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We are pleased to present the 2015/16 annual report.

The service has now developed into a mature service not only undertaking Paediatric Intensive Care Transfers, but also giving advice, sharing ideas and delivering a robust outreach education programme to the North West and North Wales.

NWTS success is only possible with the close relationship it has with its tertiary and district general partners.

Thank you all again for your support.

The Senior NWTS Team.

Kate Parkins

Lead Consultant

BUES DE

Sarah Santo

**Clinical Nurse Manager** 



Highlights from 2015-16:

- Since its inauguration NWTS have received over 6,000 referrals and transferred over 3,000 children.
- NWTS renewed its contract with Medical Services, as part of the contract we obtained two new ambulances. A team comprising of NWTS personnel and Medical Services personnel were then able to design the layout of the new vehicles specifically for the service. To make the interior cabin more children friendly they were able to attach child friendly stickers and install a DVD player. The interior continues to have the 4 seats (to enable us to offer at least one seat to a parent) but these have been placed in a different position enhancing the team communication.
- NWTS continued to work in partnership with The Children's Air Ambulance, transferring 20 children over the last 12 months.

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- The NWTS team have delivered education sessions to a group of Allied Health Professionals for the first time, receiving excellent feedback.
- Over the last 12 months the NWTS team have employed 2 senior trainees to aid the stability of the team and to deliver both an external and internal education programme, in partnership with the NWTS Consultant and Senior Nurses.





#### Background

In 1995 in the UK a 10 year old boy with an acute intracranial bleed, requiring stabilisation and transport to an appropriate specialist Paediatric Intensive Care Unit, did not receive such care.

After publication of the resulting inquiry, the Department of Health produced a landmark report on paediatric intensive care (PIC) development and configuration, 'A Framework for the Future' which outlined the strategic direction for streamlining children's intensive care services in the United Kingdom. Its long-term vision was of a 'high quality integrated service organised and delivered around the health care needs of children' and that a transport service must be funded and staffed on a 24 hour basis for each geographical area.

Therefore, regional transport teams have been developed in the UK over the last 15 years.

NWTS is a stand-alone regional transport team based in North West England. It is a specialist multi-disciplinary team, providing expert advice, stabilisation and transport of critically sick or injured children from the 29 referring centres within North West of England and North Wales to one of the two lead centres providing Paediatric Intensive Care in region (Royal Manchester Children's Hospital – RMCH and Alder Hey Children's Hospital – AHCH), or further afield when necessary.

#### **Mission Statement**

#### The North West and North Wales Paediatric Intensive Care

*Transport Service* aims to provide the highest quality paediatric intensive care for children and their families from the first point of contact to the final unit destination.

The NWTS service:

- Provides easy access and service co-ordination for referring children's units
- Facilitates improvements in transport provision for critically ill children
- Co-ordinates all available regional resources to meet fluctuating demands
- Provides telephone advice and triaging facilities for all referrals
- Facilitates the delivery of the most appropriate care, in the most appropriate place, for any infant or child requiring Intensive Care in the North West / North Wales Region
- Education and outreach for the District General Hospital

• Audit and research will form part of the service provision

#### **The Guiding Principles**

A collaborative and inclusive service working with colleagues across North West England and North Wales:

- Close working with the regional Paediatric Intensive Care
  Units
- Rigorous audit with regular presentation and dissemination of information to the two provider units
- Close collaboration with adjacent transport services

#### Service Standards

The following Core Standards apply:

- All infants and children requiring critical care will receive the appropriate treatment, in the right place, at the right time.
- The transport service will undertake to find an appropriate Paediatric Intensive Care (PIC) bed within the North West Region (or appropriate alternative) for those deemed to require intensive care.

- Any child within the North West Region requiring PIC can usually expect the transport team to be mobilised within 30 minutes from the decision to transfer.
- Any child within the North West Region requiring PIC can usually expect the transport team to be at their bedside within 3 hours of the decision to transfer.
- When the teams are on transfer, it will be necessary to prioritise referrals according to clinical needs.
- Early expert clinical advice and management by Consultants trained in Intensive Care is available to referring hospitals at all times.
- The clinical team comprises of a transport doctor (with at least 6 months experience in the intensive care environment) and a band 6 or above with relevant experience in PIC, with an appropriate intensive care qualification. Both staff groups will be APLS accredited.
- Education and training of the transport staff is a fundamental part of the Service.
- Outreach education for referring units is provided.

#### **Clinical Governance**

As part of an on-going quality and safety program a number of performance indicators are continuously audited by the North West and North Wales Paediatric Transport Service. These quality performance indicators are also part of national standard monitoring.

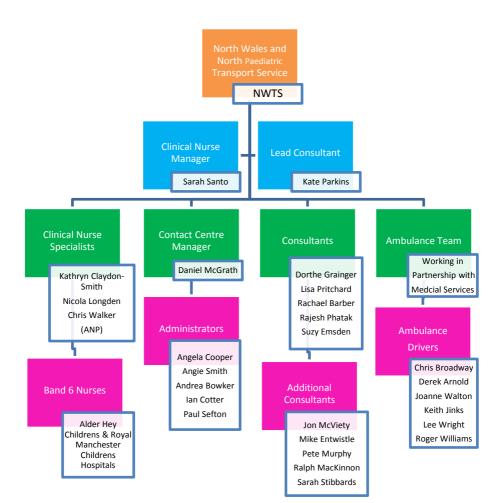
Within the North West of England we are fortunate to have the two largest children's hospitals not only in the UK but in Europe. This means that very few children have to travel outside the region to receive specialist paediatric care.

The Royal Manchester Children's Hospital had a 'state of the art' new facility built in 2006 with Alder Hey Children's Hospital in Liverpool following suit in 2015.

This allows for a large capacity of children's intensive care beds; however this is finely balanced as they serve a very densely populated area, with a very mixed demography.

When the NWTS Service was set up the placement of children between both tertiary centres was very closely monitored. Each referring unit has its' lead centre; these were based on contracts and historical pathways. This means that the child is placed as near to home as possible.





Teams mobilised vary in composition depending on the level of care an individual child needs and the ability of the transport lead on duty (who may be either medical or an Advanced Nurse Practitioner). Consultants are available 24/7 to join the team to improve the level of care delivered, reduce risk during transport for the patient and to provide education and training to members of the team. Medical trainees come from a variety of specialities eg Anaesthetics, Emergency Medicine and Paediatrics, including Paediatric Intensive Care medicine. In addition to clinical expertise, an individual needs good team-working and communication skills, flexibility and adaptability to cope with the demands of an individual patient, unfamiliar clinical environments, work with unfamiliar clinical teams, and multiple simultaneous referrals. Assessment of competencies during transport is made by a senior NWTS team member before an individual performs a transfer without direct senior supervision (nursing or medical). A National Paediatric Intensive Care Transport Competency Passport has been developed by the UK Paediatric Intensive Care Society (PICS) Acute Transport Group and ratified by PICS council and RCPCH. Two members of the NWTS senior team were on the working group that developed this document.

In addition to competency assessment, regional transport teams must provide annual training for their team members, and this includes scenario training in addition to workshops and lectures.

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Mortality and critical incident review, in addition to audit, are all part of on-going training and review of how well the team is performing, and inform the on-going development of the team.

Staff must be aware of the hazards of fatigue and it is important to have regular fluid and food during any shift to maintain concentration levels. NWTS drivers are encouraged to take a break, especially after longer journeys, before assisting the team preparing for transfer back to PICUs. Emergency snack-packs are carried by the team to use if they have been unable to take adequate meal breaks during a shift.

NWTS drivers at the North West Excellence in Supply Awards 2015.





Any referral to NWTS (whether for advice or transfer) involves a direct discussion and advice on patient management from a NWTS Consultant, and ideally at this stage the referring consultant will have already reviewed the patient. It is anticipated that the patient's consultant will join the referral call unless actively involved in stabilising the patient. If the consultant is not present at the point of referral to NWTS, the NWTS consultant expects that the paediatric consultant be brought into a conference call in order to clarify the plan for patient management.

Advice given is based on the information provided, and clear communication about a patient's history and current clinical concerns are key to the success of this process. There is a referral proforma (on NWTS website) to aid referring teams gather all the information required. Essentially it is important to state what is required from the NWTS team; give a brief history plus relevant past medical history, with up-to-date clinical observations, an ABC assessment including examination findings and any blood results including blood gases and a lactate, and the response to any intervention/treatment (actual numbers help NWTS build a picture of current clinical state). NB at the end of the call please state your proposed clinical management plan and what you want from

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NWTS. NWTS may also ask talk to other clinical colleagues eg anaesthetists, surgeons etc.

Clinical advice from NWTS on stabilisation of the patient is delivered using an ABC approach. NB all patients referred to NWTS are followed up for a minimum 24-48 hours or until their condition stabilises. If a patient appears to be deteriorating at follow-up the NWTS consultant and the paediatric consultant will be brought into another conference call to discuss any proposed changes to patient management.

Neonates and children come in a variety of ages and sizes, and emergency on-line drug calculators (eg <u>www.crashcall.net</u>) in addition to regional/national guidelines help to improve confidence in prescribing and administering appropriate drugs. NWTS website (<u>www.nwts.nhs.uk</u>) includes a section for regional and national guidelines for easy access.

Early referral to regional transport teams may prevent deterioration and the need for transfer to Paediatric Intensive Care. Approximately 30% of referrals to NWTS do not result in transfer to a tertiary centre, ie the patient improves following appropriate discussion, advice and shared management responsibility between the transport consultant and the referring consultant paediatrician. With this comes the humanitarian cost saving with regard to the issue of separation of the child and family, as the child is managed closer to home.

Audit of patients referred to NWTS has shown the positive patient benefits of advice and use of regional guidelines over the last 4 years eg currently 52% of children with prolonged seizures that require intubation and ventilation are successfully extubated in their local hospital and do not need to be transferred into a tertiary centre.



### Retrieval and Transport Data

Transport Data 2015-16	Total
Total Referrals to NWTS	1385
PICU Retrievals	553
Back Transfers	89
Advice	538
Other (inclusive of the categories below)	205
Out of Remit	29
Refusals	12
Back Transfers to DGH using primary PIC team	5
Transferring out of region due to lack of PICU beds	27
NWTS mobilised child stabilised at DGH not requiring PICU transfer	6
Child transferred to Neonatal Unit	8
HDU to HDU transfer	13
Child Transferred for Palliative Care	4
Team mobilised child RIP at DGH	6
Tertiary Centre Repatriation	101

Out of Region for Quaternary Care	10
Ward Transfer	5
Adult ITU	2
Overseas Repatriation	3

#### **Out of Region Transfers**

Prior to NWTS set up we were aware that around 50-100 patients per annum were transferred out-of-region (OOR) due to lack of availability of PIC beds, often by a local DGH Team. This usually entailed multiple phone calls by the referring teams, and long delays before transfer. In 2015-16 there were 27 OOR transfers due to lack of capacity in region. This is partly a reflection of the increasing numbers of PIC transfers required and is part of a national problem during periods of peak demand.

In order to minimize the impact on families for all emergency OOR transfers due to lack of PIC capacity in region NWTS always seek to find the closest appropriate PIC bed eg patients from Leighton or Macclesfield would be transferred by NWTS to PIC at North Staffordshire University Hospital. The majority of these transfers occur during peak demand (winter) when PIC bed pressure nationally is high. Some patients require transfer out-of-region for quaternary treatment (eg cardiac, liver or lung transplant patients; tracheal or complex cardiac surgery; ECMO). Some are transferred out-ofregion for a second opinion. This entails long-distance transfers, and is often done on a semi-elective basis. We aim to provide a second team specifically for these transfers to ensure that a NWTS Team is always available for any transfers within region. Destinations included Leeds and Birmingham for liver patients, London (Evelina and GOSH) for cardiac and tracheal surgical patients and Newcastle and Leicester for ECMO patients.

#### **Flight Transfers**

Over the last year NWTS have continued to work as clinical partners with both the flight team from the Isle of Man and The Children's Air Ambulance (TCAA). NWTS have undertaken 20 flight transfers; both fixed wing and helicopter.

Flight transfers are considered for any transfer over 90-120 minutes as per national guidelines proposed by Paediatric Intensive Care Society Acute Transport Group. Flights are broadly dependent on whether a patient is fit to fly, whether there is an aircraft available within an appropriate timeframe, and if the weather is suitable. NWTS personnel receive additional training in management of patients during flight transfers. If a flight transfer is not possible (due to weather conditions) the majority of children are then transferred by road. NWTS are part of the clinical governance group for transfers involving TCAA which involves monthly conference calls to discuss previous flight transfers, and is a forum to promote shared learning from any excellence or adverse incident reporting.

This year NWTS are also very grateful to have flown at night using Bristow Search & Rescue (SAR) team and with Emergency Medical Retrieval & Transfer Service (based in Wales) to enable the team to transfer critically sick patients to a specialist centre for on-going treatment when our usual flight providers were unavailable.



#### **Winter Pressures**

**Winter** pressure funding is allocated annually via NHS England. NWTS bid for additional funding to increase the team's ability to provide transfers for critically sick children in region during peak demand. During the past winter NWTS utilised winter pressures funding in 2 main areas.

Firstly, an additional PICU transport team for 3 months during the winter (Nov – Feb), equating to a full NWTS team working 12MD till 12MN Monday to Friday only. NWTS have seen a year on year increase in referrals and therefore utilised the winter pressures money to extend this service to 7 days a week to help meet this demand.

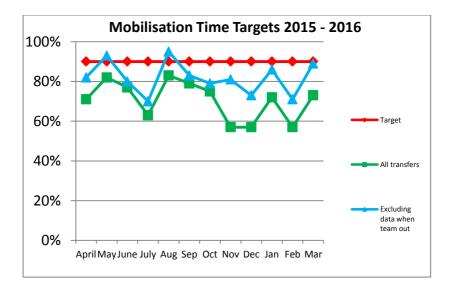
During 2015-16 27 children required transfer to an out of region PIC bed due to lack of regional PIC bed capacity. The additional 12-12 team helped NWTS to transfer such patients safely (reduced risk of NWTS team working beyond usual shift hours). Without the additional 12-12 team NWTS would have struggled to meet quality performance indicators eg target for NWTS team mobilisation times and NWTS refusals during times of peak demand.

Secondly, winter pressure funding provided a PIC Transport Nurse led repatriation service 7 days a week including onsite ambulance provision from Medical Services. This service transferred 101 recovering children back to their local DGH to complete their treatment closer to home in 2015-16. It enabled the team to free up PICU and HDU beds within the tertiary centres. It also relieves pressure on the demand for front line ambulances that would otherwise be requested to provide transport.

#### **Mobilisation Data**

**NWTS** provide advice on stabilisation whilst mobilising a team to a referring unit and aim to mobilise within 30 minutes of agreeing that a patient requires transfer to PIC (national UK agreed target). From April 2015 – March 2016NWTS mobilised a team in under 30 mins 70.5% of the time. Mobilisation times when the team are at base reveal that NWTS mobilise in under 30 mins 81.7% of the time. The main other reasons for delay of mobilisation (other than the team already being out on transfer) is dealing with multiple referrals at once, flight transfers, elective transfers and referrals being made just before shift change.

The average mobilisation time for 2015-2016 is under 30 minutes.



Previously, teams from both PICUs in region were often delayed in mobilising as nursing, medical and ambulance teams had different shift patterns, and they all had responsibility for the care of other patients. Previously, both unit-based teams utilised the local 999 ambulance provider for all transfers. To improve NWTS ability to meet this target the whole team is based on one site with aligned shifts and their only clinical responsibility is transport. NWTS has a dedicated ambulance team based with the team which has led to improved mobilisation times.

Regional transport teams are required to be at a patient's bedside within 3 hours of agreement of need for transfer to PIC (national target). Response Time (time from acceptance to patient bedside) in 2015-2016 was under 180 minutes for 90% NWTS transfers. Again, for 7.3% transfers delay occurred as the team were already out transferring another patient.





Regional transport teams have access to dedicated equipment and kit including specific ventilators, monitors and infusion pumps that can cope with variety of sizes of paediatric patient (ie from neonate to 16 years) and are robust with sufficient battery life to cope with transport without requiring recharging. Part of induction and ongoing training at NWTS includes equipment to enhance familiarity with its operation. At each shift the equipment is checked to ensure that it is fit to be used for a transfer, and any faults are referred to the medical engineering department.

NWTS use checklists to ensure that the team makes adequate preparation for each transfer. This includes one to ensure that appropriate equipment is taken from base to the referring unit, in addition to a pre-departure ABC-based checklist prior to transferring a patient to the receiving PICU. For all patient journeys equipment is packed and easily available to address events which occur infrequently, eg re-intubation kit. In addition, most children may require a bolus of fluid or drugs during their transfer, so these are prepared before transfer and kept close to hand.

Infants and children must be secured safely to the transport stretcher before departure. NWTS use the BabyPOD<sup>™</sup> for those under 5 kg and an appropriate 5-point harness for older children eg ACR harness (Paraid) or similar. To improve ability to maintain temperature NWTS use either transwarmers (chemically activated warming device) or Inditherm<sup>™</sup> as active heating devices, especially for those under 1 year old. All equipment must be safely secured to the ambulance trolley during transfer to prevent danger of injury to patient or staff during the journey.

NWTS use a dedicated ambulance. The ambulance has been adapted for purpose, with provision of both piped air and oxygen, and use of cupboards for additional equipment. This provides NWTS with the ability to do back-to-back transfers without the need to return to base, reducing any delays which may otherwise occur, especially at times of peak demand.

During transfer, for safety the team and parent(s) must wear seatbelts. The trolley fixation has been moved more centrally to allow a member of the team to be able to reach to adjust either pumps or ventilation without removing their seatbelt. If any other patient intervention is required, the ambulance pulls over to allow the team to stabilise the child before transfer continues.

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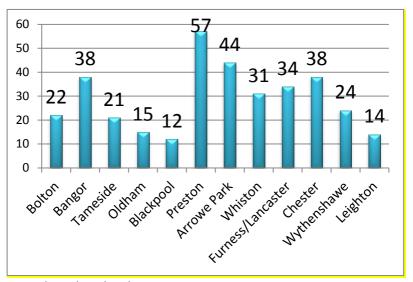


The NWTS Team is commissioned to provide support, education and training for the local referring teams who may, at times, face the challenges of the management of a critically ill or injured child. In 2015-16 NWTS provided:

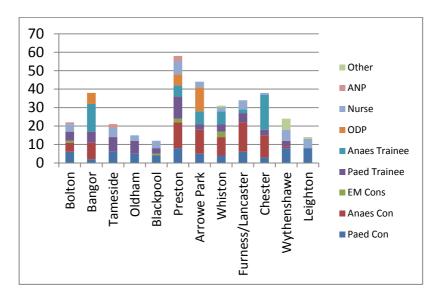
- 11 Centres NWTS Provided Outreach
- 1 Regional Conference: Neurosurgical emergency Focus
- 2 Link Nurse Days
- Ad-hoc Training Days (UCLAN/HDU/ Theatre Teams etc.)

Over the past 5 years, senior members of the NWTS team have travelled out to each hospital trust (29 in total) within the region to provide an agreed programme of education. The aim is to provide a once-a-year session to each hospital with a key objective to attract all teams that may be called to assess and deliver acute care to critically sick children. The graph below shows the variety of interest in these sessions.





Attendance by Job Role - 2015:



NWTS utilise a variety of teaching methods, not just the traditional lecture format. A typical DGH outreach session:

- NWTS consultant presentation
- Case Discussions led by the local team (in which there had been NWTS involvement, either providing advice and/or transferring the child into a tertiary centre)
- Attendees rotate around 3 workstations in small groups: airway/intubation tips, intraosseous needle use/insertion, intravenous infusion updates.

Feedback from Regional Teaching 2015-16:

'I thoroughly enjoyed the content and thought the speakers were clear, stimulating and the case studies to be very relevant'

'Well run and very friendly atmosphere'

'Interesting and worthwhile'

'Very good and very useful'

'Very enjoyable'

'All the topics covered are of benefit'

'Excellent teaching, relevant to practice, interactive presentations'

'Good day and keep it up'

The team also provided the NWTS Annual conference aimed at any healthcare professional who would being involved in managing children who have had trauma which had altered there neurology. The day was a great success with lots of positive feedback.

Link Nurse Days are run twice a year. These sessions include Feedback, Case Discussions and Practical Demonstrations, including Optiflow and SiPAP. These sessions ran from 10.30 am to 3 pm. They are aimed at Nurses and Advance Nurse Practitioners working in Paediatric Wards / Emergency Departments / Theatres / Adult ICUs. We have also now started taking Link nurses out with us on a transfer to get an insight in to the logistics of the referral and transfer process. We have facilitated this for 6 link nurses in 2015-16.

NWTS team members are part of the team organising and facilitating the monthly regional PICM teaching with colleagues from both AHCH and RMCH. Senior team members also present at a variety of regional and national meetings and conferences on paediatric transport, airway management, vascular access, and on paediatric simulation courses.

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NWTS are part of the Paediatric Critical Care Operational Delivery Network in region, and work with clinicians from both referring units and specialist tertiary centres to optimise the care of the critically ill child through the formulation of regional guidelines, the provision of educational sessions and information sharing through regular regional meetings.

NWTS senior team members have continued involvement with the Children's Major Trauma Network and the Paediatric Cardiac Network, working together to improve the care of the critically injured or ill child.

Having been part of the working party for the Paediatric National Tracheostomy Safety Project, NWTS have continued to promote the emergency algorithm and teaching resources (see <u>www.tracheostomy.org.uk</u> for more information). Senior team members were part of the working party developing the paediatric critical care transport competency passport for the Paediatric Intensive Care Society Acute Transport Group. This has been approved by both PICS council and the RCPCH Paediatric Intensive Care Medicine CESAC and is now used by all NWTS staff.

NWTS are part of the national paediatric and neonatal critical care flight transfer group. NWTS also work in collaboration with the Children's Air Ambulance Service (TCAA) to ensure high quality care of patients during flight transfers. In October 2014 a NWTS team were involved with the 100<sup>th</sup> TCAA flight transfer.





- The NWTS team understand that the initial management of the critically ill child in the DGH can be challenging. As such we provide several guidelines which are readily accessible on the NWTS website. These have been developed with close collaboration between NWTS, specialists at the two tertiary paediatric centres and the regional paediatric critical care operational delivery network.
- The guidelines are kept regularly updated and new guidelines developed in response to regional and national events and incidents.
- The Acute Paediatric Intubation guideline, written by Dr Pete Murphy (Consultant in Paediatric Anaesthesia and Paediatric Transport AHCH/NWTS) was released in 2015. Implementation of the guideline has been supported by teaching sessions by the NWTS outreach team.
- The updated Guidelines for the Management of the Infant or Neonate with Hyperammonaemia is currently under review by the PCCODN for use across the region.

- Guidelines in development include:
  - Management of button battery ingestion
  - Management of the child following out of hospital cardiac arrest
  - o Arrhythmias

All guidelines are available at www.nwts.nhs.uk/clinicalguidelines.



# Audit, quality improvement and service development

- The NWTS team endeavour to promote good quality care through audit, quality and service development projects.
- Data is collected from all NWTS transfers for the national PICANet retrieval dataset. PICANet annual reports are available at http://www.picanet.org.uk/
- All adverse events, critical incidents and mortality data are reported and analysed at regular intervals. In February NWTS introduced a Learning From Excellence initiative, in order to celebrate excellence, to learn from what went well and ensure that everyone who has performed well gets the feedback and recognition they deserve. This project has captured, fed back upon and raised learning points from numerous episodes of excellent practice at NWTS and in the region.
- Audit projects over the past year include:
- Managing Status Epilepticus –A Regional Perspective (R Phatak, G Mason, R Elder). Over half of the intubated patients referred to NWTS were extubated locally with no failed extubations or adverse events. This is beneficial to the patients, their families and the regional PICU bed

capacity and shows a sustained improvement over time from only 18% in 2011

- Over-running shifts (L Pritchard). Occasional over-running shifts are an inevitability in transport medicine and are more likely in out of region transfers and in busy periods with several consecutive transfers. Over the audit period only 14% of late finishes were felt to have been avoidable.
- Intubation by DGH teams (C Goodman). This audit set out to determine if the introduction of specialist retrieval teams causes a delay in the intubation of critically ill patients. It demonstrated that the proportion of patients not intubated within 1 hr of decision to intubate fell from 13.3% in 2010 (1 month after the launch of the NWTS service) to 9.5% in 2015.
- Acute Kidney Injury (T Bhutia, A Demeterova, V Chedalavada) An analysis of the incidence of AKI, demonstrating that 50% of critically ill patients transferred over a 3 month period had evidence of, or were in the Risk criteria for AKI as per the RIFLE criteria. This indicates that AKI should be actively sought in the critically ill child and, when identified, measures taken to reduce further damage.



Since its inception, reflecting on our practice and ensuring we have robust mechanisms to identify areas where change in practice is needed has been a core value of the NWTS team. NWTS aims to follow all transferred patients for the first 24-48 hrs post transfer. This helps with reflection and team learning.

As part of this process, regular Mortality Review meetings are held at NWTS base to review information from the referral process, stabilisation and eventual transfer to PICU (where applicable). Having close links to Mortality Review groups in both the tertiary children's hospital enables efficient sharing of information.

Trainees and nursing staff have always been encouraged to present and participate in the mortality review meetings. Not only makes this more effective process, but also makes it more conducive to the concept of developing an "organisation with a memory". Serious adverse incidents are also reviewed across a multidisciplinary group. Ambulance personnel are encouraged to attend and often provide valuable insight into ensuring logistic planning is as robust as it could be.

Notable conclusions from recent mortality reviews:

- Seeking input from tertiary specialists (either via conference call or stand alone discussions with accepting Consultants) helps minimise risks to patients.
- The previously held concept of "resuscitation for 20 mins" is constantly challenged and though there are some survivors, many children will not survive especially if OOHCA that is prolonged.
- Severity of illness / nature of Pathology often incompatible with life with presentation at late stage.
- Teams often go beyond their call of duty when making valiant attempts to preserve life. Some areas of excellence in practice already identified and these have been shared across the region (with consent from individual teams / clinicians, where applicable).
- Joint early intervention from Paediatrics / Anaesthesia and ED clinicians is often seen documented and this helps effective patient Mx in most instances. Early recognition or early intervention are issues best discussed when team dynamics are taken into consideration.

In addition to Mortality meetings at NWTS, event debriefs are offered to individual hospital teams across the region. They have always been well received. DGH teams have also welcomed the opportunity to use audio call records to analyse / appraise decision making.

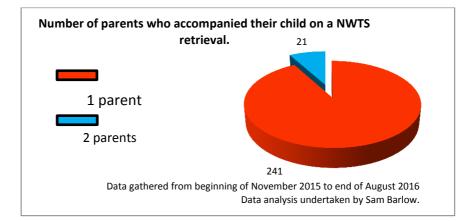


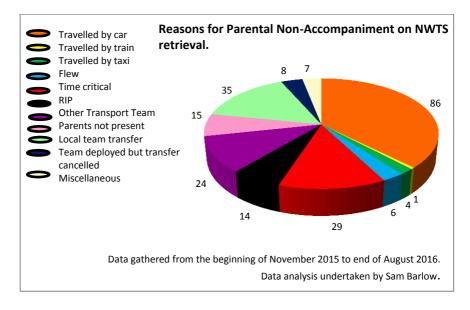
Supporting the family during the child's stabilisation and transfer is a vital part of our role at NWTS. Our parent information leaflet explains the transfer process and includes directions and contact numbers for the regional PICUs. It is available in English, Polish, Urdu and now also in Welsh.

Although the majority of our patients have a good outcome, occasionally a critically ill child becomes too unwell to survive transfer and the NWTS team support the withdrawal of life sustaining treatment in the referring hospital. This year NWTS have introduced an information booklet to guide families when a child dies, which includes practical advice on topics such as registering a death and arranging a funeral, as well as information on post mortems and organ donation, in a sensitive and supportive format.

NWTS charitable fund provides a parent snack pack (consisting of a drink, crisps and biscuits) to all parents accompanying their child to PICU. We also have access to phone chargers enabling parents to charge their mobile phones in the ambulance.

Paediatric Intensive Care Society (UK) Standards 2010 state "wherever possible and appropriate, parents should be given the option to accompany their child during the transfer". NWTS recognise the positive benefits of parent(s) travelling in the ambulance, especially if their child is very unstable and may not survive the journey. As such we endeavour to enable a parent to accompany their child on the majority of transfers, as shown below.







NWTS are very grateful to the families that have fundraised and made charitable donations over the past year, your efforts have enabled us to obtain new equipment including a Hamilton ventilator, MP5 monitor and communication display screen. These items have made a huge difference to our service and the patients in our care.





'In November your wonderful team transferred my twin boys on separate days from Furness General to Sheffield. The teams were fantastic'

'You instantly put us at ease with the confidence you all showed, you are amazing! We now all refer to you as the super doctors!'

'Thank you so much to the NWTS team. Their professionalism, care and support was amazing'

'Just wanted to say a massive thankyou for all your time and care given to our daughter'



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