

Initial investigations required for abnormal ECG observations Class 1, 2, 3 and LAPL applicants

1 = cardiologist review, 2 = 24hr Holter ECG, 3 = echocardiogram, 4 = exercise ECG



Diagnosis	Minimum investigations (notes 1 and 2)	Flow chart / specific guidance available	Fitness assessment (note 3)	
Rhythm – new or progressive finding of...				
Incomplete RBBB	See note 4	No	All classes: AME if no further investigation	
Atrial fibrillation Atrial flutter	1,2,3,4 (Complete RBBB / LBBB: see note 5)	Yes	Class 1 & 3: CAA medical assessor Class 2: AME	
Sinoatrial dysfunction or sinus pauses		No		
Mobitz type 2 AV block		No		
Complete RBBB		Yes		
Complete LBBB (Or RBBB+Left axis deviation)		No		
Broad complex tachycardia		Yes		
VE single		No		
SVE single		2 (as per note 6) then possibly 1,3,4		No
Bradycardia (rate < 40 bpm)		1,2		No
Tachycardia (rate > 110 bpm)				
Long PR interval - first degree AV block (>240ms)	1,2,4	No		
Mobitz type 1 AV block	1,2	No		
VEs multiple / complex	1,2,3,4	Yes		
SVEs multiple / complex		No		
WPW		Yes		
Narrow complex tachycardia		No		
Brugada pattern	1,2,3,4 Requires cardiac MRI for definite type 1	Yes		
Morphology – new or progressive finding of...				
Pathological Q waves Pathological T wave inversion ST segment depression	1,3 With ischaemia testing as appropriate	No	Class 1 & 3: CAA medical assessor	
LVH	1,4	No	Class 2: AME	
Miscellaneous – new or progressive finding of...				
Short PR interval (<100ms)	1,2,4	No	Class 1 & 3: CAA medical assessor Class 2: AME	
Poor R wave progression	1,3,4			
Non-specific ST-segment / T wave changes	1,4			
New or progressive left axis deviation (more than -45°)				
Asymptomatic long QT	1,2,4			

Minimum investigations (note 1)

Other investigations may be required if clinically indicated. **Please refer to flow chart / specific guidance if available, for example, LBBB, RBBB.**

Cardiology review should include an assessment of QRISK3.

The following limits are considered an elevated 10-year cardiovascular risk for the purposes of aeromedical assessment and requiring additional assessment as per the [cardiovascular risk assessment flow chart](#) in the cardiovascular system guidance:

- Class 1: $\geq 10\%$
- Class 2: $\geq 15\%$
- Class 3: $\geq 15\%$
- LAPL: $\geq 25\%$

LAPL applicants (note 2)

Where there are no specific requirements in LAPL acceptable means of compliance, clinical investigation may be guided by DVLA medical guidance (Group 2 for unrestricted LAPL certification, Group 1 for LAPL certification with OSL / ORL endorsement).

Fitness assessment (note 3)

Following the required investigations, Class 1 and 3 applicants should be referred to a Civil Aviation Authority (CAA) medical assessor.

Where there is guidance material and / or certificatory flow charts and assessment is straightforward, aeromedical examiners (AME) should make the fitness decision for Class 2 applicants.

For complex and / or borderline cases the AME should record their assessment and discuss the case with a CAA medical assessor. A review of reports / investigations coordinated by the AME may be required for evaluation by the CAA medical assessor.

Incomplete RBBB (note 4)

Incomplete RBBB requires over-read. Further investigation is only required if other ECG abnormalities are present.

Additional investigations (note 5)

Complete RBBB: may require further evaluation if investigations are abnormal (see [RBBB flow chart](#) in cardiovascular system guidance).

Complete LBBB: applicants ≥ 40 years additionally require investigation of coronary arteries (see [LBBB flow chart](#) in cardiovascular system guidance).

Single VE / SVE (note 6)

For single VE / SVE, AME to record a rhythm strip for 60 seconds. If a further VE / SVE is recorded, refer applicant for 24hr Holter ECG.