

How to become an AME Online

1. Check that you meet the minimum technical requirements in order to use the AME Online system:

Operating System:

- Windows Vista (Service Pack 2)
- Windows 7
- Windows 8, 8.1
- Windows 10

Please note Apple is **not supported** by the CAA.

Web browser:

- Microsoft Internet Explorer 10 & 11 (Recommended)
- Google Chrome 50 or above
- Mozilla Firefox 36 or above

You may still be able to use the AME Online service using other browsers and versions, however the Application may not display properly or allow you to use all of the functionality.

Citrix Software:

- Citrix Receiver 4.1 or above

The Citrix receiver is available to download here: <https://www.citrix.com/go/receiver.html>

Printer

- Printer capable of 4-Up in A4 Landscape
- HP (Recommended)

Please be advised certain models of printers, Samsung *specifically the CLX-3180 and M2070* models have been known to present an issue in which have been resolved by installing the vendor specific printer driver.

If you experience issues with printing from the system then please contact the AME Online team.

In addition, we have concluded that the following models are not compatible with the Citrix version currently used and therefore should be avoided;

- Ricoh MFD
- HP 6960

PDF Reader

- Adobe Reader 11.0

An ECG machine with interpretative software ([see enclosed](#))

2. Send an e-mail to the AME Online team at ameonline@caa.co.uk
 - Confirming that you meet the technical requirements
 - Confirming that you would like to go online
 - Telling us when you would like to go online if you have a preference.
 - Your name and the address you would like the welcome pack sent to
3. We will:
 - a. Generate a username for you
 - b. Configure a hard token for you
 - c. Send out a welcome pack containing the AME Online manual, certificate paper and a hard token

We will endeavour to do this within two weeks of your e-mail, or as close to the start date you requested as we can manage

4. After you receive the welcome pack, call us to receive your password on **0333 103 0021** (International AMEs please use the number **01293 983970**) Press 2 for AME Support. Then follow the instructions in the manual to get yourself online. If you have difficulties with this, you can call the AME Online team on **0333 103 0021** (International AMEs please use **01293 983970**), and press 3 to speak to the AME Online team.

CAA Approved Interpretative Software for ECG Machines

If you have computer diagnostic software installed on your machine, you can definitively pass an ECG as acceptable when supported by:

- o Acceptable computer diagnostic statements
- o Clinical assessment of the applicant
- o Adherence to ECG reporting protocols
- o Your own reading of the rhythm strip
- o Your comparison of the ECG with previous ECGs, if available.

The computer has a set of reporting algorithms, which when certain conditions are met, lead to certain diagnostic statements being printed on the top of the ECG. The wording of the statements is fixed but several statements may appear together.

Clinical assessment of the applicant and adherence to ECG reporting protocols.

There is a little more to this scheme than just relying on the statements below. For some of the acceptable computer statements, whether they appear alone or in an acceptable statement group, you can only accept them if the following conditions are met:

Marked sinus bradycardia; accept only if rate > 40 bpm

Minimal or moderate voltage criteria for LVH, may be normal variant; accept only if: physically fit; no hypertension; no murmur

Rightward axis; accept only if no murmur

Sinus tachycardia; accept only if rate < 110 bpm

The rhythm strip

The recording of a rhythm strip is optional; however, if you do decide to record a rhythm strip then you must check the rhythm strip carefully.

The reason for this check is that the computer may not report the rhythm strip and so diagnostic statements relate only to the 12 lead recording. Hence, it may be possible that you could have a computer reported normal 12 lead ECG with an abnormality on the attached rhythm strip.

Compare computer statements from previous ECGs

Use your judgment to compare statements from previous recordings.

When you report an ECG in this way the overall responsibility for the accuracy of the report lies with you personally, and so if your ECG reading skills are rusty you should update your skills with a suitable course.

Marquette 12 SL Software

The list of acceptable diagnostic statements is shown below:

- o Marked sinus bradycardia (*accept only if rate > 40 bpm*)
- o Marked sinus arrhythmia
- o Minimal voltage criteria for LVH, may be normal variant (*accept only if : physically fit, no hypertension, no murmur*)
- o Moderate voltage criteria for LVH, may be normal variant (*accept only if : physically fit, no hypertension, no murmur*)
- o Normal ECG
- o Normal sinus rhythm
- o Rightward axis (*accept only if no murmur*)
- o Sinus arrhythmia
- o Sinus bradycardia
- o Sinus tachycardia (*accept only if rate <110 bpm*)

Schiller (SECA, ESAOTE) Software

The list of acceptable diagnostic statements is shown below:

- o Sinus bradycardia (*accept only if rate > 40 bpm*)
- o Sinus arrhythmia
- o Moderate amplitude criteria for left ventricular hypertrophy borderline ECG (as a single statement), (*accept only if physically fit, no hypertension, no murmur*)
- o Amplitude criteria for left ventricular hypertrophy possibly abnormal ECG (as a single statement), (*accept only if physically fit, no hypertension, no murmur*)
- o Rightward axis (*accept only if no murmur*)
- o Otherwise normal ECG
- o Normal ECG
- o Sinus rhythm
- o Sinus tachycardia (*accept only if rate < 110bpm*)

We suggest that "LOW" sensitivity is not selected, see page 51 of your physician's guide.

Cardio View (Biolog) 3000

The list of acceptable diagnostic statements is shown below:

- o Normal Sinus Rhythm
- o Normal
- o Sinus Bradycardia (*accept only if rate > 40 bpm*)
- o Sinus Arrhythmia

Nihon Kohden

- o 1100 Sinus Rhythm
- o 1102 Sinus Arrhythmia
- o 1108 Marked Sinus Arrhythmia
- o 1120 Sinus tachycardia (*accept only if rate < 110 bpm*)
- o 1130 Sinus bradycardia (*accept only if rate > 40 bpm*)
- o 5211 Minimal Voltage criteria for LVH, may be normal variant (*accept only if: physically fit; no hypertension; no murmur*)
- o 5222 Moderate voltage criteria for LVH, may be normal variant (*accept only if: physically fit; no hypertension; no murmur*)
- o 7102 Moderate right axis deviation (*accept only if no murmur*)
- o 9110 ** normal ECG**

In this scheme an ECG with any number of the above statements can be acceptable, but no matter how many acceptable diagnostic statements the ECG has, if there are any statements that are not on the list above (there is an exception to this - see below), or if you have any other doubts about the ECG, then you should refer that ECG for physician reading.

Hence:

Sinus bradycardia

Moderate voltage criteria for LVH, may be normal variant ..is acceptable.

However,

Sinus bradycardia

Moderate voltage criteria for LVH, may be normal variant

Non specific T wave abnormality ..is not acceptable.

Now there is an exception to this, the program produces diagnostic statements with various codes and then the last statement that the program produces may be the so called "Overall Judgment" statement, it will begin with the code 91..

The list of acceptable statements above only includes one overall judgment code which is invariably acceptable - 9100 ** Normal ECG**

However, sometimes, but certainly not always, the overall judgment codes 9130 **Borderline ECG** and 9140 **Abnormal rhythm ECG**, can be associated with acceptable diagnostic statements. To get around this problem these (9130 and 9140) overall judgment codes are acceptable only when they appear in the groups below.

Acceptable statement groups:

1100 Sinus Rhythm

5211 Minimal Voltage criteria for LVH may be normal variant

9130 **Borderline ECG**

1100 Sinus Rhythm

5222 Moderate Voltage criteria for LVH may be normal variant

9130 **Borderline ECG**

1120 Sinus tachycardia

9140 **Abnormal rhythm ECG**

- 1130 Sinus bradycardia
- 9140 ****Abnormal rhythm ECG****

- 1100 Sinus Rhythm
- 1108 Marked sinus arrhythmia
- 9130 ****Borderline ECG***

E-Lite

The list of acceptable diagnostic statements is shown below:

- o Normal ECG
- o Sinus bradycardia (*accept only if rate >40 bpm*)

Hewlett Packard

The list of acceptable diagnostic statements is shown below:

- o Normal ECG
- o Otherwise normal ECG
- o Sinus rhythm
- o Sinus arrhythmia
- o Sinus bradycardia (*accept only if rate >40 bpm*)
- o Sinus tachycardia (*accept only if rate <110 bpm*)
- o LVH by voltage (*accept only if : physically fit, no hypertension, no murmur*)
- o Right axis deviation (*accept only if no murmur*)