

Intensive care medicine

Doctors working in [intensive care](#) [1] medicine (ICM) manage critically ill patients with, at risk of, or recovering from, potentially life-threatening failure of any of the body's organ systems.

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

Doctors in this specialty (also called critical care medicine) are involved in all aspects of care of the critically ill. This includes providing organ system support and the investigation, diagnosis, and treatment of acute illness. It also includes systems management and patient safety, ethics, end-of-life care and the support of families.

As an intensivist or trainee in ICM you will help to treat various conditions, including:

- heart and [cardiovascular](#) [2] failure

- renal (kidney) failure
- liver failure
- patients with reduced levels of consciousness or neurological impairment (including weakness)
- gastrointestinal failure
- [respiratory](#) [3] failure
- [sepsis](#) [4] – a serious immune system reaction triggered by infection
- patients with severe trauma
- acute intoxications and poisoning
- patients recovering from major surgery
- maternal complications around the time of birth of a child

Common procedures/interventions

These include:

- assessment, monitoring and review of patients with or at risk of developing critical illness
- provision of organ system support, including:
 - use of inotropes (drugs that stimulate the heart) and vasopressors (drugs that raise reduced blood pressure)
 - mechanical ventilation – using a machine known as a ventilator to assist breathing
 - invasive monitoring, including arterial cannulation where a tube known as a cannula is inserted into a blood vessel, usually for the delivery or removal of fluids
 - endotracheal intubation – a flexible tube is inserted through the nose or mouth into the trachea for artificial ventilation or for the administration of gases during anaesthesia
 - percutaneous dilatational tracheostomy – a minimally invasive procedure where the trachea (wind-pipe) is opened from the front of the neck to enable air to be passed into the lower air passages
 - measurement of cardiac (heart) output
- renal (kidney) support using [haemodialysis](#) [5] or haemofiltration (techniques used to ‘purify’ the blood of patients with kidney failure)
- transfer of critically ill patients for specialist investigations and interventions such as [CT scans](#) [6]

Sub-specialties

Trainees who are training in ICM as a single specialty will have the opportunity to develop a ‘special skill’ or interest during their training. The ICM curriculum currently includes the following ‘special skills’ years*:

- academic research
- cardiac [intensive care](#) [1] medicine
- echocardiography
- extra-corporeal membrane oxygenation (ECMO)
- education
- home ventilation
- neuro [intensive care](#) [1] medicine
- paediatric [intensive care](#) [1] medicine

- pre-hospital emergency medicine (PHEM)
- quality improvement in healthcare
- transfer medicine

* It is that expected that additional options will be available in the future as the specialty develops.

Many intensivists are 'dual trained' in ICM along with one of ICM's partner specialties. Common partner specialties include anaesthesia, acute internal medicine, emergency medicine, renal medicine and [respiratory](#) [3] medicine. Those consultants who are 'dual trainees' often work in both specialties: the proportion of time spent in each of the specialties is very variable and is based both on an individual consultant's preference, and/or service requirements.

Want to learn more?

Find out more about:

- the working life [7] of someone in [intensive care](#) [1] medicine
- the entry requirements [8] and training and development [9]

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Pay and conditions

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 [10], and there's more information on the BMA website [11].

NHS employers [12] 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.

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Where the role can lead

Read about consultant and non-consultant roles in [intensive care](#) [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](#)

[13] (CCT [14]). You will receive your CCT [14] at the end of your intensive care 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](#) [15] 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

Opportunities within [intensive care](#) [1] medicine are diverse and rapidly evolving. Active research and audit opportunities exist in most critical care departments at both national and international level. Most units will have extensive teaching programmes for all grades of staff from every discipline. Multidisciplinary teaching is very much encouraged.

Opportunities exist to apply for consultant posts. A recent survey showed that most consultants combine ICM with anaesthesia. Single ICM consultant posts tend to be based in larger Trusts at present. Small numbers of consultants combine ICM with other specialties such as [respiratory](#) [3] medicine and emergency medicine.

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.

Further information on the SAS doctor role is on this site [16].

Other non-training grade roles

These roles include:

- trust grade
- clinical fellows

Academic pathways

If you have trained on an academic intensive care 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 [intensive care](#) ^[1] 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). ^[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.

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- **Job market and vacancies**

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 ^[20].

Competition ratios for medical specialty training places are published on Health Education England's specialty training webpage ^[21].

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 ^[22]

NHS Wales medical and dental workforce data ^[23]

Department of Health, Social Services and Public Safety workforce information for Northern Ireland ^[24]

Where to look for vacancies

Applications for training are made online through Oriel ^[25].

The West Midlands Deanery is co-ordinating recruitment into Intensive Care Medicine ^[26].

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**Further
information**

Organisations

Royal College of Physicians ^[27]

Royal College of Physicians of Edinburgh ^[28]

Royal College of Physicians and Surgeons of Glasgow ^[29]

The Faculty of Intensive Care Medicine ^[30]

Intensive Care Society ^[31]

European Society of Intensive Care Medicine ^[32]

Real-life stories

A career in intensive care medicine (BMJ) ^[33]

Video-case studies

A consultant in critical and intensive care medicine (HEWM) ^[34]

Dr Dale Gardiner, consultant in intensive care medicine (HEEM) ^[35]

Other roles that may interest you

- Emergency medicine ^[36]
- Anaesthesia ^[37]
- General surgery ^[38]
- Acute internal medicine ^[39]

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

Links

- [1] https://www.healthcareers.nhs.uk/glossary#Intensive_care
- [2] <https://www.healthcareers.nhs.uk/glossary#Cardiovascular>
- [3] <https://www.healthcareers.nhs.uk/glossary#Respiratory>
- [4] <https://www.healthcareers.nhs.uk/glossary#Sepsis>
- [5] <https://www.healthcareers.nhs.uk/glossary#Haemodialysis>
- [6] https://www.healthcareers.nhs.uk/glossary#CT_scans
- [7] <https://www.healthcareers.nhs.uk/explore-roles/intensive-care-medicine/working-life>
- [8] <https://www.healthcareers.nhs.uk/explore-roles/intensive-care-medicine/entry-requirements-skills-and-interests>
- [9] <https://www.healthcareers.nhs.uk/explore-roles/intensive-care-medicine/training-and-development>
- [10] <https://www.healthcareers.nhs.uk/about-us/careers-medicine/pay-doctors>
- [11] <http://bma.org.uk/practical-support-at-work/pay-fees-allowances/pay-scales>
- [12] <http://www.nhsemployers.org/>
- [13] https://www.healthcareers.nhs.uk/glossary#Certificate_of_completion_of_training
- [14] <https://www.healthcareers.nhs.uk/glossary#CCT>
- [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] <https://digital.nhs.uk/data-and-information/publications/statistical/nhs-workforce-statistics>
- [21] <https://specialtytraining.hee.nhs.uk/Competition-Ratios>
- [22] <http://www.isdscotland.org/Health-Topics/Workforce/Medical-and-Dental/>
- [23] <https://statswales.wales.gov.uk/Catalogue/Health-and-Social-Care/NHS-Staff/Medical-and-Dental-Staff>
- [24] <https://www.health-ni.gov.uk/articles/staff-numbers>
- [25] <https://www.oriel.nhs.uk/Web/>
- [26] <http://www.ficm.ac.uk/national-recruitment-intensive-care-medicine>
- [27] <http://www.rcplondon.ac.uk/>
- [28] <http://www.rcpe.ac.uk/>
- [29] <http://www.rcpsg.ac.uk>
- [30] <http://www.ficm.ac.uk/>
- [31] <http://www.ics.ac.uk/>
- [32] <http://www.esicm.org/>
- [33] <http://careers.bmj.com/careers/advice/view-article.html?id=1408>
- [34] <http://www.westmidlandsdeanery.nhs.uk/SpecialtySchools/PostgraduateSchoolofACE/CriticalCare.aspx>
- [35] https://www.eastmidlandsdeanery.nhs.uk/video_popup.php?videoUrl=media/webcasts_nov09/icu&autoPlay=true
- [36] <https://www.healthcareers.nhs.uk/explore-roles/doctors/roles-doctors/emergency-medicine>
- [37] <https://www.healthcareers.nhs.uk/explore-roles/doctors/roles-doctors/anaesthesia>

[38] <https://www.healthcareers.nhs.uk/explore-roles/doctors/roles-doctors/surgery/general-surgery>

[39] <https://www.healthcareers.nhs.uk/explore-roles/doctors/roles-doctors/medicine/acute-internal-medicine>