



Children's Major Trauma Dashboard Measures

SUPPORT DOCUMENT

September 2020

TO BE READ IN CONJUNCTION WITH THE CHILDREN'S MT DASHBOARD

Introduction

This document addresses key questions relevant to the Children's Major Trauma Dashboard and assists in the understanding of the measures. It explains the numerators and denominators in detail and should be read in conjunction with the Dashboard.

The Dashboard measures were drawn up and have been drawn up and agreed by clinical experts on the TARNLet committee to allow effective benchmarking in relation to specific measures between Children's Major Trauma Centres. The Trauma Audit & Research Network has agreed to analyse and format the information ONLY.

Some measures are based on objective evidence. Others reflect experience from senior clinicians in the trauma networks. Some relate to the quality of data submitted to TARN or to process measures such as time to CT scan or frequency of Consultant-led trauma team.

None of the indicators has an associated target and performance may not be 100%. The measures are divided into 2 groups:

- **Data Quality:** 100% may be expected
- **System Indicators:** Performance may not be 100% and should be viewed in comparison with other centres.

Where values of zero are shown on the caterpillar plots, this is likely to represent sites with a very low number of cases for that measure.

Patient selection

Patients under 16 years of age at time of incident.

Detailed information on Dashboard Measures

Where patient numbers are low, two years of data is used. For measures using time of incident where this is not recorded, best pre-hospital time is used, selected in the following order: 999 call, ambulance dispatch, ambulance arrival, ambulance departure from scene, time of first attendant or first pre-hospital intervention.

C 01 - Data Accreditation

Period:	Current Reporting Period
Numerator:	Number of core data fields fully completed for patients submitted to TARN
Denominator:	Number of expected core data fields for the patients submitted to TARN and approved
Type:	Data quality
Data fields:	<ul style="list-style-type: none">• If the patient is seen in the Emergency Department then Grade of ED Attendants, Date/Time of ED Attendants, Speciality of ED Attendants data fields are expected to be completed. If the patient is not seen in the ED then these data fields are not expected to be completed.• Glasgow Coma Scale (GCS) should be recorded for all patients.• If the patient has no GCS recorded in ED or Pre-Hospital then a recording of intubation or ventilation is expected in the relevant data fields. If details of intubation or ventilation are also missing then no score is applied.• If patient is Intubated at any point in hospital: Intubation Date/Time.• Arrival Date/Time at hospital.• Arrival Date/Time at ED. [Please note that Arrival Date/Time at hospital and Arrival Date/Time in the 1st location should be the same values].• Incident Date/Time• Ambulance call Date/Time• If the patient is referred for further care or transferred in the following data fields are counted:, Transfer in reason, Transfer out reason. <i>Other</i> or <i>Not known</i> responses are not counted.• If the patient has a CT scan then the following data fields are counted: CT Date/Time; CT report Date/time; CT report review Date/Time.• If patient is given TXA in Pre-Hospital or hospital: TXA Date/Time.• If the patient is treated in theatre and has an operation/procedure then the following data fields are counted: Operation Date/Time, Grade of Surgeon, Speciality of Surgeon, Grade of Anaesthetist• Full injury descriptions (no description should need to be coded with a <i>Not Further Specified</i> AIS code due to incomplete injury descriptions).• Pre-existing medical conditions: if the submission uses the options <i>Other</i> and <i>Not known</i>, these will not be counted.• Pupil reactivity, required for those head injured patients (AIS 3+ in head)
Notes:	The number of core data fields that are relevant for each patient is dependent on the patient's injuries and their treatment. It is not, for example, expected that CT date and time should be recorded where the patient did not have a CT scan.

C 02 – Case Ascertainment

Period:	Current Reporting Period
Numerator:	All TARN approved patients completed and dispatched to TARN
Denominator:	Number of patients in the latest HES dataset that fulfil the TARN inclusion criteria for this quarter. If the hospital has fed back to TARN with the number of truly eligible cases, the updated exact denominator is used. If not, the average between the lower and the higher percentage of completeness is used (range)
Type:	Data quality
Notes:	Denominator is based on previous years HES data, gained from NHS-Digital. Therefore Trust &/or National values may be 100+% if there has been an increase in cases.

C 03 - BPT Compliance with level 1*

Period:	Current Reporting Period
Numerator:	All TARN approved patients completed and dispatched to TARN within 25 days of discharge or death with ISS>8 who meet ALL criteria for Level 1 BPT payment
Denominator:	All TARN approved patients who are eligible for Level 1 BPT payment (ISS>8)
Type:	Data quality
Notes:	If a patient is also eligible for BPT level 2 then they are included in this measure too. *For full details on current BPT inclusion and compliance criteria please refer to the Major Trauma Best Practice Tariff 2019-20 document available on the resources tab of the TARN website or Appendix below.

C 04 - BPT Compliance with level 2*

Period:	Current Reporting Period
Numerator:	All TARN approved patients completed and dispatched to TARN within 25 days of discharge or death with ISS>15 who meet ALL criteria for Level 2 BPT payment
Denominator:	All TARN approved patients who are eligible for Level 2 BPT payment (ISS>15)
Type:	Data quality
Notes:	*For full details on current BPT inclusion and compliance criteria please refer to the Major Trauma Best Practice Tariff 2019-20 document available on the resources tab of the TARN website or Appendix below

C 05 - Patients having Whole Body CT Scans ISS > 15

Period:	Rolling 2 Years
Numerator:	All patients with ISS>15 who have a CT scan recorded as Whole Body or where a <u>single</u> CT scan has been recorded to include Head, Chest and Abdomen
Denominator:	All patients with ISS > 15
Type:	System indicator
Data fields:	Date and time of CT scan; Body Area(s); ISS
Notes:	Patients with multiple separate recordings for CT scans that aggregate to a whole body are not included in the numerator.

C 06 - MTC's deliver surgical evacuation of a significant SDH / EDH <4 hours

Period:	Rolling year
Numerator:	All directly admitted patients with a SDH / EDH where a surgical evacuation is performed within 4 hours of the recorded hospital arrival time.
Denominator:	All directly admitted patients with a SDH / EDH.
Type:	System indicator
Data fields:	Date and time of arrival, or best available pre-hospital time if not recorded; Operation; Operation date and time; AIS code.
Notes:	A significant SDH/EDH is defined as AIS 4+. Cut off is operation within 24 hours to ensure emergency evacuations. 'Surgical evacuation' includes recording of: SDH/EDH Evacuation, Open Craniotomy or Craniectomy. Inpatient fallers excluded

C 07 – Under Review

In Conjunction with the CRG, this indicator is under review and further details will be circulated prior to the next Dashboard

C 08 - MTC delivers consultant led trauma team including a paediatrician or paediatric ED specialist on arrival for patients with ISS >15

Period:	Current Reporting Period
Numerator:	Trauma Team activation comprising Paediatric Medicine consultant seeing patient within 5 minutes of arrival
Denominator:	Directly admitted patients with an ISS >15
Type:	System indicator
Data Fields:	Hospital arrival date and time; ED date and time; Grade of doctor; Speciality of doctor; Date and time of doctor; ISS; Trauma Team activation; Transfer type.
Notes:	The included specialties should only be Consultant Paediatric Emergency Medicine or Consultant Paediatric Medicine.

C 09 – Under Review

In Conjunction with the CRG, this indicator is under review and further details will be circulated prior to the next Dashboard

C 10 - Proportion of patients with documented safeguarding concerns

Period:	Current Reporting Period
Numerator:	All patients with documented safeguarding concerns in the Rehabilitation prescription
Denominator:	All patients arriving at MTC
Type:	System indicator
Data fields:	Children rehabilitation prescription: Psychosocial issues
Notes:	Safeguarding concerns are taken from completed RP's

C 11- Rapid access to MTC within 6 hours of incident

Period: Current Reporting Period
Numerator: All patients arriving at MTC within 6 hours of incident
Denominator: All patients arriving at MTC
Type: System indicator
Data fields: Incident date/time, Hospital arrival date/time
Notes: This measure looks at **all** patients i.e. direct admissions and transfers in.

C 12a - Proportion of patients directly admitted to MTC

Period: Current Reporting Period
Numerator: Directly admitted patients admitted to ED.
Denominator: All patients
Type: System indicator
Data Fields: Transfer type;
Notes: Patients transferred in from overseas or for repatriation are excluded as are Inpatient falls

C 12b - Proportion of patients directly admitted to MTC with ISS > 15

Period: Current Reporting Period
Numerator: Directly admitted patients admitted to ED.
Denominator: All patients with ISS > 15
Type: System indicator
Data Fields: Transfer type; previous hospital; transfer reason
Notes: Patients transferred in from overseas or for repatriation are excluded as are Inpatient falls

C 13 - Proportion of patients with an ISS of more than 8 that have a rehabilitation prescription completed

Period: Current Reporting Period
Numerator: Patients with ISS > 8 with rehabilitation prescription recorded or where a RP was recorded as Not Appropriate
Denominator: Patients with ISS > 8
Type: System indicator
Data fields: Rehabilitation prescription
Notes: Any patients that died within 2 days of arrival at the MTC are excluded from the denominator.

Appendix 1: BPT level 1 and 2 criteria 2019 update

2019-20 Best Practice Tariff criteria

A level 1 BPT is payable for all patients with an ISS of 9 or more, providing that:

- The patient is treated in a major trauma centre.
- Trauma Audit and Research Network (TARN) data are completed and submitted within 25 days of discharge.
- A rehabilitation prescription is completed for each patient and core components recorded on TARN with documented evidence in patient notes of a copy to the patient, GP and ongoing care provider if applicable.
- Any coroners' cases are flagged within TARN as being subject to delay to allow later payment.
- If the patient is transferred as a non-emergency they must be admitted to the major trauma centre (MTC) within two calendar days of referral from a trauma unit (TU).
- Patients with a Glasgow Coma Scale (GCS) <9 have documented evidence of intubation being considered within 30 minutes of arrival at the MTC.

A level 2 BPT is payable for all patients with an ISS of 16 or more, providing all level 1 criteria are met and that:

- If the patient is admitted directly to the MTC or transferred as an emergency, they must be received by a trauma team led by a consultant in the MTC; the consultant can be from any specialty, but must be present within five minutes.
- Patients admitted directly to a major trauma centre with a head injury abbreviated injury scale (AIS) 1+ and a GCS score of less than 13 (or intubated pre-hospital), and who do not require emergency surgery or interventional radiology within one hour of admission, receive a head CT scan within 60 minutes of arrival.
- Tranexamic acid is administered within one hour of arrival at scene (or arrival at the MTC for self-presentations) for patients with at least one injury associated with significant bleeding.
- All patients 65 years or older have a Clinical Frailty Scale completed within 72 hours of admission by a geriatrician (defined as Consultant, Non-Consultant Career Grade (NCCG) or Specialist Trainee ST3+).