

# Children's Acute Transport Service CATS



Annual Report 2012/13



## Highlights of the year

The service achieved its external re-accreditation from the Commission on Accreditation of Medical Transport Systems (CAMTS) this year. CATS also expanded the outreach education program to referring hospitals by delivering more frequent sessions and using simulation-based teaching.

The Children's Acute Transport Service (CATS) is in its eleventh year of providing dedicated specialist paediatric intensive care retrieval services for the North Thames region.

In 2012/13, the CATS service remained the busiest dedicated paediatric intensive care (PIC) retrieval service in the UK, handling 2228 referrals and undertaking 1172 retrievals.

### Other highlights:

- A brand new CATS website was launched. Referring hospitals can now access an electronic drug calculator to perform automatic calculation of all drug infusions. In addition, new operational guidelines were added.
- The CATS Stabilisation and Transport (CAST) course was added to the CATS high fidelity outreach programme. The whole day course was run for 16 candidates with multi-grade multidisciplinary teams that work together training together.
- Joint aeromedical crew resource management training between CATS and CEGA, involving simulation, emergency scenarios and aircraft environment.
- CATS started submitting data to the Paediatric Intensive Care Audit Network (PICANet), the national audit of paediatric intensive care activity. Reports from PICANet will provide the ability to benchmark the CATS service against other PIC retrieval services in the UK.
- CATS staff published several peer-reviewed research articles and presented at various national and international conferences.



## Single point of contact

CATS provide a single point of contact for advice, bed finding, and a paediatric intensive care retrieval team for critically ill children

**0800 0850003**

## EXECUTIVE SUMMARY

In 2012/13, the service maintained its activity in comparison to previous years. CATS received 2228 referrals, undertook 1172 retrievals and transferred 1141 children into PICUs in London and other parts of the UK.

### REFERRALS: *n*= 2228

| Referral outcome                | Number (%)   |
|---------------------------------|--------------|
| CATS team mobilised             | 1172 (52.6%) |
| Advice/consultation only        | 489 (22%)    |
| Refused - within scope of care  | 96 (4.3%)    |
| Refused – outside scope of care | 228 (10.2%)  |
| Cancelled by referrer           | 153 (6.8%)   |
| Other                           | 76 (3.4%)    |

In keeping with previous years, over 20% of referrals resolved with advice/consultation alone, and a CATS retrieval team was not needed. Advice calls are an important part of CATS activity because early discussion may, in some cases, avert the need for PICU admission. Referrers have repeatedly highlighted this aspect of CATS activity as an important role of the service.

### RETRIEVALS *n*=1172

| Destination hospital         | Number (%) |
|------------------------------|------------|
| Great Ormond Street Hospital | 479 (43%)  |
| St Mary's Hospital           | 214 (19%)  |
| Royal Brompton Hospital      | 107 (9%)   |
| Addenbrooke's Hospital       | 153 (13%)  |
| South Thames PICUs           | 87 (7.4%)  |
| Other UK PICUs               | 23 (2%)    |
| Other units (non-PICU)       | 46 (3.9%)  |

Just over 70% of the patients were retrieved to the partner PICUs in North Thames (Great Ormond Street Hospital, St Mary's Hospital and Royal Brompton Hospital), while 13% of patients were retrieved to Addenbrooke's Hospital in Cambridge. This is a drop of 7% of overall activity into the North Thames region with an increase in activity to Cambridge PICU in 12/13.

CATS also undertook retrievals for supra-regional services such as burns (3 children to St Andrews Burns Centre, Chelmsford), extra-corporeal membrane oxygenation (5 children to ECMO centres other than Great Ormond Street Hospital) and acute liver failure (4 children to King's College Hospital, London).

CATS aims to provide the highest quality paediatric intensive care for patients and their families from the point of referral to the handover of care at the receiving paediatric intensive care unit

## BACKGROUND

The Children's Acute Transport Service is a specialised service designed to make intensive care rapidly available to critically ill children in North Thames and East Anglia.

Most hospitals do not have a Paediatric Intensive Care Unit (PICU) - paediatric intensive care is only provided in a small number of specialist units. However, most critically ill children initially present to hospitals without a PICU. The Children's Acute Transport Service (CATS) facilitates the safe and speedy transfer of these children to a PICU.

CATS deploys a skilled paediatric intensive care team to assist in the treatment of critically ill children both before and during transfer to ICU. We offer telephone consultation, liaison with sub-specialists and skilled inter-hospital transport within one service.

## MISSION STATEMENT

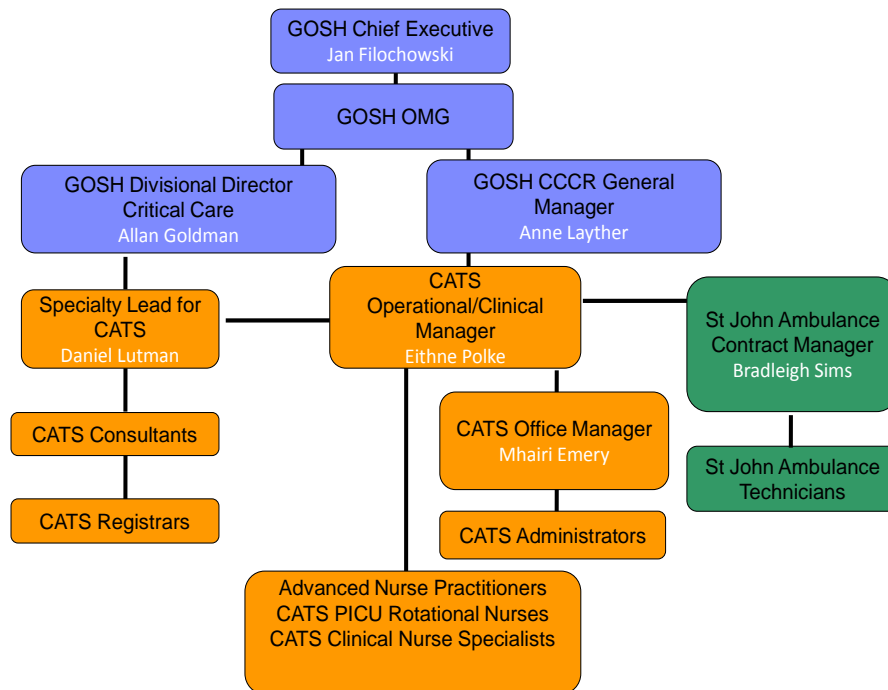
The Children's Acute Transport Service aims to provide the highest quality paediatric intensive care for patients and their families from the point of referral to the handover of care at the receiving paediatric intensive care unit.

- Single regional focus for provision of paediatric critical care for patients presenting as an emergency
- Provides 24 hour, 365 day, Consultant led telephone advice and a triaging facility for all referrals
- Committed to improving and developing the provision of critical care and critical care transport for all patients within its scope of care.

## SERVICE STANDARDS

The following core standards apply:

1. The CATS service will meet the Standards for the 'Retrieval and Transfer of the Most Critically Ill Children' identified by the Paediatric Intensive Care Society 4th edition of the document 'Standards for the Care of Critically Ill Children' 2010.
2. Any child within North Thames within CATS scope of care can expect the retrieval team to be mobilised within 20 minutes from decision to retrieve.
3. Any child within East Anglia requiring paediatric intensive care can usually expect the retrieval team to be mobilised within 1 hour from decision to retrieve, depending on transport mode.
4. When the capacity of the CATS service is exceeded, referrals will be prioritised according to clinical need.
5. Early expert clinical advice and management by Consultants trained in Paediatric Intensive Care is available to referring hospitals at all times.
6. Education and training of the CATS staff is a fundamental part of the service.
7. An Outreach Program will be offered by CATS to referring institutions.
8. Written protocols and guidelines are in place for the management of the most frequently retrieved patient groups.
9. Rigorous audit is undertaken and presented to both East Anglia and North Thames provider units on a regular basis not exceeding yearly.
10. At times of paediatric intensive care bed shortage, all patients within CATS scope of care will be transported to the nearest appropriate paediatric intensive care bed unless the risk of doing so is deemed greater than providing care at the referring institution.



## CATS Organisation Structure

The CATS service is part of the management structure at Great Ormond Street Hospital for Children NHS Foundation Trust

### THE TEAM

**Divisional Director:** Dr Allan Goldman

**General Manager:** Anne Layther

**Speciality Lead:** Dr Daniel Lutman

**CATS Co-ordinator:** Eithne Polke

#### CATS Consultants

Dr Daniel Lutman

Dr Padmanabhan Ramnarayan

Dr Richard Paget

Dr Sandra Walsh

#### From GOSH

Dr Andy Petros, Dr Paula Lister, Dr Joe Brierley, Dr Sanjiv Sharma, Dr Mark Peters.

#### From SMH

Dr David Inwald and Dr Parviz Habibi

#### CATS Fellows

Dr Anna Milan

Dr Elizabeth Richards

Dr Paula Garcia

Dr Perumal Karnan

Dr Ramesh Lakkavalli

Dr Julia Vujcikova

Dr Ruth Mathes

Dr Sina Mahjoob

#### Advanced Nurse Practitioners

Lynn Shields

Mark Clement

Darren Darby

#### Trainee Advanced Nurse Practitioner

Cathy Roberts

#### Retrieval Nurse Specialists

Beverly Halverson-Steele

Ali Clayton Payne

Rachel Higson

Carole Jones

#### CATS Office Manager:

Mhairi Emery

#### CATS Administrators

Marissa Willock

Joan Joseph

Roger Mc Gee

Jeuntelle Stapleton

Laurie Hayes

Lucy Marsh

Carly Williamson

#### CATS/St John Ambulance

Mr. Brad Sims (Commercial Transport Manager)

Richard Green, Albert Rapacioli, Richard Levy, David Morton, Paul Dunkley, Ian Michaels, Phil Bartholomew, Maurice John, Dave Warren, Mark Bourne, Chris White, Louis Roberts,

#### Rotational Nurses

##### GOSH PICU/NICU

Alison Taberner Stokes, Josephine Jim, Helen Drennan, Claire Fraser, Simon Mansfield Sturgess, Emma Whitehurst, Jason Pritchard, Nicola Pearson, Gamal Hutton, Paula O'Sullivan, Sharon Chalkley, Nikki Pearson, Claire Steele, Lorraine Highe, Monika Sedbauer, Amy Allen, Gail Murphy, Leanne Durkan,

##### GOSH CCC

Jo Broadhurst, Catherine O'Hagan, Chantelle Reid-McLeod, Sheryl Snowball

##### St Mary's Hospital PICU

Debbie Lee, Anne Dowson, Carly Croyman, Vikki Norman, Sarah Brice,

##### Royal Brompton PICU

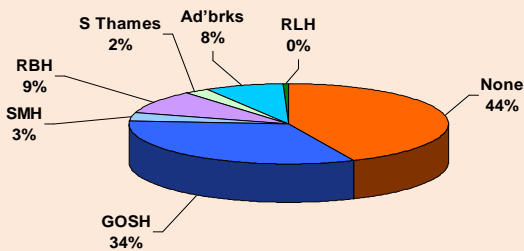
Claire Buckle, Jennifer Armstrong, Kveta Kosvica, Rhiannon Burdge

## DETAILED CLINICAL ACTIVITY Referrals

CATS received 2228 referrals in 2012/13. The outcome of referrals is shown below:

| Referral outcome         | Number |
|--------------------------|--------|
| CATS team mobilised      | 1172   |
| Advice/consultation only | 489    |
| Refused - within scope   | 96     |
| Refused – outside scope  | 228    |
| Cancelled by referrer    | 153    |
| Death during referral    | 14     |
| Other                    | 76     |

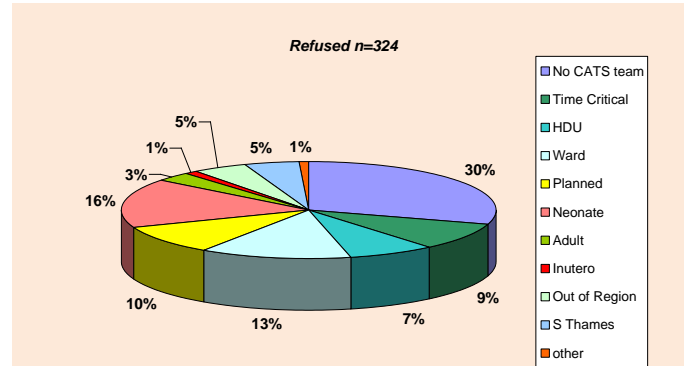
Referrers expressed a preference for a specific unit in the majority of referrals (56%).



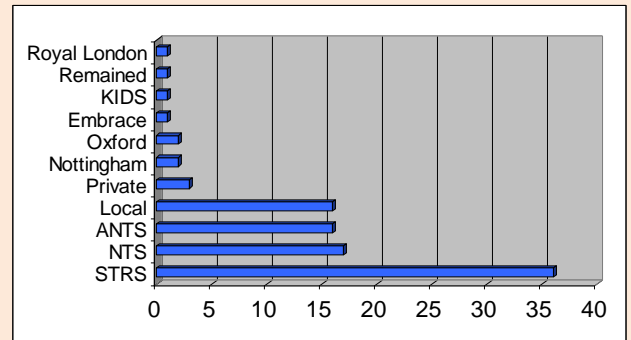
In most cases, children were transferred to the preferred PICU, as shown in the table below:

| Pref/Dest | GOSH | SMH | RBH | ST | Add | Total |
|-----------|------|-----|-----|----|-----|-------|
| None      | 145  | 136 | 12  | 45 | 61  | 451   |
| GOSH      | 245  | 39  | 4   | 14 | 20  | 343   |
| SMH       | 1    | 24  | 1   | 1  | 5   | 34    |
| RBH       | 3    | 1   | 89  | 1  | 1   | 99    |
| ST        | 1    |     |     | 23 | 1   | 26    |
| Add       | 6    | 10  | 1   | 2  | 65  | 86    |

In total, 324 referrals were refused (96 due to lack of team availability). The breakdown of reasons for refusal is detailed below:



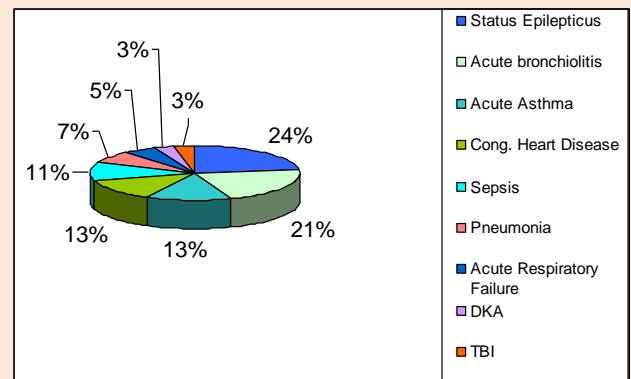
Further details on refusals where a CATS team was not available are provided below:



All cases were either passed back to their local service or alternative retrieval team was sourced. The one child that remained at the local was cared for on AICU.

### Diagnosis at referral

Children with a number of varied conditions were referred for intensive care, reflecting the diverse case mix covered by the service.



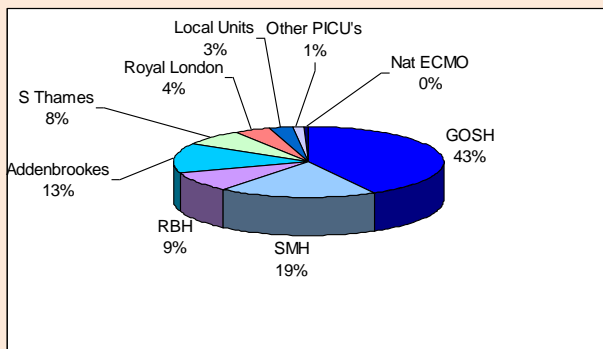
## DETAILED CLINICAL ACTIVITY

### Retrievals

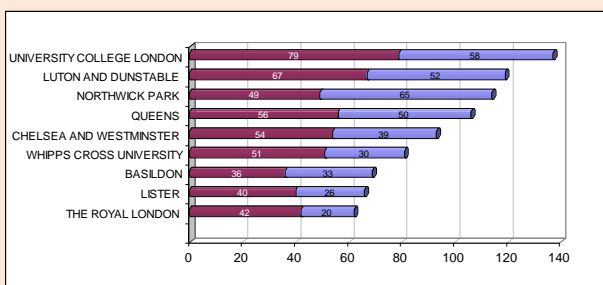
The CATS team was mobilised on 1172 occasions. 1141 children were transported to destination units. The outcome of all team mobilisations is illustrated below:

| Retrieval outcome                  | Number (%)        |
|------------------------------------|-------------------|
| <b>Transferred</b>                 | <b>1141 (97%)</b> |
| Patient improved – not transferred | 9                 |
| Patient died – team on route       | 5                 |
| Patient died – with team at DGH    | 5                 |
| Retrieval cancelled                | 5                 |

The majority of children were transferred to one of the 4 PICU providers in North Thames/East Anglia (84%).



Patients were retrieved from 80 different hospitals. The top referrers are shown below:



The CATS team continues to work in close co-operation with the other regional transport services such as the London Neonatal Transport Service (NTS), the South Thames Retrieval Service (STRS) and the Anglia Neonatal Transport Service (ANTS). During busy periods, these teams cross-cover and utilise existing PICU/NICU beds efficiently. The team interactions and their outcome are depicted below:

| Referral from         | Requests  | Accepted  | Refused  |
|-----------------------|-----------|-----------|----------|
| <b>STRS</b>           | <b>67</b> | <b>11</b> | <b>5</b> |
| <b>NTS</b>            | <b>33</b> | <b>10</b> | <b>6</b> |
| <b>ANTS</b>           | <b>16</b> | <b>8</b>  | <b>2</b> |
| <b>Cambridge PICU</b> | <b>18</b> | <b>11</b> | <b>3</b> |

Patient acuity of CATS transfers was high – the majority of patients were invasively ventilated, and a significant number needed inotrope support and inhaled nitric oxide during transport.

|                                  |             |
|----------------------------------|-------------|
| <b>Invasive ventilation rate</b> | <b>79%</b>  |
| <b>Vasoactive agent use</b>      | <b>28%</b>  |
| <b>Inhaled NO</b>                | <b>4%</b>   |
| <b>Median PIM-2 score</b>        | <b>7.6%</b> |

The majority of transfers were undertaken by road, using dedicated CATS ambulances (97%). 29 transfers were performed using helicopters or fixed-wing aircraft (3%).

Team composition in the majority of retrievals was PICU Fellow + PICU Nurse. CATS Advanced Nurse Practitioners participated in 348 retrievals (30%). In 138 transfers (12%) they acted as team leader.

Consultants were present on retrieval in 112 cases.

## QUALITY AND SAFETY Performance indicators

As part of our ongoing quality and safety program, a number of performance indicators are continuously audited at CATS.

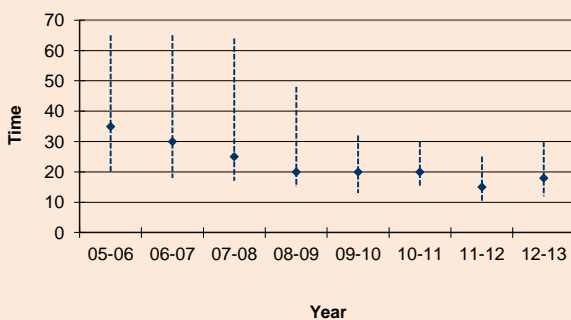
### **Mobilisation and stabilisation times**

One of the service standards, and an accurate indicator of the agility of the service, is the time taken to mobilise a team once the decision to accept the patient has been made. As part of our quality improvement programme, the CATS team aims to mobilise a team within 20 minutes of acceptance.

In addition, the CATS team aims to provide the same level of intensive care at the referring institution as at the receiving PICU – this often necessitates a period of stabilisation and assessment of stability for transfer.

| Time                        | Median (min) | IQR (min)      |
|-----------------------------|--------------|----------------|
| <b>Mobilisation time</b>    | <b>18</b>    | <b>15-68</b>   |
| <b>Stabilisation time</b>   | <b>105</b>   | <b>75-143</b>  |
| <b>Total retrieval time</b> | <b>275</b>   | <b>215-350</b> |

As a result of a continuous quality improvement effort, mobilisation times have improved year on year at CATS.



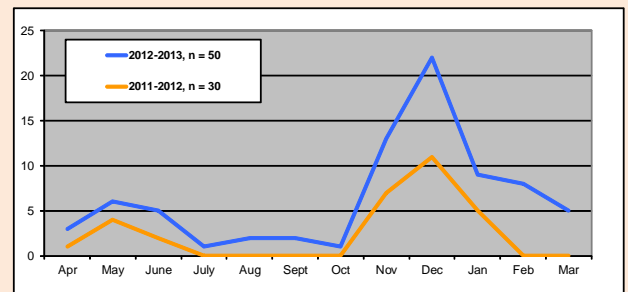
### **Time to reach patient bedside**

One of the PICS standards states that the retrieval team should reach the critically ill child within 3 hours of referral acceptance (4 hours for geographically isolated regions). CATS met this target in 84% of cases (91% of cases within 4 hours).

### **Out of region transfers**

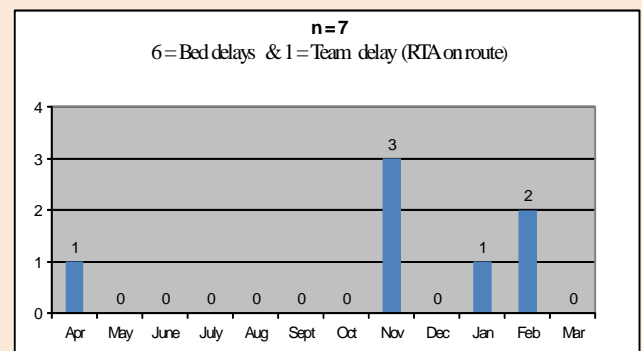
CATS continues to monitor the flow of patients from North Thames and reports directly to the commissioner for PIC services on a monthly basis. Last winter, a number of children were transferred from the London region to other regional PICUs.

There were 50 children (4.2%) transferred out of region to other PICUs, the majority to Addenbrooke's PICU.



### **Waiting for the CATS team > 8 hr**

7 children were cared for by the District General Hospital for >8 hours. 3 breaches were in November alone, relating to lack of PICU capacity. These children were managed locally in collaboration with the CATS team, and once a bed became available, were transferred in to PICU.





# CLINICAL GOVERNANCE

## Risk Management and Adverse Event Reporting

### CATS Risk Action Group (RAG)

The Group’s aim is to ensure consistency in the quality and access to the service across the region and continue to work in partnership across the multi-disciplinary paediatric critical care teams, specialised commissioners, St John’s Ambulance Service and, where possible, with patients and their careers in planning the future of CATS. The scope of the group is to provide a forum, which promotes care to the highest standard through open dialogue, teamwork and knowledge where lessons are learned and risk is minimised and where change is continuous and rapid.

The RAG membership is made up of CATS consultants, nurses, office manager, Transport manager, PICU consultants from across North Thames units, a Consultant Paediatrician from a district general hospital and members of the Risk Management team at GOSH.

- Monitor and oversee all clinical activities
- Maintain processes for assuring quality of clinical care
- Provide up to date guidelines on clinical practice and procedures
- Develop and monitor implementation of National Standards
- Monitor all research and development activities within CATS Team
- Proactively manage clinical risk assessment processes including incident reporting
- Manage complaints, critical incidents and audit
- Ensure that CATS Mortality and Morbidity meetings are held across the PICUs
- Health & Safety Standards
- Use of Information
- Education & Training Standards

All governance meetings are informed by the 3 monthly Risk Action Group meetings.

- Specialty Board at GOSH
- 3 monthly clinical excellence meeting (RAG)
- Separate 6 month Morbidity & Mortality meetings (or as required) with the 4 PICUs across the region
- Monthly (3rd Wednesday of every month) CATS Morbidity & Mortality meetings
- Daily review of referral/retrieval activity
- Annual review of service delivery
- Outreach education packages available bi-annually to the DGH which incorporates an element of discussion on difficult cases and service improvement.

- Extraordinary meeting which can be called by any of the users/co-opted members.

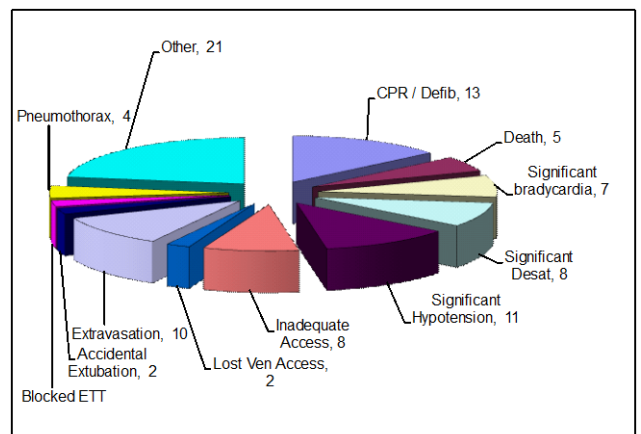
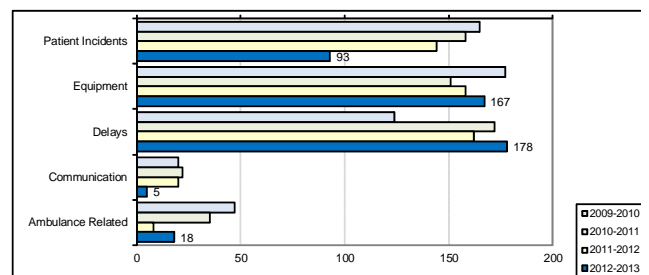
### Adverse event reporting

The CATS team records adverse events and near misses during the course of the transfer relating to ambulance, equipment, and patient-related activity. Adverse event reporting is encouraged to facilitate an active approach to risk reduction. Each adverse event is analysed during the daily team meeting where clinical activity from the previous 24 hours is discussed.

In 2012/13, the vast majority of transports did not involve any adverse events (69%). In 31% of retrievals, teams documented and reported adverse events – most were minor and did not compromise patient safety.

Events were analysed in five major groups (ambulance related, equipment related, and patient related as well as communication and delays).

During the adverse weather conditions we activated our major incident plan once for a road traffic collision which involved the team on the way out to an infant in a DGH.



# CATS Education and Training

There is a comprehensive in-service education program at CATS, which includes:

- **Staff mandatory update days:** In 2012/13, 3 sessions were held, where all staff members working for the service attend.
- **Fellows Induction:** 10 one-day local induction programs were run over the past year.
- **Nurses induction:** 2 two-day sessions attended by all new starters to CATS, who then go on to work in a supervised capacity on retrieval.
- **SIM Training:** CATS ANP & Consultant team facilitated on a number of SIM courses.
- **APLS / EPLS Courses:** CATS Core Nursing Team facilitated on 7 courses over the last year.
- **Advanced Nurse Practitioner study days:** There were 2 ANP days run by the consultants over the last year with didactic teaching, reflective practice and research paper discussion as well as review of clinical skills stations.
- **Ambulance Technician update days:** Annually
- **Core Curriculum Teaching Days:** Undertaken at GOSH, which complements the modular teaching for the ICTPICM syllabus.
- **Mortality & Morbidity:** A monthly M&M is undertaken at CATS on the third Wednesday of every month.
- **Daily Morning Review/Teaching:** Every morning CATS reviews its previous 24 hours work with a focus on encouraging clinical problem based discussions.
- **Weekly Teaching:** A timetable is in place for all staff to participate in presenting an interesting paper, review a guideline, or present an interesting case in which they have participated in the retrieval process.
- **Supervised Retrievals:** Nursing and medical staff formed part of the retrieval team to be trained on a number of occasions.
- **Observer shifts:** Observers from referring institutions (PICU outreach facilitators, registrars, and consultants) accompanied the team on a number of retrievals, spending anything from a day to a week



## ADVANCED NURSE PRACTITIONERS

The aim of the advanced nursing posts is to create a flexible team that can respond to the needs of the service and the referring centres through education, outreach, stabilisation and transportation of the critically ill child. The ANP job plan is divided into 65% clinical, 25% education & training and 15% research & audit.

Currently all 3 of the Advanced Nurse Practitioners for the Children's Acute Transport Service have completed their training and are performing within their role. The Advanced Nurse Practitioners have participated in 348 retrievals (30% of the total retrieval activity).

## HIGH-FIDELITY SIMULATION

CATS have purchased 2 ultra-mobile computerised manikins with wireless connection for simulation training. This type of training, where the manikin patient closely mimics the responses of a real patient, can greatly enable the candidates' suspension of disbelief during the clinical scenario.

The manikins are authentic in regard to voice, airway, breathing pattern, breathing sounds, pulses and interactive monitoring. They are easily transported in a small light suitcase. Running the scenario authentically in real time not only gives an opportunity to better apply one's clinical skills, but also practice one's leadership, communication and prioritisation skills.

# CATS Outreach Education

CATS play a pivotal role in helping referring hospitals to manage the critically ill patient and stabilise them while waiting for the transport team. This is done through regular outreach visits to facilitate case discussions as well as lectures, workshops and tutorials. Consultants as well as senior nursing staff attend these sessions. In addition, the CATS website serves as a single point of high quality information including guidelines, prescriptions for drug infusions and parent information.

In 2012/13, 26 outreach days were organised with the DGH teams, covering over 20 of the main referrers to the service.

## Clinical Network

Outreach activity is integral to the development and maintenance of the clinical network. The CATS teams have made themselves known to key members of staff in the hospitals that use the service. They are therefore easily accessible on an informal basis to bring up issues regarding the service, ask clinical questions and receive immediate feedback on children that have been retrieved.

Outreach days allow full engagement between CATS and all those who look after seriously ill children, in order to fulfill some of the recommendations made in the Tanner report (2006). The service has made a huge effort in contacting colleagues in anaesthetics, adult ICU and accident and emergency; however, due to time constraints, it is not always possible to facilitate bi-annual sessions for all the District General Hospitals.

## NETWORK LINKS

Retrieval Co-ordinator: Eithne Polke

North-West Sector: P Ramnarayan (CATS Consultant) and Mark Clement (ANP)

North-Central Sector: Richard Paget and Sandra Walsh (CATS Consultants) and Lynn Shields (ANP)

North-East Sector and Essex: Daniel Lutman and Sandra Walsh (CATS Consultants) and Darren Darby (ANP)

Network links can be contacted via CATS: 020 74305850

# Research & Audit

There are excellent opportunities for CATS trainees to perform research and audit as part of the clinical service.

## Research themes

1. Use of biomarkers in early critical illness (cardiac troponin)
2. Epidemiology of retrievals and service organisation (effect of stabilisation time on outcome; effect of source of admission on outcome)
3. Early intervention during retrievals (use of ultrasound guided vascular access)

## Clinical trial completed

CATCH study: multi-centre study of standard versus heparin coated versus antibiotic coated central venous catheters, Institute of Child Health

## Publications in 2012/13

1: Walsh SA, Paget RI, Ramnarayan P. Salbutamol usage and lactic acidosis in acute severe asthma. *Pediatr Crit Care Med.* 2013 Jan;14(1):116-7.

2: Harron K, Lee T, Ball T, Mok Q, Gamble C, Macrae D, Gilbert R; CATCH team. Making co-enrolment feasible for randomised controlled trials in paediatric intensive care. *PLoS One.* 2012;7(8):e41791.

3: Krishnaiah A, Soothill J, Wade A, Mok QQ, Ramnarayan P. Central venous catheter-associated bloodstream infections in a pediatric intensive care unit: effect of the location of catheter insertion. *Pediatr Crit Care Med.* 2012 May;13(3):e176-80.

4: Quale D, Goodman S, Steen C, Mody R, Cox S, Clement M. Nursing on the move – specialist nursing for patients requiring repatriation and retrieval. *Royal College of Nursing* 2013

## List of ongoing audits

- Use of exemptions (lights & sirens) during retrieval
- Adverse events occurring on transfer
- Neurosurgical emergency transfers audit
- Intubation Audit
- Mobilisation times
- Medical documentation audit
- Flight Retrievals
- Child Protection Paperwork audit
- Drug Prescribing errors

# Information technology and use of information



Several service improvement projects are ongoing at CATS that relate to the use of information technology.

## CATS WEBSITE

The CATS website ([www.cats.nhs.uk](http://www.cats.nhs.uk)) is a vital source of information for the referring hospital. The website has been updated to a new user-friendly format, and contains links to all CATS Guidelines, Operational Guidelines and a new electronic drug infusion calculator.

## PICU ELECTRONIC INFORMATION SYSTEM

CATS are part of the GOSH PICU Information System procurement process. Implementation of this system at CATS will allow the team to record data electronically on retrieval, just as on a PICU, giving the team the ability to store vital patient data in real time, and query retrieval information in the future for education, training, audit and clinical governance purposes.

## PICANET RETRIEVAL DATASET

CATS have contributed to the development of the PICANet national audit dataset for retrievals. CATS submitted data to PICANet in 2012/13. Submitted data can be used to benchmark CATS against other UK retrieval services.

## VIDEOCONFERENCING

Videoconferencing has started to become an integral part of the CATS workflow. As a first step, it has been used for case debriefs with referring hospitals. In 2013/14, we plan to roll out the system to cover remote video consultation for referring hospitals as well as for retrieval teams to communicate with CATS Consultants back at base.



## EXTERNAL CONSULTATIONS

Daniel Lutman (CATS consultant) contributed to the Paediatric Intensive Care Society (PICS) Standards. He is also a member of the PICS ATG aero-medical working group and the Chapter XB Working Group on HRGs. Daniel Lutman is a CAMTS site surveyor.

P Ramnarayan (CATS consultant) is a lead for the Transport at PICS Study Group and the lead for the Informatics Group of PICS. He is an elected Medical Member of PICS council and represents the Acute Transport Group on the PICANet Clinical Advisory Group.

Darren Darby (Advanced Nurse Practitioner) is elected Nurse Representative for the Paediatric Intensive Care Society.

Mark Clement (Advanced Nurse Practitioner) is a committee member of Royal College of Nursing's Critical Care and Inflight Nursing Forum.

# Plans for 2013/14

## SERVICE DEVELOPMENT

1. Continue to work collaboratively across the region as well as nationally with other transport services.
2. Improve the two-way feedback system for referring hospitals and receiving PICUs.
3. Continue to lead the way for research in transport medicine and set up collaborative studies with other transport services.
4. Advanced Nurse Practitioner role development remains a priority to the service with a drive to increase the numbers from three to six team members.

## IMPROVING CARE DELIVERED TO THE CRITICALLY ILL CHILD

1. Initiate discussion regarding a clinical forum meeting twice a year.
2. Simulation-based training courses for the District General Hospital, and for this to become part of the CATS outreach education program.
3. Continue to expand the outreach education program to all referring units, especially by remote means.
4. Site visit to all of the DGHs in the North Thames Region in order to meet with the senior teams and discuss the way forward for the service.
5. Written protocols and guidelines for the management of all patient illness groups updated as per best practice or every 2 years.
6. Improving the two-way feedback system for referrer and receiving PICUs.
7. 'Situation Critical' study days for the multi-disciplinary team from the DGH setting is a priority for CATS.
  - **Next study day to be held at the RCPCH in July 15<sup>th</sup> 2013.**

# CATS

Children's **A**cute **T**ransport **S**ervice

**0800 085 0003**



**One phone call to organise  
bed and retrieval**

**Telephone covered 24 hours a day  
by a Transport Administrator**



**Consultant Paediatric Intensivist  
advice instantly available**

**Consultant led service**



**For further information and clinical guidelines  
refer to our website [www.cats.nhs.uk](http://www.cats.nhs.uk)**

**A Paediatric Intensive Care Retrieval  
Service for the North Thames  
Paediatric Intensive Care Consortium**



## Children's Acute Transport Service

Great Ormond Street NHS Foundation Trust

London, WC1N 3JH

020 74305850

[www.cats.nhs.uk](http://www.cats.nhs.uk)