Training Programme Information for Posts in Cardiothoracic Surgery at ST3 Level.

This document has details of all of the training programmes in the UK/Eire/Scotland areas.

Entry requirements for all placements are in line with the Modernising Medical Careers Person specification which can be found on the MMC website: http://www.mmc.nhs.uk/ and the Applicant Guide.

Details of the full curriculum for Cardiothoracic Surgery ST3 can be found on the Intercollegiate Surgical Curriculum Programme (ISCP) website: https://www.iscp.ac.uk/Default.aspx

Details for Academic training can be found on the National Institute of Health Research (NIHR) website: http://www.nihrtcc.nhs.uk/

Further details will be available from your new employing organisation once you have accepted an offer of a post.

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<thead>
<tr>
<th>East of England</th>
<th>East Midlands</th>
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<tbody>
<tr>
<td>London (North Thames)</td>
<td>London (South Thames)</td>
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<tr>
<td>Northern</td>
<td>Northern and Northern Ireland</td>
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<tr>
<td>North West</td>
<td>Scotland</td>
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<td>Severn and Peninsula</td>
<td>Wales/West Midlands</td>
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<td>Wessex/Oxford</td>
<td>West Midlands</td>
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Any information not included in this document should be available from specific deanery websites.
East of England

Deanery Rotation Base(s)

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<th>HOSPITAL</th>
<th>LOCATION</th>
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<tr>
<td>PAPWORTH HOSPITAL</td>
<td>PAPWORTH, CAMBRIDGE</td>
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<tr>
<td>NORFOLK &amp; NORWICH UNIVERSITY HOSPITAL</td>
<td>NORWICH, NORFOLK</td>
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Deanery information

The NHS in the east of England aims to be the best healthcare service in England, to do this we need a highly skilled and motivated workforce, delivering healthcare to a high standard within the framework of a patient centred NHS.

As a Deanery we support around 4,000 medical and dental trainees in the region serving a population of 5.6 million. We seek to attract the best doctors and dentists to the east of England, by offering high quality training to produce excellent healthcare that our patients need and desire. We aim to inspire excellence in all our trainees to ensure our patients receive the highest standard of safe clinical care. The Deanery also maintains effective quality management of postgraduate medical and dental education and training, and promotes faculty development for our trainers.

EOE Deanery Map

Cardiothoracic Surgery in East of England Deanery

Rotation Information

The East of England Training Programme in Cardiothoracic Surgery rotates between:

- Papworth Hospital NHS Foundation Trust (*10 educationally-approved posts in Adult Cardiac Surgery, Thoracic Surgery and Cardiothoracic Transplantation*)
- Norfolk & Norwich University Hospital (*2 educationally-approved posts in General Thoracic Surgery*).

Trainees are rotated between posts every 6 month on 1\textsuperscript{st} January and 1\textsuperscript{st} July. During the first 3 years of training, each trainee generally spends (not necessarily in the following order):

- 18 months in Adult Cardiac Surgery at Papworth
- 6 months in General Thoracic Surgery at Norwich
- 6 months in General Thoracic Surgery at Papworth
- 6 months in Transplantation at Papworth
Exposure to congenital cardiac surgery is optional and could be arranged as a period of Out of Program Training (OOPT).

**Trust Generic/Specialty Information**

**Papworth Hospital** is the largest Cardiothoracic Centre in the United Kingdom, performing more than 2100 cardiac operations and 450 thoracic surgical procedures annually. There are 5 operating rooms, 32 Critical Care beds and a further 85 ward beds for the exclusive use by cardiothoracic surgery.

Surgical staff include:
- 13 Consultant Surgeons
- 8 Surgical StRs
- 5 Transplant StRs
- 1 National Cardiothoracic Transplant Senior Fellow
- 8 Surgical Care Practitioners
- 6 SHOs (Foundation Trainees or Core Trainees)

Patient services include:
- Adult cardiac surgery, specialist services include:
  - Surgical Maze procedure and Radiofrequency Maze procedure
  - Off-pump coronary artery bypass grafting (OPCAB)
  - Minimally invasive coronary artery bypass (MIDCAB)
  - Mini-sternotomy aortic valve replacement
  - Minimally invasive mitral valve surgery
  - Trans-catheter aortic valve insertion (TAVI)
- Pulmonary thrombo-endarterectomy (PTE) for chronic thromboembolic pulmonary hypertension
- Cardiopulmonary transplantations including:
  - Ventricular Assist Devices as bridge-to-transplant
  - Cardiac and respiratory extra-corporeal membrane oxygenation (ECMO)
  - Ex-vivo lung perfusion (EVLP) for re-conditioning of donor lungs

**Norfolk & Norwich University Hospital** has the capacity to perform more than 1200 thoracic surgical and oesophageal procedures in a year. Depending on the experience of the trainee, up to 45% of thoracic surgical procedures are performed by the trainee under direct supervision. Apart from this, the StR gets the opportunity to attend clinics (2 per week per trainee), be exposed to patients on ITU and attend up to 5 MDTs a week, which include patients with lung cancer and GI pathologies.

Surgical staff include:
- 3 Consultant Thoracic Surgeons
- 3 Surgical StRs
- 2 SHOs (Foundation Trainees or Core Trainees)

**Teaching**

**Hospital-based teaching programme**

- There is a weekly **Cardiac Case Conference** chaired in rotation by each Consultant Surgeon, where various topics are presented and discussed.
- There is a monthly **Transplant teaching meeting** and a separate monthly Transplant journal club.
- There is a fortnightly **Journal Club**, where trainees select a paper for presentation and discussion, moderated by Consultant Surgeons in rotation.
- A **Formal Regional Wet-lab Training** is organised twice a year. This is held in one of the operating rooms in Papworth Hospital and attended by all trainees in the rotation (see inserted photographs).

- Additional **Anatomical Wet-labs** are organized in Papworth and in the Anatomy department of the University of Cambridge.

**Regional study and audit half-day**
There is a monthly rolling educational program based on the Intercollegiate Surgical Curriculum Project syllabus for Cardiothoracic Surgery to which all trainees in the rotation are required to attend. This is coupled with the monthly audit meeting, where cases are presented and discussed in a multi-disciplinary forum.
East Midlands

Deanery Rotation Base(s)

<table>
<thead>
<tr>
<th>HOSPITAL</th>
<th>LOCATION</th>
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<tbody>
<tr>
<td>Glenfield Hospital</td>
<td>Leicester</td>
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<tr>
<td>City Hospital</td>
<td>Nottingham</td>
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</tbody>
</table>

This is a newly restructured programme based around the Cardiothoracic centres in Nottingham and Leicester under the East Midlands Deanery. This programme is designed for an applicant who wishes to practice as a Thoracic Surgical Consultant which is reflected in the internationally recognised higher training in oesophageal and Mesothelioma surgery.

Rotation Information

Expected rotation arrangements for this programme are:

**ST3**: 3 months ITU module (Intensive Care Society approved) in Leicester (supernumerary, supervised by Intensivist Dr Allsager, surgical on-call) ; 9 months basic cardiac surgery in Leicester (Mr Hadjinikolau)

**ST4**: Basic pleuropulmonary surgery in Nottingham (Mr Majewski)

**ST5**: 6 months intermediate adult cardiac surgery in Nottingham [Mr Richens, Mr Jutley] ; 6 months Congenital cardiothoracic surgery/ECMO in Leicester [Mr Peek].

**ST6**: Intermediate pleuropulmonary surgery in Leicester [Mr Waller, Mr Nakas]

**ST7**: Advanced oesophageal surgery in Nottingham [Mr Duffy]


Trust Generic/Specialty Information

**Glenfield Hospital, University Hospitals of Leicester (UHL)**

The Cardiothoracic Unit is sited at the Glenfield Hospital. UHL is a university teaching hospital affiliated with Leicester University Medical School. At present the Cardiothoracic Unit has 49 surgical beds, 12 adult intensive care beds and four paediatric intensive care beds. There are five operating theatres. The Cardiothoracic Unit serves the southern half of the East Midlands SHA, which comprises a population of 2.8 million people. The Unit provides a comprehensive medical and surgical service for patients with cardiac and thoracic disease, including congenital heart disease, but excluding transplantation. The annual cardiac surgical workload comprises 1000 operations for acquired heart disease, 200 operations for congenital heart disease. 80 patients were treated at the regional unit for extra corporeal membrane oxygenation based at this hospital. In addition, the full range of pleuropulmonary surgery is performed for Leicestershire, Northamptonshire, South Staffordshire and South Derbyshire together with national referrals for mesothelioma surgery. Annual workload comprises : 800 thoracic surgical procedures.
University Hospitals of Leicester NHS Trust - Glenfield Hospital:
**Cardiac**: 2 training posts, 1 in 8 resident rota (currently 1 LAT)
**Congenital**: 1 training post; supernumerary (currently 1 LAT)
**Thoracic**: 2 training posts, 1 in 5 non-resident rota (currently 1 NTN, 1 OOPT)

**Nottingham University Hospitals, City Hospital Campus**

Nottingham University Hospitals is a major provincial teaching hospital. There are 1207 beds on the City campus. The City Hospital provides a wide range of specialties but there is no Accident and Emergency Department on the campus. When current developments are completed, it will have over 1,400 beds, making it one of the largest hospitals in Europe. All these beds are located on one 85 acre campus, with outpatient facilities and all support services. The hospital employs 4,500 staff, deals with 55,000 inpatients per annum, including day patients, and over 180,000 outpatients per year.

There are several regional specialties: Thoracic Surgery, Renal Dialysis and Transplantation, Burns and Plastics, Cytogenetics and neonatal Medicine and Surgery.

**Nottingham University Hospitals NHS Trust – Nottingham City Hospital**

**Cardiac**: 2 training posts, 1 in 5 rota. (currently 2 LATs)
**Thoracic**: 2 training posts, 1 in 5 non-resident rota (currently 1 ST3, 1 LAT)

**Teaching**  East Midlands Regional Teaching Programme

<table>
<thead>
<tr>
<th>Date</th>
<th>Organizer</th>
<th>Venue</th>
<th>Title</th>
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</thead>
<tbody>
<tr>
<td>September 2010</td>
<td>S Rathinam</td>
<td>Sept 3rd, Glenfield Hospital CEC</td>
<td>Midlands Cardiothoracic Surgical Meeting</td>
</tr>
<tr>
<td>October 2010</td>
<td>G Peek</td>
<td>Nov 5th, Glenfield Hospital CEC</td>
<td>Congenital Cardiothoracic Surgery</td>
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<tr>
<td>November 2010</td>
<td>R Jutley</td>
<td>Dec 3rd City Hospital, Nottingham</td>
<td>Cardiac Surgical wetlab – coronary anastomosis</td>
</tr>
<tr>
<td>January 2011</td>
<td>D Richens</td>
<td>Jan 14th City Hospital, Nottingham</td>
<td>Cardiothoracic Trauma</td>
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<tr>
<td>February 2011</td>
<td>A Nakas</td>
<td>Glenfield Hospital</td>
<td>Surgery for mesothelioma</td>
</tr>
<tr>
<td>Date</td>
<td>Speaker</td>
<td>Location</td>
<td>Topic</td>
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<tr>
<td>March 2011</td>
<td>A Majewski</td>
<td>City Hospital, Nottingham</td>
<td>The principles of lung cancer surgery</td>
</tr>
<tr>
<td>March 2011</td>
<td>J Duffy</td>
<td>April 8th City Hospital, Nottingham</td>
<td>Oesophageal surgery</td>
</tr>
<tr>
<td>May 2011</td>
<td>L Hadjinikolau</td>
<td>Glenfield Hospital</td>
<td>Aortic surgery</td>
</tr>
<tr>
<td>June 2011</td>
<td>A Martin Ucar</td>
<td>City Hospital, Nottingham</td>
<td>Surgery of the airways</td>
</tr>
<tr>
<td>July 2011</td>
<td>D Waller</td>
<td>Glenfield Hospital</td>
<td>The role of surgery in emphysema</td>
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Northern

Deanery Rotation Base(s)

<table>
<thead>
<tr>
<th>HOSPITAL</th>
<th>LOCATION</th>
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<tbody>
<tr>
<td>Freeman</td>
<td>High Heaton, Newcastle-upon-Tyne</td>
</tr>
<tr>
<td>James Cook</td>
<td>Middlesbrough</td>
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</tbody>
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Deanery information

The Deanery is situated in the North East and has two centres for training. The Deanery is pro-active with numerous free courses available for leadership and management preparation. In addition support is given to the Consultant body to ensure they are the best trainers. The TPD attends regular school of surgery and quality assurance meetings to ensure the best training is given. The HR administrative work is performed by the sub-contracted Lead employment Trust.

Rotation Information

Within the 6 year training the trainee will rotate at least once to the other centre. Most trainees stay for a minimum of one year. Travel and relocation expenses are given.

Trust Generic/Specialty Information

Each site has a library with e-access to many cardiothoracic journals. James Cook has 6 trainers and Freeman 12. Most have been on TtT courses and are ISCP-registered. There is a Trust education department at each hospital.

Teaching

Each site provides adult cardiothoracic training, with Freeman also providing transplantation and congenital training.

There are weekly teaching days on each site covering the syllabus and this includes journal clubs.

Recently we have started regional teaching specifically aimed at the trainees taking the Cardiothoracic part III exam to ensure that they are best prepared. There have also been wet-labs established and there is a cadaveric lab which can be used in addition. There is ongoing work piloted by Cardiothoracic surgery into surgical simulation.
Northern Ireland and Northern Deanery

Deanery Rotation Base(s)

<table>
<thead>
<tr>
<th>HOSPITAL</th>
<th>LOCATION</th>
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<tbody>
<tr>
<td>Royal Victoria Hospital, The Belfast Trust</td>
<td>Belfast</td>
</tr>
<tr>
<td>James Cook Hospital</td>
<td>Middlesbrough</td>
</tr>
<tr>
<td>Freeman Hospital</td>
<td>Newcastle</td>
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Deanery information

The Northern Ireland Deanery is responsible for post-graduate medical training in Northern Ireland and the Northern Deanery is responsible for the same in the North East of England and Cumbria.

Rotation Information

Expected rotation arrangements for this programme are:

This application for a NTN is for a training rotation in a new consortium incorporating the Northern and Northern Ireland deaneries which will offer the training in the full range of cardiothoracic surgery and will combine the best aspects of both established training programmes.

The Northern Deanery provides a comprehensive training in Cardiothoracic Surgery delivered to trainees across two sites, in Middlesbrough (James Cook Hospital) and Newcastle (Freeman Hospital - Thoracic, Congenital, Adult Cardiac, and Cardiothoracic Transplantation and Device training). The Northern Ireland Deanery provides training in all aspects of Cardiac and Thoracic surgery except transplant, on one site in the Belfast Trust.

Over the last three years, both deaneries have embraced the practicalities of the Intercollegiate Surgical Curriculum Project, the European Working Time Directive, and the new intake of ST3 and, in the Northern Deanery, Academic Clinical Fellow trainees. The consortia can offer committed training to match the training opportunities of each trainee.

The training programme will be 4 years in the Northern Ireland Deanery and two in the Northern. Training will Adult Cardiac and Thoracic in Northern Ireland. In the time in the Northern region, training in congenital surgery and transplantation will be available depending on the chosen career intentions of the trainee.
Trust Generic/Specialty Information

The Royal Hospitals is Northern Ireland's biggest and best known hospitals complex. Almost two thirds of the Northern Ireland population live within 40 minutes travel from the 70 acre site which is situated only a few minutes drive from Belfast city centre. The Cardiac Surgery Unit at the Royal Hospitals Trust is a specialised regional service, established in 1968, serving a Northern Ireland population of 1.7 million. The Unit performs all aspects of Cardiothoracic Surgery except transplantation and ECMO. Over 1000 cardiac cases and around 400 open thoracic procedures are performed each year.

The Freeman Hospital opened in 1977 and is the only centre in the UK to offer all forms of adult and paediatric cardiothoracic surgery as well as heart and lung transplantation. The Freeman is also a centre for artificial heart technology.

Regional Cardiothoracic Centre

The cardiothoracic unit at the James Cook University Hospital, part of the South Tees NHS Trust, is a specialised regional service, established in 1993, serving a population of 1.5 million stretching from Whitehaven in Cumbria to North Yorkshire, Teesside and Durham.

Teaching

In the Northern Deanery, formal teaching comprises weekly departmental and monthly regional training. There is the availability of simulation laboratories and cadaver rooms as well as established wetlabs. There are business cases to establish High-definition VATS equipment to allow trainees to review their operating in a critical way under supervision. A recent well-attended successful faculty meeting ensured that all trainers are working as one, in relation to current educational standards, and this will be repeated each year. The deanery has accepted cardiothoracic trainees from other deaneries for independent validation, and for left-handed training. In addition, Newcastle University offers a Post-graduate Certificate in Clinical Medical Research that can be taken part-time over the course of 12 months, and the Faculty will offer the opportunity to take this course to any new Cardiothoracic trainee.

In the Northern Ireland Deanery, there is a strong tradition of supportive mentoring with a particular focus on supervised operative training. The feedback from the trainees about training in Belfast is invariably positive. All study leave requests which are appropriate to the trainees needs are granted with funding. For both Cardiac and Thoracic surgery there is access to wet lab training in the RCSI and there are formal teaching programmes in term time.
North West

The North West and Mersey cardiothoracic programmes are geographically adjacent to each other and have formally joined in August 2009 to form the North West Consortium.

Given the size of the consortium and the sub specialty strengths of the consortium, a template for both cardiothoracic training and pure thoracic training programme is submitted.

The programme involves the following centers:

<table>
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<tr>
<th>HOSPITAL</th>
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<tr>
<td>Liverpool Heart And Chest Hospital</td>
<td>Liverpool</td>
</tr>
<tr>
<td>Alder hay Children’s Hospital ( SAC educational approval due )</td>
<td>Liverpool</td>
</tr>
<tr>
<td>University Hospital South Manchester Foundation Trust (UHSM)</td>
<td>Manchester</td>
</tr>
<tr>
<td>University Hospital Central Manchester Foundation Trust (CMMC)</td>
<td>Manchester</td>
</tr>
<tr>
<td>Lancashire Heart Centre, Victoria Hospital</td>
<td>Blackpool</td>
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Liverpool has a long tradition in ‘Thoracic Surgery’ and boasts some of the pioneering names in the specialty. The Liverpool Heart and Chest Hospital, one of the largest single centre cardiothoracic units in the United Kingdom, is an autonomous single specialty Foundation Trust on the site of Broad green Hospital, one of the two designated teaching hospitals in Liverpool, offering tertiary services in Cardiothoracic Surgery, Cardiology and Chest Medicine to a population of 2.8 million people in Merseyside, North Wales and the Isle of Man as well as parts of Lancashire and Cheshire.

The Mersey Cardiothoracic Training Programme has always been and will continue to be committed to provide as comprehensive a training experience as possible. The Liverpool Heart and Chest Hospital's cardiac surgical programme provides for all adult cardiac procedures except for transplantation and aims to perform around 2000 procedures over the current financial year (2009/10). The service has a number of particular strengths including:

- Off-pump coronary artery bypass surgery – one of the largest experiences in the UK and Europe
- A comprehensive mitral repair programme including radiofrequency ablation
- A large programme of aortic surgery including thoracoabdominal procedures and a significant amount of endovascular procedures
- Epicardial pacing
- A transcatheter aortic valve implantation programme with both transfemoral and transapical approaches.

The thoracic service offers a comprehensive programme and is scheduled to perform over 700 major operations in the current financial year (2009/10). Apart from providing the standard thoracic procedures the service also has a large esophageal practice with close collaboration with the upper gastrointestinal surgeons. Over the years there have been ad hoc arrangements with Manchester and the Alder Hey Children’s Hospital to provide some exposure to transplantation and pediatrics. These areas have been recognized as weaknesses and have now been addressed by amalgamating the training with the North Western Deanery (North West Training Consortium). This started on 1\textsuperscript{st} August 2009 and although in its infancy shows enormous promise. The main reason for this move is to provide a comprehensive training experience with a combined programme that will ‘iron out’ and improve on what each of us provide separately. In addition, we will offer our trainees a different ‘outlook’ that a single centre exposure will always lack. Mersey can also offer pediatric exposure with the pediatric surgeons very keen to collaborate and Alder Hey expected to be given educational approval in the next few months. The two Deaneries retain the numbers under the aegis of the respective Programme Directors but training is now directed by a single STC.

**Six Year Cardiothoracic Training Rotation:**
- Two years in Liverpool (CTC / Alder hay)
- Two years in Manchester (UHSM / CMMC)
- One year in Blackpool
- One year in CTC / UHSM / CMMC / Blackpool / Alder hay / OOPE depending on area of subspecialty training.

**Six Year Thoracic Surgery Training Programme:**
- Two years in thoracic surgery Liverpool (CTC)
- Two in thoracic surgery in UHSM
- One year cardiac surgery (Blackpool / CMMC / Liverpool)
- One year OOPE (minimally invasive / esophageal / lung transplant / tracheal) depending on subspecialty interest

The above programme is a template and is subject to change to suit individual trainee requirements

The North West Consortium will provide most comprehensive training in cardiothoracic surgery with opportunities to develop subspecialty interest in thoracic surgery, transplantation, esophageal surgery, pediatric surgery, aortic, mitral valve
and off pump surgery. Close links with Manchester University, Paterson’s Institute of research (Christie Hospital) along with the excellent transplant research lab offer excellent opportunities to pursue academic aspirations. The programme will offer opportunities to actively participate in the Northwest Cardiac / Thoracic surgery audit, North West Quality improvement programme, North West Thoracic Society meeting and North West regional teaching programme. The Northwest consortium will also offer excellent high quality educational resource which is highlighted below.

**North West Consortium Educational Resource**

- North West Regional Teaching Programme (08/09/10) *with attendance record* (Liverpool / Manchester)
- Wet lab sessions as part of teaching programme (Liverpool/ / Blackpool)
- Regular wet labs /workshops covering CABG, MVR, AVR, Mitral valve repair and Aortic root replacement (Liverpool / Blackpool)
- North West Cardiothoracic Course for Senior SPR’s (2005 to date)
- Mitral Valve Symposium (Blackpool)
- National TOE Course (UHSM)
- Thoracic Forum Manchester 08
- Imaging in cardiothoracic / esophageal surgery (Liverpool)
- Perfusion in cardiac surgery (Liverpool)
- Difficult Scenarios in Cardiac, thoracic and esophageal surgery (Liverpool)
- Viva practice for FRCS (C / Th) (Liverpool)
- Terms and techniques for aortic surgery for trainees (Liverpool)
- Lung cancer MDT (7/8), Cardiac MDT, Transplant MDT
- FRCS (C/Th) Examiners
- Weekly teaching meetings at UHSM/ Blackpool / CMMC
- Biweekly teaching meetings at Liverpool

**Strengths of North West Consortium include the following:**

- ability to provide comprehensive training in cardiac, thoracic, pediatric and transplantation
- ability to fully train a cardiac or thoracic surgeon
- ability to provide subspecialty training in Off pump, Aortic, Mitral valve and Esophageal surgery
- geographic location of hospitals in the programme
- ability to provide training to suit needs of trainee with compliant Rota (high trainer / trainee ratio)
- Excellent Educational Resource as above
- Twice a year Assessments
- Track record of high pass rate at FRCS(C/Th) and Consultant appointments
- Opportunities for academic development of Trainees
Excellent Training environment
Trainee Representation on Regional training committee
Excellent Trainee feedback
Deanery / School of surgery support
Centre for Intercollegiate exam (Liverpool / Manchester)
Themed cardiothoracic core training programme (18 months cardiothoracic / 6 months generic training)

UHSM (Wythenshawe hospital)
- Clinical fellow: 5
- Staff grade / Associate specialist: 3
- Transplant fellows: 4
- CT1 / CT2: 3
- Trust fellow (SHO grade): 3
- Rota: 1:9 partial shift EWTD compliant

CMMC (Manchester Royal Infirmary)
- Clinical fellow: 7
- CT1/CT2/F1: 3
- Rota: 1:8 partial shift EWTD compliant

Lancashire Heart centre (Blackpool)
- Clinical fellow: 7
- CT1 / CT2: 2
- Trust grade (SHO): 3
- Rota: 1:9 24 hr resident on call EWTD compliant

Liverpool Heart and Chest Hospital:
- LAT: 2
- Clinical Fellow: 7
- Specialty doctor: 3
- CT1: 3 FTSTA: 3 F2: 3
- Trust SHO: 1

Training in Cardiac Surgery

UHSM: October 07 to September 10
- Cardiac surgery: % of cases done by middle grades: 19.8%
- % of cardiac cases done by NTN (yr 6) (August 09 to September 10): 110 / 165 (63%)
- % of heart retrievals done by middle grades (April 06 to Dec 09) – 100%
- % of heart Implants done by middle grades: 2 / 55
Lancashire Cardiac Centre:
- Cardiac surgery: % of cases done by middle grades: 10.3%
- Significant Contribution of ST3 (Sternotomy / IMA / Cannulation / Decannulation): > 90%
- Significant Contribution of ST4 (CABG / VALVE performed under supervision): 56% CABG, 62% of isolated AVR

CMMC:
- Cardiac surgery: 554/2263 (21%)
- Percentage of cases done by ST5 in 09/10:

Liverpool Heart and Chest Hospital: January 2006 to October 2010
- % of cardiac operations done by middle grades: 18%
- % of cardiac operations done by senior numbered trainees: 35%

The chart below also clearly shows that trainees at the same level of seniority and exposed to the same educational infrastructure have a different focus (cardiac or thoracic) and progress at differing rates

Training in Thoracic Surgery

UHSM September 07 to October 10
- Thoracic Surgery: % of all cases done by middle grades: 40%
- % of thoracic cases done by NTN (yr 6) (August 09 to September 10): 76% includes 20 VATS lobectomy
- % of lung retrieval done by middle grades (April 06 to Dec 09): 100%
- % of lung implants done by middle grades (April 06 to date): 30 / 76 (39 %)

Lancashire cardiac centre:
- % of thoracic cases performed by middle grade : 20%

Liverpool Heart and Chest Hospital: January 2006 to October 2010
- % of all cases done by middle grades : 25%
- % of all cases done by senior numbered trainees : 55%

The chart below also clearly shows that trainees at the same level of seniority and exposed to the same educational infrastructure have a different focus (cardiac or thoracic) and progress at differing rates.
Severn & Peninsula

Deanery Rotation Base(s)

<table>
<thead>
<tr>
<th>HOSPITAL</th>
<th>LOCATION</th>
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<tbody>
<tr>
<td>UBHT</td>
<td>Bristol</td>
</tr>
<tr>
<td>Derriford Hospital</td>
<td>Plymouth</td>
</tr>
</tbody>
</table>

Deanery information

- The Severn and Peninsula Deanery have dedicated cardiothoracic support staff at each centre
- Severn Deanery – Sue House
- Peninsula Deanery – Heather Rowley
- Funding streams are available through the Severn Deanery to a maximum of £550 per annum/trainee
- Annual questionnaire for trainee satisfaction

http://surgery.severndeanery.org
http://www.peninsuladeanery.nhs.uk/

Rotation and Trust Information

The Bristol component (UBHT) of the training programme is based at the Bristol Royal Infirmary, the Bristol Royal Sick Children’s Hospital and the new £65 million Bristol Heart Institute. There are strong links with the BHI research group which has £54 million worth of grants from 160 separate grant funders.

This is a large University Medical Centre performing 1700 adult hearts, 300 children’s cardiac and 800 general thoracic surgical cases per year.

We have 2 Professors of Cardiac Surgery, 2 Readers and 9 full-time NHS Consultants. There are 13 middle grade cardio-Thoracic Surgeons (2 NTN’s, 2 Academic NTN’s (ACF), 2 LAT’s, 5 Clinical Fellows and 2 Associate Specialists).

There is a prospectively collected PATS database which has been in operation for 14 years and has 20,000 patients.

Particular areas of specialisation include off-pump CABG, minimal-access mitral and aortic valve surgery and clinical research.

The Plymouth component of the training programme is based at Derriford Hospital, Plymouth which has, in the last two years relocated to the £40 million Sir Terence
Lewis Building - The South West Cardiothoracic Centre, performing 1300 adult cardiac and 600 general thoracic procedures annually.

There are 6 full time cardiac consultants and 2 full time thoracic consultants. Minimally invasive oesophageal surgery (MIO) has now relocated from Exeter to Derriford.

Particular areas of specialisation include minimal access mitral and aortic valve surgery (including TAVI), AF surgery, aortic surgery and MIO.

We have strong ties with the Peninsula Medical School and developed the Surgical Nurse Practitioner programme for the South West with collaboration with the school of nursing, freeing up time for junior doctors to spend more time on training and less on service delivery.

National trainees rotate between the two centres for periods of 2-4 years depending on the trainees interests.

Trainees are allocated to individual consultant teams for 6 month posts and will be expected to be independently operating within the first few years of appointment

Registrar rotas at both units are compliant with the EWTD. Changes that have been made over the last two years include:

- Non-resident on call registrar
- Commitment to firm based training
- Mandatory day off post on-call
- Weekly publication of rota allocation to allow planning of non-operating day on-call
- Reintroduction of firm based training at core training level
- Amalgamation of cardiology and cardiac surgical on call at night rota
- Structured training for core trainees by SCPs in theatre

**Teaching**

- Weekly Teaching:

  Bristol: Weekly Educational seminars from 0800-0915 every Friday. These include curriculum topics, ECHO meeting, journal club, research data presentations and practice for oral presentations at national/international meetings.
Derriford: Dedicated weekly education meetings on Tuesday 08h00-09h00. These include curriculum topics, ECHO meeting, journal club, research data presentations and practice for oral presentations at national/international meetings.

- Registrar Teaching

Late afternoon sessions are arranged on a weekly basis on Wednesday afternoon to prepare registrars for the finals exam.

*Wetlab Courses:* There are biannual wetlab courses for the Southwest trainees. The first was in October 2010 with 10 delegates covering coronary artery bypass grafting (distal and proximal anastomosis). The second is scheduled for March 2011.

*Mock examinations* are planned for biannual dates (February and September 2011). Consultants from both units, not involved with CTh examinations, will provide mock exams for trainees from both units.

We have regular training days between both units (Taunton) to discuss curriculum projects and discuss common research interests.

- Funding

All trainees are allocated £550.00 per annum for study leave and are encouraged to regularly submit and present at regional, national and international meetings.

Consultants from both units are involved with undergraduate training at a national level:

- Basic skills course CTh
- Intermediate skills course
- Birmingham review course
- SCTS University
- Professional development course
Wessex & Oxford

Deanery Rotation Base

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<tr>
<th>HOSPITAL</th>
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<tbody>
<tr>
<td>Southampton General Hospital</td>
<td>Southampton</td>
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<tr>
<td>John Radcliffe Hospital</td>
<td>Oxford</td>
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Wessex Deanery is commissioned by NHS South Central, and NHS South West to provide high quality postgraduate medical and dental education and training for Hampshire, Isle of Wight, Dorset, South Wiltshire and the States of Jersey with responsibility for 2,500 trainees as they progress through their training. The Deanery also provides training and development for trainers, educational supervisors and educational leaders in both Primary and Secondary Care.

The Oxford Deanery coordinates the delivery and funding of postgraduate medical and dental education in Oxfordshire, Buckinghamshire and Berkshire. The Oxford Deanery is under the umbrella of NHS South Central Strategic Health Authority to support and training and development for the multi professional NHS workforce in the South Central region of England.

Rotation Information

Expected rotation arrangements for this programme are:

- One NTN will be allocated to start at Southampton and one at Oxford
- NTN will rotate between the 2 training centres every 12 months
- Training between ST3 to ST6 are expected to be provided equally between the 2 centres
- Training at ST7 & ST8 level will be accommodated depending on the particular area of specialist interest that the trainee wishes to develop in his/her portfolio

Trust Generic/Specialty Information

The newly formed Wessex and Oxford training consortium is based at Southampton General Hospital (SGH), John Radcliffe Hospital (JRH). Both units have had a long tradition of training NTNs and overseas fellows.

The primary strength of both units has been based on clinical and operative exposure. In both adult and congenital cardiac surgery, this would include the full range of standard and advance operative techniques. These include off pump surgery, the use of minimal extracorporeal circulatory support (MEC), minimally
invasive surgery, valve repair and sparing surgery, and aortic surgery including thoraco-abdominal aneurysm surgery; Surgery for routine and complex congenital conditions such as AVSDs, TGAs and HLHS are routinely undertaken. In addition, at both sites transcatheter aortic valve implantation (TAVI) is undertaken for high-risk aortic valve patients. SGH is a national referral centre for Fontan conversion surgery and JRH has an international reputation for mechanical assist devices in heart failure surgery. There is also a comprehensive thoracic surgery programme with 5 dedicated thoracic surgeons offering a full range of exposure. This programme provides comprehensive training in minimally invasive thoracic surgery, including thoracoscopic lung resection, with an opportunity to have exposure to oesophageal surgery at SGH.

- There are 4 adult cardiac surgeons, 2 adult/congenital surgeons; 2 congenital cardiac surgeons and 4 thoracic surgeons based at Southampton; Oxford has 4 cardiac surgeons, 1 cardiothoracic surgeon and 1 thoracic surgeon.

- The training ethos is strong within the consortium with approximately 45% of the cardiac surgery cases undertaken by trainees at SGH in 2009-2010 12-month period.

- The academic profile of the Consortium is now very strong. There are 2 professors of cardiac surgery. The current president for the SCTS and chairman of the SAC are members of the consortium. There has been 2 MDs, 2 PhDs awarded and over 130 publications in peer-reviewed journals within the last 3 years.

- On call: John Radcliffe Hospital, Churchill Hospital (Oxford Radcliffe NHS Trust). 3 approved posts. 7 trust fellows at SpR level. Full shift. 1:7 residential on-call. Southampton General Hospital. 6 approved posts. 6 trust fellows at SpR level. 1 in 12 hybrid rota. 1:12 residential on-call. Both units are EWTR and Band 1a compliant

**Teaching**

- There is a wet and dry lab facility at both centres, which is used for formal teaching twice a year. There is also a homograft bank available at Oxford. The dry lab facility is accessible by trainees on 24/7 basis at Southampton.

- At both centres, there are weekly MDT meeting to discuss complex cases. All clinical activity is stopped so trainees can attend. There is also a weekly TAVI MDT meeting where trainees may attend if available. At oxford journal club for
Thoracic and cardiac surgery is run on a fortnightly basis. Both centres have weekly grand rounds.

- There is a monthly didactic/interactive curriculum based teaching. This alternates between Oxford and Southampton and the whole curriculum is covered over a 2-year period. This programme has been running since January 2010.

- Frequent informal tutorials and mock exams are arranged for trainees approaching the FRCS-CTh exam.