

Standards for Performing Aviation Medical Examinations on Behalf of the UK Civil Aviation Authority

As part of its oversight role the Civil Aviation Authority (CAA) has set out in this document what is considered to be the minimum requirement of clinical examination to confirm functional ability and screen for conditions that are likely to have an impact on flight safety. Every doctor has their own routine for performing a medical examination and the order in which it is listed and the numbering corresponds to the CAA document. It is not supposed to represent the order in which the examination should take place and this is left to the individual doctor to decide. These standards will be used during audit visits by the CAA Medical Department, when the auditor wishes to observe a medical being performed.

It should be clear to the applicant that the AME has a chaperone policy in place. This should comply with the principles set out in the General Medical Council's guidance "Maintaining Boundaries" and the CAA document "Good Medical Practice for Aeromedical Examiners".

(202 & 203) Height and Weight

The doctor (or an appropriately trained assistant) should measure and record the height and weight of the candidate using appropriately maintained and calibrated scales and height measurement equipment.

(204 & 205) Eye and Hair Colour

The doctor (or an appropriately trained assistant) should record the eye colour and natural hair colour of the candidate. It may be appropriate to ask the candidate about their natural hair colour.

(206) Blood pressure

The doctor should record the blood pressure by using an acceptably maintained and calibrated sphygmomanometer. Automatic sphygmomanometers using an appropriate sized arm cuff are acceptable. If using a mercury or aneroid sphygmomanometer the diastolic should be recorded as disappearance of sound (not muffling). If initial BP is elevated, several measurements should be taken during the course of the examination. The lowest BP should be recorded in the medical report (AME On Line).

(207) Pulse rate and rhythm

The doctor should assess the pulse rate and rhythm. This should usually be done by formal palpation of the radial pulse.

(208) Head face, neck, scalp; (209) Mouth, throat, teeth; (210) Nose, sinuses; (211) Ears, drums, eardrum motility

The doctor should look in the ears with an otoscope and look in the mouth and nostrils. The doctor should visually inspect the head and neck, and assess any restriction to neck movements. A general inspection should be made of the mouth to include teeth, soft palate and tonsillar beds. The doctor should usually inspect the nostrils and make an assessment of the adequacy of nasal airways. Eustachian function should be assessed by any appropriate method which may include simple enquiry. Palpation for thyroid lesions and lymphadenopathy should be included.

(229, 230 & 231) Visual acuity

Unless a qualified vision care specialist has done this part of the examination and a report on an appropriate form (Med 162) is available, distant visual acuity should be assessed at 5m or 6m using an appropriate chart for the distance. Uncorrected vision should be

recorded for all candidates. If corrective lenses are required to meet the standard then corrected visual acuity should also be recorded. If contact lenses are worn for flying purposes then vision should also be tested using a spare pair of spectacles, (but if these are not available at the time of the examination (initial only) then this is not mandatory).

Intermediate vision should be assessed at 100cm using an appropriate chart. Uncorrected vision should be recorded for all candidates. If corrective lenses are required to meet the standard then corrected visual acuity should also be recorded.

Near vision should be assessed at a distance between 30 and 50 cm using an appropriate chart. Uncorrected vision should be recorded for all candidates. If corrective lenses are required to meet the standard then corrected visual acuity should also be recorded.

Note: It is good practice to record best uncorrected performance in each of the three distances to track and predict when visual performance is likely to fall below the standard.

(212) Eyes – orbit and adnexa, visual fields; (213) Eyes – Pupils and optic fundi; (214) Eyes –ocular motility, nystagmus

Unless a vision care specialist has done this part of the examination and a report on an appropriate form (Med 162) is available, the doctor should observe the eyes and surrounding structures. The doctor should formally assess eye movements and check for diplopia, and perform a field assessment by confrontation (or any other method used in routine optometry practice). The doctor should assess pupil size and reaction to light & perform fundoscopy.

(215) Lungs, chest, breast; (216) Heart; (217) Vascular system

The candidate should undress sufficiently to permit adequate examination, (auscultation) of the heart and lungs and inspection and palpation of the abdomen. (Male patients should usually be bare above the waist. Female patients should usually retain a brassiere or vest).

The doctor should observe the precordium and look for the jugular venous pulse, palpate the apex beat and auscultate over the cardiac valves and carotid areas. They should also observe, percuss and auscultate over the upper, middle and lower segments of the lungs anteriorly and posteriorly. The doctor should palpate the peripheral foot pulses and assess for dependant oedema and varicose veins.

The doctor should have a conversation with applicants about breast examination. Where the applicant undertakes regular self-examination, self-reported findings may be accepted by the doctor. If breast examination is performed it should be clear that this is with appropriate consent (see GMC Guidance “Maintaining Boundaries”).

(218) Abdomen, Hernia, Liver, Spleen; (219) Anus, Rectum; (220) Genito-Urinary System

The abdomen should usually be exposed from xiphisternum to just above the symphysis pubis. The doctor should observe and palpate the abdomen, to include the liver, spleen, kidneys and hernial orifices. Percussion and auscultation may also be appropriate.

The doctor should have a conversation with male applicants about testicular examination. Where the applicant undertakes regular self-examination, self-reported findings may be accepted by the doctor. If there are clinical indications for performing genital or rectal examinations then it should be clear that this is with appropriate consent (see GMC Guidance “Maintaining Boundaries”).

(221) Endocrine system

Many signs of endocrine disorders may be detected during general observation and examination of other systems. Examination of the thyroid gland may be included as part of head and neck examination (see above).

(222) Upper and Lower limbs and Joints; (223) Spine, other musculoskeletal

The doctor should observe the applicant during the process of the examination and should make enquiry and formally examine the range of movements of the spine or any affected joints if the applicant appears to have any difficulty in cooperating with the examination e.g. when walking to the examination room or whilst getting onto or off the couch. Formal examination of movement of the cervical and lumbar spine and shoulder joints should be undertaken to ensure the applicant has an adequate range of movement to perform all motor tasks related to flying/controlling.

(224) Neurologic – Reflexes etc

The doctor should observe the applicant during the process of the examination (including gait and posture) and should make enquiry and formally examine the neurological system if the applicant appears to have any difficulty in cooperating with the examination e.g. when walking to the examination room or whilst getting onto or off the couch. A general enquiry should be made during the assessment of history and examination to assess cognitive function including memory. The doctor should attempt to elicit upper and lower limb reflexes including plantar response. Cranial nerve abnormalities may be detected during other parts of the examination and targeted examination may be indicated if there are concerns. The doctor should ask the applicant to perform a Romberg's Test.

(225) Psychiatric

During assessment of the applicant's history, the doctor should make a general enquiry about mental health which may include mood, sleep and alcohol use. The doctor should observe the applicant during the process of the examination and assess the mental state of the applicant under the broad headings of appearance/ speech/ mood/ thinking/ perception/ cognition/ insight. The doctor should also be looking out for any signs of alcohol or drug misuse.

(226) Skin, Lymphatics, Identifying Marks

The doctor should document any identifying marks apparent during the examination and should comment on any obvious and significant skin abnormalities. It is good practice to specifically look for melanomas, especially on sun-exposed areas. Examination for lymphadenopathy may be included in the examination of other systems e.g. abdomen or head and neck.

(227) General Systemic

The doctor should document and comment upon any obvious and significant abnormalities that have not been covered elsewhere e.g. those related to exceptional over or under weight, general examination findings such as clubbing or palmar erythema. This is also an opportunity to offer appropriate health promotion advice as recommended by ICAO.

234) Spoken voice hearing test

The doctor should perform the spoken voice hearing test in a conversational voice at 2 m, testing each ear individually by asking the candidate to digitally occlude one ear at a time. If both ears do not pass this test, then the doctor should proceed to test both ears together. If hearing aids are worn the test should be performed without aids, and, if not passed satisfactorily, be repeated with hearing aids in position. The presence of hearing aids should

be documented. If audiometry is to be performed it should similarly be undertaken with and without hearing aids in position.

235) Urinalysis

The doctor, or an appropriately trained assistant, should test a mid stream specimen of urine with an appropriate reagent strip. A trace of blood or protein is considered acceptable but any other abnormality mandates further testing/investigation.

237) Haemoglobin

If required, then the haemoglobin level should be recorded. Abnormal results are repeated once, and if the second reading is normal, then this is acceptable. If the measurements are below 12.0g/dl in males or 11.0g/dl in females then a formal measurement of Full Blood Count is required and the completion of the medical should be delayed until the result is received. If the haemoglobin level recorded at the medical or from measuring Full Blood Count result shows the haemoglobin is below 11.5g/dl in males or 10.5 g/dl in females then the applicant should be assessed as temporarily unfit and a report from a further (specialist) assessment is required.

243) Cholesterol

This is required at initial class 1 and the first class 1 examination over 40 yrs of age. Otherwise on clinical indication. The results should form part of a cardiovascular risk assessment the results and implications of which should be discussed with the applicant.