

## **Job Description**

### **National Training Post in Congenital Cardiothoracic Surgery**

1<sup>st</sup> July 2016 to 30<sup>th</sup> June 2018

Birmingham Children's Hospital NHS Foundation Trust  
Steelhouse Lane  
Birmingham  
B4 6NH

Great Ormond Street Hospital NHS Foundation Trust  
Great Ormond Street  
London  
WC1N 3JH

## **Introduction**

Birmingham Children's Hospital and Great Ormond Street Hospital are the 2 largest paediatric cardiac surgical programmes in UK. They provide clinical care and training in all aspects of congenital cardiac and respiratory surgery (neonatal, infant, child and adult) in addition to paediatric cardiopulmonary transplantation and mechanical circulatory support (VAD, ECMO). The 2 year programme is unique within UK in providing training in all these areas.

To date the programme has trained 9 paediatric cardiac surgeons, 7 of who have been appointed to UK consultant posts (1 locum) and 2 are in post CCT fellowships.

The 2 year programme consists of the first year at Birmingham Children's Hospital and the second year at Great Ormond Street Hospital.

## **Birmingham Children's Hospital**

### **Birmingham**

Birmingham is a progressive, modern city offering pleasant accommodation, excellent civic infrastructure and an ambitious city centre development plan. There are excellent transport links, being 1½ hours by train to London, 1 hour to Manchester and 1½ hours to Bristol. Birmingham International Airport flies to over 100 destinations and is 15 min drive from the city centre. The city offers a wide range of cultural and entertainment facilities including the Symphony Hall, home of the Birmingham Symphony Orchestra, the Birmingham Royal Ballet and the International Convention Centre. It boasts the largest cinema complex in the UK and the Bullring shopping centre has recently been redeveloped into the largest indoor shopping complex in Europe. Birmingham is also home to the National Exhibition Centre, premiership football clubs and the Edgbaston Test Cricket Ground. There are excellent schools, three universities and a number of other institutions offering further education and vocational training.

### **The Birmingham Children's Hospital NHS Foundation Trust**

Birmingham Children's Hospital is a large multi disciplinary dedicated Children's Hospital with current capacity for almost 300 beds, a 29 bed Intensive care unit and 7 operating theatres and various diagnostic and therapeutic endoscopy and radiology facilities. The Trust is committed to an ongoing programme of redevelopment and expansion. A new regional burns unit was built in 2008 and a new renal unit and the only paediatric Wellcome Research Facility in UK was built on site in 2009. The hospital is committed to delivering child and family centred care and on site there is the James Brindley Hospital School and the largest family accommodation block in Europe was completed in 2010 by the Ronald MacDonald Housing Trust.

Recent Capital Expansion Projects have included redevelopment of the operating department with a new Endoscopy unit, Dedicated Laparoscopic Surgery Theatre, third MRI scanner in addition to new cardiology catheter lab plus a purpose built 'hybrid' cardiac operating room. The expansion in operating facilities has occurred with an associated further expansion of the Intensive Care Unit.

The Trust provides secondary level paediatric services for the child and adolescent population of much of the city of Birmingham. It is also the regional referral centre for the West Midlands region (population 5.8m) and many of its specialist services extend their referral base beyond the regional boundaries. In 1999, all Child and Adolescent Mental Health Services (CAMHS) across the city were brought together under the management of the Trust.

In addition to general paediatric medicine and general paediatric surgery, the clinical services provided by the Trust include: Accident and Emergency Medicine; Anaesthetics and Intensive Care; Bone Marrow Transplantation; *Cardiology and Cardiac Surgery*; Child and Adolescent Mental Health; Clinical Psychology; Dermatology; Endocrinology and Diabetes; ENT Surgery, Audiology and Cochlear Implantation; Gastroenterology and Clinical Nutrition; Haemophilia; Hepatology; Inherited Metabolic Disease; Neonatal Surgery; Nephrology including Haemodialysis and Renal Transplantation; Neurology; Neurophysiology ; Neurosurgery ; Non Malignant Haematology ; Oncology ; Ophthalmology; Orthopaedic and Trauma Surgery; Paediatric Dentistry; Plastic Surgery including Cleft Lip and Palate Surgery; Rehabilitation; Respiratory Medicine and Cystic Fibrosis; Rheumatology; Thoracic Surgery; Urology. The Children's Hospital is also a designated supra regional centre for Craniofacial Surgery, Complex Liver Disease and Liver

Transplantation, and is designated as the primary national centre for paediatric small bowel transplantation. There is comprehensive provision of diagnostic and support services including all aspects of paediatric laboratory medicine, radiology and pharmacy. Therapy services include dietetics, physiotherapy, orthoptics, occupational therapy and speech and language therapy. Pastoral and social support is offered by chaplaincy and by the social work department.

### **The University of Birmingham**

The Trust is a major contributor to the teaching programme of the University of Birmingham Medical School and has close ties with the Health Care Faculty at CITY University.

Academically, the University of Birmingham is organised into five colleges, one of which is the College of Medical and Dental Sciences which is a major international centre for research and education in medicine, medical sciences, dentistry, nursing and physiotherapy. The College consists of five schools bringing together academic staff, research staff and doctoral students across a wealth of medicine and science related subject areas. Interdisciplinary research is encouraged, as are links between the clinical and basic science departments in other faculties. The Medical School is justly proud of its library and reference facilities and has good working relationships with neighboring Trusts and Health Authorities.

### **The Institute of Child Health**

The University Department of Paediatrics and Child Health (Director: Professor Tauny Southwood) is part of the Division of Reproduction Genes and Development (Director: Professor Mark Kilby, Birmingham Women's Hospital). The Institute of Child Health provides laboratory, office and teaching accommodation for the academic department and is situated in the Clinical Research Block, Whittall Street, adjacent to the Children's Hospital in the centre of Birmingham. The Research and Development Directorate is situated in the Institute of Child Health. Its medical Director is Dr Bruce Morland, Consultant Oncologist.

### **Paediatric Cardiac Services:**

The Paediatric Cardiac Service comprises the Departments of Cardiology, Cardiac Surgery and its facilities including dedicated Outpatient department, the Non-invasive Investigations Unit, Wards 11 and 12, Homograft Tissue Bank, office and secretarial space. It works as an integrated service, under a single management structure as part of the Specialised Services Directorate.

The Clinical Lead for Cardiac Services is Dr Ashish Chickermane

The Clinical Service Director for this Directorate is Mr Khalid Sharif (Consultant Liver Surgeon).

#### ***Staff:***

##### Consultants:

Mr DJ Barron	Consultant Surgeon
Mr TJ Jones	Consultant Surgeon
Miss N Khan	Consultant Surgeon
Mr P Botha	Consultant Surgeon

Dr O Stümper	Consultant Cardiologist, Intervention
Dr P Miller	Consultant Cardiologist, Non-invasive & Fetal
Dr R Dhillon	Consultant Cardiologist, Intervention, Pacing
Dr A Chikermane	Consultant Cardiologist, Non-invasive & MRI and <b><i>Clinical Service Lead</i></b>
Dr T Desai	Consultant Cardiologist, Non-invasive & Fetal
Dr C Mehta	Consultant Cardiologist, Intervention.
Dr V Bhole	Consultant Cardiologist, Intervention, EP and Pacing
Dr A Seale	Consultant Cardiologist, Non-invasive & Fetal
Dr M Chaudhari	Consultant Cardiologist, Intervention, heart failure
Dr R Leanage	Locum Consultant Cardiologist, Non-invasive

#### ***Junior Staff:***

Cardiac Surgery	Mr A Crucean - Specialist doctor
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Three SpRs 2 West Midlands Cardiothoracic Rotation  
1 National SpR post rotating with Great Ormond St.

Two Overseas Fellows

Cardiology	Six SpRs 5 Cardiology SpRs 1 General Paediatric SpR rotation
	Two Staff Grade (SpR level)
	Five SHOs

#### ***Cardiac IT***

Mr John Stickley  
Ms Esther Poole (CCAD)

#### ***Lead Nurse***

Tracy Oseland

## **Wards**

There are two cardiac wards:

- Ward 11 (neonates and small infants) has capacity for 16 beds including a 4-bedded HDU
- Ward 12 (older infants and children) has capacity for 20 beds including a 4-bedded HDU.

Each ward has their own ward manager (senior sister) and has the capability to provide non-invasive ventilation and tracheostomy care.

## ***The Intensive Care Unit:***

This is a general purpose intensive care unit staffed to 29 beds. Current capital expansion plans will result in a phased expansion of the unit to 35. The unit is staffed by 18 consultants and a junior staff of PICU registrars in addition to Advanced Nurse Practitioners. It treats over 1350 patients per year.

Dr G Pearson	<b><i>Clinical Service Lead</i></b>
Dr K Morris	
Dr F Reynolds	(BCH Medical Director)
Dr H Duncan	
Dr R Mildner	
Dr L Edwards	ECLS Medical Lead
Dr J Martin	
Dr S Sebastian	
Dr A Plunkett	
Dr P Nayak	
Dr Afeda Ali	
Dr David Ellis	
Dr Richard Neal	
Dr Barny Schofield	
Dr Jane Cassidy	
Dr Anke Top (sabbatical)	
Dr Annemieke Miedema	
Dr S Cray	

The cardiac unit provides 40-45% of the throughput of the PICU. There is a collaborative approach in the management of patients on the PICU with multidisciplinary care between the PICU, Cardiology and Cardiac Surgery teams. There is a cardiac surgical SpR resident on the PICU at all times and joint consultant led ward-rounds are run daily at 0800.

## ***Paediatric Retrieval Service***

KIDS is based at the hospital and is a designated service that was commissioned in 2009 for the retrieval and transfer of critically ill children.

## ***Cardiac Liaison Service:***

There is an excellent patient liaison service run by four full time nursing sisters who provide continuity of care and support for children and families before during and after their hospital admissions. Together with the dedicated social worker they form part of the patient support

team. In addition there are two liaison nurses based at UHB in the Adult Congenital service who are involved with transition and transfer management for the older children.

### ***Homograft Bank:***

The Birmingham Homograft Bank facility has been based at the children's hospital since 1988 and recently underwent a complete rebuild on site to meet new Department of Health recommendations (2004). It is one of only five banks in the country and is run by two full-time technicians providing valves and homograft patches for the west Midlands region and beyond.

### **Cardiac Services at BCH:**

The Paediatric Cardiac Service provides an integrated care programme for all the patients with congenital heart disease, from neonate to adolescents and provides streamlined transition care to the Adult Congenital Heart Disease unit based at the University Hospital. The cardiology service treats over 10,000 outpatients per year at BCH and outreach clinics, performs over 600 cardiac catheters of which 70% are interventions and performs over 8000 echos per year. The fetal cardiac service is run by Drs Miller, Desai and Seale and performs over 600 antenatal scans per year based at the Birmingham Women's Hospital. The antenatal detection rates are amongst the highest in the UK.

The surgical unit performs 420 -490 open heart procedures per year with an additional 90-120 adult congenital cases. The total number of paediatric procedures (including closed operations) is 500-550 per year.

BCH has developed an Extra-Corporeal Life Support service for cardiac and respiratory support which is staffed by 50 trained ECMO specialists and fully supported by perfusion, PICU and cardiac surgery (Directors of ECLS, Mr TJ Jones & Dr L Edwards; ECLS Coordinator Sr M Farley)

This is the regional cardiac centre for the West Midlands, serving a population of 5.8 million and receives referrals for specialist surgery from every other region in the UK, as well from Ireland, Europe and Asia. BCH has treated over 700 cases referred from other centres around the UK over the past 5 years.

The unit has a particular interest in Hypoplastic Left Heart Syndrome, Complex Pulmonary Atresia and Congenitally Corrected Transposition of the Great Arteries. The centre is the third largest programme for HLHS in the world and has reported the largest single-institution experience with ccTGA and complex pulmonary atresia. The unit organises and hosts an annual workshop in congenital cardiac surgery with invited speakers from the UK and abroad.

### ***Research***

There is an active research programme within the department that is predominantly clinically based and has produced over 90 peer reviewed publications over the past 5 years. The department also co-supervised two Walport academic fellows that are based at UHB but run research programmes including stem-cell research together with BCH. The successful applicant will be encouraged to take an active role in research with a view to developing a laboratory based research programme in the future. The department has a particular interest in the functionally single ventricle circulation and ventricular interactions using conductance techniques. Other areas include the role of banding to train the ventricle and new techniques in

HLHS surgery. The research interests at UHB include ventricular interactions and exercise physiology in congenital heart disease.

### ***Teaching***

The department takes an active role in teaching to both undergraduates and postgraduates. A 'critical care' module for final year medical students provides combined teaching in PICU, cardiology and cardiac surgery. The department participates in running training days for regional cardiothoracic teaching and provides the congenital component of the Birmingham Review Course.

### ***Audit***

The Directorate holds bimonthly audit meetings and a monthly mortality meeting. Participation in the Medical Audit process will be mandatory. The department uses a purpose built database, Heartsuite® that provides immediate access to patient diagnosis and records and has been retrospectively completed to include all patients treated in the unit since 1988.

## **Adult Cardiac Services**

### **University Hospital Birmingham (UHB)**

The cardiothoracic unit provides adult cardiac surgery for a wide area and cardiac transplantation for the West Midlands and Wales. The unit is located in the newly built Queen Elizabeth Hospital that was opened in June 2010 offering 1213 inpatient beds in a purpose built environment equipped with the latest technological healthcare advances.

#### ***UHB Cardiac Surgery Consultant Staff***

Mr TR Graham  
Mr S Rooney  
Mr D Pagano  
Mr J Mascaro  
Mr A Ranasinghe  
Mr M Bhabra  
Mr N Howell

## **Specialist Adult Congenital Cardiac Unit (UHB)**

### ***Consultant Cardiac Surgeons***

Mr DJ Barron  
Mr TJ Jones  
Miss N Khan  
Mr P Botha

### ***Consultant Cardiologists***

Dr S Thorne                      Clinical lead  
Dr P Clift  
Dr L Hudsmith  
Dr S Bowater



This highly specialised supra-regional service was set up in July. The service provides a dedicated adult congenital heart disease programme and its multidisciplinary team co-ordinates the transition from Paediatric to Adult care, managing the interface between cardiology and cardiac surgery services at UHB.

The unit has a total population of >4000 patients. 90-120 GUCH patients undergo cardiac surgery per year, and approximately 70 catheter interventions and a similar number of diagnostic catheters.

### **Details of the Post:**

The appointee will share the running of the Cardiac Surgery Unit with the other four registrars / fellows and a speciality doctor. There is no junior level of trainee in cardiac surgery, ward care is the responsibility of the paediatric cardiology junior staff (SpRs and SHOs) but the Cardiac Surgical registrars / fellows will be available for surgical advice and support on the wards when called upon. The on-call rota is a 1:6 partial shift system.

On-call commitments are principally in the day-to-day management of postoperative cases in the intensive care unit and in organising the list for the following day. The post incorporates a considerable component of training in PICU and the on-call SpR is expected to take an active role in the joint management of PICU cases.

### **Contracted Hours:**

The rota totals a 48 hour working week.

### **Timetable:**

When not on call the post holders' primary responsibilities are in the operating theatre in assisting, performing and observing surgical cases.

There is a commitment to presenting a journal club every 3 months and to participating in an SHO training programme in fundamental principles of congenital heart disease.

### **Educational supervision**

The post holder's educational supervisor will be Mr David Barron

An educational contract will be written at the commencement of the post and reviewed at 3 monthly intervals.

Paediatric Thoracic Surgery at BCH is undertaken by Mr D Parikh (Consultant in Paediatric General Surgery). The cardiac registrars / fellows are welcome to attend his operating lists and outpatient sessions on arrangement with him directly.

The fixed commitments of the unit are timetabled below:

	Monday	Tuesday	Wednesday	Thursday	Friday
0800	Ward round ICU	Ward Round ICU	Ward Round ICU	Ward Round ICU	Ward Round ICU
0830	Business/ Audit Research meeting	Teaching SpRs	Joint Case Conference	Journal Club	Joint Case Conference
Am	Operating list	Operating List	Operating List	UHB or BCH list	Operating List
pm	Operating List	Operating List	Operating List	UHB or BCH list	OutPatients

## **FURTHER INFORMATION**

Further details may be obtained from:

Mr Tim Jones	
Telephone No	0121 333 9435

Mr David Barron	
Telephone No	0121 333 9437

## **Great Ormond Street Hospital**

Great Ormond Street Hospital for Children NHS Foundation Trust (GOSH) is a national centre of excellence in the provision of specialist children's health care, currently delivering the widest range of specialist care of any children's hospital in the UK. It is the only specialist Biomedical Research Centre for paediatrics, the largest centre in the UK for children with heart or brain problems, and the largest centre in Europe for children with cancer. It works in partnership with the UCL Institute of Child Health (ICH), part of University College London, and together they form the largest paediatric research and teaching centre in the UK.

The hospital at Great Ormond Street is the only exclusively specialist children's hospital in the UK. It does not have an Accident and Emergency department and only accepts specialist referrals from other hospitals and community services. The population of children served by the hospital is characterised by those with multiple disabilities and/or health problems and rare and congenital (present at birth) conditions. Many children need the help of different specialist teams. Improvements in health care and diagnosis mean that many children have dramatically improved survival rates and more therapeutic options than was the case 10 years ago. Sadly though, many of the children cared for at GOSH still have life-threatening or life-limiting conditions.

The hospital receives over 220,000 patient visits (inpatient admissions or outpatient appointments) a year, and carries out approximately 18,800 operations each year.

The hospital has 355 patient beds, including 36 intensive care beds. Many of the children and young people on our wards require high dependency care or are classed as ward intensive care, requiring one-to-one nursing.

Around 3,800 full-time and part-time staff work at the hospital. The ICH has around 600 staff. Many senior staff have roles in both organisations.

The hospital has approximately 50 paediatric specialties, the widest range of any hospital in the UK, which uniquely enables it to diagnose and pioneer treatments for children with highly complex, rare or multiple conditions. It has 19 highly specialised national services.

## Job description

Job title	National Trainee in Cardiothoracic Surgery (equivalent to ST8/9)
Division/Directorate	Cardio-Respiratory and Critical Care Division
Band	Specialty Registrar
Responsible to	Supervising Consultant
Accountable to	Specialty Lead Consultant
Type of contract/tenure of post	Fixed Term for a period of 12 months
Hours per week	40 standard hours plus an out of hours commitment.
Location	Great Ormond Street Hospital
Budgetary responsibility	n/a
Manages	n/a

## Key working relationships

### ***Internal:***

*Other medical staff, nurses, administrative team, consultants.*

### ***External:***

*Patients, Families, community services*

## **THE CARDIOTHORACIC UNIT**

### **Aims and Objectives**

The Cardiothoracic Unit at GOSH Trust is one of the largest tertiary referral units for complex paediatric heart and lung disease in the UK. It houses one of two paediatric thoracic transplant units in the UK, one of the 4 ECMO centres as well as providing paediatric tracheal services to Northern Europe.

Cardiothoracic patients are currently housed on Bear Ward (Cardiology Ward - including a 4 bedded High Dependency Unit) Badger ward (Respiratory ward including 4 bedded HDU), as well as in the dedicated Cardiac Intensive Care Unit. Approximately 700 paediatric cardiac operations are performed per year at GOS, (including approximately 30 thoracic transplants), 130 thoracic surgical procedures, 50 mechanical circulatory support/ECMO and 60-80 GUCH operations at The Heart Hospital.

### **Cardiorespiratory Directorate**

The hospital has adopted a system of 5 Divisions . Cardiothoracic service is provided within the Cardiorespiratory & Critical Care Division . The Divisional Directors are Andrew Taylor (Cardiorespiratory) & Allan Goldman (Critical Care), the Lead for Cardiothoracic Surgery is Mr Victor Tsang, the Lead for Cardiology is Dr Mike Burch and the Lead for Cardiac Intensive Care is Dr Cho Ng.

### **Present Staffing**

#### *Senior Medical Staff:*

Mr Victor T Tsang (VTT)	Consultant Cardiothoracic Surgeon
Mr Martin Kostolny (MK)	Consultant Cardiothoracic Surgeon
Mr TY Hsia (TYH)	Consultant Cardiothoracic Surgeon
Mr Nagarjan Muthialu (NM)	Consultant Cardiothoracic Surgeon
Mr Ben Davies	Consultant Cardiothoracic Surgeon
Professor Martin Elliott (MJE)	Consultant Cardiothoracic Surgeon (part time specialty lead)

#### *Current Junior Medical Staff:*

4x SpRs (London Deanery)  
4x Trust Fellows (GOSH)

## **DUTIES OF THE POST**

### **Day time clinical duties**

This will include both daytime duties and on call commitment. We run a Full Shift Rota and appreciate working flexibly to run an efficient service. Prospective cover is included in the Rota.

Duties will include pre-operative assessment of children including obtaining informed consent, assisting in theatre, performing procedures under supervision in accordance with the national curriculum

Specific duties: ECMO cannulation and decannulation, providing surgical cover in the CICU (i.e. exploration for bleeding, delayed closure of chests, intercostal drain and PD cannula insertion etc),

post-operative care of children on the ward, presentation of cases at meetings and ward rounds, involvement in the chest wall clinic, involvement in the teaching, research and academic programme of the Unit. The appointee will quickly acquire skills in paediatric cardiothoracic surgery. In addition to surgery, ICU, cardiac imaging/echo, and research experience will also be provided. Such experience will form the basis of future career development within the discipline.

### **On-call commitments**

This is a full shift rota which incorporates nights, weekends and out of hours. On average there is one SpR on leave at any one time. The out of hours will not be evenly spaced and the appointee will be expected to work flexibly to accommodate this. The out of hours arrangements will be discussed with the successful applicant.

### **Audit and Research**

This post should give ample opportunity for these aspects of work. The appointee will be expected to participate fully in the departmental audit programme. Participation in clinical research that is related to service delivery will be encouraged and facilitated.

### **Teaching**

The Trust Fellows will contribute to the departmental teaching programme, and where appropriate in the longer term will also contribute to Courses and Conferences run at the Institute of Child Health.

## **FURTHER INFORMATION.**

Please contact the following for further information:-

**Lead Consultant:** Mr VT Tsang  
[Victor.Tsang@gosh.nhs.uk](mailto:Victor.Tsang@gosh.nhs.uk)

**SPECIALTY:** Cardiothoracic

**CONTRACT:\*** Whole time

### **1) WEEKLY TIMETABLE OF SpR activities**

#### **Monday**

0730 Ward Round CICU/Bear Ward  
0830 VTT Theatre all Day /TY Theatre all Day  
12.00 Planning Meeting

#### **Tuesday**

0730 Ward Round CICU/ Bear Ward  
0830 Unit Teaching  
0830 NM & MK Theatre all day  
0830 GUCH Theatre at Heart Hospital (TY)  
12.00 Planning Meeting

**Wednesday**

0730 Ward Round CICU/Bear Ward  
0830 MK Theatre all day  
0830 GUCH Theatre at Heart Hospital (VTT)  
12.00 Planning Meeting

**Thursday**

0730 Joint Cardiology Conference  
0830 VTT & TY Theatre all day  
1100 Thoracic MDT  
12.00 Planning Meeting  
1700 Tracheal MDT

**Friday**

Ward Round  
0730 CICU/ Bear Ward  
0815 Clinical Governance  
0830 NM / MK Theatre all day  
0930 JCC & Surgical Meeting  
12.00 Planning Meeting

- 2) ROTA: See specific clinical duties (2.1)
- 3) Monday – Friday at 12.00pm Surgical Planning On-Call SpR meeting

This job description is intended as an outline of the areas of activity and can be amended in the light of the changing needs of the service and will be reviewed as necessary in conjunction with the post-holder.

**Other information**

Great Ormond Street Hospital Foundation Trust is a dynamic organisation, therefore changes in the core duties and responsibilities of this role may be required from time to time. These guidelines do not constitute a term or condition of employment.



