

Southampton Oxford Retrieval Team (SORT)

Annual Report 2014-2015



EXECUTIVE SUMMARY

Throughout 2014-2015, there were 906 referrals leading to 458 retrievals (50.6%), 324 advice-only calls (35.7%), 77 transfers by other teams (8.5%), 30 patients refused (3.3%) and 17 other (1.9%) .

As the services in Southampton and Oxford continue to work together, there have been several highlights during the year aimed at enhancing the service provided:

- Extended working hours of Oxford team.
- Second on-call retrieval team at Southampton during peak hours.
- Introduction of equipment designed for helicopter and fixed wing flights.
- Vehicle tracking system fitted to Southampton ambulances.
- Introduction of national retrieval team competencies.
- Commencement of Advanced Nurse Practitioner training at Southampton with ongoing training at Oxford.
- Delivery of nurse-led outreach training at District General Hospitals.
- Collaborative working with newly established Southampton Oxford Neonatal Transport (SONeT) team.

BACKGROUND

The Southampton Oxford Retrieval Service (SORT) is a specialist transport service for critically ill children from birth to 16 years of age. It is based across 2 sites: Southampton Children's Hospital (located at University Hospital Southampton) and Oxford University Hospital (located at John Radcliffe Hospital) and covers the South Central region of England including the Isle of Wight and the Channel Islands.

The two centres have provided a combined service since June 2012 to ensure a 24 hour service. An increase in collaborative working and sharing of experiences has served to enhance the service available to children who require stabilisation and transfer to a Paediatric Intensive Care Unit in Southampton, Oxford or another specialist unit.

Referral of all potential patients is made via a single point of contact based in Southampton with the call taken by a clinician. This allows prompt assessment and guidance in patient management. Depending on the patient location, a team is despatched from either the Southampton or Oxford site. The child and a parent is transported to Southampton or Oxford PICU depending on the patient's location, the availability of beds and any requirement for specialist services only available at one centre.



MISSION STATEMENT

The Southampton Oxford Retrieval Team (SORT) aims to deliver a high standard of evidence based intensive care to critically ill children and their families 24 hours a day 365 days a year. A consultant led service provides telephone advice along with support and assistance to hospitals throughout the region. Stabilisation of each child is undertaken with transfer to the appropriate paediatric intensive care unit for ongoing management. Regular review of all retrieval activity aims to ensure the ongoing development of the service.

SERVICE STANDARDS

The core standards of the service are:

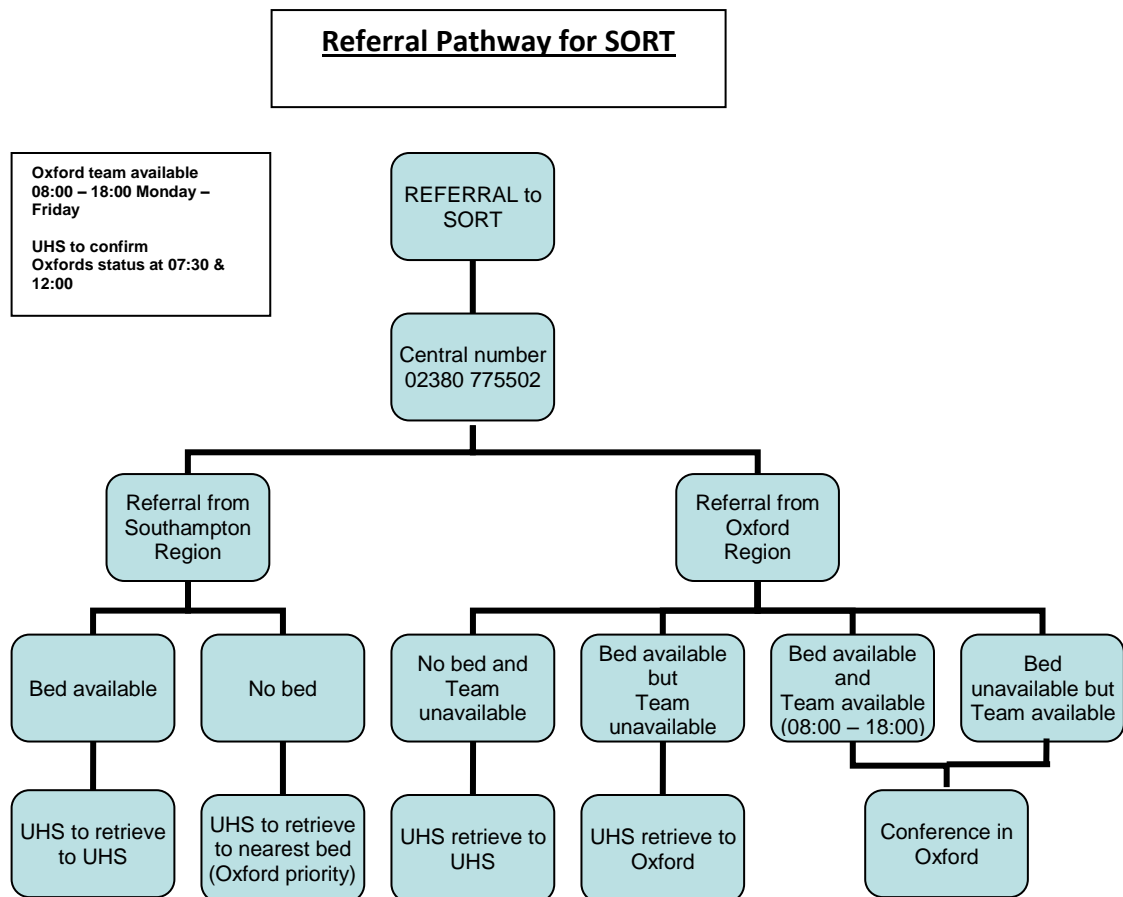
- Provision of specialist care whilst adhering to nationally agreed standards set out by the Paediatric Intensive Care Society (PICS).
- Ensure collaborative working between Southampton and Oxford retrieval teams and the referring hospitals.
- Delivery of advice and triage for all children referred to SORT.
- Provision of support and assistance to hospitals with critically ill children throughout the region.
- Co-ordination of the transfer of each child to the appropriate paediatric intensive care unit.
- If the child is known to a particular centre, SORT will liaise with that hospital as appropriate to co-ordinate transfer.
- Work with other retrieval/transport services to facilitate the provision of an optimum and timely service for each child.
- Audit of practice to maintain and develop the service with feedback to other services involved when required.
- Train and update the retrieval team to allow delivery of expert clinical care.
- Delivery of outreach teaching to ensure the ongoing development of care provided to each child during the resuscitation and stabilisation phase.
- Participation in the Wessex and Thames Valley Paediatric Critical Care Networks to meet local needs and provide a forum for the dissemination of key learning points.

ORGANISATIONAL STRUCTURE

SORT is staffed 24 hours a day by specialist retrieval medical and nursing personnel. A Paediatric Intensive Care Unit (PICU) consultant is available 24 hours a day to provide advice and undertake retrievals as required. There are 10 PICU consultants in Southampton and 7 Consultants (4 substantive) in Oxford with sufficient resources to provide a retrieval consultant rota 24 hours a day. This ensures the care of all critically ill children is maintained. During 2014-2015, the number of retrievals undertaken by the PICU consultants was 142 (35.4%) in Southampton and 41 (71.9%) in Oxford. All other retrievals were led by fellows or registrars.

The retrieval nursing team in Southampton comprises of 29 Band 5-7 nurses and in Oxford there are 13 Band 5-7 nurses. All team members have completed a recognised critical care course, retrieval training and an advanced life support course. Uniquely in Southampton, there is a Critical Care Technologist on all retrievals fulfilling the dual role of ambulance driver and critical care technician. This has proven to be extremely successful in delivering a high standard of care and decreasing the amount of time spent at the referring hospital.

All referrals for the Wessex and Thames Valley region are directed to the PICU in Southampton and follow a structured pathway. Once a patient is accepted for retrieval, a decision is made regarding the most appropriate receiving PICU. If possible, attempts are made to transfer the patient to their closest hospital. Patients from the Southampton region are retrieved by the Southampton team and taken to Southampton. Patients from the Oxford region are retrieved by the Oxford team from Monday to Friday between 8am and 6pm. Outside of these hours, the Southampton team will deliver the patient to Oxford. A second retrieval team is also available at Southampton during the peak referral period of Monday to Friday from 11am to 11pm. This flexibility in the service has meant that a decision can be made promptly about where the patient needs to go and which team is best suited to undertake the transfer.



With the amalgamation of Southampton and Oxford, the region is expansive. By utilising two retrieval services, the aim is to maintain retrieval times within national guidelines. Some hospitals also belong to other regions and may have different referral pathways depending on diagnosis. Where this happens, SORT co-ordinates with adjacent transport services to ensure that the appropriate team delivers the child to the appropriate PICU.



RETRIEVAL ACTIVITY

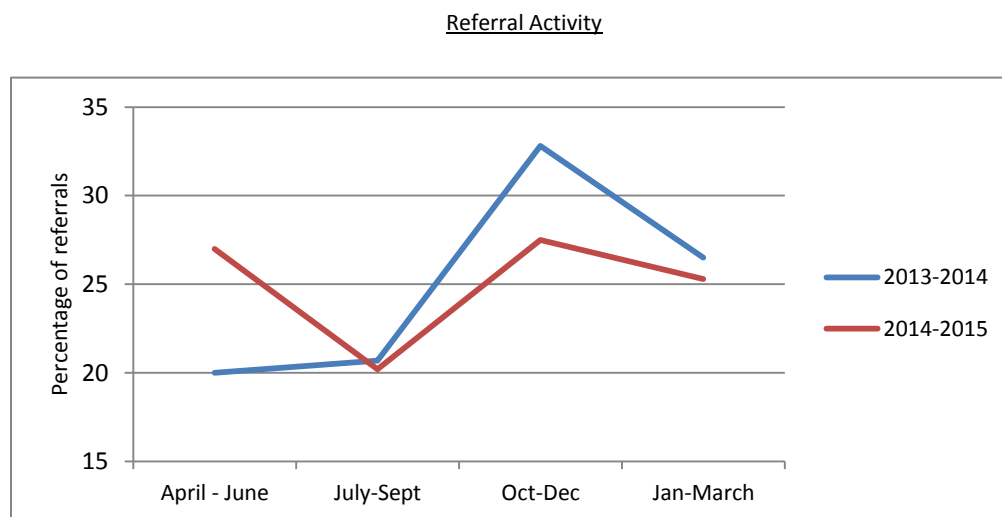
During 2014-2015, SORT received 906 referrals which resulted in a variety of actions dependent on clinical need. These actions can be compared to the previous year's activity:

Outcome of Referrals

Action Following Referral	2013-2014 Number of Patients	2014-2015 Number of Patients
Retrieval by Southampton team	410	401
Retrieval by Oxford team	45	57
Retrieval by other teams (April-July 2014)	154	40
Other PICU team transfers (April-July 2014)		8
Taken to other hospital/or non PICU SGH location by other team		29
Advice-only calls (retrieval no longer required)	228	254
Patient condition improved	60	70
Refused retrieval in region	0	8
Refused retrieval out of region	8	11
Refused out of scope of care (November 2014-March 2015)	N/A	11
Remained ventilated in District General Hospital	1	4
Elective delay in retrieval	1	N/A
Died before retrieval took place	7	3
Unknown whether retrieval took place	0	1
Time critical transfer to ward/theatre in Southampton	17	5
Time critical transfer - Oxford	(included elsewhere)	4
Total	914	906

Comparison of the first two full years of SORT reporting demonstrates that the referral patterns and outcomes are similar, although the method of reporting and data collection of PICANet has altered in some categories. Retrievals/transfers by other teams are no longer reported to PICANet and as a result they are not included in the SORT database from August 2014 onwards.

The referral activity peaked once again in the third quarter of October to December, although during the first quarter of 2014-2015 there was not the same reduction in referrals as in the previous year:



The distribution of patients accepted by SORT for admission can be demonstrated by their referring hospitals – both in and out of region. These admissions were transferred by either SORT or another team.

Number of Patients Accepted for Admission – SORT Region (Wessex and Thames Valley)

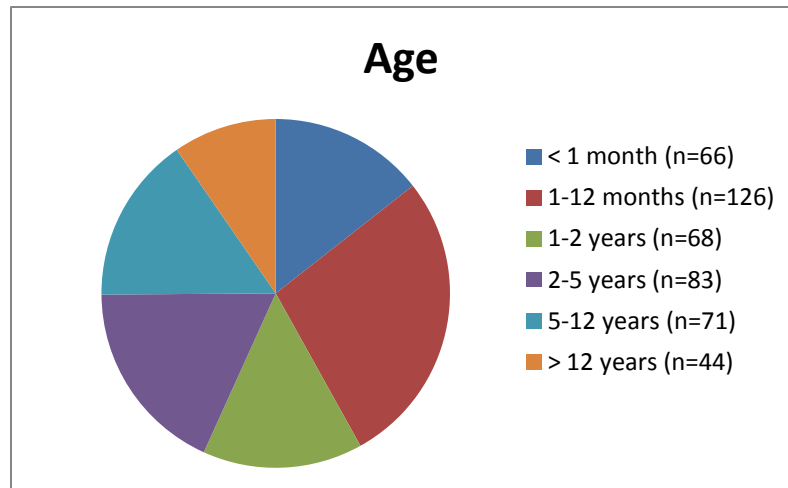
Referring Hospital	2013-2014	2014-2015
Aylesbury – Stoke Mandeville Hospital	42	34
Banbury – Horton Hospital	11	5
Basingstoke – Basingstoke and North Hampshire	47	33
Bournemouth – The Royal Bournemouth and Christchurch Hospitals	1	2
Chichester – St Richard's Hospital	16	19
Dorchester – Dorset County Hospital	20	26
Frimley – Frimley Park Hospital	34	44
Guernsey – The Princess Elizabeth Hospital	1	4
Isle of Wight – St Mary's Hospital, Newport	12	15
Jersey – Jersey General Hospital	7	9
Milton Keynes – Milton Keynes University Hospital	40	52
Northampton – Northampton General Hospital	5	7
Oxford – John Radcliffe Hospital	20	14
Poole – Poole Hospital	49	30
Portsmouth – Queen Alexandra Hospital	65	80
Reading – The Royal Berkshire County Hospital	70	57
Salisbury – Salisbury District Hospital	37	18
Slough – Wexham Park Hospital	30	23
Southampton – University Hospital Southampton	0	1
Swindon – Great Swindon Hospital	9	4
Winchester – Royal Hampshire County Hospital	28	27
Worthing – Worthing Hospital (trauma)	1	2
Wycombe – Wycombe Hospital	2	3
Total	547	509

Number of Patients Accepted for Admission – Other Regions

Referring Hospital	2013-2014	2014-2015
Barnstaple – North Devon District Hospital	0	3
Bath – Royal United Hospital	0	2
Bedford – Bedford Hospital	1	0
Birmingham – Birmingham Children's Hospital	1	0
Bridgend – Princess of Wales Hospital	2	0
Brighton – Royal Sussex County/Royal Alexandra Children's/Brighton General Hospital	4	6
Bristol – Bristol Children's Hospital	2	0
Bury St Edmond's – West Suffolk	1	0
Cambridge – Addenbrooke's Hospital	1	0
Gloucester – Gloucester Royal Hospital	1	3
Guildford – Royal Surrey County Hospital	2	0
Isle of Man – Noble's Hospital	0	1
Kettering – Kettering General Hospital	1	0
Llantrisant – The Royal Glamorgan Hospital	0	1
London – Barnet Hospital	1	1
London – Evelina Children's Hospital	1	0
London – Great Ormond Street Hospital	1	4
London – Northwick Park Hospital	2	0
London – South Thames Retrieval Service	3	0
London – St George's Hospital	1	0
Margate – Queen Elizabeth The Queen Mother Hospital	0	1
Merthyr Tydfil – Prince Charles Hospital	1	0
Newcastle – Freeman Hospital	0	1
Newport – Royal Gwent Hospital	1	1
Norwich – Norfolk and Norwich University Hospital	1	0
Nuneaton – George Eliot Hospital	1	0
Plymouth – Derriford Hospital	4	2
Redhill – East Surrey Hospital	0	1
St Leonards-on-Sea – Conquest Hospital	3	0
Tadworth – The Children's Hospital	0	1
Taunton – Musgrove Park Hospital	1	0
Torbay – Torbay Hospital	2	0
Treliske – Royal Cornwall Hospital	1	0
Worthing – Worthing Hospital (non-trauma)	3	4
Yeovil – Yeovil District Hospital	1	8
Total	44	40

Age Distribution

Patients transferred by SORT range from birth to 16 years of age, although pre-term infants are usually under the care of the SONet team (except cardiac). The age distribution of the children accepted for retrieval during 2014-2015 is as shown:



Acuity

The acuity of patients retrieved can be demonstrated in terms of the interventions required:

Interventions Required	2013-2014	2014-2015
Mechanical ventilation	83.1%	79.6%
Infusion of inotropes/vasopressors	20.4%	12.9%

Refusals / Outcome

Relating to in-region referral of patients, it was necessary to refuse 8 patients due to a lack of beds/team availability. Timely retrieval of these patients was facilitated by other transport teams to ensure ongoing care in an appropriate environment. Four patients remained ventilated in their DGH when this was considered appropriate based on the child's age and the prompt improvement in their condition.

Specialist Retrievals

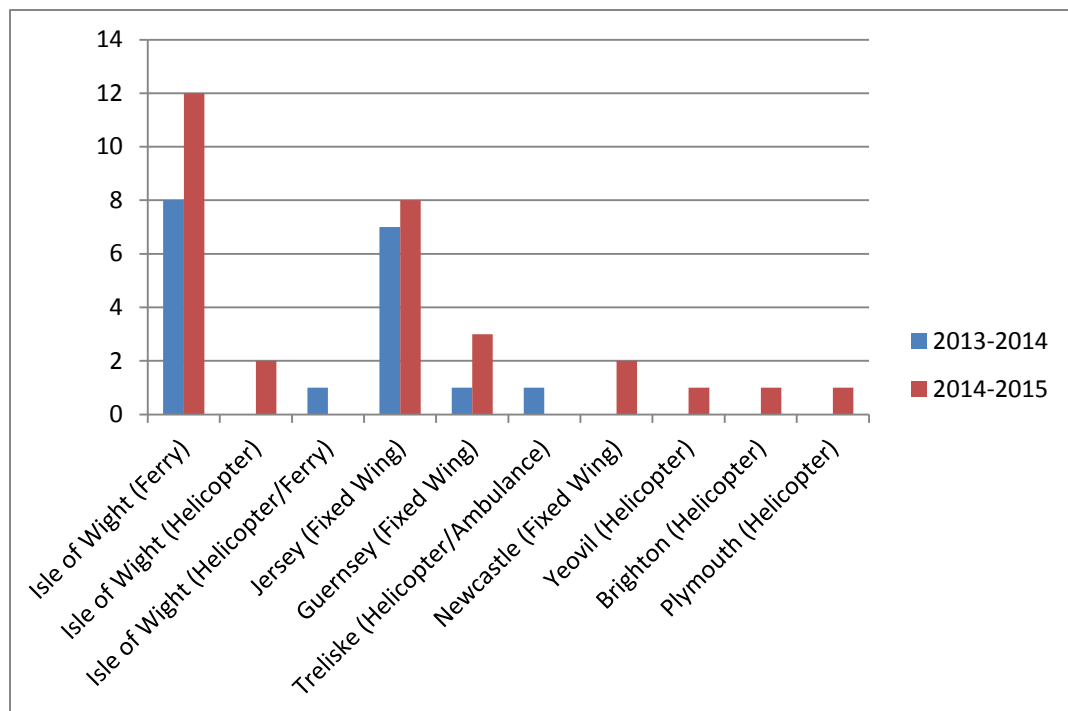
The majority of patients are transferred by road, but due to the geographical location of SORT there are occasions when sea and air retrievals need to be initiated. A total of 18 flights (Capital



Air Ambulance / The Children's Air Ambulance (tCAA) / Coastguard helicopter) were undertaken by SORT and an additional 2 flights were undertaken by other teams. Of these, 17 flights were the retrieval of children and 1 flight was for the transfer of a child for ongoing specialist treatment.



Air and Sea Retrievals



Liaison with Other Teams

It continues to be the aim of SORT to undertake the retrieval of all critically ill children in the region to the most appropriate PICU bed which is ideally close to home. However, it is important that effective working relationships are maintained with other teams to ensure timely transport of all children. This can be linked to bed availability, team availability and the condition of the child.

Due to a change in reporting to PICANet, transfers by other teams are no longer recorded on the SORT database. However, during 2014-2015 there were 43 patients transported by non-specialist teams and 59 patients transported by other specialist teams (e.g. neonatal transport teams). These figures include 10 time critical transfers. A further 14 patients have been transported by other specialist PICU teams (Children's Acute Transport team – CATs, South Thames Retrieval Service – STRS and Wales & West Acute Transport for Children – WATCh).

Alongside the assistance provided by other teams, beds in Southampton and Oxford have also been provided for patients from out of region.

Patients Transferred Into SORT Region and Utilisation of Other Transport Teams

	Number of Patients 2013-2014	Number of Patients 2014-2015	Transferred by	Reason
Patients transferred into SORT region	2	3	SORT	Bed availability
	0	1	Non-specialist team	Bed availability
	3	1	Other specialist team (non-PICU)	Bed availability
	20	11	Other specialist team (PICU)	Bed availability
Patients remaining in SORT region but transferred by other teams	78 + 10 time critical	34 + 9 time critical	Non-specialist team	Specialist treatment
	18 + 7 time critical	58 + 1 time critical	Other specialist team (non-PICU)	Specialist treatment
	1	3	Other specialist team (PICU)	Team availability
	1	0	Unknown	Specialist treatment

QUALITY AND SAFETY INDICATORS

It is vital to maintain a quality service providing prompt evidence based care. This can be demonstrated by some of the following performance indicators:

Retrieval Times

The ability to respond promptly to a retrieval request is vital to ensure the appropriate management of the patient and to support the team at the referring hospital. The time taken to mobilise has remained consistent over the last 2 years. The common reason for delay in mobilisation of the team is associated with 'retrieval team out' followed by 'shift change' where a decision needs to be made about the safety and stability of the child versus deploying a team near to the end of their shift. The percentage of retrievals taking greater than 1 hour to mobilise the team was 23.42% which is slightly lower than 26.5% reported during 2013-2014.

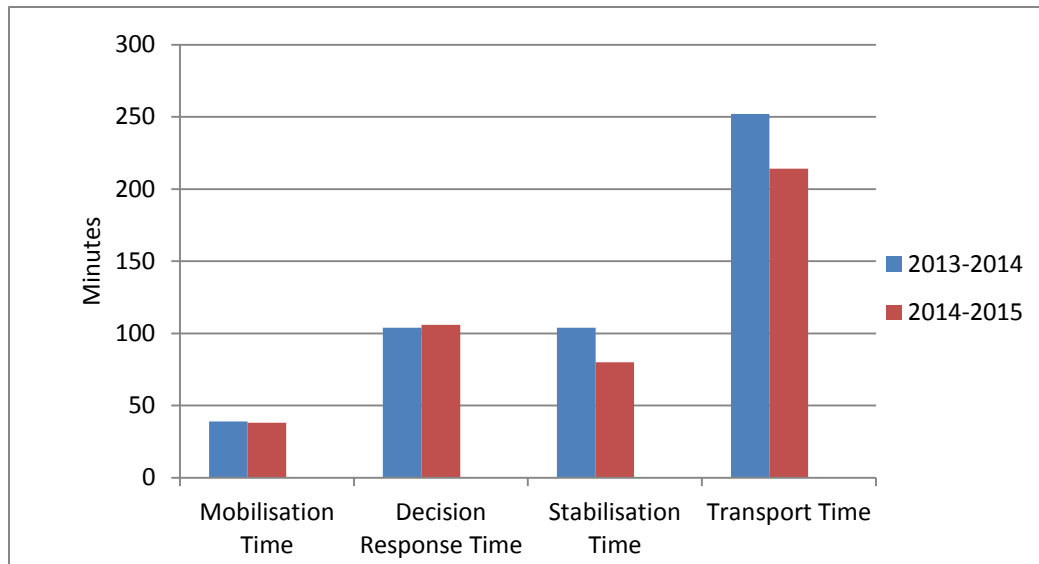
The median decision response time, or time from acceptance of the retrieval to arrival at the referring hospital, has been maintained and is below the recommended PICS guideline of 3 hours. It is reassuring to report that this time has been maintained despite the immense size of

the region that needs to be covered, especially when Southampton travels into the Oxford region during the out-of-hours period.

Once at the referring hospital, there has been a reduction in the stabilisation time. This may be a reflection of the prompt referral and initiation of effective management under the guidance of the PICU consultant ensuring the child receives appropriate timely interventions. An increase in outreach teaching will have contributed to the empowerment of the local team.

The transport time from leaving PICU to returning to base has been reduced despite the out-of-hours cross-regional cover and the necessity for the Southampton team to take Oxford region patients to the John Radcliffe Hospital before returning to base. This may again be attributed to the initiation of treatment by the referring hospital, so reducing the interventions needing to be undertaken by the retrieval team.

Retrieval Times



Out of Region Transfers

Every attempt is made to keep each patient in the PICU closest to their home. On occasions this is not possible due to the need for specialist care or bed availability. During the year, 16 patients were transferred out of region despite some of them already occupying a PICU bed in either Southampton or Oxford. 12 of these patients required specialist treatment and 4 were moved in December due to a lack of PICU beds.

Transfers Out of Region

	Number of Patients 2013-2014	Number of Patients 2014-2015	Transferred by	Reason
Patients transferred out of SORT region	1	4	SORT	Bed availability
	7	12	SORT	Specialist treatment
	11	0	Other specialist team (PICU)	Specialist treatment

National Standards

Adherence to national standards stipulated by the Paediatric Intensive Care Society (PICS) ensures a safe and effective service is maintained. Participation in the PICS Acute Transport Group (PICS-ATG) and the utilisation of agreed competencies encourages the development of evidence based practice and the training of retrieval team members to agreed national standards.



Data is submitted to the Paediatric Intensive Care Audit Network (PICA Net) within 3 months of each retrieval occurring allowing benchmarking against similar services.

Retrieval Review

All retrievals are reviewed on a weekly basis to ensure accurate data recording and to review practice and act on any critical incidents. Feedback is provided to both members of SORT and the referring hospitals to share good practice and learning points.

Oxford and Southampton Children's Hospital Network – Critical Care Board

The Critical Care Board was established in 2012 and continues as a collaboration between the PICUs in Southampton and Oxford with the establishment of clear terms of reference. Meetings occur 4 times a year to discuss service provision, governance issues, education and delivery of evidence based practice. This works to ensure consistency in the service provided by SORT and facilitates strategic discussions to allow a response to national consultations.



Wessex Paediatric Critical Care Network



WESSEX PAEDIATRIC CRITICAL CARE NETWORK

The network has been operating since 1999 and involves bi-monthly meetings with medical and nursing staff from all the referring hospitals in the region. Clinical governance, guideline development, education and sharing of practice are the key features of the group, so that outreach education and clinical practice can be developed. An annual morbidity and mortality

morning has been introduced during this year to provide a forum for each hospital to present a case for discussion and explore patient management decisions.

To further disseminate good practice, each year a multi-professional study day is organised by the group for all members of the network. This year's day in January 2015, covered the areas of paediatric neurology, group A sepsis and paediatric high dependency. Alongside developing knowledge and skills, the day provides an opportunity to share projects within the region and discuss challenging areas of practice arising from critical incidents. As usual the day was extremely well attended and received excellent evaluation.

Oxford 'Paediatric Intensive Care Network' (PICNET)

PICNET was established in Oxford in January 2013. Quarterly meetings are held inviting multidisciplinary representatives from paediatrics, anaesthetics and intensive care from the district general hospitals (DGHs) in the Thames Valley. Forging links between High Dependency Units, Emergency Departments and the paediatric wards at the DGHs is key and this is maintained by the senior retrieval nurses.

The network is based around the needs of the hospitals and is therefore chaired by a lead clinician from a DGH with input from the SORT team where necessary. The agenda is focused on the needs of the referrers. Recurring themes include time critical transfers, high dependency transfers and non-ventilated airway support.

Each DGH attending is provided with an individualised dataset outlining their referrals and retrievals for the previous quarter. Data is bench-marked against the national PICS dataset for time of referral acceptance to time of arrival of the specialist transport team.

Outreach training has begun with shared sessions between the Southampton team and the DGHs. The transport nurse lead has delivered lectures on retrieval medicine for the nursing team at several of the network DGHs.

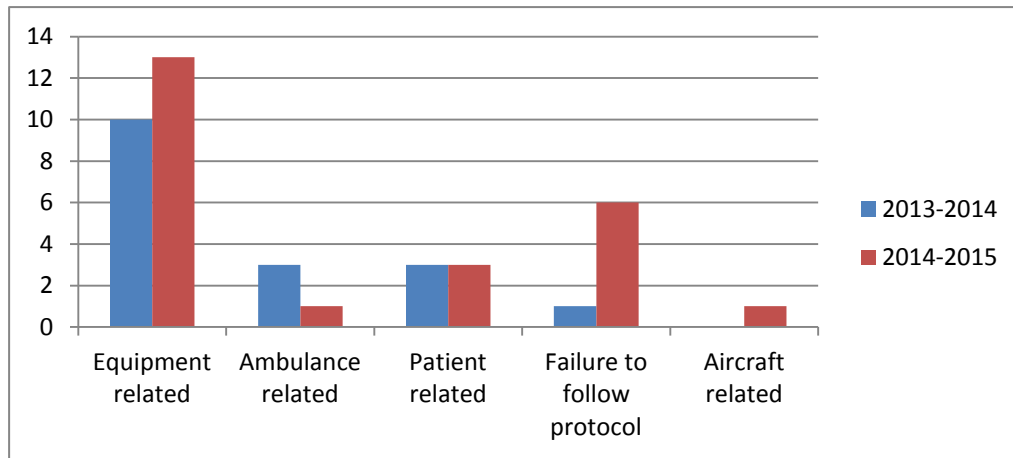
Despite being in its infancy, feedback received from the local hospitals has been positive with them feeling more supported from their transport and intensive care services prior to PICNET's inception. It is anticipated that this will be developed further over the coming year.

Adverse Events / Near Misses

A total of 24 critical incidents have been reported throughout the year which equates to an incident/near miss on 5.25% of retrievals. This can be compared to 17 events in 2013-2014 equating to 3.74%. In reviewing the incidents, one led to patient effect, with two other patient-related incidents classified as near misses.

All incidents are reviewed on a weekly basis to ensure they have been dealt with appropriately. Team members are informed of issues arising and practice is adapted or further training implemented accordingly.

Adverse Events / Near Misses



PARENTS

All parents are offered the opportunity to accompany their child in the ambulance unless there are mitigating circumstances such as, immediately post child birth, parents requiring medical attention, extreme travel sickness or parents unable to be secured using a standard seatbelt. This enables the parent(s) to remain close to their child during a critical period and ensures they are kept updated about their child's condition. It also allows them to provide consent for procedures and share any additional information required by the medical team.

Unfortunately when travelling with The Children's Air Ambulance (tCAA) there is currently insufficient seating for a parent to accompany their child. In these circumstances alternative travel arrangements are made by the referring hospital.

EQUIPMENT

Retrieval Kit

All equipment is solely designated for retrieval use and meets appropriate safety specifications, including kit used for helicopter and fixed wing flights. As new equipment becomes available, it is trialled by the users to ensure it is fit for purpose. Experiences are also shared nationally by all members of PICS-ATG to encourage an awareness of issues surrounding individual items of equipment.

Ambulances

In Southampton, the 'Friends of PICU' charity has allowed ownership of 3 ambulances. The 2 newer ambulances are identical and are both used for retrievals, so allowing simultaneous retrievals to be undertaken. The third ambulance is used for the repatriation of children from

PICU and the wards to their referring hospital. This runs as a separate service with its own driver allowing beds to be vacated and enabling the child and family to be moved closer to home.

The retrieval ambulances are fitted with vehicle tracking to allow PICU to locate the team without disturbing them at work and so enable planning of subsequent retrievals. Front and rear cameras are in use and all vehicle movement is recorded to allow activity to be reviewed as required.



All Critical Care Technologists fulfil a dual role which involves driving the ambulance and assisting with the technical aspects of the retrieval. They have all received advanced driver training co-ordinated by South Central Ambulance Service and hold a C1 qualification which allows them to drive vehicles up to 7.5 tonnes.

In Oxford, SORT relies on 1 or 2 ambulances to retrieve patients in daytime hours Monday to Friday. A team of 6 drivers are employed by South Central Ambulance Service and each has completed advanced driver training as well as holding a C1 qualification. Close working relationships are maintained with neonatal partners in SONEt to flex retrieval drivers to accommodate PICU referrals.

EDUCATION AND TRAINING

Southampton

Following a retrieval induction study day, new nurses and doctors joining the team are required to complete the national PICS-ATG retrieval competency document. This encourages standardisation and allows transfer of skills between transport services. Alongside this, local competencies are used to assess ability in the use of kit and in-house procedures. Maintenance of skills and knowledge is achieved through annual updates plus a review of each team members' competencies every 3 years. High fidelity simulation is used both during induction and annual updates to allow familiarisation with less frequent practices such as, helicopter flights and emergency situations. This has been successful in enhancing confidence along with generating invaluable discussion and learning around individual experiences.

Mandatory training education for all PICU staff includes annual updates on advanced life support. For the nurses this involves a 'Paediatric Intensive Care Life Support' study day which includes advanced life support interventions through practical workshops, lectures and simulation. APLS or EPLS is also undertaken every 3 years by all team members.

Oxford

It has been a busy year with education and training in Oxford. The successful running of the retrieval update day for nurses has been introduced. The retrieval team are competent in advanced life support skills and undertake APLS or EPLS. An additional 3 nurses has been designated as retrieval competent according to unit guidelines. The unit registrars continue to receive retrieval training from the consultants on a one-to-one basis to achieve their retrieval competencies. The ANP is also receiving on-going training as preparation for independent retrieval.

All nursing team members have been undertaking regular retrievals to maintain their specialist skills. A small number of nurses have been involved in air transfer through a private organisation based in Oxford. It is believed that this contributes to advanced retrieval skills which reflect positively for the team. Monthly review of cases has also helped to increase the sharing of knowledge and skills amongst the multi-disciplinary team.

OUTREACH

Southampton

Activity surrounding outreach education around the region has continued to be well accepted and is available to all hospitals. There is a varied format to the each session as shown in the table below. The table provides details of the number of hours allocated to the training, but delivery usually involves several members of the multidisciplinary team.

The 'Stabilisation of the Critically Ill Child in the DGH' study day continues to be run twice yearly and is well received by referring hospitals from around the region. The format remains a mixture of lectures, simulations and equipment/skill training. Each study day is fully subscribed with 36 candidates attending in multidisciplinary teams from their hospital. The aim is to enhance team working by allowing each professional to work within their usual role. The feedback is very positive and the opportunity to further knowledge and skills within a safe environment is much appreciated.

Nurse only education and simulation has been introduced this year and has been offered to all hospitals through the Wessex Paediatric Critical Care Network. The aim is to maintain the skills of the nurses in the DGHs where children are less frequently cared for whilst they initiate resuscitation prior to the arrival of the retrieval team. Each session is tailor-made and evaluation has demonstrated that local teams have found this invaluable for enhancing competence and confidence.

Southampton Outreach Activity

<u>Nature of Outreach Activity</u>	<u>Number of Hours</u>	<u>Hospitals Visited/ Attended</u>	<u>Number of Hours</u>	<u>Hospitals Visited/ Attended</u>
	2013-2014		2014-2015	
Case presentations / SIRI presentations	41	Basingstoke Chichester Dorchester Frimley Portsmouth Salisbury Winchester Worthing	63	Chichester Dorchester Poole Portsmouth Salisbury Wexham Park Winchester
Children's trauma training day	16	Chichester Dorchester	17	Chichester Southampton
Critical airway simulation	9	Winchester	4	Poole
Critical illness simulation training	21	Dorchester Reading Worthing	N/A	
OPERA course	8	Milton Keynes	N/A	
'Making the Airway Safe Team' (MAST) course	9	Southampton	18	Southampton
'Stabilisation of the Critically Ill Child in a District General Hospital' study day	8	Basingstoke Frimley Park Isle of Wight Jersey Winchester Worthing	16	Basingstoke Chichester Dorchester Guernsey Isle of Wight Jersey Reading Salisbury Winchester
Wessex Paediatric Critical Care Network study day	N/A		8	Salisbury
Nursing presentations/simulation	N/A		31	Reading
Annual Review	8	South Thames Retrieval Service	N/A	
Total	112		157	

Oxford

The Oxford study day on 'Care of the Child Awaiting Retrieval in the DGH' has been well received by the multidisciplinary teams in the DGHs. The combination of lectures, scenarios and skill stations are positively evaluated and the course is well subscribed with 55 candidates attending the last 2 sessions. Outreach activity has been started at some of the DGHs. Simulation based training has been held in Reading with the involvement of Southampton to enable development of a similar programme for other DGHs in the Thames Valley region.

Oxford Outreach Activity

<u>Nature of Outreach Activity</u>	<u>Number of Hours</u>	<u>Hospitals Visited</u>
2014-2015		
Case presentations / SIRI presentations	6	Wexham Park Stoke Mandeville
OPERA course	8	Milton Keynes
'Care of the Child Awaiting Retrieval in the DGH' study day	16	Banbury Milton Keynes Reading Stoke Mandeville Wexham Park
Total	30	

INFORMATION TECHNOLOGY

All referrals are made via a single SORT retrieval number at Southampton allowing prompt access to a member of the medical team. The use of a conference phone allows the PICU consultant on call to be conferenced in and so permit direct sharing of the patient history and allow advice to be given. If the patient is to be retrieved by the Oxford team, or will be admitted to Oxford PICU, the consultant in Oxford is linked in to the call.

The SORT website is well accessed by both PICUs and the referring hospitals as it provides a valuable resource of guidelines and a drug calculator. A mobile app containing the key data has been trialled by members of the Southampton team with the aim to make the information more accessible at both the bedside and whilst in transit with the patient.

The screenshot displays the SORT website interface. At the top, there's a 'Southampton Oxford Retrieval Team' logo and a 'DRUG CALCULATOR' section with input fields for 'WEIGHT' (0 kg) and 'kg' (0 kg), and buttons for 'Calculate' and 'Print'. Below this, there are several tabs for different medical categories: Emergency, Respiratory, Cardiac, Anaesthesia, Neuro, and Infusions. Each tab contains a list of medical conditions or procedures with corresponding drug names and dosages. For example, under 'Emergency', it lists 'Adrenaline 1:10000' with a dosage of '0.1 ml (0.1 mg/kg)'. The 'Infusions' section includes 'Dopamine (normal)' with a dosage of '0.1 mg in 100 ml of 0.9% Saline or 1% Glucose'.

FUNDING

SORT continues to be centrally funded by the specialist commissioners contributing towards the budget for a medical lead, nursing lead, junior doctors, critical care technologists/drivers and education and training. The shortfall in the funding required is off set against PICU activity which is a cost-effective means of resource utilisation.



Some additional funding for equipment is provided in Southampton by the 'Friends of PICU' charity. The charity has a part-time administrator, but is principally reliant on the generous fundraising that is organised by volunteers who have often been involved with patients on PICU. During 2014-2015, the charity has provided the following equipment for the retrieval service:

Purchase	Cost
Par Aid Retrieval Trolley	£12800
Baby Pac Ventilator	£6130
Life Port Stretcher	£19760
Slave Screen Monitor for Ambulance	£857.09
Para Pac Transport Ventilator	£3996

In Oxford, the Oxford Radcliffe (ORH) Charitable Fund exists to support the work of the Oxford University Hospital Trust in providing the best possible healthcare for its catchment of 2 million people and beyond by raising standards above which NHS funding alone allows. The fund has helped to advance the transport environment for children at the John Radcliffe Hospital by providing medical equipment that makes the retrieval journey safer for the patient population. During 2014-2015, the following equipment has been provided:

Purchase	Cost
i-Stat Monitor	£5977.85
Defibrillator	£5310.12
Retrieval Kit Boxes	£442.00

PLANS FOR 2015-2016

SORT continues to develop as a combined retrieval service between Southampton and Oxford. Alongside local needs, there are national drivers that initiate change to enhance the care available to all critically ill children. Some of these factors are reflected in the proposed developments for the next year:

Southampton

- Ongoing development of ANP training with further appointments anticipated.
- Flight update training with The Children's Air Ambulance (tCAA) and Capital Air Ambulance.
- Ambulance driver update training.
- Design specification for new ambulance.
- Increased development of nursing outreach programme.
- Development of SORT mobile phone app.
- New conference phone.
- Trial of Hamilton ventilator.
- Redesign and purchasing for new kit bags for the ambulance.

Oxford

- Establish replacement clinical transport lead from newly appointed substantive post.
- Extension of ambulance hours to cover full operational hours of Oxford team.
- Accommodate repatriation/planned transfer Monday to Friday 08.00-17.00 hours.
- Target training for ANP to accomplish independent retrievals (designated theatre time/secondment).
- Increase the complement of fully competent retrieval nurses.

- Establish outreach links with designated PICU consultant and nurse for each DGH.
- Ensure 3 outreach sessions per year for each DGH (M7M, SIRI/case reviews, simulation).
- Delivery of high dependency skills update training for nurses in the DGHs.
- Consolidation of current successful 'Care of the Child Awaiting Retrieval in the DGH' study days.
- Participation in the Milton Keynes bi-annual academic half day.

Reference

Paediatric Intensive Care Society (PICS) (2010) Standards for the Care of Critically Ill Children (4th Edition). Available at: http://www.ukpics.org.uk/documents/PICS_standards.pdf (accessed: 15th April 2015).

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