

Respiratory medicine

Doctors in respiratory [1] medicine diagnose and treat conditions affecting the respiratory [1] (breathing) system, ie the nose, throat (pharynx), larynx, the windpipe (trachea), the lungs and the diaphragm.



Nature of the work

Traditionally respiratory [1] medicine has been a hospital-based specialty. A third of all acute medical admissions to hospital are the result of respiratory [1] problems, making this a busy and varied role. However in the future respiratory [1] physicians will provide services to patients in a community setting.

Respiratory [1] physicians often choose to participate in 'medical takes', where they see patients admitted to hospital with different medical problems. In this context you will be practising general medicine, rather than acute respiratory medicine.

As part of acute medicine they may also supervise and initiate non-invasive ventilation for patients with acute hypercapnic failure (a serious condition where there are abnormally high levels of carbon dioxide in the blood.)? These patients may be suffering from a wide range of medical disorders, including acute exacerbations of chronic obstructive pulmonary disease (COPD). Respiratory physicians provide the necessary support and care for such acutely unwell patients. COPD is a condition that includes emphysema

and chronic bronchitis.

Respiratory physicians may work closely with colleagues in the hospital's intensive care unit (ICU), providing advice; since so many acute conditions involve respiratory problems.

Assessing patients in outpatients' clinics is an important part of the work. There are two types of clinic: general respiratory clinics and specialist clinics. Patients with asthma and conditions such as chronic obstructive pulmonary disease (COPD) are treated in the general clinics. COPD includes chronic bronchitis and chronic obstructive airways disease.

In the general outpatients' clinics respiratory physicians also see patients referred by GPs with concerning symptoms such as haemoptysis (coughing up blood) and unexplained breathlessness, or who have abnormal chest x-rays.

Respiratory physicians also run lung function laboratories in hospitals, enabling the interpretation of complex lung function testing. Lung function tests are an important part of respiratory medicine, as they can indicate how well a patient's lungs are functioning and they also assist in diagnosis.

Some respiratory units specialise in particular areas, such as lung transplant, sleep-related medical problems or cystic fibrosis.

Specialist respiratory clinics deal with a range of problems including:

- cancer
- tuberculosis, or TB (a bacterial lung disease)
- cystic fibrosis (an inherited condition that causes a sticky secretion that can affect the airways often causing infection)
- interstitial lung disease (scarring of the lung tissue between and supporting the air sacs)
- chronic cough
- sleep disorders relating to breathing, eg obstructive sleep apnoea
- pulmonary vascular disorders (affecting the blood circulation of the lungs)

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Medicine involves a curiosity of science, practical skills and the opportunity to not only engage with, but to transform people's lives? Tim Robbins Foundation year 2 (F2) doctor
Read Tim's story [2]

Common procedures/interventions

These include:

- pleural (lung) ultrasound
- bronchoscopy ?- examination of the bronchi, the main airways of the lungs, using a thin tube with a light and magnifying lens, known as an endoscope to view the lungs and possibly take a biopsy
- thoracoscopy ? examination of the thoracic cavity using an endoscope

The techniques used include:

- inserting stents? - a thin mesh tube is inserted to keep the airways open
- endobronchial ultrasound ? uses ultrasound and a bronchoscope to examine [3] the airway walls and associated structures? for disease

- thermoplasty ? thermal energy is applied to the airway wall to reduce the narrowing that occurs in asthma
- insertion of indwelling catheters ? a soft, flexible tube is placed in the chest under local anaesthesia, to drain fluid from the lungs

Sub-specialties

There are no formally recognised sub specialties, but respiratory medicine has a number of important ?special interest? areas such as:

- adult cystic fibrosis
- pulmonary hypertension
- lung transplantation
- domiciliary non-invasive ventilation
- occupational and environmental lung disease

Want to learn more?

Find out about:

- the?working life? [4]of someone in respiratory medicine
- about?entry requirements [5]?and also about?training and development [6]?needed
- a?first-hand account of life in respiratory medicine [2]
- 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 [7], and there's more information on the? BMA website [8].

NHS Employers [9]? 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 respiratory [1] medicine, 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 [10] (CCT [11]). You will receive your CCT [11] at the end of your respiratory [1] medicine

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 [12] programme director. This role will be working within the LETB/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 LETB/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 about being an SAS doctor [13].

Other non-training grade roles

These roles include:

- trust grade
- clinical fellows

Academic pathways

If you have trained on an academic respiratory [1] medicine 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 respiratory [1] medicine. While 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). [14]

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. [15]

The Clinical Research Network [16](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

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

Job market information

Respiratory medicine is one of the largest specialties. Respiratory diseases affect one in five people in the UK and approximately 30 per cent of all acute admissions are for a primary respiratory problem. Career opportunities are excellent.

The specialty is developing rapidly with new treatments such as interventional bronchoscopy and medical thoracoscopy as well as improvements in the management of conditions such as asthma, COPD and lung cancer. Research is also increasing and in the future more respiratory physicians will be based in the community.

Respiratory medicine had 935 consultants and 628 medical registrars in England (NHS Digital, 2016 [17]).

Women make up 28% of the consultant workforce, 49% of higher specialty trainees in the UK (2014/15 RCP, 2016 [18]).

In 2016 the competition ratio for Core Medical Training (CT1), the first stage in the training (post-foundation), was 1.53, and for ST3 respiratory medicine it was 2.08 (NHS Specialty Training, 2016 [19]).

For information regarding Scotland, Wales and Northern Ireland please click on the links below.

[NHS Scotland medical and dental workforce data](#)

[NHS Wales medical and dental workforce data](#)

[Department of Health, Social Services and Public Safety workforce information for Northern Ireland](#) [20]

Job prospects in respiratory medicine, especially for medical registrars, have been affected by oversupply in the last few years.

Trainees with a wide skill-mix, or in dual-training programmes with respiratory medicine, will have better job prospects than those studying single specialties.

Obtaining an MD or PhD, usually after entering specialist training, is a means of demonstrating

commitment to the specialty and a way of enhancing prospects of appointment in what is a competitive specialty.

The specialty is well suited to flexible training and working patterns.

Where to look for vacancies

All trainees apply through the online application system [Oriol \[21\]](#). You will be able to register for training, view all vacancies, apply, book interviews and assessment centres, and manage offers made to you.

Local education and training boards (LETB)/deanery will have details of training vacancies. Not all local education and training boards (LETBs) will offer new training posts in all specialties in all years.

All jobs will be advertised on the NHS Jobs website [22].

Northern Ireland has its own recruitment process. For further details please visit the Northern Ireland Medical and Dental Training Agency [23] website.

The BMJ Careers website [24] also advertises vacancies.

- Further information

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Organisations

Royal College of Physicians [25]

Royal College of Physicians of Edinburgh [26]

Royal College of Physicians and Surgeons of Glasgow [27]

British Thoracic Society [28]

Real-life stories

Specialty spotlight - respiratory medicine [29]

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A career in respiratory medicine (BMJ) [30]

Dr Chris Davies, consultant in respiratory medicine (RCP) [31]

Dr Ahsan Akram ? ST5, respiratory medicine (RCPE) [32]

Dr Gourab Choudhury ? ST6, respiratory medicine (RCPE) [33]

Other roles that may interest you

- Gastroenterology [34]
- Intensive care medicine [35]

- General internal medicine [36]
- Palliative medicine [37]

Source URL: <https://www.healthcareers.nhs.uk/explore-roles/doctors/roles-doctors/medicine/respiratory-medicine>

Links

- [1] <https://www.healthcareers.nhs.uk/glossary#Respiratory>
- [2] <https://www.healthcareers.nhs.uk/explore-roles/medicine/respiratory-medicine/real-life-story-tim-robbins>
- [3] <https://www.healthcareers.nhs.uk/glossary#Ultrasound>
- [4] <https://www.healthcareers.nhs.uk/explore-roles/medicine/respiratory-medicine/working-life>
- [5] <https://www.healthcareers.nhs.uk/explore-roles/medicine/respiratory-medicine/entry-requirements-skills-and-interests>
- [6] <https://www.healthcareers.nhs.uk/explore-roles/medicine/respiratory-medicine/training-and-development>
- [7] <https://www.healthcareers.nhs.uk/about-us/careers-medicine/pay-doctors>
- [8] <http://bma.org.uk/practical-support-at-work/pay-fees-allowances/pay-scales>
- [9] <http://www.nhsemployers.org/>
- [10] https://www.healthcareers.nhs.uk/glossary#Certificate_of_completion_of_training
- [11] <https://www.healthcareers.nhs.uk/glossary#CCT>
- [12] https://www.healthcareers.nhs.uk/glossary#Foundation_training
- [13] <https://www.healthcareers.nhs.uk/i-am/currently-working-health/information-doctors/sas-doctors>
- [14] <https://www.nihr.ac.uk/about-us/how-we-are-managed/managing-centres/about-the-trainees-coordinating-centre.htm>
- [15] <https://www.healthcareers.nhs.uk/i-am/currently-working-health/clinical-academic-careers/clinical-academic-medicine>
- [16] <http://www.crn.nihr.ac.uk/>
- [17] <http://content.digital.nhs.uk/searchcatalogue?productid=23451&topics=2%2fWorkforce%2fStaff+numbers%2f>
- [18] <https://www.rcplondon.ac.uk/projects/outputs/2014-15-census-uk-consultants-and-higher-specialty-trainees>
- [19] <https://specialtytraining.hee.nhs.uk/Competition-Ratios>
- [20] <https://www.health-ni.gov.uk/articles/staff-numbers>
- [21] <https://www.oriel.nhs.uk/>
- [22] <https://www.jobs.nhs.uk/>
- [23] <http://www.nimda.gov.uk/>
- [24] <http://careers.bmj.com>
- [25] <http://www.rcplondon.ac.uk/>
- [26] <http://www.rcpe.ac.uk/>
- [27] <http://www.rcpsg.ac.uk>
- [28] <https://www.brit-thoracic.org.uk/>
- [29] <https://www.rcplondon.ac.uk/education-practice/advice/specialty-spotlight-respiratory-medicine>
- [30] <http://careers.bmj.com/careers/advice/view-article.html?id=20000895>
- [31] <https://www.rcplondon.ac.uk/education-practice/interview/specialty-career-profile-respiratory-medicine>
- [32] <http://www.rcpe.ac.uk/careers-resource/respiratory-medicine>
- [33] <http://www.rcpe.ac.uk/careers-resource/respiratory-medicine-2>
- [34] <https://www.healthcareers.nhs.uk/explore-roles/doctors/roles-doctors/medicine/gastroenterology>
- [35] <https://www.healthcareers.nhs.uk/explore-roles/doctors/roles-doctors/intensive-care-medicine>
- [36] <https://www.healthcareers.nhs.uk/explore-roles/doctors/roles-doctors/medicine/general-internal-medicine>
- [37] <https://www.healthcareers.nhs.uk/explore-roles/doctors/roles-doctors/medicine/palliative-medicine>