

NWTS



The North West and North Wales Paediatric Transport Service (NWTS) Annual Report 2024 - 2025

NWTS provide a single point of contact for advice, bed location, and paediatric critical care transport teams for critically ill infants and children.

Christopher Walker (Lead Nurse)
Dr. Suzy Emsden (Lead Clinician)



About the Northwest and North Wales Paediatric Transport Service (NWTS)

The Northwest Transfer Service (NWTS) was commissioned and established in 2010 to provide a specialised service dedicated to the stabilisation and transfer of critically ill infants and children. The service is hosted by the Manchester University Hospitals Foundation Trust and is based at Birchwood Business Park, Warrington. Since its inception, NWTS has been fully operational and commissioned. In 2023, the service underwent an expansion to increase capacity, thereby enabling the provision of care to a greater number of critically ill infants and children as required.

The NWTS team is jointly led by two designated professionals in accordance with the Paediatric Critical Care Society (PCCS) Standards (2021). Dr. Suzy Emsden serves as the Medical Lead Consultant, while Christopher Walker holds the position of Lead Nurse.

Paediatric critical care services are provided nationally through tertiary centres distributed across the country. The two regional tertiary hospitals delivering this level of specialised care are Alder Hey Children's Hospital and The Royal Manchester Children's Hospital

Mission Statement

The NWTS Specialist Paediatric Critical Care Transport Service (SPTS) is committed to delivering the highest quality paediatric critical care stabilisation and transfer for critically ill infants and children, from the initial point of contact through to their destination at a Paediatric Critical Care (PCC) facility. In fulfilling this mission, NWTS remains family-focused, offering advice and support to families and facilitating the travel of a family member or guardian with the child whenever possible.

NWTS strives to provide exemplary advice and remote support to clinical teams at local regional hospitals (also referred to as referring centres) managing children approaching the threshold for transfer to a PCC facility. This support may obviate the need for transfer, with the NWTS team continuing to provide critical care guidance and remote assistance to partner referring centres for as long as necessary.

NWTS will provide:

- A single point of contact for referring units seeking advice and/or transfer of critically ill children.

- 24-hour specialist stabilisation, treatment, and retrieval advice, along with a triage service for all referrals.
- Facilitation of the delivery of the most appropriate care in the most suitable setting for any infant or child requiring critical care within the Northwest or North Wales region (with some exceptions outlined in this document), including appropriately triaged patients requiring escalation to regional tertiary centres for Level 1–2 Critical Care.
- Transfer of patients already receiving critical care within regional tertiary centres to national centres for specialist treatments not available locally.
- A dedicated team, equipment, ambulance, and driver to enable the transport of patients receiving critical care within the region by their local consultant (whether tertiary or secondary centre) to hospice settings for end-of-life care.
- An Outreach Education Programme for regional referring centres.
- Robust and transparent internal governance with a strong commitment to continuous service improvement and patient safety.
- Active participation in research and contributions to local, national, and international academic initiatives.

These services will be consultant-led and, where appropriate, consultant-delivered.

NWTS will work collaboratively with all referring centres and receiving PCC units across the catchment area, as well as with relevant networks including the Northwest Paediatric Critical Care (NWPPCC), Northwest Children’s Major Trauma, Northwest Congenital Cardiac, Northwest Neonatal, and other pertinent Operational Delivery Networks (ODNs). Additionally, NWTS will liaise with neighbouring and national SPTSs and Paediatric Critical Care Units (PCCUs) to ensure the service is effectively delivered, continuously reviewed, developed, and benchmarked in accordance with PCCS Quality Standard (QS) T-801.

NWTS will collaborate closely with the NWPPCC ODN to support the provision of educational initiatives, the development of clinical guidelines and pathways, and data collection and analysis aimed at optimising care delivery across the region to meet the demographic and clinical needs of the patient population.

Furthermore, NWTS will maintain strong communication links with the region’s emergency ambulance provider, the Northwest Ambulance Service (NWAS), to ensure mutual aid processes are clearly understood and efficiently implemented when required.

NWTS is committed to meeting the PCCS quality standards and adhering to the Royal College of Paediatrics and Child Health (RCPCH) recommendations for the future structure of paediatric services, which emphasise providing children and their families with the best possible care as close to home as feasible. NWTS also aligns with the host trust’s (Manchester University NHS Foundation Trust) vision, values, and behaviours encapsulated by the motto ‘Together Care Matters’ — encompassing respect for every individual, collaborative working, dignity and compassion, and openness and honesty.

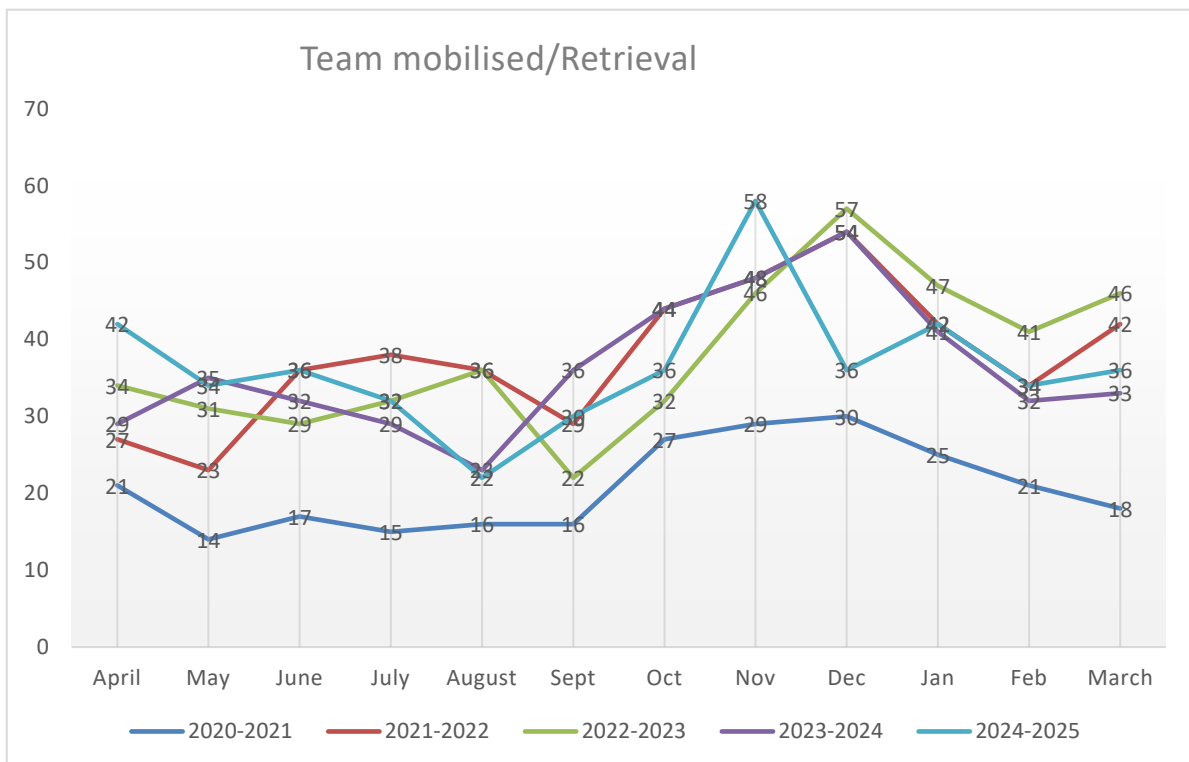
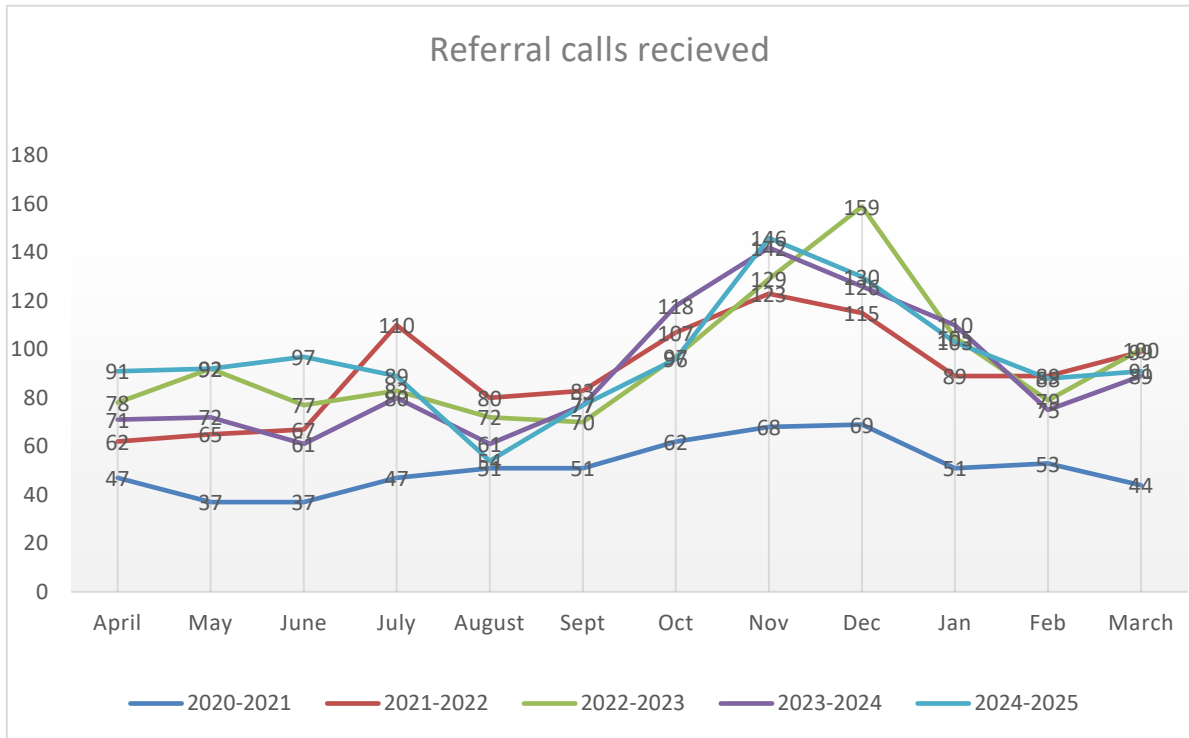
Finally, NWTS endeavours to foster a supportive, inclusive, and structured working environment where every team member feels valued and empowered to deliver world-class care to the sickest infants and children across the North West and North Wales regions.

Executive Summary

Since its launch in 2010, NWTS has continuously evolved to meet the changing needs of its patient population. At a national level, there is an increasing emphasis on the care delivery required for high-dependency paediatric critical care patients, which is expected to develop further in the coming years. A new national service specification for paediatric critical care transport is scheduled for publication later this year. This specification is anticipated to reflect the evolving needs of critically ill children, as well as the varying demands and requirements of Specialist Paediatric Transport Services (SPTSs).

NWTS has a commitment to support the development of all levels of critical care delivered to all infants and children. This is aligned to the vision, principles and recommendations outlined in the Getting It Right First Time (GIRFT) report (2022). https://pccsociety.uk/wp-content/uploads/2022/04/Paed-Critical-Care-GIRFT-report_final_April2022.pdf

Activity Summary 2024-25



Referral Outcomes

	April 2024- March 2025 n= 1154
NWTS Team Mobilised	438 (37.9%)
Advice/Consultation only	529 (45.8%)
Refused (within scope of care)	4 (0.3%)
Refused - out of scope of care	62 (5.5%)
Cancelled by referrer	0 (0.05%)
Time critical transfer (local team)	45 (3.9%)
PCC bed request support	67 (5.8%)
Mutual Aid	9(0.8)

Transport Outcomes

	April 2024- March 2025 n= 438
Transferred by NWTS Team	423 (96.6%)
Patient improved (team present)	4 (0.9%)
Patient died (team present)	5 (1.1%)
Patient too unstable to transfer	1 (0.2%)
Cancelled by referrer (team had mobilised)	2 (0.4%)
Other reasons	3(0.7%)

NWTS team transfers

	April 2024- March 2025 n= 423
Royal Manchester Children's Hospital	160(37.8%)
Alder Hey Children's Hospital	229 (54.1%)
Out of region for PIC bed	9 (2.1%)
Out of region for Quaternary Care	12 (2.8%)
Palliative Care Location	4 (0.9%)
Neonatal Unit	1 (0.2%)
Repatriation	(1.6%)
Other	1 (0.2%)

Clinical Outcome Measures

Clinical outcomes are broadly agreed measurable changes in health, function, or quality of life that result from our care. Constant review of our clinical outcomes establishes standards against which to continuously improve all aspects of our practice.

a. Mobilisation time

NWTS is measured against national Key Performance Indicators (KPIs) to ensure it provides the highest quality of care to patients and their families. One of these service standards is the time it takes to get a team ready to go once the decision to accept a patient for transport has been made. This is known as the mobilisation time.

Reported below are the proportion of patient transports (retrievals) where the team departs the transport base within 30 minutes of accepting a referral.

For April 2024 to March 2025 the NWTS team mobilised within 30 minutes for 78.3 % of patient transports. Over a 10% drop in the team's mobilisation within 30min target has been seen in the year reported time frame.

During busy periods the NWTS team may be retrieving another patient when a new referral has been accepted. Activity linked to team availability impacts on figures such as mobilisation times.

Numerator: Number of retrievals (of a patient) where the team departs the transport base within 30 minutes from the time the referral is accepted.

Denominator: Total number of retrievals (of a patient) undertaken.

Table 1.1 Proportion of patient retrievals within 30 minutes of referral being accepted, 2020 to 2022 (Nb – numbers include planned transfers)

Year	Number of patient retrievals where the team departs the transport base within 30 minutes from the time the referral is accepted (including planned transfers)	Total number of emergency patient retrievals undertaken	Percentage of patient retrievals where the team departs the transport base within 30 minutes from the time the referral is accepted (including planned transfers)
April 2024 – March 2025	343	438	78.3%

b. Time to bedside time

The standard time to patient bedside is recorded from to decision to transfer. The Key Performance Indicator is 180 minutes from acceptance for transfer.

From April 2024 to March 2025 the NWTs team arrived at the patient bedside within 180 minutes 98.6% of the transports agreed. Just over a 1 % improvement has been seen in the time to bedside figure in this report.

Year	Number of patient retrievals where the team arrives at the patient bedside within 180 minutes from the time the referral is accepted (Including planned transfers)	Total number of emergency patient retrievals undertaken	Percentage of patient retrievals where the team arrives at the patient bedside within 180 minutes from the time the referral is accepted (Including planned transfers)
April 2024 – March 2025	432	438	98.6%

c. Refused Requests for Retrieval

At times of peak demand for paediatric critical care services, the NWTs team may on occasion be unable to transport a patient. In this event the patient’s condition is assessed and a plan is discussed. The patient may then be referred to a neighbouring transport service or continue to be cared for at the local hospital whilst waiting for the NWTs team (or other transport service) to become available. All referred cases are supported by telephone advice to ensure they receive the highest quality care.

We report the proportion of refused requests for transport (retrieval) of a patient, within our defined catchment area. Overall, between April 2024 and March 2025, 0.91% of requests within scope of care were refused.

This is a national measure that is reported to commissioners by all paediatric critical care transport services.

Numerator: Number of requests (within defined catchment of retrieval service) for retrieval of a patient requiring paediatric intensive care admission that are refused.

Denominator: Total number of requests (within defined catchment of retrieval service) for retrieval of a patient requiring paediatric intensive care admission.

Table 2.1 Proportion of refused requests for retrieval of a patient (within defined catchment area), 2024 to 2025

Year	Number of refused requests for retrieval of a patient requiring paediatric intensive care admission (within scope of care)	Total number of requests for retrieval of a patient requiring paediatric intensive care admission (within scope of care)	Proportion of refused requests for retrieval of a patient requiring paediatric intensive care admission (within scope of care)
April 2024 – April 2025	4	438	0.91%

d. Advice and Support

Reported here are the number of calls received when a transport to a tertiary centre is not required. The ongoing advice and support provided by the NWTs Consultant team supports the local team to care for the child who at the time of the advice does not require tertiary paediatric intensive care.

April 2024- March 2025 n= 1154	
Advice/Consultation only	529 (45.8%)

e. Critical Incidents

During transportation of critically ill children, incidents that impact on patient care can occur. Our aim is to prevent these events by monitoring their occurrence, as well as that of ‘near misses’, and analysing the reasons they happened, to make service improvements and reduce the likelihood of the same incident occurring again.

All incidents reported are reviewed daily by a member of the senior NWTs team and are discussed at the weekly paediatric critical care governance meetings at the Royal Manchester Children’s Hospital (host Trust).

Reported here are critical incidents impacting on patient care that occurred during journeys undertaken by NWTs for critical care patients. Overall, between April 2024 and March 2025, there were no critical incidents in 93.8% of emergency transports. A rise in the percentage of transfer episodes without a critical incident is reported. The number of reported incidents is comparable to the previous year. This does not directly correlate on all occasions with a safer culture and could also reflect a culture of underreporting events and incidents that have occurred. NWTs encourages a culture of actively reporting near miss events and critical incidents, allowing the service to continually learn, recognising trends in reporting and changing practice as appropriate in response. To address potential underreporting of near miss events and critical incidents, teaching to raise the importance of reporting will be

embedded in the mandatory training program at NWTS and highlighted to staff in the services Newsletter. .

Table 3.1 Number and percentage of critical incidents for emergency transports, April 2024 to March 2025

	April 2024 – March 2025 Total transports n= 438	Percentage of Incidents
Critical incidents reported	27	
Accidental extubation	0	(0%)
Intubation in transit (non intubated patient)	0	(0%)
IV access loss	0	(0%)
Extravasation	1	(3.7%)
Documentation and information governance	2	(7.4%)
Cardiac arrest	0	(0%)
Medical device failure	10	(37%)
Medical equipment issue	4	(14%)
Medication	3	(11.1%)
Communication and consent	3	(11.1%)
Ambulance issue	2	(7.4%)
Telecoms/computer failure	0	(0%)
Needle stick injury (staff)	0	(0%)
Non- NWTS Incidents	2	(7.4%)

Research and Audit

NWTS has continued to participate in research and audit activity. NWTS present audit work regionally, nationally, and internationally. NWTS has been involved in a national audit of the care and management of infants and children following seizures. In the published results, it can be seen that the service and the Northwest and North Wales regions lead the way nationally in the care delivered

NWTS are active participants in the Pressure trial, this is examining the use of inotropes linked to the targeting of defined blood pressure parameters.



<https://www.icnarc.org/Our-Research/Studies/Current-Studies/Pressure/About>



Panda- PIC is a service evaluation project looking at national practices for paediatric airway management in paediatric critical care and other high care areas. Its objectives are to evaluate national practice, identify risk factors and develop QI projects to improve safety.

NWTS Education and Training

Outreach

Each of our regional local hospitals were offered a three-hour outreach programme. We delivered outreach to eighteen of our twenty-four local hospitals; one session was cancelled and another rescheduled for doctors' strikes. There was no uptake from four of our local hospitals. Two of the outreach sessions were delivered as hybrid sessions. The NWTS annual Conference was held as a face-to-face full day event, all speakers were members of the NWTS team aside from Trainee Oral Presentations. There were 110 attendees. We advertised two regional multidisciplinary virtual study days via the ODN, these delivered in February and November 2024. NWTS faculty assisted with the delivery of an emergency medicine study day for Paediatric Emergency Medicine trainees. NWTS faculty also delivered simulation at a Regional Simulation and Procedures Day. We continued to hold monthly regional grand rounds. The nurses training days NWTS worked alongside the ODN educations delivering 3 nurses study days, we had 60 nurses attending the introduction to Paediatric Critical Care (PCC) day and the Advanced PCC day, along with 50 nurses attending the Specialist Day.

In house education

Induction day for all new staff achieved 100% compliance, mandatory study day for all permanent and permanent rotational staff 95% of nurses attended due to sickness, 70% of consultants attended (reduced attendance due to sickness) and 100% of NWTS clinical fellow/ANP's attended. We run team simulation sessions though out the year. We held daily teaching sessions for staff on shift and a weekly Case of the Week which is shared education between other transport teams. Forward plans include greater integration of simulation-based teaching in the in-house teaching program. This will be supported by a complete redesign of the services education room to facilitate simulations so they can be run more efficiently by reducing set up times.

Partnerships

The Children's Air Ambulance - TCAA – who provide rotary wing transport when required for transporting of patients over distances that would normally take in excess of 90 minutes. The TCAA is a service fully funded by charitable donations and provides a vital method of transporting critically ill infants and children across the region and country.

NWTS is an active clinical partnership team member, attending monthly governance meetings and annual training events. NWTS has been involved with the TCAA since its first launch as a service.



<https://theairambulance.org.uk/childrens-air-ambulance/>

Networks

NWTS maintain strong links with the paediatric critical care regional network, attending regular meetings and co running events. The NWTS service take an active role in partnership with the regions Paediatric Critical Care Operational Delivery Network to deliver training and support to the regions hospital to support all levels of paediatric critical care delivery.

The service celebrates the ongoing work by the NWTS team to develop and maintain a very effective and vital subgroup to the PCC ODN.

The Paediatric Critical Care ODN and NWTS Link Nurse and Allied Health Professional Sub Group continues to grow in membership and develop year on year. In the last year, the group has facilitated three study days for the region's nurses, nurse associates and ODPs with great attendance and feedback that has allowed us to develop the content we offer. We meet quarterly with a mixture of in-person and Teams meetings to facilitate easier access to the meetings logistically whilst providing opportunities to network. We actively share learning and resources to ensure best practice and encourage equity across the region, whilst providing support and clinical supervision to the staff. Education on topical themes or case reviews happens during each meeting to keep staff up to date.



Paediatric Critical Care Operational Delivery Network

NWTS maintain links with other relevant networks to support care delivery across the regions as a partnership.

Paediatric Trauma Network

<https://nwchildrenstrauma.nhs.uk/the-network>



<https://www.northwestchdnetwork.nhs.uk/about-us/>



<https://www.neonatalnetwork.co.uk/nwnodn/>



Feedback

Local Hospital Feedback

NWTS Transfer Feedback from Local Hospitals

Following each NWTS transfer, a paper copy of the feedback form is provided to the local hospital team. In addition, the feedback document includes a QR code, which links to an online feedback form available on the NWTS website. Feedback is provided by the local hospital team in approximately 79% of transfers, while 40% of local hospitals respond to the feedback request. The majority of feedback responses—94%—were submitted via post, with the remaining 6% submitted electronically through the online form linked by the QR code.

All feedback received was reviewed and shared with NWTS staff. The insights and recommendations gathered from the feedback were used to inform ongoing improvements in clinical practice, ensuring that relevant learning points are implemented.

Key Insights and Recommendations

The current response rate of 40% will be enhanced by promoting the online feedback submission method. Additional reminders or follow-up communications could increase participation, thereby streamlining the feedback process. The relatively low percentage of online feedback submissions—6%—suggests that there may be opportunities to further encourage the adoption of the electronic feedback form. Simplifying the online submission process or offering periodic reminders may facilitate greater engagement from local hospital teams.

With a compliance rate of 79% in providing feedback forms, there may be potential for improvement through consistent distribution of forms or the introduction of digital alternatives. Tracking and documenting the specific clinical changes resulting from feedback would provide further evidence of the process's value and could help encourage greater participation, fostering a culture of continuous improvement.

Feedback from parents and carers

As the PCCT service often serves as the first point of contact for parents and carers of critically ill children, establishing a strong relationship is essential to provide support during

this very challenging time. Feedback forms are included in every parent snack pack, offering parents and carers the option to complete either a paper version or an electronic version via a QR code or link. To further encourage feedback, patient certificates featuring a QR code are also given to the child and family when the team departs.

Since enhancing feedback accessibility in 2019, a total of 196 forms have been received over the six-year period from July 2019 to June 2025. Notably, between April 2024 and March 2025 alone, 50 feedback forms were submitted. All feedback is promptly reviewed and shared with the NWTS team.

Examples of Feedback received:

"They were all amazing, compassionate and professional"

"Informative, reassuring and caring during a very stressful time"

"Efficient, compassionate, excellent communication"

"Exceed excellent – I can't thank the team enough"

"Reassuring, fast and safe transfer. Compassionate staff. The ambulance driver allowed our toddler to sound the sirens before we left. He loved it. It's the little things when you're going through a traumatic event that mean the most. I will never forget how reassured I felt once the NWTS team arrived"

"Amazing people"

"Until you need this service, you will never appreciate the crucial service they give. Excellent care to both patient and family. Explained everything thoroughly and provided important information. Lovely touches with the food bag and the knitted hearts given to us all, something we will never forget"

What matters to me - You said, we did?

Feedback for the NWTS service has been positive. Any suggestions for improvement were evaluated and acted upon to improve the transport service.

Patients (and in our case parents/carers of patients) offer a complementary perspective to that of clinicians, providing unique information and insights into both the humanity of care (such as dignity and respect, privacy, compassion, and quality of care received) and the effectiveness of health care.

You said.

- A. *"Postcode on the information leaflet took us to a different location – typed in Hathersage carpark and this took us directly there"*
- B. *"Option to have two parents in the ambulance as it looked like there was a spare seat"*

We did

- A. *"Postcode on the parent information leaflet has been changed to the Hathersage Car Park postcode which is facing the hospital, and the carpark we direct parents to"*
- B. *"It is NWTS policy to allow to allow a parent to travel with their child, but sometimes this may not be possible. It look like there is a spare seat in the ambulance but each situation*

undergoes a through risk assessment to prioritise the safety of both the patient and the medical team”.

Forward plans

- To work in partnership with the host trust to advance data management and move towards a paperless system to improve efficiency in care delivery.
- To review and redesign the NWTS transport trolley and equipment. This includes the updating of equipment used to harness digital innovation for patient benefit.
- To develop simulation training and embed within the service to continually develop NWTS staff to impact positively on care delivery.
- To work with the PCC ODN to support care delivered across the region to all levels of paediatric critical care delivery. This will be aligned to the recommendations from the paediatric Getting it Right First-Time report (GIRFT)
- To expand and evolve the regional education program delivered by NWTS. This will include expansion of simulation-based courses, vascular access study days and critical care palliative care-based days. This will be supported by further investment in NWTS education team training to ensure education is delivered by staff working expert level

More information

More information about the NWTS Service can be found at www.nwts.nhs.uk