This is a subspecialty training post in Interventional Radiology at ST4 or 5 aimed at doctors who can demonstrate essential competences to enter the appropriate level of training. The programme is designed to support training for a CCT in Clinical Radiology with Interventional Radiology subspecialisation. Details of essential competences and qualifications are detailed in the MMC person specification for Interventional Radiology, which is available from [www.wessexdeanery.nhs.uk](http://www.wessexdeanery.nhs.uk).

It is anticipated that this training programme will support a CCT, CESR or CESR/CP in Interventional Radiology subjection to satisfactory outcome of Annual Review of Competence Progression (ARCP).

The programme is based in hospitals in Health Education England - Wessex as follows:

<table>
<thead>
<tr>
<th>HOSPITAL</th>
<th>LOCATION</th>
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<tbody>
<tr>
<td>Queen Alexandra Hospital</td>
<td>Portsmouth</td>
</tr>
<tr>
<td>The Royal Bournemouth Hospital</td>
<td>Bournemouth</td>
</tr>
<tr>
<td>Southampton General Hospital</td>
<td>Southampton</td>
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Health Education England - Wessex is a relatively small deanery with a defined geographical area. Please note that applications are to Health Education England - Wessex as a whole. This may mean that you may be allocated to any geographic location within Health Education England - Wessex depending on training needs.

Health Education England - Wessex covers a geographical area from Basingstoke in North Hampshire to Dorchester in West Dorset and the Isle of Wight to the South. This is a spread of approximately 65 miles North to South and 76 miles East to West. Health Education England - Wessex serves a population of around 2.8 million people.

Health Education England - Wessex is part of NHS South of England, comprising South Central, South East Coast and South West Strategic Health Authorities. It currently covers the health communities of South Wiltshire, Dorset, and Hampshire and the Isle of Wight. Health Education England - Wessex is responsible for the training of some 2,500 trainees.

The area is within attractive countryside, including the New Forest and South Downs National Parks and is internationally renowned for its sailing facilities. There are excellent transport links and the
area is well connected by air (Southampton and Bournemouth airports, good links to Heathrow and Gatwick), rail and road, with easy access to London. The region is renowned for its excellent schools.

Rotation Information

This post will commence in year 4 or 5 of the six year training programme and lead to accreditation for the IR CCT by the Royal College of Radiologists / GMC. A new Academic Radiology Centre has recently been developed in Southampton. Library and computer-based teaching aids, together with conference and seminar rooms with videoconferencing facilities, are available at all training sites. We have recently acquired a Mentice Vist-C IR simulator with specialist EVAR, Trauma and UAE packages and a gamut of other endovascular techniques. Trainees would be expected to both learn and teach using the simulator. There are well-equipped postgraduate medical education centres at all 3 hospitals. There are educational activities almost every day for all groups of graduates at all stages of their careers. There are also departmental teaching sessions, and intensive pre-examination practice sessions are held prior to each Final Fellowship Examination sitting.

Post

The rotation begins in August or soon thereafter. There will be a one week induction course to the department, and an induction half day to Health Education England - Wessex. The local induction allows trainees to visit the various departments, and to meet many of the staff.

Training in years 4 and 5 will provide general interventional training covering all aspects of intervention to level 1. Training in Year 6 will be tailored to the trainee’s preference of vascular or non-vascular intervention with options to gain level 1 and level 2 competences across the curriculum.

Attachments will be for six months across the 3 hospitals. Training is offered to level 2 competency in the RCR 2015 Interventional Radiology curriculum structure (For further information please see www.rcr.ac.uk). The attachments are flexible and can be tailored to an individual trainee’s requirements, following discussion with the Training Committees in Portsmouth and Southampton and the College Tutors and relevant trainers on all 3 sites. Appropriate time is allocated for personal study and flexible training attachments.

On-Call Arrangements

In years 4 and 5 the trainee will contribute to the general radiology on call rota at Southampton. In year 6 the trainee will do Interventional Radiology on call on a 1 in 6 non resident on call rota, covered by a Consultant Interventional Radiologist. There are facilities for reviewing images from the Hospital PACS systems from home.
Study and Training

The primary aim of all posts is training and there is a region wide syllabus and minimum standards of education agreed by all Trusts within the rotation.

The Deanery is committed to developing postgraduate training programmes as laid down by GMC, Colleges and Faculties and by COPMED - the Postgraduate Deans Network. At local level college and specialty tutors work with the Programme Director and Directors of Medical Education in supervising these programmes. Trainees will be expected to take part in these programmes (including audit) and to attend meetings with their nominated educational supervisor.

All posts within the training programme are recognised for postgraduate training by the GMC in accordance with their standards for training.

Study leave is granted in accordance with Deanery/Trust policy and are subject to the maintenance of the service.

All posts have a service element and the following covers the majority of duties. There will be minor variations in different hospitals but this list is aimed at covering the majority of duties:

1. Undertake imaging procedures, supervise and report imaging studies as appropriate to your level of competence and to the specialist area to which you are attached.
2. Study for higher examination and maintain continued professional development.
3. Attend weekly educational and multidisciplinary sessions.
4. Undertake audit at various times throughout the rotations.
5. Teach medical students as directed.
6. Co-operate with members of the personnel department when monitoring hours of work and other personnel issues.
7. Attend induction in each hospital or new department
8. Comply with all local policies including dress code, annual and study leave

Trust Information

Portsmouth:

Portsmouth Hospitals NHS trust serves a local catchment population of approximately 650,000. It also houses the Wessex regional Renal unit. Several specialties operate within multidisciplinary teams combined with Southampton, Chichester and the Isle of Wight. Most military services previously located at Royal Hospital Haslar have now relocated to Birmingham, but some military service is retained locally in Portsmouth, as an MDHU within the local trust.
The Radiology department undertook 340065 examinations in 2014/5. The Department’s annual expenditure budget is approximately £12m. Within an overall staffing establishment of 286, there are 30 consultants, 203 radiographic, 14 nursing, 37 admin and clerical and 2 IT staff.

16 Diagnostic Radiology consultants contribute to general radiology reporting, ultrasound cover, acute CT and diagnostic on call.

7 IR consultants provide between them interventional and associated diagnostic services for Vascular Surgery, Urology, Renal Medicine and Surgery, Upper and lower GI surgery. A 1:6 out of hours IR service commenced in 2015, currently staffed by 5 of the IR team.

Clinical practice currently includes EVAR, UAE, peripheral vascular, renovascular and dialysis fistula intervention, lines and ports for dialysis, oncology, nutrition and infection control, biliary and urological drainage and stenting, GI access, colonic stenting, elective and emergent tumour and vascular embolisation. There are plans to develop chemoembolisation, TIPSS, RFA and venous intervention in the next 12 months.

**Queen Alexandra Hospital**

All Radiology services are located on one site, apart from a number of radiography rooms in small peripheral units, the images from which are reported centrally.

IR is provided from an autonomous 9-bedded Radiology Day Case Unit within the acute/in-patient department. This is equipped with 2 interventional suites, one equipped to theatre standard for combined surgical/radiological procedures, 1 digital fluoroscopy room and 1 interventional ultrasound/lithotripsy room.

Radiology staff are responsible for pre-assessment and care of patients from admission to discharge.

The Acute/in-patient department also has 1 128 slice CT, 1 1.5T MRI scanner, 2 ultrasound rooms, 2 digital radiography rooms. The emergency department has 1 digital and 1 CR X-Ray room, and the paediatric ED has a dedicated digital imaging suite. The imaging department also supports 6 digital image intensifiers in theatres, CCU and Gastro.

The Elective/out-patient department comprises 6 digital Xray rooms, 1 digital fluoroscopy room, 4 Ultrasound rooms.

The Paediatric department has 2 digital X-Ray rooms and one ultrasound room.

The Dental imaging department houses 1 digital OPG and Ceph machine, 2 digital intra oral machines and a Cone Beam CT scanner.

There are 2 CT scanners (320 slice and 40 slice) and 2 MR scanners (1.5T and 3T).

Nuclear Medicine comprises 4 rooms, 2 with SPECT gamma cameras, one with SPECT/CT and the other with PET/CT.
Southampton:

University Hospital Southampton NHS Foundation Trust

University Hospital Southampton NHS Foundation Trust (UHS) provides services to some 1.9 million people living in Southampton and south Hampshire, plus specialist services such cardiac, neuroscience, paediatric oncology, paediatric surgery and specialist adult surgical services and children’s intensive care to more than 3.7 million people in central southern England and the Channel Islands. UHS gained Foundation Trust status in October 2011.

The Trust’s Main Site is Southampton General hospital, but includes Princess Anne Hospital, providing maternity services, Royal Southampton Hospital, providing outpatient and some imaging facilities and Countess Mountbatten House, a palliative unit.

The Hospital treats annually around 140,000 inpatients and day patients, including about 50,000 emergency admissions, over 500,000 people at outpatient appointments and around 110,000 cases in the Emergency Department.

Research

The Trust is a major centre for teaching and research in association with the University of Southampton, offering opportunities for undergraduate and postgraduate teaching, and partners including the Medical Research Council and Wellcome Trust with excellent facilities for research and clinical care. We have recently become 1 of 11 UK centres to be involved in the NHS 100,000 Genome project.

CLINICAL RADIOLOGY

The Directorate of Clinical Radiology currently undertakes some 300,000 examinations per year. The Directorate’s annual expenditure budget is approximately £19m with a whole time equivalent staffing establishment of 309. Within this establishment there are 140 radiographic, 25 nursing and 43 admin and clerical staff.

Clinical Radiology Departments

Southampton General Hospital

Radiology as a whole is currently undergoing extensive refurbishment and equipment replacement under a managed equipment service provided by Siemens. Presently it comprises 12 X-ray and 5 Ultrasound rooms and includes digital fluoroscopy (3 digital fluoroscopy rooms including paeds), 3 angiographic suites (1 biplane neuro angio suite) in addition to access to time in a multipurpose cardiac lab, CT (5 MDCT scanners including 1 dual energy CT), 6 MRI scanners (including 1 3T scanner) and general purpose X-ray rooms. There is also a nuclear medicine department.
IR:

8 IR consultants provide comprehensive 24/7 IR cover. Interventional Radiology is split between 2 dedicated IR theatres:

Room 7 in the main department contains a ceiling mounted Siemens Axiom Artis dTA with a purpose built tablesde ultrasound unit in addition to a stand alone Toshiba Aplio 300 US machine. There is a two-bedded recovery area adjacent to the room and multiple bays within the main department to allow seamless admission and recovery of multiple patients from both IR and the general department. This room is due to be replaced in 2015/2016.

The second IR theatre (cath lab 5) installed in 2013 with a Siemens Artis Zee ceiling mounted angiography system, runs alongside the cardiac cath labs on E-level, round the corner from main theatres. It utilises the same generous admission and recovery area as the cardiac labs. This also has ultrasound capability by way of a Siemens Acuson X300PE US machine.

Both rooms have rotational CT capability and are equipped for GA with piped gases.

We have occasional access to cardiac cath lab 4 – spec similar to cath lab 5 and to 2 diagnostic fluroscopy rooms for more simple procedures as well as US and CT.

Plans for a hybrid theatre are in place.

IR has access to beds within the purpose built Surgical Day unit. Patients are preassessed through surgical preadmissions in addition to specialist IR clinics and preassessment.

IR has its own outpatient clinic office where all IR clinics are currently based. Regular clinics are run for fibroid/ menorrhagia and there is a joint hepatology/ IR clinic. Follow up clinics are also run for several other procedures. There is a plan to expand to introduce a formal clinic for vascular malformations.

UHS is a BSIR Exemplar site.

On the vascular side EVAR, complex EVAR, FEVAR, Nellix and TEVAR are provided alongside vascular surgical colleagues. There is a good volume of peripheral arterial work as well as venous intervention and an AVM service.

We do a large volume of ‘non-vascular’ intervention (hepatobiliary, including TIPSS, urological including supine and ultramini PCNL), embolotherapy (including: uterine artery embolisation, prostatic artery embolization for BPH, renal and bronchial artery embolization, emergency embolization (GI bleeds/ PPH/ Trauma/ Iatrogenic) and interventional oncology including chemoembolization, radio-embolisation and thermal ablation.

We are a recognised SIRT centre. As a unit we have pioneered Prostate artery embolisation in the UK and lead on the UK-ROPE registry as well as Delcath hepatic artery chemosaturation for hepatic
melanoma. We are a recognised SIRT centre and one of the leading UK centres for interventional oncology.

We have an active R&D role and are leading on an international IVC filter trial and the UK-ROPE national registry for prostatic artery embolisation. Trainees are expected to actively participate in departmental research and audit output and will be encouraged to publish and present at national and international meetings.

IR procedures 2014/2015 – 3943 including 85 EVARs

**Cross sectional Imaging (main department):**

CT scanning takes place on a dual energy GE 750HD GSI multidetector CT (2010) and a Siemens Sensation 64 slice unit to be replaced 2015/2016, both are immediately adjacent to the Main Department providing easy access for ED and IR to improve trauma throughput. A further ED/emergency CT is planned for 2015/2016.

1.5 and 3T Siemens MRI scanners have recently been installed within the main department adjacent to the IR clinic office.

**Ultrasound:**

There is a 6 room Ultrasound Suite within the Main Department with high end Phillips and GE US machines all with CEUS capability.

**Nuclear Medicine:**

The Nuclear Medicine Department is responsible for routine radionuclide imaging and other isotope procedures for the SUHT Hospitals and also provides a service for other District General Hospitals in the Wessex Region. Four gamma cameras and a whole body counter are sited in the Department together with advanced computer image processing and a patient database system. A new dedicated 4-ring Neuro Camera was installed in January 2008. The Department also has excellent physics and biochemist support. The Hospital Pharmacy provides radiopharmacy facilities. Research facilities are available for the development of new radionuclide imaging and therapeutic techniques. The nuclear medicine department provides clinical and ARSAC cover for SIRT therapy and provides PRRT therapy for neuroendocrine tumours.

PET/CT is available from a visiting mobile facility 2 days per week.

**Wessex Neuro centre:**

The Wessex Neurological Centre is also housed within the General Hospital. This is the Regional Centre for Neurosurgery, Complex Neurology and Clinical Neurophysiology. Housed in a purpose-built block the Centre has 39 Neurosurgical and 30 Neurological beds with a 13 bed Intensive Treatment Area. The Centre is served by its own radiological facilities. A Bi-planar Siemens Artis
A dedicated neuro-interventional angiography room opened in March 2004, and is shortly due for replacement. This room allows complex interventional procedures under full theatre conditions.

2 CT Scanners are located in neuro, a Siemens Dual energy EDGE 128 slice scanner installed in 2014 and a further Siemens EDGE 128 installed in early 2015. Adjacent to the Neurological Centre is a purpose-built MR Suite housing a Siemens 1.5T Symphony and a Philips 1.5T scanner. This is shared between the Radiological Specialties.

**Oncology:**

A Phase 1 Cancer Centre has been built on the SGH site with 3 new additional linear accelerators and ward accommodation for Radiotherapy and Medical Oncology. The Centre includes a plain film diagnostic Radiology Room, an Ultrasound Room and a GE 750 HD Gemstone scanner installed 2015.

**Paeds:**

The Paediatric Radiology Department is situated adjacent to the Main Xray and Ultrasound departments on C Level at Southampton General Hospital. The Department was completely rebuilt and refurbished in 2005. The Department comprises: Fluoroscopy Room, 3 General Radiology rooms and an Ultrasound Room with Toshiba Aplio 80. There are two dedicated Paediatric CT lists, three sessions of MRI, of which two are shared with paediatric neuroradiology and include provision of general anaesthesia, with additional access to the scanners for emergency procedures. There is a close liaison with the Department of Nuclear Medicine.

**Cardiothoracic:**

Cardiothoracic Radiology is on E Level close to the Cardiothoracic Wards, Cardiac Catheter Rooms and Operating Theatres. There are 4 Cardiac Catheter Rooms, 2 bi-plane and 2 single plane. A Cardiac MRI Scanner (Siemens Avanto) opened in October 2006. The Department provides a specialist cardiac and pulmonary imaging service to the Trust and beyond.

**Breast:**

The new Breast Imaging Unit was opened in 2007 on the Princess Anne Hospital site. The self-contained Unit includes three Mammography rooms, 2 with digital stereotaxis, 2 Ultrasound Rooms, Clinical and Counselling Rooms as well as an integral Cytopathology Room, providing services to Southampton, Salisbury and the Isle of Wight.

**PACS:**

Trust wide PACS was installed in July 2006 and updated in 2013. We now run SECTRA PACS with CRIS interface that is shared by Portsmouth, Salisbury and the Isle of White allowing easy integrated imaging access.

Royal South Hants Hospital
A satellite unit of Southampton General Hospital, the radiology department at the Royal South Hants provides diagnostic radiology services for outpatients, GP’s and a PCT minor injury unit. A GE Signa 1.5T MR scanner was installed in January 2005 and carries out a range of outpatient musculoskeletal, neurological, body and breast MRI studies. There is one new digital fluoroscopy and two new digital radiography rooms. Two purpose-built orthopaedic radiology rooms, a twin-bedded IVU suite and a clean screening room with a C-arm machine are also on site. There is a three room refurbished Ultrasound Suite.

**Bournemouth:**

Bournemouth and Christchurch NHS trust serves a local catchment population of approximately 600,000. With centralized vascular services we serve a population of approximately 1 million.

We provide a 1:5 IR out of hours on call service. Bournemouth is an exemplar site under the BSIR. We have 2 Siemens dedicated theatre spec. IR rooms running 20 IR lists per week. We work closely with the vascular surgeons and run regular IR outpatient clinics.

Clinical practice currently includes EVAR and fenestrated EVAR, UAE, peripheral vascular, renovascular and dialysis fistula intervention, lines/ports, TACE, Radiofrequency ablation, oncology intervention, nutrition and infection control, biliary and urological drainage and stenting, GI access, colonic stenting, elective and emergent tumour and vascular embolisation.

The unit participates in active research projects. In addition to the above elective services we provide renal denervation within clinic trials, and prostate artery embolisation.

Our diagnostic unit consists of 3 MRI scanners and 2 CT scanners (including a Toshiba Aquilion One CT scanner). Diagnostic facilities provide for the opportunity for cardiac CT and MRI should the successful candidate wish.

**Curriculum**

All areas of the RCR Interventional Radiology curriculum are covered during the three years of the subspecialty Interventional Radiology training programme, with attachments based in Portsmouth, Southampton and Bournemouth. Non interventional Radiology skills are maintained with clinical training sessions in general reporting, CT, MR and ultrasound for in patients and with on call work.

**Teaching**

Teaching occurs during clinical sessions and informal teaching time with supervising consultants. There is a program of post-FRCR teaching, comprising a series of study sessions held on various aspects of the role of the consultant, structure and function in the NHS etc. This is designed to supplement the regional professional development course, which is run by Health Education England - Wessex throughout the 6 year training programme.
Main Conditions of Service

The posts are whole-time and the appointments are subject to:

1. The Terms and Conditions of Service (TCS) for Hospital Medical and Dental Staff (England and Wales)
2. Satisfactory registration with the General Medical Council
3. Medical Fitness – You may be required to undergo a medical examination and chest x-ray. Potential applicants should be aware of the Department of Health and GMC/GDC requirements with regards to HIV/AIDS and Hepatitis viruses. Candidates must be immune to Hepatitis B. You will be required to provide, in advance of appointment, evidence of immunity or have a local blood test (as deemed necessary by the Occupational Health Department)
4. Right to work in the UK
5. Criminal Records Check/POCA check carried out by the Trust Medical HR department.
6. Pre-employment checks carried out by the Trust Medical HR department.

Hours

The working hours for junior doctors in training are now 48-hours (or 52-hours if working on a derogated rota) averaged over 26 weeks (six months). Doctors in training also have an individual right to opt-out if they choose to do so, but they cannot opt-out of rest break or leave requirements. However, the contracts for doctors in training make clear that overall hours must not exceed 56 hours in a week (New Deal Contract requirements) across all their employments and any locum work they do.

http://www.nhsemployers.org/PlanningYourWorkforce/MedicalWorkforce/EWTD/Pages/EWTD.aspx

Pay

You should be paid monthly at the rates set out in the national terms and conditions of service for hospital medical and dental staff and doctors in public health medicine and the community health service (England and Wales), “the TCS”, as amended from time to time. The payscales are reviewed annually. Current rates of pay may be viewed at

http://www.nhsemployers.org/PayAndContracts/Pay%20circulars/Pages/PayCircularsMedicalandDental.aspx

Part-time posts will be paid pro-rata.

Pay supplement
Depending upon the working pattern and hours of duty you are contracted to undertake by the employer you should be paid a monthly additional pay supplement at the rates set out in paragraph 22 of the TCS. The current payscales may be viewed at xx. The pay supplement is not reckonable for NHS pension purposes. The pay supplement will be determined by the employer and should be made clear in their offer of employment and subject to monitoring.

**Pension**

You will be entitled to join or continue as a member of the NHS Pension Scheme, subject to its terms and rules, which may be amended from time to time.

**Annual leave**

Your entitlement to annual leave will be five or six weeks per annum depending upon your previous service/incremental point, as set out in paragraphs 205 – 206 of the TCS.

The TCS may be viewed at [http://www.nhsemployers.org/PayAndContracts/MedicalandDentalContracts/JuniorDoctorsDentistsGPReg/Pages/DoctorsInTraining-JuniorDoctorsTermsAndConditions150908.aspx](http://www.nhsemployers.org/PayAndContracts/MedicalandDentalContracts/JuniorDoctorsDentistsGPReg/Pages/DoctorsInTraining-JuniorDoctorsTermsAndConditions150908.aspx)

**Sick pay**

Entitlements are outlined in paragraphs 225-240 of the TCS.

**Notice**

You will be required to give your employer and entitled to receive from them notice in accordance with paragraphs 195 – 196 of the TCS.

**Study leave**

The employer is expected to offer study leave in accordance with paragraphs 250 – 254 of the TCS. Local policy and procedure will be explained at your induction.

**Travel expenses**

The employer is expected to offer travel expenses in accordance with paragraphs 277 – 308 of the TCS for journeys incurred in performing your duties. Local policy and procedure will be explained at induction.

**Subsistence expenses**

The employer is expected to offer subsistence expenses in accordance with paragraph 311 of the TCS. Local policy and procedure will be explained at induction.

**Relocation expenses**

The employer will have a local policy for relocation expenses based on paragraphs 314 – 315 of the TCS and national guidance at
You are advised to check eligibility and confirm any entitlement with the employer before incurring any expenditure. In addition to local policy there is Deanery guidance which can be viewed on www.wessexdeanery.nhs.uk

Pre-employment checks

All NHS employers are required to undertake pre-employment checks. The employer will confirm their local arrangements expected to be in line with national guidance at http://www.nhsemployers.org/RecruitmentAndRetention/Employment-checks/Pages/Employment-checks.aspx

Professional registration

It will be a requirement of employment that you have professional registration with the GMC for the duration of your employment.

Health and safety

All employers have a duty to protect their workers from harm. You will be advised by the employer of local policies and procedures intended to protect your health and safety and to comply with these.

Disciplinary and grievance procedures

The employer will have local policies and procedures for dealing with any disciplinary concerns or grievances you may have. They will advise you how to access these, not later than eight weeks after commencement of employment.

Educational supervisor

The employer will confirm your supervisor on commencement.

General information

The Deanery’s management of Specialty Training programmes, including issues such as taking time out of programme and dealing with concerns or complaints, is available at www.wessexdeanery.nhs.uk and in the national ‘Gold guide’ to Specialty Training at http://www.mmc.nhs.uk/specialty_training_2010/gold_guide.aspx