Training Programme Information for Posts in Paediatric Cardiology at ST4 Level

Recruitment 2013

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 Paediatric Cardiology can be found on the Joint Royal Colleges of Physicians Training Board (JRCPTB) website: http://www.jrcptb.org.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 Midlands (rotates with West Midlands)</th>
<th>Mersey</th>
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<tr>
<td>Northern</td>
<td>Severn</td>
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<tr>
<td>Wessex</td>
<td>West Midlands (some posts rotate with East Midlands)</td>
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<td>Yorkshire &amp; The Humber</td>
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Any information not included in this document should be available from specific deanery websites.
East Midlands Deanery

This is a 5 year National Training Numbered post in Paediatric Cardiology, based in East Midlands Deanery, to provide training in Congenital Cardiology at the East Midlands Congenital Heart Centre, Glenfield Hospital, Leicester, and Birmingham Children’s Hospital. It will provide comprehensive training in all aspects of congenital Cardiology according to the current paediatric cardiology curriculum (2011) contributing towards the award of a CCT, subject to satisfactory annual appraisals. The successful candidate will be working alongside the team of congenital heart disease cardiologists, cardiac surgeons and paediatric intensivists in the children’s wards, children’s outpatient departments, PICU and the adult cardiac wards. He/she will participate in managing the care of paediatric and adult congenital patients at registrar level. He/she will be expected to learn and perform all aspects of the cardiological care of congenital heart disease patients, including ECG interpretation, echocardiography, cardiac catheterisation, fetal cardiology, electrophysiology, Cross-sectional imaging, and adult congenital heart disease. The post will include responsibility for day to day running of the paediatric cardiology ward, planning and implementing management under the supervision of the consultant staff and presenting cases at departmental MDT meetings.

The post is recognised for training by the Royal College of Physicians.

A minimum of two years of UK Paediatric Training including Neonatal Paediatric and experience at Senior House Officer level or equivalent overseas experience is required as is possession of the MRCP or equivalent.

Essential person specification

A minimum of two years of UK paediatric training, including neonatal paediatrics and specialist trainee experience, or equivalent overseas experience, is required as is possession of the MRCP or equivalent.

Teaching

The successful candidate will be expected to participate in regular ward teaching of medical students and also in weekly cases presentations and junior medical staff teaching and audit sessions on a rotational basis. The fellow will also be encouraged to participate in the teaching programmes for nursing and paramedical staff.

He/she will take active part in postgraduate programme organised both by the Postgraduate Education Centre at Glenfield Hospital and the team of Paediatric Cardiologists and Paediatric Intensivists. He/she will be also expected to attend the National Training Days for Paediatric Cardiology trainees and to be actively involved in research and audit projects during his/her training.
**On-Call commitments**

At EMCHC the successful candidate will participate in the paediatric cardiology registrar on call rota, with 1 in 6 non-resident on-call duties. There is currently a 1 in 8 on call rota for placements at Birmingham Children’s Hospital.

**Provisional job plan / training opportunities for SpR in paediatric cardiology, EMCHC site**

The fellow will be expected to participate in a minimum of 2 outpatient clinics each week, as well as 3-5 ward sessions and one ‘sub-speciality’ session. These will be allocated from among the following weekly activity schedule.

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<td><strong>Monday</strong></td>
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<tr>
<td>0830 Ward Round PICU,</td>
<td>1400 Cardiac Catheter List</td>
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<tr>
<td>0900 Ward Round in Child</td>
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<tr>
<td>0900 ACHD OP Clinic –</td>
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<tr>
<td>0900 Dr Bolger</td>
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<td><strong>Tuesday</strong></td>
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<tr>
<td>0830 preop surgical</td>
<td>13.30 OP clinic Dr Shebani</td>
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<tr>
<td>0900 Ward Round wd 30</td>
<td>15.30 Cardiac genetics clinic</td>
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<tr>
<td>0900 OP Clinic – Dr Bu’Lock</td>
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<tr>
<td>Cardiac Catheter List (All day)</td>
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<td><strong>Wednesday</strong></td>
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<td>0800 Joint Congenital</td>
<td>1400 Fetal Echo clinic LRI</td>
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<tr>
<td>0930 ward round wd 30</td>
<td>1400 Junior staff teaching</td>
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<tr>
<td>0900 OP Clinic – Dr</td>
<td>1345 Paediatric arrhythmia OP</td>
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<td>1000 Taliotis</td>
<td>1345 OP clinic – consultant to be</td>
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<td>0900 EP List – Dr Duke</td>
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<tr>
<td>1400 Fetal Echo clinic LRI</td>
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<td><strong>Thursday</strong></td>
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<tr>
<td>0830 precatheter meeting</td>
<td>1400 Ward 30 ‘Grand Round’</td>
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<td>0900 ward round wd 30</td>
<td>1400 imaging clinic</td>
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<td>0900 OP Clinic – Dr</td>
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<td>1400 Ward 30 ‘Grand Round’</td>
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<td><strong>Friday</strong></td>
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<td>0900 Op Clinic – new patients</td>
<td>1400 Case Conference/Audit</td>
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<td>0900 ward round wd 30</td>
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<td>0900 Cardiac Catheter List</td>
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**Structure and Organisation**

The East Midlands Congenital Heart Centre based at Glenfield Hospital is a multidisciplinary service dedicated to the management of patients of all ages with congenital heart disease for the whole of the East Midlands; i.e. Leicestershire, Nottinghamshire, South Derbyshire, most of Lincolnshire, West Cambridgeshire (Peterborough), Northants (mainly Kettering), and more recently Burton, and parts of Warwickshire. The population referral base is around 4.5 million (and growing) for congenital heart disease.

The collaboration of colleagues from paediatric and adult congenital cardiology, congenital cardiac surgery and paediatric intensive care to form a single seamless service has resulted in a safe, productive and happy working
environment to the benefit of our patients. A full range of services are provided with the exception of transplantation. This includes electrophysiology (including ablation and pacing), interventional cardiology and cardiac surgery (including the Norwood and Ross procedures). Also located at the Glenfield site is adult cardiology, cardiac surgery and ECMO services (paediatric and adult).

Cardiology facilities at Glenfield include High Dependency, Day Care and Outpatient Units. There are 14 paediatric cardiology ward beds (extension plans in progress), and building to extend our current 8 bedded PICU / HDU to 12+ beds is about to commence. There are 130 dedicated adult cardiology beds, 40 cardiac surgical beds, 20 adult cardiac / surgical ICU beds and 60 cardiovascular medicine beds located at Glenfield hospital. There is a Coronary Care Unit at Glenfield Hospital with 16 dedicated CCU beds. The Glenfield site provides 24/7 cover for the management of acute coronary syndromes including primary and rescue PCI. Glenfield Hospital participates in the acute medical take for the Trust with a very specific cardio-respiratory stream of referrals directed to Glenfield via the CCU/CDU. Acquired, adult congenital and paediatric heart disease teams work closely together within the same business unit.

The Congenital Heart Service in Leicester has grown markedly over the last several years with major expansion in both medical and surgical activity. The single site cardiac unit at Glenfield is ideally situated for seamless care of all patients with congenital heart disease. We have three expert Congenital Heart Surgeons (fourth shortly to be appointed). Adult congenital cardiology and cardiac surgery inpatients are generally co-located on adjacent wards with shared junior staff cover.

There is a separate dedicated Congenital Heart Disease outpatient facility with its own 'one stop' digital echo' facilities, Holter monitoring and exercise testing, and there is close collaboration with the ‘adult acquired’ non-invasive investigations service for Cardiopulmonary Exercise testing, Pacing etc. Both paediatric and adult congenital cardiology outpatient clinics are held at Glenfield but paediatric clinics are also held at most of our regular referring centres from around the East Midlands, including Nottingham, Derby, Lincoln, Grantham, Boston, Mansfield, Peterborough, and Kettering. Additional clinics for Nuneaton and possibly also Coventry are being set up. There is also an adult congenital outreach service to Nottingham, Derby, Boston, Lincoln and Mansfield.

We have ‘state of the art’ multislice CT scanning and MRI facilities on site, with a 3T Cardiac MRI scanner recently installed for research purposes. There are 3 full time dedicated cardiac radiologists and we share 2 paediatric radiologists with Leicester Royal Infirmary. There is full anaesthetic capability for both CT and MRI, and regular but limited GA sessions currently provided. This service is ripe for enthusiastic development.

There is also include a large angiocatheter suite with six catheter laboratories including 1 biplane congenital laboratory and two with full Electrophysiology
A Hybrid lab is planned to support both complex congenital interventions and the ongoing TAVI project.

In addition to Cardiology Services, the University Hospitals of Leicester NHS Trust has well established Cardiac Surgery, ECMO, Respiratory Medicine and Thoracic Surgery programmes.

**MEDICAL STAFF**

*Congenital & Paediatric Cardiac Service*

Dr A Bolger  Consultant ACHD cardiologist  
Dr F Bu’Lock  Consultant Cardiologist ; Fetal + ACHD  
Dr A Duke  Consultant Cardiologist ; Lead Interventionist + EP  
Dr S Shebani  Consultant Cardiologist ; fetal + advanced echo  
Dr D Taliotis  Consultant Cardiologist with an interest in intervention  
Dr K Linter  Consultant Cardiologist (locum) with in interest in imaging  
Dr MD Khan  On sabbatical;  
Dr R Gebauer  Consultant Congenital Cardiac surgeon  
Mr A Lotto  Consultant Congenital Cardiac & thoracic Surgeon  
Mr G Peek  Consultant Congenital Cardiac & thoracic surgeon & HOS  
Dr P Barry  Consultant Paediatric Intensivist  
Dr M Duthie  Consultant Paediatric Intensivist  
Dr S Nichani  Consultant Paediatric Intensivist  
Dr S Pooboni  Consultant Paediatric Intensivist  
Dr R Ramaiah  Consultant Paediatric Intensivist  
Dr J Whetlaw  Consultant Paediatric Intensivist  
Dr Claire Westrope  Consultant Paediatric Intensivist  
Dr A Vora  Locum Consultant Paediatric Intensivist  

3 Specialist Registrars in Paediatric Cardiology  
1 Trust Fellow in Paediatric Cardiology  

8 Specialist Registrar in Paediatrics (2 / 3 with special interest in paediatric cardiology)  

2 Senior House Officers  

1 Ward medical officer (SHO level)  

*University Department of Cardiovascular Sciences*  
*Head: Professor N J Samani BSc, MD, FRCP, FACC, FMedSc*

Cardiovascular research has been a major strength of the Leicester Medical School since its inception. In the 2008 Research Assessment Exercise 95% of the cardiovascular research in Leicester was considered to be of
international level, over half the submitted outputs ranked as outstanding or excellent and one in seven of the submitted research outputs ranked as world-leading.

The Department of Cardiovascular Sciences undertakes research ranging from molecular and cellular studies, all the way through translational research and into clinical studies. The strong links with the NHS were highlighted in the Research Assessment Exercise. This has been further recognised recently by the award of a National Institute of Health Research (NIHR) Biomedical Research Unit (BRU) in Cardiovascular Disease to a partnership of the University Hospitals of Leicester NHS Trust (UHLT) and the University of Leicester. The BRU is currently developing a state-of-the art clinical research facility for detailed cardiovascular assessment at Glenfield Hospital and plans to also develop a clinical research informatics centre and a Biobank to facilitate research including genomics research. UHLT have also been awarded a 3.0 Tesla MRI machine by the NIHR to facilitate cardiovascular research.

Major areas of research in the Department include: cardiovascular genetics, vascular biology, hypertension and vascular damage, thrombosis and haemostasis, coronary artery disease, heart failure, stroke and baroreceptor regulation, cardiac arrhythmias, carotid and peripheral vascular disease, myocardial protection and regeneration and diabetes.

The Department is organised into Research Groups. These are:

- Cardiology (Professor NJ Samani, Professor A Goodall, Dr GA Ng, Dr W Toff, Professor AH Gershlick, Dr M Tomaszewski, Dr N Chong, Dr G Rodrigo, Dr C Erridge)
- Vascular Medicine (Professor B Williams, Professor MJ Davies, Dr R Norman, Dr K Herbert, Dr D Lodwick, Dr R Rainbow)
- Vascular Surgery (Professor N London, Professor R Naylor, Dr N Brindle, Professor R Sayers, Mr M Bown)
- Cardiac Surgery (Professor T Spyt)
- Pharmacology & Therapeutics (Professor L Ng, Professor D Barnett, Professor D Lambert, Professor I Squire, Dr J Thompson, Dr J Davies)
- Ageing and Stroke Medicine (Professor T Robinson, Dr A Mistri)
- Medical Physics (Professor D Evans, Professor R Panerai, Dr M Horsfield)
- Ophthalmology (Professor I Gottlob, Mr F Proudlock, Mr S Thomas)
- Emergency Medicine (Professor T Coats, Dr R MacKenzie)

The Department currently occupies accommodation in the Robert Kilpatrick Clinical Sciences Building at the Leicester Royal Infirmary (Vascular Medicine, Vascular Surgery, Pharmacology & Therapeutics, Medical Physics) the Clinical Sciences Wing of Glenfield Hospital (Cardiology, Cardiac Surgery) and at Leicester General Hospital (Ageing and Stroke Medicine).

**Undergraduate Teaching role**

Medical students based at the University of Leicester follow a standard 5 year programme, or a 4 year programme which is available to graduate students. The teaching of undergraduate students in UHL reflects the Directorate
structure of the Trust. Undergraduate medical students are taught by UHL throughout the medical course from years 1 to 5. Both ward and outpatient based clinical teaching, as well as tutorial and lecture style teaching is undertaken.

Expected rotation arrangements for this programme:

- It is currently expected that East Midlands Trainees will spend one year of the first three in Birmingham, and West Midlands trainees will spend one year of the first 3 in Leicester. Location of final 2 years of special interest modules will be arranged on an individual basis

**VISITING**
Candidates are invited to visit the hospitals concerned and may make arrangements to do so through:

*Dr Frances Bu’Lock*
*Training Programme Director Paediatric Cardiology & Consultant in Congenital Heart Disease, East Midlands Congenital Heart Service* Tel 0116 256 2668

*And*

*Mr Giles Peek*
*Consultant Congenital Cardiac Surgeon*
*Head of Service, East Midlands Congenital Heart Service* Tel: 0116 250 2796
Mersey Deanery

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<thead>
<tr>
<th>HOSPITAL</th>
<th>LOCATION</th>
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<tbody>
<tr>
<td>Alder Hey Children’s NHS Foundation Trust</td>
<td>Alder Hey, Liverpool</td>
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</table>

**Deanery information**

Mersey Deanery is one of two organisations in the NHS North West region responsible for the facilitation, commissioning and management of postgraduate medical and dental education and training of doctors and dentists.

Through the effective deployment of the Multi Professional Education and Training Levy (MPET), Mersey Deanery promotes and organises high quality education for doctors in training and funds the running costs of Postgraduate Education Centres in NHS Trusts.

The Deanery also provides continuing professional development for consultants with supervisory roles. By agreement with the North Western Deanery, Mersey commissions and manages the training of specialty trainees in Public Health and Specialist Trainees in Public Health. The two Postgraduate Deaneries in the North West region are linked to the medical schools in Liverpool and Manchester Universities.

Mersey Deanery is a non-statutory organisation and is co-terminus with the Cheshire and Merseyside boundaries (2,265,000 population¹). Since October 2011, as a consequence of ‘Equity and excellence: Liberating the NHS’, the Deanery as part of the former NHS North West comes under NHS North of England as the current statutory body.

From April 2013, the Deanery will be part of a Local Education and Training Board under Health Education England; a Special Health Authority accountable to the Secretary of State for Health.

**Rotation Information**

The main duties are at the Alder Hey Children’s NHS Foundation Trust, serving wards K2, High Dependency Unit and the Paediatric Intensive Care Unit, along with outpatients. Occasionally duties will include visits and duties in hospitals other than headquarters.

Whilst no formal rotation exists any longer with Manchester Children’s Hospital, a trainee may occasionally travel to Manchester for additional training experiences, either at the new Royal Manchester Children’s Hospital (general paediatric cardiology) or at St Mary’s Hospital, Manchester (foetal cardiology) or at the Manchester Royal Infirmary (Adolescent and Adult Congenital Heart Disease).
Trust Generic/Specialty Information

Alder Hey Children's NHS Foundation Trust is one of Europe’s biggest and busiest children’s hospitals providing care for over 200,000 children and young people each year. It is one of only four stand-alone paediatric trusts in the UK and is staffed by 2,800 employees.

The department, which is the cardiac surgery centre for the North West, North Wales and the Isle of Man, has been selected to remain a dedicated centre for paediatric cardiac surgery following a national review of children’s cardiac services by the Safe and Sustainable team.

The Liverpool department provides a fully integrated regional and supra-regional medical and surgical service for infants, children, adolescents and adults with congenital heart disease. Close links exist with the Institute of Child Health at the University of Liverpool, the Department of Child Health at the University of Manchester and, for adolescent and adult congenital heart disease, with both the Liverpool Heart and Chest Hospital and the Manchester Royal Infirmary.

Each year there are approximately 7,000 clinic attendances, 300 cardiac catheterisations and 400 cardiac operations. The regional unit in Manchester is based at the Manchester Children’s Hospital. Close working links exist between the two Units. All cardiac surgery and interventional catheter procedures are undertaken in the Liverpool Unit. Both units have active foetal diagnostic services and training in adult congenital heart disease.

The Liverpool department provides a fully integrated regional and supra-regional medical and surgical service for infants, children, adolescents and adults with congenital heart disease. Close links exist with the Institute of Child Health at the University of Liverpool, the Department of Child Health at the University of Manchester and, for adolescent and adult congenital heart disease, with both the Liverpool Heart and Chest Hospital and the Manchester Royal Infirmary.

- Departmental staffing
  - 6 Consultant Paediatric Cardiologists
  - 3 Consultant Paediatric Cardiac Surgeons
  - 5 Consultant Paediatric Cardiac Anaesthetists
  - 2 Consultant Paediatric Radiologists (special interest in Paediatric Cardiology)
  - 9 Consultant Paediatric Intensivists
  - 4 Specialist Registrars in Paediatric Cardiology (holding training numbers)
  - 1 Paediatric Registrar
  - 5 Cardiology SHOs and 1 F2 post holders
  - 5 Cardiac Surgical Registrars.

- 3.2 Cardiac Liaison Nurses
- Timetable information
The training timetable can be adapted to meet the training requirements of any individual trainee. The successful applicant will be provided with training in all aspects of paediatric cardiology during their core years and a range of ‘speciality interests’ can be offered during the final two years. The department supports trainees who wish to spend time ‘out of programme’ to pursue their speciality interests. Their specific timetable will be appropriate to their previous experience and level of expertise within the specialty.

At present, trainees have continued to participate in an ‘on call’ service (non-resident) on a 1 in 5 basis; the Trust are working with the present trainees to see if a ‘partial shift’ system is to be implemented (will require the recruitment of ‘Trust fellows’).

Example of Present Cardiology Registrar Weekly Timetable

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<tr>
<td>SpR A</td>
<td>8.30-9.30</td>
<td>C. meet</td>
<td>PICU</td>
<td>PICU</td>
<td>C. meet</td>
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<td></td>
<td>9.30-13.00</td>
<td>Cath</td>
<td>Clinic</td>
<td>Ward</td>
<td>Research</td>
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<td>13.00-1700</td>
<td>Cath</td>
<td>Clinic</td>
<td>Fetal</td>
<td>Clinic</td>
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<td>SpR B</td>
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<td>C. meet</td>
<td>PICU</td>
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<td>13.00-1700</td>
<td>Cath</td>
<td>Clinic</td>
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<td>SpR C</td>
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At any one time, one of the SpRs will be functioning as Registrar of the Week, working in conjunction with the Consultant of the Week to assess and manage all new referrals, the inpatients and provide PICU and surgical cover.
Teaching

There are formal teaching sessions in cardiology and cardiac surgery on a regular basis. There are joint cardiology and cardiac surgical meetings on Monday and Thursday mornings where potential surgical cases are reviewed and the results of cardiac catheterisation and echocardiography are discussed. There are regular clinical audit meetings and the post holder is expected to take an active part in the audit cycle.

On the Alder Hey site a good library is available around the clock in the Education Centre. It contains up to date textbooks and the most important paediatric journals. A separate cardiac library is also available within the department and there are two medical reference libraries at the Liverpool Medical Institution and the University of Liverpool sited within 6 miles of the hospital.

Further Information

Informal enquiries can be made to any of the Registrars (0151-228-4811 and ask switchboard to bleep Paediatric Cardiology Registrar of the Day) or to Dr Gordon Gladman (Clinical Lead and Programme Director) on 0151-252-5173.
**Wessex Deanery**

The Wessex Deanery covers a geographical area from Basingstoke in North Hampshire to Dorchester in West Dorset and the Isle of Wight to the South; in addition some programmes rotate to Jersey and Chichester in West Sussex. This is a spread of approximately 65 miles North to South and 76 miles East to West. The Wessex Deanery serves a population of around 2.8 million people.

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

**Study and Training**

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

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

All posts within the training programme are recognised for postgraduate training by the General Medical Council (GMC) in accordance with their standards for training.

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

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

1. Supervise, monitor and assist the House Officer (F1) in the day-to-day management of in-patients in posts with an attached F1.
2. Liaise between nurses, F1 and F2 Doctors, patients, relatives and senior medical staff.
3. Attend and participate in ward rounds as timetabled
4. Attend outpatient clinics.
5. Take part in rostered emergency work.
6. Dictate discharge summaries.
7. Study for higher examination and maintain continued professional development.
8. Attend weekly educational and multidisciplinary sessions.
9. Undertake audit at various times throughout the rotations.
10. Teach medical students as directed.
11. Co-operate with members of the personnel department when monitoring hours of work and other personnel issues.
12. Attend induction in each hospital or new department
13. Comply with all local policies including dress code, annual and study leave

**Trust Generic/Specialty Information**

**Specialist Registrar in Paediatric Cardiology**
**Congenital Heart Disease Unit**
**Southampton University Hospitals NHS Trust**

The Southampton University Hospitals Paediatric and Adult Congenital Heart Disease Unit currently serves a population of approximately 5 million people living in the counties of Hampshire, Dorset, Wiltshire, West Sussex, Cornwall, Devon, Somerset, the Channel Isles, the Isle of Wight, Oxfordshire, Berkshire, Surrey and West Sussex. British forces families stationed abroad are also referred to the unit. Occasionally patients with special problems are referred from even further afield including Scotland and Eire.

Integrated cardiac and cardiac surgical services are provided for all age groups and the centre is recognised for training in Paediatric Cardiology and Adult Congenital Heart Disease. It is one of the major centres for fetal, paediatric and adult congenital heart disease. Congenital heart disease surgery has been undertaken in Southampton for more than 35 years and there are consequently large numbers of adult patients with congenital lesions undergoing follow-up.

**Facilities**

The cardiac unit is an integrated facility situated on D and E level of the Southampton General Hospital and comprises 119 adult cardiology / cardiac surgical beds and a modernised children’s ward comprising 16 paediatric cardiology beds including high care facilities and a teenagers room. The paediatric cardiology ward is currently being expanded to accommodate the increased workload created by the national reconfiguration of paediatric cardiac surgical services.

Facilities are provided for mothers to be resident with their children on the paediatric cardiology ward. There is a house adjacent to the hospital where relatives of cardiothoracic unit in-patients can stay. This facility has been provided by the charity ‘Heartbeat’ which works to support the activities of the cardiac unit.

It is planned to establish a new young adult area adjacent to the paediatric cardiac unit. This will result in patients of all ages with congenital heart disease being in adjacent areas further developing our theme of ‘integrated care’ within the unit.
**Investigations:**

There is a purpose built non-invasive cardiac unit with transthoracic and transoesophageal echo, exercise testing, ambulatory ECG and blood pressure monitoring, transtelephonic ECG, tilt testing, pacemaker and implantable defibrillator programming facilities. The congenital heart disease service has 5 modern cardiac ultrasound machines with speckle tracking and 3D echo facilities. There is a dedicated echocardiography room on the children’s cardiology ward.

There are four modern, fully equipped, digital Cardiac Catheterisation rooms, with quantitative angiography facilities. One lab is equipped for electrophysiology and ablation procedures. All rooms have computerised haemodynamic measurement equipment.

The department of cardiothoracic radiology, staffed by 3 consultant cardiothoracic radiologists, is located in close proximity to the non-invasive facilities and to the catheter laboratories. The department provides a 24 hour service for the whole range of cardiac radiological imaging including magnetic resonance imaging and helical CT.

The paediatric cardiac patients are cared for in a purpose–built 16 bedded ‘level 3’ paediatric intensive care unit. On average five of these are used for paediatric cardiac surgery but this is flexible and varies according to demand. There are four cardiothoracic operating theatres one of which is used for congenital heart operations.

The paediatric cardiology and paediatric cardiac surgical clinics are held in a dedicated Children’s Outpatients department. Transition clinics are also held. Southampton general hospital is a fully functional Regional/Supra-regional University centre for both paediatric and adult medicine. There is close liaison with adult cardiology, cardiac surgery, and paediatrics (including the full range of regional specialist paediatric services). Fetal medicine with fetal cardiology, obstetrics, genetics and neonatology are located in the adjacent Princess Anne Hospital immediately opposite SGH.

We have 2 Adult Congenital Heart Disease Liaison Nurses (1.4 WTE) and 2 Paediatric Cardiac Nurse Specialists (1.6 WTE). We also have an EP Specialist Nurse who is involved with the children and adult congenital patients with arrhythmias.

The paediatric cardiology services at Southampton were awarded the second highest score in the assessment of all the national centres carried out by Sir Ian Kennedy’s panel in 2010.

**Research**

The cardiothoracic unit encourages and promotes research activity within the department. Increasingly members of the Directorate are forming links with the Research Divisions of the Southampton University School of Medicine. Over 100 publications in peer reviewed international journals have been
published by members of the cardiothoracic unit in the last 3 years. Previous trainees have been successful in achieving a number of publications during their time here. On the Southampton University Hospital site, there is an extensive range of research facilities including the Medical Research Council and Wellcome Research Units.

**Staff**

- 6 Consultant Paediatric Cardiologists
- 3 Consultant Paediatric & Adult Congenital Cardiac Surgeons
- 3 Specialist Registrars in Paediatric Cardiology
- 2 Rotating Specialist Registrars in Paediatrics
- 3 Fellows in Paediatric Cardiology
- 4 Senior House Officers in Paediatric Cardiology

- 3 Consultant Adult Congenital Cardiologists
- 1 Specialist Registrar in Adult Congenital Heart Disease
- 1 Senior House Officer in Adult Congenital Heart Disease

**Activity of the Unit**

About 350 operations are performed each year, in children with congenital heart disease and this number is expected to increase to over 400 following national reconfiguration. Between 80-100 adults with congenital heart disease undergo surgery in the department. One of the strengths of this unit is the availability of carefully audited surgical results that compare favourably with anywhere in the world.

**Specialty statistics (approximate figures per annum)**

<table>
<thead>
<tr>
<th>Activity</th>
<th>Figures</th>
</tr>
</thead>
<tbody>
<tr>
<td>Paediatric Cardiology Clinic Sessions (Southampton)</td>
<td>300</td>
</tr>
<tr>
<td>Regional Clinics (13 hospitals)</td>
<td>150</td>
</tr>
<tr>
<td>Total attendances at clinics (Paediatric Cardiology)</td>
<td>&gt;5000</td>
</tr>
<tr>
<td>Peripheral Clinics</td>
<td>&gt;1500</td>
</tr>
<tr>
<td>Paediatric Echocardiograms</td>
<td>&gt;7000</td>
</tr>
<tr>
<td>Diagnostic catheters</td>
<td>80</td>
</tr>
<tr>
<td>Interventional catheters</td>
<td>300</td>
</tr>
</tbody>
</table>

**Duties of the Post:**

No previous experience in Paediatric Cardiology is expected and the Specialist Registrar will be trained in all aspects of congenital heart disease. He, or she, will have responsibility for the care of neonatal, infant, paediatric, adolescent and adult (with congenital heart disease), patients undergoing cardiac investigation and treatment and for the medical aspects of those patients returning from cardiac surgery.

Duties will include out-patient clinic work in Southampton and the Specialist Registrar may assist in the running of the peripheral clinic programme.

Ward duties will include assessment of day cases and ward attenders, care of in-patients on the wards, the paediatric and cardiothoracic intensive care units.
and some patients on the general paediatric, paediatric surgical wards and regional neonatal intensive care unit. The Specialist Registrar will be involved in the management of fetuses with congenital cardiac problems or cardiac arrhythmias.

Contribution to the clinical audit programmes and practice monitoring such as CCAD data collection, fetal diagnosis and outcome data collection, morbidity and mortality data analysis will form part of the trainee’s duties. The trainee is also expected to develop a keen interest in research.

**Training facilities:**

The Specialist Registrar will undergo training in transthoracic and transoesophageal echocardiography and Doppler studies. He/she will supervise stress testing, tilt testing and ambulatory monitoring. Excellent opportunities are available for exposure to all aspects of Paediatric Cardiology including advanced subspecialty training in transoesophageal and 3D echocardiography, fetal echocardiography, cardiac MRI imaging, interventional catheterisation, pacemaker and AICD management and electrophysiology. Training will be organised in accordance with the new curriculum.

**Teaching:**

The quality of teaching provided is a special strength of this training programme. There is a regular weekly teaching programme consisting of consultant delivered teaching, case presentations, journal clubs and echo review meetings. The Specialist Registrar will also present cases at the joint paediatric cardiology/cardiac surgery/cardiac radiology conference held on Tuesday and Wednesday mornings. Regular joint educational meetings are held with the paediatricians as well as with the adult cardiologists and cardiac surgeons.

The trainee will be required to maintain a training record and complete the required assessments to confirm the satisfactory fulfilment of the required experience, and the acquisition of the competencies enumerated in the specialty curriculum,

He/she will take a lead role in undergraduate and postgraduate teaching and also be involved in nurse teaching.

Applicants requiring further information may contact Dr James Gnanapragasam, Programme Director, Paediatric Cardiology on 023 80796243. Applicants are welcome to visit the department to view the facilities available and the working environment and also to get a first-hand account of the teaching and training programme from the current trainees.
West Midlands Deanery
DIANA, PRINCESS OF WALES, BIRMINGHAM CHILDREN'S HOSPITAL NHS TRUST

Summary of Post

This is a post to join seven other middle grade doctors (4 paediatric cardiology, 2 staff grade & 1 general paediatrics) as a part of the West Midlands Deanery Training for Paediatric Cardiology, and is for the duration of 5 years at Birmingham Children’s Hospital, which includes 3 years of core training and last 2 years of Special Interest training. The candidate may be able to rotate to Glenfield Hospital, Leicester during the Special Interest training, in the last 2 years. This is an established centre of excellence and also acts as a supra regional and international referral centre for cardiology and cardiac surgery.

Applicants must have the relevant qualification, and experience as listed in personal specifications.

BIRMINGHAM

Birmingham is a progressive, modern city offering pleasant accommodation and excellent civic infrastructure. There are good road, rail and air links and easy access to the countryside. The International Convention Centre, Symphony Hall, National Indoor Arena, the Birmingham Museum and Art Gallery and several theatres are centrally located. There are excellent schools and the Universities of Birmingham, Aston and Birmingham City offer a wide range of educational facilities and other activities.

The Birmingham Children's Hospital NHS Foundation Trust

Birmingham Children’s Hospital NHS Foundation Trust is one of only four NHS Trusts in the country specialising exclusively in the care of children and young people. It provides both local general hospital and mental health services to the residents of Birmingham and much more highly specialist care to a wider population of 5.5 million in the West Midlands and beyond.

The Trust provides care for over 200,000 children and young people a year from all over the UK and Europe and is one of the leading paediatric teaching and research centres in the country. We employ more than 2,700 wte staff and welcome in the order of one million people through our doors every year. The Trust is a leading teaching and research institution and partner of all the city’s universities.

The Trust moved to its city centre site on Steelhouse Lane, in May 1998. Whilst many of the original features have been restored and maintained, this landmark Victorian site has been transformed internally with over £40m invested into state of the art facilities.
Facilities include:

- A 22 bedded Paediatric Intensive Care Unit with an ambitious expansion project on track to reach 31 beds by the end of 2013
- A centre of excellence for children with cancer, cardiac, liver and renal disease
- 280 inpatient and day-case beds including Child and Adolescent Mental Health Services
- 50 Specialties and supporting departments
- An Emergency Department dealing with over 45,000 patients attendances a year
- A new Paediatric Assessment Unit
- 9 operating theatres
- A new laparoscopic surgery theatre
- An endoscopy suite
- A hybrid cardiac theatre and catheter laboratory
- A state of the art intervention cardiology suite
- A second interventional radiology room with anaesthetic facilities
- 3 MRI scanners
- A CT scanner

We have developed a number of partnerships over the last few years, including one with Wellcome and the Birmingham Children's Hospital Charitable Trustees which has enabled the Trust to establish the only paediatric research facility in the country at a cost of £4.8 million.

Other successful partnerships include:-

- A 60 room parent accommodation facility on site funded by Ronald McDonald House Charities - £7 million.
- A bespoke environment for adolescents with cancer funded by the Teenage Cancer Trust - £3 million.
- Renal Ward part funded by British Kidney Patients Association - £2.7 million.

There are significant estates plans for the immediate and medium term future including an additional 6 cardiac services beds and further likely theatre and PIC expansion.

Longer term plans are being drawn up for further new developments, either within the existing footprint or a new build on the University of Birmingham site.

**EDUCATION AND RESEARCH DIRECTORATE**

The Trust is one of the leading paediatric teaching centres in the country, with international research and development in areas such as:

- Childhood cancer studies
- Infection, inflammation and immunity
- Molecular genetics of childhood conditions
- Nutrition, growth and metabolism in childhood
- Efficacy, safety and optimisation of drug use in children

A Directorate of Education and a Directorate of Research have been established in order to consolidate and support education and research initiatives within the Trust. The Directorates include the Professional Development Team, Organisational Development and Training, Medical Education and Research and Development.

The Research Directorate is led by the Director for Research and Development, Dr Bruce Morland. The Research and Development Department manages research in the Trust and is responsible for research governance, including research ethics issues. This includes managing research finances, ensuring drug trials are carried out to international standards and co-ordinating laboratory involvement in research. The Department also co-ordinates an R&D education programme within the Trust and provides guidance for developing and registering research projects, research design, statistical advice and data analysis, including laboratory co-ordination of samples and pharmacy support for clinical trials.

**The University of Birmingham:**

The University was founded in 1900 by the citizens of Birmingham who wanted their own university to train and educate the people who would create and manage the burgeoning businesses and industries of the Midlands.

It was natural, given the nature of Birmingham's industry, that the University should, from the start, teach the major scientific and engineering disciplines. It was also the first UK University to establish a Faculty of Commerce and incorporate a medical school. The modern University is equally distinguished in the humanities, education, social sciences and law.

September 2000 saw the launch of ‘The Black Country Strategy’, to expand links with NHS partners to address concerns over the shortage of doctors in the West Midlands and also inequalities of health and healthcare in the Black Country. It has enabled medical students to have further opportunities to develop clinical experience in a district hospital setting. The ‘Black Country Strategy’ presented an exciting development in the training of future doctors. By September 2003, the Medical School increased its annual intake by an additional 159 students. The project extends clinical training beyond Birmingham into General Practices and District hospitals in the Black Country and Worcestershire providing unparalleled clinical experience for its students in both urban and rural settings. The expansion programme allows access to clinical teaching and research on patients drawn from a population of 5 million that is remarkably diverse in its socio-economic and ethnic make-up.

Academically, the University is organised into five Colleges, one of which is the College of Medicine, Dentistry and Health Sciences. This college is headed by the Professor Lawrence Young and is administratively split into Schools. The School of Clinical and Experimental Medicine covers the whole range of pre-clinical and clinical subjects. Interdisciplinary research is
encouraged, as are links between the clinical and basic science departments in other faculties. The College is justly proud of its library and reference facilities and has good working relationships with Trusts and Health Authorities.

**Academic Paediatrics at Birmingham Children’s Hospital:**

Research infrastructure on the BCH site include The Wellcome Trust Clinical Research Facility, a 6 bedded inpatient and outpatient ward for children participating in experimental medicine studies and clinical trials; this incorporates a DXA body composition scanner and metabolic/exercise facility. In addition there is an NIHR 3T MRI and spectroscopy scanner. The West Midlands Medicines for Children Research Network is based at BCH, together with NIHR paediatric studies group facilitators, Childrens' Cancer Research Network nurses, NIHR CLARC, and many UK Charity supported researchers.

BCH also hosts several Clinical Academic training posts at ACF, RTF and ACL levels.

Current academic paediatricians:

- Professor Timothy Barrett, Leonard Parsons Professor of Paediatrics and Child Health
- Professor Tauny Southwood, Professor of Paediatric Rheumatology
- Dr Nils Krone, Senior Clinical Research Fellow in Paediatric Endocrinology
- Dr Stephen Murphy, Senior Lecturer in Paediatric Gastroenterology
- Dr Janet McDonagh, Senior Lecturer in Paediatric Rheumatology
- Dr Andrew Peet, Reader in Paediatric Oncology
- Dr Pamela Kearns, Reader in Paediatric Oncology
- Dr Carole Cummins, Senior Lecturer in Clinical Trials
- Dr Andrew Ewer, Senior Research Fellow in Neonatology
- Dr Frank Mussai, Senior Lecturer in Paediatric Oncology

**Undergraduate medical education:**

Medical students attend The Children’s Hospital for 4th and 5th year ‘student selected activities’ attachments and their final year module in Paediatrics and Child Health. Teaching is delivered through lectures, small group clinical and classroom teaching, and by involving students in the clinical work of the hospital. The Trust has developed a paediatric clinical skills teaching session for all final year medical students and the Trust organises and hosts these sessions eight times a year. The teaching fellows and registrar are responsible for organising and teaching on the clinical skills teaching sessions. Facilities for students include an NHS Base library, student common room, on call rooms in student residencies, private study room and the Education Centre.

There are eight rotations of students each academic year. At any given time there are 25-30 final year students present at The Children’s Hospital, the students are, divided into one of five teaching teams and the remainder doing
a 5 week Student Selected Activity. The teams rotate through week long ‘themed weeks’ in acute paediatrics, emergency paediatrics, paediatric surgery and paediatric intensive care/cardiology/cardiothoracic surgery.

Assessment is continuous and the trust is one of three sites which hosts the final year objective structured clinical examination (OSCE) three times a year (including the final year resit examination). The teaching fellows and Registrar in Medical Education play a major role in the running of these exams.

Medical educators in the trust have major interests in methods of mentoring, teaching and learning and assessment of clinical competence and are involved in research and development at local, regional and national levels.

There a number of elective placements available for students throughout the year and we receive requests from both national and international students.

**CLINICAL MANAGEMENT**

Clinical management in the Birmingham Children's Hospital NHS Foundation Trust is directed through five clinical directorates. The Chief Medical Officer is Dr Vinod Diwakar. The Chief Operating Officer is Mr Tim Atack and for the Directorate of Specialised Services the Clinical Services Director is Dr Gill Derrick and the Associate Service Director is Mrs Amanda Baugh. Each Directorate team has the support of an Assistant Directorate Manager, a Head of Nursing, a Finance Manager and an HR Manager.

There are regular Directorate Operational Management Team meetings, with the Clinical Service Directors holding monthly Directorate meetings for Clinical Leads who, in turn, are expected to arrange regular meetings (ideally, each month) for senior staff within the speciality (i.e. doctors, nurses and other staff as appropriate). The Clinical Leads for cardiac services are Mr David Barron and Dr Ashish Chikermane, who are responsible to the Clinical Director for the implementation of all aspects of Trust policy and Clinical Governance or Quality initiatives within the speciality.

**Clinical Governance**

The appointee will be expected to participate in all aspects of the Clinical Governance structure developed by the Trust to monitor, maintain and develop review and amendment according to the needs of the clinical area, changing circumstances and service development the quality and effectiveness of care. The Trust is committed to the development of medical staff through individual professional development a framework for which has been systematically introduced in 2001. There is an expectation that all staff are involved in audit of personal clinical practice as well as the involvement in departmental/speciality reviews; that they should meet the requirements for Continuing Medical Education defined by the relevant Royal College (and for which appropriate study leave support will be available); be aware of professional standards, the responsibility to undertake safe and ethical clinical practice and the importance of responding promptly to any circumstances
which may result in increased clinical risk or adverse outcome. Funding is available for approved study leave as defined in the Trust’s study leave policy.

**Teaching**

The appointee will be expected to play a role in postgraduate medical education and the training of other relevant staff groups. An honorary University title may be offered in appropriate circumstances.

**Research**

The appointee will be expected to facilitate research undertaken within his/her department and elsewhere within the Trust, and to be aware of current Research and Development initiatives in relation to clinical service development.

**Management**

The appointee will be expected to take part in the delivery and development of clinical services within the Trust's Service and Financial Framework and in line with the Trust's clinical strategy.

Arrangements should be made to ensure that local and Trust wide matters are communicated and discussed via appropriate means i.e., team meetings, written briefings etc.

**Cardiac Services**

The Paediatric Cardiac Service comprises of the departments of Cardiology, Cardiac Surgery and its facilities. These include a dedicated Out-patient Department separate from the main hospital outpatient department, a non-invasive Heart Investigations Unit, two Wards (Wards 11& 12) with a total of up to 35 staffed in-patient beds, a Homograft Bank and offices with secretarial facilities. It works as an integrated unit and managerially forms part of Specialised Services.

There are advanced plans to develop additional capacity for outpatient facilities and Heart Investigation Unit in view of the increasing workload, along with a dedicated cardiac day-case unit in keeping with the modern changes to clinical practice.

**Staff**

**Consultants**

<table>
<thead>
<tr>
<th>Name</th>
<th>Specialty</th>
</tr>
</thead>
<tbody>
<tr>
<td>Dr. J V de Giovanni</td>
<td>Paediatric Cardiologist</td>
</tr>
<tr>
<td>Dr. O Stümper</td>
<td>Paediatric Cardiologist</td>
</tr>
<tr>
<td>Dr. P Miller</td>
<td>Paediatric Cardiologist</td>
</tr>
<tr>
<td>Dr. R Dhillon</td>
<td>Paediatric Cardiologist</td>
</tr>
<tr>
<td>Dr. A Chikermane</td>
<td>Paediatric Cardiologist</td>
</tr>
<tr>
<td>Dr. T Desai</td>
<td>Paediatric Cardiologist</td>
</tr>
<tr>
<td>Dr. C Mehta</td>
<td>Paediatric Cardiologist</td>
</tr>
</tbody>
</table>
Dr. V Bhole  Paediatric Cardiologist
Mr. WJ Brawn  Paediatric Cardiac Surgeon
Mr. DJ Barron  Paediatric Cardiac Surgeon
Mr. TJ Jones  Paediatric Cardiac Surgeon
Ms. N Khan  Paediatric Cardiac Surgeon

Junior Staff

Cardiology  5 Specialist Registrars in Paediatric Cardiology
1 Specialist Registrar in General Paediatrics (Rotating)
1 Staff Grade/Specialists in Paediatric Cardiology
1 Clinical Fellow in Paediatric Cardiology
5 SHOs (based in Cardiac Services, in hospital@night shift system)

Cardiac Surgery: 4 Specialist Registrars:
• 2 on West Midlands rotation
• 1 rotating with Great Ormond Street Hospital
• 1 visiting Registrar
1 Research Registrar

Wards

There are two wards. One is for infants (Ward11) and is staffed for 16 beds and the other for older children and adolescents (Ward12) and is currently staffed for 18 beds. Occasionally patients from other services have access to these beds. Ward 12 has purpose built adolescent facilities. Both cardiac wards have areas designated as High Dependency Units for cardiac care with appropriately trained nursing staff.

Intensive Care Unit

The Hospital has a Multidisciplinary Intensive Care Unit which is currently funded for 26 beds with an expansion to 31 beds by the end of 2013. The Cardiac service utilizes approximately 50% of ICU days. A collaborative approach in the management of patients is expected and encouraged between Intensivists, Cardiologists and Cardiac Surgeons.

Cardiac Liaison Service

There is an excellent liaison service covered by four full time senior nurses, who help patients and families cope with the difficulties of congenital heart disease. They undertake Community visits, support the Fetal Cardiology Service and run a monthly pre-admission clinic with the outpatients’ staff. The service works closely with a dedicated social worker.

Homograft Bank

The bank is based at Birmingham Children’s Hospital and has two full time
technicians. It provides valves for the West Midlands and beyond. The Trust has invested in new facilities that became operational in May 2004. The bank has a managerial team chaired by the Clinical Lead with a Consultant Surgeon acting as Medical Advisor.

**Cardiac Catheter Theatre**

The cardiac theatre complex provides the setting for state of the art invasive cardiology for which the department is acknowledged as a leading centre. It is situated in the main theatre complex. A new, state of the art biplane cardiac catheter laboratory was opened in April 2011. All the latest software including rotational angiography and CT overlay are incorporated. The room is designed to full theatre specs to enable biplane hybrid procedures such as the hybrid Norwood stage I. In Oct 2011 a specially designed single-plane angio cardiac surgical theatre with laminar airflow system was opened, which now serves as the principal cardiac surgical theatre. This purpose built theatre will be instrumental in improving patient care by enabling the provision of pre/post-operative angiograms at the time of the surgery. There are currently 8 funded cardiac catheter sessions each with anaesthetic cover and dedicated theatre staff, and this is expected to increase, in keeping with the developments in catheter procedures.

Procedures undertaken in the catheter theatre include diagnostic cardiac catheterisations and the full range of therapeutic interventions. These encompass balloon valvoplasty and angioplasty, insertion of occluding devices, stents, pacemakers and defibrillators, electro physiological studies and pacing. The catheter suites are supported by fully trained cardiac physiologists for the complete range of invasive work including invasive electrophysiological procedures, and pacing.

**Heart Investigation Unit**

The Heart Investigation Unit is adjacent to the heart outpatients department. Fully trained technical staff assist in providing a comprehensive range of non-invasive investigations such as ECG’s, exercise ECG’s, Holter monitoring and echocardiography to support the out-patient clinics (including regular pacing clinics), and inpatients – cardiac as well as from other departments. Cardiac physiologists based here also provide support to the cardiac catheter laboratory for a full complement of cardiac procedures. The department is also recognised for training.

**Electrophysiology and Pacing**

Dr. J V de Giovanni  
Dr. R Dhillon (pacing)  
Dr. V Bhole

The centre is a recognised centre of excellence for electrophysiology and pacing. Dr J V De Giovanni leads the service, with support from Dr. R Dhillon for pacing. The activity is supported by a team of cardiac physiologists trained in all aspects of EP and pacing. The department has also got the Carto® system to support ablation procedures. Dr. V Bhole is joining the department.
as a fully trained electro-physiologist with NASPE accreditation.

The department undertakes routine trans-venous pacemaker implantation, and we have also recently started a programme for bi-ventricular pacing for cardiac resynchronisation.

Fetal Cardiology
   Dr. P Miller
   Dr. T Desai

Fetal cardiology clinics are held at Birmingham Women’s Hospital in collaboration with the University Department of Fetal Medicine. Diagnostic and therapeutic procedures are undertaken. Fully trained sonographers and nurses/midwives assist in supporting the scanning and counselling. A new position has been created to support the existing fetal cardiologists due to increasing workload.

Low risk scans are undertaken by the fetal sonographers, which are then reviewed by the fetal cardiologists, and they currently scan, and counsel high risk patients. The department currently undertakes 1100 scans annually. We are currently supporting fetal activity in one of the level 3 obstetric units in the region, and there are plans to increase this activity across the region.

Radiology

There is a single plane angiographic suite in the radiology department to support the increasing interventional radiology workload and the lines lists. There is a Trust and region wide PACS system which allows review of radiology images throughout the Trust.

Within the Radiology Department are facilities for performing MRI and Spiral CT scans, as well as Radionuclide studies. There are two MRI scanners, with dedicated cardiac software for a full range of cardiac imaging. In addition, a new 3 Tesla magnet has been operational since April 2012 which is used for clinical diagnostic and research purposes.

Non-invasive Imaging
   Dr. A Chikermane

This is an area of recent and ongoing development with established and newer modalities using ultrasound, CT, and MRI.

We have started a programme of assessing myocardial contractility using newer modalities such as doppler myocardial imaging (Tissue Doppler), and 3-dimensional reconstruction. The department has undergone a complete refurbishment of its ultrasound facilities with state of the art equipment acquired in the last 3 years. We have a fully digitalised service with dedicated workstations for a complete complement of analysis for advanced echocardiography, both structural (3D) & functional. With the development of non-invasive posts, we are aiming to support a consultant led TOE service for selected catheter interventional procedures.
Cardiac MR
Dr. H Alton
Dr. A Chikermane
New position

In the last 7 years, we have established a cardiac MR programme and have regular sessions. We are have recently increased to 4 CMR sessions a week with one anaesthetic session a month, and are expecting both the CMR sessions, and the anaesthetic cover to increase. We currently use a Siemens 1.5T Magnet for clinical work in cardiology.

We work very closely with the radiologists to provide a seamless cover for cardiac MR, and the increased CMR activity is evenly split with 2 sessions being covered by cardiologists and the other two by radiologists. As a consequence of this increased activity, we have recently appointed a paediatric radiologist who started in September 2012 and will be a part of the cardiac MRI programme. This current position in cardiology is the second part of this expansion.

The department has a well-developed CT programme to supplement cardiac ultrasound, and cardiac MR for structural lesions. We currently limit this service for information regarding extra-cardiac structures only, and we are expecting this to change with the acquisition of a new generation CT scanner in the near future.

**Adult Congenital Heart Service**

Full time consultants:
Dr. S Thorne
Dr. P Clift
Dr. L Hudsmith
(Dr. J V de Giovanni)

Three full time consultants support the service for adults with congenital heart disease, based at the University Hospitals of Birmingham NHS Foundation Trust (UHB). Drs. de Giovanni and Stümper currently provide support for the interventional cardiology aspects of this service, and the cardiac surgeons from the Children’s hospital provide the surgical services. Dr. De Giovanni has taken on a formal part-time consultant post at UHB to support/develop the adult congenital programme and has an interest in developing the new percutaneous valve implantation programme.

A seamless transition of care of these patients from Birmingham Children’s Hospital to UHB is being developed with the establishment of Adolescent/Young Adult clinics at Birmingham Children’s Hospital. The consultant(s) delivering the adult service have an honorary contract with Birmingham Children’s Hospital NHS Trust and they hold joint clinics at Birmingham Children’s Hospital. All cardiologists at the Children’s Hospital collaborate with the consultants in adult congenital heart disease in the management of adults with congenital heart disease at UHB.
Recently a dedicated cardiac liaison nurse (Ms. N Pope) has been appointed at UHB to promote and develop transition services.

**Telemedicine**

Trans-telephonic transmission of ultrasound images has recently been established with one of the major paediatric centres in the West Midlands region. It is envisaged that links will be developed with the major paediatric units over the next few years. Dr. Oliver Stümper is leading the development of this service.

We are also actively pursuing the development of transmission of data through PACS, and would envisage that this may well develop as the main source of data transmission.

**General**

The department sees and admits patients from the West Midlands Region as well as the other parts of the U.K. Due to its clinical excellence the department also get referrals from Europe and Asia.

The Unit has a special interest in the management of children with Hypoplastic Left Heart Syndrome for which it has the largest cohort of patients in Europe. It is acknowledged as a leading international centre for treatment of this condition. It is also recognised as a leading international centre for the management of complex pulmonary atresia and congenitally corrected transposition of the great arteries.

The unit possesses specialised cardiac skills in fetal diagnosis and therapeutics, Trans-oesophageal and intra-operative echocardiography, electrophysiology and pacing. It continues to be involved in the assessment and development of interventional devices and the training of colleagues at other cardiac centres in their use.

**Annual figures:**

- Out-patient clinic attendance: 10,500
- Echocardiograms: 7000-8000
- Cardiac CT & MRI: 400-500
- Fetal studies: 1100+
- Cardiac catheters: 600 of which 2/3 are interventional. Although the number of procedures has not changed significantly, the overall complexity has increased.
- Bypass operations: 500, with a growing tendency to undertake more complex procedures on younger patients, with an additional 50 at the University Hospital where we provide the Adult Congenital Heart Service.

**THE POST**

**Introduction**

This post based at the Birmingham Children’s Hospital, and is recognised for training.
Duties of Placement

General Clinical Work

The individual will be a part of a team of 8 middle grades in Paediatric Cardiology, and will have the opportunity to develop experience and exposure to a large variety of cardiac pathology at an inpatient and outpatient level. The successful candidate will provide a support to the daily running of the department, and will involve supervision of the daily medical care of all cardiology inpatients, outpatient services, supporting the Heart Investigation Unit, and providing an on-call service at the middle grade level. There is a daily PICU ward round with the Cardiothoracic Surgeons and Intensivists. The individual would be expected to undertake any other duties requested by any of the Consultant Cardiologists, should the need arise.

The post involves working in a 1:8 rota on a partial shift system, undertaking a 24-hour on-call (currently under review).

Administration

The duties will include some administration of the cardiac catheterisation waiting lists, arranging admissions and cardiac catheterisation schedules, working closely with the consultant team. The responsibility also includes the organisation of cases for discussion at the weekly joint cardiac conference. There are routine letters resulting from clinics and discharges.

Provisional Weekly Programme for the Specialist Registrars

Based on the recommendations by the SAC for Paediatric Cardiology, we aim to support the overall development of the experience that trainees receive. We currently support a modular training programme with a 2 monthly rotation in specialist areas of training that we can offer within which inpatient & outpatient activity and on-call areas integrated.

Inpatient Activity: We would expect all trainees to undertake 2 weeks of inpatient activity every 2 months (i.e. one fortnight in every module). During this period, the trainee would be expected to support inpatient activity for all children requiring cardiac reviews. The trainee would work very closely with the on-call cardiology consultant, who has no other programmed activity during this period, and be responsible for leading the ward rounds, planning for the daily management and treatment of the patients on the wards, and being accountable to the on-call cardiologist & cardiac surgeon of the week.

Outpatient Activity: We would recommend that all trainees should be undertaking 2-3 clinics weekly, averaged over a cycle of the module. The patients seen in the clinic should be discussed with the consultants as appropriate, and the pathology seen would be expected to be based on the seniority and experience of the trainee.

We also run nurse-led clinics, and the trainees would be expected to work closely with the advanced nurse practitioner (ANP), other senior nursing staff,
cardiac physiologists, cardiac surgeons and dieticians to develop working within a multi-disciplinary team.

**On-call:** We currently support a 1:8 partial shift with a 24-hour non-resident system (currently under review). Working closely with the PICU and hospital night teams, the trainee is expected to provide a cardiology cover with support from the senior cardiologist and the cardiac surgeons. It is expected that the trainee does a relevant night round with the SHO & nurse-in-charge of both the cardiology wards.

**Training/Exposure within specialist areas:** Within the modular system, we would aim to rotate trainees in various modules to facilitate their training and exposure to various specialist areas within paediatric cardiology. These are:

1. Cardiac catheterisation: diagnostic & interventional cardiology
2. Cross sectional imaging
   a. Echocardiography
   b. CT/CMRI
3. Fetal Cardiology
4. Due to smaller numbers, we do not currently provide a modular training programme for EP/Pacing, and pulmonary hypertension; however we would support trainees getting some exposure to these dedicated specialties as appropriate to the level of training.

Currently, we cannot provide training in cardiac transplant, and Adult Congenital Heart Programmes (GUCH), though the trainees may get limited exposure to discussion in the Cardiology Conferences during the weekly meeting where the GUCH team discusses their relevant cases. We also have transition clinics which would provide some exposure to trainees.

**Administrative:** As discussed above, the trainee would be expected to undertake certain administrative tasks within the department, which would be to include preparation of the cases for discussion in the Joint Cardiology Conferences after due discussion with the consultants. In addition, the cardiology trainees, depending on their level of experience would be expected to undertake reporting of investigations done by the Heart Investigation Unit (HIU). We would envisage to support a session for administrative/professional developmental activity.

**Regular weekly meetings:** There are regular departmental activities which are essential for training, and we would consider it mandatory for the trainees to be present for these unless there are valid reasons. A log book is maintained to account for presence, and these may be used to ensure that the trainee is participating in at least 75% of these activities.

<table>
<thead>
<tr>
<th>Monday:</th>
<th>08:30 – 09:30</th>
<th>Audit/Morbidity &amp; Mortality/Research/Guest Lecture</th>
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<tbody>
<tr>
<td></td>
<td>10:00 – 12:00</td>
<td>Grand Round</td>
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<td>12:30 – 13:30</td>
<td>Echocardiography Meeting</td>
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<tr>
<td>Tuesday:</td>
<td>08:30 – 09:30</td>
<td>Cardiac Surgical teaching</td>
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</tbody>
</table>
Wednesday: 08:30 – 10:00 Joint Cardiology Conference

Thursday: 08:30 – 09:00 Journal Club

Friday: 08:30 – 10:00 Cardiac Surgical Conference
13:00 – 14:00 Cardiology Registrar Teaching

We will also recommend that trainees to participate in the nationally held core training days. The expectation is that the full entitlement to study leave will be taken as study or research time.

Teaching

Dr. Desai currently leads the organisation of educational supervision within the department, according to guidelines and standards set out by the Postgraduate Dean and the Royal Colleges of Physicians, and of Paediatrics and Child Health. The department has a newly created dedicated seminar room with full teaching and projection equipment. Good facilities exist for producing teaching materials such as illustrated guidelines and distance-learning packages in hard copy on electronic forms. The hospital library has Level 1 accreditation with distinction (1999).

The individual will be expected to contribute to undergraduate medical student teaching and to play a role in the training of other relevant staff groups.

Undergraduate

All medical students who are attached to the Children’s Hospital for paediatric teaching receive tuition in Paediatric Cardiology. The successful candidate will be involved in formal/informal teaching to the undergraduate students attached to the unit.

Postgraduate

The Cardiology Department participates with the other departments in the hospital in weekly case presentations. In addition, there are also weekly pathological conferences, some of which include cardiac cases. Each week there is a teaching session for the Heart Unit – alternating Journal Club, Research and Audit. The trainee would be encouraged to support teaching SHOs for the MRCPCH.

Training

The successful candidate will be encouraged to develop & maintain appropriate level of skills to support the individual’s role within the department, and his/her professional development. The candidate will have a supervising consultant with whom he/she would be expected to develop a training programme.
As with other members of the department, the candidate will be required to have annual appraisals in keeping with the guidelines of the General Medical Council.

**On-Call Commitments**

The successful candidate will be expected to undertake on-call commitments, currently arranged at a 1:8 partial shift system; providing a non-resident, 24-hour on-call commitment (this is currently under review). This will involve on-calls over the weekends also. The individual will be expected to undertake an out-of-hours commitment, which will vary depending on the duties of the post, but will not exceed the limits defined in the Terms and Conditions of Service, paragraph twenty. Working patterns are in accordance with the New Deal on Junior Doctors’ Hours.

It is expected for the candidate to be present for the PICU rounds on the days that he/she is on-call, and the following day to ensure that there is an appropriate hand-over of clinical activities.

**Audit**

It is expected that the appointee will actively participate in departmental audit. The department has a full time Database and Audit Manager (John Stickley), who is also actively developing Service Line Reporting, as the Cardiac Services are spearheading this new pilot project. An updated computer system and data management system (Heartsuite®) has been installed throughout the offices, wards, outpatients and heart investigation unit. The Trust’s I.T. department supports this dedicated system, which also links to the hospital’s Patient Administration System.

Clinical Audit within the department is lead by Dr Rami Dhillon. In additional to monthly audit meetings of Cardiology and Cardiac Surgical activity, quarterly multidisciplinary Audit meetings involving one session are supported by the Trust with curtailment of clinical activity for these sessions.

**Research**

The post holder will be encouraged to pursue his/her research interests and is expected to remain aware of current Research and Development initiatives in relation to clinical service developments.

**Visiting Arrangements**

Interested applicants are invited to visit on an informal basis by arrangement with Dr. Tarak Desai, Consultant Paediatric Cardiologist & Programme Director (Tel. No.: 0121 333 9436) or Dr. Ashish Chikermane, Consultant Paediatric Cardiologist (Tel. No.: 0121 333 9459)
<table>
<thead>
<tr>
<th>Time</th>
<th>Monday</th>
<th>Tuesday</th>
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<tr>
<td>08:00-08:30</td>
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<td>PICU Round</td>
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<td>08:30-09:30/10:00</td>
<td>Business/ Administrative/Clinical/Academic Meeting</td>
<td>Cardiology/Cardiac Surgery Teaching</td>
<td>Joint Cardiac Conference</td>
<td>Journal Club</td>
<td>Joint Cardiac Conference</td>
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<td>09:30/10:00-12:30</td>
<td>Grand Round</td>
<td>Post-on call</td>
<td>Ward Round</td>
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<tr>
<td>12:30-13:30 (Lunch)</td>
<td>Echo Meeting</td>
<td>Cross-Sectional Imaging Meeting (CT/CMRI)</td>
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<td>Cardiology Teaching (13:00 – 14:00)</td>
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<tr>
<td>13:30-16:30</td>
<td>Clinic</td>
<td>Teaching/Ad ministration Professional development</td>
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<td>Clinic</td>
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<td>1730-1800</td>
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<td>Wards/ICU/On-Call</td>
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DIANA, PRINCESS OF WALES, BIRMINGHAM CHILDREN'S HOSPITAL NHS TRUST (Rotational post with Glenfield Hospital, Leicester)

Summary of Post

This is a post to join seven other middle grade doctors (4 paediatric cardiology, 2 staff grade & 1 general paediatrics) as a part of the West Midlands Deanery Training for Paediatric Cardiology, and is as a part of rotation with Glenfield Hospital, Leicester. The candidate will rotate to Glenfield Hospital for 1 year during the Core Training period. The final 2 years of the 5 year training programme will be Special Interest training in a particular area of sub-speciality interest. This is an established centre of excellence and also acts as a supra regional and international referral centre for cardiology and cardiac surgery.

Applicants must have the relevant qualification, and experience as listed in personal specifications.

Please refer to East Midlands Deanery programme description and West Midlands (Birmingham post only) programme description