UK CAA Certification Guidance for Applicants Living with HIV

This guidance is published primarily for Aeromedical Examiners (AMEs) to assist them with assessing applicants who have declared that they have had a positive HIV test. It should also help to inform applicants about the key areas that are considered as part of an assessment.

All levels of certification can be considered, including the initial issue of an unrestricted Class 1 certificate.

This guidance sets out the information that AMEs should obtain to give them a sufficient overview of an applicant's history and current status so that they or a CAA Medical Assessor can consider any risk factors in the applicant's history, relating to history of infection and medication. It highlights areas of medical history to consider and the systems to examine so that the requirement for further investigations or specialist assessment may be determined.

First Assessment after Declaration

Following diagnosis or on declaration of positive HIV status, the validity of a Class 1, 2, 3 or LAPL medical certificate should be temporarily suspended, or in the case of an applicant who does not hold a valid certificate, assessment should be deferred until reports have been obtained from the reviews described in (a) to (d) below.

(a) HIV Specialist Report

An accredited specialist in Genitourinary/HIV medicine should be asked to provide a report to the applicant. The report should include as far as possible:

- a clinical HIV history
- any current symptoms and signs
- stability of the condition
- any history of AIDS defining illnesses
- CD4+ T cell counts and HIV-RNA level, CD4:CD8 ratio, CD4+ T cell percentage (calculated from FBC & CD4 count), nadir CD4+ count
- reverse transcriptase and protease genotype, genotype resistance testing (GRT)
- anti-retroviral therapy (ART) history with start/stop dates and description of any adverse-effects and risk of future adverse effects
- any history of relevant co-infection
- any neurological features of HIV infection
- any concerns about neurocognitive impairment
- latest results for full blood count (FBC), renal function (U&Es), liver function tests (LFTs), fasting glucose and lipids

(b) Neuropsychological Review

Without antiretroviral therapy, HIV can lead to HIV-associated-dementia (HAD). However, since the introduction of earlier ART and timely diagnosis of HIV, HAD is rarely seen. Some studies have suggested subtler forms of cognitive impairment exist in ART treated persons with HIV.

Risk factors for neurocognitive impairment (NCI) include:

- CD4 count at presentation <350/ a low nadir CD4 count
- history of an AIDS defining condition
- history of substance use
- unstable HIV infection
- not on antiretroviral therapy
- 10-year risk of cardiovascular disease >10%
- history of mental ill-health
- metabolic impairment
- hepatitis C infection

At the first aeromedical assessment after a declaration of positive HIV status, applicants on ART with no detectable viral load and without risk factors for NCI should be assessed by an HIV specialist (and a psychologist if indicated by the HIV specialist), who should determine whether neuropsychological (NP) testing is required. If it is felt by either the HIV specialist or the psychologist that NP testing is required, then a report from a battery of NP tests assessing attention, executive function, language fluency, memory, speed of information processing and motor function should be provided. Reports should indicate the test battery used and whether there are any signs of HIV associated NCI.

LAPL applicants without these risk factors will not require NP testing.

Those with risk factors for NCI are likely to require NP testing at first assessment after diagnosis. Applicants for Class 1 and 3 certificates should be referred to a CAA medical assessor to clarify this. Class 2 applicants should be assessed by AMEs in consultation with a CAA medical assessor. LAPL applicants should be assessed by an HIV specialist (and a psychologist if indicated), who should determine whether NP testing is required.

In all cases, reports from the HIV specialist or psychologist should provide an opinion on whether the applicant does or does not have any HIV associated cognitive impairment and in the case of the latter, provide an opinion on the risk of developing an impairment in the coming year. If the risk is acceptable, then the applicant will be asked to complete a simulator check (which could be an LPC/OPC) or medical flight test (which could be incorporated into a proficiency check or skills test in a light aircraft), and if there are no issues a certificate can be issued.

For initial applicants, who have not yet completed training to obtain a licence, a simulator check would not be required but a certificate could be issued, and ongoing requirements reviewed once training has been successfully completed. If the applicant/certificate holder has a clinical NCI they will usually be considered unfit for certification.

Advice on local psychologists who can conduct testing can be obtained from AMEs or the applicants own medical advisors (e.g. HIV consultant or HIV nurse specialist).

(c) Psychiatry Review (if clinically indicated)

Psychiatry review may be indicated by medical history, examination or the adverse effect profile of anti-retroviral medication being used.

(d) Cardiology Review (if clinically indicated)

Cardiology review is required in the presence of significant cardiac risk factors and a 10-year risk, estimated with tools such as DAD or QRisk, of more than 10%. The review should assess risk factors and include exercise testing performed to the Bruce Protocol.

Medication

In general, only regimens approved by the British HIV Association are likely to be acceptable.

For proposed or current treatment regimens there needs to be a good understanding of the safety of medications to make a safe assessment of potential impacts on functional ability and risk of incapacitation. Long-term safety data should be available to assess acceptability in pilots and ATCOs.

Certificate holders should be assessed as "unfit" and the validity of their certificate suspended whilst initiating, modifying or discontinuing ART. A period of "ground testing" (i.e. no flying) will be required and will vary between medications according to their adverse effect profile. Depending on the effectiveness of therapy or relevant safety data, for some medications several months may be required to ensure that certain side-effects do not develop e.g. mood disorders. A report should be obtained from the applicant's HIV specialist, to include recent CD4+ counts and viral loads and confirmation of an absence of ongoing side-effects from medication. Opinion may also be sought on possible side-effects and occurrence of these in clinical practice from the pilot's HIV specialist or from the British HIV Association. Fitness may be reassessed when viral suppression has been achieved or maintained and there are no side-effects from the medication.

There are usually routine blood tests required to monitor for adverse effects of medication. Applicants should provide a copy of the results of these to their AME at each medical and refrain from flying/controlling and seek advice from an AME if there are any abnormalities between medical examinations.

Subsequent virologic failure or medication changes (e.g. dose or type of medication) should result in a period of temporary suspension of a medical certificate whilst changes are made to medication, stability is re-established and a period appropriate to the possible adverse effect profile of the new medication(s) passes.

Making the Assessment

Class 1 and 3 applicants/certificate holders should be referred to a CAA medical assessor with the information outlined above.

Class 2 applicants/certificate holders can be assessed by an AME in consultation with a CAA medical assessor.

LAPL medical certificate applicants/certificate holders can be assessed by an AME.

Where an applicant does not have a satisfactory CD4 count, complete viral suppression or absence of risk factors for NCI, certification may be possible with limitations. This will also be considered where there are significant risks of adverse effects from medication.

Follow Up

Between medical examinations

Certificate holders should report any changes in their fitness as set out on their medical certificate. They should contact their AME without delay if they need to change their medication (dose or drug).

At each aeromedical examination

Certificate holders/applicants should provide a report from their HIV specialist to confirm that they remain stable with no symptoms or signs related to HIV infection or their ART. The report should include viral load and any CD4 count since their last report. Blood results should include cholesterol, blood glucose and LFTs and FBC or other recommended monitoring tests appropriate to the medication being taken. Development of any relevant new co-infections as indicated by the HIV specialist should also be mentioned.

Class 1, 2 and 3 certificate holders should have an assessment with their HIV specialist (and a psychologist if indicated by the HIV specialist) for NCI and the risk for developing an impairment no less frequently than every 12 months. Assessment of fitness should consider the risks factors listed above, possible adverse effects of medication, or failure to pass a licence proficiency check. Where NP testing is required as in “(b) Neuropsychological Review” above, as far as possible this should be undertaken using the same battery of tests for comparison. The requirement for LAPL medical certificate holders/applicants to have NP testing should be reviewed if they develop risk factors for NCI.

Further requirements will depend on changes in control of HIV infection and any changes to medication.