



Cheshire & Mersey  
Major Trauma Network



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Major Trauma Network  
Annual Report  
2023-2024

Document Purpose	Information
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## 1. Foreword

The core team of the Cheshire and Mersey Major Trauma Network (CMMTN) consists of the Major Trauma Quality Improvement Lead, sessional input from a Clinical Lead alongside the Specialised Services Clinical Network (SSCN) Director and Administration and Project Support Officer who both also support the activity of the Cheshire and Mersey Critical Care Network (CMCCN). 2023-24 has seen a return to stability of the core CMMTN team, with the appointment the Quality Improvement Lead post in Q1, who has become established in their role throughout the period of this annual report.

The network team subsequently leads, coordinates, and supports activities and developments, engaging clinicians, and other stakeholders from the Major Trauma Centre Collaborative (MTCC) and Trauma Units (TUs) pivotal to the delivery of a networked approach to delivering a cross region major trauma clinical pathway.

2023-24 has proven to be a challenging year for major trauma clinical networks nationally. This is most notably due to the lack of Trauma Audit and Research Network (TARN) data, with the TARN platform being taken off-line due to a cyberattack on their host organisations IT infrastructure towards the end of Q1. This resulted in an inability to submit data for a six-month period from early June 2023 to 31<sup>st</sup> December 2023, along with no provision of Dashboards or Clinical Reports since May 2023. The National Major Trauma Registry (NMTR), provided by NHS England Outcomes and Registries Programme is due to be launched in Q1 2024-25. It is proposed that data inputting will commence in April 2024, however, it will be two years before the full complement of data outflow, such as, Clinical Reports, Dashboards, national benchmarking, and other functions previously provided by TARN will be available.

Along with Network colleagues nationally, the TARN outage and planned transition to the new NMTR has taken up a significant proportion of the CMMTN resource.

Central to ongoing discussions at a regional and national level were ongoing concerns and questions as to how the ever-increasing backlog of cases that it had not been possible to process into TARN would be captured and submitted when the new registry was available.

In recognition of the impracticalities of already stretched teams attempting to concurrently submit both current and historical cases into the new NMTR once available it was agreed through the Joint Cheshire and Mersey Specialised Services Clinical Networks Board that

CMMTN directive was that there would not be the expectation that teams would be required to input the cohort of cases accumulated within the backlog.

In taking this stance it was accepted that this would subsequently impact on the availability of Major Trauma data in terms of activity, clinical outcomes, and benchmarking at a local, regional and national level for an extended period of time.

In parallel with this, there have been unprecedented additional pressures and demand for NHS services, particularly in Emergency Department attendances, and more locally, we have seen an increase in ambulance handover delays within the region. This has potential to negatively impact on several aspects of major trauma care both in the pre-hospital and Emergency Department settings.

Despite these challenges, the Network Team continues to utilise its centralised function, knowledge, and experience to support and facilitate the coordination and continued development of the major trauma pathway.

This has been achieved by the conclusion of the comprehensive process of face-to-face peer reviews of regional trauma services. This has been extremely valuable in re-establishing a major trauma focus and the trusts commitment to improving standards of major trauma care. Each organisation now has a bespoke work plan framing all the necessary improvement work required and there have been several follow up meetings at participating organisations throughout 2023-24. These forums have provided opportunity to monitor ongoing progress and provide a platform, to allow teams to showcase achievements and to share any ongoing challenges that require assistance or further direction from the network.

A renewed focus on the network governance processes has also been of benefit during this period where there has been an absence of TARN of data from. Revisions to the Network Incident Reporting and Response Form have been welcomed by the clinical teams and there has been increased engagement with the incident reporting process from all participating organisations. Further updates and the development of a comprehensive Governance Framework is underway, with plans to review the mortality reporting process to ensure that this is reflective of national changes, in conjunction with plans to provide a formal feedback process for sharing positive outcomes and examples of best practice.

Key stakeholder representation at the Network Clinical Group meeting has remains consistently high as has engagement in other network led activity. This is further evidence through attendance of wider network representatives at stakeholder events and network working groups.

This report provides a summary of network activity and achievements over the past year. CMMTN welcomes feedback on its content and format; please send this to the CMMTN Quality Improvement Lead, Calum Edge [calum.edge@nhs.net](mailto:calum.edge@nhs.net)

## 2. About CMMTN

The Cheshire and Mersey Major Trauma Specialised Services Clinical Network (CMMTN) went live following a phased implementation commencing in June 2012 and covers Cheshire, Mersey, and the Isle of Man. It has common boundaries with parts of Greater Manchester, Lancashire, West Midlands, and North Wales with a catchment population of approximately 2.2 million.

The Major Trauma Centre Collaborative (MTCC) for adults consists of the Aintree site of the Liverpool University Hospitals NHS Foundation Trust (LUHFT) and The Walton Centre Foundation Trust.

Alder Hey Children's NHS Foundation Trust is the one standalone Major Trauma Centre for children that works closely with CMMTN and is also part of the Northwest Childrens' Major Trauma Network.

Major Trauma patients can be taken directly to the MTCC by the North West Ambulance Service (NWAS) or North West Air Ambulance (NWAA) following assessment using the Paramedic Major Trauma pathfinder tool. Major trauma patients that are too unstable to make the journey to the MTCC or are negative for major trauma on the paramedic pathfinder tool are taken to one of 6 Trauma Units (TU): Royal Liverpool hospital, Countess of Chester hospital, Warrington hospital, Wirral University hospital, Southport hospital or Whiston hospital. Nobles' hospital on the Isle of Man is also a TU and part of CMMTN. Where appropriate major trauma patients are stabilised at the TUs for onward emergency transfer to the MTCC.

Patients from the Isle of Man have historically been initially taken to Nobles hospital and if required then transferred onwards to the MTCC via fixed wing aeroplane. During 2022-2023, initially as a six-month pilot, which was extended in to 2023-2024, the "Air Bridge" was developed providing capability to transfer patients either from Nobles or direct via scene via Air Ambulance, delivered by the Great North Air Ambulance Service (GNAAS).

Whiston hospital is also the regional burns & plastics centre to which patients suffering from major burns are transported directly. The Liverpool Heart & Chest NHS Foundation Trust

provides in-reach support to all members of the CMMTN for patients suffering from cardiac or thoracic major trauma.

Specialist rehabilitation services in the region are provided by the Cheshire and Merseyside Rehabilitation Network (CMRN) Delivery is via a hub and spoke model with the hub at The Walton Centre and spoke units at St Helens and Knowsley Teaching hospitals, the Broadgreen site of Liverpool University Hospitals NHS Foundation Trust and the Clatterbridge site of Wirral University Hospitals Trust. Some patients are also able to access extended inpatient rehabilitation and community specialist rehabilitation services within their own homes.

This Annual Report aims to inform stakeholders of achievements to date, activities undertaken and ambition and plans which will need to be informed by and aligned to the National Specification for Major Trauma Specialised Services Clinical Network.

### 3. Introduction

#### National Context

Specialised Services Clinical Networks (SSCNs) previously known as Operational Delivery Networks (ODNs), are a team of health care services and professionals nationally mandated and commissioned to improve outcomes through strong clinical relationships, co-ordinating patient pathways between providers across a healthcare system.

The Cheshire and Mersey Adult Critical Care and Cheshire and Mersey Major Trauma Networks form part of this network, delivering a work programme determined by a national specification and in accordance with local, regional, and national priorities.

Both networks operate in accordance with the following core principles and objectives:

- Through clinically led collaboration, support the coordination of care pathways between regional providers to ensure consistent, equitable access to specialist resources and expertise within Adult Critical Care services and across the Major Trauma pathway.
- Provision of impartial clinical advice and expertise to NHS England and Integrated Care System partners, including providers, to develop equitable, high standard services for patients and improve access and care outcomes.
- Facilitate comparative benchmarking, evaluation, audit, and service review to highlight any areas of unwarranted variance in quality-of-service provision, promoting

consistency and standardisation of clinical service provision and adoption of best practice across all providers.

- Engaging with all relevant stakeholders to optimise patient outcomes and family experience through the efficient and effective use of collective resources available across the commissioned pathway.

National service specifications have been developed for all SSCN's which outline the deliverables expected of each SSCN, defined within seven core areas of function as summarised in Table 1:

**Table 1.**

<b>Network Functions.</b>
<p><b>1. Service Delivery: <i>the network's role in planning and managing capacity and demand.</i></b></p> <p>All networks should agree pathways of care that will support efficient and effective flows of patients, address variation within the network and assure equity of access for patients based on need. Networks play an important role in proactively managing capacity and patient flow particularly at times of demand surge and including supporting mutual aid.</p>
<p><b>2. Resources: <i>the network's role in stewardship of resources across the whole pathway and minimising unwarranted variation</i></b></p> <p>The clinical stewardship approach can also be applied by networks: taking responsibility for shaping the whole patient pathway in ways that reduces demand by improving health, reduces inequalities, addresses unmet need, improves the effectiveness of care, and delivers better value. Such work will require networks to work closely with commissioners.</p>
<p><b>3. Workforce: <i>the network's role in ensuring flexible, skilled, resilient staffing</i></b></p> <p>Networks have historically focussed on training and development, however this role can be extended, working with commissioners and providers, to support system-wide workforce strategy to ensure a flexible, resilient, agile, and skilled workforce.</p>
<p><b>4. Quality: <i>the network's role in improving quality, safety experience &amp; outcomes</i></b></p> <p>A focus on quality measurement, assurance and improvement is another foundational network function. This is supported by routine monitoring of metrics that capture quality and safety, experience, and outcomes as well as benchmarking and auditing of services as part of a comprehensive approach to drive continuous improvement.</p>



A key role for networks is to ensure that the requirements of the national ACC Service specification and standards are being met by all providers within the Network.

**5. Collaboration: *the network's role in promoting working together at local, system and national level***

The move to integrated care has placed greater emphasis on collaboration across local systems, and effective collaboration underpins all a network's functions. The actions set out in relation to collaboration are essential to the work of all networks, acting as an enabler for other functions.

**6. Transformation: *the network's role in planning sustainable services that meet the needs of all patients***

Networks' focus on improvement includes roles in both steady incremental change and a focus on service redesign. Working with ICSs will give networks a greater opportunity to work with partners across the whole pathway to identify areas for service development and improvement. Networks may also take on a more prominent role in developing new models of care and providing clinical leadership for proposals for service change and reconfiguration.

Networks should be active supporters of research and innovation. Networks can have an important place in driving early and systematic adoption of innovation and research findings in clinical practice.

**7. Population health: *the network's role in assessing need, improving inequalities in health, access, experience, and outcomes***

Networks have long worked to improve the health of their specific patients. In future we expect networks will have an increased focus on understanding the needs of the population, improving population health by supporting system-wide delivery of preventative health programmes, identifying, and addressing gaps in service provision and inequalities in access, experience, and outcomes.

In addition to the overall objectives above, the strategic objectives of the Major Trauma Specialised Services Network are:

**National Operational Objectives for the Major Trauma SSCN**

- To provide network leadership and support to facilitate the submission of data into the new National Major Trauma Registry and support sites to improve data reliability for the NMTR, as implementation happens.

- Supporting effective clinical flows through capacity planning and activity monitoring with collaborative forecasting of demand and matching of demand and supply.
- Develop a whole system collaborative approach to supporting patient flow, including repatriations, and monitoring delayed repatriation.
- Focus on quality and effectiveness by agreeing and implementing standard pathways and protocols, benchmarking, audit and other clinically focused improvement activities.
- Improve outcomes, reducing avoidable deaths and increasing the quality of life and return to functioning for patients surviving their injuries.
- Monitor and review patient safety incidents across the network.
- Ensure an ongoing process of mortality and morbidity reviews is established that is inclusive of the multi-speciality pathway and input.
- Support the development of new and improved care pathways.
- Improve the quality of care and patient and family experience reviewing clinical performance through ongoing audit of NMTR data once implemented and established in practice.
- Ensure that services meet the service specification and standards through the ongoing programme of peer reviews and monitoring of performance against national standards.
- Ensure common referral, care and transfer pathways and other policies, protocols, and procedures are used across the network.
- Continual review of education and training in line with professional standards to ensure services are fit for purpose, and that retention and succession planning are future proofed.
- Ensure robust collection, analysis and reporting of data on outcomes, quality of care and patient and family experience.
- Ensure efficient and appropriate flow of patients along the pathway, managing system capacity.
- Improve equity of access to trauma services.
- Improve productivity and efficiency across the network.
- Improve service resilience and the ability to respond to incidents.
- Provide clinical expertise to enhance the debate and credibility of decision making for stakeholders.

To align delivery in accordance with these seven functions, the network team have evaluated activity using the same framework. Therefore, for the 2023-24 annual report the objective of

each subsection of the national service specifications, is to provide a high-level summary of activity and performance that can be assigned to each of the functions.

As would be expected a lot of activity undertaken cuts across more than one function and where this is the case it has been aligned to what appears to be the “best fit” to avoid duplication.

#### **4. Service Delivery: *the network’s role in planning and managing capacity and demand.***

One of the core functions of CMMTN is to support the coordination and the efficient and appropriate flow of 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.

As referenced previously the TARN data outage in 2023 has significantly compromised the Network’s capacity to oversee this core function, as detailed reporting from TARN in the form of Dashboard and Clinical Reports, has not been available since Q1 2023-24.

As a result, the Network has utilised pre-existing methods to ensure there have been no significant deviations in established pathways, to maintain a level of oversight. This has been achieved through the following actions:

- Submission and review of core data from participating providers, that would have formed part of the TARN submission for this period.
- A renewed focus on the Governance and Incident Reporting Structure.
- Utilising the Clinical Group meeting to identify any common trends/themes in patient pathways.
- Utilising peer review follow up meetings as a vehicle for participating providers to highlight any evolving local issues or concerns.

Other key achievements during 2023-24 for this network function include:

- Analysis of audit data pertaining to patients with an Injury Severity Score of greater than 15 retained at Trauma Units, presented in Q2 2023-24.
- Attendance at a Health Debrief following declaration of a Major Incident within the Cheshire & Mersey region in Q3 2023-24, providing detail from the major trauma perspective of participating providers involved.

- Collaborated with neighbouring Networks (Greater Manchester, Lancashire & South Cumbria, and the Northern Network), in a pre-hospital peer review of both North West Ambulance Service and North West Air Ambulance in Q4 2023-24, against the Pre-Hospital Major Trauma Standards 2022.

#### **5. Resources: clinical stewardship of resources across the whole pathway.**

The objective and unbiased remit of CMMTN ensures that it is well placed to promote consistent standards and levels of provision across the region to quantify, challenge and work with participating providers and clinical teams within the network to strive to address any unwarranted variation.

Key achievements for 2023-24 include:

- Working in collaboration with EOLAS Medical. CMMTN platform to provide easy, cross-organisational access to policies, procedures, and clinical guidelines, covering many aspects of major trauma patient care, reducing variation in practice across the participating provider organisations. There has been positive uptake with over 100 registered users. An overview of the App version of the platform is provided in Figure 1 below.

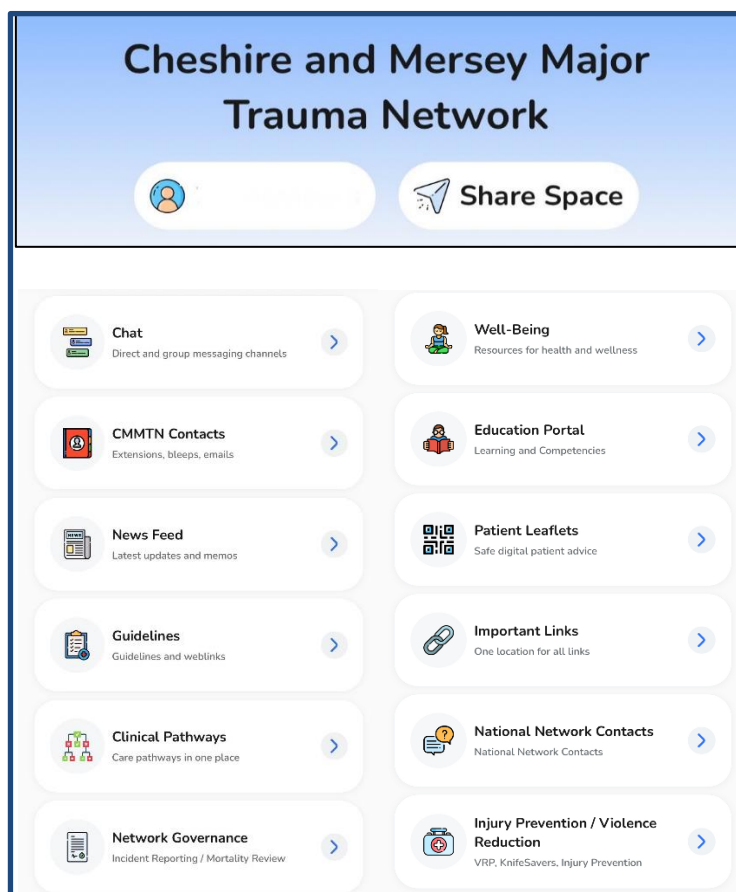


Figure 1.

- Reinstated the Trauma in Older People Working Group, comprising of representatives from various participating providers, which is developing links with Public Health Practitioners at Liverpool City Council, the Cheshire & Merseyside Falls Group, and the North West Regional Spinal Network.
- Worked in partnership with representatives from the Major Trauma Centre Collaborative teams, to develop an *Inpatient Head Injury Advisory Guidance: Medical Management of Traumatic Head Injuries in Older People* intended for dissemination across the region. The purpose of the document is to inform clinical practice and , to provide standardisation for the care of elderly patients with head injuries who are retained at the Aintree MTC site or Trauma Units .
- Developed standardised templates for both MTCC and TU, Annual Reports and Work Plans, which are two of the three evidential documents to be submitted to the network annually as a formal requirement of the service/peer review process.
- CMMTN facilitated meetings between commissioners key participating providers to review the Orthoplastics provision for patients with open lower limb fractures across Cheshire & Merseyside; to explore potential solutions to mitigate risk in the absence

of there being a designated specialist orthoplastics centre within the region because of the current configuration of services.

## **6. Workforce: flexible, skilled resilient staffing**

Throughout 2023-24 there has been a renewed focus on major trauma resulting in the re-establishment of key personnel in several participating organisations. Through the peer review process, CMMTN has been instrumental in the appointment of a dedicated Major Trauma Nurse Coordinator (MTNC) at the Royal Liverpool Hospital Trauma Unit, where previously this role was incorporated into an Emergency Department Advanced Nurse Practitioners responsibility. CMMTN also supported the recruitment process of a MTNC at Nobles Hospital Trauma Unit on the Isle of Man.

Other key achievements during 2023-24 for this network function include:

- Re-establishment of the Major Trauma Nurse Group. The Major Trauma Nurse Coordinators/Practitioners play a pivotal role in the provision of Major Trauma care across the Network. Review of the Terms of Reference and formalised agenda, action log and reporting process have been agreed.
- Developing a Nurse Education Group has been a high priority for the Network. Ongoing developments to progress with this have taken place, with several Major Trauma Nurses and the CMMTN QI Lead attending the National Major Trauma Nursing Group meetings and developing links with Practice Education Facilitators from several organisations. The CMMTN QI Lead also started developing links with Liverpool John Moores University, to explore the possibility of collaborating to potentially enhance and widen access to Major Trauma Nurse Education across the region.
- The CMMTN QI Lead has attended simulations of High Acuity Low Occurrence incidents at organisations, to review processes and provide feedback to the local teams.
- Introduced regular meetings between MTCC Operational Managers and the CMMTN QI Lead, providing the opportunity to discuss any operational issues and where the network can provide support or guidance.

**7. Quality: the network's role in improving quality, safety experience & outcomes**

One of the Networks established roles is to impartially evaluate and oversee service delivery of the Major Trauma Centre Collaborative and the Trauma Units, according to the national Major Trauma Specification: *Major Trauma Service (All Ages) (D15/S/a)* and national major trauma standards. This is accomplished through an active peer review programme, and historically through close monitoring of the dashboards and clinical reports that were produced by the Trauma Audit and Research Network (TARN).

Due to various factors, such as changes to the network workforce and the impact of industrial action, the completion of the peer review program, originally scheduled to conclude in 2022-23, extended into the first quarter of 2023-24. As a consequence of this, it became apparent that by the time that cycle had concluded, there would be a short time frame until the next cycle was due to commence. To address this, CMMTN decided it was appropriate to deliver a revised peer review process going forward, with a biennial programme, as summarised in Table 2 below. The proposal gained support from the joint ODN and MTCC Boards along with the Network Clinical Group representatives.

**Table 2: CMMTN Peer Review Programme and Schedule.**

Cheshire and Mersey Major Trauma Network (CMMTN) Year 1- 2024-2025				
Period	Q1 April-June	Q2 July- September	Q3 October-December	Q4 January-March
Activity	<p>Each Trust/ Service will be required to submit the following documentation by the end of Q1 (30 June)</p> <ul style="list-style-type: none"> <li>➤ Annual Report</li> <li>➤ Work plan</li> <li>➤ Operational Policy (including any updates where applicable)</li> </ul> <p>Clinical Leads to provide update on progress against action plan at quarterly network clinical group meetings.</p>	<p>MTCC and all MTU's within the network will be required to complete a self-assessment against current national and network standards.</p> <p>Advance notification of formal peer review meetings/ panels communicated to all Trusts by the CMMTN Team</p> <p>Clinical Leads to provide update on progress against action plan at quarterly network clinical group meetings.</p>	<p>Peer Review meetings will be undertaken by the core CMMTN team supported multidisciplinary colleagues from across the network, where applicable this will include representation from the Northwest Major Trauma Childrens Network and/ or other Adult Major Trauma Networks.</p> <p>Clinical Leads to provide update on progress against action plan at quarterly network clinical group meetings.</p>	<p>CMMTN team circulate formal peer review reports.</p> <p>Clinical Leads to provide update on progress against action plan at quarterly network clinical group meetings.</p>

Cheshire and Mersey Major Trauma Network (CMMTN) Year 2- 2025-2026				
Period	Q1 April-June	Q2 July- September	Q3 October-December	Q4 January-March
<b>Activity</b>	<p>Each Trust/ Service will be required to submit the following documentation by the end of Q1 (30 June)</p> <ul style="list-style-type: none"> <li>➤ Annual Report</li> <li>➤ Work plan (to incorporate actions in response to peer review recommendations.</li> <li>➤ Operational Policy (including any updates where applicable)</li> </ul> <p>Clinical Leads to provide update on progress against action plan at quarterly network clinical group meetings.</p>	<p>CMMTN Team to review all submissions received and to request additional information where required to provide an appropriate level of assurance.</p> <p>Clinical Leads to provide update on progress against action plan at quarterly network clinical group meetings.</p>	<p>Based on review of documentation and action plans received, CMMTN team to agree and communicate approach to undertaking a programme of follow up review meeting/ sessions with each organisation.</p> <p>Attendance, content and structure of these forums will be informed by status of documentation submitted, progress against action plans in conjunction with other intelligence and data.</p> <p>Clinical Leads to provide update on progress against action plan at quarterly network clinical group meetings.</p>	<p>CMMTN team to continue conduct informal review meeting/ sessions with each organisation. Attendance, content and structure of these forums will be informed by status of documentation submitted, progress against action plans in conjunction with other intelligence and data.</p> <p>Clinical Leads to provide update on progress against action plan at quarterly network clinical group meetings.</p>

To support the revised peer review programme and to provide consistency in the reporting process, CMMTN have provided templates for the Annual Report and Work Plan submissions, with a plan to develop a template for the Operational Policy once updates on the new Major Trauma Specification have been received from the Major Trauma Clinical Reference Group.

Due to there being no ability to submit data to TARN and subsequently no production of dashboards and clinical reports, CMMTN have had to utilise other available options to provide ongoing assurance that the Network continues to function appropriately and is meeting the needs of the major trauma patient; an overview of these is provided below.

➤ **Service Review Follow-up Meetings**

CMMTN held several service review follow-up meetings, which proved to be an effective way of maintaining oversight and monitoring progress against recommendations. This has allowed organisations to showcase their successes but also highlight areas where further internal action is required, and what support the network may be able to provide to facilitate this.

➤ **Network Governance – Incident Reporting Summary.**

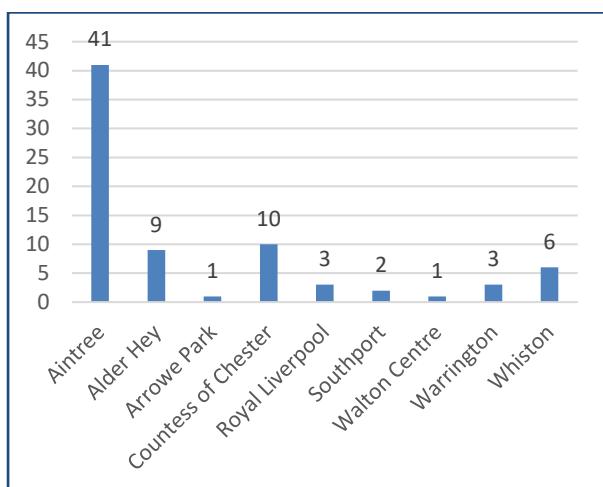
CMMTN has a well-established and utilised incident reporting process. For 2023-24 there were a total of 76 incidents submitted, a significant increase from 2022-23 where there



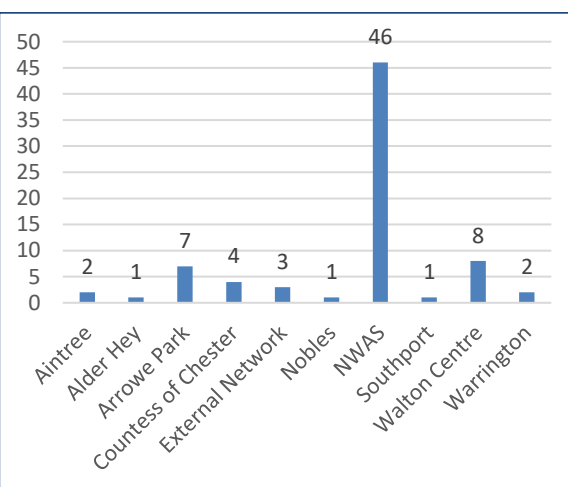
were only 36 submissions. An overview of the submissions, themes and risk ratings are provided in Figure 2, 3, 4, 5, below.

As expected, due to the increased number of major trauma admissions, Aintree MTC site submitted 54% of all incidents from across the network and NWAS were the highest responding organisation, with 60% of incidents reports being submitted to the ambulance service.

**Figure 2 Reporting organisations.**



**Figure 3 Responding organisations.**



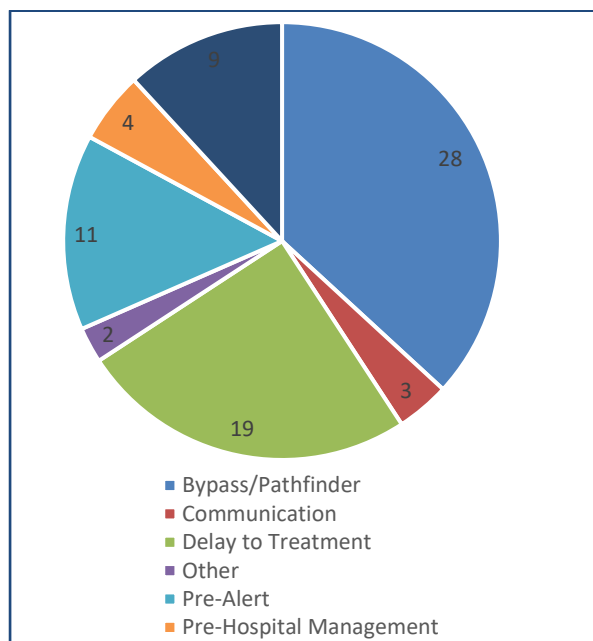
As with 2022-23, “Bypass/Pathfinder” issues remain the highest theme of incidents submitted to the Network. All these incidents are discussed with NWAS, with the vast majority receiving a comprehensive review undertaken and lessons learned being shared with Pre-hospital clinicians.

However, it is acknowledged that due to the complexity of categorising injuries at scene that the major trauma pathway will always be subject to a level of under and over triage.

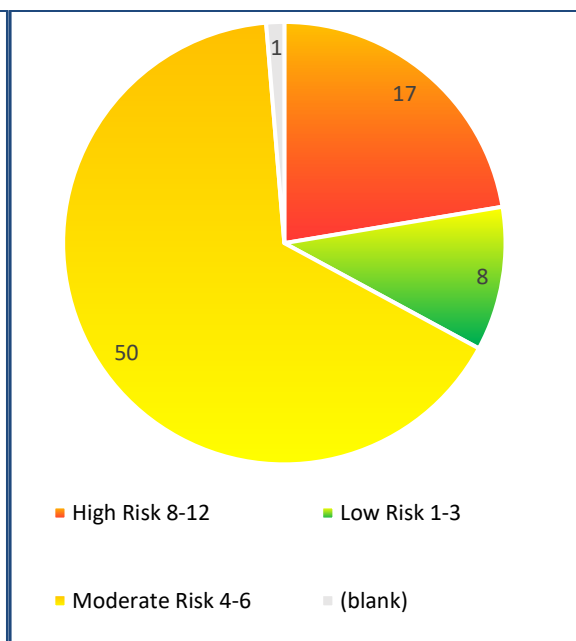
17 incidents were rated as being high risk, with a score between 8-12. While this shows an increase when compared to 2022-23 submissions, it should be noted that comparatively in terms of percentage of all incidents received, high risk incidents equate to 22% for 2023-24 compared to 36% for 2022-23.

No incidents met the *Extreme Risk* rating of a score of 15-25, and only one incident had a consequence score of 5/catastrophic. This incident instigated a piece of joint working between Alder Hey Children’s MTC and NWAS around the assessment of the very young.

**Figure 4: Incident Themes.**



**Figure 5: Risk Rating.**



In response to the review of an incident relating to a patient attending a trauma unit with an open lower limb fracture, NWAS introduced a Cheshire & Mersey wide Open Fracture Pathway, whereby patients aged 16 years and over, with an isolated open lower limb fracture, will now be transported with an amber pre-alert to the nearest major trauma unit or centre.

➤ **Network Data**

To maintain a level of network oversight, organisations were asked to provide data for cases that what have ordinarily been submitted to TARN during the period it was not available.

The purpose of this being provide a level of assurance that there have not been significant deviations from agreed pathways, that patients continued to be treated in the appropriate location and enable comparison of data from 2019 (pre pandemic) to determine if trauma related deaths have remained at a similar level. A more in-depth summary of this is provided in the *Patient Outcomes and Performance* section of this report.

➤ **Pre-hospital Peer Review**

In February 2024, CMMTN collaborated with neighbouring major trauma networks (Greater Manchester, Lancashire & South Cumbria, and the Northern Network) to complete a peer review of North West Ambulance Service and North West Air Ambulance, against the 2022 Pre-Hospital Standards.

During this process, it was noted that the level of response received from NWS to CMMTN incidents was of a higher standard than of that received by our neighbouring networks, and that this well-established process in Cheshire & Mersey should be replicated across the North West.

Other key achievements for 2023-24 include:

- Ongoing development of a comprehensive Network Governance Framework, which includes updated versions of the Network Incident Reporting Form, Network Mortality Review Form and the implementation of a Major Trauma Death Rapid Review Form and an Excellence Feedback Report Form, including guidance about the processes aligned to each reporting pathway. The framework is due to be ratified via the Network Clinical Group meeting in Q1 of 2024-25.

## **8. Collaboration: Working together at local, system and national level**

Providing forums, processes, and opportunity for sharing learning, experiences, knowledge, skills, and best practice are fundamental to all networks. To optimise this, it is essential that this happens on a local, regional, and national scale.

Key achievements during 2023-24 for this network function include:

- CMMTN continues to achieve high level of engagement from key stakeholders within all network groups and forums. Additional representation in the Clinical Group meeting has been achieved with Radiology, Geriatricians and Neurosurgical Critical Care attendance.
- There is consistent and close collaboration with the other Northwest Major Trauma Networks both a team and individual role level.
- CMMTN provides regular representation at the National Major Trauma Nurses Group and the National Major Trauma Directors and Managers Group. Both forums provide an excellent vehicle for sharing best practice and accessing peer support.
- CMMTN provides regular representation at the North West Children's Major Trauma Network Clinical Effectiveness and Governance Group meetings, and both networks have been working closely to improve joint oversight of paediatric trauma issues across the region.
- The CMMTN Director attends and actively participates with the Northwest network managers forum.

- Development of interface between CMMTN and Cheshire & Merseyside Integrated Care Board (ICB) ahead of plans to fully delegate the commissioning of specialised services in the North West, to the ICB from April 2024.
- Examples of some of the key partnerships that have been maintained or established in 2023/24 are provided Figure 6 below:



Figure 6.

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

The requirement to support consistency and reductions in unwarranted variation across the whole pathway needs to be an iterative process as clinical management changes as informed by cumulative experience, clinical audit and the emergence of new innovations and guidance based on research.

Although the current infrastructure of CMMTN does not permit scope for network led research it is imperative that the network is cognisant with any research or innovation that is being undertaken at a local and national level and that raising awareness of this is integrated within network activity. This includes ensuring that the latest guidance from bodies such as NICE and BOAST are considered and reflected within network guidelines and standard operating procedures.

Key achievements during 2023-24 for this network function include:

- Continued work with key stakeholders to support the evaluation of adherence to BOAST guidelines on the management of open fractures in the absence of a dedicated regional orthoplastics centre within the Cheshire and Merseyside region.  
This has been supported by completion of a Network wide open fracture audit, the findings of which have been used to inform key stakeholders on the number of patients and the current level of compliance with BOAST guidance.
- Continued work with key stakeholders to support the provision of specialist services at organisations where these services aren't currently co-located or readily accessible..  
This includes the provision of Obstetrics and Neonatal teams from Liverpool Women's Hospital to the Major Trauma Centres (Adult & Children) and the Royal Liverpool Hospital Trauma Unit. Resulting in a review and update of the existing Pregnant Major Trauma Patient pathway, along with discussions with Liverpool Heart & Chest Hospital to best optimise and streamline any issues with specialist thoracic surgical support to the MTC site when required.

## **10. Population health: Assess need, improve health, reduce inequalities.**

As a non-elective pathway, focus of this function for major trauma networks is more aligned to injury prevention and other programmes aimed at reducing the volume of patients requiring major trauma care, particularly when this could have been avoided by a change in an individual's behaviour or actions.

In parallel with this it is essential that population, socio-economic and geographical factors across the network footprint are considered and actions taken to quantify and address these if any variation and inequity are identified.

Key achievements during 2023-24 for this network function include:

- CMMTN have further developed relationships with the Merseyside Violence Reduction Partnership (MVRP). Working in collaboration with the Health Lead for the MVRP, the network is supporting the development of a Clinical Network Steering Group, specifically focused on Violence Reduction, and has supported the development of a Regional Violence Reduction Conference which is due to take place in May 2024.

- CMMTN have established links with Liverpool City Council (LCC) Public Health teams who are currently developing a regional falls Network, via the CMMTN Trauma in Older People Group.
- Continued collaboration with the Cheshire and Merseyside Rehabilitation Network (CMRN) to ensure major trauma patients with specialist rehabilitation needs access services most appropriate to their needs at the optimal stage in their recovery where the resource and provision is in place.
- Increased interface with the NHSE case manager to scope and access specialist rehabilitation or care where patient needs fall outside of standard health and social care provision.

## 11. Patient Outcomes and Performance: Network Data

The latest Network level TARN clinical report was issued in May 2023 based on TARN submissions for the period 1 October 2021 to 30 September 2022, therefore this retrospective data has been excluded from this report as it is out of date and not aligned to the 2023-2024 review period. This comprehensive report that is available on request from the CMMTN team

As previously referenced because of extenuating circumstances beyond the control or influence of CMMTN, there has been no ability to submit major trauma data to the Trauma Audit & Research Network at a local or a national level, nor has it been able to receive any outflow of data in the form of Clinical Reports or Dashboards. To maintain oversight of the major trauma pathway across Cheshire & Merseyside, the Network requested that all participating organisations (MTCC and TU's) provide us with core data that would have been submitted to TARN had it been functioning.

The requested data fields included:

- Submitting Organisation
- Age
- Sex/Gender
- Mechanism of Injury
- Injuries
- Estimated Injury Severity Score
- Survival Outcome

The data was to be collected for patients admitted between 01/06/2023 and 31/12/2023, which covers the period of the TARN outage.

Data was compared against a TARN Performance Review Indicators (PIR) summary saved by the Network from 2019, as this pre-pandemic data provides a more accurate reflection of “normal” trauma activity. This date range of the PIR was filtered for all admissions between 01/06/2019 – 31/12/2019.

It was decided that due to historical inconsistency in compliance with TARN submissions from Noble’s Hospital, they would not be required to submit the requested data to the Network.

All but one of the participating organisations submitted data ahead of the production of this Annual Report, and as such, that organisations data was removed from the 2019 PIR to provide a like for like comparison.

A summary review is provided below; however, it should be reviewed with an element of caution, with the understanding that the data submitted to the Network has not been subject to a full data analysis and accreditation process that would have been provided by TARN, particularly with regards to the estimated Injury Severity Score, which was completed by Network teams with little prior experience in recording this data. Also, the data only covers a six-month period, therefore making trends analysis difficult due to the limited time frame covered.

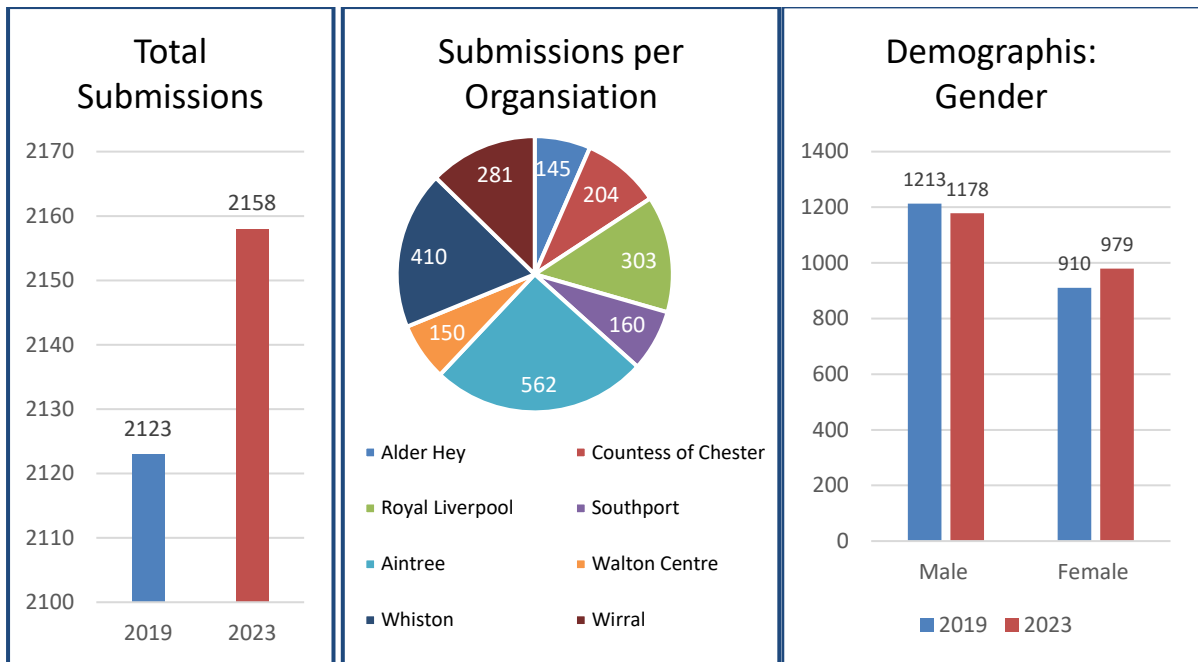
### **Network Data Submissions**

Comparing the TARN submissions from 01/06/2019-31/12/2019 against the Network submissions for 01/06/2023-31/12/2023 there has been an apparent 1.6% increase in trauma admissions across the network, as shown in Figure 7 below.

The 2023 data has been broken down to provide the number of submissions that would have previously met TARN criteria, by each organisation who were requested to/provided returns, as shown in Figure 8 below.

### **Sex/Gender**

Gender differences have remained relatively, unchanged, with a marginal decrease of 0.02% in males, and 0.07% increase in females who present with trauma related injuries across Cheshire & Merseyside, as shown in Figure 9 below.



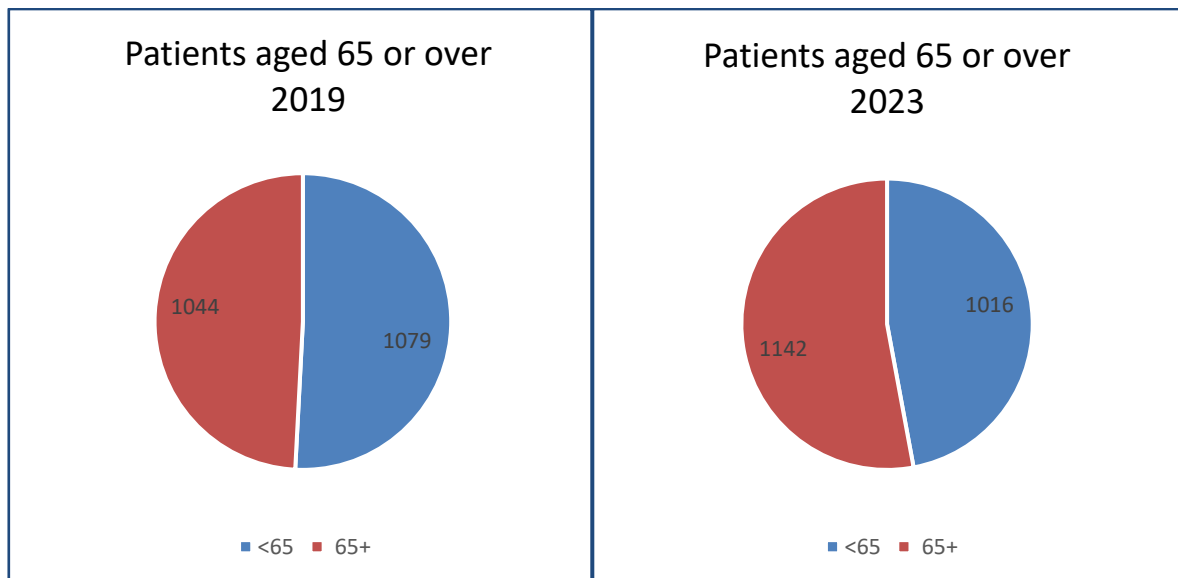
**Figure 7.**

**Figure 8.**

**Figure 9.**

**Trauma in those aged 65 and over**

The percentage of patients who are aged 65 years or over, presenting to participating organisations has increased from 49.1% in the six-month data selection period for 2019, to 52.9% for 2023, as shown in Figures 10 and 11 below:



**Chart 10.**

**Chart 11.**



### Mechanism of Injury

In keeping with previous intelligence such as the Network Injury Severity Score >15 Audit completed in 2022, falls less than 2 meters remain the largest mechanism of injury across the CMMTN, with 60% of all submissions for the 2023 six month data collection period relating to this, with falls greater than 2 meters and Road Traffic Collisions/Incidents being the next two highest mechanism of injury respectively, as shown in Figure 12 below.

### Estimated Injury Severity Score

As previously stated, caution should be used when reviewing the Estimated Injury Severity Score (ISS) data provided in Figure 13 below. While it appears that there has been an increase in more minor trauma (ISS 1-8) resulting in admissions to organisations and a decrease in the more severely injured patients (ISS 9-15 and 15+), it is important to acknowledge that this data has not undergone the full data analysis and verification process that TARN would have previously provided. The Network intends to monitor this as and when the National Major Trauma Registry provides outflow of data to gain a better understanding of regional ISS distribution.

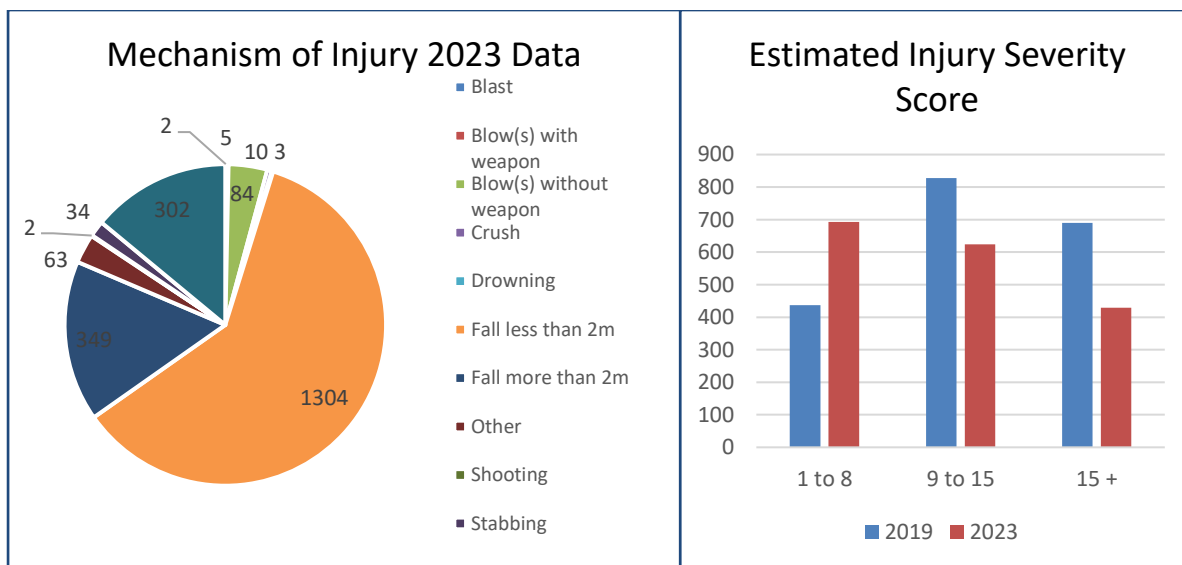


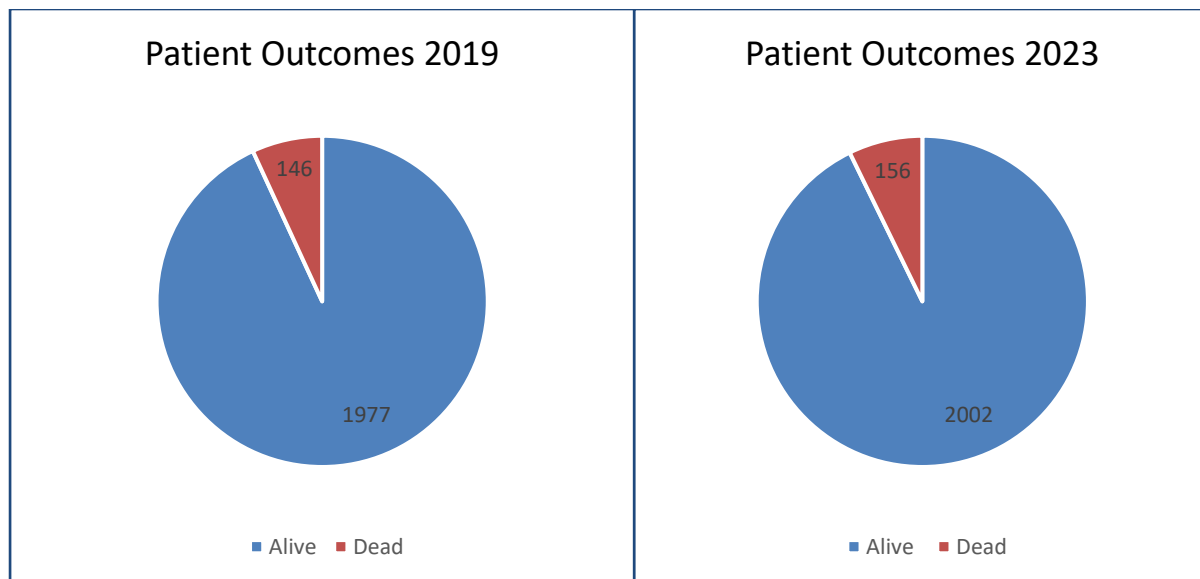
Chart 12.

Chart 13.

### Patient outcomes

Figures 14 and 15 show the number of trauma related deaths as part of the whole number of trauma admissions across the network. It shows that although there have been 10 extra deaths during the 2023 six-month data collection period, when compared to the 2019 data, the percentage has remained stable at 7% for both. As there is no ability to access the probability of survival for these patients, all participating organisations have been requested

to ensure they are following Network guidelines regarding trauma mortality reviews and to flag any concerns or lessons learned with their local organisations and the network team.



**Figure 14.**

**Figure 15.**

More detailed outcome data, based on individual organisations, is provided in Table 3 below.

Organisation	2019			2023			Trend
	Alive	Dead	Total	Alive	Dead	Total	Overall Attendance
Alder Hey (MTC)	102	1	103	140	5	145	↑
Aintree (MTC)	569	47	616	532	30	562	↓
The Walton Centre (MTC)	151	17	168	125	25	150	↓
Arrowe Park (TU)	285	26	311	273	18	281	↓
Countess of Chester (TU)	181	14	195	189	15	204	↑
Royal Liverpool (TU)	281	22	303	221	25	246	↓
Southport (TU)	149	11	160	144	16	160	↔
Whiston (TU)	198	9	207	388	22	410	↑↑

**Table 3.**

The data in table 2, demonstrates variation between the total number of trauma related attendances across most participating organisations, with reductions over the six-month period in 2023 for Aintree & The Walton Centre MTCC, Arrowe Park and the Royal Liverpool TU's.

There has been an apparent increase in trauma related attendances Countess of Chester Trauma Unit (4.6% increase) and more significantly at Alder Hey Children's MTC (42% increase), however Whiston Trauma Unit has apparently seen the largest increase in trauma

related attendances with a 98% increase in 2023 when compared to the same six-month time frame for 2019.

Having highlighted this issue, the Network plans to work with colleagues at Whiston hospital to understand this data and then determine the cause of this significant increase and continue to monitor this once NMTR data is available.

## **12. And finally.**

In September 2023, the network team were approached by the Health Lead for Merseyside Violence Reduction Partnership (MVRP), with a proposal to develop a regional clinical network of clinicians and non-clinical healthcare staff in collaboration with the CMMTN.

The aims of the network would be as follows:

- To communicate an understanding of the core principles of violence reduction throughout an established clinical network to the relevant healthcare professionals in the 10 regional hospitals comprising the trauma network. This includes the causes of serious violence including adverse childhood events, regional data, and analysis, to the unique role of the healthcare professional in affecting change, the need to adopt a trauma informed approach and the concept of a public health approach to tackling societal violence.
- To disseminate the learning, messages, and opportunities from partner organisations such as Merseyside Police, the Fire Service, City Council youth services, youth offending teams, the education sector, and the probation service to NHS staff throughout the region.
- To provide a forum for shared learning within the regional healthcare sector with regards to serious youth violence.
- To link major trauma hospitals together to understand better the regional differences in the incidence, effects and causes of youth violence and to formulate localised strategies on how to address them.

It was agreed by the Network team that supporting and facilitating the Clinical Network is an important aspect of the network's role, not only because it is referenced in the Population Health function of the Specialised Services Clinical Networks Specification, but any reduction in societal violence will have a positive impact on demand of the major trauma services and on the communities that we serve.

Working in collaboration with the MVRP team, CMMTN are supporting the planning of a regional violence reduction conference, where it is anticipated that there will be over 100 healthcare staff in attendance, and this will be used as a vehicle to launch the Clinical Network and gain representation from clinical and non-clinical healthcare staff from across the region.

The date and location of the conference has been agreed as shown in Figure 16 below.

Figure 16.

### 13. Next Steps.

The Clinical Reference Group (CRG) are in the process of reviewing and updating the Major Trauma Service Specification (D15/S/a) which will have significant impact on all participating organisations. The Network will be anticipating updates to be provided in 2024-25 and will be integral in sharing this information across the region, along with a requirement to update the peer review assessments to reflect any changes to that national standards that are made.

The workplan for 2024/25. has been discussed and agreed with both NHSE and ICB and will be reviewed at the joint Specialised Services Clinical Network Board meeting in June 2024

Progress against the workplan during 2024-2025 will monitored and reviewed via an established assurance and reporting process initiated by. 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.

Prior to submission the returns will be reviewed and ratified by the Joint ODN's board, and the definitive version will also be shared with the Cheshire and Merseyside ICB.

The National Major Trauma Registry is due to go live on the first of April 2024 and the QI Lead from Cheshire & Merseyside will be joining the National Advisory Group, with aims to provide operational oversight of the ongoing development and implementation of this new platform.