Cardiology

Cardiologists are doctors who diagnose, assess and treat patients with diseases and defects of the heart and blood vessels (the cardiovascular [1] system).

This page provides useful information on the nature of the work, the common procedures/interventions, sub-specialties and other roles that may interest you.

Nature of the work

Cardiologists work with adult patients - paediatric cardiology is a separate specialty.

Cardiologists manage patients with conditions such as:

- angina (chest pain caused by narrowing of the coronary arteries)
- arrhythmias, eg atrial fibrillation (irregular heartbeat)
- heart murmurs [2] due to heart valve disease
- cardiomyopathy (disease of the heart muscle) with heart failure including pulmonary
- oedema [3] (accumulation of fluid)
- coronary artery thrombosis [4] or myocardial infarction (heart attack) often associated with high blood

pressure (hypertension [5]) and high cholesterol
- diseases of the arteries (atherosclerosis, arteritis, atheroma)
- hole in the heart and other forms of congenital heart disease within adult lifeincluding transition from paediatric care and shared care of pregnant women with heart disease

Much of the emphasis is on improving survival rates and quality of life followingheart attacks, heart failure or heart rhythm disorders; but cardiologists are also concerned with understanding disease processes and disease prevention.

The specialty is at the cutting edge of new therapies and technologies with emergency treatment often required. It also includes palliative care at the end of life due to heart disease.

Common procedures and interventions

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Sub-specialties

The CCT [6] sub-specialty is:

- stroke [7] medicine

However, very few cardiologists choose stroke [7] medicine as a sub-specialty. ?A few cardiologists continue in unselected medical take but most concentrate on emergency cardiology on call. This is In keeping with the move away from the single-handed general cardiologist model to a more team-based sub-specialised approach.

Most cardiologists develop sub-specialty interests such as:

- interventional cardiology
- adult congenital heart disease
- cardiac imaging
- electrophysiology including ablation
- electrical device therapy
- heart failure including cardiac transplantation and support devices

A significant proportion of cardiologists specialise in, or continue a commitment to academic cardiology thereby continuing to advance cardiovascular scientific knowledge and therapeutic options.

There are also increasing new areas of sub-specialisation such as inherited cardiac conditions, cardio-oncology and interventional valve therapy.

Want to learn more?

Find out more about:

- the working life [8] of a doctor in this area of medicine
- the entry requirements [9] and training and development [10]

- Pay and conditions

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  This?section provides useful information about the pay for junior doctors (doctors in training), SAS doctors (specialty doctors and associate specialists) and consultants.

  Find out more about the?current pay scales for doctors [11], and there's more information on the? BMA website [12].

  NHS employers [13]? provides useful advice and guidance on all NHS pay, contracts terms and conditions.

  Medical staff working in private sector hospitals, the armed services or abroad will be paid on different scales.

- Where the role can lead

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  Read about consultant and non-consultant roles in cardiology, flexible working and about wider opportunities.

  Consultant roles

  You can apply for consultant roles six months prior to achieving your Certificate of Completion of Training [14] (CCT [6]). You will receive your CCT [6] at the end of your cardiology training.

  Managerial opportunities for consultants include:

  - clinical lead - lead NHS consultant for the team
  - clinical director - lead NHS consultant for the department
  - medical director - lead NHS consultant for the Trust

  Most NHS consultants will be involved with clinical and educational supervision of junior doctors.

  Here are some examples of education and training opportunities:

  - director of medical education - the NHS consultant appointed to the hospital board who is responsible for the postgraduate medical training in a hospital. They work with the postgraduate dean to make sure training meets GMC standards.

- training programme director - the NHS consultant overseeing the education of the local cohort of trainee doctors eg foundation training [15] programme director. This role will be working within the HEE local offices/deanery
- associate dean - the NHS consultant responsible for management of the entirety of a training programme. This role will be also be working within the HEE local offices/deanery

SAS doctor roles

SAS doctors (Staff, Associate Specialists and Specialty Doctors) work as career grade specialty doctors who are not in training or in consultant posts. You will need at least four postgraduate years training (two of those being in a relevant specialty) before you can apply for SAS roles.

Find out more about SAS doctor [16] roles.

Other non-training grade roles

These roles include:

- trust grade
- clinical fellows

Academic pathways

If you have trained on an academic cardiology pathway or are interested in research there are opportunities in academic medicine.

For those with a particular interest in research, you may wish to consider an academic career in cardiology. Whilst not essential, some doctors start their career with an Academic Foundation post. This enables them to develop skills in research and teaching alongside the basic competences in the foundation curriculum.

Entry into an academic career would usually start with an Academic Clinical Fellowship (ACF) and may progress to a Clinical Lectureship (CL). Alternatively some trainees that begin with an ACF post then continue as an ST trainee on the clinical programme post-ST4.

?Applications for entry into Academic Clinical Fellow posts are coordinated by the?National Institute for Health Research Trainees Coordinating Centre (NIHRTCC). [17]

There are also numerous opportunities for trainees to undertake research outside of the ACF/CL route, as part of planned time out of their training programme. Find out more about academic medicine. [18]

The Clinical Research Network [19](CRN) actively encourages all doctors to take part in clinical research.

Other opportunities

There are opportunities to be employed by the NHS, academic institutions, private sector, universities, the armed forces, organisations and national governing bodies.

- Job market and vacancies

Expand / collapse

This?section provides useful information about the availability of jobs, finding vacancies and where to find out more.

Job market information

Cardiology is one of the largest specialties with 1,189 consultants and 866 medical registars?in England (NHS Digital, 2016 [20]).?Women make up about 13% of the consultant workforce and nearly 22% of the medical registrar workforce in the UK (2014/15 RCP census, 2016 [21]).

The British Cardiovascular Society and other organisations are striving to improve the number of women in this specialty. This includes measures to increase flexible working and providing mentors when appropriate.

The competition ratio for (CT1) Core Medical Training was 1.53, and for ST3 Cardiology was 2.33 (NHS specialty training 2016).? [22]

On this section we have information for England only.?For information regarding Scotland, Wales and Northern Ireland please click on the links below.

NHS Scotland medical and dental workforce data [23]

NHS Wales medical and dental workforce data [24]

Department of Health, Social Services and Public Safety workforce information for Northern Ireland [25]

Not all hospital specialty trainees wish to become consultants but there is an expectation among those that want to do so that enough posts will be available. This cannot be taken for granted. Getting a substantive consultant appointment has not been easy in recent years. Alternative options include seeking a cardiology fellowship, a locum consultant post or working overseas.

Cardiovascular disease is increasingly linked to the ageing population and continuing health issues such as poor diet and smoking. However, job prospects in cardiology, especially for medical registrars, have been affected by oversupply in the last few years.

Where to look for vacancies

All candidates apply through the online application system Oriel [26]. You will be able to register for training, view all vacancies, apply, book interviews and assessment centres, and manage offers made to you.

All jobs will be advertised on NHS Jobs. [27]

The BMJ careers [28] website also advertises vacancies.

- Further information

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Organisations

Royal College of Physicians [29]

Royal College of Physicians of Edinburgh [30]

Royal College of Physicians and Surgeons of Glasgow [31]

British Cardiovascular Society [32]

Joint Royal Colleges of Physicians Training Board [33]

Cardiology fellowships [34]

British Cardiovascular Intervention Society [35]

Other roles that may interest you

- Neurophysiology [36]
- Renal medicine [37]
- Respiratory medicine [38]
- General internal medicine [39]

Links
[1] https://www.healthcareers.nhs.uk/glossary#Cardiovascular
[2] https://www.healthcareers.nhs.uk/glossary#Heart_murmurs
[3] https://www.healthcareers.nhs.uk/glossary#Oedema
[4] https://www.healthcareers.nhs.uk/glossary#Thrombosis
[5] https://www.healthcareers.nhs.uk/glossary#Hypertension
[6] https://www.healthcareers.nhs.uk/glossary#CCT
[7] https://www.healthcareers.nhs.uk/glossary#Stroke
[8] https://www.healthcareers.nhs.uk/explore-roles/medicine/cardiology/working-life
[9] https://www.healthcareers.nhs.uk/explore-roles/medicine/cardiology/entry-requirements-skills-and-interests
[10] https://www.healthcareers.nhs.uk/explore-roles/medicine/cardiology/training-and-development
[11] https://www.healthcareers.nhs.uk/about-us/careers-medicine/pay-doctors
[12] http://bma.org.uk/practical-support-at-work/pay-fees-allowances/pay-scales
[13] http://www.nhsemployers.org/your-workforce/pay-and-reward
[14] https://www.healthcareers.nhs.uk/glossary#Certificate_of_completion_of_training
[15] https://www.healthcareers.nhs.uk/glossary#Foundation_training
[16] https://www.healthcareers.nhs.uk/i-am/currently-working-health/information-doctors/sas-doctors
[17] https://www.nihr.ac.uk/
[18] https://www.healthcareers.nhs.uk/i-am/currently-working-health/clinical-academic-careers/clinical-academic-medicine
[19] http://www.crn.nihr.ac.uk/
[20] http://content.digital.nhs.uk/searchcatalogue?productid=23451&topics=2%2fWorkforce%2fStaff+numbers%2f
[21] https://www.rcplondon.ac.uk/projects/outputs/2014-15-census-uk-consultants-and-higher-specialty-trainees
[22] https://specialtytraining.hee.nhs.uk/Competition-Ratios
[23] http://www.isdscotland.org/Health-Topics/Workforce/Medical-and-Dental/
[24] https://statswales.wales.gov.uk/Catalogue/Health-and-Social-Care/NHS-Staff/Medical-and-Dental-Staff

[25] https://www.health-ni.gov.uk/articles/staff-numbers
[26] https://www.oriel.nhs.uk/
[27] https://www.jobs.nhs.uk/
[28] http://careers.bmj.com
[29] https://www.rcplondon.ac.uk/search?text=Cardiology&sort_by=search_api_relevance&=Search
[30] http://www.rcpe.ac.uk/
[31] http://www.rcpsg.ac.uk
[32] http://www.bcs.com/pages/default.asp
[33] http://www.jrcptb.org.uk/specialties/cardiology
[34] http://www.cardiologyfellowships.co.uk/
[35] http://www.bcis.org.uk/
[36] https://www.healthcareers.nhs.uk/explore-roles/healthcare-science/roles-healthcare-science/physiological-sciences/neurophysiology
[37] https://www.healthcareers.nhs.uk/explore-roles/doctors/roles-doctors/medicine/renal-medicine
[38] https://www.healthcareers.nhs.uk/explore-roles/doctors/roles-doctors/medicine/respiratory-medicine
[39] https://www.healthcareers.nhs.uk/explore-roles/doctors/roles-doctors/medicine/general-internal-medicine