

Post and Programme Information

Interventional Radiology

Post and Programme Information for Leeds and West Yorkshire Interventional Radiology ST4/5/6 posts

These posts will be part of the Yorkshire School of Radiology and will be based in the West Yorkshire locality. The appointed Trainees will be part of the Leeds and West Yorkshire Radiology Training Scheme.

The posts will be coordinated by the specialty interest leads for vascular intervention (Dr Jeevan Mahaveer) and non-vascular intervention (Dr Oliver Hulson) and will involve attachments in the Leeds Teaching Hospitals NHS Trust and the associated surrounding trusts (Mid Yorkshire Hospitals NHS Trust, Bradford Teaching Hospitals NHS Foundation Trust, Calderdale and Huddersfield NHS Foundation Trust and York Teaching Hospital NHS Foundation Trust). The posts will include training in both vascular and non-vascular intervention and comply with the Royal College of Radiology 2020 curriculum for interventional radiology.

The trainee will rotate through six-month attachments in each of ST4, ST5 and ST6. Placements will ensure curriculum coverage and ensure development of specialty interests, particularly in year 6.

Trainees are supported to become active members of the MDT process and be competent in the reporting and interpretation of relevant non-invasive imaging. Ability to understand the clinical context and wider treatment options (including surgical, medical and conservative options) for a patient is a vital skill that is emphasised throughout the programme. By the end of training trainees will be competent clinicians in their chosen sub-specialties. The scheme does not support the training of pure technicians undertaking procedures in isolation from the clinical and imaging context.

Non-Vascular intervention

Non-vascular intervention education will be delivered in all hospitals in the locality. There are three uro-oncology centres (Leeds, Bradford and Mid-Yorkshire) covering a population of 2.6 million. Within these centres, all aspects of uro-intervention are performed including ureteric stenting, PCNL access, thermal ablation, extra-anatomic stenting, prostate brachytherapy and intra-operative USS for robotic nephron sparing surgery. There are dedicated uro-radiologists within the locality with training provided to level 2 in all procedures except tumour ablation (where training will be observational only - core). This is supported with full diagnostic USS, CT, PET-CT, nuclear medicine and MR Uro-radiology including multiparametric MR and targeted prostatic biopsies.

The interventional oncology programme in Leeds is well established with a national and international reputation. Image guided delivery of a wide range of oncological treatments is undertaken (eg. thermal- cryo-, microwave and RF- ablation) in liver, lung, adrenal and renal tumours. Pilot evaluation of other techniques (eg. electroporation and thermal ablation in other less established organs) is performed. IR trainees will be offered the opportunity to gain observational experience at ST4

and hands-on experience at ST6 in the technical aspects of ablation techniques. In addition, training is offered in appropriate decision making, workup and the wider aspects of care of these complex patients. There are opportunities for audit and research.

There are active colorectal and upper GI intervention services within the locality based within the regional cancer centres and affiliated to the Yorkshire Cancer Network. Oesophageal, colonic and gastroduodenal stent placement and radiologically inserted gastrostomy training are offered to level 2. Most biliary intervention in region is performed endoscopically though there are small numbers of percutaneous biliary procedures performed in Leeds, Mid-Yorkshire and Bradford.

Ultrasound guided aspirations and biopsies of neck masses and thyroids, ultrasound guided chest aspirations and chest drain insertion, pleural and chest biopsies, CT guided lung biopsies and abdominal biopsies and drainages are performed extensively across all sites in the locality.

Modern non-invasive imaging is used throughout the locality as an adjunct to non-vascular intervention including CT colonography, MRCP imaging and endoscopic ultrasound.

Vascular Intervention

Vascular intervention is very strong on the Leeds and West Yorkshire scheme with a national and international reputation. Vascular training is delivered in all hospitals in the locality and opportunities exist to encounter the full range of vascular interventional procedures covering the interventional radiology curriculum to level 1/2. There are daycase units at St. James' Hospital (Leeds), in Mid Yorkshire and in York. There are very close working relationships with the vascular surgical teams, and the trauma and liver services in particular.

Particular interests within the locality are EVAR, thoracic EVAR, emergency EVAR (for rupture), fenestrated abdominal EVAR, hepatic intervention including transarterial chemoembolisation, TIPSS, transplant intervention (renal and liver), gynaecologic intervention, vascular access, limb salvage procedures and treatment of vascular malformations.

Non-invasive imaging is used extensively throughout the locality, with invasive imaging reserved for problem solving or with a view to proceeding to intervention. Training in MR angiography, MR venography, cardiac MR, CT angiography, CT peripheral angiography, cardiac CT, MR for assessment of fibroids and all forms of vascular ultrasound will be provided to level 2.

On call arrangements

The trainee will participate in the general radiology on call rota in years 4 and 5. During year 6 trainees will participate in the IR out-of-hours on-call, with some cross-sectional on-call work. Trainees will contribute to the Leeds and Bradford/Calderdale on-call rotas.

Research / Audit / Teaching

Trainees will be encouraged to participate in undergraduate and postgraduate teaching and to develop training programmes. They will be expected to participate in

departmental audit and research projects with a view to attending and presenting at National/International meetings.

Example Timetable

This can be tailored to the interests and training requirements of the appointee. A typical weekly timetable might involve:

Intervention (vascular and non-vascular):	5 sessions
IR Clinic / MDTMs:	1 session
US (vascular and general):	1 session
CT / MRA reporting:	1 session
Plain film reporting:	1 session
Study / teaching / audit / research:	1 session

Plus on-call.

There are dedicated MDT's chaired by interventional radiologists in a wide range of subspecialist areas including vascular, renal access, diabetic foot limb salvage, vascular anomalies, HPB, and renal transplant.

During their 3 years of interventional training, trainees can expect to rotate through several of the centres in the locality to maximise experience in the different range of procedures and operator preferences.

Appraisal and assessment

There will be appraisal by educational supervisors prior to taking up the post and at 3 monthly intervals during tenure to establish initial and ongoing training objectives and to assess progress. Clinical supervision in individual placements will ensure adequate progress.

Formal assessment of progress at 12 monthly intervals will be through the ARCP process.

The scheme actively seeks feedback from trainees to monitor and improve the training provided.

Locality trainers, educational resources available and on-call arrangements

Leeds Teaching Hospitals NHS Trust

Vascular intervention

Dr Simon McPherson

Dr Jai Patel

Dr Christopher Hammond (lead clinician for interventional radiology)

Dr Sapna Puppala

Dr Karen Flood (Deputy training programme director for IR and acting TPD)

Dr James Lenton

Dr David Shaw

Dr Paul Walker

Dr Constantinos Tingerides

Dr Jeevan Mahaveer (Specialty interest lead for vascular intervention)

Non-vascular intervention

Dr Michael Weston

Dr Tze Wah

Dr Bobby Bhartia
Dr Ruth England
Dr Jonathan Smith
Dr Simon Burbidge
Dr Ese Adiotomre
Dr Oliver Hulson (Academy Specialty interest lead for non-vascular intervention)

Resources

Four angiographic intervention suites, including three with full theatre conditions and an additional neurovascular (biplane) suite. All of these suites have been recently refurbished with Philips Allura XD40 machines (3) and Siemens Artis Zee (1)

Five multislice CT scanner (GE and Siemens)

Four 1.5T MRI scanners (Siemens).

Three dedicated vascular US labs and 17 sessions of vascular US per week across the trust.

One dedicated non-vascular intervention US lab running 10 sessions per week

25+ sessions vascular intervention per week

3 sessions dedicated line placement lists

3 sessions non-vascular intervention in the angio-suite per week

10 sessions US guided non-vascular intervention per week

Dedicated consultant on-call vascular and non-vascular intervention rotas

Mid Yorkshire Hospitals NHS Trust

Vascular and non-vascular intervention

Dr Rish Ratnalingham

Dr David Shaw

Dr Paul Turner

Dr James Lenton

Dr John Brittenden

Dr Stuart Kerr

Resources

1 theatre grade angio suite (Siemens)

1 vascular/cardiac intervention suite (Siemens)

2 non-vascular intervention suites (Siemens and Philips)

One 128 slice, one 64 slice and one 40 slice CT scanners (Siemens)

Three 1.5T MRI scanners (Philips)

12 sessions vascular intervention per week

3 sessions non-vascular intervention per week

Dedicated on-call intervention rota.

Bradford Teaching Hospitals NHS Foundation Trust

Vascular intervention:

Dr Jonathan Barber
Dr Shoaib Mohammed Shaikh

Non-vascular GI intervention
Dr Amjad Mohammed
Dr Naeem Jagidar

Non-vascular GU Intervention:
Dr Harry Bardgett

Resources

Single vascular intervention suite with Siemens C-arm flat panel unit

Single non vascular interventional suite for GI and GU procedures with floor mounted Siemens flat panel unit.

Three CT scanners (Toshiba One and Prime, 320; 140 and 64 slice scanners)
Three 1.5T MRI scanners (Siemens/GE/Toshiba)
Three ultrasound suites with a total of 17 machines.

9 sessions vascular intervention per week
3 sessions non-vascular intervention per week (including 2 dedicated GI intervention sessions)
Dedicated consultant on-call intervention rota

Calderdale and Huddersfield NHS Foundation Trust

Dr Hossam Elgebali

Two intervention suites
Two 32 slice CT scanners (Philips and Toshiba)
Two 1.5T MRI scanners (Philips)

7 sessions of mixed vascular and non-vascular intervention per week
Dedicated consultant on-call intervention rota via link with Bradford

York Teaching Hospitals NHS Trust

Dr Tony Bowker
Dr Niall Warnock
Dr Marcus Nicholls
Dr Jon Poels
Dr Bahir Almazedi

Two intervention suites (Philips)
Three CT scanners (2 x 64 and 32 slice - all Siemens)
Two 1.5T MRI scanner (Siemens) + mobile unit
5 US rooms (with mixture of Philips and Siemens machines)

10 sessions mixed vascular and non-vascular intervention per week plus up to 5 ultrasound/CT sessions with intervention
Dedicated consultant on-call interventional rota

For more information please contact:

Dr Jeevan Mahaveer (jeevan.mahaveer@nhs.net)
(Academy special interest lead for vascular IR)

Dr Oliver Hulson (oliverhulson@nhs.net)
(Academy special interest lead for non-vascular IR)

Dr Christopher Hammond (christopherhammond@nhs.net)
(Clinical lead for IR)

Dr Karen Flood (karen.flood2@nhs.net).
(Deputy TPD for IR and acting Training Programme Director for West Yorkshire)

Procedure		Leeds	Mid Yorks	Bradford	Hudd & Cald	York
EVAR	abdominal (wide range of devices used, inc fenestrated))	•		•	•	•
	thoracic	•				
	emergency	•				•
Peripheral and iliac angioplasty and stenting						
	Elective	•	•	•	•	•
	Limb salvage	•	•	•	•	•
	Chronic total occlusion	•	•	•	•	•
Renal and mesenteric stenting		•	•	•	•	•
Fistula angioplasty and salvage		•	•	•		•
Thrombolysis		•	•	•	•	•
Complex line insertion		•	•	•	•	•
Venous angioplasty and stenting		•	•	•	•	•
Embolisation						
	Acute for trauma, GI bleeding, post-surgical etc	•	•	•	•	•
	Uterine fibroid embolisation	•	•	•	•	•
	TACE	•				
	Vascular malformations	•				
	Portal vein embolisation	•				
	Pre-surgical to minimise bloodloss	•	•	•	•	•
	Gonadal vein intervention	•	•	•	•	•
	Endoleak post EVAR	•	•	•	•	•
TIPSS		•				
IVC filter insertion and retrieval		•	•	•	•	•
Thrombin injection		•	•	•	•	•
Urological intervention						
	Nephrostomy	•	•	•	•	•
	Ureteric stent	•	•	•	•	•
	Percutaneous nephrolithotomy access	•	•	•		•
GI intervention						
	Oesophageal, colonic and duodenal stenting	Few	•	•		•
	Biliary intervention	•	•	•	Few	Few
	RIG	•	•	•	Few	
Ablation (RFA, Microwave, Cryo, EP) (lung, GU, liver, pancreas)						
US and CT guided biopsy and drainage		•	•	•	•	•
IR on call						
	Dedicated vascular	•				
	Dedicated non-vascular	•		•		

Dedicated joint (vascular & non-vascular)

