



The Society of Apothecaries of London

Guide to the Diploma in HIV Medicine (Dip HIV Med)

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Notice of future amendments to the Guide (incorporating the Regulations and Syllabus) and revisions following publication of this version.

The Dip HIV Med Examination will continue to change to reflect developments in medicine. While every attempt has been made to ensure that this version of the Dip HIV Med Examination Regulations and Syllabus is accurate, further changes to the Dip HIV Med examination, the Regulations and closing dates may be implemented during this time. Candidates should refer to the Society of Apothecaries website (www.apothecaries.org) for the most up-to-date information, and where any such changes will be detailed. In order that candidates are fully briefed about the status of any proposed changes, they are advised to regularly check the Society website.

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INTRODUCTION

The Court of the Society instituted, in 2002, an examination and the award of a Diploma in HIV Medicine, which is open to registered medical practitioners who have significant experience of treating patients with HIV disease.

DATE AND PLACE OF THE EXAMINATION

The Examination is held annually at Apothecaries' Hall (for address refer to front cover).

EXAMINATION TIMETABLE AND FEES

Please refer to the **Administrative Guidance for Candidates** (available online at www.apothecaries.org).

REGULATIONS FOR ADMISSION TO THE EXAMINATION

1. The examination is exclusive to medical graduates, who must be registered with the General Medical Council of the United Kingdom and have held a qualification for **at least five years** to practise Medicine, Surgery and Obstetrics & Gynaecology.
2. Medical graduates who have qualified outside the United Kingdom (UK) who are not registered with the General Medical Council in the UK, but who are registered with an equivalent national medical council, may be admitted to the examination with the approval of the Court of Examiners if they have complied with all the other requirements of the Regulations.
3. Candidates must produce satisfactory evidence that, after qualification, they have had regular, ongoing, clinical contact with HIV medicine over a 2-year period at Specialist Registrar level or equivalent, which includes experience of both inpatient and outpatient care.
4. Form A (for those applying for the first time) or Form R (for re-entrants) and the fee must be received by the closing date published in the **Administrative Guidance for Candidates** (available online at www.apothecaries.org). In order for applications to be processed, Form A **must** be counter-signed by a medical practitioner (for example, an educational supervisor) who is able to confirm that the candidate meets the entry criteria.

THE EXAMINATION

5. The examination will consist of a written paper and an Objective Structured Clinical Examination (OSCE) as follows:
 - a. **Written examination:** a 2½-hour paper consisting of structured answer and data interpretation questions;
 - b. **OSCE:** consisting of:
 - (i) 12 x 5-minute stations, testing technique and procedures, on one day;
 - (ii) 6 x 10-minute interactive stations on the second day.
6. Successful candidates are entitled to use the letters Dip HIV Med after their names.
7. The examination fee will be determined from time to time by the Court of Assistants and published in the **Administrative Guidance for Candidates**. Candidates who withdraw from the examination after the closing date will forfeit a proportion of the fee.
8. Candidates will be issued with an admission document once a place for the examination has been confirmed. This must be produced on the day of examination, along with some form of photographic identification.
9. On the day of the written examination, candidates are forbidden to bring books, papers, calculators, mobile phones or any other electronic aid into the examination rooms. It is strictly forbidden for candidates to talk to, or to attempt in any other way to communicate with each other whilst a written examination is in progress.
10. Candidates who present themselves for written examinations after the start time stated in the admission document will be admitted if they arrive within 30 minutes of this time, but may not be admitted if they arrive thereafter. In any case, candidates will forfeit the time lost. In exceptional circumstances, where all candidates are affected by delays, the examination timings may be amended.
11. The Court of Assistants reserves the right to refuse to admit to the examination, or to proceed with the examination of, any candidate who infringes a regulation or who refuses to comply with the reasonable request of an officer of the Society.
12. Candidates' completed examination scripts become the property of, and will be retained by, the Society. Under no circumstances will they be available for study.

REVIEW AND APPEAL PROCEDURES

13. The stages of the review and appeal procedures are as follows:
 - a. Feedback – first, compulsory stage;
 - b. Re-mark – second, optional stage;
 - c. Appeal – third, optional stage.
14. **Feedback (compulsory).** Feedback on examination performance will be available to unsuccessful candidates at their request. Requests must be made in writing and be received by the Registrar within 28 days of the receipt of results.
15. **Re-mark (optional).** A request by a candidate for a re-mark of a paper must be received in writing within 28 days of the receipt of feedback. A request for a re-mark cannot be made without first going through the feedback stage. There is a fee of £150 for a re-mark.
16. **Appeal (optional).** An appeal to the Society's Examinations Board is open to a candidate who is not satisfied with the decision of the Examination Panel, feedback or the Re-mark Panel. In accordance with the Society's Examination Review and Appeal Procedures, the detailed grounds on which the appeal is made must be stated (and see paragraph 18 below). The appeal must be received in writing within 28 days of the candidate being notified of the feedback or re-marking report. It is not necessary to seek a re-mark before appealing. There is a fee of £150 for an appeal.
17. If the appellant is dissatisfied with the report of the Examinations Board Appeal Tribunal and wishes to make an appeal to the Court of Assistants, this should be communicated to the Registrar within 28 days of the receipt of the decision of the Appeal Tribunal.
18. The processes outlined in paragraphs 13-17 will be dealt with according to the Review and Appeal Procedures agreed by the Court of Assistants, which is available to candidates on request. In no circumstances should a candidate make representations directly to an examiner.

MRS J M E MACLEAN
Registrar

THE WRITTEN PAPER

19. The paper will consist of 10 questions requiring the interpretation of data or results from a research paper and 10 structured short answer questions.
20. It is intended that 60 minutes be spent on the data interpretation questions and 90 minutes on the short notes questions.
21. Example questions are given in the **Administrative Guidance for Candidates** (www.apothecaries.org) to show the style and format of questions.
22. Scripts must be legible. If two examiners cannot decipher the handwriting, the script will be dismissed.

OBJECTIVE STRUCTURED CLINICAL EXAMINATION (OSCE)

23. The examination will take the form of 12 x 5-minute stations on the first day and 6 x 10-minute stations on the second day. It may be necessary to include extra 'rest' stations if candidate numbers require them; candidates will not be asked questions nor marked for these stations.
24. The OSCE will test candidates on equipment knowledge, interpretation of slides, X-rays and laboratory results, clinical problem solving, clinical examination and management and counselling techniques. Two of the long OSCE stations will consist of a structured oral examination. Examiners may not be present at all stations, and use will be made of actors and counsellors, who will also be involved in assessing candidates.
25. Candidates will either complete an answer sheet in unmanned stations or be required to talk directly to the examiner or patient. In either case, staff will collect each candidate's sheet at the end of each period. An example of a 5-minute and 10-minute station is given in the **Administrative Guidance for Candidates** (www.apothecaries.org) to show the style and format of questions.
26. Candidates will receive a further briefing on the day of the OSCE.

MARKING

27. The examination will be divided into 3 sections comprising:
 - The written paper;
 - Short (5-minute) OSCE stations
 - Long (10-minute) OSCE stations
28. Each section carries the same weight and, within each section, each question or station carries identical marks to the others in that section.
29. The pass mark for each section is 60%. In order to pass the examination, candidates must achieve an overall average of 60%, with a pass in at least 2 sections

SYLLABUS

30. Candidates will be expected to have knowledge of the following subjects in the detail indicated:

A EPIDEMIOLOGY - Candidates must be able to discuss accurately:

- i. The current global epidemiology of HIV and AIDS, including HIV-2;
- ii. The changing epidemiology of HIV and its complications in the UK;
- iii. Surveillance methodologies to establish the incidence and prevalence of HIV (to include reporting mechanisms and anonymous seroprevalence surveys);
- iv. Strain variation and sub type in relation to management.

B BASIC SCIENCE OF HIV - Candidates must be able to relate the basic science of HIV to its implications for patient management in the following areas:

- i. The biology of HIV;
- ii. Immunopathogenesis;
- iii. The natural history of HIV infection;
- iv. HIV-2.

C LABORATORY TECHNIQUES FOR THE DIAGNOSIS AND MANAGEMENT OF HIV DISEASE - Candidates must be able to explain the indications, limitations, interpretation and clinical utility of investigations in the following areas:

- i. HIV antibody testing – including point-of-care tests, combined antigen/antibody tests, and tests for incident HIV infection;
- ii. Virology - HIV viral load monitoring, resistance testing (genotypic and phenotypic); tropism testing;
- iii. Immunology (T cell subsets) ;
- iv. Therapeutic drug level monitoring;
- v. Pharmacogenomic testing (e.g. HLA B*5701 status).

D GENERAL MANAGEMENT OF HIV INFECTION - Candidates must be able to:

- i. Demonstrate practical skills and appropriate attitudes in pre- and post-HIV test discussion;
- ii. Be aware of issues relating to informed consent and medicolegal regulations surrounding HIV testing, notably those issued by the General Medical Council;
- iii. Demonstrate practical skills and appropriate attitudes in utilising clinical history taking, examination, and the use of laboratory tests to make an initial assessment of the newly diagnosed HIV positive patient and to monitor their subsequent health;
- iv. Explain the use of strategies to prevent other infections in the HIV positive patient to include vaccination, 1° and 2° prophylaxis;
- v. Recognise and use clinical features, diagnostic procedures and specific management issues relating to primary HIV infection;
- vi. Make differential diagnoses of significant presentation in patients with HIV infection, demonstrate competence at the identification of emergency situations, and discuss accurately the investigation of such presentations to include pyrexia of unknown origin, headache, focal neurological symptoms/signs, visual disturbance, breathlessness, cough, abdominal pain, weight loss, diarrhoea, seizures.

E ANTI-HIV THERAPY - Candidates must be able to:

- i. Discuss the current BHIVA guidelines and explain the key similarities and differences with other major international guidelines (Department of Health and Human Services (DHHS), International AIDS Society (IAS), European AIDS Clinical Society (EACS);
- ii. Explain the modes of action of current (and developmental) antiretroviral agents;
- iii. Interpret clinical trial data, explain the limitations of trial interpretation and discuss accurately key clinical trial findings in anti-HIV therapy;
- iv. Demonstrate competence at utilising routine laboratory tests to monitor the efficacy and safety of antiretroviral therapy;
- v. Explain the potential significant drug interactions between antiretroviral agents and drugs used for other common indications e.g. tuberculosis, methadone;
- vi. Demonstrate knowledge of how different factors (e.g. significant co-morbidities like hepatitis or cardiovascular disease) may influence choice of antiretroviral therapies;
- vii. Recognise and manage toxicities associated with anti-HIV therapies, to include assessment and modification of risk factors for cardiovascular disease;
- viii. Discuss accurately the importance of adherence to antiretroviral therapy, of methods to assess adherence and intervention strategies to maximise adherence;
- ix. Explain the issues relating to the use and monitoring of antiretroviral therapies in resource-poor settings;
- x. List and discuss investigational strategies in the management of HIV: to include immunomodulatory therapies, therapeutic vaccination and treatment interruption;
- xi. Demonstrate practical skills and appropriate attitudes in the management of potential exposure to HIV: to include the use of post exposure prophylaxis and risk assessment (occupational and non-occupational) and the management of sero-discordant partnerships.

F MANAGEMENT OF COMPLICATIONS OF HIV-1 INFECTION - Candidates must be able to explain the relationship of the following aspects, where relevant

Epidemiology, risk factors, pathophysiology, clinical features, differential diagnosis, diagnosis, treatment, clinical course (including complications), prevention/prophylaxis

of the conditions listed below:

i. **HIV-associated opportunistic infections;**

Pneumocystis jiroveci pneumonia (PCP), *Pneumococcus*, *Salmonella*, *Shigella*, *Cytomegalovirus* (CMV), *Herpes simplex virus* (HSV), *Varicella zoster virus* (VZV) infections, *JC virus* - progressive multi-focal encephalopathy, *Candida (albicans & non-albicans types)*, *Cryptococcus* infection, *Aspergillus* infection, disseminated histoplasmosis, tuberculosis, *Mycobacterium avium* complex (MAC infection and other mycobacteria relevant to HIV infection (eg *M kansasii*)), toxoplasmosis, cryptosporidiosis and microsporidiosis, leishmaniasis, strongyloidiasis;

ii. **HIV-associated malignancies;**

Kaposi's Sarcoma and other HHV8-associated malignancies (primary effusion lymphoma, Castleman's disease), lymphoma (primary cerebral lymphoma, non-Hodgkin's lymphoma, Hodgkin's disease), cervical and anal carcinoma, anogenital dysplasia; other malignancies possibly associated with HIV (e.g. bronchus, colon).

iii. **System specific HIV-associated conditions and co-infections:**

1. **Haematological:**
Thrombocytopaenia, neutropenia, anaemia - including parvovirus infection;
2. **Neurological:**
AIDS dementia complex, vacuolar myelopathy, polyradiculopathy, autonomic neuropathy, peripheral neuropathy;
3. **Endocrine/metabolic:**
Adrenal insufficiency, hypogonadism, hyperlipidaemia; glucose intolerance;
4. **Respiratory:**
Pneumonia, pulmonary hypertension;
5. **Cardiac:**
Cardiomyopathy;
6. **Gastro-intestinal:**
Oral hairy leukoplakia, pancreatitis (pancreatic insufficiency), HIV-related sclerosing cholangitis, viral hepatitis;
7. **Renal:**
Nephropathy;
8. **Dermatological:**
Seborrhoeic dermatitis, psoriasis, dry skin, molluscum contagiosum, warts, scabies, bacterial skin infections, fungal skin infections, pustular and eosinophilic folliculitis, drug exanthema;
9. **Musculoskeletal:**
Reiter's syndrome, avascular necrosis; osteopaenia/osteoporosis;
10. **Other:**
HIV wasting syndrome.

iv. **Management of HIV-associated conditions in the HAART era:**

Immune reconstitution syndrome; timing of HAART initiation with opportunistic complications.

G ISSUES RELATING TO WOMEN AND CHILDREN - Candidates must demonstrate knowledge of and appropriate attitudes to the following issues:

- i. **Gynaecological:**
Cervical screening; HIV, human papilloma virus (HPV), cervical intraepithelial neoplasia (CIN) and cervical carcinoma; pelvic inflammatory disease (PID).
- ii. **Contraception:**
Appropriate methods and possible drug interactions.
- iii. **Conception:**
Awareness of Human Fertilisation and Embryology Authority (HFEA) regulations; methodologies for limiting HIV transmission.
- iv. **Pregnancy and breastfeeding:**
Transmission rates; effect of pregnancy on HIV; effect of HIV on pregnancy; interventions in resource-rich countries; outcomes; drug toxicities in pregnancy & their effects on both mother and child; controversies eg monotherapy & drug resistance; mode of delivery in low viral load, breastfeeding.
- v. **Children;**
Diagnosis; ethical issues (age of disclosure, competency); disease spectrum; vaccinations; adolescents and transitional care; child protection issues

H SEXUALLY TRANSMITTED INFECTIONS (STI) - Candidates must be able to:

- i. Demonstrate practical skills and appropriate attitudes at sexual history taking and eliciting details of risk behaviour;
- ii. Explain the differential diagnoses, diagnostic techniques and management of common STI presentations including urethral discharge, vaginal discharge, genital ulceration, rectal symptomatology.
- iii. Explain the inter-relationship between STIs and HIV transmission and the implications for prevention strategies;
- iv. Discuss individual risk reduction strategies.

I ISSUES RELATING TO MEDICAL MANAGEMENT OF SPECIFIC PATIENT GROUPS - Candidates must be able to discuss the following aspects, where relevant:

Epidemiology, risk behaviour, constraints to service delivery, co-morbidity, ethical-legal issues, clinical features, management issues of the patient groups listed below:

- i. **Injecting drug users (IDUs);**
HIV progression, co-infection; treatment issues (methadone, adherence, drug interactions, alcohol); complications of injecting drug use; drug related clinical syndromes; violence and psychiatric morbidity.
- ii. **Prisoners;**
Transmission and issues relating to health promotion in prison, service provision and difficulties posed by the prison environment.
- iii. **Haemophiliacs;**
Treatment issues - effect of HAART on bleeding; psychosocial issues and service provision.
- iv. **Ethnic groups;**
UK and overseas (Africa, Europe, Caribbean, Asia, former USSR); immigration and dispersal; psychosocial issues - disclosure, stigma, housing, food, violence, mediation of concerns, language, non-statutory agencies, health beliefs, religion; clinical presentation, TB.
- v. **Health care workers with HIV:**
DoH guidelines; principles of risk assessment, exposure prone procedures (EPPS); Occupational Health considerations in HIV management; other measures - hepatitis, TB, opportunistic infection prophylaxis; management if needlestick occurs - consent, testing of donor and recipient, follow up; disclosure of status - confidentiality, employment options.

J PSYCHOSOCIAL AND ETHICAL ISSUES IN PATIENT MANAGEMENT - Candidates must be able to demonstrate a working knowledge of the following issues:

- i. Mental health and HIV;
- ii. Stigma, sexuality and cultural issues;
- iii. Sexual dysfunction as it relates to HIV;
- iv. Testing children, denial, physical abuse;
- v. Disclosure and criminalisation;
- vi. Use of post exposure prophylaxis after sexual exposure.