

# **Birmingham Children's Hospital NHS foundation Trust**

*'The partner of choice in child health'*

**Author(s): Dr. Raju Reddy, Dr. K Sabapathi,**

**Affiliation(s): C.S.Mott Children's Hospital, Ann Arbor, Michigan**

Affiliation: University of Birmingham Medical School  
City: Birmingham  
County: West Midlands  
Country: United Kingdom  
Address: Birmingham Children's Hospital NHS Foundation Trust  
Steelhouse Lane, B4 6NH

*'From Victorian times to the 21<sup>st</sup> century'*

The Birmingham Children's Hospital is more than 140 years old and has transformed itself from a Victorian 16-bedded hospital providing basic medical care to the present day, 21<sup>st</sup>-century center for excellence in providing specialist child healthcare.

In 1862, the Birmingham and Midland Free hospital opened in Steelhouse Lane. In the first month, just 2 children were admitted. In February, 16 children were admitted, filling all of its 16 beds. In 1869, the ever increasing number of outpatients demanded the construction of a new outpatients department on the corner of Upper Priory and Steelhouse Lane. In 1877, an isolation block was constructed in the near-by Broad Street; this consisted of two six-bedded scarlet fever wards and a four-bedded diphtheria ward.

The children's hospital having outgrown its premises, the governors resolved to build a completely new hospital. In 1907, an appeal was launched to raise funds for the new hospital on a promising 2 1/2 acre site on Ladywood Road. Though the foundation stone was laid by HRH Princess Louise first, Duchess of Argyll in 1913, the World War I frustrated plans for the new building. In 1917, a partially completed building saw the arrival of the first outpatients on Christmas Eve. On 21st May 1919, King George V and Queen Mary visited the new hospital and were most impressed.

In 1926, Birmingham Children's Hospital became the first hospital to treat a child with rickets by administering cholesterol to supply the necessary vitamins. A new babies' block was opened in 1941 which was officially christened 'the Leonard Parson's block' after the physician who offered his services since 1910. The National Health Service (NHS) Trust was established in 1948 and the children's hospital became part of the 'Teaching Group of Birmingham United Hospitals'.

In 1957, demands for a new hospital began, as the sanatorium-type hospital was no longer sufficient to cater to the needs of the complex medical services of the 20<sup>th</sup> century. Finally, 1998 saw the return of the hospital to the site of its first home on Steelhouse Lane. It is now the leading centre for excellence in the provision of child healthcare.

## **Areas of service provision**

Every year, the hospital treats over 140,000 children and young people from across Birmingham, West Midlands and beyond.

Birmingham Children's Hospital is a tertiary pediatric referral center in the United Kingdom. In addition to general and specialist pediatric medical services, the surgical service includes general surgery, urology, otolaryngology, plastic surgery and burns, maxillo-facial surgery, orthopedic surgery, cardiac and neurosurgery. About 500 open heart surgeries are performed each year, not including those done under interventional cardiology.

In addition, the hospital enjoys national and international reputation in specialist areas including liver transplantation and neonatal surgery. Providing one of only two centers in the UK, the liver unit is the designated centre for small bowel transplantation, whilst the heart unit leads the field in congenital heart disease. About 40 liver transplants are done every year. The Trust also manages the city-wide Child and Adolescent Mental Health Services (CAMHS).

**Anesthesiology services:** Anesthetic cover is provided by staff and trainee anesthesiologists in the operating theaters and other off-site areas. There are a total of 16 different areas where cover is provided of which there are 8 major operating theatres, with a dedicated theatre each for cardiac surgery, neurosurgery (and/or cranio-facials) and plastic surgery. The main block also consists of an angiography suite and an endoscopy room where anesthesia is provided. Minor cases are also done in the 'plaster room' within the theater suite.

**Off-site anesthetic cover** is provided in the Radiology department (MRI and CT suites), the Oncology theater in the 'Parsons House' and at the Queen Elizabeth Hospital, Birmingham (children undergoing radio-therapy) which is about 3 miles away and is the only pediatric patient service provided in that hospital. The adjacent Birmingham Dental Hospital has two theaters where anesthesia is provided for out-patient dental procedures ('chair-dentals' and other orthodontic procedures). In addition, anesthetic cover is also provided for emergency cases presenting to the accident and emergency (A & E). Pediatric retrievals of children requiring specialist care from surrounding district general hospitals are done by trainees posted to the PICU.

The acute pain team looks after pain issues during the week. The anesthetic team perform one of the most numbers of regional techniques for intra-operative and post-operative analgesia in the country. This includes caudal epidurals, caudal catheters, lumbar and thoracic epidurals and a few spinals.

### **Staff anesthesiologists at Birmingham Children's Hospital:**

Dr L Adewale  
Dr O Bagshaw (Pediatric intensivist)  
Dr J Bennett  
Dr P Bromley  
Dr N Bugg  
Dr E Carver (Educational Supervisor)  
Dr A Cranston  
Dr S Cray (Pediatric intensivist)  
Dr G Derrick (Clinical and administrative lead)  
Dr U Dickson  
Dr S Jones  
Dr D Knight  
Dr M Lewis  
Dr A Liley  
Dr R Marcus (Audit lead)  
Dr C Millar  
Dr J Montgomerie  
Dr A Moriarty (Royal College tutor)  
Dr C Ralston (Medical Director of the Hospital)  
Dr N J Robson  
Dr J Stansfield  
Dr M Stokes  
Dr K Thies

### **Training at Birmingham Children's Hospital**

The trainee anesthetic staff complement at BCH consists of 9 specialist registrars (year 3/4/5), 4 specialist registrars (year 1/2) and 1 clinical fellow. Specialist registrars are trainees undergoing 5 years of anesthetic training before being eligible for a consultant's post. The Birmingham Children's Hospital is affiliated to the West Midlands Deanery and trainees from all three schools of Anesthesia within the Midlands are posted here (Birmingham, Stoke-on-Trent and Warwickshire Schools of Anesthesia).

The trainees are posted for either a 3-month or a 6-month block in pediatric anesthesia, which includes a 1-month or a 2-month block in the Pediatric Intensive Care Unit (PICU) respectively, with the rest of the time dedicated to pediatric anesthesia.

The on-call rota for operating theaters is covered by a year 3/4/5 specialist registrar and runs from 800 hrs to 2030 hrs or 2000 hrs to 830hrs the following day. The work-load consists of providing anesthesia for emergency cases, attending cardiac arrest and trauma alerts and solving pain and recovery issues.

**Academics at the hospital:** A weekly meeting is held in the anesthetic department at 7.30 a.m. every Tuesday morning. This involves a formal presentation by a trainee followed by a discussion. A weekly teaching session by a consultant is held on Tuesday afternoons from 3 p.m. to 5 p.m. on topics relevant to pediatric anesthesia. A morbidity-mortality meeting is held every 3 months where results of completed audits are also presented. A medical 'Grand Round' meeting is held every Wednesday afternoon at the Post-Graduate center.

The Pediatric Intensive Care Unit (PICU) at **Birmingham Children's Hospital** is a nominated Lead Centre for Pediatric Intensive Care services within the West Midlands region. It is a 20-bedded purpose-built Unit which is currently funded for 18 beds, and admits 1300 patients per year with roughly 50% of beds occupied by post-cardiac surgery patients.

**Few interesting facts and pioneering developments:**

The hospital is proud to be the first to perform a successful pediatric triple transplant, the world's smallest successful pacemaker in a three day old baby and to house a neuro-navigation system which provides image-guided surgery for children with brain tumors and other neurosurgical conditions. In December 2001, a team of skilled neurosurgeons, general and plastic surgeons successfully separated conjoined twins (joined at the base of the back) in the first operation of its kind in the UK.