

Tips for GP trainees working in cardiology

At some point during your GP training you may find yourself slotted into a cardiology firm. It may seem daunting when you first arrive on the coronary care unit (CCU), but remember many have gone through this before and most have survived to tell the tale.

Keeping things simple is the key to making the most of this attachment. If you approach your cardiology tenure with a positive, inquisitive attitude, you are likely to find it a great learning experience.

Below are a few tips, that will hopefully help you through your placement.

THE BASICS

1. Patient safety is your ultimate priority at all times. If you have any doubts or are unsure seek senior help ASAP.
2. Revise your advanced life support (ALS) manual. If you haven't done ALS, seriously consider it. The course will greatly improve your confidence when dealing with unstable patients.
3. Find the resuscitation trolleys. It is highly likely that you will need one at some point. Get to grips with the style of defibrillator on the ward.
4. Locate the cardiac nurse specialists. They will know how the hospital works and often help you in 'sticky' situations.
5. Learn how to use the CCU telemetry system. Being able to review the recorded data without disturbing the nurses will make your ward rounds easier and keep everyone happy.
6. Pin a copy of the latest DVLA *Cardiovascular Disorder Guidelines*¹ to the wall of the doctor's office. Patients ask about driving and it is good to have a quick reference guide.
7. Know where exercise tolerance tests are undertaken and remember the quickest routes there. At some point you will be fast bleeped to review a patient.
8. Stay calm. CCU can be a stressful place when things aren't going to plan. One cool head can go a long way in these situations.

9. Remember that a patient's main concern might not be how many leads their pacemaker has or which coronary artery has been stented. Uncertainty about the potential impact to their employability, exercise tolerance, driving status, diet, or sex life can often cause greater confusion and anxiety. These issues can sometimes be overlooked on busy ward rounds, so make yourself available to discuss patient's ideas, concerns, and expectation, as these are the problems you are more likely to encounter in general practice.

INVESTIGATIONS

10. Don't be afraid of electrocardiograms (ECGs). Remember the basics: RATE, RHYTHM, and AXIS.
11. Remember the mnemonic 'WiLLiaM MaRRoW' when assessing prolonged QRS complexes: W pattern in V1-V2 and M pattern in V3-V6 is Left bundle block; M pattern in V1-V2 and W in V3-V6 is Right bundle block.
12. Remind yourself of what an ST-elevation myocardial infarction (MI) looks like. At some point an orthopaedic junior will wander up to you holding an ECG covered in ST elevation. Make sure you can recognise it!
13. Always look at the Q-T interval on an ECG, especially in patients who have presented with collapse. A prolonged Q-T interval increases the risk of ventricular tachyarrhythmia such as torsade de pointes.
14. Sit in on a few echocardiography sessions and try to learn the basics. This will improve your understanding of the reports you receive.
15. NICE published guidelines regarding the investigation of patients with chest pain in 2010.² A quick review will bring you up to date with the current recommendations. Try to find out which services are available at your hospital.

R Adam, medical registrar, Bunbury Regional Hospital, Bunbury, Australia.

Address for correspondence

Robert Adam, Bunbury Regional Hospital, General Medicine, Bussell Highway, Bunbury, WA 6230, Australia.

E-mail: robertadam@doctors.org.uk

Submitted: 13 December 2011; **final acceptance:** 30 January 2012.

©British Journal of General Practice 2012; 62: 331-332.

DOI: 10.3399/bjgp12X649322

REFERENCES

1. Driver and Vehicle Licensing Agency. *At a glance guide to the current medical standards of fitness to drive*. Swansea: DVLA. <http://www.dft.gov.uk/dvla/medical/ataglance.aspx> [accessed 9 May 2012].
2. National Institute for Health and Clinical Excellence. *Quick reference guide. Chest pain of recent onset*. London: NICE, 2010. <http://www.nice.org.uk/nicemedia/live/12947/47918/47918.pdf> [accessed 9 May 2012].
3. National Institute for Health and Clinical Excellence. *Quick reference guide. MI: secondary prevention*. London: NICE, 2007. <http://www.nice.org.uk/nicemedia/live/11008/30497/30497.pdf> [accessed 9 May 2012].
4. National Institute for Health and Clinical Excellence. *Quick reference guide. Atrial fibrillation*. London: NICE, 2006. <http://www.nice.org.uk/nicemedia/live/10982/30054/30054.pdf> [accessed 9 May 2012].
5. Pisters R, Lane DA, Nieuwlaat R, et al. A novel user-friendly score (HAS-BLED) to assess 1-year risk of major bleeding in patients with atrial fibrillation: the Euro Heart Survey. *Chest* 2010; **138**(5): 1093–1100.
6. National Institute for Health and Clinical Excellence. *Quick reference guide. Chronic heart failure*. London: NICE, 2010. <http://www.nice.org.uk/nicemedia/live/13099/50526/50526.pdf> [accessed 9 May 2012].

Provenance

Freely submitted; not externally peer reviewed.

Discuss this article

Contribute and read comments about this article on the Discussion Forum: <http://www.rcgp.org.uk/bjgp-discuss>

CLINICAL SKILLS

16. Polish your stethoscope skills. Cardiology wards are awash with different heart sounds. Many of your patients will have an echocardiogram, so test your ability to detect and identify murmurs.
17. Perfect the art of assessing fluid status. Being able to do this accurately will help you in the community.

CHEST PAIN

18. Not every chest pain is an acute coronary syndrome (ACS). Approach every patient with an open mind.
19. Ask patient's about cardiac risk factors.
20. Ensure an erect chest X-ray has been done before any ACS medication is given. Patients with thoracic aneurisms and perforated peptic ulcers don't tend to do well when loading doses of aspirin, clopidogrel, and enoxaparin.
21. Troponin tests can be very useful, but only when interpreted correctly in the clinical context of the patient. A negative troponin doesn't rule out ischaemic heart disease.
22. The TIMI scoring system (<http://www.timi.org/>) can be used to assess the risk of death and ischaemic events in patients with unstable angina or non-ST-elevation MIs. A basic understanding of this will be useful when considering further investigations or treatment plans.
23. Locate the cardiac catheterisation lab. If there isn't one in your hospital find out where the nearest one is and whom you need to talk when patients need to be transferred.
24. Post-MI clinics will mostly be allocated to the junior doctors as a 'good learning experience'. The NICE MI secondary prevention guidelines tell you everything you need to know.³

ARRHYTHMIAS

25. If a patient with an arrhythmia has any of the following symptoms, immediate treatment is needed:
 - hypotension (systolic <90 mmHg);
 - syncope;
 - heart failure;
 - myocardial ischaemia; or
 - extremes of heart rate (<40 bpm or >150 bpm).
26. Beware of broad complex tachycardia. Contact a registrar or consultant ASAP if you encounter one. Get the defibrillator pads on the patient and follow ALS guidelines if you have to wait for the cavalry to arrive.
27. If you are unsure how to externally pace

using a defibrillator ask one of the registrars to show you. This can be a lifesaver.

28. Check the potassium, magnesium, calcium, and thyroid function of patients with arrhythmias, fast or slow.
29. Atrial fibrillation (AF) and atrial flutter are the most common arrhythmias you will encounter both in the hospital and in general practice. Familiarise yourself with the NICE atrial fibrillation 'quick read' guidelines.⁴ Try to get comfortable with the main drugs used to rate control.
30. Don't give beta-blockers and rate limiting calcium channel blockers (diltiazem or verapamil) together. This will only cause trouble.
31. If the onset of AF/atrial flutter is within 48 hours direct current (DC) cardioversion may be an option. Make the patient nil by mouth and ask a senior to review the case.
32. Go to the elective DC cardioversion lists. This will increase your confidence when using the defibrillators.
33. The CHA2DS2-VASc score is a useful tool when assessing the stroke risk patients with AF. Knowing this system will help you make decisions regarding anticoagulation therapy.
34. Any patient being considered for anticoagulation should have their risk of major bleeding assessed prior to starting therapy. The HAS-BLEED score can be used to help assess this risk.⁵

HEART FAILURE

35. CPAP is a useful tool when dealing with acute heart failure. Find out where you can access this and review the local guidelines.
36. Don't use beta-blockers in the setting of acute heart failure. They are useful further down the line, just not at the front door.⁶
37. Treating heart failure can be a fine balancing act. Introduce new medications at low doses and titrate slowly.
38. When large doses of diuretic are being used, check renal function and electrolytes on a regular basis.
39. Ensure patients have daily weights. This is a crude, but very useful way of assessing fluid status. Ensure the patient's final weight is included in the discharge summary.
40. Find out if there are community heart failure nurses attached to your hospital. If there are, get them involved early as this will often lead to a safer discharge.