ECG Documentation and Interpretation

Adapted from MedEd Third Year slides

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What is this question?

ECG recordings are very common in patients who present acutely. It is important that you know both what a certain pattern ECG may represent, but also how to document this correctly in way that other healthcare professionals would be able to understand. This guide will give you a very brief overview of the things that you should include on an ECG interpretation.

It is worthwhile reviewing ECG patterns before you read this guide – as this guide isn't going to go into different types of ECG patterns that you see with different conditions. That is something that you will learn from other teaching and by using ECG resources, it's beyond the scope of this guide. This guide is simply telling you the most concise way of answering an ECG documentation question in a written exam, in a way that won't make you panic if you don't recognise the pathology straight away.

Step 1: Record patient details

It is important that you fill out all the patient details that you are given – and double check this once you have finished writing them, and again at the end of the question.

There are a few other things that are important to note on this type of question:

- Indication for ECG (eg. chest pain, shortness of breath, palpitations)
- Any previous ECG available (most of the time the answer will be no, but you still have to document it)
- Type of ECG (Standard 12 Lead)

Step Two: ECG Documentation

There are many ways to document an ECG, however this guide hopes to set out a comprehensive way of getting everything you need down on the page. Below is the list of all the things you should include:

- Rhythm – define regularity, are there P waves, are they associated with each QRS?
- Rate – QRS Rate = QRS on rhythm strip x 6, P wave Rate = P wave on rhythm strip x 6
- Axis – QRS complexes should point up in I and aVF

Next is the different parts of an ECG wave (you should specify what lead any abnormalities are in):

- P waves
- PR Interval – Normal is <5 squares (200ms)
- QRS Complex
- QT Interval

- ST Interval – Elevation or depression
- T Waves

Step 3: Interpretation and Plan

At the end of the question, you may see that you are asked to give your interpretation (this essentially means you need to say what you think is going on) and a brief management plan.

It's very easy to get hung up on this, because you may feel that it is something you either know or you don't. However, it is always important for you to write something down.

Furthermore, management does not necessarily mean treatment. It may not be essential for you to write the treatment for the condition, but instead give your "next steps" ie do you think imaging may be needed? How about a cardiologist referral? Or perhaps a certain blood test?

This is not an "answer" for this question, but just meant as a hint that if you don't know the definitive treatment there is perhaps more than one thing you can write and still feel confident.

Step 4: Sign Off

Remember to finish the question by putting the following at the bottom of the page:

- Your name
- Your grade
- Your GMC or Bleep number
- Your signature

At this point it's important for you to go back and check your work.

Additional Information for this question

ECG documentation and interpretation is a question type that does require prior knowledge and understanding of different pathologies and how they show on ECG, therefore it is important that you feel comfortable identifying the key patterns of the core conditions on an ECG before you have a go doing practise written skills questions.