interview will take place at a regional center to be determined by the Chairman of the Assessment Board or at the Academy Building.

With the exception of AIM Board, every Assessment Board should be chaired by a Specialty Programme Director and the Board should also include the trainee’s supervisor, and a member of the Specialty Board or Education & Accreditation Committee.

During the interview, the Board will


b. Examine the trainee’s clinical and professional competence by way of a clinical viva consisting of at least three clinical questions.

c. Receive the trainee’s comments on the strengths and weaknesses of the programme and learning facilities of the institution.

d. Recommend continuation of training programme or otherwise.

e. Discuss the preparation of dissertation writing for Exit Assessment, including possible topics to be chosen, perceived feasibility of study and obstacles envisaged.

f. Where necessary, decide on recommendations regarding remedial actions.

g. Document the process and outcome on the appropriate forms (IA Individual Scoring, IA Assessment Board, IA E&AC Report).

All Assessment Reports must be submitted to, and endorsed by, the respective Specialty Boards and the Education & Accreditation Committee.

All forms relevant to the Interim Assessment process may be found at the end of Section V Interim and Exit Assessment Protocol.
Special requirements and scoring system for Interim Assessment in AIM

(1) Two case reports are required from ALL candidates sitting Interim Assessment exercise in AIM. The topics of the case reports should NOT be related to the subspecialties of candidates on concurrent training. The case reports should not have been submitted to any Assessment Board nor published in the literature. Case reports should be submitted together with the application form for Interim Assessment eight weeks before the date of assessment, which will usually be the first Saturdays in June and December every year.

If the overall score of a candidate in Interim Assessment is a “Fail”, the candidate should repeat Interim Assessment in the failed section(s), ie, either case report or clinical viva or both.

(2) Calculation of scores in AIM

The Clinical Viva scores given by the three examiners (E1, E2, E3) are added to make up a maximum of 30 (Score A). The two case reports’ scores (C1, C2) are added to the supervisor’s assessment score (S) and the sum is divided by three to result in a maximum average score of 10 (Score B). The overall score is calculated by adding together Score A and Score B, with the maximum total score being 40. The formula is as follows:

\[ \text{Score A + Score B} = \{E1+E2+E3\} + \{(C1+C2+S)/3\} \]

The Interim Assessment Score will thus be composed of the following: Clinical Viva 75%, case reports 16.7% and supervisor’s assessment score 8.3% of the total score. Written comments to the Specialty Board is required if the supervisor’s assessment score is either 10 or below the passing mark of five.

A summary on the possible results and recommendations for action in AIM is listed below.

<table>
<thead>
<tr>
<th>Overall Score</th>
<th>Verdict</th>
<th>Recommendation</th>
</tr>
</thead>
<tbody>
<tr>
<td>≥ 20*</td>
<td>Pass</td>
<td>Proceed to Exit Assessment</td>
</tr>
<tr>
<td>≥ 20*</td>
<td>Bare Fail</td>
<td>Repeat Interim Assessment after remedial action regarding training programme and repeat assessment on Viva section only</td>
</tr>
<tr>
<td>Score</td>
<td>Result</td>
<td>Action</td>
</tr>
<tr>
<td>---------------</td>
<td>-------------------------------</td>
<td>------------------------------------------------------------------------</td>
</tr>
<tr>
<td>16-19*</td>
<td>Bare Fail</td>
<td>Repeat Interim Assessment after remedial action regarding training programme</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Repeat Assessment on the failed section(s) only</td>
</tr>
<tr>
<td>Failure in one section: Viva Score (A) &lt; 15* OR Case report + Supervisor Score (B) &lt; 5*</td>
<td></td>
<td>Repeat Assessment on the failed section(s) only</td>
</tr>
<tr>
<td>Failure in two sections Viva Score (A) &lt; 15* AND Case report + Supervisor Score (B) &lt; 5*</td>
<td></td>
<td>Repeat Assessment on both sections</td>
</tr>
<tr>
<td>≤ 16*</td>
<td>Fail</td>
<td>Repeat Interim Assessment after an additional 6-month training in AIM</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Repeat Interim Assessment after an additional 6-month training in AIM</td>
</tr>
<tr>
<td>Two consecutive ‘Bare Fails’ A ‘Fail’ followed by a ‘Bare Fail’</td>
<td></td>
<td>Repeat Interim Assessment after an additional 6-month training in AIM</td>
</tr>
<tr>
<td>≥ 2 consecutive ‘Fails’ A ‘Bare Fail’ followed by a ‘Fail’</td>
<td></td>
<td>Repeat Interim Assessment after an additional 12-month training in AIM</td>
</tr>
</tbody>
</table>

* Aggregate marks with decimal points > 0.5 will be counted as 1 while those with decimal points < 0.5 will be ignored.
**Scoring System for Interim Assessment for all specialties apart from AIM**

1. The supervisor’s Interim Evaluation Score follows the 10-point system as detailed below, as does the Interim Assessment score for each of the three members of the Examination Board.

   The 10-point scoring system is listed below:
   - 10 Outstanding
   - 9 Excellent
   - 8 Very good
   - 7 Good
   - 6 Fairly good
   - 5 Definite pass
   - 4 Borderline failure
   - 3 Definite failure
   - 2 Bad failure
   - 1 Very bad failure
   - 0 Exceptionally bad failure

2. Calculation of Interim Assessment Scores

   The total scores given by the three examiners during the Interim Assessment is multiplied by three and added to the supervisor’s score to make up an overall score of 100. The supervisor’s Assessment Score will thus account for 10% of the Interim Assessment score. Written comments to the Specialty Board is required if the supervisor’s assessment score is either 10 or below the passing mark of five.

   A summary on the possible results and recommendations for action is listed below.

<table>
<thead>
<tr>
<th>Overall Score</th>
<th>Verdict</th>
<th>Recommendation</th>
</tr>
</thead>
<tbody>
<tr>
<td>≥ 50</td>
<td>Pass</td>
<td>Proceed to Exit Assessment</td>
</tr>
<tr>
<td>≥ 50</td>
<td>Bare Fail</td>
<td>Repeat Interim Assessment after six months</td>
</tr>
<tr>
<td>But viva score of every examiner is &lt; 5</td>
<td></td>
<td></td>
</tr>
<tr>
<td>≥ 45-49</td>
<td>Bare Fail</td>
<td>Repeat Interim Assessment after six months</td>
</tr>
<tr>
<td>≤ 44</td>
<td>Fail</td>
<td>Repeat Interim Assessment after an additional 6-month training in the relevant specialty</td>
</tr>
</tbody>
</table>

**Evaluation for candidates re-sitting the Interim Assessment**

- Two consecutive Bare Fails  
- A ‘Fail’ followed by a ‘Bare Fail’  
- ≥ 2 consecutive Failures  
- A ‘Bare Fail’ followed by a ‘Fail’  

Repeat Interim Assessment after an additional 6-month training in the relevant specialty
EXIT ASSESSMENT

1 Every candidate must have attained a pass in Interim Assessments before he/she is allowed to apply to undergo Exit Assessment using the EA Application Form. Interim Assessment in any specialty must be passed at least 12 calendar months before attempting Exit Assessment in that specialty. This requirement does not apply to overseas candidates who had undergone recognised Higher Physician Training prescribed by the relevant national accreditation bodies and had duly acquired the respective specialist qualifications.

2 The Final Year’s Exit Assessment will normally take place in June and/or December every year. Candidates whose training will be completed the following 31 March are eligible to sit the Exit Assessment in November-December of the previous year (regardless of whether or not the Exit Assessment has been put further forwards for administrative reasons), and those whose training will be completed on 30 September are eligible to sit the Exit Assessment in May-June of the same year (regardless of whether or not the Exit Assessment has been put further forwards for administrative reasons).

3 The Exit Assessment consists of a dissertation (minimum one dissertation per trainee required for specialist accreditation/Fellowship of the College of Physicians) and a clinical viva.

4 Dissertation

4.1 In the beginning of the final year of training or earlier, the trainee will be asked to prepare a dissertation of not less than 5,000 words on a topic in the specialty, to be submitted to the Assessment Board through the supervisor not later than two months before the assessment date. The primary objective is to develop in the trainee the ability to critically apply his/her knowledge to specialist practice. The dissertation may be in the form of a critical review of the literature on relevant topics, or original clinical research based on work carried out in the training unit. (See Appendix 2 of Guidelines on writing and assessing a Dissertation)

4.2 On the day of Exit Assessment, the trainee will be assessed by an Assessment Board with a viva on his dissertation.

5 Clinical viva

The second part of the Exit Assessment will take the form of an oral clinical viva of the trainee by the Assessment Board.

6 The Exit Assessment will take place at a College Interview Room or a venue to be determined by the Board.

6.1 The Assessment Board will be chaired by the Chairman of the Specialty Board or his/her nominee. Board members will include the Specialty Programme Director, a member of the Specialty Board or Education & Accreditation Committee or Examination Committee, and an Assessor who may be a Specialty Programme Director from another region. External Assessor may also be invited
from outside the Specialty Board or the Specialty, such as a local or overseas expert of renown in that specialty. This composition does not apply to AIM which employs a structured system of pre-set pool of examination questions and a rotational pool of senior physicians as examiners.

6.2 During the Exit Assessment, which normally lasts for 60 minutes, the Assessment Board will be divided into no fewer than two Panels. Clear documentation on the scoring sheet and form is required.

6.2.1 The First Panel will examine the trainee’s training records and Annual Assessment Reports, and conduct Dissertation Viva to examine the trainee on his/her dissertation for 15 minutes. This section is not necessary for trainees who have opted to write their dissertations in another specialty.

The same Panel will further examine the trainee’s clinical and professional competence and ethics and attitudes for 15 minutes by way of a clinical viva, covering one of the following areas/domains agreed by the Board:

i  Clinical problems
ii  Clinical skills/practical knowledge, including interpretation of laboratory/system function tests, imagings
iii  (a) Evidence-based medicine, including landmark studies in the literature, important international/Hong Kong guidelines in management; (b) Issues of local and regional relevance, including disease patterns, clinical services delivery and availability locally, finance management; and (c) Medical ethics, professional attitude, communication skills.

6.2.2 The Second Panel will examine the candidate for 30 minutes in the two areas not covered by the First Panel.

6.2.3 The examiners should discuss the questions before the Exit Assessment to ensure that they are not repeated for individual candidates in different Panels, while as far as possible the same questions are used for every round of candidates.

6.3 AIM candidates will be examined with a clinical viva for 45 minutes by three Panels (15 minutes for each Panel). The three Panels will ask questions on Acute Medical Problems, Chronic Medical Problems and Ethics and Communication consecutively. Those AIM candidates who have submitted dissertations will be examined on his/her dissertation for 15 minutes by an extra Panel.

6.4 The Assessment Board will convene a meeting at the end of the Exit Assessment and decide on recommending for every candidate,

i  Successful completion of training, or
ii  Extension of a specified period of targeted training before further assessment.

7 All Assessment Reports (IA E&AC report, EA Individual report and EA E&AC report) must be submitted to, and be endorsed by, the respective Specialty Boards and the Education & Accreditation Committee.
Apart from trainees in Dermatology and Venereology, the College requires training in all Specialties to be undertaken concurrently with Internal Medicine or Geriatric Medicine. Exit Assessment in the two specialties will normally take place at the completion of the third and fourth year of training respectively.

Trainees undertaking training in a single specialty in AIM or Dermatology and Venereology, should undergo Exit Assessment at the end of three years of training in the specialty.

Candidates who fail the Exit Assessment should be counselled by his/her Specialty Programme Director and supervisor.

All forms relevant to the Exit Assessment process may be found at the end of Section V Interim and Exit Assessment Protocol.

COMPLAINTS & APPEAL

Channels for complaints on training facilities, supervision or related matters should be made available to trainees both at the Specialty Board level through the Regional Specialty Programme Director, and directly to the Education & Accreditation Committee and Council of the College of Physicians.

Appeals against unsatisfactory Progress/Assessment Reports, and rulings regarding discontinuation of training or extension of training periods, should be directed to the Council of the Hong Kong College of Physicians.
Scoring System for Exit Assessment

1 Every examiner is provided with an individual making sheet (EA Individual Scoring) for candidate. He/she should mark independently based on the overall performance of the candidate taking into consideration of all the questions asked in the respective Assessment Panel. The marks of all the examiners are then summed up at the end of the Assessment. The Assessment Board should discuss and provide written comments on gross discrepancies between different examiners’ mark (ie ≥ 3 for each section or subsection). When the results of the appraisal scores are one failure and one pass with marks discrepancies ≥ 3, the dissertation should be sent to Senior Advisor for further assessment. Marks can only be altered if it is justified in the light of new information not previously known to the examiner(s). In summary, the score is a simple summation of all examiners’ scores.

2 A summary of performance and recommendations for remedial training should be revealed to candidates who fail the Exit Assessment.

3 This scoring system is a 10-point system:

<table>
<thead>
<tr>
<th>Score</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>10</td>
<td>Outstanding</td>
</tr>
<tr>
<td>9</td>
<td>Excellent</td>
</tr>
<tr>
<td>8</td>
<td>Very Good</td>
</tr>
<tr>
<td>7</td>
<td>Good</td>
</tr>
<tr>
<td>6</td>
<td>Fairly good</td>
</tr>
<tr>
<td>5</td>
<td>Definite pass</td>
</tr>
<tr>
<td>4</td>
<td>Borderline failure</td>
</tr>
<tr>
<td>3</td>
<td>Definite failure</td>
</tr>
<tr>
<td>2</td>
<td>Bad failure</td>
</tr>
<tr>
<td>1</td>
<td>Very bad failure</td>
</tr>
<tr>
<td>0</td>
<td>Exceptionally bad failure</td>
</tr>
</tbody>
</table>

Only integral marks are allowed. Non-integral marks (e.g. 0.5), ‘plus’ or ‘minus’ mark (e.g. 6-, 3+) are not accepted. Marks are equal and more than 0.5 should be rounded up to 1. Marks are lower than 0.5 should be ignored.

Candidates awarded ≥ 75% conversion score in the Dissertation may be nominated to compete for the “Hong Kong College of Physicians Exit Assessment Best Dissertation Awards”. After the December/January Exit Assessment every year, the Internal Medicine Board should nominate the three best candidates in the previous 12 months, while all the other Specialty Boards should each nominate one best candidate to enter the competition for the Gold, Silver and Bronze Awards.

4 In the Exit Assessment, the dissertation appraisal and dissertation viva will account for 40% of the final score. The pass mark for the overall Dissertation Score is 20, or 50% of a maximum of 40.

The dissertation will normally be appraised by two members of the panel, the total marks from each of whom will form half of the total Dissertation Score. When such scoring yields one failure and one pass, a third examiner will be required to read the
dissertation. The total marks given by the three examiners will then be multiplied by a factor of 2/3 to obtain the Dissertation Appraisal Score.

The maximum score for the Dissertation viva is 20. Each of two examiners of the First Panel will score out of a maximum of 10.

<table>
<thead>
<tr>
<th>Dissertations</th>
<th>Dissertation Appraisal</th>
<th>Dissertation Viva</th>
</tr>
</thead>
<tbody>
<tr>
<td>DA&lt;sub&gt;max&lt;/sub&gt; = 10</td>
<td>DA&lt;sub&gt;max&lt;/sub&gt; = 10</td>
<td>DA&lt;sub&gt;max&lt;/sub&gt; = (10)</td>
</tr>
<tr>
<td>DA&lt;sub&gt;total&lt;/sub&gt; = ∑DA&lt;sub&gt;n&lt;/sub&gt; if n = 2</td>
<td>Or</td>
<td>DV&lt;sub&gt;max&lt;/sub&gt; = 10</td>
</tr>
<tr>
<td>DA&lt;sub&gt;n&lt;/sub&gt; x 2/3</td>
<td>if n = 3</td>
<td>DV&lt;sub&gt;max&lt;/sub&gt; = 10</td>
</tr>
<tr>
<td>total = DA&lt;sub&gt;total&lt;/sub&gt; + DV&lt;sub&gt;total&lt;/sub&gt;</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Note: DA = Dissertation Appraisal

DV = Dissertation Viva

5 For the Clinical Viva, each panel of two examiners will score a candidate’s performance out of a maximum of 10 (maximum of 20 from First Panel, maximum of 40 from Second Panel). The maximum score for the Clinical Viva is thus 60. The pass mark is 30, being 50% of the maximum.

As for AIM Exit Assessment, there are three Panels: Acute, Chronic and Ethics. The aggregate score obtained in the Acute and Chronic Medicine Panels must be 50% or above of the total score of the two Panels (i.e. a Pass) in order to secure a Pass in the Clinical Viva Section of the Exit Assessment in AIM.

6 The final score is calculated as follows

6.1 Dissertation score (max 40) = Dissertation Appraisal score (max 20) + Dissertation Viva Score (max 20)

6.2 Clinical viva score (max 60) = Summation of four individual Panel members’ score (max 10 each for First Panel; max 20 each for Second Panel).

6.3 Exit Assessment score = Dissertation Score + Clinical Viva Score = 100 (max).

6.4 For candidates who do not have to be examined in the 15-minute dissertation section, the maximum score of 60 in the Clinical Viva will be converted to 100 to reach the final Exit Assessment Score.

If the Total Score turns out to be a non-integral value, it will be transformed into the closest integer, e.g. any mark higher than 31 but lower than 31.5 will be counted as 31; whereas any mark from 31.5 to 32 will be counted as 32.

8 The final Pass Mark is defined as 50.

9 Borderline fail is defined as 90-99% of the Pass Mark. For Dissertation Score, this will be 18-19 and for Clinical Viva this will be 27-29. Candidates who are not examined in the Dissertation section will score “borderline fail” if the final (converted) Exit
Assessment Score is (90-99%) of the pass mark of 50, ie 45-49.

10 Compensation for borderline failure between sections

If the result of one section is a borderline failure, the final Exit Assessment score can be a pass if the result of the other section reaches 50. However, if the result of one section is a definite failure (i.e. Dissertation Score ≤ 17, or Clinical Viva Score ≤ 26), the final score will be a failure irrespective of the result of the other section and the numerical value of the final score.

Summary of possible results towards obtaining a Pass at Exit Assessment

<table>
<thead>
<tr>
<th></th>
<th>Dissertation</th>
<th>Clinical Viva</th>
<th>Total</th>
<th>Pull Up</th>
<th>Overall</th>
<th>Recommendation</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pass</td>
<td>≥ 20</td>
<td>≥ 30</td>
<td>≥ 50</td>
<td>---</td>
<td>Pass</td>
<td>Eligible for admission as College Fellow</td>
</tr>
<tr>
<td>Borderline Failure</td>
<td>≥ 90% of pass mark</td>
<td>≥ 31</td>
<td>≥ 50</td>
<td>Yes</td>
<td>Pass</td>
<td>Eligible for admission as College Fellow</td>
</tr>
<tr>
<td></td>
<td>19</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>18</td>
<td>≥ 32</td>
<td>≥ 50</td>
<td>Yes</td>
<td>Pass</td>
<td></td>
</tr>
<tr>
<td>Failure</td>
<td>≥ 21</td>
<td>29</td>
<td>≥ 50</td>
<td>Yes</td>
<td>Pass</td>
<td>Eligible for admission as College Fellow</td>
</tr>
<tr>
<td></td>
<td>≥ 22</td>
<td>28</td>
<td>≥ 50</td>
<td>Yes</td>
<td>Pass</td>
<td></td>
</tr>
<tr>
<td></td>
<td>≥ 23</td>
<td>27</td>
<td>≥ 50</td>
<td>Yes</td>
<td>Pass</td>
<td></td>
</tr>
</tbody>
</table>
## Summary of possible results for Failure at Exit Assessment

<table>
<thead>
<tr>
<th>Score*</th>
<th>Failure Category</th>
<th>Total Score</th>
<th>1 section of Exit Assessment</th>
<th>2 sections of Exit Assessment</th>
</tr>
</thead>
<tbody>
<tr>
<td>90-99% of section pass mark</td>
<td>Borderline fail</td>
<td>&lt;50</td>
<td>Remedial action and repeat Exit Assessment in the failed section only after an additional 6-month training in the relevant specialty.</td>
<td>Remedial action and repeat full Exit Assessment after an additional 12-month training in the relevant specialty.</td>
</tr>
<tr>
<td>80-89% of section pass mark</td>
<td>Fail</td>
<td>Any</td>
<td>Remedial action and repeat full Exit Assessment after an additional 6-month training in the relevant specialty.</td>
<td>Remedial action and repeat full Exit Assessment after an additional 12-month training in the relevant specialty. Trainees should be exposed to trainers in other institution(s) for six months.</td>
</tr>
<tr>
<td>&lt;80% of section pass mark</td>
<td>Bad fail</td>
<td>Any</td>
<td>Remedial action and repeat full Exit Assessment after an additional 12-month training in the relevant specialty.</td>
<td>Remedial action and repeat full Exit Assessment after an additional 12-month training in the relevant specialty, of which 6 months should be undertaken in programmes and/or training centres specified by the Specialty Board.</td>
</tr>
</tbody>
</table>

### Notes

1. (i) Section pass mark for Dissertation
   - 90% of pass mark = 20
   - 80% of pass mark = 18
   (ii) Section pass mark for Clinical Viva
   - 90% of pass mark = 30
   - 80% of pass mark = 24

2. Candidates who have failed the written part of their dissertations can be allowed to proceed to the Clinical Viva section of the Exit Assessment.

3. A candidate who has failed the dissertation does not have to write a new dissertation on a different topic at subsequent Exit Assessment. He/she is only required to re-write or revise his/her previous dissertation to improve his/her knowledge and presentations on the same topic.

4. Candidates who have scored “borderline fail” in either part of the Exit Assessment will only be required to repeat the failed section at their subsequent Exit Assessment.

5. Candidates failing both sections but with different levels of failure in the two sections will be required to undergo remedial training in accordance with the recommendation for the worse level of failure.
One Interim Assessment to replace Two Annual Assessments

**AIM**

- Change requirement from two Annual Assessments to one "Interim Assessment" during HPT.
- Two Case Reports are to be submitted for "Interim Assessment".
- Completion of all requirements from AIM Board regarding Self Learning Tool (SLT).
- NOTE: Since Geriatric Medicine is regarded as AIM for the elderly, Trainees may opt to substitute Geriatric Medicine for AIM as the broad-based specialty in Dual Specialty Training. Under such circumstances, Geriatric Medicine trainees should also complete SLT before proceeding to Interim and Exit Assessment in the specialty.

**Other Specialties**

- Change requirement from two Annual Assessments to one "Interim Assessment" during HPT.
- At Interim Assessment, individual Specialty Boards may require, but will not award formal scores to, documented evidence of continuing training activities including attendance/case presentation at inter-hospital or society meetings, portfolios of cases seen, etc. The submission of Case Reports is not required.

**Applicable to ALL Specialties**

- At least 12 months’ training in each specialty is required before attempting Interim Assessment in that specialty.
- As far as possible, Trainees should undergo Interim Assessment of two specialties at least six months apart.
- Trainees who fail at an Interim Assessment must repeat the Assessment after six months.
- A pass in Interim Assessment is a mandatory requirement for application to undergo Exit Assessment.
- Interim Assessment in a specialty must be passed at least 12 calendar months before Exit Assessment in that specialty.
- Other requirements related to Exit Assessment including submission of dissertations continue to apply.
**Dual Specialty Training**

- **AIM**
  - Self Learning Tool (Annual)
  - Interim Assessment (1)
  - With Case Report (2)
  - Exit Assessment

- **Geriatric Medicine**
  - Self Learning Tool
  - Interim Assessment (1)
  - Exit Assessment with Dissertation

- **Subspecialty**
  - (Exclude Palliative Medicine and Rehabilitation)
  - Interim Assessment (1)
  - Exit Assessment with Dissertation

---

*1) Can be completed with the time frame set by AIM Board
2) Electronic documentation of completion is mandatory
3) Scoring is not incorporated in the system: No pass or fail*
Dual Specialty Training
AIM/Geriatric Medicine (for Rehabilitation only) + Palliative Medicine/Rehabilitation

Scenario 1: Specialist status + College Fellowship at end of 4 years

*1) Can be completed with the time frame set by AIM Board
2) Electronic documentation of completion is mandatory
3) Scoring is not incorporated in the system: No pass or fail
Dual Specialty Training
AIM/Geriatric Medicine (for Rehabilitation only) + Palliative Medicine/Rehabilitation

Scenario 2: Specialist status + College Fellowship at end of 3 years

**AIM**
- Self Learning Tool* (Annual)
- Interim Assessment (1) With Case Report (2)
- Exit Assessment with Dissertation at end of 3 years

**Geriatric Medicine For Rehabilitation Only**
- Self Learning Tool
- Interim Assessment (1)
- Exit Assessment with Dissertation at end of 3 years

**Palliative Medicine/Rehabilitation**
- Interim Assessment (1)
- Exit Assessment with Dissertation at end of 4 years

* 1) Can be completed with the time frame set by AIM Board
  2) Electronic documentation of completion is mandatory
  3) Scoring is not incorporated in the system: No pass or fail
Dual Specialty Training or Sequential Training
AIM + Dermatology & Venereology
Scenario 3: Specialist status + College Fellowship at end of 5 years

* 1) Can be completed with the time frame set by AIM Board
   2) Electronic documentation of completion is mandatory
   3) Scoring is not incorporated in the system: No pass or fail
Single Specialty Training
Either AIM OR Dermatology & Venereology ONLY

AIM
- Self Learning Tool* (Annual)
  - Interim Assessment (1) With Case Report (2)
    - Exit Assessment with Dissertation at end of 3 years

OR

Dermatology and Venereology
- Interim Assessment (1)
  - Exit Assessment with Dissertation at end of 3 years

* 1) Can be completed with the time frame set by AIM Board
  2) Electronic documentation of completion is mandatory
  3) Scoring is not incorporated in the system: No pass or fail
GUIDELINES ON WRITING AND ASSESSING A DISSERTATION

1 All Higher Physician Trainees are required to submit not less than one dissertation, of no fewer than 5,000 words (excluding Reference), to the respective Specialty Boards two months before their Exit Assessment. In essence, all specialties who are admitted as College Fellows based on Exit Assessment results must each have written not less than one dissertation to the satisfaction of one Specialty Board.

1.1 Dissertation writing is an essential part of training in the medical specialty. Trainees should be taught in the understanding of the background of a specific problem, appraisal of the published literature and awareness of on-going research, critical thinking on the logic employed, as well as critical analysis of the data available.

1.2 AIM training aims at a broad-based training in the knowledge and skills pertaining to a systemic and logical approach to complex medical problems, whereas dissertation writing aims at testing the candidate’s ability to demonstrate in-depth knowledge in, and to perform critical analysis of specific segments of the literature. All trainees wishing to acquire College and Academy Fellowship after their first Exit Assessment must submit a dissertation for the first specialty, regardless of whether this specialty is in AIM or any other specialty. Trainees who are undergoing single specialty training in AIM or any other specialty should submit their dissertations in their respective specialties. Trainees who are undergoing 4-year dual specialty training in AIM plus one other specialty should submit their dissertations in specialties other than AIM. On the other hand, should trainees on dual specialty training be attempting AIM Exit Assessment at the end of the first three years of Higher Physician training, they must also submit and be assessed on dissertations in AIM before they are eligible to apply for College and Academy Fellowship.

2 In the first or second year of higher training, all trainees should discuss with their supervisors about the topics to be selected for their dissertations. To emphasise the importance of good planning for dissertation writing, examiners should, at the Interim Assessment, discuss with trainees about the choice of topics and preliminary planning of their dissertations and ensure there are no significant barriers or problems against the successful completion of the trainees’ dissertations.

3 Nine months prior to Exit Assessment and after passing the Interim Assessment, each trainee should submit the title of his/her dissertation for approval to a panel appointed by the Board. The title should be accompanied by a plan of the dissertation in about 100 words. Subsequent change of title is allowed but should be submitted not later than six months before the Exit Assessment.

4 Trainees who failed the dissertation once do not have to write on a different topic for dissertation at the next Exit Assessment. They may re-write or revise their previous dissertations with the view to improving their knowledge and discussion on the same topics under exceptional circumstances, a trainee who has previously failed but is required by the Specialty Board or is chosen by the trainee to rewrite a new dissertation should submit the title to the Programme Director for approval not later than five months before the subsequent Exit Assessment.
The dissertation should be written by the trainee himself/herself. Plagiarism is not allowed.

The dissertation may be a report on a study or studies of clinical relevance performed by the trainee during his/her training period, or a critical review on a specific topic. An abstract of not more than 250 words should accompany the dissertation.

6.1 In the event that a trainee chooses to report on a study, he/she should include in the report the objective, methodology, results, interpretation and conclusions of the study, and a comprehensive review of the literature on the same topic.

6.2 In the event that a trainee chooses to write a critical review on a specific topic, he/she should make reference to all relevant literature and include his/her own experience, or any local experience, where applicable. An original study is not required.

The dissertation should be systemically presented to display the trainee’s capability to grasp the important issues related to the selected topics.

Dissertations based on published papers is acceptable, but the publications must be submitted together with the dissertation for reference. Published work in its entirety, or dissertation already submitted to another institution, will not be accredited.

The dissertation should be submitted to the Specialty Board in two duplicate hard copies and one electronic copy eight weeks before the Exit Assessment. The candidate should seek advice and comments from his/her supervisors prior to handing in his/her dissertation to the Specialty Board.

A general guide for assessment of dissertations is listed as follows:

(i) The importance and relevance of the topic to local patients;
(ii) Clarity of presentation;
(iii) Demonstration of critical and comprehensive review of the relevant literature; and
(iv) Independent thinking and analyses.

Prospective studies should in addition be scored according to

(i) Clarity of objective;
(ii) Adequacy of methodology, data presentation and interpretations;
(iii) Validity of conclusions;
(iv) Originality and innovation; and
(v) Contribution to knowledge.

Examples of previously submitted dissertation which have been posted on the College website http://www.hkcp.org under the caption “News from the College”.

Appendix 2
Trainees’ Training Report and Evaluation by Supervisors
HONG KONG COLLEGE OF PHYSICIANS
RECORD OF HIGHER PHYSICIAN TRAINING
IN ____________________ SPECIALTY
To be completed every three months by Trainees

<table>
<thead>
<tr>
<th>TRAINEE</th>
<th>SUPERVISOR</th>
</tr>
</thead>
<tbody>
<tr>
<td>Name_________________ M/F_________________</td>
<td>Name_________________</td>
</tr>
<tr>
<td>Qualification (m/y)________________________<strong>(</strong> m __ y)</td>
<td>Title_________________</td>
</tr>
<tr>
<td>______________________________<strong>(</strong> m __ y)</td>
<td></td>
</tr>
</tbody>
</table>

INSTITUTION /DEPARTMENT/UNIT____________________________________

PERIOD OF TRAINING From _______/_____/______ to _______/_____/______
(DD / MM / YY) (DD / MM / YY)

TRAINING RECORD

(A) SERVICE WARD ROUNDS
(1) Daily ward rounds
   - General beds No.__
   - Specialty beds No.__ Type _____
   - Others (specify) No.__

(2) Consultation No.__

(3) Weekly Grand Rounds Total Sessions _____

(B) OUTPATIENT SESSIONS
(1) General Medical sessions/month____
(2) Specialty ( ) sessions/month____
(3) Specialty ( ) sessions/month____
(4) Specialty ( ) sessions/month____

(C) SPECIAL SESSIONS
(1) Grand Rounds sessions/month____
(2) Clinical Seminars sessions/month____
(3) Journal Club sessions/month____
(4) Radiology Meeting sessions/month____
(5) Pathology Meeting sessions/month____
(6) Others ______________________ sessions/month____
### (D) DIAGNOSTIC & PROCEDURAL TESTS RECORDS

<table>
<thead>
<tr>
<th>No.</th>
<th>Comments</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td></td>
</tr>
<tr>
<td>2</td>
<td></td>
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<tr>
<td>3</td>
<td></td>
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<tr>
<td>4</td>
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<tr>
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<td></td>
</tr>
<tr>
<td>20</td>
<td></td>
</tr>
<tr>
<td>21</td>
<td></td>
</tr>
</tbody>
</table>

### (E) PARTICIPATION IN RESEARCH PROJECTS


### (F) MEDICAL CONFERENCES ATTENDANCE/PRESENTATIONS

Supervisor

<table>
<thead>
<tr>
<th>(Name)</th>
<th>(Signature)</th>
<th>(Date)</th>
</tr>
</thead>
</table>

Note: Please ensure that you have completed your training logbook, which is to be reviewed by your Programme Director every three months.
HIGHER PHYSICIAN TRAINING IN _______________ SPECIALTY  
EVALUATION OF CLINICAL AND PROFESSIONAL COMPETENCE

For distribution to Members of Interim, & Exit Assessment Boards  
To be completed every six months or at the end of each training period lasting  
< six months

TRAINEE

_________________________________________  

QUALIFICATION (m/y)  

__________________________________ ( _ m _ y )  

__________________________________ ( _ m _ y )

SUPERVISOR (Name & Position)

SPECIALTY PROGRAMME DIRECTOR

INSTITUTION / DEPARTMENT / UNIT

__________________________________________  

PERIOD OF TRAINING

__/__/ (DD/MM/YY) to__/__/ (DD/MM/YY)

EVALUATION

Please use the following 10-point Scoring System.

10 Outstanding  
9 Excellent  
8 Very good  
7 Good  
6 Fairly good  
5 Definite pass  
4 Borderline failure  
3 Definite failure  
2 Bad failure  
1 Very bad failure  
0 Exceptionally bad failure

1 Clinical judgement

0 1 2 3 4 5 6 7 8 9 10

2 Medical knowledge

0 1 2 3 4 5 6 7 8 9 10
3 Clinical skill:
Medical history

0 1 2 3 4 5 6 7 8 9 10

Physical examination

0 1 2 3 4 5 6 7 8 9 10

Diagnostic/procedural skill

0 1 2 3 4 5 6 7 8 9 10

Overall assessment

0 1 2 3 4 5 6 7 8 9 10

Particular diagnostic/procedural skill (Please specify)

___________________________________________________________________________________

0 1 2 3 4 5 6 7 8 9 10

___________________________________________________________________________________

0 1 2 3 4 5 6 7 8 9 10

___________________________________________________________________________________

0 1 2 3 4 5 6 7 8 9 10

___________________________________________________________________________________

0 1 2 3 4 5 6 7 8 9 10

___________________________________________________________________________________

0 1 2 3 4 5 6 7 8 9 10

0 1 2 3 4 5 6 7 8 9 10

0 1 2 3 4 5 6 7 8 9 10

0 1 2 3 4 5 6 7 8 9 10

0 1 2 3 4 5 6 7 8 9 10

0 1 2 3 4 5 6 7 8 9 10

0 1 2 3 4 5 6 7 8 9 10

0 1 2 3 4 5 6 7 8 9 10

4 Humanistic qualities

0 1 2 3 4 5 6 7 8 9 10

5 Professional attitudes and behaviour

0 1 2 3 4 5 6 7 8 9 10

6 Commitment to continued medical education and scholarship

0 1 2 3 4 5 6 7 8 9 10

Conferences/Research/Publications (append details if necessary)

___________________________________________________________________________________

___________________________________________________________________________________

___________________________________________________________________________________

___________________________________________________________________________________

7 Administrative ability and leadership

0 1 2 3 4 5 6 7 8 9 10

8 Overall assessment

0 1 2 3 4 5 6 7 8 9 10
Comments

Has this evaluation been discussed with the trainee? Yes ☐ No ☐ Date ___/___/___
(DD/MM/YY)

Has a copy of this evaluation been given to the trainee? Yes ☐ No ☐ Date ___/___/___
(DD/MM/YY)

Supervisor

Name ____________________________

Title ____________________________

Signature ________________________

Date ____________________________

Specialty Programme Director

Name ____________________________

Title ____________________________

Signature ________________________

Date ____________________________

Note: Supervisors please review the trainee’s logbook and ensure they have been completed in order. Please submit the completed logbooks to the Programme Directors before Interim Assessment process.
Hong Kong College of Physicians  
(Incorporated in Hong Kong with limited liability)  
Specialty ____________________________  

Interim Assessment  

Higher Physician Training (HPT) Application Form  

All sections are mandatory

1. Surname ____________________  
2. First name ____________________________

3. ID Number ________________ (the first 4 digits)

4. Hospital ____________________  
5. Unit __________________________________________

6. Region *(Hong Kong / Kowloon / New Territories)*

7. Date started Higher Physician Training __________________________

8. Concurrent or completed training in other specialties __________________________

*9. I shall take part in Interim Assessment in June / December 20__.  

*10. I shall not be able to take part in Interim Assessment in June / December 20__ as I shall be pursuing overseas study then.

11. Have you been rotated to a general medical unit of hospital with obstetric service for three months during BPT or HPT (applicable only for trainees who start BPT from 1 July 2009 onwards)? *Yes/*No

Note: *Delete whichever is inappropriate

Signature of Applicant ____________________________ Date __________

Note: Please ensure that you have submitted your completed logbook to your supervisor, for onward transmission to your Programme Director before your Interim Assessment process.
Hong Kong College of Physicians
Scoring Sheet for Interim Assessment
(To be kept by Specialty Board)

Specialty Board in ____________________

Date of Assessment______________________

Name of Candidate ________________________ Hospital ___________ PD ______________

Date started training: ___________ months (Minimum: 12 months in this Specialty)

<table>
<thead>
<tr>
<th>Name of Examiner</th>
<th>Examiner 1</th>
<th>Examiner 2</th>
<th>Examiner 3</th>
<th>Supervisor’s score</th>
<th>Formula for calculation</th>
</tr>
</thead>
<tbody>
<tr>
<td>Signature</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Mark for Viva</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Topics 1. __________________________________________

2. __________________________________________

3. __________________________________________

Result (pass/fail) ________________________________

Comment  ________________________________________

Maximum score for each examiner = 10

Total score = [(Scores of Examiners 1 + 2 + 3) x 3] + Supervisor’s score = maximum 100

Total Score  __________________________
# Hong Kong College of Physicians

**Scoring Sheet for Interim Assessment**

*(To be kept by Specialty Board)*

Specialty Board in AIM

**Date of Assessment**

Name of Candidate ____________________________ Hospital ____________ PD ____________________________

Date started training: ____________ months (Minimum: 12 months in AIM)

<table>
<thead>
<tr>
<th>Examiner 1</th>
<th>Examiner 2</th>
<th>Examiner 3</th>
<th>CR1</th>
<th>CR2</th>
<th>S</th>
<th>Formula for calculation</th>
</tr>
</thead>
<tbody>
<tr>
<td>Name of Examiner</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>Maximum score for each examiner = 10</td>
</tr>
<tr>
<td>Signature</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>Total score = [(Scores of Examiners 1 + 2 + 3) + (CR1+CR2+S)/3] = maximum 40</td>
</tr>
<tr>
<td>Mark</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

CR = Case Report score  S = Supervisor’s evaluation score

Topics

1. ____________________________________________

2. ____________________________________________

3. ____________________________________________

Comment: __________________________________

Result (pass/fail) ____________________________
HONG KONG COLLEGE OF PHYSICIANS
HIGHER SPECIALTY TRAINING INTERIM ASSESSMENT
(To be kept by the Specialty Board)

To be completed by trainees

NAME

QUALIFICATION
MBBS/specify __________ DATE __________ (m/y)
HKCP Intermediate Exam/MRCP/specify _____ DATE __________ (m/y)
MHKCP Yes/No

Basic Physician Training From __________ (m/y) To __________ (m/y)

Date of entry to higher specialty training in __________ Specialty __________ (m/y)

Concurrent or completed training in other specialties Yes/No Specify __________

TRAINING RECORD

Specialty __________

PERIOD __________ to __________, INSTITUTION __________

PERIOD __________ to __________, INSTITUTION __________

PERIOD __________ to __________, INSTITUTION __________

PERIOD __________ to __________, INSTITUTION __________

DATE OF INTERIM ASSESSMENT __________
(At least 12 months’ training in each specialty is required before attempting Interim Assessment in that specialty. Interim Assessment in a specialty must be passed at least 12 calendar months before Exit Assessment in that specialty.)

To be completed by Assessment Board

The scoring system is a 10-point system.

10 Outstanding
9 Excellent
8 Very good
7 Good
6 Fairly good
5 Definite pass
4 Borderline failure
3 Definite failure
2 Bad failure
1 Very bad failure
0 Exceptionally bad failure
1  TRAINING RECORD BOOK (LOG BOOK) & SUPERVISOR’S EVALUATION

Comments


2  CLINICAL VIVA

- Clinical assessment
  Questions
  Topic _____________ Questions

  Topic _____________ Questions

  Topic _____________ Questions

3  ASSESSMENT SCORE (max score) (For all specialty boards other than AIM)

<table>
<thead>
<tr>
<th>Supervisor Score (Maximum 10)</th>
<th>Clinical Viva Score [(Maximum 10x3) x 3]=90</th>
<th>Total Score (Maximum 100)</th>
<th>Status</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
<td>(P  Pass</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>BF  Bare Fail</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>F    Fail)</td>
</tr>
</tbody>
</table>

4  TRAINEE’S COMMENTS

On the training programme

________________________________________________________________________
________________________________________________________________________
________________________________________________________________________

On the training facilities of the institution(s)

________________________________________________________________________
________________________________________________________________________
________________________________________________________________________

5  RECOMMENDATION (For all specialty boards other than AIM)

☐ Overall score ≥ 50, Pass; Satisfactory progress; to continue training programme
  Comments

________________________________________________________________________
☐ Overall score ≥ 50 but ALL individual Scores of Examiners < 5; Bare fail; repeat Interim Assessment after six months

☐ Overall score ≥45-49; Bare fail; repeat Interim Assessment after six months

☐ Overall score ≤ 44; Fail; repeat assessment after an additional 6-month training period. Areas of deficiency and remedial actions:

☐ Two consecutive bare fails ☐ A ‘Fail’ followed by a ‘Bare Fail’; repeat Interim Assessment after an additional 6-month training period

☐ ≥ 2 consecutive failures ☐ A ‘Bare Fail’ followed by a ‘Fail’; repeat Interim Assessment after an additional 12-month training period

☐ Deficiency in learning facilities of institution noted; actions recommended

Assessment Board

( ) Examiner 1 (Chairman)

( ) Examiner 2

( ) Examiner 3
HONG KONG COLLEGE OF PHYSICIANS
HIGHER SPECIALTY TRAINING INTERIM ASSESSMENT
IN ___________________________ SPECIALTY
(To be kept by the Specialty Board)

To be completed by trainees

NAME ____________________________________________

QUALIFICATION
MBBS/specify ___________________ DATE ____________ (m/y)
HKCP Intermediate Exam/MRCP/specify _______ DATE ____________ (m/y)
MHKCP Yes/No

Basic Physician Training From ___________________ (m/y) To ___________________ (m/y)

Date of entry to higher specialty training in ______ Specialty _________ (m/y)

Concurrent or completed training in other specialties Yes/No Specify ______________

TRAINING RECORD

Specialty ______ _______________________

PERIOD __________ to __________, INSTITUTION __________________

PERIOD __________ to __________, INSTITUTION __________________

PERIOD __________ to __________, INSTITUTION __________________

PERIOD __________ to __________, INSTITUTION __________________

DATE OF INTERIM ASSESSMENT ____________________________

(At least 12 months’ training in each specialty is required before attempting Interim Assessment in that specialty. Interim Assessment in a specialty must be passed at least 12 calendar months before Exit Assessment in that specialty.)

To be completed by Assessment Board

The scoring system is a 10-point system.

10 Outstanding
9 Excellent
8 Very good
7 Good
6 Fairly good
5 Definite pass
4 Borderline failure
3 Definite failure
2 Bad failure
1 Very bad failure
0 Exceptionally bad failure
1 TRAINING RECORD BOOK (LOG BOOK) & SUPERVISOR’S EVALUATION

Comments

2 CLINICAL VIVA

- Clinical assessment
  Questions
  Topic Questions
  Topic Questions
  Topic Questions

3 ASSESSMENT SCORE (max score) (for specialty board of AIm only)

<table>
<thead>
<tr>
<th>Supervisor (S) and</th>
<th>Clinical Viva</th>
<th>Total</th>
<th>Status</th>
</tr>
</thead>
<tbody>
<tr>
<td>Case Reports (CR1&amp;2) Scores (Max 10)</td>
<td>Score</td>
<td>Score</td>
<td>(P Pass)</td>
</tr>
<tr>
<td>CR1</td>
<td>CR2</td>
<td>S</td>
<td>(Maximum 10x3)=30</td>
</tr>
<tr>
<td>____</td>
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<td>____</td>
</tr>
<tr>
<td>CR = Case Report score</td>
<td>S=Supervisor’s evaluation score</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

4 TRAINEE’S COMMENTS

On the training programme

On the training facilities of the institution(s)
5 **RECOMMENDATION** (For specialty board of AIM only)

☐ Overall score ≥ 20, Pass; Satisfactory progress; to continue training programme
   Comments ____________________________

☐ Overall score ≥ 20 , but ALL individual scores of examiner < 5. Bare Fail, repeat the assessment of Clinical Viva section with remedial actions recommended

☐ Overall score ≥ 16-19 ☐ Failure in 1 section: Failure in Clinical Viva section only with score <15 AND pass in Case Report + Supervisor’s evaluation section with score ≥5; Bare fail; repeat the assessment of Clinical Viva section with remedial actions recommended

☐ Overall score ≥ 16-19 ☐ Failure in 1 section: Failure in Case Report + Supervisor’s evaluation section only with score <5 AND pass in Clinical Viva section with score ≥15; Bare fail; repeat the assessment of Case Report + Supervisor’s evaluation section with remedial actions recommended

☐ Overall score ≥ 16-19 ☐ Failure in both sections: Failure in Clinical Viva section with score <15 AND failure in Case Report + Supervisor’s evaluation section with score <5; Bare fail; repeat the assessment of both sections with remedial actions recommended

☐ Overall score ≤ 16 ☐ Failure in both sections; Fail; repeat assessment in six months. Areas of deficiency and remedial actions:

☐ Two consecutive bare fails ☐ A ‘Fail’ followed by a ‘Bare Fail’; repeat Interim Assessment after an additional 6-month training period

____________________________________

178
☐ ≥ 2 consecutive failures ☐ A 'Bare Fail' followed by a 'Fail'; repeat Interim Assessment after an additional 12-month training period

☐ Deficiency in learning facilities of institution noted; actions recommended

Assessment Board

( ) Examiner 1 (Chairman)

( ) Examiner 2

( ) Examiner 3
Hong Kong College of Physicians  
Report on Interim Assessment  
Specialty Board in ____________________________  
(To be kept by E&AC Secretariat)  

June/December 20___

<table>
<thead>
<tr>
<th>Name of candidates</th>
<th>Hospital</th>
<th>MBBS/ MRCChB</th>
<th>MRCP/ MRCPIE</th>
<th>Basic Physician Training</th>
<th>Date of Starting Higher Physician Training</th>
<th>Concurrent Training</th>
<th>Overall Score</th>
<th>Assessment Result</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>From (mm/yy) To (mm/yy) Duration (mm/yy)</td>
<td>Yes (specify Specialty) No (Specify Fellowship of other Specialty)</td>
<td>Pass</td>
<td>Bare</td>
</tr>
<tr>
<td></td>
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</tbody>
</table>

Signature ____________________________

Name ____________________________

Board Chairman  
Date ____________________________
Hong Kong College of Physicians  
(Incorporated in Hong Kong with limited liability)  
Specialty ________________________

Exit Assessment

Higher Physician Training (HPT) Application Form

All sections are mandatory

1. Surname ____________________  2. First name ____________________

3. ID Number __________________ (the first 4 digits)

4. Hospital ____________________  5. Unit _______________________

6. Region *(Hong Kong / Kowloon / New Territories)

7. Date started Higher Physician Training __________________

8. Concurrent or completed training in other specialties ______________________

9. I wish to apply for entry into Exit Assessment* in __________ in June / December 20__ .

I declare that I will have been qualified for / will be able to qualify of the Exit Assessment by *31 March of the following year / *by 30 September of the same year.

10. Have you been rotated to a general medical unit of hospital with obstetric service for three months during BPT or HPT (applicable only for trainees who start BPT from 1 July 2009 onwards)? *Yes/*No

11. *I agree to submit my dissertation before the date specified by the Specialty Board and I understand that failure to comply will automatically disqualify me for the Examination.

11.1 The title of my dissertation is: ______________________

11.2 I do solemnly and sincerely declare that the dissertation submitted *represents my own work/contains previously published work. My consent is hereby given to the College to keep a copy of my dissertation, in written and/or electronic format, at the College Secretariat and allow the public to have free access to the work for reference.

12. I shall not be able to take part in Exit Assessment in June / December 20__ as I shall be pursuing overseas study then.

13. I hereby consent to the release of any and all information in any way pertaining to all my Exit Assessment results to Hospital Authority (HA), Specialty Programme Director (SPD) and Chief of Service (COS) or any government agency requiring the same whether or not listed above.

Note 1 *Delete whichever is inappropriate
2 Candidates who have to write their dissertations should refer to Section on "Guidelines on Writing a Dissertation" for instructions.

________________________________________  _______________________
Signature of Applicant  Date
Application for Exit Assessment

TESTIMONIAL

Specialty in ________________

To be completed by Trainers.

The College fully expect Trainers to refuse to sign testimonials for candidates whose training is considered to be unsuitable or who are regarded as being unfit in moral character or professional conduct to be admitted to Fellowship. Should the candidate fail the examination badly, the College will notify the proposers and may require evidence of further training before the examination can be taken again.

We certify from personal knowledge and repute that

FULL NAME OF CANDIDATE ____________________________

is as regards character and professional conduct, a fit and proper person to be admitted a Fellow of the Hong Kong College of Physicians, and also that he/she has had a period of training which complies with the most recent College Guidelines.

Signature of Proposer (1) ____________________________ Date ______________

Signature of Proposer (2) ____________________________ Date ______________

Details of Proposer (1) Details of Proposer (2)
(Normally the Candidate’s Supervisor) (Normally the Candidate’s Chief of Service)

Name ____________________________ Name ____________________________

Professional Appointment ____________________________ Professional Appointment ____________________________

Address ____________________________ Address ____________________________

Relevant Qualification ____________________________ Relevant Qualification ____________________________

Please return to:
Examination Co-ordinator of each Specialty Board before 31 January or July each year.
Marking Sheet for Dissertation
(To be kept by the Specialty Board)

Specialty __________________________

Name of candidate __________________________ Hospital __________________________

Name of supervisor __________________________ Exit Assessment Day __________________________

Title of Dissertation __________________________

<table>
<thead>
<tr>
<th>Score</th>
<th>Description</th>
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<tbody>
<tr>
<td>0</td>
<td>Exceptionally bad failure</td>
</tr>
<tr>
<td>1</td>
<td>Very bad failure</td>
</tr>
<tr>
<td>2</td>
<td>Bad failure</td>
</tr>
<tr>
<td>3</td>
<td>Definite failure</td>
</tr>
<tr>
<td>4</td>
<td>Borderline failure</td>
</tr>
<tr>
<td>5</td>
<td>Definite pass</td>
</tr>
<tr>
<td>6</td>
<td>Fairly good</td>
</tr>
<tr>
<td>7</td>
<td>Good</td>
</tr>
<tr>
<td>8</td>
<td>Very good</td>
</tr>
<tr>
<td>9</td>
<td>Excellent</td>
</tr>
<tr>
<td>10</td>
<td>Outstanding</td>
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</table>

<table>
<thead>
<tr>
<th>Score</th>
<th>Originality</th>
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<tbody>
<tr>
<td>0</td>
<td>1 2 3 4 5 6 7 8 9 10</td>
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<table>
<thead>
<tr>
<th>Score</th>
<th>Methodology &amp; Interpretation</th>
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</thead>
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<tr>
<td>0</td>
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</tbody>
</table>

<table>
<thead>
<tr>
<th>Score</th>
<th>Clarity of Presentation</th>
</tr>
</thead>
<tbody>
<tr>
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</table>

<table>
<thead>
<tr>
<th>Score</th>
<th>Review of Literature</th>
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<tr>
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<td>1 2 3 4 5 6 7 8 9 10</td>
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</tbody>
</table>

<table>
<thead>
<tr>
<th>Score</th>
<th>Overall Appraisal</th>
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<tbody>
<tr>
<td>0</td>
<td>1 2 3 4 5 6 7 8 9 10</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Score</th>
<th>Comments</th>
</tr>
</thead>
<tbody>
<tr>
<td>0</td>
<td>1 2 3 4 5 6 7 8 9 10</td>
</tr>
</tbody>
</table>

Name of Examiners __________________________
# Hong Kong College of Physicians
## Scoring Sheet for Exit Assessment

(To be kept by the Specialty Board)

**Specialty Board in____________________**

**Date of Assessment___________________**

Name of Candidate ___________________________ Hospital ___________________________ PD ___________________________

No. of months in___________ training from Interim to Exit ___________________________

<table>
<thead>
<tr>
<th></th>
<th>Examiner 1</th>
<th>Examiner 2</th>
<th>Examiner 3</th>
<th>Examiner 4</th>
</tr>
</thead>
<tbody>
<tr>
<td>Name of Examiner</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Signature</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Dissertation Appraisal</td>
<td></td>
<td></td>
<td></td>
<td>Subtotal = $\sum DA_n$</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>if $n = 2$ or</td>
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<td></td>
<td></td>
<td></td>
<td></td>
<td>$=\sum DA_n \times \frac{2}{3}$</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>if $n = 3$</td>
</tr>
<tr>
<td>Dissertation Viva</td>
<td></td>
<td></td>
<td></td>
<td>Subtotal = $\sum DV_n$</td>
</tr>
<tr>
<td>Clinical Viva</td>
<td></td>
<td></td>
<td></td>
<td>Subtotal = $\sum CV$</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>Total = $DS + CVS$</td>
</tr>
</tbody>
</table>

**DA = Dissertation Appraisal**

**DV = Dissertation Viva**

**CV = Clinical Viva**

**DS = Dissertation Score**

**CVS = Clinical Viva Score**
Hong Kong College of Physicians
Scoring Sheet for Exit Assessment

Specialty Board in ________________________________

Questions asked in Clinical Viva

1. ______________________________________________________________________________________

2. ______________________________________________________________________________________

3. ______________________________________________________________________________________

4. ______________________________________________________________________________________

5. ______________________________________________________________________________________

6. ______________________________________________________________________________________

Converted Score ____________________________          Comment ____________________________
Result (pass/fail) ____________________________

________________________________________________________________________________________
**HONG KONG COLLEGE OF PHYSICIANS**
**HIGHER PHYSICIAN TRAINING**
**EXIT ASSESSMENT IN _____________ SPECIALTY**

(To be kept by the Specialty Board)

**NAME**

**QUALIFICATION**
- MBBS/specify ______________ DATE ______________ (m/y)
- HKCP Intermediate Exam/MRCP/specify __________ DATE ________ (m/y)

**Basic Physician Training**
- From ______________ (m/y) To ______________ (m/y)

**Date of entry to higher specialty training in _____________ Specialty _____________ (m/y)

**Concurrent or completed training in other specialties**
- Yes/No Specify ______________

**TRAINING RECORD**

<table>
<thead>
<tr>
<th>Period</th>
<th>To</th>
<th>Institution</th>
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</thead>
<tbody>
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</table>

**DATE OF ASSESSMENT**

Previous Exit Assessment: Nil/Date
Interim Assessment: Date ______ Score ______

Please use the following 10-point Scoring System.

10   Outstanding
9    Excellent
8    Very good
7    Good
6    Fairly good
5    Definite pass
4    Borderline failure
3    Definite failure
2    Bad failure
1    Very bad failure
0    Exceptionally bad failure
1  TRAINING RECORD BOOK (LOG BOOK) & SUPERVISOR’S EVALUATION

Comments

2  DISSERTATION ASSESSMENT

Title

Dissertation appraisal score (max 20)  
Dissertation viva score (max 20)  
Questions

<table>
<thead>
<tr>
<th>Dissertation (max 40)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Dissertation Appraisal (max 20)</td>
</tr>
<tr>
<td>DA_{max} = 10</td>
</tr>
<tr>
<td>DA_{total} = \sum DA_{n} if n = 2</td>
</tr>
<tr>
<td>Or</td>
</tr>
<tr>
<td>\Sigma DA_{n} x 2/3</td>
</tr>
<tr>
<td>if n = 3</td>
</tr>
<tr>
<td>DV_{max} = 10</td>
</tr>
<tr>
<td>DV_{total} = \sum DV_{n}</td>
</tr>
</tbody>
</table>

Total = DA_{total} + DV_{total}

Note: DA = Dissertation Appraisal  
DV = Dissertation Viva

3  CLINICAL VIVA

• Clinical assessment, questions
- Other assessment, questions
  (ethical, humanistic qualities,
  resource management etc)

4 **ASSESSMENT SCORE** *(max mark)*

<table>
<thead>
<tr>
<th>Total Dissertation Score</th>
<th>Clinical Viva Score</th>
<th>Final Score (Dissertation + Clinical Viva Score)</th>
<th>Status</th>
</tr>
</thead>
<tbody>
<tr>
<td>Appraisal (20)</td>
<td>Oral (20)</td>
<td>60</td>
<td></td>
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<tr>
<td>Total=</td>
<td>Total=</td>
<td>Subtotal=</td>
<td></td>
</tr>
<tr>
<td>If n = 3,</td>
<td></td>
<td>Σ n=3 x 2/3</td>
<td></td>
</tr>
<tr>
<td>Sub-total=</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total=</td>
<td></td>
<td></td>
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</tr>
</tbody>
</table>

5 **TRAINEE’S COMMENTS**

On the training programme

On the training facilities of the institution(s)
6 RECOMMENDATION

☐ Score ≥ 50 + Pass in both sections.
☐ Pass: Successful completion of training: for accreditation
☐ Other Recommendation & Comments

---

☐ Score ≥ 50 + Pass in one section & borderline fail in one section.
☐ Pass: Successful completion of training: for accreditation
☐ Other Recommendation & Comments

---

☐ Score < 50 (90-99% of section pass mark)
☐ Borderline Fail in 1 section (Dissertation/clinical viva)
☐ Bare fail. Repeat Exit Assessment in failed section in six months
☐ Areas of deficiency and remedial action(s): Repeat Exit Assessment in the failed section after an additional 6-month training in the relevant specialty.

---

☐ Score < 50 (90-99% of section pass mark)
☐ Borderline Fail in 2 sections
☐ Bare fail. Repeat Exit Assessment in failed section in 12 months
☐ Areas of deficiency and remedial action(s): Repeat full Exit Assessment after an additional 12-month training in the relevant specialty.

---

☐ Any Score (80-89% of section pass mark)
☐ Fail in one section. Repeat Exit Assessment in six months
☐ Areas of deficiency and remedial action(s): Repeat full Exit Assessment after an additional 6-month training in the relevant specialty.

---

☐ Any Score (80-89% of section pass mark)
☐ Fail in two sections. Repeat Exit Assessment in 12 months
☐ Areas of deficiency and remedial action(s): Repeat full Exit Assessment after an additional 12-month training in the relevant specialty. Trainees should be exposed to trainers in other institution(s) for six months.
☐ Any Score (<80% of section pass mark)
☐ Bad Fail in one section. Repeat Exit Assessment in 12 months
☐ Areas of deficiency and remedial action(s): Repeat full Exit Assessment after an additional 12-month training in the relevant specialty.

☐ Any Score (<80% of section pass mark)
☐ Fail in two sections. Repeat Exit Assessment in 12 months
☐ Areas of deficiency and remedial action(s): Repeat full Exit Assessment after an additional 12-month training in the relevant specialty, of which 6 months should be undertaken in programmes and/or training centres specified by the Specialty Board.

☐ Deficiency in learning facilities of institution noted; actions recommended

Assessment Board (at least one member should represent HKCP Council/Education & Accreditation Committee/Examination Committee):

(          ) Examiner 1 (Chairman)
(          ) Examiner 2
(          ) Examiner 3
(          ) Examiner 4
(          ) Examiner 5
(          ) Examiner 6
Name of Candidate ____________________ Hospital ____________________

Specialty Board ____________________

Date of Assessment ____________________

Previous Exit Assessment No Yes Date ____________________

Interim Assessment Date ____________________ Date ____________________
Score ____________________ Score ____________________

MBBS (m/y) ____________________

HKCP Intermediate Exam (m/y) ____________________

Basic Physician Training From ______ (m/y) to ______ (m/y) Duration (yr) ________

Higher Physician Training From ______ (m/y) to ______ (m/y) Duration (yr) ________

Concurrent or completed training in other specialties Yes/No Specify ____________________

Assessment Score (max mark)

<table>
<thead>
<tr>
<th>Total Dissertation Score</th>
<th>Clinical Viva Score (60)#</th>
<th>Final (Dissertation + Clinical Viva) Score (100)</th>
<th>Status</th>
</tr>
</thead>
<tbody>
<tr>
<td>Appraisal (20)</td>
<td>Oral (20)</td>
<td>Panel A Panel B Panel C</td>
<td>Pass</td>
</tr>
</tbody>
</table>

If n = 3, Sub-total = \( \sum_{n=3} x \frac{2}{3} \) Subtotal = Panel D*

Total = Total =

* If necessary (for a few Specialty Boards only)
# The Assessment Board should discuss and provide written comments on gross discrepancies between different examiners’ mark (i.e. ≥ 3 for each section or subsection)

Recommendation Successful completion of training for accreditation Others: ____________________

Board Chairman (Block Letters) ____________________ Signature ____________________ Date ____________________
# Hong Kong College of Physicians

**Report on Higher Specialty Training Exit Assessment**

**Specialty Board in**  
(To be kept by the E&AC Secretariat)

| Name of Candidate | Hospital | Date of HPT Completion | Dissertation (15 minutes) | Clinical Viva (45 minutes) | Total Score [100] | Status  
|-------------------|----------|------------------------|---------------------------|---------------------------|------------------|--------
|                   |          |                        |                           |                           |                 |                   |                                 |                   |                         |
|                   |          |                        |                           |                           |                 |                   |                                 |                   |                         |
|                   |          |                        |                           |                           |                 |                   |                                 |                   |                         |

* If \( n = 3 \), Appraisal score = \( \sum_{n=3} \times 2/3 \)

**Note 1** Normally, two examiners will read the dissertation. When the results of the appraisal are one failure and one pass, a third examiner will be required to read the dissertation. The total marks given by the three examiners will then be multiplied by a factor of \( 2/3 \) to obtain the Dissertation Appraisal Score.

**Note 2** Effective from December 2002, candidates who do not have to be examined in the Dissertation need only attend the Clinical Viva for 45 minutes. The total Clinical Viva Score should be rounded up or down (\( \geq 0.5 = 1 \), \( < 0.5 = 0 \)) to the nearest integer.

Signature

Name (Block Letters)  
Board Chairman

Date