



North West Children's Major Trauma Network
Always Children First

**North West Children's Major Trauma
Operational Delivery Network
Annual Report
2023/2024**

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Glossary

AHCH	Alder Hey Children's Hospital
BOAST 4	British Orthopaedic Association Standard 4, setting out key markers for care of patients with high energy open lower limb fractures
CYP	Child/Young Person
ED	Emergency Department
ICB	Integrated Care Boards (ICB's)
LEH	Local emergency hospital
MTC	Major trauma centre
MT	Major trauma
NMTR	National Major Trauma Registry
NW	North West
NWAA	North West Air Ambulance Service
NWAS	North West Ambulance Service
NWTS	North West Paediatric Transport Service
ODN	Operational Delivery Network
IDACI	Income Deprivation Affecting Children Index
ISS	Injury Severity Score is a score ranging from 1, indicating minor injuries to 75, indicating very severe injuries that are very likely to result in death. An ISS between 9 and 15 is considered moderate. An ISS of 16 or more is considered severe. ISS is calculated using the Abbreviated Injury Scale (AIS). The AIS is a value between 1 (minor) and 6 (very severe) which can be assigned to each injury. TARN currently uses the AIS 2005 system, the most recent available.
PCC	Paediatric Critical Care
PCC SiC LTV ODN	Paediatric Critical Care, Surgery in Children and Long-Term Ventilation ODN
PPV	Patient and Public Voice
RMCH	Royal Manchester Children's Hospital
TARN	Trauma Audit Research Network
TU	Trauma Unit
W	W-Variable shows hospital outcome performance. W represents excess deaths or survivors per 100 patients. This is calculated using observed and expected survivors and the total number of patients in the hospital's rate of survival dataset.
Ws	Ws Excess deaths or survivors (W) standardised according to hospital case mix using the TARN fraction. A hospital with the same case mix as the overall TARN population will have identical W and Ws values. A hospital whose case mix differs from the overall TARN population will have different W and Ws values.

Foreword

We are delighted to present the Annual Report of the North West Children's Major Trauma Operational Delivery Network (ODN) for 2023/2024.

The Network has come a long way since its introduction in 2012 and continues to make a positive impact on children with major trauma (MT) across the North West (NW) of England, North Wales, and the Isle of Man. This success relies on the good collaboration and the shared goals, not only between the two Children's Major Trauma Centres (MTCs) at Alder Hey Children's Hospital and Royal Manchester Children's Hospital, but throughout the network of children's trauma units (TUs), local emergency hospitals (LEH), North West pre-hospital services, regional adult MT ODN's, and the North West & North Wales Paediatric Transport Service.

The strength of the Network is the active participation of its members which meet quarterly to discuss all aspects of the MT pathway for children. Attendance remains good from all parts of the Network including North Wales and the Isle of Man.

Throughout 2023/24 the Network Leadership Team have continued to make progress with its work plan including:

- Partaking and completing the Major Trauma Centre peer reviews across the NW region
- Update of the Major Trauma Network Guidelines
- Leading on the Children's National Trauma and Rehabilitation Networks
- Developing and collaborating on a number of regional and national education events

We are looking forward to the continued development of the Network and the many areas of work to be developed in 2024 and beyond.



Miss Naomi Davis and Dr Bimal Mehta

Joint Clinical Leads of the North West Children's Major Trauma ODN



Helen Blakesley

Network Manager North West Children's Major Trauma ODN

Executive Summary

This report provides a summary of the performance, key achievements, and challenges of the North West Children's Major Trauma Operational Delivery Network. This report focuses on all aspects of the MT pathway which includes:



Injury produces a significant health burden for children, being a leading cause of both death and disability. About half of the 4 million attendances by children to emergency departments each year follow an injury, but most are minor. Information about the more serious injuries is collected nationally.

In June 2023 Manchester University, which hosts the Trauma Audit Research Network (TARN) database, sustained a cyber-attack. Due to this, stakeholders across the Network have been unable to submit trauma data to TARN. NHSE have been working with TARN to transition the data onto a new platform called the National Major Trauma Registry, which will be hosted by NHSE. Due to this transition, the ODN has been unable to access the national dataset for the year 2023. The data presented in this annual report has been collected locally by the 2 Children's Major Trauma Centres and a number of the trauma units in the region. We are currently unable to reflect the full data set across the region of children impacted by a major trauma injury. It is anticipated that the data from 2023 to early 2024 will not be collated and available for use.

To ensure consistency, only patients with classified major trauma injury (the Network has used the same criteria as previously used by TARN, however there may be some inaccuracies due to the difficulty in coding the injuries) will be included in this report. The Network acknowledges that there are significant numbers of patients who present as major trauma candidates to the emergency departments with an ISS below 9 that are admitted to the MTCs and TUs across the region. These children may have significant life changing injuries and require multidisciplinary care across the pathway. However, data collection is not consistent for this cohort of patients.

In 2023, 502 children with a major trauma injury were admitted to the Network's Children's MTCs at Alder Hey Children's Hospital and Royal Manchester Children's Hospital. Due to absence of national data, we are unable to provide the survival rates of major trauma across the region.

The correlation between deprivation and MT injury is becoming increasingly evident with 58% of the children admitted to the MTCs living in the top 3 deciles for deprivation. Due to the mechanism of trauma injuries, there are high levels of safeguarding and psychosocial needs across the patient cohort.

In 2023 the Network completed the regional peer reviews for the Children's Major Trauma Centres and Pre-Hospital Services. The peer reviews have supported the Network to develop its 2024/2025 work plan to focus on the needs of the wider trauma system. There are plans in place to peer-review the Trauma Units of North Wales and review the new Salford Major Trauma Centre in 2024/2025.

The Network Major Trauma Clinical Guidelines have been updated and distributed across stakeholders and uploaded onto the website. The updated guidelines are underpinning the development of the Network education strategy.

To ensure the Network's independence, an independent chair was appointed in June 2023. The chair has overseen partnership working between stakeholder organisations, to maximise the benefits of collaborative working, and ensure shared decision making and effective governance.

Introduction

The North West Children's Major Trauma Operational Delivery Network is a mandated ODN which was established informally in 2012 at the inception of the Major Trauma Networks and was formalised in 2021. The Network is unique in being the only designated Children's Operational Delivery Network for Major Trauma in England. The Network is co-hosted by Royal Manchester Children's Hospital (RMCH) and Alder Hey Children's Hospital (AHCH) with the financial envelope held within Manchester University NHS Foundation Trust.

In June 2023, the National Major Trauma Clinical Service Specification was released which outlines the deliverables expected of each ODN defined within seven core areas of function:

1. Service delivery: Plan and manage capacity and demand
2. Resources: The Network's role in stewardship of resources across whole pathway and minimising unwarranted variation
3. Workforce: The Network's role in ensuring flexible, skilled, resilient staffing
4. Quality: The Network's role in improving quality, safety, experience & outcomes
5. Collaboration: The Network's role in promoting working together across organisations at local, system and national level
6. Transformation: The Network's role in planning sustainable services that meet the needs of all patients
7. Population health: the Network's role in assessing need, improving inequalities in health, access, experience and outcomes

With focus on reviewing and directing the future purpose, function and constitution of the Network, this annual report is aligned to the seven core functions.

About the North West Children's Major Trauma Operational Delivery Network



Map showing North West Regional Trauma Unit's and Children's Major Trauma Centre's

Population

The Network provides a service to the conurbations of Cheshire and Mersey, Greater Manchester, Lancashire and South Cumbria, North Wales, and the Isle of Man. The current population for children aged less than 16 years old served by the Network is c.1.4 million (18.6% of the total NW population) (Office of National Statistics (2022)).

Geography

A key challenge for the Network is the wide geographical area it serves, with a mix of urban and remote rural populations, some of which are a considerable distance from the MTCs in Liverpool and Manchester. For some children with major trauma, their injuries are time critical, and it is essential that they are transferred as quickly as possible into the MTCs. Across the network, a number of hospitals are more than one hour's travel from the MTC, with Furness General and Nobles Hospital having travel times of over 2 hours into their designated MTC of Alder Hey.

Pre-Hospital Services

Pre-Hospital Care is provided by the North West Ambulance (NWS) and the North West Air Ambulance Service (NWSAA). In addition, on the borders of the NW region there are the East Midlands Ambulance Service, Royal Air Force, Welsh Ambulance Service and the Great North Air Ambulance. The service also works with the North West Paediatric Transport Service to provide advice and support for the transfer of critically ill children across the region. Voluntary services working within the Greater Manchester area include Hatzola which is a charity-based service for the local Jewish community, with links to NWS and their Advanced Clinical Paramedics for advice. All the volunteers are trained to Emergency Medical Technician Level 2.

Children's Major Trauma Centre's (MTC)

RMCH and AHCH are 2 of the 16 MTCs in England that are designated to treat children. The two children's MTCs work collaboratively within the wider network of service providers to ensure children with MT injuries are cared for at the right place, at the right time with the right care.

Children's Trauma Units (TU) / Local Emergency Hospitals (LEH)

There are 15 children's TUs for children (shown in the table below) which transfer children to their allocated MTC (AHCH or RMCH). The Network also has 11 LEHs. Leighton Hospital and Royal Stoke Hospital are part of the EAST Midlands MT Network, but children experiencing MT injuries within their regions are on occasion transferred to AHCH due to its closer proximity. Each hospital across the Network has a designated MTC as part of their trauma pathway.

Area	Hospital Transferring to Alder Hey Children's Hospital Major Trauma Centre
Cheshire and Mersey and Isle of Man	<ol style="list-style-type: none"> 1. Countess of Chester (TU) 2. Southport and Ormskirk (TU) 3. Whiston Hospital (TU) 4. Warrington Hospital (TU) 5. Wirral Hospital (TU) 6. Nobles Hospital, Isle of Man (LEH)
North West Midland and North Wales	<ol style="list-style-type: none"> 1. Leighton Hospital (Mid Cheshire NHS Trust) (TU) 2. Royal Stoke Hospital (North Staffordshire Only) (TU) 3. Wrexham Maelor Hospital (LEH) 4. Ysbyty Gwynedd, Bangor (LEH) 5. Glan Clwyd Hospital, Rhyl (LEH)

Lancashire and South Cumbria	<ol style="list-style-type: none"> 1. Furness General, Barrow (TU) 2. Royal Lancaster Infirmary (TU) 3. Blackpool Victoria Hospital (TU)
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Area	Hospital Transferring to Royal Manchester Children's Hospital Major Trauma Centre
Lancashire and South Cumbria	<ol style="list-style-type: none"> 1. Royal Preston Hospital (TU/Adult MTC) 2. Blackburn Royal Infirmary (TU) 3. Chorley and South Ribble Hospital (LEH) 4. Burnley General Hospital (LEH)
Greater Manchester	<ol style="list-style-type: none"> 1. Stockport NHS Trust (TU) 2. Royal Oldham (TU) 3. Royal Albert and Edward (TU) 4. Salford Royal FT Trust (TU/Adult MTC) 5. Wythenshawe Hospital (TU) 6. Fairfield Hospital, Bury (LEH) 7. North Manchester General Hospital (LEH) 8. Royal Bolton Hospital (LEH) 9. Tameside Hospital, Ashton under Lyne (LEH) 10. Macclesfield General Hospital (LEH)

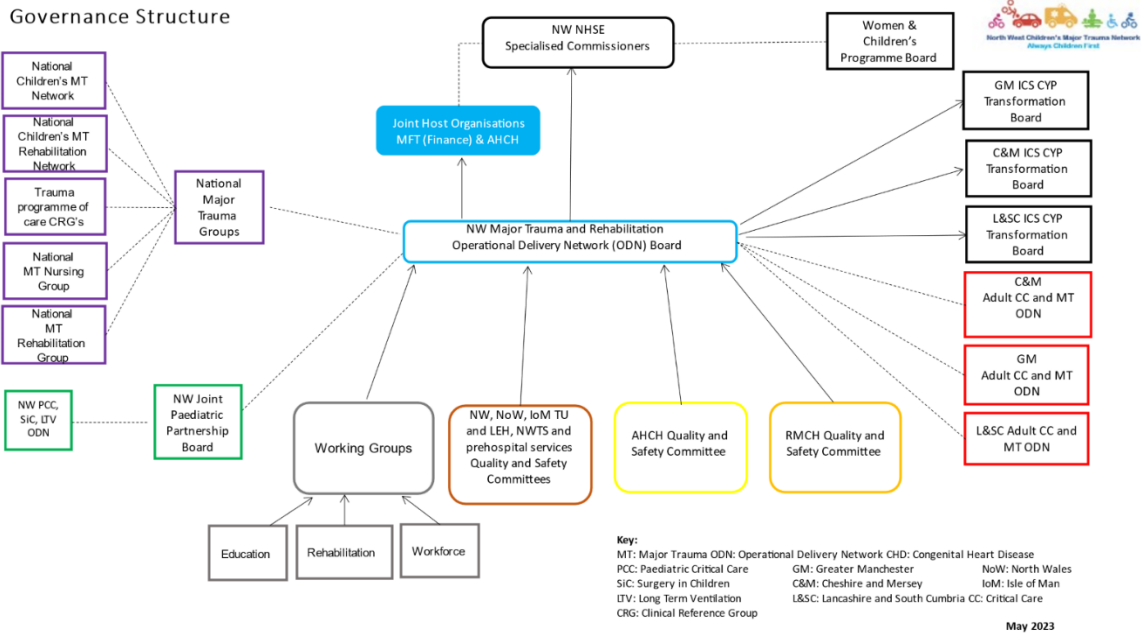
Governance and Interdependency

The ODN has an established governance structure with good stakeholder engagement at the quarterly ODN Board Meeting. The ODN is accountable to the NW NHSE Specialised Commissioners and has established strong links with the regional adult MT ODNs and the Paediatric Critical Care, Surgery in Children and Long-Term Ventilation ODN (PCC SiC LTV ODN).

The ODN leads nationally on the Children's MT National Network and National Children's MT Rehabilitation Network. These networks are unfunded and feed into the mandated Trauma and Burns Programme of Care Clinical Reference Group.

The ODN also feeds into the National Major Trauma Nursing Group and National MT Rehabilitation Group. These groups lead on trauma education and standards of care and are non-mandated.

Moving forward, the ODN needs to establish closer working links with the newly formed Integrated Care Boards (ICBs) of Greater Manchester, Lancashire and South Cumbria, and Cheshire and Mersey as the financial envelope for the ODN moves over in 2024.



ODN Governance Structure

Network Maturity

The Network has continued to mature over the past year with improvements in Learning & Improvement and Knowledge Capture & Reuse in 2023, due to the education programme and distribution of the Network guidelines. There are further plans in 2024 to develop an education strategy and run a number of trauma simulation courses across the region.

Purpose And Direction	Governance & Structure	Leadership & Facilitation	Knowledge Capture & Reuse	Integrity & Vitality	Learning & Improvement	Impact & Value	Sustainability & Renewal
4	3	4	3	4	4	4	4

Network Functions

1. Service Delivery: Plan and manage capacity and demand.

One of the core functions of the ODN is to support the coordination and efficient, appropriate flow of paediatric patients along agreed pathways of care, from pre-hospital through to rehabilitation and return to socioeconomic functioning. This includes understanding the capacity and specialist capability across the Network, and being able to provide ongoing assurance that this meets demand, including fluctuation or surges in activity.

Key achievements:

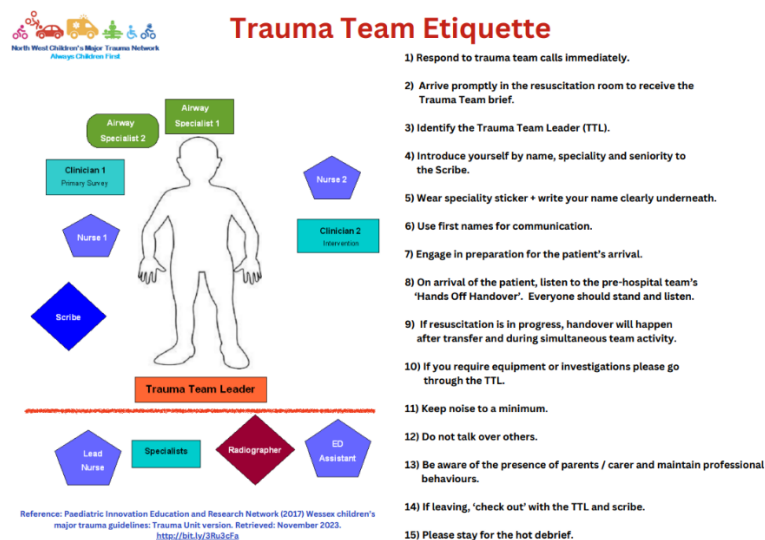
- Ongoing monitoring of the distribution of paediatric major trauma patients across the network, utilising local data (due to the absence of TARN data)
- Attendance at regional Adult Major Trauma ODN Governance Boards and Clinical Effectiveness Groups
- Attendance at MTC Paediatric Quality and Safety Committees
- Monitoring of Network incidents (see section 4 (page 10))
- Development of the Network repatriation policy to support patient movement across the region
- Monitoring of retained patients across the region in trauma units
- Formalised links with the Paediatric Critical Care ODN

2. Resources: Clinical stewardship of resources across the pathway and minimising unwarranted variation

The objective and unbiased remit of the ODN ensures that it is well placed to promote consistent standards and levels of provision across the region to quantify, challenge and work with organisations and clinical teams within the ODN region to strive to address any unwarranted variation in care and outcomes.

Key achievements:

- The ODN Clinical Network Guidelines were updated, ratified and distributed across all ODN stakeholders in June 2023. The guideline update has been a collaboration across stakeholders. The guidelines include current and updated national guidance including NICE, BOAST, Royal Colleges, Advanced Paediatric Life Support. Link to guidelines: [north_west_children039s_major_trauma_operational_delivery_network_odn_clinical_guidelines\(2\).pdf](#)
- Femoral Fracture Guidelines have been developed by multi-professional clinicians from across the Network's TUs for the initial management of femoral fractures. This is currently undergoing ratification at the host organisation.
- Paediatric Repatriation Policy - This standard operating policy (SOP) has been developed to support the transfer or repatriation of paediatric major trauma patients to an alternative healthcare setting once the young person is deemed clinically suitable by the responsible clinician and rehabilitation team. The aim of this guideline is to ensure that children and young people admitted on the major trauma pathway across the region can access the most appropriate level of care, at the right time and as close to home as possible.
- The Network has collaborated with the Lancashire and South Cumbria Adult MT ODN to develop a Pregnant Children's Major Trauma Pathway. This pathway has been developed to support pregnant children who sustain major trauma injuries. The pathway encourages pre-hospital decision makers to consider primary transfer to Royal Preston Hospital (adult) MTC if RMCH is not within the 1-hour isochrone. This is due to no obstetric services on-site at AHCH.
- A Trauma Etiquette Poster has been developed by the ODN for all units to use. The poster promotes positive behavioural etiquette for trauma team members to consider when they attend a trauma call. https://nwchildrenstrauma.nhs.uk/file/X43CTat8Gv_315519.pdf



Trauma Team Etiquette Poster

- Across the Network the MTCs have a high rate of completion of rehabilitation prescriptions with an average of 99% completion across both centres. The rehabilitation coordinators in both MTCs fulfill a key role in ensuring a holistic assessment of needs is completed. This ensures that a coordinated inpatient rehabilitation and discharge plan is developed with comprehensive arrangements for the continuation of care in the community.

- A discharge sheet for TUs to support the discharge of patients retained in the trauma units is being developed to alleviate some of the inequalities in discharge support for young people when they do not transfer into the paediatric MTCs.
- Both Children's MTCs complete the school fit note for children to support them to return to school following major trauma injury (see appendix 3).

3. Workforce: flexible, skilled resilient staffing

Having a workforce with the relevant knowledge, training and experience is pivotal to service provision and the delivery of effective and efficient clinical outcomes. The ODN is well placed to hold oversight of network workforce compliance with nationally mandated major trauma educational requirements and competencies. The ODN is working with stakeholders to support innovative practice to address the shortfall in external programmes in paediatric trauma education.

In addition to formally accredited training and education programmes it is essential that the Network is supportive of the development of local initiatives and plays a key role in sharing and promoting best practice and in facilitating cross network learning.

Key achievements:

- With the success of the Paediatric Trauma Resuscitation Course which the ODN hosted at Alder Hey, the ODN is supporting further trauma simulation courses across the region at Wythenshawe Hospital and Warrington Hospital. Alongside this we have secured two sessions using the simulation suite/bus at Lancaster University to support training sessions for the Lancashire and South Cumbria region



- With the introduction of version 7 of Advanced Life Support Group; Advanced Paediatric Life Support Course the ODN were asked by the National Major Trauma Nursing Group to support the peer review of this new update of the course to ensure that it meets the level two trauma nursing competencies.
- Volunteers from the Network participated in Stop the Bleed Day - a national campaign to teach children in year 7 how to control bleeding if they were in a traumatic situation. The Day was held on Friday 26th April in conjunction with Citizen Aid and the Violence Reduction Unit. Volunteers were invited into schools to teach children potentially lifesaving skills.



- The Network Lead Nurse is working with the National Major Trauma Nursing Group to develop online training at a national Level so all nursing staff can access paediatric trauma training and competencies.

4. Quality: Improve quality, safety, experience and outcomes

In 2023/24 the ODN has been formalising its quality measures, assurance and improvement processes by the monitoring of metrics as part of a comprehensive approach to driving continuing improvement.

Key achievements:

- Despite the absence of national data systems, the ODN has continued to monitor regional trauma pathways through engagement with clinical teams across the Network.
- In June 2023 the ODN completed the regional peer reviews for the Children's Major Trauma Centres. The aim of the reviews was to ensure that the MTCs comply with the major trauma quality indicators for:
 - Reception and resuscitation
 - Definitive care
 - Rehabilitation
 - Patient experience

As part of the peer review process, the major trauma services were required to complete a self-assessment against the major trauma quality indicators. The centres were reviewed by an interdisciplinary review team. Formal feedback was provided via a written report. The ODN continues to monitor, review and support the action plans developed with the MTC teams. The reports have been shared with the regional NHSE programme of care leads.

- In February 2024 the ODN together with its adult counterparts undertook the Peer Review of the Pre-Hospital Services.
- The ODN incident reporting and governance process is being formalised with the development of a local policy to provide a structured process for a more detailed and objective evaluation of cases where it has been deemed that patients may have been conveyed to, or transferred between settings that are not the most appropriate or equipped to manage their needs. This policy includes reporting of deaths to the ODN and the development of a reporting system to allow feed back into the governance board meeting in a timely manner.

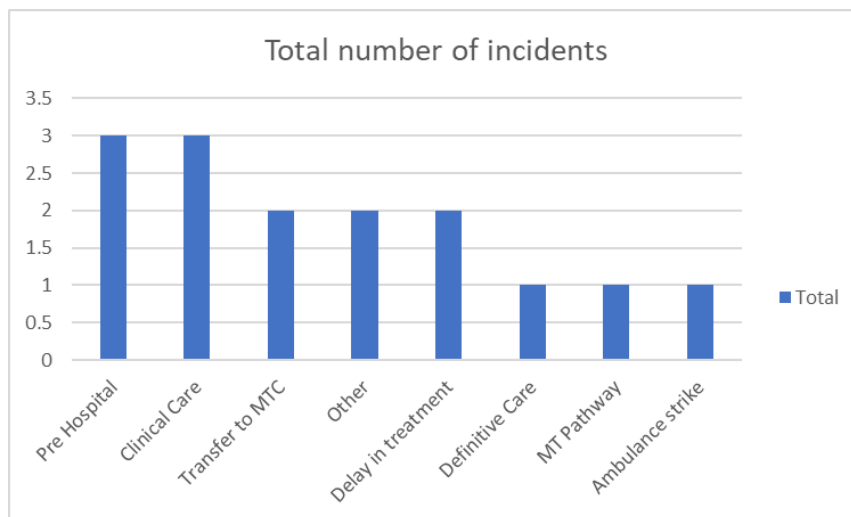


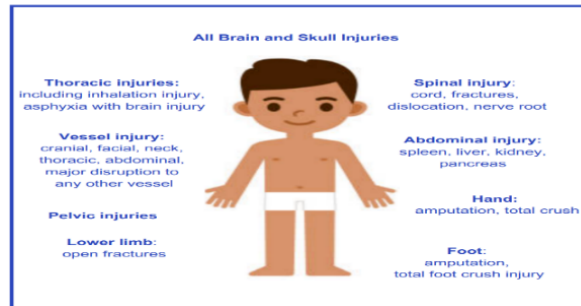
Table of key themes for network incidents 2023

- The most frequently reported incidents were in relation to prehospital services and transfer into the paediatric MTCs. The ODN liaise with the relevant service and feedback lessons learnt via the Governance Board. Due to the complexity of categorising injuries at scene it is acknowledged that the major trauma pathway will always be subject to a level of under and over triage.

- We have worked closely with the regional TUs to develop posters to allow quick reference to identify major trauma injuries with a visual cue to discuss with the trauma team leader at their allocated major trauma centre.



Does your paediatric patient have any of the injuries below?



If so, THINK Major Trauma!

Discuss with a senior member of staff, and call your designated MTC:
Royal Manchester Children's Hospital
0161 701 9191

Think Children's MT Poster

- The ODN risk register is reviewed and reported yearly into the ODN's Board. They are also reported into NW NHSE via their reporting systems (see appendix 1)

5. Collaboration: Working together at local, system and national level

To support integrated care it is imperative that the ODN collaborates across multiple systems, at a local, system and national level. This allows opportunity for shared learning, experiences, knowledge, skills and best practice.

Key achievements:

- The ODN continues to achieve high levels of engagement from key stakeholders across all regional network groups and forums.
- There has been a comprehensive update to the ODN website which includes guidelines, posters, injury prevention and education.
- There is consistent and close collaboration with the associated regional ODNs across the North West including Adult MT ODNs, PCC SiC LTV ODN both at a team and individual role level.

[The North West Children's Major Trauma Network \(nwchildrenstrauma.nhs.uk\)](http://nwchildrenstrauma.nhs.uk)

- The ODN leads and coordinates both the Children's MT National Network and Children's MT Rehabilitation Network. These networks are unfunded and feed into the mandated Trauma and Burns Programme of Care Clinical Reference Group. Both of these groups allow members to share best practice, key themes, and research / audit.

Face to face National events are planned for 2024:

- National Children's Rehabilitation Conference – July
- National Children's MT Network Meeting - October



THE ROAD TO IMPROVING PAEDIATRIC TRAUMA OUTCOMES
National Children's Major Trauma Rehabilitation Network Conference 2024

This conference will cover topics such as abdominal trauma, MSK injury, liver injury, anorectal injury, the role of rehab consultants, MDT working and more...

THURSDAY 11TH JULY 2024
9:00 - 16:00 WITH 9:30 START
NHS TICKETS £30 Use code "NHS30"
NON-NHS TICKETS £75

THE STUDIO, 51 LEVER ST MANCHESTER, M1 1FN
BOOKING LINK: bit.ly/3UHRhoU
FOR MORE INFORMATION: simon.mcdonald@mft.nhs.uk

IN PARTNERSHIP WITH:
The North West Children's Major Trauma Network

Rehabilitation Conference Poster

- The ODN members attend the National Major Trauma Nursing Group, National MT Rehabilitation Groups and the National MT Network Manager Forum. All forums provide an excellent vehicle for sharing best practice and accessing peer support.
- The ODN team are supporting the planning, organisation and delivery of a North West Major Trauma Conference scheduled in November 2024. Organisation has been the result of a collaboration between the North West Major Trauma Networks, NWAS and the North West Air Ambulance (NWAA).
- The ODN link in with charities and third sector organisations to support new pathways of care including the

Child Brain Injury Trust, Major Trauma Signposting Partnership, Limb Power, Back-up, Violence Reduction Units, Child Accident Prevention Trust.

6. Transformation: Plan sustainable services that meet the needs of all patients.

The ODN continues to focus on service redesign and developing new models of care, providing clinical leadership for proposals for service change and reconfiguration. The ODN shares and adopts innovation and research findings into clinical practice both regionally and nationally.

Key achievements:

- Work with MTCs to support completion of action plans post peer review.
- Review of regional pathways to ensure equitable access to services.
- Establishment of a rehabilitation working group to review paediatric rehabilitation services against the Rehabilitation After Traumatic Injury NICE Guideline [NG211]
- Utilisation of the National Children's Trauma Networks to share trauma research and to facilitate and promote the research and development initiatives undertaken nationally and regionally.
- In Greater Manchester the school reintegration services have been developed which provide a holistic needs assessment to support CYP to return to school. They provide a School Fit Note, attend school MDTs meetings, peer talks, access school transport and offer advice and training to teaching staff to meet the needs of the CYP. The service has improved school attendance following MT injury, communication between carers, health care and education, supported families to access to psychological support, social care, therapy, and healthcare appointments post-discharge. This service is currently available to CYP affected by trauma in the GM region. The Network, as part of the rehabilitation work plan, will work with ICBs across the region to look how school reintegration can be accessed by all children impacted by a major trauma injury across the region.
- Dr S Jones (2023) (Manchester Foundation Trust Post-Doctoral Clinical Academic Fellow) completed research in partnership with the ODN, National Children's Major Trauma Network, and injured children and their families. The aim of this research was to understand the needs of injured children and their families and develop a valid tool to measure them. The research concluded that injured children require ongoing support after hospital discharge to ensure they return to education and reach their full emotional, social, physical, and vocational potential. The outcome of the study was the production of the Manchester Assessment Needs Tool for Injured Children (MAntic). The ODN are working with the trauma rehabilitation services across the region to look at ways to utilise the MAntic in everyday trauma practice.

7. Population health: Assess need, improve health, reduce inequalities

As a non-elective pathway, one of the key aims of the ODN is to reduce the volume of children and young people requiring major trauma care, particularly when this could have been avoided by a change in an individual's behaviour or actions.

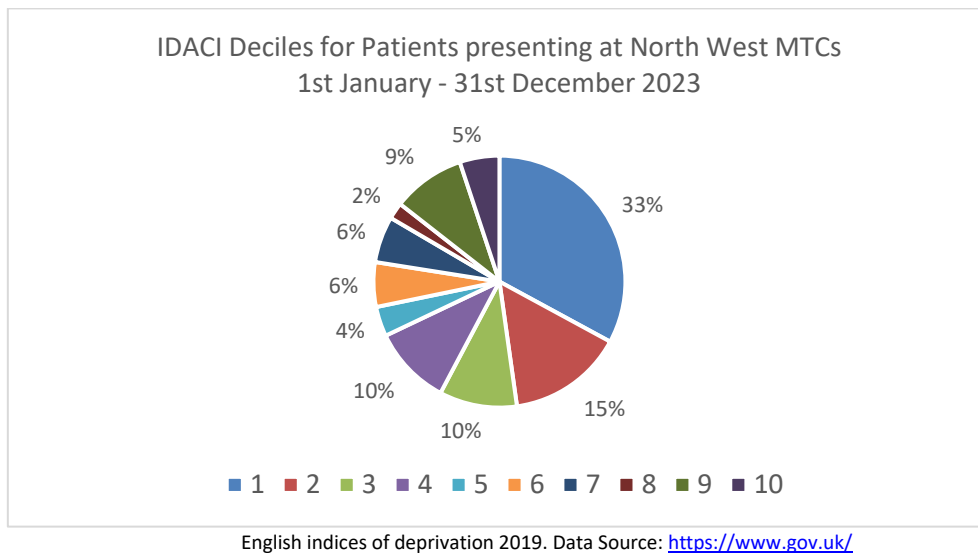
The health impacts of growing up in poverty are significant and follow children across their life span. The North West region has some of the highest rates of deprivation in England. The North West has 4 local authorities in the top 10 most deprived areas for Income Deprivation Affecting Children Index (IDACI).

Rank (England)	Local Authority Deprivation affecting Children Index (IDACI)	Proportion of children living in income deprived households
2	Blackpool	30.7%
3	Knowsley	30.3%
4	Liverpool	29.9%
7	Manchester	29.7%

The NW region (2022) has the:

- Highest regional hospital admission rates for deliberate and unintentional injuries for children
- Highest regional hospital admission rates for deliberate injuries for children 0-14 years
- Second highest Infant Mortality Rates in England.

Children from the most disadvantaged families are far more likely to be killed or seriously injured due to accidents and children from the most deprived areas have hospital admission rates 45% higher than children from the least deprived areas.



The National Child Mortality Database - Deaths of children and young people due to traumatic incidents report (2023) highlighted that developmental conditions or disabilities were recorded as contributory factors in 13% of all completed child death reviews where the child died due to trauma. This included learning disabilities, neurodevelopmental conditions, motor impairments, sensory impairments and other developmental impairments or conditions such as speech and language difficulties. The Greater Manchester MT School Reintegration Service has found that 19% of all children supported by their service had previous support from their school regarding their learning needs, behavior, or attendance prior to their injury.

In the wake of the covid pandemic, the trauma coordination teams at the MTCs have experienced increasing complexities in the psychosocial needs of children young people (CYP) and their families affected by MT injury. Many of the families require safeguarding referrals due to:

- Suspected child abuse
- Alleged assault / intent
- High risk behaviours
- Intent inconclusive

In AHCH they recorded that 46% of the patients admitted to their Major Trauma Centre had a safeguarding concern related to their major trauma injury. The Greater Manchester MT School Reintegration Service recorded 29% of their patient cohort had involvement from safeguarding services.

Key objectives/achievements:

- To support families both MTCs in the Network have access to benefit and financial advice via the Major Trauma Signposting Partnership. This service provides free bedside advice and support to major trauma patients and their families. This reduces stress and anxiety around worries which may include housing, financial, employment or legal issues.

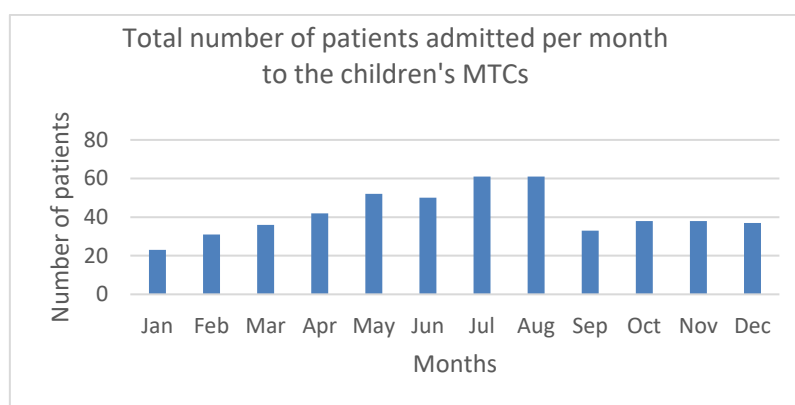
- The Greater Manchester MT School Reintegration Service provides individualised support to all children in Greater Manchester to return to school following their trauma injury. By establishing links with the ICBs the ODN aims to introduce this role across the region to reduce inequitable access to services across the region.
- As part of the work plan the ODN are bringing together the data for injury prevention, deprivation and safeguarding to target vulnerable populations across the region.
- The ODN has been linking in with a public health professional across the North West to look at ways it can work collaboratively with agencies to address the issues around injury prevention. The ODN holds invaluable data around what causes the most serious life threatening and life changing injuries. The ODN is looking at ways it can share data to help focus injury prevention programmes across the region. With high numbers of children across our region living in the top 3 deciles of deprivation, this will help us target populations for our injury prevention strategy.
- The Network leads on the National Children's Major Trauma Network. This Network has injury prevention as one of its core aims. Nationally, this Network has focused on non-accidental injuries, button battery / magnet ingestions, and crush injuries.
- The ODN has established links with a number of injury prevention providers including the Child Accident Prevention Trust.
- Across the region the MTCs are seeing an increase in hospital admission for young people affected by violent crimes. A key focus for both MTCs has been to work and support the development of the regional violence reduction units. The focus of these units is to support young people who have been exposed to or are at risk of experiencing violence in the future.

Network Trauma Data: 1st January - 31st December 2023
(Data to be viewed with caution due to absence of national data system)

Due to the absence of the national data system for MT, the data in this report has been sourced directly from the 2 MTCs and some of the regional TUs. Data should be viewed with an element of caution. Patients included in the data are all patients admitted onto the major trauma pathway. Patients' injury severity scores have not been calculated.

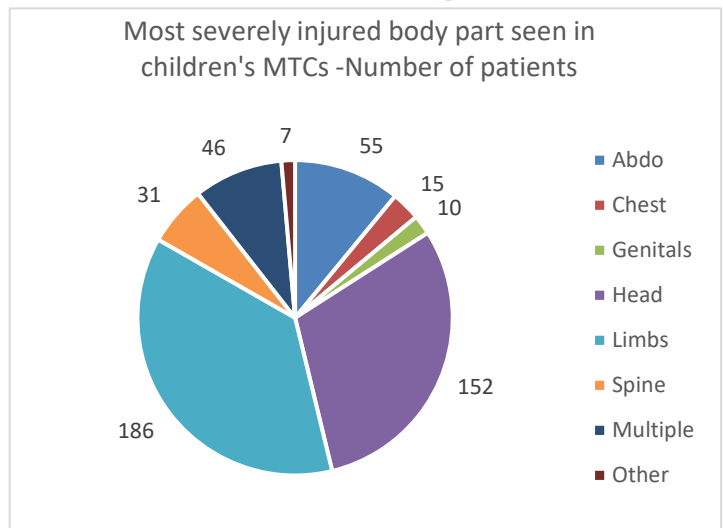
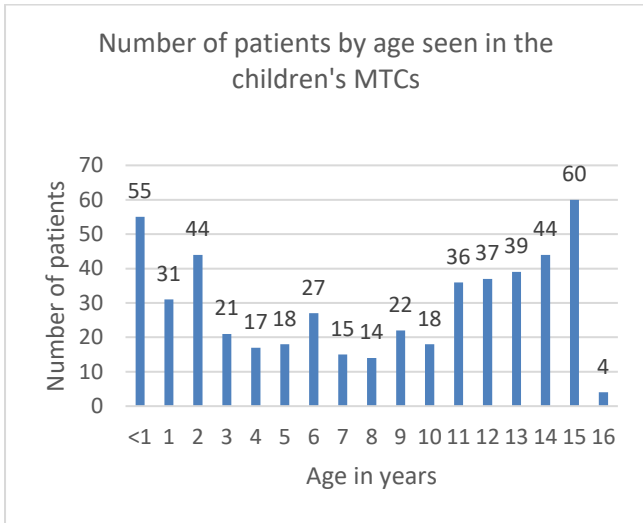
Total Number of Children Admitted to the NW Children's MTCs

Between 1st January and 31st December 2023, 502 children were admitted to the regional children's MTCs. 72% of the children were males. There was a peak in admissions in the summer months.



Age, Mechanism of Injury and Most Severely Body Part Injured of Children Admitted to the NW Children's MTCs

Children under 1 year were the most common age range admitted into the MTC's. Limb injuries were the most severely injured body part.



The most common mechanism of injury for the age ranges were:

Children under 1 year:

- Fall less than 2 metres (47%)
- Suspected non-accidental Injury (25%)

1 -4 years:

- Fall less than 2 metres (54%)
- Fall over 2 metres (11%)

4–7 years

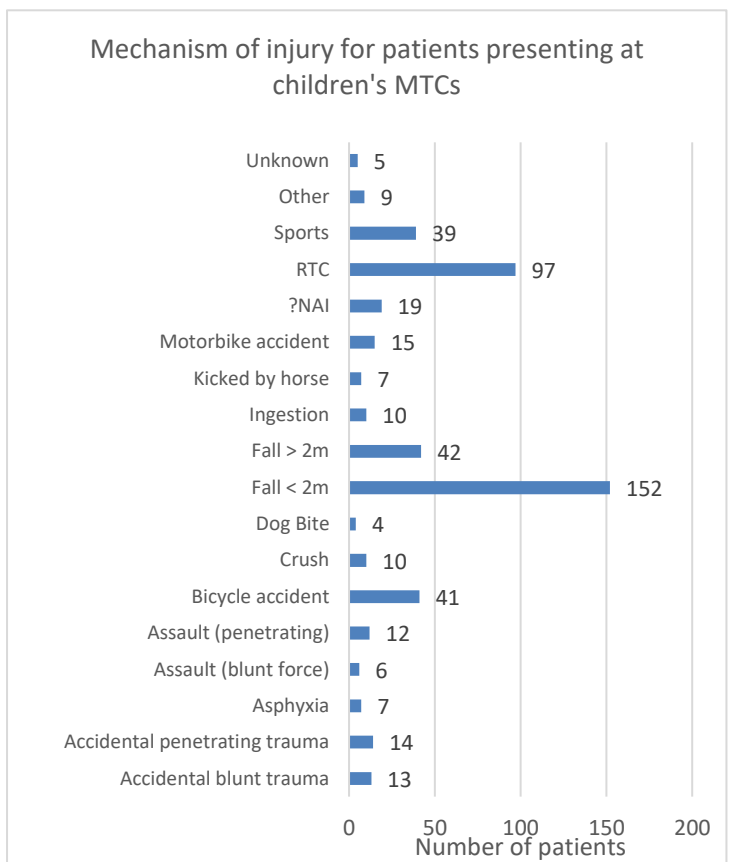
- Falls less than 2 metres (27%)
- Road traffic collisions (24%)

7-11 years

- Road traffic collisions (24%)
- Fall less than 2 metres (24%)

11-15 years:

- Road traffic collisions (28%)
- Fall less than 2 metres (18%)
- Sports accidents (13%)

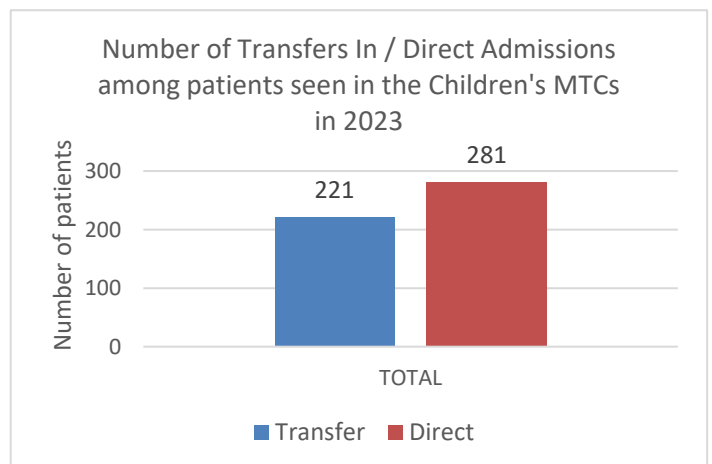


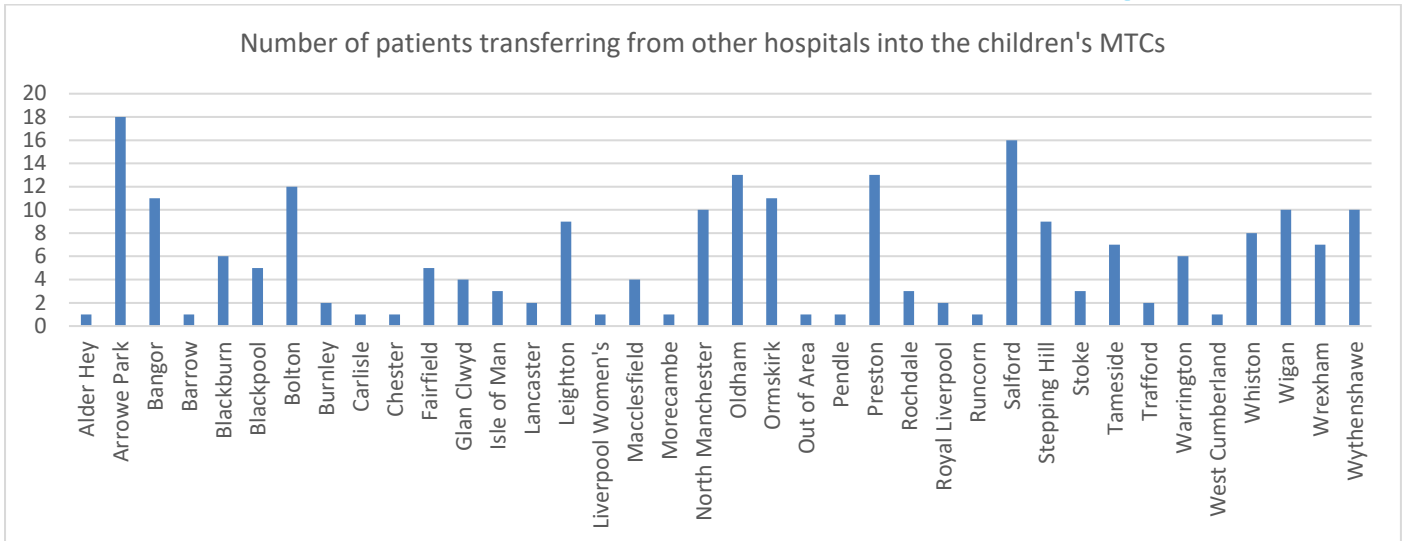
Method of Arrival and Transfers into the NW Children's MTCs

56% of children admitted to the children's MTCs were direct admissions.

44% of children transferred into the MTCs from other hospitals across region.

Only 4 patients transferred out of the MTCs for ongoing care. The main reason for transfer was for ongoing specialist care.





Next Steps

Progress against the annual workplan during 2024-2025 will be monitored and reviewed via the reporting process to NW NHSE in Q2 and Q3 2024. Using a formal template this will involve the provision of a summary of progress against the workplan, financial update and description of current risks which will be uploaded to the Futures NHS Collaboration Platform in accordance with pre-agreed deadlines across the financial year.

To formalise the governance structure the ODN will be separating the current ODN Governance Board creating a new Governance Board and Clinical Effectiveness Group.

Appendix

Appendix 1

Top 5 risks

Below are the top 5 risks for the Network and the mitigations to reduce the risks. Risks are reassessed yearly by the Network in the Quarterly Governance Board meeting.

Ref:	Risk	Date Risk Identified	Mitigating Actions	Likelihood	Impact	Risk
				(1-5)	(1-5)	Rating
1.	The Network covers a wide geographical area it is challenging to embed all processes and pathways in local trauma units and emergency departments. If the Network arrangements are not effective there is potential for lack of compliance with the pathways and procedures and poor communication throughout the Network. If current governance structures across the network are lost this may result in harm to children involved in major trauma.	Sep-12	<ul style="list-style-type: none"> Ensure that Network policies are in place and are adhered to. Network to ensure effective communication and learning throughout the network, reinforcing pathways and policies. Review of incidents through the CEG The Children's Operational Delivery Network will be represented on all 3 Adult MTCCs Boards and Governance Groups. 	3	5	15

2.	If major trauma patients are not transferred to the MTC (and remain in DGHs) then the patient may not have access to appropriate specialities/investigations and rehabilitation services in a timely manner resulting in poor patient outcomes and delayed recovery	Mar-12	<ul style="list-style-type: none"> Monitor children ISS >15 not transferred to MTC – review all cases at regular intervals 	3	3	9
3.	If the trauma pathway is not followed correctly then there may be a delay in transfer to the Children's MTC. This may result in clinical assessments/investigations not being performed in accordance with MT standards. There may be increased transfer in activity over the summer period.	Mar-12	<ul style="list-style-type: none"> Ensure that all TUs have the MT Transfer in Guideline in ED. Review cases at the MTC incident meetings and Network Manager to feedback to the Network. Peer reviews of all TUs throughout the Network by ChMTCs Leads. 	3	4	12
4.	If patients are not identified as major trauma cases the MT pathway may not be followed affecting patient care this may result in clinical assessments/investigations not being performed in accordance to MT standards.	Jun-12	<ul style="list-style-type: none"> On-going work including scenarios and additional guidance has been introduced to ED/PED staff to increase awareness of TARN/ISS to mitigate the risk. Work with all paediatric departments to highlight MT patients Posters developed for TU wards areas to identify MT patients Data received from TARN to identify patients who have remained at their DGH with an ISS of >9. These patients are investigated as part of the MT Governance Group. 	4	4	16
5.	Due to the major trauma pathway, the TUs/LEHs have decreased numbers of trauma patients admitted to their department this may result in the practitioners becoming deskilled in the treatment of major trauma incidents.	Mar-14	<ul style="list-style-type: none"> Regular Paediatric Simulation to be developed on each TU site. Regional trauma education courses to be implemented. 	3	5	15

Appendix 2

Annual Work Programme

Assessment criteria	Red = Problem meeting criteria	Amber = Good progress made with work on-going	Green = Criteria fully met
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Major Trauma				
Objective	Plan	Time Frame		Lead
Network Organisation				
To ensure public and patient voices are involved in the board and ODN workplans.	<ul style="list-style-type: none"> PPV operational policy to developed PPV partner to be appointed onto Governance Board 	October 2024		Network Manager
To ensure paediatric trauma care across the ODN footprint is equitable and best practice pathways across the network are in place that support improved patient flow	<ul style="list-style-type: none"> Partake North Wales TU Peer Reviews in collaboration with the Adult Midland's ODN's Complete Salford Royal TU Peer Review Complete follow up visits following peer reviews to monitor action plans Develop and maintain guidelines as appropriate 	April 2025		ODN Team
Ensure close relationships maintained with the wider system during period of organisational change in the North West	<ul style="list-style-type: none"> New links to be made with new structures as they become operational to ensure pathways of care are maintained and improved. Engagement to be established with the ICB boards as financial envelops handover 	July 2024		Network Manager
To ensure that the Network aligns with the new MT ODN Service Specification and NW NHSE ODN F2 Document	<ul style="list-style-type: none"> Review of Network against service specification – Completed Gap analysis to be completed 	October 2024		Network Manager
To work alongside related networks, flexing use of resources to find efficiencies, target resources for best effect and share insight and experience.	<ul style="list-style-type: none"> To work with the adult MT ODNs To link with the relevant paediatric ODNs To align work programmes with the relevant ODNs 	Ongoing		Network Manager
To monitor key indicators of quality across the network as required by commissioners and by the service and network specification e.g., national audit and quality dashboard.	<ul style="list-style-type: none"> To proactively review all individual and network level NMTR clinical reports and dashboards and apply appropriate critique and support to aim to address in variances in performance below the national average To monitor paediatric trauma admissions across the Network Continued peer review of TUs and MTCs Monitor the introduction of the National Major Trauma Registry to the Network. 	April 2025		Network Manager

To assure and improve quality and safety, experience, and outcomes across the Network	<ul style="list-style-type: none"> To review incidents across the Network and share lessons learnt to all stakeholders Develop network incident report and governance framework Audit programme to be updated 	July 2024		Network Lead Nurse
To develop network guidelines for femoral fracture management across the region that aligns with the GIFRT standards	<ul style="list-style-type: none"> ED management guideline - completed Utilise NMTR data to understand current pathways across the region Utilise BI data with the support of the NW NHSE BI team to compare against the NMTR data Develop end to end pathways that ensure equitable access to care Develop working group 	Dec 2024		Network Manager /Lead Nurse
Education				
Develop and agree a network education strategy that meets the needs of all stakeholders both in the delivery of care and in the functioning of the network.	<ul style="list-style-type: none"> Education strategy to be developed Lead nurse to assess gaps in education Lead nurse to review paediatric trauma education course across the region Nurse education level 1&2 courses to be developed Regional trauma simulation programme to be developed 	April 2025		Network Lead Nurse Network Clinical Leads
Rehabilitation				
To improve the pathway and outcomes for children affected by major trauma injury	<ul style="list-style-type: none"> To engage commissioners to improve rehabilitation across the pathway To set up rehabilitation working group Develop Network Rehabilitation Guidelines to align with NICE Guidelines 	April 2025		Network Manager and Lead Nurse
Injury Prevention				
To develop an injury prevention strategy across the ODN footprint	<ul style="list-style-type: none"> Ongoing meetings with public health clinicians Identification of key themes using NMTR data Links with key stakeholders to inform practice Accident prevention strategy to be developed for the Network 	April 2025		Network Manager and Lead Nurse
Assess services by relevant protected groups, deprived quintiles, inclusion groups, vulnerable groups, geography etc to identify vulnerable groups experiencing gaps in access, experience, and outcomes.	<ul style="list-style-type: none"> Utilise deprivation data and NMTR data to identify at risk groups Identify how MT impacts vulnerable patient groups and impacts their outcomes Look at equitable access to services for vulnerable group 	April 2025		

Appendix 3

Major Trauma School Fit Note



Fit Note for Return to School
(V1.7)

Name:		DOB:	
Address:			
School:		Year Group:	Year 3
Date of accident:	Click here to enter a date.	History of injury:	
Injury/injuries:	Limb	Pelvis/ Back	Other
	None	Back injury	No
Summary			
Aftercare:	Plan: Review by surgeons		
Medication:	Medication:	What for?	Required at school:
	Pain relief (paracetamol)		Maybe required
	Any other comments:		
Psychosocial:			
Thinking Skills:			
Walking Advice:	walking independently	Walking Aid:	None
Walking short distances:	Walking independently	Walking long distances:	
Additional comments:			
Stairs:			
Personal care/toilet:	Accessing a standard toilet independently	Additional comments:	
Transport to school		Advice:	
Recommendations for school:	Can return to school fulltime: Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> Phased return over:	Individual advice:	
	Lessons moved to ground floor <input type="checkbox"/> Hall Pass <input checked="" type="checkbox"/> Lift Pass <input checked="" type="checkbox"/> Buddy System <input checked="" type="checkbox"/>		
Recommendations for return to PE:		Other:	
Signed:		Date:	
Key contacts:	Choose an item.		
Consent for fit note to be forwarded directly to SENCO and school nurse <input checked="" type="checkbox"/>			

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