

# Renal medicine

Nephrologists (doctors in renal medicine) diagnose and treat diseases of the kidneys.



## Nature of the work

General nephrology includes the management of patients with diseases which affect the kidney.

Diseases that affect the kidney include:

- auto-immune disorders (where the body attacks its own tissues) such as systemic lupus erythematosus (causing inflammation of the connective tissue) or vasculitis (inflammation of the blood vessels)
- diabetes
- hypertension (high blood pressure)

Nephrologists also see patients with acute kidney injury (AKI) when only the kidney is affected (for example, following certain drug reactions) and also AKI as part of multi-system failure resulting, for example, from septicæmia (blood poisoning).

They also manage patients with end-stage kidney failure either by dialysis or by kidney transplantation.

Nephrologists manage acutely ill patients and those with a chronic disease requiring long term care with the help of colleagues in a multidisciplinary team. A patient, for example, may progress to renal failure and require dialysis and subsequently a renal transplant over a period of 10 to 20 years.

They generally work in renal units based in district general hospitals or university teaching hospitals. The renal services in these two types of hospital are broadly similar, with the exception that renal transplantation mostly takes place in university teaching hospitals. Many renal units also manage satellite haemodialysis units, either in other hospitals or in community-based facilities.

More renal medicine specialists will be needed in future to cope with the predicted increase in chronic kidney disease in the UK.

Nephrologists treat conditions such as:

- congenital and genetic disorders, eg autosomal dominant inherited polycystic kidney disease (an inherited condition in which fluid-filled cysts develop and grow in both kidneys) and familial nephropathy (inherited kidney disease)
- autoimmune disorders, eg acute glomerulonephritis (inflammation of the glomeruli, the filtering units of the kidneys)
- malfunctions caused by impaired blood supply, eg acute tubular necrosis (a condition causing the death of kidney tissue cells)
- resistant hypertension
- kidney infections
- metabolic disorders, eg cystinuria (an inherited disorder leading to the formation of stones in the kidneys, ureters and bladder)
- tumours of the kidney
- renal failure due to external factors, eg crushing accidents

## Common procedures/interventions

These include:

- renal biopsy
- the insertion of temporary vascular (vein) access for haemodialysis (the removal of waste material from the blood of a patient with renal failure, using an artificial kidney)
- the insertion of tunnelled catheters (thin flexible tube) for haemodialysis vascular access
- the insertion of peritoneal dialysis catheters (thin flexible tube that allows dialysis fluid to enter the abdominal cavity and then drain back again)

## Sub-specialties

Many nephrologists develop sub-specialty interests such as:

- haemodialysis
- peritoneal dialysis
- transplantation
- academic nephrology
- vasculitis
- acute kidney injury (AKI)
- hypertension

# Want to learn more?

Find out about:

- the working life [1] of someone in renal medicine
- the entry requirements [2] and about training and development [3] needed
- 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 [4], and there's more information on the BMA website [5].

NHS Employers [6] 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 renal 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 [7] (CCT [8]). You will receive your CCT [8] at the end of your renal 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 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 being an SAS doctor [9].

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

These roles include:

- trust grade
- clinical fellows

### **Academic pathways**

If you have trained on an academic renal 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 renal medicine. 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). [10]

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. [11]

Trainees can develop their interest in research. Fellowships in renal research are available through Kidney Research UK, the main charitable organisation dedicated to funding kidney research. Many renal trainees are also successful in obtaining research fellowships from the Medical Research Council, Wellcome Trust and other funding agencies. Renal units based in university teaching hospitals typically have active research units and employ academic nephrologists at senior lecturer, reader and professorial level.

The Clinical Research Network [12](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.

A few nephrologists enter industry and work for companies involved in dialysis or in transplant immunosuppression.

- Job market and vacancies

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

### **Job market information**

Renal medicine had 523 consultants and 407 medical registrars in England (NHS Digital, 2016 [13]).

Women make up 28% of the consultant workforce, and 51% of higher specialty trainees in the UK (2014/15 RCP census, 2016 [14]).

Job prospects in renal medicine have been affected by oversupply in the last few years.

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

There are many opportunities for research, either laboratory based (eg underlying mechanisms of renal disease, immunology of transplantation); clinical based (eg examining effects of treatment on various renal conditions), or epidemiological (eg looking at incidence of various renal diseases in different populations which impact on the planning and delivery of renal services).

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

In 2016 the competition ratio [15] for Core Medical Training [16] (CT1), the first stage in the training (post-foundation), was 1.53 and for ST3 renal medicine it was 1.37 (NHS Specialty Training, 2016 [17]).

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 \[18\]](#)

### **Where to look for vacancies**

All trainees apply through the online application system Oriol [19]. 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 HEE local offices/deaneries will have details of training vacancies. Not all local education and training boards/HEE local offices will offer new training posts in all specialties in all years.

All jobs will be advertised on the NHS Jobs website [20].

The BMJ Careers website [21] also advertises vacancies.

Northern Ireland has its own recruitment process. For further details please visit the Northern Ireland Medical and Dental Training Agency [22] website.

- Further information

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## Organisations

Royal College of Physicians [23]

Royal College of Physicians of Edinburgh [24]

Royal College of Physicians and Surgeons of Glasgow [25]

Renal Association [26]

## Real-life stories

Rosie Donne, consultant in renal medicine (RCP) [27]

Dr Iain Drummond ? ST6, renal medicine [28]

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## Other roles that may interest you

- General internal medicine [29]
- Intensive care medicine [30]
- Rheumatology [31]
- Cardiology [32]

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

### Links

[1] <https://www.healthcareers.nhs.uk/explore-roles/medicine/renal-medicine/working-life>

[2] <https://www.healthcareers.nhs.uk/explore-roles/medicine/renal-medicine/entry-requirements-skills-and-interests>

[3] <https://www.healthcareers.nhs.uk/explore-roles/medicine/renal-medicine/training-and-development>

[4] <https://www.healthcareers.nhs.uk/about-us/careers-medicine/pay-doctors>

[5] <http://bma.org.uk/practical-support-at-work/pay-fees-allowances/pay-scales>

[6] <http://www.nhsemployers.org/>

[7] [https://www.healthcareers.nhs.uk/glossary#Certificate\\_of\\_completion\\_of\\_training](https://www.healthcareers.nhs.uk/glossary#Certificate_of_completion_of_training)

[8] <https://www.healthcareers.nhs.uk/glossary#CCT>

[9] <https://www.healthcareers.nhs.uk/i-am/currently-working-health/information-doctors/sas-doctors>

[10] <https://www.nihr.ac.uk/about-us/how-we-are-managed/managing-centres/about-the-trainees-coordinating-centre.htm>

[11] <https://www.healthcareers.nhs.uk/i-am/currently-working-health/clinical-academic-careers/clinical-academic-medicine>

[12] <http://www.crn.nihr.ac.uk/>

[13]

<http://content.digital.nhs.uk/searchcatalogue?productid=23451&topics=2%2fWorkforce%2fStaff+numbers%2f>

[14] <https://www.rcplondon.ac.uk/projects/outputs/2014-15-census-uk-consultants-and-higher-specialty-trainees>

- [15] [https://www.healthcareers.nhs.uk/glossary#Competition\\_ratio](https://www.healthcareers.nhs.uk/glossary#Competition_ratio)
- [16] [https://www.healthcareers.nhs.uk/glossary#Core\\_medical\\_training](https://www.healthcareers.nhs.uk/glossary#Core_medical_training)
- [17] <https://specialtytraining.hee.nhs.uk/Competition-Ratios>
- [18] <https://www.health-ni.gov.uk/articles/staff-numbers>
- [19] <https://www.oriel.nhs.uk/>
- [20] <https://www.jobs.nhs.uk/>
- [21] <http://www.careers.bmj.com>
- [22] <http://www.nimda.gov.uk/>
- [23] <http://www.rcplondon.ac.uk/>
- [24] <http://www.rcpe.ac.uk/>
- [25] <http://www.rcpsg.ac.uk>
- [26] <http://www.renal.org/>
- [27] <https://www.rcplondon.ac.uk/education-practice/interview/specialty-career-profile-renal-medicine>
- [28] <http://www.rcpe.ac.uk/careers-resource/renal-medicine>
- [29] <https://www.healthcareers.nhs.uk/explore-roles/doctors/roles-doctors/medicine/general-internal-medicine>
- [30] <https://www.healthcareers.nhs.uk/explore-roles/doctors/roles-doctors/intensive-care-medicine>
- [31] <https://www.healthcareers.nhs.uk/explore-roles/doctors/roles-doctors/medicine/rheumatology>
- [32] <https://www.healthcareers.nhs.uk/explore-roles/doctors/roles-doctors/medicine/cardiology>