



NoS Trauma Network Annual Report 2022/23

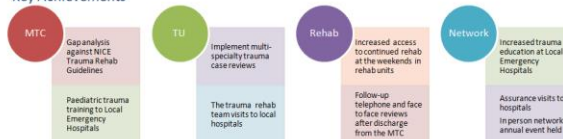


Summary

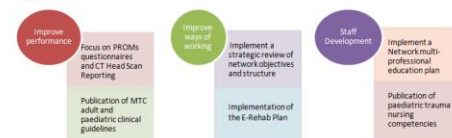
Activity April 2022 to March 2023



Key Achievements



Next Steps



Introduction

The North of Scotland Trauma Network, comprising the healthcare services within the NHS health boards of Grampian, Highland, Orkney, Shetland and the Western Isles as well as the Scottish Ambulance Service, continues to see a year-on-year increase in trauma patients. With the clear and present problems the NHS faces following the COVID pandemic, the ongoing financial limitations and the significant geographical and logistical constraints associated with the region, the Network has never been more important.

With the aim of improving trauma care throughout the region, all within the network should be congratulated for the work done in the last year. Clinical teams have been bolstered, governance structures reinforced, targeted education delivered and collaborative working further developed.

However there is still much to be done. We are currently conducting a strategic review that will help shape the Network's direction for the next 5 years. The assurance visits to each hospital within the region in the last year have provided invaluable to better understand the needs of the teams caring for our region's trauma patients. I have no doubt that together we can continue to build on the firm foundations of trauma care for the ongoing benefit of our patients and families

Dr Tim Hooper, North of Scotland Trauma Network

Content

This annual report will cover:

- Background and Aims
- Progress and Achievements
- Lessons Learned
- Key Performance Indicators
- Continuing Investment
- Listening to and Acting on Patient Experience
- Supporting Staff Through Education
- Risks and Barriers to Network Major Trauma Services
- Looking Ahead 2023/24

Background



The north network went live in October 2018 and is one of four regional networks that make up the Scottish Trauma Network. Staff members work in Health Boards, Health & Social Care Partnerships and the Scottish Ambulance Service within the north.

The North of Scotland Network aims to:

- Ensure quicker access to major trauma care by early identification of patients affected by trauma.
- Maintain specialist trauma teams that ensure person centred co-ordinated care for patients affected by trauma.
- The Network will do this by supporting and enabling staff and listening to and working with patients and their families.



Progress and Achievements

Some reflections are included here from staff across the Network as an indication of the huge achievements and improvements that have been made in trauma care in the north despite a very busy and stressful year.



Major Trauma Centre (Aberdeen Royal Infirmary)

- The multidisciplinary team completed a gap analysis against the new NICE Trauma Rehabilitation Guidelines. An improvement plan was developed and implemented which will help to ensure evidence based and most effective rehabilitation care is provided to patients in the MTC.
- A digital post box established in order for SAS staff to request feedback on patients they have provided pre-hospital care. This promotes learning, helps identify continued professional development opportunities and encourages reflective practice.

Paediatric Major Trauma Centre (Royal Aberdeen Children's Hospital)

- A programme has been established to allow rural practitioners to attend RACH for clinical weeks within the MTC. These are tailored to the individual to gain experience where required and the hosts have gained insight to the challenges that rural practitioners experience.
- RACH Team have visited several remote sites to deliver in situ training on Paediatric Trauma Care in Orkney, Caithness & Shetland. This has allowed a greater number of local staff to attend the training which has increased their skills and confidence. Feedback has been very positive.
- Monthly education sessions have shown a growing popularity and multidisciplinary interactive training and simulation for nursing staff, including ED & Specialty Registrars, has been established.
- Finalised a nurse competency framework for staff in the ward, HDU and ED.

Trauma Unit (Raigmore Hospital)

- Establishment of multi-specialty trauma clinical case review, where previously had been contained within specialties, and therefore difficult to communicate learning beyond these silos.

- The rehabilitation team from the TU visited local hospitals throughout Highland to improve awareness and communication, to answer questions about community interface and role of the major trauma rehab team.
- Inaugural Rib Rescue for Rural General Hospitals course ran attended by rural practitioners, anaesthetists and trainees from across the network with faculty from the TU, the MTC and Rural General Hospitals.
- Establishment of a permanent pre-hospital physician / advanced paramedic service in January 2023.
- Superb use of TRiM for clinicians involved in some difficult paediatric trauma cases.

Rehabilitation

- Patients in the Grampian neurological rehabilitation unit and orthopaedic rehabilitation unit have access to HCSWs at weekends to progress their rehabilitation.
- MTC and TU multidisciplinary teams carried out a SWOT analysis of current services and findings shared across the Network.
- Joint working with PhD student and Robert Gordon University AHP Research Professor on qualitative project exploring patients trauma rehabilitation experiences post discharge.
- Recommended STN Rehabilitation Learning Events where the NoS Network hosted session was 'Management of challenging behaviour'.
- Patients discharged from the MTC have coordinated follow up with a 2 week telephone review and 3 month face to face or Near Me reviews. Quality improvement cycles are ongoing.

Local Emergency Hospitals

- Caithness Hospital (Wick) acquired trauma mats and a vac mat to improve patient transfers in addition to rehabilitation equipment. Staff benefited from placements at the MTC and received local training from the Paediatric MTC.
- Dr Gray's Hospital continued with frailty scoring in the ED for all patients over 65 helping and local discussions and training regarding improving care for the frail trauma patient. An in-house, bespoke, scenario based trauma education day was held for the nursing team where scenarios included management of head injury, major trauma and transfer, paediatric trauma and silver trauma.

Whole Network

- The Network was able to hold its third face to face annual event since its launch in Nairn. The event provided training and networking opportunities for staff from Health Boards, SAS staff and third part organisations.
- The Network Board commissioned the Network Clinical Lead and Manager to carry out a strategic review of the Network's objectives and leadership requirements. To aid this process the Clinical Lead, Rehabilitation Lead and Manager carried out assurance visits to Network hospitals in order to listen to staff about the local services and where the network could provide more support to them and patients over the next five years.

- Production of Quarterly Network Newsletters – these can be accessed via <https://www.nhsscotlandnorth.scot/networks/trauma/publications>
- Increased communication and awareness raising across the Network by the use of social media (1957 Twitter followers and 1353 Facebook followers)

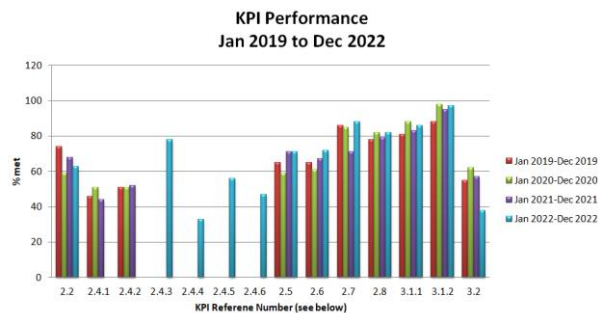
Lessons Learned

Case reviews at local and network level are carried out at MTC, TU and Network clinical governance meetings which enables learning and improvements throughout the year. The picture below captures some of the learning from these reviews.



Key Performance Indicators

The network KPIs are agreed by the Scottish Trauma Network and are monitored by the Scottish Trauma Audit Group (STAG). Local STAG coordinators facilitate the input of data to the national STAG database. The chart below displays the network's yearly progress against fourteen key performance indicators. Indicators KPI 2.4.1 and 2.4.2 were replaced with KPIs 2.4.3-.2.4.6 from 2022.



KPI Ref No.	Short Description of KPI
2.2	Transfer to MTC within 24 hrs
2.4.1	CT head within an hour
2.4.2	CT Head reported within one hour of scan
2.4.3	Time to CT head for GCS<13 or intubated within 60 minutes of arrival at MTC/TU
2.4.4	Time to written CT head report for GCS<13 or intubated within 60 minutes of scan
2.4.5	Time to CT head for GCS 13-14 within 60 mins of arrival at MTC/TU
2.4.6	Time to written CT head report for GCS 13-14 within 60 mins of scan
2.5	MTC treatment for a patient with a head injury
2.6	IV Antibiotic for open long bone fracture within 3 hours
2.7	TXA given re severe haemorrhage within 6 hours of first contact
2.8	Admitted under the major trauma service
3.1.1	Rehabilitation Plan written for major trauma patients
3.1.2	Rehabilitation Plan written within 3 days
3.2	PROMS for major trauma patients

The majority of the KPIs have seen an increase in performance since the Network began in October 2018 except significantly for KPI 3.2 (PROMs) which has dropped in the last year and has been highlighted as three standard deviations below the Scottish mean by the Scottish National Audit Process in 2022. This KPI is measured by compliance of the MTC at Aberdeen Royal Infirmary with approaching major trauma patients, who survive to discharge, about inclusion in the Patient Recorded Outcomes Measure (PROMS) Trauma Programme. In previous years the MTC had performed well in this indicator. The main issue identified was the staffing shortage in the MTC Trauma Co-ordinator team from June to December 2022, as well as corresponding staff shortage in the STAG Local Audit Co-ordinator team. This was further compounded by the busiest months for major trauma admissions being July to September. An analysis of the patient data and development of an improvement plan has been put in place at the MTC which will be monitored by the MTC and Network Clinical Governance forums.

Four new KPIs relating to CT head scans have been added. Two of them relate to actually performing the scan within 60 mins of arrival in hospital for those patients with a Glasgow coma scale (GCS) of <13/intubated or GCS 13-14 (KPI 2.4.3 and 2.4.5 respectively). Both of these show the Network is currently performing above the Scottish mean. The other two new KPIs represent the reporting of the CT head within 60 mins in the same patient groups (KPI 2.4.4 and 2.4.6). The Network is performing poorly against the Scottish mean for both these KPIs and will continue to feature as a priority for the next year.

Chart 1 and 2 below shows the volume of adult and paediatric major, moderate and minor trauma patients during 2022/23 and rehabilitation plans developed across the Network as compared to previous years. The number of rehabilitation plans written is a reflection of the number of patients being cared for by the major trauma service across the north of Scotland and shows an increase since the Network was launched in October 2018. This could be due to better identification of the major trauma patients who have arrive in the hospitals and in the case of paediatrics, increased awareness of the benefits of rehabilitation plans. In addition, the number of rehabilitation plans written but not recorded on STAG (due to patients leaving the hospital before three days) has been included for 22/23 (36 in total).

Chart 3 and 4 show that the major trauma service provides care for patients who have suffered major, non-major trauma and trauma not recordable on STAG and is dependent on the rehabilitation complexity of each patient.

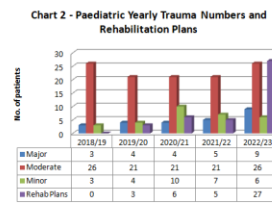
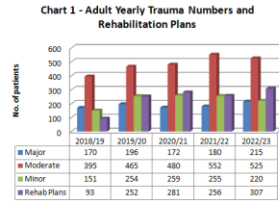


Chart 3 Number of Adult Rehab Plans 2022/2023

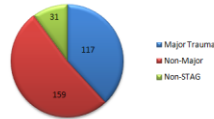


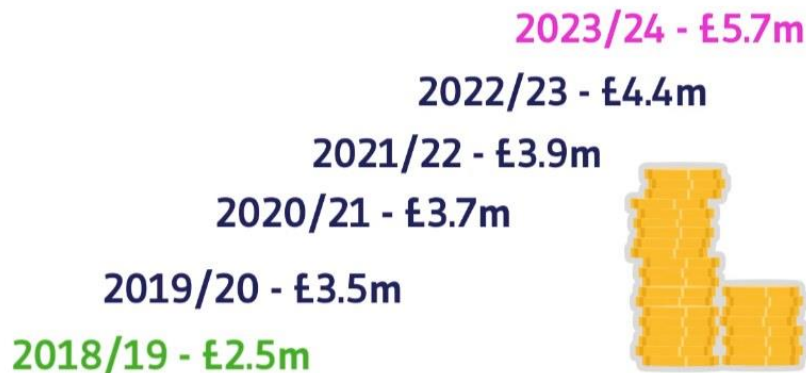
Chart 4 Numbers of Paediatric Rehab Plans 2022/2023



Continuous Investment

Investment in the Network was phased over a period of 7 seven years (2017-2023). For 2022/23 the network was awarded **£4.4m** on a recurring basis from the Scottish Government via the Scottish Trauma Network. Unfortunately the last year of additional funding from Scottish Government (due in 2023/24) has been withdrawn due to financial pressures across the NHS.

Allocated Finance



Expenditure

The table below shows the trauma allocations during 2022/23 to the Health Boards in the NoS Trauma Network. A small amount of financial commitments from the last financial year (2021/22) was carried forward and spent in 2022/23. There was some in year slippage on planned budgets due to delays in recruiting to new posts during 2022/23 which was divided proportionally across the Health Boards at the end of 2022/23. Western Isles did not have a trauma allocation in 2022/23 due to STAG and psychology posts not being in place during the financial year.

Revenue Expenditure Summary 2022/23	Allocation
Tayside (North Region)	£68,992
Highland	£1,127,093
Orkney	£3,234
Shetland	£3,234
Grampian	£3,333,715
Total	£4,536,268

The additional funding in 2022/23 has enabled the recruitment of 6 additional new specialist rehabilitation posts for trauma in NHS Grampian which has been in addition to specialist AHP posts recruited in NHS Highland during 2021/22 :

- 1wte band 6 OT
- 0.2wte band 7 OT
- 0.5wte band 7 PT
- 0.4wte band 8a SALT
- 1.34wte band 4 HCSW in specialist rehabilitation
- 4wte band 3 HCSW in specialist rehabilitation

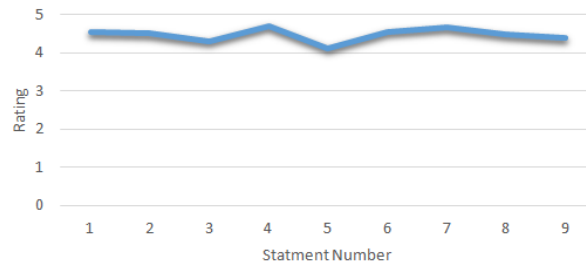
Listening to and Acting on Patient Experience

Patient satisfaction data was collected in the form of a questionnaire from 2019-2023 (n = 266) by Trauma Co-Ordinators within the MTC. A majority of these data was collected in 2021 (n = 138). The respondents were patients (n = 208), carer/family members (n = 45) and other (e.g. left blank, MTC case manager, n = 13).

Respondents were asked to rate their agreement to nine statements about their MTC care (shown in the table below). Ratings were taken via a five point Likert scale, ranging from strongly disagree (1) to strongly agree (5) with a higher score indicating a more positive experience.

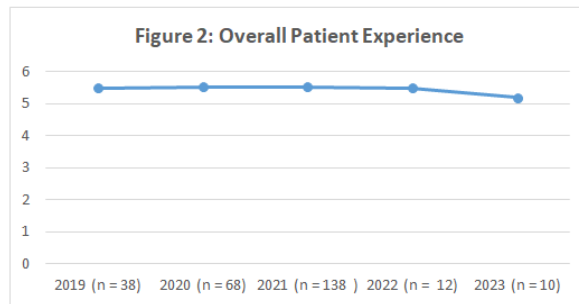
On average, respondents gave a rating that fell between strongly agree (5) and agree (4), indicating a consistent positive patient experience in various areas of care (see figure 1).

Figure 1:
2019-2023 Average response for each statement



Statement About Care	
1	Staff take account of the things that matter to me
2	Staff discuss my treatment and care in a way I understand
3	I am given choices about my care and treatment
4	I am treated with kindness and compassion by the staff looking after me
5	I am involved, as much as I want to be, in planning for transfer between wards and hospitals
6	Staff have time for me
7	I am confident the staff looking after my care and treatment have the knowledge and skills to do so
8	The people that matter to me (such as family or carers) are involved with my care as much as I want them to be
9	I am involved, as much as I want to be, in plans for discharge from hospital

Overall patient experience was rated on a six item scale, from very poor (1) to excellent (6). Figure 2 below shows this distribution throughout the 4 years, with little change across the years. Overall, patient experience throughout the 4 years was highly positive (M = 5.5).



In summary, patient feedback is overwhelmingly positive with the t should be noted that patients did not always differentiate between the care that was delivered by the MTC team and that delivered by individual specialties. Therefore while positive for the trauma team and MTC, this should also be regarded as a general reflection of the high quality of trauma care, and consequent positive patient experience, provided within NHS Grampian across a very difficult period.

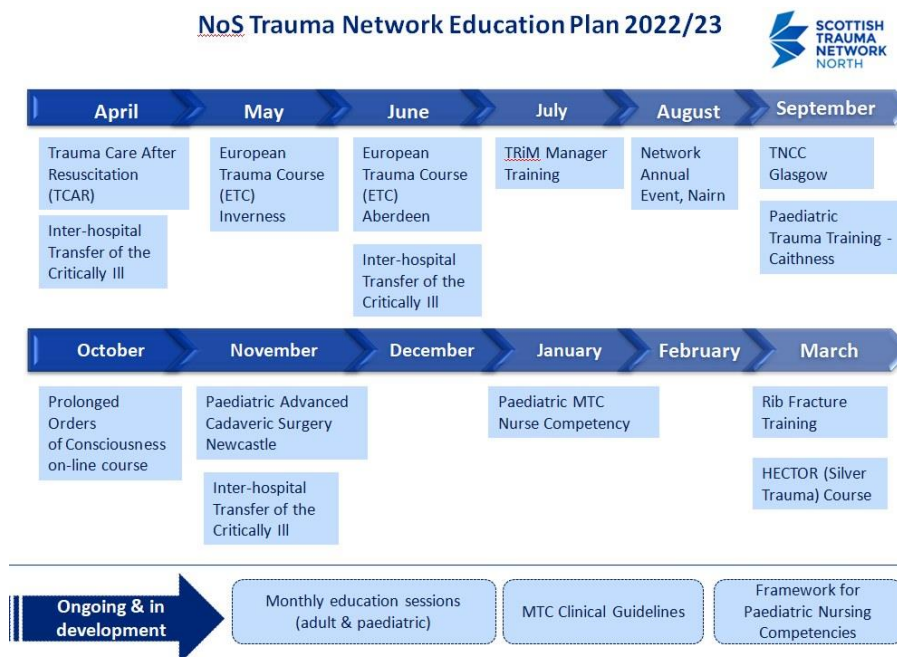
Patient questionnaires were also collected in specialist rehabilitation and community settings, the Paediatric MTC and within the Trauma Unit at Raigmore Hospital. The feedback from all questionnaires are considered by the teams involved and will be presented in future annual reports on an ongoing basis.



Some patient experiences were captured in real time, on film during 2022 in the recording of the second series of **Channel 4 documentary Rescue: Extreme Medics**. This insightful documentary demonstrates the value of a trauma network and the impact it has on patients, particularly in areas of challenging geography.

Supporting Staff Through Education

The Network has provided a variety of internal and external learning opportunities (see below infographic). Despite many of these being delivered virtually, the uptake has been good and feedback largely positive.



Some highlights to mention through the year are:

- Monthly adult and paediatric Teams education sessions which have consistently attracted 30-70 participants at each session from across the network and beyond. Previous education sessions can be viewed on our website

<https://www.nhsscotlandnorth.scot/networks/trauma/education>

- Paediatric training programme for remote and rural sites continued to be rolled out across the north of Scotland with a 2 day scenarios-based course delivered in Caithness in September. Nineteen local staff attended who were very engaged and gave very good feedback.
- Local Emergency Hospitals continue providing local teaching for staff and local SAS paramedics including Dr Gray's Hospital in Elgin who held trauma education days for nursing team in April - scenario based simulation event.
- The newly launched two day Heartlands Elderly Care Trauma and Ongoing Recovery (HECTOR) course which three staff from the north were able to attend. The course was mixed with practical scenarios, moulages, lectures and discussions focusing on the specific care needs of this group of patients. Further courses are planned and staff from the Network will be able to attend and enable learning and improvements to elderly trauma care to grow.
- There has been increasing focus on the mortality and morbidity impact of rib fractures, particularly in elderly patients. Many of these patients in the Network either do not make the journey from their initial place of attendance to the TU or the MTC, or those who do endure a bumpy ride. Anaesthetists at Raigmore, Aberdeen and Fort William teamed together to adapt a course that Drs Colin Patterson and Ross Thomson designed for anaesthetic trainees, and made it applicable to rural general practitioners in their setting in the receiving hospitals around the network. The inaugural course was attended by 16 delegates representing a mixture of specialties from Shetland, Skye, Fort William and Raigmore. The feedback was hugely positive, with strong enthusiasm for the opportunity to scan volunteers.

Network Annual Event 2022/23

The network held its annual conference after three years in Nairn on the 31st August. It was refreshing and energising to be able to meet up in person, network and learn about trauma care in the north of Scotland. There was representation from across the Network including partner organisations such as the SAS and universities with 126 people attending. All the posters from the Event can be viewed on our website: [NHS Scotland North](https://www.nhs.uk/scotland/north/). They cover a range of subjects such as improvements in rib fracture management and post-discharge follow up, frailty scoring and results of patient reported outcome measures. Take a look to be encouraged by improvements in care.



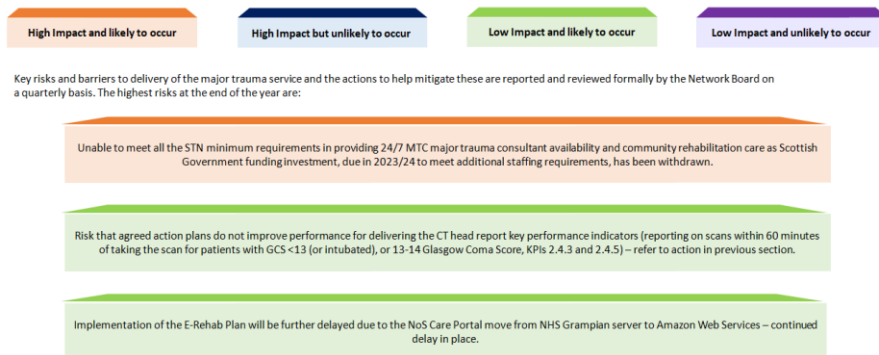








Risks & Barriers to Network Major Trauma Services



Looking Ahead to 2023-24

As part of the NoS Trauma **Network Improvement Plan**, during 2023/24, the network will:

- Seek to maximise the trauma funding received on a recurring basis to achieve equitable trauma care across the network taking into account the shortfall in funding from Scottish Government in 2023/24.
- Continue to seek and reflect on patient feedback in the MTC, specialist rehabilitation and community settings as well as expand into the Trauma Unit to support and inform improvements across the pathway of care. This will include gathering of patient and family stories.
- Implementation of the Digital Rehabilitation Plan across the network on the NoS Care Portal which will improve continuity of care against the individuals' goals and enhanced communication between teams at each stage of the rehabilitation pathway.
- Implement a strategic review of the Network to clarify the Network's strategic objectives over the next five years, to revise the Governance Framework in line with the objectives and establish clear trauma leadership requirements.

- Explore improvements that can be made at the MTC to the elderly trauma pathway.
- Continued visits to community hospital and therapy services by the MTC and TU teams to improve relationships, trust and knowledge about the major trauma pathway.
- Formalising the MTC adult and paediatric Clinical Guidelines and making available on the Right Decision platform.
- The Paediatric MTC Team to continue to deliver training programme in Local Emergency Hospitals across the north of Scotland using the mobile skills unit, roll out the Child Brain Injury Trust in-hand app and introduce the collection of paediatric PROMS.
- Continue implementation of the improvement plan developed after completing a bench marking exercise at the MTC against the NICE Rehabilitation Guidance for Major Trauma.
- Continue to implement NoS Trauma Multi-Professional Education Plan providing internal and external education opportunities informed by needs assessment by staff across the network.
- Focus on improvement in Key Performance Indicators specifically in relation to gathering Patient Recorded Outcomes Measure (PROMS) data and the time to provide CT head reports for patients with a less than 13 Glasgow Coma Scale (or intubated), or 13-14 Glasgow Coma Score.
- Develop a multidisciplinary follow up clinic at the Trauma Unit and a patient information booklet.

Contact Us

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