Training Programme Information for Posts in Cardiothoracic Surgery at ST3 Level

**Recruitment 2018**

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 Specialty Training: [http://specialtytraining.hee.nhs.uk/](http://specialtytraining.hee.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](https://www.iscp.ac.uk/Default.aspx)

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

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<th>London</th>
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Any information not included in this document should be available from specific LETB/deanery websites.
Health Education East Midlands

National Selection Information for ST3

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<th>HOSPITAL</th>
<th>LOCATION</th>
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<td>University Hospitals of Leicester (Glenfield Hospital)</td>
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<tr>
<td>Nottingham University Hospitals (City Hospital)</td>
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This is a relatively newly restructured programme based around the Cardiothoracic centres in Nottingham and Leicester under auspices of Health Education England working across the East Midlands (HEEM).

The East Midlands Training Programme was part of the Trent Training programme and has been a successful programme since its inception after Sheffield joined the Yorkshire programme in 2009.

This programme is approved for those trainees who wish to become a **Specialist Thoracic surgeon**, reflected in the internationally recognised higher training in thoracic oncology (lung, pleura and oesophagus) and **Specialist Cardiac Surgeon** offering various training opportunities in the subspecialisation of cardiac surgery. The programme also offers opportunities in pursuing an academic career in conjunction with the Academic department of Cardiac Surgery and Faculty of Thoracic Oncology in the University of Leicester.

The programme from its inception has been stronger in Thoracic training opportunities with cardiac training limited to ST6 level. The programme has undergone significant changes over recent years brought about by enthusiastic and committed trainers and supported by the School of Surgery and STC at all levels. This has resulted in a rejuvenated cardiac training base and opportunity which resulted in the programme being re accredited by the SAC for complete higher cardiac training in 2016. The programme encourages Cardiac Career oriented trainees to benefit from the training opportunities available in the region.

The programme commences with 2 years in Core Cardiothoracic Surgery including exposure to Congenital surgery, adult and paediatric ECMO. In addition there is wide exposure to basic adult thoracic and cardiac surgery.

We offer the 1+5 year module advocated by the SAC to maximise training in the chosen branch of the specialty be it Cardiac or Thoracic Surgery.

We have links with the USA, Canada and China with our trainees benefitting from Out of Programme training opportunities. We have attracted trainees from other region coming to our region to gain advance skills in thoracic surgery. Our aim is to give unrivalled comprehensive preparation for the FRCS(CTh) exam and all round preparation for a Consultant Career.
The programme has been successful in previous rounds of National selection bids with successful progression of trainees.

2016: ST3,
2015: ACF (East Midlands NTN),
2014: ST3
2013: ST3 and ST1
2012: ST3

We have been successful in the training and progression of the ST1 trainee who was successful in securing the ACF post in 2015.

The Programme has 8 Training post approved by the Post Graduate Dean for higher Specialist Training and 1 NIHR funded ACF.

Our program offers a broad grounding in all aspects of general thoracic, adult cardiac, congenital cardiac surgery and ECMO

Programme Information

Head of School: Mr Mark McCarthy Consultant Vascular Surgeon, University Hospitals Leicester

Training Program Director – Mr Sridhar Rathinam, Consultant Thoracic Surgeon, University Hospitals Leicester

Thoracic Training Faculty –
Nottingham:
Mr John Duffy, Dr Andrzej Majewski, Mr Emmanuel Addae Botang, Mr Mohammed Hawari
Leicester:
Mr Apostolos Nakas, Mr Sridhar Rathinam, Mr Keng Ang

Cardiac Training Faculty –
Nottingham:
Prof David Richens, Mr Ian Mitchell,
Mr Adam Szafreneck
Leicester:
Prof Gavin Murphy, Mr Mark Hickey, Dr Jacek Szostek, Dr Giovanni Mariscalco, Dr Victor Zlochas, Mr Christopher Efytimiou

Congenital/ECMO Training Faculty – Dr S Speggiorine

Training Posts:
The Region has 8 posts approved by the Post Graduate Dean and One NIHR Funded ACF post. The posts are distributed two each in the participating units between the specialties taking trainee needs and training opportunities into consideration.

University Hospitals of Leicester NHS Trust -Glenfield Hospital:

Thoracic: 3 training posts, 1 in 5 non-resident rota Complete array of Thoracic practice with focus on mesothelioma, lung volume reduction, chest wall and VATS resections.
(Currently 1 ST8 (OOPT from Wales till Feb 2017), 1 ST3, 1 ST4 (ACF))
**Cardiac:** 2 training posts, 1 in 5 non-resident rota. Complete array of cardiac surgery practice with focus on mitral, aortic and OPCAB (Currently 1 ST4, 1 Clinical Fellow)

**Congenital:** 0 training post; 1:3 non-resident rota. All aspects of congenital cardiac surgery and ECMO (Currently none)

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

**Cardiac:** 2 training posts, 1 in 5 non-resident rota (Currently 2 LAS) Complete array of cardiac surgery practice with focus on mitral surgery and trauma

**Thoracic:** 2 training posts, 1 in 5 non-resident rota Complete array of Thoracic practice with focus on Oesophageal surgery chest wall and VATS resections.

(Currently 1 ST7, 1 ST8 CCT May 2017)

**Expected rotation arrangements for this programme are:**
The rotation will arrange the rotation to suit individual trainee needs within the confines of the ISCP Curriculum and SAC Requirements.

**Proposed Rotation:**  ST3 Cardiac Theme *(Subject to change due to needs of trainee and programme)*

<table>
<thead>
<tr>
<th>Year</th>
<th>Base</th>
<th>Specialty</th>
<th>Specialty</th>
<th>Exam</th>
<th>Assessment</th>
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<tbody>
<tr>
<td>ST3</td>
<td>Leicester</td>
<td>Cardiac Surgery</td>
<td>Cardiac Surgery with Congenital exposure</td>
<td>CTS ARCP</td>
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<tr>
<td>ST4</td>
<td>Nottingham</td>
<td>Thoracic surgery</td>
<td>Thoracic</td>
<td>CTS ARCP</td>
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<tr>
<td>ST5</td>
<td>Nottingham</td>
<td>Advanced Cardiac Surgery</td>
<td>Advanced Cardiac Surgery</td>
<td>CTS ARCP</td>
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<tr>
<td>ST6</td>
<td>Leicester</td>
<td>Advanced Cardiac Surgery OPCAB</td>
<td>Advanced Cardiac Surgery (Aortic)</td>
<td>CTS ARCP</td>
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<tr>
<td>ST7</td>
<td>Leicester</td>
<td>Advanced Cardiac Surgery( Mitral)</td>
<td>Option for OOPT</td>
<td>FRCS(CTh)</td>
<td>CTS ARCP</td>
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<tr>
<td>ST8</td>
<td>Nottingham</td>
<td>Advanced Cardiac Surgery (Mitral)</td>
<td>Advanced Cardiac Surgery (Finishing school)</td>
<td>CTS ARCP</td>
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Proposed Rotation: ST3 Thoracic Theme *(Subject to change due to needs of trainee and programme)*

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<th>Year</th>
<th>Base</th>
<th>Specialty</th>
<th>Specialty</th>
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<tr>
<td>ST3</td>
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<td>Thoracic surgery</td>
<td>Thoracic Surgery</td>
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<td>CTS ARCP</td>
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<tr>
<td>ST4</td>
<td>Leicester</td>
<td>Cardiac surgery</td>
<td>Cardiac surgery</td>
<td></td>
<td>CTS ARCP</td>
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<tr>
<td>ST5</td>
<td>Nottingham</td>
<td>Advanced Thoracic Surgery (VATS)</td>
<td>Advanced Thoracic Surgery (Oesophageal)</td>
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<td>CTS ARCP</td>
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<tr>
<td>ST6</td>
<td>Leicester</td>
<td>Advanced Thoracic Surgery (VATS)</td>
<td>Advanced Thoracic Surgery (Mesothelioma)</td>
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<td>CTS ARCP</td>
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<tr>
<td>ST7</td>
<td>Nottingham</td>
<td>Advanced Thoracic Surgery</td>
<td>Option for OOPT</td>
<td>FRCS(CTh)</td>
<td>CTS ARCP</td>
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<tr>
<td>ST8</td>
<td>Leicester</td>
<td>Advanced Thoracic Surgery (Chest Wall Emphysema)</td>
<td>Advanced Thoracic Surgery (Finishing school)</td>
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<td>CTS ARCP</td>
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The Programme offers opportunities for OOPT in Seattle, Mayo Clinic, Toronto, Hong Kong and Ghangzhou for Thoracic from previous links.

It offers OOPT options in France for Cardiac Surgery.

The Region:

East Midlands is one of the UK’s most popular regions centred around the towns and cities of Leicester, Nottingham, Derby, Lincoln and Northampton, the East Midlands is one of the UK’s most vibrant regions. House prices are 44% lower than the South East and 62% lower than London with hourly trains to London taking around 70 minutes.

In your spare time you can enjoy:

- The great outdoors - spend a day in the Peak District, on Rutland Water, in Sherwood Forest, at Lincoln Cathedral, or exploring Derby’s Victorian parks
- International sport - watch Premier League football, European rugby and Test cricket or get involved at the National Watersports Centre, Derby Velodrome and National Ice Centre

Great nights out - the region boasts world-class concert venues, the UK’s most established comedy festival and international dance, drama, film and music.

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 Cardiac Surgical Unit has 49 surgical beds, 23 adult intensive care beds and 10 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 over 1000 operations for acquired heart disease, 300 operations for congenital heart disease. 80 patients were treated at the regional unit for extra corporeal membrane oxygenation based at this hospital. The Thoracic Surgical Unit has 24 beds including 6 integrated HDU beds. The full range of pleuropulmonary, chest wall and mediastinal surgery is performed for Leicestershire, Northamptonshire, South Staffordshire and South Derbyshire together with national referrals for mesothelioma surgery. Annual workload comprises over 1000 thoracic surgical procedures including 50 radical mesothelioma resections and 45 LVRS procedures. Over 30% of all major lung cancer resections are performed by VATS. Trainees carried out 60% of all lung cancer resections last year.

**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: Cardiac Surgery, Thoracic Surgery, Renal Dialysis and Transplantation, Burns and Plastics, Cytogenetics and neonatal Medicine and Surgery. Over 750 major thoracic operations are performed each year including 60 major oesophageal resections. Over 800 cardiac cases are performed each year through a 16 bedded critical care unit which is staffed by nurse practitioners allowing the trainee surgeons to run a non-resident on-call rota.

**Teaching**

In addition to the local MDTS and weekly departmental teaching sessions the rotation has an organized, comprehensive regional teaching program including a biannual Midlands Cardiothoracic Surgical Meeting which encompasses hands-on training and abstract competition. The programme boasts off cadaveric wet-lab facilities in Nottingham and wet and dry lab facilities in both the units. Leicester offers the TOE Course and one Lung Course.

**Trainers**

All the consultants of the rotation have completed TtT, Trace and have registered with ISCP.
The chairman of the Joint College Intercollegiate Examination (JCIE), Prof David Richens is Consultant Cardiothoracic Surgeon at Nottingham University Hospital. The SCTS Thoracic Tutor, Mr Sridhar Rathinam is a Consultant Thoracic Surgeon in the Leicester who co designed and implemented the SAC SCTS Curriculum based courses.

Messrs Duffy and Rathinam are Intercollegiate Cardiothoracic Examiners. The newly appointed Consultants in Nottingham and Leicester are all recent NTNs with an interest in training.

Our faculty are actively involved with national educational events including;

1. Essential Skills Course in Cardiothoracic Surgery
2. Core Thoracic Surgery Course
3. Professional Development Course
4. Birmingham Review Course
5. Introduction to Cardiothoracic Training
6. RCSEd Training the Trainer Course
7. EACTS Thoracic Course
8. SCTS University
9. Cardiothoracic Trainees National “Boot Camp”

Trainees:
All trainees are offered an educational contract with their AES, this is periodically reviewed by the AES as well as by the HEEM and STC at annual and interim ARCPs.

ISCP: The educational programme and assessments are carried out in keeping with the ISCP work based assessments.

The trainees are expected to attend the SCTS courses pertaining to their levels.

The deanery has mechanisms in place to support trainees in difficulty with the professional support unit.

The programme offers opportunities for flexible working and in an equal opportunities employer. We have offered maternity time off and reduced flexible working on return.

EWTD rota compliance (inc effect of EWTD on training)
These rotas have been authorised as compliant by an SHA wide group ensuring EWTD is implemented.

Appropriate and safe learning environment and procedures (facilities, handover, consent etc).
Handovers are facilitated by nerve centre, excel spread sheets passed from doctor to doctor.

Level of Deanery support and engagement in quality assurance of training
The program is integrated into the East Midlands Postgraduate School of Surgery and is therefore subject to the Quality Assurance program of the School. The Specialist Training Committee has regular representation from the School and Deanery.
Equality and diversity issues within the training programme (inc flexible training provision and uptake)
All appointments have been supported by the Deanery’s equality and diversity process. We have supported two flexible trainees in the last 7 years.

Level of trainee feedback within training programme
The RTC has co-opted a trainee rep (Mohammed F Chowdhry) who reports issues directly. Trainees complete placement assessment forms.

Regional Monthly Teaching Programme 2015-16

| Seminar                          | Mediastinal disorders                                      | Mr Emmanuel Addae-Boateng  
Nottingham City Hospital |
|----------------------------------|-----------------------------------------------------------|-----------------------------|
| Seminar                          | Lung Cancer surgery assessment                             | Mr Rathinam  
Glenfield Hospital |
| Seminar                          | Oncological Management of Lung Cancer                     | Dr Sridhar, Oncologist,  
University Hospitals  
Leicester |
| Wet labs, Seminars and Abstract presentation | Midlands Meeting  
High Risk Lung Cancer Resection  
VATS Lung Resection  
Tracheal Surgery  
Aortic Arch Surgery  
Transoesophageal Echocardiography | Glenfield Hospital  
Mr Rathinam, Mr  
Majewski, Mr S Gosh, Mr  
Mariscalco,  
Mr Adam Szafranek, Mr  
Nakas, Mr Duffy, Mr  
Thorpe  
Queens Medical Centre,  
Nottingham  
Mr Naik, Mr Szafranek, Mr  
Mariscalco |
| Cadaveric Wet labs                | Cadaveric Wet Lab  
Axillary artery Cannulation  
Aortic Root Replacement  
Radial artery Harvest  
Theophenous Vein Harvest | Mr Thorpe/Mr Duffy/Mr  
Majewski/ Mr Rathinam  
Clinical Skills Centre,  
Nottingham City hospital,  
Mr Adam Szafranek  
Clinical Skills Centre,  
Nottingham City Hospital |
| Cadaveric Wet labs                | Thoracic Surgery wetlab/Dry Lab  
Pancoast Tumour approach  
Rib disarticulation  
First Rib resection | Mr Thorpe/Mr Duffy/Mr  
Majewski/ Mr Rathinam  
Clinical Skills Centre,  
Nottingham City hospital,  
Mr Adam Szafranek  
Clinical Skills Centre,  
Nottingham City Hospital |
| Wet labs                          | Cardiac Surgery Wet lab/Dry Lab  
Mitral Valve Repair/Replacement | Mr Adam Szafranek  
Clinical Skills Centre,  
Nottingham City Hospital |
| Wet labs                          | Thoracic surgery Wet lab/Dry lab  
Tracheal Surgery | Mr Thorpe/Mr Duffy  
Clinical Skills Centre,  
Nottingham City Hospital |
| Wet labs                          | Cardiac Wet Lab/Dry Lab  
Aortic valve Surgery  
Aortic Surgery | Mr Mariscalco/Mr  
Szafranek  
Clinical Skills Centre,  
Nottingham City Hospital |
Trainee Success

Our Trainees have succeeded in the Intercollegiate Exam on first attempt.
Vijay Joshi first attempt
TM Fiyaz Chowdhry first attempt
Mohamed Hawari first attempt
Keng Ang, passed first attempt

Pre National selection
Kelvin Lau passed first attempt
Rajwinder Jutley passed first attempt
Antonio Ucar passed first attempt
Mohammed Asif passed first attempt
Haitham Abunasra passed fourth attempt
Anthony Walker passed first attempt
Martin Chamberlain passed first attempt

All our Trainees have successfully progressed to substantive Consultant Appointments:

Antonio Ucar Consultant Thoracic Surgeon, Leicester, Nottingham (Now Coventry)
Rajwinder Jutley Consultant Cardiac Surgeon, Nottingham (Now Nairobi)
Martin Chamberlain Consultant Thoracic Surgeon, Southampton
Mohammed Asif Consultant Thoracic Surgeon, Glasgow
Haitham Abunasra Consultant Cardiac Surgeon, Manchester
Anthony Walker Consultant Cardiac Surgeon, Blackpool
Kelvin Lau Consultant Thoracic Surgeon St Bartholomew's Hospital London
Mohamed Hawari Consultant Thoracic Surgeon, Nottingham
Keng Ang Consultant Thoracic Surgeon, Leicester

We have attracted OOPT trainees from other regions due to the rich training heritage and opportunities:

2016 Hazem Fallouch Wales ST8 Thoracic Surgery
2014 Paul Vaughan Wales ST7 Thoracic Surgery
2013 Robert Peters North West Paediatric Surgery NTN with interest in Thoracic Surgery
2012 Jane Atkins ST7 London Thoracic Surgery
2011 Naill McGonigle ST8 Northern Ireland Thoracic Surgery

Success in National selection: Our trainees and non trainees get good clinical and all round exposure which prepares them for their success in the National Selection.

2016 Ricky Vaja Leicester Core Trainee to ST3 London
2016 Yousef Salmasis Leicester Core Trainee to ST3 London
2016 Nabil Hussein Leicester Foundation Trainee ST1 Yorkshire
2013 Thomas Tsiopsis Thoracic Clinical Fellow UHL to ST3 London
2012 Mehmood Jadoon LAT 12 months into ST3 East Midlands
2012  Mohammed Mydin LAT 12 months ST3 North East
2012  Vijay Joshi LAT 12 months into ST3 East Midlands
2011  Amir Khosravi LAT 18 months to ST3 Wessex
       Imran Rizvi LAT 12 months to ST3 South West
       Anupama Barua LAT 12 months to ST3 Yorkshire
2010  Keng Ang LAT 12 months to ST3 East Midlands

**GMC Survey and STAR Rating**
The East Midlands programme has very positive feedback both in the GMC Survey as well as the HEEM STAR rating.

**Summary**
The East Midlands offers a compact, comprehensive training program by a closely co-ordinated committed faculty. We have a perfect record in our trainees passing the FRCS(CTh) exam first time and have placed 9 of our last 9 CCT holders into Consultant posts. We accept that training a general cardiothoracic surgeon is no longer feasible and will aim to train Consultant Cardiac Surgeons and Consultant Thoracic Surgeons with highly developed specialist interests.

**Further information available from:**

Mr Sridhar Rathinam, Training Programme Director
Mr Fiyaz Chowdhry, Trainee Representative on STC
Visit our website: [https://www.eastmidlandsdeanery.nhs.uk](https://www.eastmidlandsdeanery.nhs.uk)
Health Education London and South East

National Selection Information for ST3

Introduction to Programme
The Pan-Thames programme (old North Thames + South Thames) in Cardiothoracic surgery is delivered across 10 centers in London and Brighton for a total of 35 NTN’s. Entry is at ST3 level but an earlier entry at ST1 level is being considered.

Overview
The London Training Programme is the largest in the country and aims to provide excellent clinical as well as academic opportunities for the trainees. Training centres in London are divided into North and South Thames. Training takes place in the following teaching hospitals in London and The Royal Sussex County Hospital in Brighton:

South Thames Hospitals
- Guy’s Hospital
- King’s College Hospital
- St. George’s Hospital
- St. Thomas’ Hospital
- Royal Sussex County Hospital, Brighton

North Thames Hospitals
- Barts Heart Centre
- Hammersmith Hospital
- Royal Brompton and Harefield Hospitals

The London Programme is led by the Lead Provider at St. George’s Hospital where training is conducted collaboratively with the School of Surgery at London Deanery. The program allows for a comprehensive training experience over a very wide range of surgical and academic options. It is also responsible for the existing nationally approved paediatric training between GOS and Birmingham. London has an established excellence for training amongst junior doctors, as was shown by 7 out of the top 10 NTN appointments last year choosing London as their first choice.

London Training programme

In addition to routine procedures, the programme provides;

- Comprehensive range of operations in adult cardiac, paediatric cardiac and thoracic surgery.
- Specialist training in off-pump CABG, mitral valve repair, surgery for aortic root (including valve preserving procedure), arch surgery and de-branching techniques, TAVI, EVAR, ECMO, transplantation, mini-bypass, mini aortic valve replacement, VATS lung resection, surgery for mesothelioma and Norwood operation.
  (Some of these specialist areas have been highlighted in the last addition of the Blue Book).
- Specialist training in imaging - including echocardiography, achieved by spending time in the echo lab.
- Obtaining endovascular and cardiological techniques, achieved by spending time in the catheter lab.
These training opportunities have been discussed with the cardiologists, vascular interventionalists and radiologists and the placements are confirmed. We have an established simulation training program.

Chair of Training Board:
Professor Marjan Jahangiri, St. George’s Hospital

Programme Directors:
Mr. Jatin Desai (South Thames) Kings College Hospital
Mr. Prakash Punjabi (North Thames) Hammersmith Hospital

Teaching Program and Quality Monitoring

A curriculum based Pan Thames education programme is now established, where NTNs and other interested trainees receive dedicated consultant led teaching using lectures, interactive sessions, wetlabs and simulators. A senior thoracic programme is set up for dedicated ST7/8 trainees who have passed the exit FRCS exam and are looking for specialist thoracic training prior to CCT. This will rotate through all the recognized thoracic centres in London.

The NTNs are provided with education contracts at the start of their rotation and progress is monitored and logged using the ISCP web site. Trainees meet with their educational supervisors every two months and with their TPDs twice a year. There are four annual London Training Board meetings where representatives from the SAC, London School of Surgery and trainees meet. Standards are maintained through regular ARCP interviews but trainees are also encouraged to have more informal discussions with their supervisors to ensure that personal training and development is discussed. This allows for appropriate matching of trainers with trainees to be made so that optimum training experience is attained. If focused training is required, a meeting is convened between the trainee, TPD and trainer and a suitable plan is formulated.

Dedicated Training Days. The programme has dedicated teaching days every two months, including two Cardiothoracic RSM meetings per year. The attendance at these meetings is mandatory.

Academic Opportunities. There are several academic and research opportunities in the London Programme of excellent quality. Trainees who do not wish to take part in a formal period of research are encouraged and supervised with clinically based research and audit topics, specific deadlines to complete the projects and present them at national and international meetings. There are also opportunities for trainees to devote a dedicated period of research towards obtaining a higher research degree (MDRes or PhD). There are several cardiovascular laboratories based at Imperial College, St. Thomas’, St. George’s and King’s College Hospitals and their universities providing opportunities for first class cardiovascular research. At the last three meetings of Society for Cardiothoracic Surgery of GB & Ireland, trainees in the programme have had the highest numbers of abstracts and presentations in the UK. On average three trainees are awarded prizes for presentations and research at the annual SCTS meeting.

Quality Monitoring. The London School of Surgery and The Lead Provider, St. George’s Hospital regularly visit and assess the hospitals with Core and Specialist
Trainees. The trainees are interviewed and encouraged to comment anonymously on their training opportunities within the programme. The visit also looks at IT and library access and checks for EWDT compliance. A report is compiled and sent to the Chief Executive, detailing the findings and suggesting changes or giving recommendations. Funding from the Deanery is discretionary and may be withdrawn if standards are not met.

1. EWTD rota compliance (inc effect of EWTD on training). All rotas are fully compliant with EWTD in all the hospitals in London for all levels of doctors.

2. Appropriate and safe learning environment and procedures (facilities, handover, consent etc). All centres have dedicated offices of a high quality for the trainees. Some of the facilities include complete access to Pubmed and CTS Net and University libraries. In addition, to the university library each unit has a general room of all journals in cardiothoracic surgery and medicine. There are twice daily wards rounds by the registrars, senior nursing staff and nurse practitioners. The educational supervisors in each unit have set out clear handover instructions to take place. Individual consultants take responsibility for consenting of their patients. At times the consent is performed by the registrar’s. Again, at the outset the educational supervisors and the individual consultants have set out the criteria for consenting.

3. Level of Deanery support and engagement in quality assurance of training
The Training Board meets four times a year in association with the School of Surgery at London Deanery. There are at least two representatives from each unit, two representatives of SAC, trainee rep and representations from Quality Team present. The London Deanery and Health Education England have undertaken visits to all the units. A written report is made after the visit with recommendations. There are strict requirements to meet the recommendations made and these are assessed by revisits. To date, all units have complied and performed well.

4. Equality and diversity issues within the training programme (inc flexible training provision and uptake). Every consultant has completed the equal opportunity course. There are several members of ethnic minorities comprising the surgical teams in all the hospitals. There has not been a single complaint in any of the hospitals for discrimination.
The programme provides flexible training and one of the registrars who opted for flexible training is now an NTN and another one who had opted out for flexible training has become a consultant.

5. Level of trainee feedback within training programme (GMC survey, e.g. 5/7) and any challenges to training highlighted. Trainees are invited to the visits of the Deanery. NTNs, non NTNs and core trainees are invited to obtain a clear and general as well as specific idea of quality of training. We believe that we are the only School of Surgery which regularly visits units with written feedback and action points which require implementation. Furthermore, there is always a non-cardiac surgeon present as part of the visiting group, ensuring externality.

There are educational contracts signed by the educational supervisors. The trainees are reviewed at a minimum of 3 monthly intervals with extensive in-house assessments. There are also extensive ARCP assessments at the London Deanery.
6. Level of trainer feedback within the training programme (GMC survey). A trainee survey is performed annually, the results of which are shared with the SAC. The last SAC report was very favourable and commended the London Programme to be of an excellent quality in all aspects of training. During the visits described in section five, the trainees are invited to attend. To ensure an honest and unrestrained reporting, the trainees and trainers are met separately with confidentiality. A full written report follows the visit with feedback. Furthermore, during ARCP assessments there are opportunities for feedback to trainees. On these occasions, it is ensured that trainees are not assessed by their current trainers, again to ensure impartiality and externality.

Clinical Activity
The trainees spend a minimum of 2 full days in the operating theatre with full supervision and graded training. Attendance at at least one MDT is mandatory. Trainees attend and conduct clinics at least once a week seeing both new and follow-up patients.

Research and Academic Activity
There are opportunities for all cardiothoracic registrars and also doctors in their core surgical training to take part in clinical, basic science and clinical trials research. The Deanery provides excellent facilities for these individuals to either enter research before their specialist training or take a period out of their formal programme. In addition the basic research provided by St. Thomas’s, King’s College, Imperial College and St. George’s Hospital; St. George’s Hospital provides a comprehensive range of research for trainees in cardiology and cardiothoracic surgery. In the last 7 years 15 candidates have registered for MD (Res) and PhDs and have completed and have been awarded their degrees.

There is strong collaboration between all the hospitals and respective universities. Some of these collaborations include Department of Cardiac and Vascular sciences, St. George’s University of London, James Black Cardiovascular Centre at King’s, Cardiovascular Research Institute at St. Thomas’ Hospital and the Rayne’s Institute at University College of London.

London Postgraduate Medical and Dental Education
Please find below a link to the Surgery Specialty Schools section for London: http://www.lpmde.ac.uk/training-programme/specialty-schools/surgery
Northern Ireland Medical and Dental Training Agency

Deanery Information

The Northern Ireland Medical and Dental Training Agency (NIMDTA) is responsible for funding, managing and supporting postgraduate medical and dental education within the Northern Ireland Deanery. It provides a range of services for those engaged in the delivery of postgraduate Medical and Dental education and training.

Overall management responsibility rests with the Chief Executive / Postgraduate Dean, Professor Keith Gardiner.

http://www.nimdta.gov.uk/
Health Education Yorkshire and the Humber

National Selection Information for ST3

**Rotation Base(s)**

<table>
<thead>
<tr>
<th>HOSPITAL</th>
<th>LOCATION</th>
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<tbody>
<tr>
<td>Leeds General Infirmary</td>
<td>Leeds</td>
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<tr>
<td>St James’ University Hospital</td>
<td>Leeds</td>
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<tr>
<td>Northern General Hospital</td>
<td>Sheffield</td>
</tr>
<tr>
<td>Castle Hill Hospital</td>
<td>Hull</td>
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</tbody>
</table>

Health Education England - Yorkshire and the Humber offers high quality training across a wide geographical area, which means that training experiences are tailored to meet the needs of our trainees.

We offer a comprehensive training program. In addition to the broad specialty there are training opportunities to gain experience in aortic surgery, mitral valve repair, AF ablation surgery, oesophageal resections, mesothelioma surgery and major chest wall resections.

Following significant investment, HEYH is at the forefront of clinical skills and simulation. Trainees have access to extensive clinical skills facilities including state of the art high fidelity simulators, manikins and simulated patient environments.

HEYH has an extensive quality management process which ensures the training delivered to trainees is of consistent, high quality.

**Rotation Information**

The training program rotates between the four training centres. Trainees spend one year at each of the training centres during the first four years, rotating between posts every 6 months. Each of the training centres can offer significant training opportunities to at least two trainees and for the final two years trainees elect where they wish to continue their training in the program. The aim is that senior trainees are be supernumerary. Any trainee wishing to specialise in cardiac or thoracic surgery should be able to gain as wide an exposure as possible in all four surgical centres.

Transplant surgery is optional and can be arranged as a period of Out of Program Training (OOPT) and congenital training can be arranged in LGI.

**Trust Generic/Specialty Information**

**Leeds General Infirmary**

The cardiac unit was created in 1997 following the centralisation of all cardiac surgery in Leeds to the Leeds General Infirmary.

The Cardiac Surgery service operates from ward and theatre facilities in the Jubilee Wing of the LGI with theatres and all critical care facilities co-located and the ward beds on the cardiovascular floor of the facility.
Therein an outpatient department, 16 inpatient beds, 2 theatres and 14 critical care beds that are co-located level 2 & level 3 to enable flexible use of this capacity to meet service needs.

The unit performs over 1100 cardiac cases per year, with up to 200 operations for congenital heart disease. Middle grade surgeons contribute to over 90% of PBA cases and perform over 30% of cases.

Surgical staff include:
10 Consultant Surgeons
2 NTNs
7 Clinical Fellows at Registrar level
4 Surgical Care Practitioners

Services to patients include:
Mitral valve Surgery
Off-pump coronary artery bypass grafting
Aortic surgery with access to TAVI

St James University Hospital

The largest teaching hospital in Europe with an extensive MRC cancer centre, the thoracic surgical centre at St James is now one of the largest thoracic centres in the country with outpatient facilities, a 25 bedded ward, hob facilities, two theatres plus extra theatre sessions and access to the large ITU.

The unit performs over 300 major cases a year with a large number of endoscopic and minor procedures. Trainees, depending on experience, are involved in all PBA cases performing all or part of the case.

Surgical staff include:
5 Consultant Surgeons
1 NTN
1 LAT
6 Clinical Fellows at Registrar level

Services to patients include:
Endobronchial laser and photodynamic therapy (PDT)
VATS lung resections
Major chest wall resections

Northern General Hospital

Cardiothoracic surgery services for the North Trent population of 1.8 million are located within the South Yorkshire Cardiothoracic Centre, Chesterman Wing, Northern General Hospital. With 5 dedicated cardiothoracic theatres, 28 cardiac surgery beds and 20 thoracic beds, 24 theatre recovery beds, progressive care beds and cardiac Intensive Care unit beds.

The unit performs over 1000 cardiac cases per year with middle grade surgeons contributing to over 90% of PBA cases and performing 23% of cases.

Surgical staff includes:
9 Consultant Surgeons
2 NTNs
1 LAT
7 Clinical Fellows at Registrar level
3 Surgical Care Practitioners

Services to patients include:
Mitral Valve Surgery (minimally invasive)
AF Ablation surgery
Aortic surgery
VATS lung resections and lobectomy
Mesothelioma surgery

Castle Hill Hospital

Newly built, opening in 2010, the cardiothoracic centre at Castle Hill Hospital has excellent facilities with two 25 bedded dedicated cardiothoracic wards with 12 Hob beds, ITU beds, 3 theatres, endoscopy suite and outpatient facilities. The unit performs over 800 cardiac procedures, middle grade surgeons contributing to over 90% of PBA cases and performing 27% of cases. Over 250 major and advanced thoracic cases are performed each year and over 1000 endoscopic and minor cases. Middle grade surgeons contribute to over 80% of all PBA cases and over 60% of minor and major procedures are performed under supervision by trainee surgeons.

Surgical staff include:
6 Consultant Surgeons
2 NTNs
7 Clinical Fellows at Registrar level
4 Surgical Care Practitioners

Services to patients include:
Mitral valve Surgery
AF ablation surgery
Aortic surgery
Minimal access aortic valve surgery
VATS lung resections and lobectomy
Mesothelioma surgery
Endoscopic laser
Oesophageal surgery

Teaching

Hospital based teaching programs

Each unit provides adult cardiothoracic training with paediatric surgery at the LGI. There are weekly teaching sessions at each hospital covering the syllabus and including journal clubs. Wet lab facilities are available at Leeds, Sheffield and Hull. Health Education Yorkshire and the Humber has funded and established simulation facilities in each teaching centre.
Professor M Loubani was appointed as the Educational Training Program Director in 2014 and introduced the Regional Teaching Programme designed to cover all the topics in the Intercollegiate Surgical Curriculum Programme for Cardiothoracic Surgery and to incorporate simulation, Wet Labs and problem based learning. It is planned over two years and intended to be delivered by trainers at all the participating hospitals in the programme over a half a day normally on a monthly basis. The trainees will be released to attend the teaching and will be expected to attend at least 70% of the sessions over the two years. The programme incorporates an all day emergency management training event which is held every six months.

For Further details please contact
Professor Mahmoud Loubani
Consultant Cardiothoracic Surgeon
Castle Hill Hospital
mahmoud.loubani@hey.nhs.uk
Health Education East of England

National Selection Information for ST3

Rotation Base(s)

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<thead>
<tr>
<th>HOSPITAL</th>
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<tbody>
<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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</table>

Health Education East of England information

Health Education East of England supports around 4,000 medical and dental trainees serving a population of 5.6 million. We aim to inspire excellence in all our trainees to ensure our patients receive the highest standard of safe clinical care. Health Education East of England also maintains effective quality management of postgraduate medical and dental education and training, and promotes faculty development for our trainers.

Health Education East of England Map
Cardiothoracic Surgery in East of England

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 & Cardiothoracic Transplantation) and
- Norfolk & Norwich University Hospital (2 educationally-approved posts in General Thoracic Surgery).

Trainees are rotated between posts every 6 months on 1st February and 1st August. During the first 3 years of specialty 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 2000 cardiac operations and 700 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:
- 15 Consultant Surgeons
- 10 Surgical StRs
- 5 Transplant StRs
- 1 National Cardiothoracic Transplant Senior Fellow
- 11 Surgical Care Practitioners
- 10 Foundation Trainees or Core Trainees

Patient services include:
- Adult cardiac surgery, specialist services include:
  - Surgical Maze procedure and Radiofrequency Maze procedure
  - Minimally invasive coronary artery bypass (MIDCAB)
  - Mini-sternotomy aortic valve replacement
  - Complex mitral valve surgery
  - Complex aortic 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

Approximately 30-40% of the cardiac procedures and 50% of the thoracic surgical procedures are performed by the trainee or the middle grade doctor under direct consultant supervision at Papworth Hospital. Apart from the surgical exposure and training, the trainees attend outpatient clinics for training, attend daily Consultant-led ward rounds on ITU when on call, and on most occasions present at the weekly cardiac case conference, attend the thoracic MDT and the daily In-House Urgent cardiac MDT.

There are 2 separate duty rotas - one for cardiothoracic surgery and the other for transplantation.

a) Cardiothoracic Surgery:
   - 1 in 8 or 9 rota that is EWTD compliant – full shift
b) Transplantation:
   - 1 in 5 on-call rota (non-resident): EWTD compliant.

Of the 14 posts, 9 are deanery funded and 11 are educationally-approved.

**Norfolk & Norwich University Hospital** thoracic surgical department performs more than 500 major thoracic surgical 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 Foundation Trainees or Core Trainees

One in three on call rota: EWTD compliant
Two StR posts are deanery funded and educationally approved

**Teaching**

All Consultant Surgeons are dedicated trainers, delivering curriculum-based training on a day-to-day basis.

- Steven Tsui is the Chairman of the Specialty Training Committee, an Examiner for the Inter-collegiate Board in Cardiothoracic Surgery exam and member of the FRCS(CTh) exam question writing group
- Yasir Abu-Omar is the Regional Training Programme Director
- Stephen Large, David Jenkins and Ravi De Silva are members of the FRCS(CTh) exam question writing group
- Aman Coonar is the RCS (Eng) College Tutor for Core Surgical Trainees and is President of the Royal Society of Medicine – Cardiothoracic Section
- Marco Scarci is on the EACTS surgical training and manpower committee
- Narain moorjani is the National Cardiac Tutor

Assigned Educational Supervisors (AES) include:
- Pedro catarino
- Choo Ng
- Marco Scarci
- Ravi de Silva
- Filip van Tornout

**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 *Regional 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.
- There is a monthly *Transplant teaching meeting* and a separate monthly Transplant journal club.
- A *Formal Regional Wet-lab Training* is organised three times a year. This is held 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.

**Trainee Support & Assessment**

In the East of England Cardiothoracic Surgical training programme, assessment of training and trainee progression is considered of paramount importance. As the trainee joins the programme, an Assigned Educational Supervisor (AES) is appointed by the Regional Training Programme Director (TPD). The AES to trainee ratio is not more than 1:3 at any time. Apart from the AES, Clinical Supervisors (CSs) are also allocated to the trainee as he/she rotate through the programme. There is constant interaction between the AES and CSs discussing the trainee performance and implementing changes that would improve training. AESs conduct feedback both ways between the CSs and the trainee.

Assessment of training and progress is an on-going process in our training rotation. The initial meeting between the trainee and the AES takes place within the first two weeks of taking up a post. At this meeting the training goals are agreed and are clearly documented. A trainee induction pack is handed over to the trainee as well. The AES and TPD will facilitate the trainee achieve these goals. The experience of the trainee is assessed by the AES at the initial meeting and this is communicated to the CSs so that they can optimise the individuals training.

Further meetings between the AES and trainee take place every fortnight, the duration of which is about 1 hour. Assessment of training during these meetings is strictly by monitoring workplace-based assessments that the trainee has completed.
PBAs, CBDs, SDOPS, mini-CEXs and mini-PAT are the assessment tools we use to assess training and progression. Logbooks are also reviewed at these meetings to assess out-patient clinic attendance and attendance of formal teaching sessions such as wet labs and presentations. A minimum of 20 WBAs (except mini-PAT) over each 6 months is considered the minimum required. Mini-PAT is conducted annually.

During the AES-trainee meetings, time spent in audit and research is also assessed. All trainees are expected to attend at least 1 Consultant-supervised clinic per week where they see both new and follow up patients. They are also encouraged to participate in departmental audit activities and research during their half a day per week protected time.

A formal interim meeting is conducted between the AES and the trainee to assess progression of training after 3 months in post. If performance of the trainee is not satisfactory, remedial steps are advised and enacted upon by the AES. A formal end-of-term final assessment is conducted towards the end of the 6 months’ training period. All trainees maintain a detailed portfolio (both electronic and paper-based) which is regularly reviewed by the AESs.

**GMC Annual Trainee Survey**

For 2010 and 2011, the Cardiothoracic Surgical Training programme in the East of England has obtained the highest score in the UK in “overall satisfaction”.

Overall scores for the GMC survey in 2015 increase to 93% compared to the national average of 85%

**Anonymous feedback from the East of England cardiothoracic surgical trainees:**

**ST3 trainee:** I find Papworth continues to offer exceptional cardiac surgical training. It provides vast numbers of cases, catering for all levels of trainee experience as well as exposure to multiple complex cases involving ECMO, aortic surgery and transplantation. Teaching has been strengthened by the addition of fortnightly journal club and the reinstatement of weekly combined morning sessions. The two recent visiting wet lab sessions on aortic root surgery and mitral valve surgery have been exceptional and I hope that not only will these sessions continue but we will also be able to introduce our own permanent wet lab to facilitate training.

24 | P a g e  B a c k t o T o p.
ST5 trainee:
Education: Excellent monthly SpR teaching programme, weekly surgical conferences, fortnightly journal club presentations by SpRs and supervised by Consultants.
Operative experience: Excellent training experience in theatre for all levels of training resulting in exponential increase in surgical experience. Regular, fair allocation of lists, appropriate for stage of training.
ITU experience: Heavy ITU exposure, which I have personally found immensely useful.
Transplant surgery: A very organized team, excellent hands on teaching by the consultant physicians. More surgical (implanting) exposure would be beneficial especially for senior trainees.
Support: High level of support from consultant group who are approachable, helpful and encouraging. The AES system works well.
Research potential: We are encouraged to undertake an audit project every 6 months, and have the opportunity to get involved in projects with our consultants although a more formal in house research programme would be welcome.
Overall: One of the most organized training programmes that I know of, from the education side of things, to the support system with our AESs to the daily allocation of registrars to theatre etc. There is a notable constant push from the consultants to do better and perform better, which is very encouraging.

ST3 trainee Papworth:
Papworth provides a trainee with excellent learning opportunities in theatre, clinic and on the wards. Trainees are actively involved in ITU decision making. It has excellent learning opportunities with an active fortnightly journal club and a weekly local teaching program along with a monthly regional teaching program. The new EWTD compliant rota has decreased the amount of operating each trainee is exposed to.

Year 1 LAT trainee Papworth:
Papworth hospital is without doubt the best training unit in the country. Being a very busy unit the learning opportunities are vast but what is particularly unique is the emphasis on training. As a year 1 trainee I have been extremely fortunate to be posted here

ST3 trainee:
Opportunity to operate is fantastic, and the consultant trainers are very keen to give us opportunities to operate.
The ITU training is integral to our progress, but it cuts down theatre time drastically.
The 2 thoracic lists I have been involved in here have allowed plenty of opportunity to operate - I did a lot on both lists.
I feel a massive loss of continuity coming to a unit where we cannot routinely attend the bosses' clinics. Is it at all possible to have one SpR: two consultants?

Post-CCT trainee:
The training programme at Papworth is superb:
1. Wide range of clinical cases / experience
2. Excellent exposure to critical care management
3. Ample opportunity for operative training
4. Educational programme that encompasses: a didactic teaching programme, case presentations and a journal club.
Health Education North East

National Selection Information for ST3

Rotation Base(s)

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<tr>
<th>HOSPITAL</th>
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<tr>
<td>James Cook Hospital</td>
<td>Middlesbrough</td>
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<tr>
<td>Freeman Hospital</td>
<td>Newcastle</td>
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Health Education North East (HENE)

Health Education North East
Health Education North East operates across a wide and geographically varied area covering Northumberland, Tyne and Wear, North Cumbria, County Durham and Tees Valley. We work with 11 acute trusts (which includes two specialist trusts providing mental health and learning disabilities services), 13 primary care trusts, 196 general practice training practices and 60 general dental training practices.

In the recent GMC 2014 National Trainee Survey, Health Education North East have been ranked number one for a fourth year running in the following:

- Overall trainee satisfaction
- Clinical supervision
- Educational supervision
- Supportive feedback

For other areas where Health Education North East have been ranked highest in the country, please visit our website [http://ne.hee.nhs.uk/2014/06/26/gmc-survey-results-2014](http://ne.hee.nhs.uk/2014/06/26/gmc-survey-results-2014)

Because we know that the quality of education and training is of paramount importance to you, our investment in our trainers and their training is essential to our success. It is also important to have wide and varied experiences in different fields and environments. You will gain a breadth of experience in selected and supervised hospital posts throughout the area in large university acute hospitals, community hospitals and district general hospitals to ensure you get the training you need to give you a rewarding future career. Within these areas you will have the opportunity to work with nationally and internationally recognised clinicians and leaders.

To find out more information about what it is like to ‘Live and Train’ within Health Education North East you can visit our website [www.ne.hee.nhs.uk/recruitment](http://www.ne.hee.nhs.uk/recruitment)

The School was launched in 2006 and is part of Health Education North East, which manages postgraduate medical and dental education across the North East and Cumbria. Overall, the School is responsible for 314 core and specialty surgical trainees across the region, which extends from the Scottish borders in the north, across to Cumbria in the west and as far south as north Yorkshire.
The School oversees all aspects of training in the ten recognised surgical specialties and its core function is to manage the quality of training, ensuring that trainees have access to the highest standards of teaching at all stages of their training programme. The School also has a lead role in trainee recruitment, assessments and appraisals, preparation for examinations, practical skills training and the development of non-technical skills. The School has close links to the Newcastle University Medical School and other Universities in the region which provide health related education and research. The North East has an excellent reputation in surgical research and trainees are encouraged to become involved in the academic aspects of surgery. In addition, there are opportunities to gain specific training in Medical Education and Medical Leadership. Training has to comply with the requirements of the surgical curriculum so the School works with the Royal Colleges and Specialty Advisory Committees at all levels.

The aims of the School are:

- To prepare and equip surgeons to meet the challenges of surgical practice and deliver the highest standard of care for patients
- To deliver surgical education programmes within Health Education North East that meet GMC quality standards and embrace College guidelines and ethos
- To recognise and respond to the needs of our trainees, trainers and their employers

For further information, please visit;

[Health Education North East](http://ne.hee.nhs.uk/)

**Rotation Information**

This application for a NTN is for a training rotation in Health Education North East which will offer the training in the full range of cardiothoracic surgery.

HENE provides 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).

HENE has embraced the practicalities of the Intercollegiate Surgical Curriculum Project, the European Working Time Directive, and can offer committed training to match the training opportunities of each trainee.

The training programme will be 6 years. Training will include Adult Cardiac and Thoracic. Training in congenital surgery and transplantation will be available depending on the chosen career intentions of the trainee.

**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.

**Trust Generic/Specialty Information**

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 Health Education North East, 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.
Scotland

**The Scotland Deanery Selection Information for ST3**

The Scotland Deanery ([http://www.scotlanddeanery.nhs.scot](http://www.scotlanddeanery.nhs.scot)) is managed across four regions in five offices and provides the quality management of training to ensure that GMC standards are met.

The Deanery is structured through work streams, ensuring there is national leadership across policy areas delivered in a regional setting, supporting training in Health Boards across Scotland. For Scottish Medical Training Links:

[http://www.scotmt.scot.nhs.uk](http://www.scotmt.scot.nhs.uk)

**Training Delivery**

This programme involves placements in some or all of these Health Boards and hospitals:

- Aberdeen Royal Infirmary
- Golden Jubilee National Hospital, Clydebank
- Royal Infirmary of Edinburgh
- The Queen Elizabeth University Hospital Glasgow

**Contacts and Useful Links**

- **Deanery sponsoring programme**: South-East of Scotland
- **Postgraduate Dean**: Professor William Reid
- **Responsible Associate**: Alistair Murray
- **Programme Type**: National
- **Specialty or Sub-specialty**: Specialty
- **Date of GMC recent approval**: October 2016
- **Associated Royal College – Faculty**: [Joint Committee on Surgical Training](http://www.scotmt.scot.nhs.uk)
- **Curriculum and Associated Assessment System**: [Intercollegiate Surgical Curriculum Programme](http://www.scotmt.scot.nhs.uk)
- **Deanery Administrative Contact**: Fiona Fourie
  - Deanery Office
  - NHS Education for Scotland
  - Wesport102
  - Edinburgh EH3 9DN
Programme Director
John Butler
Department of Cardiothoracic Surgery
Agamemnon St
Clydebank G81 4DY
email: john.butler@gjnh.scot.nhs.uk

Programme Description

GMC Reference: SES/SRT/460

Cardiothoracic surgery in Scotland, serving a population of 5.5 million, is delivered in four major centres. These perform in total in the region of 2210 adult cardiac cases, 1200 thoracic cases and 280 congenital cardiac cases per year. Placements across Scotland are managed by the South East of Scotland Deanery. Training is delivered in the South East Scotland, North of Scotland and West of Scotland Deaneries.

Between the units, a wide exposure to cardiac, thoracic, transplant and congenital surgery is offered, with sub-specialty interests including off-pump surgery, mini-AVR, TAVI, mitral valve repair, Cardiac transplantation, mechanical circulatory support, VATS lobectomy and paediatric cardiothoracic surgery. The Scottish Programme has a long history of training Consultants who work in the Scottish units as well as being a net exporter of Consultants to prestigious units elsewhere in the UK and the world.

Entry to training is usually at ST3 level with some recent appointments at ST1 level. The training programme in Cardiothoracic Surgery is nominally 6 years long from ST3, progress to subsequent years being dependent upon satisfactory attainment of certain competencies, reviewed at the Annual Review of Competence Progression (ARCP). Like other surgical specialties, these competencies are defined within the Intercollegiate Surgical Curriculum Programme (ISCP).

Trainees for the Scottish Programme are selected and recruited by a single UK National process involving Scotland, England, Northern Ireland & Wales. Applicants are ranked by the selection centre (organised by the Wessex Deanery with full involvement from all UK training programmes). Allocations of successful candidates are made on the basis of the candidate's ranked preferences.

Placements within the Scottish Programme are at the discretion of the Programme Director with the support of the Scottish Training Committee. All trainees will be expected to rotate to every training centre at some time in their training. In practice, trainees might be broadly based in either GJNH Glasgow or RIE Edinburgh, with one year in ARI Aberdeen and with additional experience in Paediatric Cardiac Surgery. Advanced Thoracic Surgery, Cardiac Transplantation and Heart Failure Surgery exposure will be by arrangement. Sub-specialty experience elsewhere in the UK or the world will be actively supported in senior years, usually by the OOPE route.

Manpower planning for Cardiothoracic Surgery in Scotland and the UK has indicated that the steady state for Cardiothoracic NTNs in Scotland will be 7-8 for the foreseeable future. In practice there will be 5 in the West (Glasgow), 2 in the South-East (Edinburgh) and 1 in the North (Aberdeen).
Further Information

Further information on the specialty in Scotland can be found on the Programme website:  www.stracts.co.uk

Other useful links

The Society for Cardiothoracic Surgery in Great Britain and Ireland:  www.scts.org
The British Medical Journal Careers website:  BMJ careers

Quality of Training

We have had two trainees appointed at ST1 level, both of whom have progressed with satisfactory ARCPs. Both have passed the MRCS at the first attempt. Their technical skills have developed to the level of performing major cardiothoracic cases (open lobectomy, AVR, single CABG) under supervision at the end of ST1. Their competencies have advanced to allow them to join the senior on-call rota within six months of taking up the post.

Assessments are by the ARCP process undertaken once yearly by Cardio-thoracic Specialty Training Committee along with support from Scottish Deanery and representation from East or West of Scotland Core Surgical Training Programme. WBAs, Logbook of procedures with levels of competence, Courses attended, Audit, Publications and Presentations are assessed. Support and advice is offered to individual trainees to optimise training opportunities.

The candidate will have the opportunity to attend:

- ATLS, BSS, CCRISP, Generic Deanery based courses
- Highland Surgical Boot camp – clinical, scenario-based, technical and non-technical skills course
- Simulation based training – wetlab, drylab, high and low fidelity simulator based courses
- MRCS and relevant Basic Specialty Skills in Cardiothoracic Surgery courses

Scottish centres are equipped with excellent Skill Centres and support staff to facilitate out of operating room training.

- Local – individual hospital based MDT, Educational, M & M and Audit meetings
- Regional – East and West of Scotland Curriculum based Core surgical training meetings
- Supervised wetlab and drylab simulation-based training using VATS and laparoscopic simulators, pig hearts and lungs

Rotation Information

The expected programme is:

ST1 & 2 – linked to Core training but tailored to CT: 18 months cardiothoracic, 6 months general surgery (pre MRCS) or medical specialities (cardiology, respiratory, ITU)
ST3 & 4 – rotating, typically 1 year cardiac (usually Aberdeen), 6 months thoracic, 6 months congenital

ST5 & 6 – complete 1 year thoracic & cardiac (Glasgow or Edinburgh), choose preferences, exam preparation
(a thoracic themed post would be readily accomplished between the two large thoracic units in Edinburgh and Glasgow)

ST7 & 8 – subspecialisation, fellowship encouraged pre- or post-CCT

Trust Generic / Specialty Information

Outcome data
Unit outcome data is available on the Society for Cardiothoracic Surgery (SCTS) website: Edinburgh: http://scts.org/hospital/royal-infirmary-edinburgh/
Aberdeen: http://scts.org/hospital/aberdeen-royal-infirmary/

For the Royal Hospital for Children, outcome data is available on the NICOR website: https://nicor4.nicor.org.uk

Trainers involved in programme

Royal Infirmary Edinburgh: 2 cardiac surgeons, 4 cardiothoracic surgeons, 1 thoracic surgeon
Golden Jubilee National Hospital: 4 cardiac surgeons, 3 cardiac & transplant surgeons, 2 cardiothoracic surgeons, 3 thoracic surgeons, 4 congenital surgeons
Royal Hospital for Children: 4 congenital surgeons

Number of GMC accredited Trainers

Aberdeen Royal Infirmary 1
Royal Infirmary Edinburgh 3
Golden Jubilee National Hospital 2 (with 3 more in progress for recognition)
Congenital 2

Trainee / Trainee ratio

>1:1

Posts held

Aberdeen Royal Infirmary: 1 Scottish Training Committee member
Royal Infirmary Edinburgh: 1 Scottish Training Committee member
Golden Jubilee National Hospital: TPD for Scotland, 1 Scottish Training Committee member, 1 MRCS examiner, 3 FRCSCTh examiners
Royal Hospital for Children: 1 Scottish Training Committee member

Curriculum based teaching
Royal Infirmary Edinburgh

Teleconferenced SESATS quiz or Journal Club with Golden Jubilee weekly
- trainee attends one MDT weekly; one Outpatient Clinic weekly, minimum of 4 (2 days) theatre sessions/week

Golden Jubilee National Hospital

Every Wednesday 5-6 p.m alternating SESATS quiz or Journal Club
Every Friday afternoon two hour topic-based teaching, presented by Trainees or Fellows
Permanent accessible simulation bench – thoracoscopy (Taskit and Wii game Underground); coronary anastomosis; mitral valve, aortic valve and aortic root replacements
Cardiac MDTs every Tuesday, Wednesday, Thursday and Friday morning
Thoracic MDTs daily (internal or external)
- trainee attends at least one MDT per week, Consultant’s Outpatient Clinic weekly, minimum of four (two days) theatre sessions per week

Aberdeen Royal Infirmary

Teleconferenced SESATS quiz or Journal Club with Golden Jubilee weekly
- trainee attends one cardiac & one thoracic MDT weekly, one Outpatient Clinic weekly, minimum of 4 (2 days) theatre sessions/week

Royal Hospital for Children

Wed a.m. 1 hour didactic teaching
Friday a.m. Journal Club
Friday p.m. 4 hour MDT
Minimum of four (two days) theatre sessions per week

Regional

Wetlab (in Golden Jubilee Research Institute) four times per year – two cardiac, two thoracic
Teleconferenced Journal Club fortnightly (based in Golden Jubilee, linked to Edinburgh and Aberdeen)

In addition trainees are strongly encouraged to attend SCTS Ethicon curriculum-aligned courses, the SCTS Annual Meeting and the RSM Cardiothoracic Section. There is Deanery funding support available.

Example trainee logbooks (ARCP June 2016)

Trainee 1 (ST7)
- First time isolated CABG: 178
- First time isolated AVR: 68
- Combined valve and graft: 15
- Mitral valve surgery: 17
- Cox Maze VI: 6
- ASD closure: 3
• Removal of atrial myxoma: 1  
• Pericardectomy: 2  
• Redo-valve surgery: 1  
• VATS AF ablation: 1  
• VATS minor procedures: 101  
• Anatomical lung resection (all thoracotomy): 59  
• Pneumonectomy (all thoracotomy): 5  
• Emphyema surgery: 14  
• Oesophageal surgery (excluding resections): 8

Trainee 2 (ST7)  
• First time isolated CABG: 132  
• Valve surgery: 70  
• Combined valve and graft: 37  
• Aortic root replacement: 1  
• Anatomical lung resection: 28  
• Wedge resection: 6  
• Mediastinal tumour resection: 12  
• Pectus correction: 4  
• Chest wall resection: 2

Trainee 3 (ST1)  
• First time isolated CABG: 3  
• First time isolated AVR: 1  
• Median sternotomy: 36  
• Sternotomy closure: 40  
• LIMA harvest: 16  
• Long saphenous vein harvest: 21  
• Cannulation for cardiopulmonary bypass: 22  
• Weaning and decannulation: 6  
• Proximal coronary anastomosis: 25  
• Lobectomy: 7  
• Wedge resection: 7  
• Other VATS procedures: 12  
• Thymectomy: 2  
• Pleurectomy: 2  
• Thoracotomy: 17

Teleconference SESATS question session:
Wetlab teaching:

Drylab bench: