

# Metabolic Medicine

Metabolic [1] Medicine is a sub-specialty allied to chemical pathology (clinical biochemistry). Doctors working in metabolic [1] medicine combine an understanding of biochemistry and metabolism. They deal with adult patients where the chemical processes in the body do not function properly and may cause various health problems.

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



## Nature of the work

The work of doctors in metabolic [1] medicine is very varied, but the overall aim is to improve the quality of patients' lives and treat their metabolic [1] health conditions. This is a relatively new specialty and helps patients both with common and rare diseases. The opportunities for pursuing research interests are excellent.

The range of work in includes treatment of:

- disorders of nutrition - includes patients with obesity and those needing parenteral nutrition [2] (direct administration of nutrition into the bloodstream)

- disorders of lipid metabolism (which may involve cardiovascular [3] risk assessment)
- disorders of calcium metabolism and bone – examples include osteoporosis vitamin D deficiency and kidney stones
- diabetes mellitus
- inborn errors of metabolism (IEM) in adults, such as phenylketonuria

Metabolic [1] medicine is a sub-specialty, not a full specialty in its own right. It is possible to study it together with general internal medicine (GIM), but almost all trainees link it with chemical pathology [4]. It has its own GMC curriculum, and in this way it's different from other medical sub-specialties (except stroke [5] medicine). The clinical work in metabolic [1] medicine fits well alongside the laboratory work of chemical pathology. The biochemical investigation of patients with metabolic [1] problems is intellectually stimulating and satisfying, and it is planned to incorporate the metabolic [1] medicine curriculum into that for chemical pathology in the future.

The job varies according to the parent specialty that you decide on, although whichever specialty you chose, you'll have very close links with the hospital's biochemistry laboratory. Where chemical pathology is your chosen parent specialty, you will see patients in specific areas of metabolic [1] medicine, predominantly in the outpatient setting. You'll also probably lead the hospital's biochemistry laboratory, and spend a major part of your working week ensuring a high-quality laboratory testing service and liaising with primary and secondary care [6] colleagues about the interpretation of results.

You'll typically hold between one-three out-patient clinics each week in a range of areas such as diabetes, cardiovascular [3] risk or renal stone disease, and be a member of the hospital's nutrition Team. You'll work closely with colleagues in other specialties; for example with surgeons for management of parathyroid disease, renal stones or obesity. You may also pursue particular academic interests within metabolic [1] medicine.

If you choose to combine metabolic [1] medicine with GIM, you will generally work with patients who have metabolic [1] inherited diseases. This is also open to those training in chemical pathology, although if you wish to specialise in this area, you may need additional post-CCT [7] experience.

## Common procedures/interventions

There are many different procedures and interventions in metabolic [1] medicine and these include:

- drug treatments such as insulin and lipid-regulating drugs
- enzyme replacement therapies for inherited metabolic [1] diseases
- bariatric surgery [8] for obesity, such as gastric bypass surgery – where metabolic [1] medicine physicians will work closely with bariatric surgeons
- provision of nutritional support via percutaneous gastrostomies (PEG, an endoscopic procedure) or parenteral nutrition [2] (TPN)
- cardiovascular [3] risk testing, eg for patients with high cholesterol
- use of new biologic treatments for cholesterol disorders
- dynamic tests (“stress tests”) for a wide range of conditions

## Want to learn more?

Find out more about:

- the working life [9] of a doctor in metabolic [1] medicine
- the entry requirements [10] and training and development [11]

- two first-hand accounts of life:
  - as a trainee [12]
  - as a consultant [13] in metabolic [1] medicine

- Pay and conditions Expand / collapse

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

Find out more about the current pay scales for doctors [14], and there's more information on the BMA website [15].

NHS employers [16] 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 Expand / collapse

Read about consultant and non-consultant roles in metabolic [1] medicine, flexible working and about wider opportunities.

There are excellent opportunities to participate in research and metabolic [1] medicine is a rapidly changing field. Because you will normally have had extensive experience of managing the biochemistry laboratory, there are good opportunities to move into more general medical management.

In the future there is likely to be an increased need for the work of metabolic [1] medicine physicians, given the much improved outlook for patients with metabolic [1] conditions.

### **Consultant roles**

You can apply for consultant roles six months prior to achieving your Certificate of Completion of Training [17] (CCT [7]). You will receive your CCT [7] at the end of your clinical higher specialist 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 [18] programme director. This role will be working within the HEE local office/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 office/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 the SAS doctor role [19].

### **Other non-training grade roles**

These roles include:

- trust grade
- clinical fellows

### **Academic pathways**

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

If you are interested in an academic career, consider applying for an academic clinical fellowship (ACF), particularly one that provides exposure to CPT. This would enable you to develop skills in research and teaching alongside the basic competences in the foundation curriculum .However, it is not essential to take the academic foundation route if you are interested in pursuing an academic career.

Some trainees use their academic time to prepare an application for funding for a research fellowship leading to a PhD and subsequently apply for an academic clinical lecturer appointment.

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). [20]

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. [21]

The Clinical Research Network [22](CRN) actively encourages all doctors to take part in clinical research.

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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

NHS Digital regularly publish workforce statistics which show the number of full time equivalent consultants and doctors in training for each specialty: NHS Digital workforce statistics [23].

Competition ratios for medical specialty training places are published on Health Education England's specialty training webpage [24].

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

NHS Scotland medical and dental workforce data [25]

NHS Wales medical and dental workforce data [26]

Department of Health, Social Services and Public Safety workforce information for Northern Ireland [27]

## Where to look for vacancies

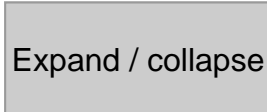
All candidates apply through the online application system Oriel.

Recruitment for metabolic [1] medicine is coordinated by Health Education East Midlands. [28]

In 2016 there will be 15-20 training posts available in metabolic [1] medicine. Almost all of these will be for chemical pathology (metabolic [1] medicine). In the past three years there have been more vacancies than applicants, with an applicant ratio of .5 in 2015

There is currently a shortage of suitably qualified applicants for metabolic [1] medicine.

All jobs are advertised on the NHS Jobs website [29].

-  Further information

## Organisations

British Inherited Metabolic Diseases Group [30]

Royal College of Pathologists [31]

Royal College of Physicians [32]

Royal College of Physicians of Edinburgh [33]

Royal College of Physicians and Surgeons of Glasgow [34]

Joint Royal College of Physicians Training Board (JRCPTB [35])

The Pathological Society of Great Britain and Ireland [36]

## Other roles that may interest you

- Chemical pathology [37]
- General internal medicine [38]
- Immunology [39]
- Medical microbiology and virology (doctor) [40]

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

### Links

- [1] <https://www.healthcareers.nhs.uk/glossary#Metabolic>
- [2] [https://www.healthcareers.nhs.uk/glossary#Parenteral\\_nutrition](https://www.healthcareers.nhs.uk/glossary#Parenteral_nutrition)
- [3] <https://www.healthcareers.nhs.uk/glossary#Cardiovascular>
- [4] <https://www.healthcareers.nhs.uk/explore-roles/pathology/chemical-pathology>
- [5] <https://www.healthcareers.nhs.uk/glossary#Stroke>
- [6] [https://www.healthcareers.nhs.uk/glossary#Secondary\\_care](https://www.healthcareers.nhs.uk/glossary#Secondary_care)
- [7] <https://www.healthcareers.nhs.uk/glossary#CCT>
- [8] [https://www.healthcareers.nhs.uk/glossary#Bariatric\\_surgery](https://www.healthcareers.nhs.uk/glossary#Bariatric_surgery)
- [9] <https://www.healthcareers.nhs.uk/explore-roles/doctors/roles-doctors/medicine/metabolic-medicine/working-life>
- [10] <https://www.healthcareers.nhs.uk/explore-roles/doctors/roles-doctors/medicine/metabolic-medicine/entry-requirements-skills-and-interests>
- [11] <https://www.healthcareers.nhs.uk/explore-roles/doctors/roles-doctors/medicine/metabolic-medicine/training-and-development>
- [12] <https://www.healthcareers.nhs.uk/explore-roles/medicine/metabolic-medicine/real-life-story-dr-jaimini-cegla>
- [13] <https://www.healthcareers.nhs.uk/explore-roles/medicine/metabolic-medicine/real-life-story-dr-dev-datta>
- [14] <https://www.healthcareers.lampuat64-3.rroom.net/about-us/careers-medicine/pay-doctors>
- [15] <http://bma.org.uk/practical-support-at-work/pay-fees-allowances/pay-scales>
- [16] <http://www.nhsemployers.org/your-workforce/pay-and-reward>
- [17] [https://www.healthcareers.nhs.uk/glossary#Certificate\\_of\\_completion\\_of\\_training](https://www.healthcareers.nhs.uk/glossary#Certificate_of_completion_of_training)
- [18] [https://www.healthcareers.nhs.uk/glossary#Foundation\\_training](https://www.healthcareers.nhs.uk/glossary#Foundation_training)
- [19] <https://www.healthcareers.lampuat64-3.rroom.net/i-am/currently-working-health/information-doctors/sas-doctors>
- [20] <https://www.nihr.ac.uk/about-us/how-we-are-managed/managing-centres/about-the-trainees-coordinating-centre.htm>
- [21] [http://www.medicalcareers.nhs.uk/career\\_options/academic\\_medicine.aspx](http://www.medicalcareers.nhs.uk/career_options/academic_medicine.aspx)
- [22] <http://www.crn.nihr.ac.uk/>
- [23] <https://digital.nhs.uk/data-and-information/publications/statistical/nhs-workforce-statistics>
- [24] <https://specialtytraining.hee.nhs.uk/Competition-Ratios>
- [25] <http://www.isdscotland.org/Health-Topics/Workforce/Medical-and-Dental/>
- [26] <https://statswales.wales.gov.uk/Catalogue/Health-and-Social-Care/NHS-Staff/Medical-and-Dental-Staff>
- [27] <http://www.dhsspsni.gov.uk/index/statistics/workforce.htm>
- [28] <https://www.eastmidlandsdeanery.nhs.uk/page.php?id=1384>
- [29] <http://www.jobs.nhs.uk/>
- [30] <http://www.bimdg.org.uk>
- [31] <https://www.rcpath.org/>
- [32] <http://www.rcplondon.ac.uk/taxonomy/term/33/all>
- [33] <http://www.rcpe.ac.uk/>
- [34] <http://www.rcpsg.ac.uk/>
- [35] <http://www.jrcptb.org.uk/trainingandcert/st3-spr/pages/cpt.aspx>
- [36] <https://www.pathsoc.org/>

- [37] <https://www.healthcareers.nhs.uk/explore-roles/doctors/roles-doctors/pathology/chemical-pathology>
- [38] <https://www.healthcareers.nhs.uk/explore-roles/doctors/roles-doctors/medicine/general-internal-medicine>
- [39] <https://www.healthcareers.nhs.uk/explore-roles/doctors/roles-doctors/medicine/immunology>
- [40] <https://www.healthcareers.nhs.uk/explore-roles/doctors/roles-doctors/pathology/microbiology-and-virology-doctor>