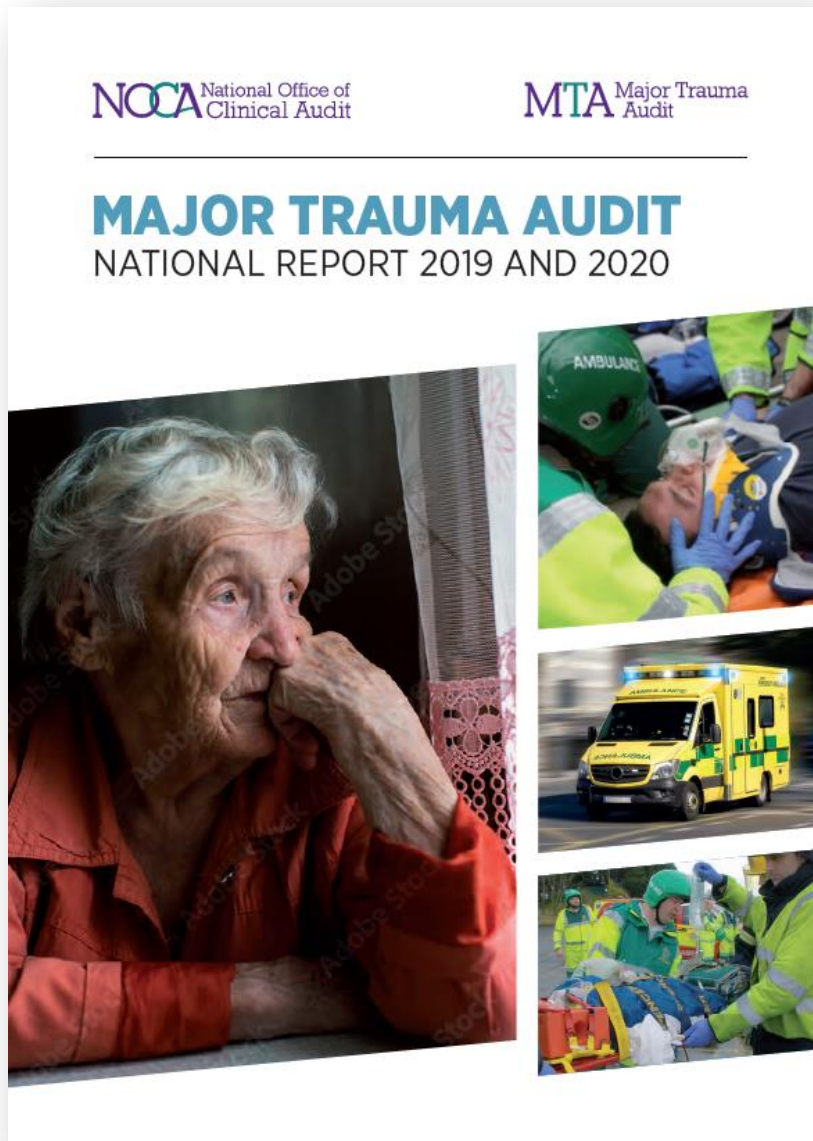


Optimising care for patients with Major Trauma



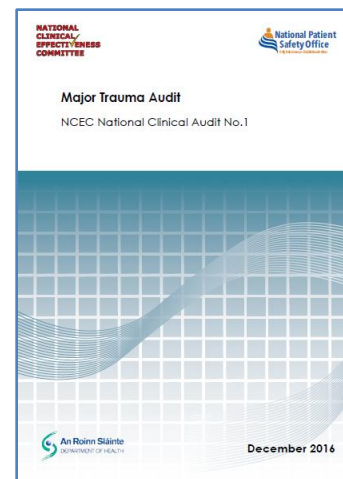
Prof Conor Deasy, FRCEM, PhD
CLINICAL LEAD MAJOR TRAUMA AUDIT
Clinical Director Unscheduled Care, Cork University
Hospital
Clinical Lead South Trauma Network
ATLS Director Cork.

Published 14th Sept 2022

Established since 2013 using TARN methodology



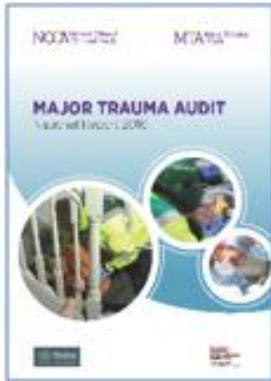
1st audit to receive NCEC accreditation and ministerial endorsement



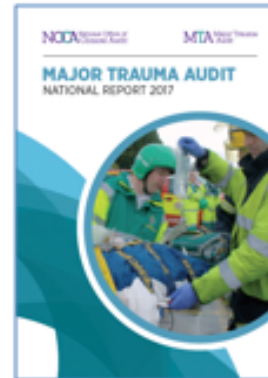
Published 7 national reports with over 30,000 cases



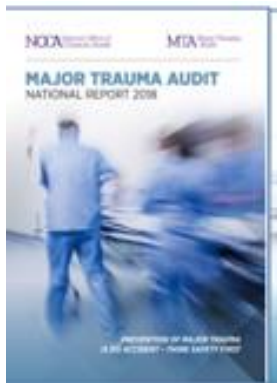
Focus on keys issues using data



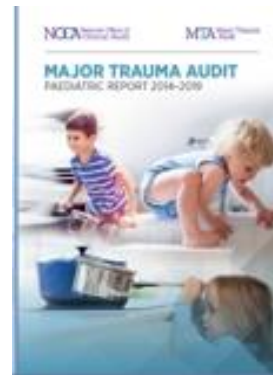
**2016-
chapter on
older
patients
with MT**



**2017-
chapter on
transfers**



**2017-
chapter
on falls**

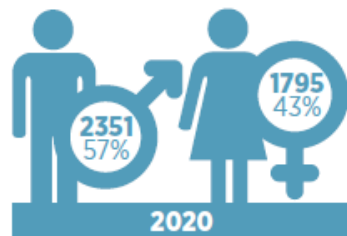
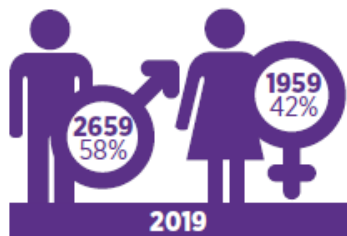


**Report on
paediatric
MT 2014-
2019**

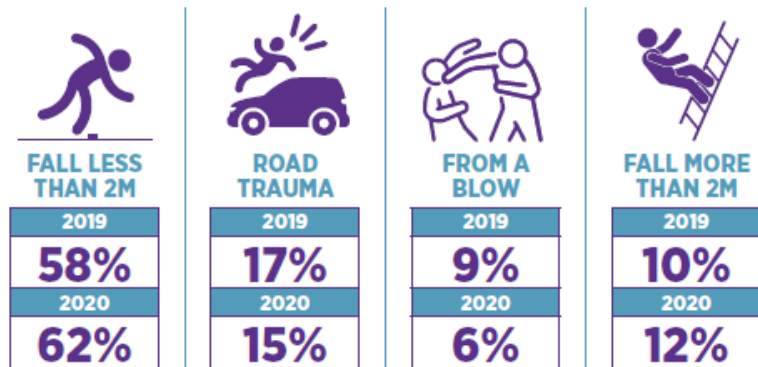


**2019-2020
impact of
COVID
pandemic
on MT**

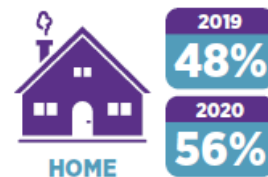
KEY FINDINGS 2019 & 2020



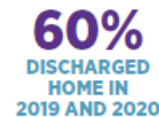
MECHANISM OF INJURY



LOCATION OF INJURY

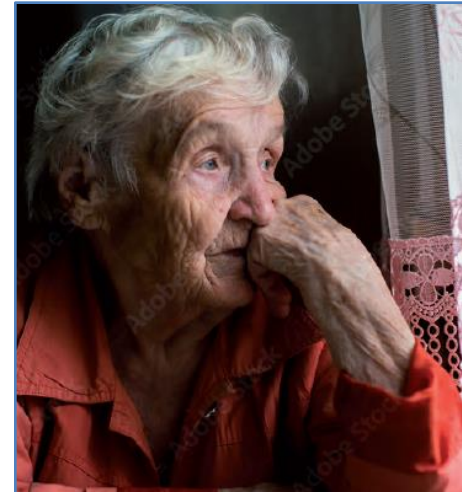
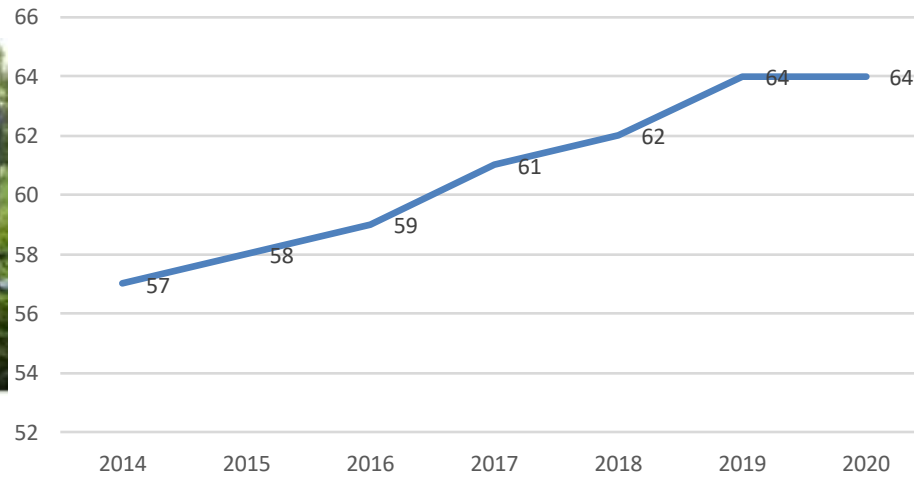


% of patients with a Glasgow Coma Scale score <13 to receive a CT scan within 1 hour



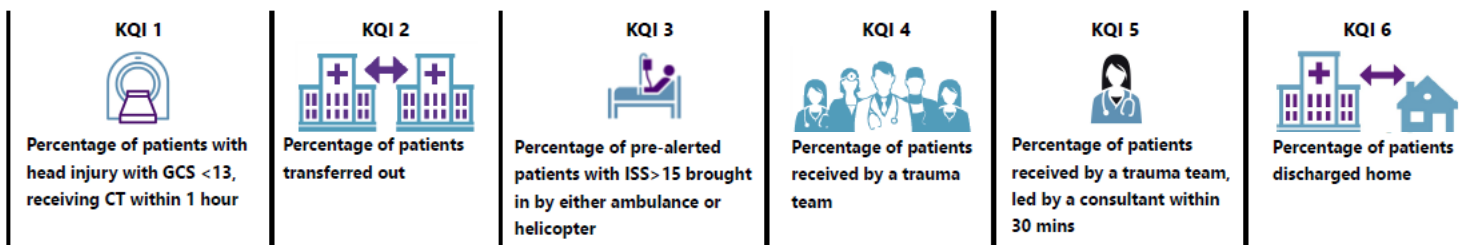
Changing face of trauma

Median age



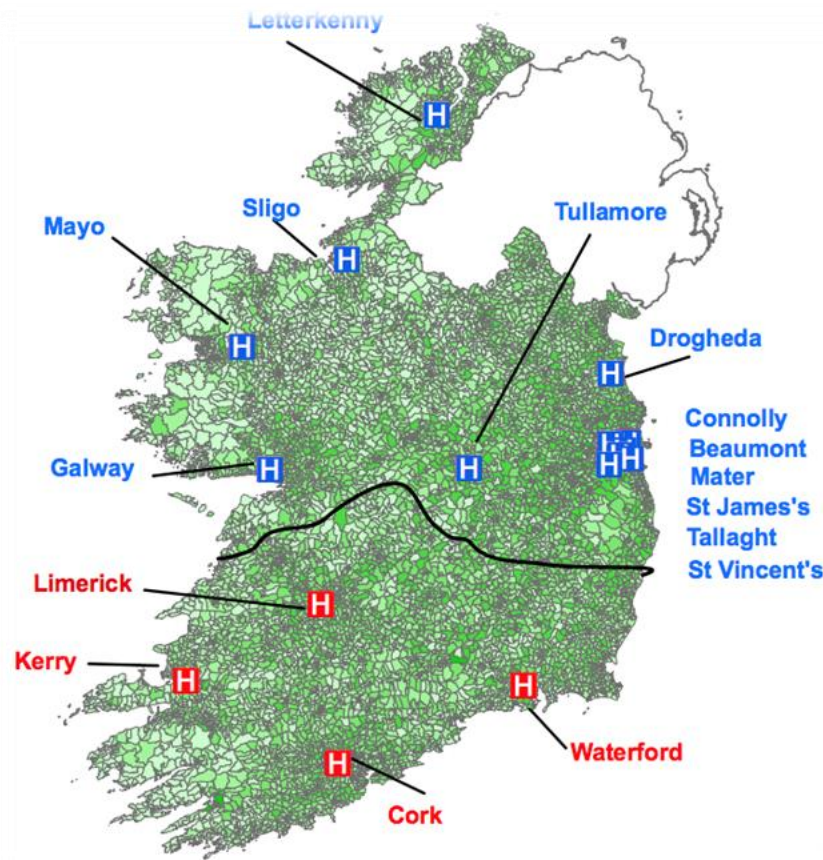
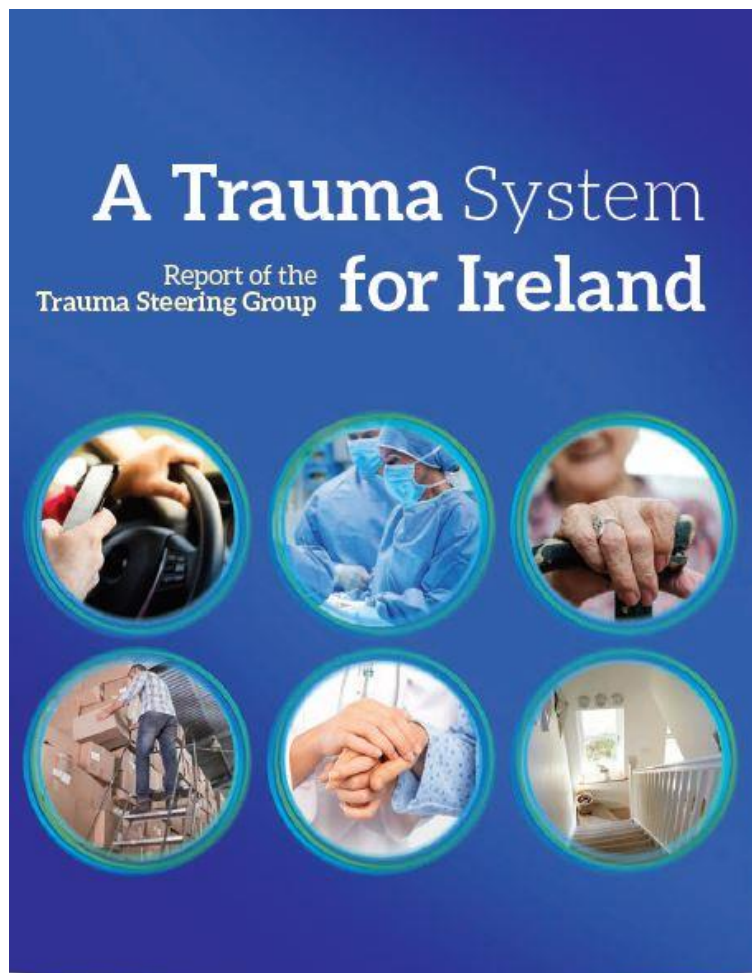
Some improvements over time

Pre Trauma Network Implementation



2016	33%	28%	9%	8%	8%	62%
2020	43%	18%	12%	9%	10%	60%

Informing Trauma System Reform



Trauma services in Ireland - the future state

- **Two Trauma Networks**

 - Central Trauma Network (Population: 3.2m, 2016 Census)

 - South Trauma Network (Population: 1.4m, 2016 Census)

- **Major Trauma Centres** (MTC) will provide the highest level of specialist trauma care to the most severely injured patients on a single hospital site and will act as the highest point of escalation for trauma services within their respective networks.

- **Trauma Units** will accept most patients with trauma injuries and will provide definitive care for those injured patients where appropriate to the resources and expertise available at each individual hospital. At a minimum Trauma Units will be able to resuscitate, stabilise and transfer patients to the Major Trauma Centre.

FIGURE 10: ROAD TRAVEL TIMES TO POTENTIAL TRAUMA UNITS

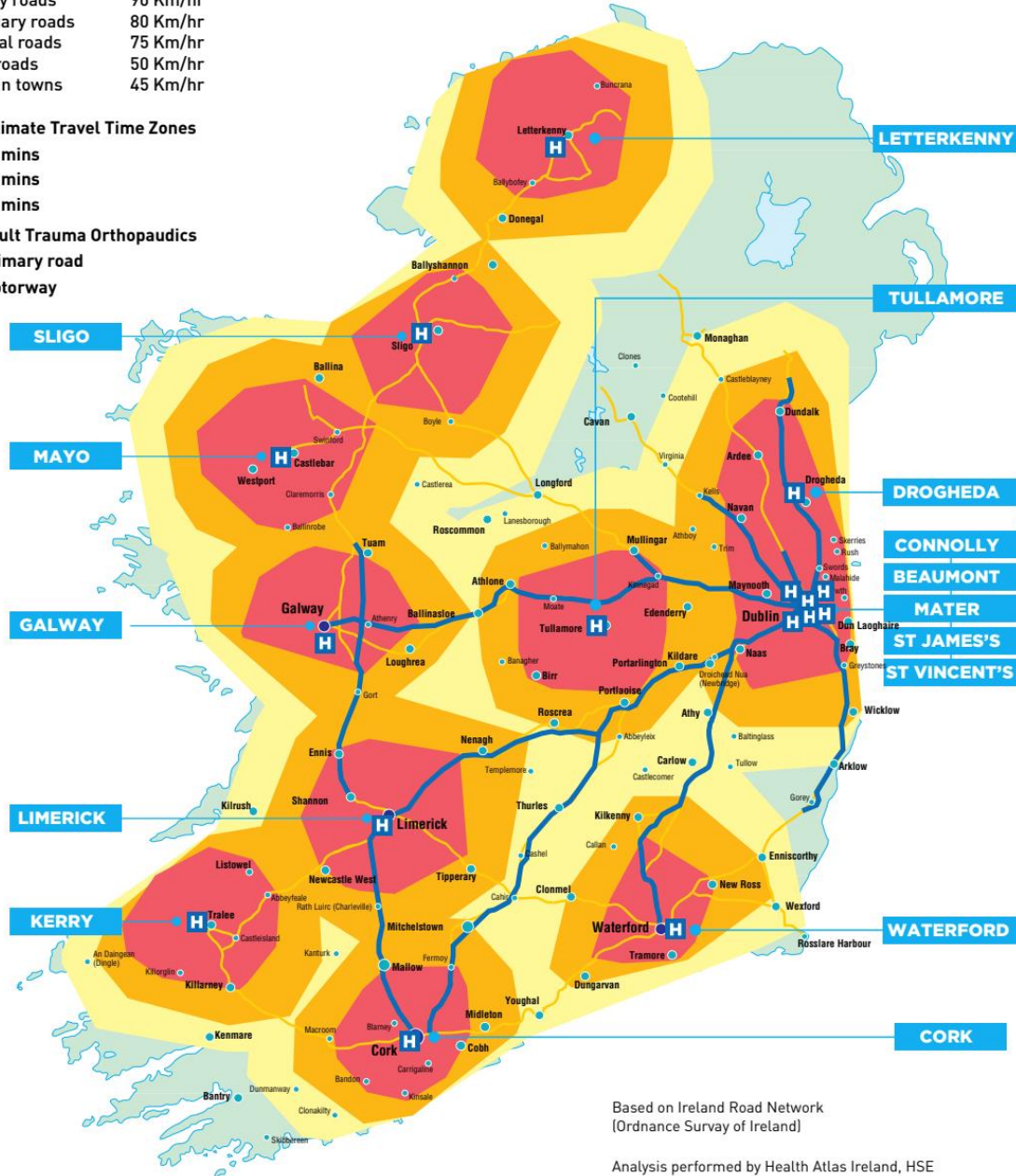
Average speed by road type

Motorway	110 Km/hr
M50	95 Km/hr
Primary roads	90 Km/hr
Secondary roads	80 Km/hr
Regional roads	75 Km/hr
Minor roads	50 Km/hr
Roads in towns	45 Km/hr

Approximate Travel Time Zones

- 30 mins
- 45 mins
- 60 mins

- H Adult Trauma Orthopaedics
- Primary road
- Motorway



Based on Ireland Road Network
(Ordnance Survey of Ireland)

Analysis performed by Health Atlas Ireland, HSE

Projected Impact of Trauma Network in Ireland:

1 extra survivor per 2 weeks

2 per week saved from lifelong severe disability

HEALTH MANAGER

NEWS ARCHIVES HMI

Home > News > Major Trauma Centres officially opened

News

Major Trauma Centres officially opened

By HMI - 1st June 2023

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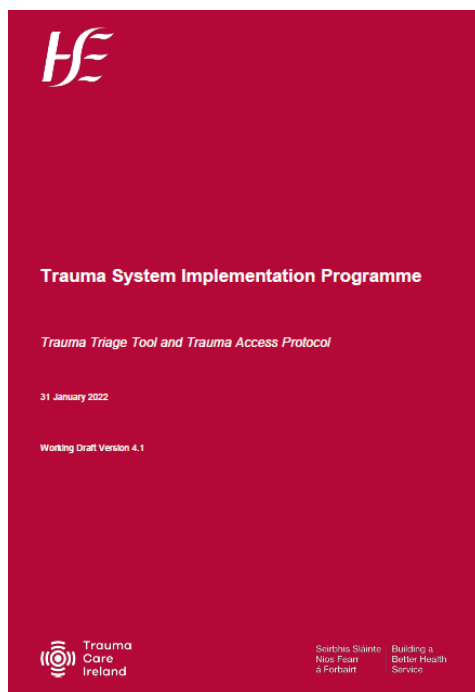


“In this first phase of implementation of the Trauma Strategy, the Government has invested significantly in the capacity and infrastructure required to support the delivery of major trauma services at the two MTCs, including €12.65 million revenue investment and almost €18 million capital investment at MMUH and CUH.

Minister Stephen Donnelly



Trauma Triage Tool & Trauma Access Protocol



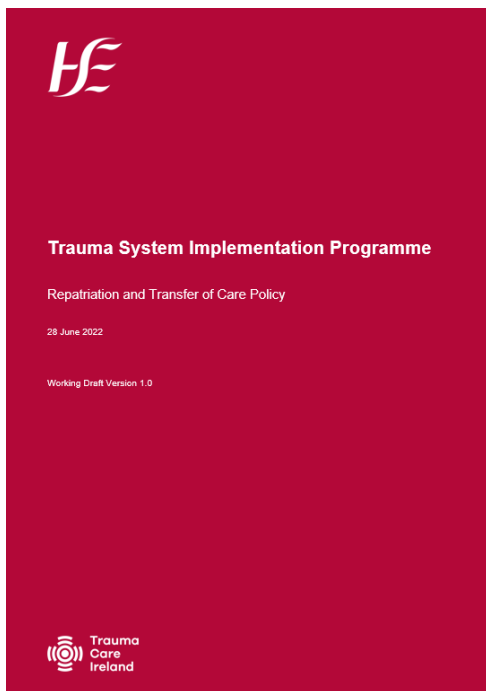
Purpose

To identify major trauma with acceptable sensitivity and specificity to achieve acceptable rates of under and over triage (International experience suggests an over triage rate of 30% is compatible with an under triage rate of approximately 10%, which is felt to be clinically acceptable).

The Trauma Triage Tool will have 4 functions:

1. Activation of the Trauma Team Major Trauma Centres (MTC) and Trauma Units (TU)
2. Determine which patients should be brought directly to MTC from point of injury
3. Determine which patients should be identified early for priority secondary retrieval from TU to MTC
4. Provide clarity on which patients can be taken to non TU/MTC sites (if any)

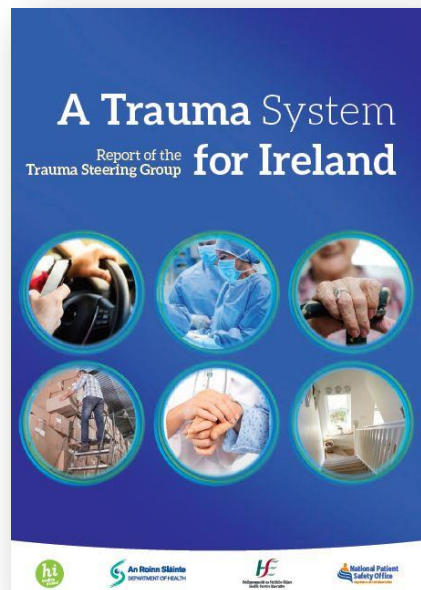
Trauma System Transfer of Care Policy



A key principle is that the trauma patient will be repatriated or transferred to

“most appropriate facility as close to the patients home as possible”.





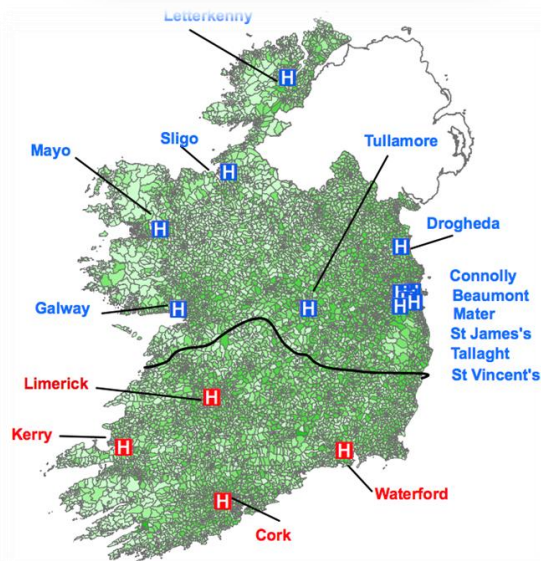
Measure the impact of changes:

- **KPIs**
- **Processes**
- **Outcomes**

Equity of access

Unexpected consequences

Ease of access & interpretation of data

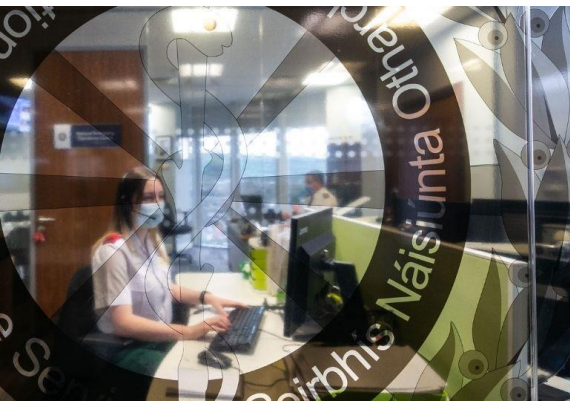


Future Focus

Research

Targeted Review and Amalgamation of **U**nmapped **M**ajor Trauma and **A**mbulance Data in Ireland: **TRAUMA**.

HRB funded



Future Focus

1. [Cycling related major trauma in Ireland.](#)
Foley J, Cronin M, Brent L, Lawrence T, Simms C, Gildea K, Ryan J, Deasy C, Cronin J.
Injury. 2020 May;51(5):1158-1163. doi: 10.1016/j.injury.2019.11.025. Epub 2019 Nov 20.
PMID: 31784058
2. [Implementing Major Trauma Audit in Ireland.](#)
Deasy C, Cronin M, Cahill F, Geary U, Houlihan P, Woodford M, Lecky F, Mealy K, Crowley P; Major Trauma Audit Governance G.
Injury. 2016 Jan;47(1):166-72. doi: 10.1016/j.injury.2015.07.016. Epub 2015 Jul 26.
PMID: 26315666
3. [Trauma on Farms in the Republic of Ireland.](#)
Sheehan M, Brent L, Deasy C.
Injury. 2020 Sep;51(9):2025-2032. doi: 10.1016/j.injury.2020.05.001. Epub 2020 May 15.
PMID: 32475649
4. [Paediatric major trauma in the setting of the Irish trauma network.](#)
McAleese T, Brent L, O'Toole P, Synnott K, Quinn N, Deasy C, Sheehan E.
Injury. 2021 Aug;52(8):2233-2243. doi: 10.1016/j.injury.2021.05.032. Epub 2021 May 21.
PMID: 34083024
5. [Head and neck injury in major trauma in Ireland: a multicentre retrospective analysis of patterns and surgical workload.](#)
Mohamed A, Mulcaire J, Clover AJP.
Ir J Med Sci. 2021 Feb;190(1):395-401. doi: 10.1007/s11845-020-02304-5. Epub 2020 Jul 9.
PMID: 32647954
6. [Tranexamic acid for major trauma patients in Ireland.](#)
Walsh K, O'Keefe F, Brent L, Mitra B.
World J Emerg Med. 2022;13(1):11-17. doi: 10.5847/wjem.j.1920-8642.2022.003.
PMID: 35003409 **Free PMC article.**
7. [Changing Demographic Trends in spine trauma: The presentation and outcome of Major Spine Trauma in the elderly.](#)
Nagassima Rodrigues Dos Reis K, McDonnell JM, Ahern DP, Evans S, Gibbons D, Butler JS.
Surgeon. 2021 Sep 29:S1479-666X(21)00155-4. doi: 10.1016/j.surge.2021.08.010. Online ahead of print.
PMID: 34600828
8. [Low falls causing major injury: a retrospective study.](#)
Lesko K, Deasy C.
Ir J Med Sci. 2020 Nov;189(4):1435-1443. doi: 10.1007/s11845-020-02212-8. Epub 2020 Mar 17.
PMID: 32185749

Research



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Paediatric major trauma in the setting of the Irish trauma network

Timothy McAleese^{a,b,*}, Louise Brent^c, Patrick O'Toole^d, Keith Synnott^e, Nuala Quinn^{f,g},
Conor Deasy^h, Eoin Sheehan^b



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Cycling related major trauma in Ireland


James Foley^{a,*}, Marina Cronin^c, Louise Brent^c, Tom Lawrence^d, Ciaran Simms^e,
Kevin Gildea^e, John Ryan^a, Conor Deasy^{b,c}, John Cronin^a



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A retrospective review of patients who sustained traumatic brain injury in Ireland 2014–2019

Stephen Gilmartin^{a,*}, Louise Brent^b, Michael Hanrahan^c, Michael Dunphy^a, Conor Deasy^{a,b}



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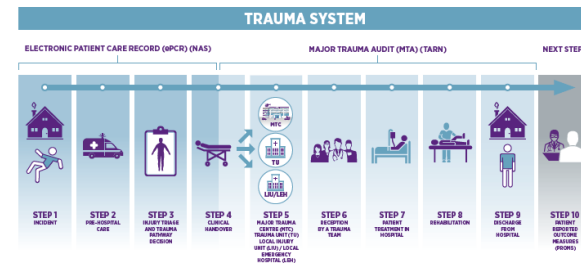
Micheal Sheehan^{a,*}, Louise Brent^b, Conor Deasy^c

^aSpecialist Registrar in Emergency Medicine, Emergency Department, St James's Hospital, James's Street, Dublin 8, Ireland
^bMajor Trauma Audit Manager, National Office of Clinical Audit, 2nd Floor, Black B, Ardilaun House, 111 St. Stephen's Green, Dublin 2, Ireland
^cConsultant in Emergency Medicine, Emergency Department, Cork University Hospital, Wilton, Cork, Ireland



Maximising use of the data/ reporting

Research



Public Health messaging

Key collaborations

MAJOR TRAUMA GOVERNANCE COMMITTEE (MTGC) GUIDANCE

WHAT IS GOVERNANCE?
The system through which healthcare teams are accountable for the quality, safety and experience of patients in the care they have delivered (nrc, 2004). What this means to healthcare staff: Specifying the clinical standards you are going to deliver and showing everyone the measurements you have made to demonstrate that you have done what you set out to do (RIS, 2016). The MTA National Report 2019/2020 recommends that every hospital participating in the MTA should have a committee to ensure that the data from the major trauma audit is being used to drive continuous quality improvement in major trauma care (NOCA, 2022).

- MEETING ETIQUETTE**
- Terms of reference developed for group
 - Frequency of meetings: Quarterly minimum
 - Agendas to be circulated one week in advance
 - Minutes to be circulated one week later
 - Key actions identified and allocated to specific members at each meeting

- SUGGESTED MEMBERSHIP OF MTGC**
- Chair - clinician (from other professional group)
 - Vice Chair - MTA clinical audit and audit coordinator
 - Members representing: Emergency medicine, Paediatrics, General surgery, Trauma coordinator, Orthopaedics, Geriatric medicine, Anaesthetics, Radiology, ICU/ICU nursing, Quality & Safety, Risk management, Senior Hospital Management, Rehabilitation, Administration, Ambulance service, HPE personnel, Public Patient Representative, Best Manager, Theatre Manager

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- Major trauma audit reports (clinical and dashboard reports)
 - TARN analytics reports
 - Data quality
 - Quality improvement
 - Patient safety
 - Critical incidents
 - Compliance
 - Pre-alert
 - Trauma team activation
 - Length of stay
 - Transfers
 - Mortality
 - Delayed discharges
 - Non-sentinel/ business cases



RESOURCES
<https://www.noca.ie/publications>
Template for agenda, minutes & Powerpoint.

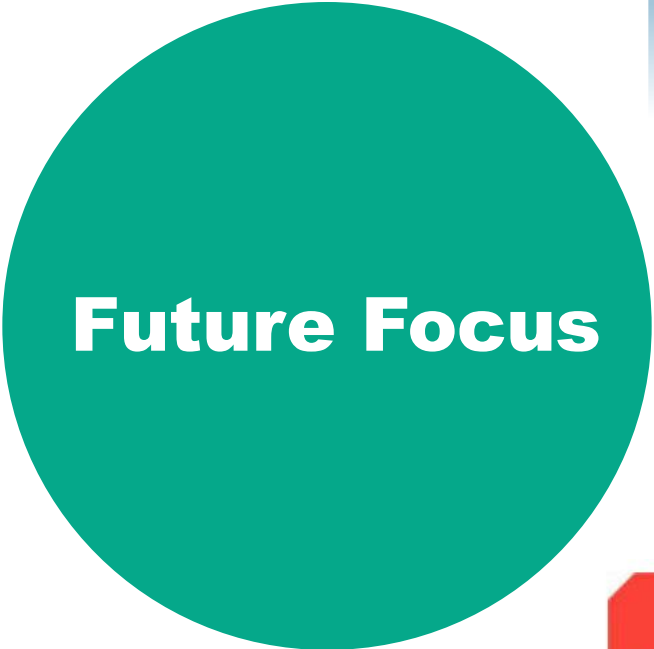
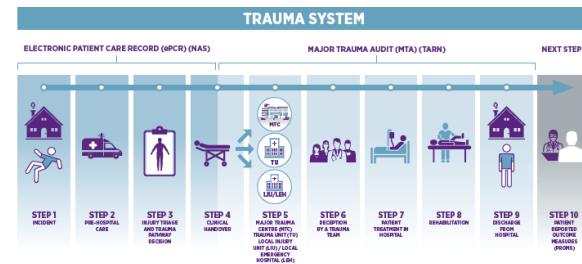
Strengthening hospital governance





Maximising use of the data/ reporting

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Trauma Care Ireland

Thank you!

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