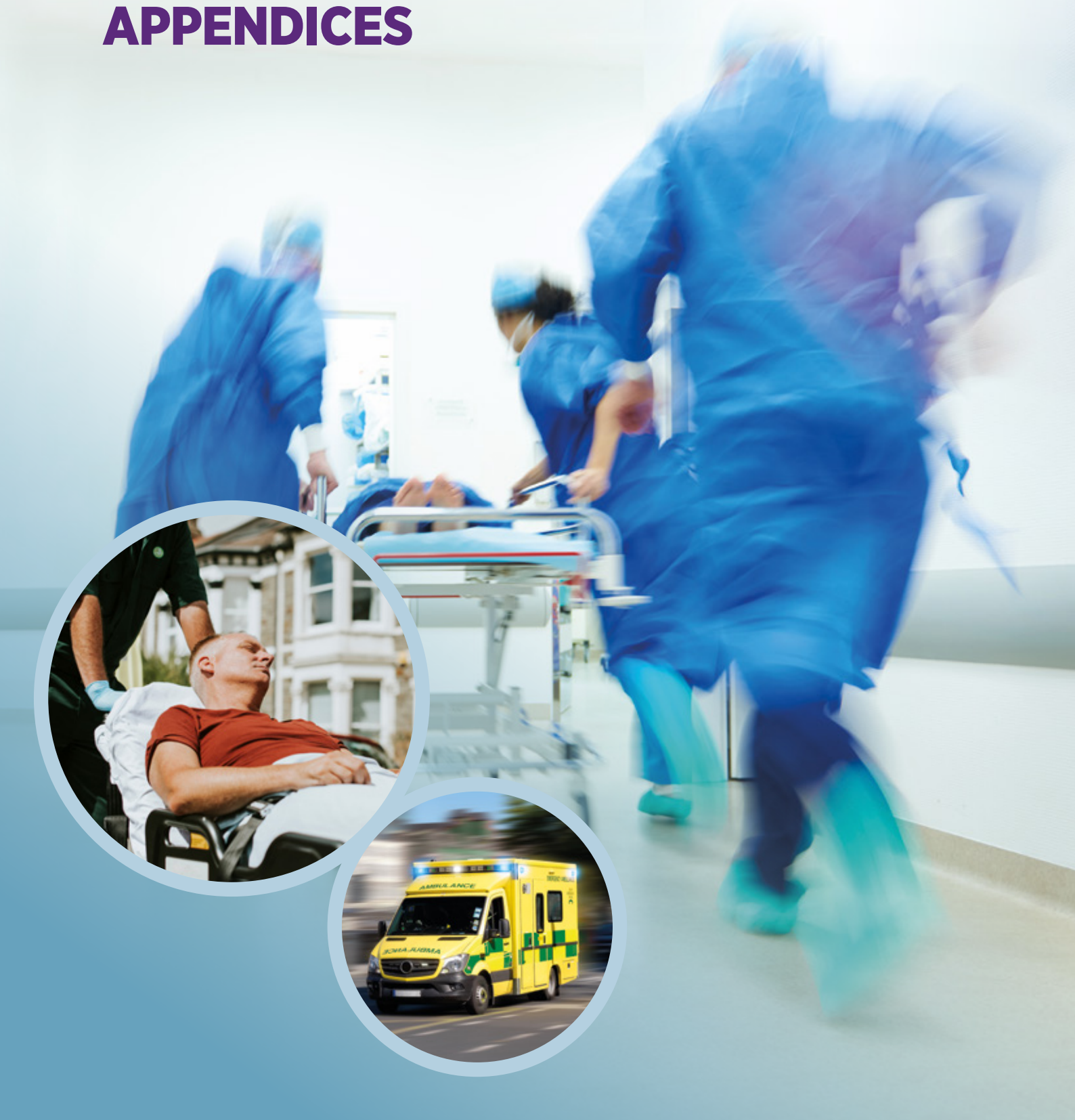
NCA National Office of Clinical Audit

MTA Major Trauma Audit

MAJOR TRAUMA AUDIT NATIONAL REPORT 2022

APPENDICES



APPENDICES

Accessing Report Appendices

National Office of Clinical Audit (2025) *Major Trauma Audit National Report 2022 Appendices*. Dublin: National Office of Clinical Audit. Available at: https://www.noca.ie/publications/publications-listings/?category=national-reports

APPENDIX 1 MTA GOVERNANCE ATTENDANCE 2024

MTA Governance Committee Attendance 2024					
Representative	**Name**	**24.01.24**	**24.04.24**	**21.08.24**	**20.11.24**
MTA Audit Manager	Louise Brent	Chair	Chair	Chair	Chair
Irish Association for Emergency Medicine/Academic Committee	Dr Tomás Breslin	✓	✓	✓	✓
RCPI – Rehabilitation Medicine	Dr Ruairi Connolly	✓	✓	x	x
Clinical Lead	Prof Conor Deasy	✓	✓	✓	✓
HSE National Clinical Programme for Older People	Dr Rachael Doyle	✓	✓	✓	x
RCPI- Pathology	Dr Joan Fitzgerald	✓	✓	✓	✓
Audit Coordinators	Rosita Guidera	x	x	x	x
Joint Faculty of Intensive Care Medicine of Ireland	Dr Jennifer Hastings	✓	x	✓	x
MTA Assistant Manager	Pamela Hickey	✓	✓	✓	✓
HSE National Clinical Programme for Emergency Medicine	Dr George Little	✓	✓	x	✓
MTA Audit Coordinator	Marion Lynders	✓	✓	x	✓
Children's Health Ireland - Paediatric Emergency Medicine	Dr Ciara Martin	x	x	✓	x
RCPI - Public Health	Dr Caroline Mason Mohan	x	✓	✓	✓
National Ambulance Service	Siobhan Masterson	n/a	n/a	n/a	✓
Emergency Medicine Nursing Interest Group	Fiona McDaid	✓	x	✓	x
RCSI - Irish Association of Vascular Surgeons	Mr Morgan McMonagle	x	x	x	x
Public/Patient Involvement	Richard Murray	✓	✓	x	x
Public/Patient Involvement	Bairbre O'Sullivan	✓	✓	x	x
Therapy Representative	Rosie Quinn	x	✓	✓	✓
✓ = Attended	n/a = not applicable				
X = did not attend					

APPENDIX 2 GLOSSARY OF TERMS

Acronym	Full term	Acronym	Full term/definition
AIS	Abbreviated Injury Scale, which assigns a value between 1 (minor) and 6 (fatal) to each injury	**MTA**	Major Trauma Audit
CT	computed tomography: a scanning technique that uses X-rays to take highly detailed images of the body	**MTC**	major trauma centre: a multispecialty hospital, on a single site, optimised for the provision of trauma care and integrated with the rest of the trauma network
direct admissions	care in the first treating hospital	**NCEC**	National Clinical Effectiveness Committee
ED	emergency department	**NOCA**	National Office of Clinical Audit
ePCR	electronic patient care record	**PPI**	Public and Patient Interest
FFP	Fresh Frozen Plasma	**QI**	quality improvement
GCS	Glasgow Coma Scale: a measure of consciousness ranging from 3, indicating complete unconsciousness, to 15, indicating a state of normal alertness; the GCS is composed of eye, verbal and motor scores	**RNA**	Rehabilitation Needs Assessment
HPO	Healthcare Pricing Office	**RP**	Rehabilitation Prescription
HSE	Health Service Executive	**SHO**	senior house officer
ICU	Intensive Care Unit	**TARN**	Trauma Audit and Research Network
IQR	interquartile range	**trauma**	physical injuries of sudden onset and severity which require immediate medical attention
ISS	Injury Severity Score: ranging from 1 (indicating minor injuries) to 75 (indicating very severe injuries that are very likely to result in death); an ISS between 9 and 15 is considered moderate; an ISS of >15 is considered severe and signifies major trauma	**trauma network**	a coordinated, integrated system within a defined geographical region to deliver care to injured patients from injury to recovery, through prevention, pre-hospital care and transportation, emergency and acute hospital care, and rehabilitation
LOS	length of stay: refers to the length of time each patient spends in an acute hospital	**TU**	trauma unit: a major hospital within a trauma network that provides care for most injured patients
major trauma	serious and often multiple injuries where there is a strong possibility of death or disability		

APPENDIX 3 KQI DEFINITIONS

KQI Title	Definition
1. Airway management MTA patients with a Glasgow Coma Scale (GCS) <9	International guidelines use a GCS of <9 as a criterion for the requirement of definitive airway management (i.e. endotracheal or tracheal intubation) on arrival in an emergency department (Royal College of Surgeons of England, 1999).
2. Management of shocked patients	The definition of a shocked patient is one who has suffered blunt trauma and was admitted with a systolic blood pressure of less than 110 mmHg. These patients have a significantly increased risk of mortality (Hasler *et al.*, 2011). The crude survival rate does not attempt to adjust for differences in sex, comorbidities or other factors that contribute to survival.
3. Time to computed tomography (CT) scan for head injury patients at initial treating hospital	Head injury patients with an initial GCS of <13 should have a CT head scan within 1 hour of arrival at hospital (National Institute for Health and Care Excellence, 2014).
4. Intensive Care Unit (ICU) admission	Patients with major trauma are admitted to critical care for many reasons, including ongoing resuscitation, organ support and/or closer monitoring. Critical care encompasses both intensive care and high-dependency care. In practice, Level 2 is High Dependency Unit (HDU) care and Level 3 is ICU care (National Standards for Adult Critical Care Services, 2019). The length of stay in an ICU can be influenced by the availability of ICU beds, the needs of the patient and/or the availability of step-down beds.
5. Hospital length of stay (LOS)	Hospital LOS for trauma patients is dependent on the nature and severity of the injuries sustained, the baseline health of the patient, the efficiency of the hospital in delivering care and the ability of the hospital to discharge the patient to an appropriate setting when they have recovered. Access to rehabilitation, step-down facilities, and home and community support influence LOS at the acute hospital for severely injured patients.

APPENDIX 4: FREQUENCY TABLES

FIGURE 3.1: MOST SENIOR PRE-HOSPITAL HEALTHCARE PROFESSIONAL, BY AGE GROUP (n=2332)

	N	%
Paramedic	1066	45.7%
Advanced paramedic	1027	44.0%
Unknown	204	8.7%
Doctor	35	1.5%
Total	**2332**	**100.0%**

FIGURE 3.2: MODE OF ARRIVAL AT HOSPITAL, BY AGE GROUP (n=2881)

	N	%
Ambulance	2273	78.9%
Ambulance and helicopter	35	1.2%
Car	451	15.7%
Helicopter	24	0.8%
Walking	98	3.4%
Total	**2881**	**100.0%**

FIGURE 3.3: PROPORTION OF PATIENTS WHO WERE RECEIVED BY TRAUMA TEAM, AND WERE PRE-ALERTED (n=2976)

	Pre-alerted		Received by a trauma team	
	N	%	N	%
Yes	399	13.4%	221	7.4%
No	2396	80.5%	2699	90.7%
Unknown	181	6.1%	56	1.9%
Total	**2976**	**100.0%**	**2976**	**100.0%**

FIGURE 3.4: DOCUMENTED GRADE OF MOST SENIOR DOCTOR TREATING PATIENT ON ARRIVAL (n=2,976)

	N	%
Consultant	679	22.8%
Specialist registrar	651	21.9%
Registrar	1310	44.0%
SHO	272	9.1%
Other/no grade recorded	64	2.2%
Total	**2976**	100.0%

FIGURE 3.5: DOCUMENTED MOST SENIOR DOCTOR SEEING PATIENT ON ARRIVAL IN THE EMERGENCY DEPARTMENT AND THOSE WITH AN INJURY SEVERITY SCORE >15

	In ED after arrival		With an ISS>15 in ED after arrival	
	N	%	N	%
Consultant	679	22.8%	322	31.9%
Specialist registrar	651	21.9%	230	22.8%
Registrar	1310	44.0%	383	38.0%
SHO	272	9.1%	57	5.7%
Other/not recorded	64	2.2%	16	1.6%
Total	**2976**	**100.0%**	**1008**	**100.0%**

FIGURE 3.6: SURGICAL INTERVENTION, BY BODY REGION (n=2694)

	N	%
Abdomen	93	3%
Face	33	1%
General	76	3%
Head and brain	333	12%
Limb(s)	1526	57%
Skin/soft tissue	366	14%
Spine	218	8%
Thoracic	49	2%
Total	**2694**	**100%**

FIGURE 3.7: TYPE OF BLOOD PRODUCT (n=163)

	N	%
Red cells concentrate	139	85%
Frozen plasma	13	8%
Platelets	*	*
Fibrinogen concentrate	~	*
Total	**163**	**100%**

~ Denotes five cases or fewer

* Further suppression required in order to prevent disclosure of five cases or fewer

FIGURE 3.8: PROPORTION OF PATIENTS TRANSFERRED TO ANOTHER HOSPITAL (N=3323)

	N	%
Transfers	676	20.3%
Direct Admissions	2647	79.7%
Total	**3323**	**100.0%**

FIGURE 4.1: MORTALITY BY AGE GROUP (N=3323)

	Dead		Alive		Total	
	N	%	N	%	N	%
0–14	0	0.0%	32	1.0%	32	1.0%
15–24	7	3.7%	224	7.1%	231	7.0%
25–34	6	3.2%	181	5.8%	187	5.6%
35–44	12	6.3%	271	8.6%	283	8.5%
45–54	9	4.8%	358	11.4%	367	11.0%
55–64	13	6.9%	527	16.8%	540	16.3%
65–74	26	13.8%	489	15.6%	515	15.5%
75–84	53	28.0%	599	19.1%	652	19.6%
85+	63	33.3%	453	14.5%	516	15.5%
Total	**189**	**100.0%**	**3134**	**100.0%**	**3323**	**100.0%**

FIGURE 4.2: MORTALITY BY INJURY SEVERITY SCORE (n=189)

	Dead		Alive		Total	
	N	%	N	%	N	%
Low–severity injury	21	11.1%	633	20.2%	654	19.7%
Moderate–severity injury	43	22.8%	1478	47.2%	1521	45.8%
Severe injury	125	66.1%	1023	32.6%	1148	34.5%
Total	**189**	**100.0%**	**3134**	**100.0%**	**3323**	**100.0%**

FIGURE 4.3: MORTALITY, BY MECHANISM OF INJURY (n=189)

	Dead		Alive		Total	
	N	%	N	%	N	%
Blow(s)	~	*	*	*	212	6.4%
Fall less than 2m	125	66.1%	1915	61.1%	2040	61.4%
Fall more than 2m	21	11.1%	302	9.6%	323	9.7%
Road trauma	24	12.7%	573	18.3%	597	18.0%
Other	*	*	137	4.4%	151	4.5%
Total	**189**	**100.0%**	**3134**	**100.0%**	**3323**	**100.0%**

~ Denotes five cases or fewer

* Further suppression required in order to prevent disclosure of five cases or fewer

FIGURE 4.4: DISCHARGE DESTINATION (N=3327)

	N	%
Home	1938	58.3%
Nursing home	443	13.3%
Other acute hospital	479	14.4%
Rehabilitation	231	6.9%
Mortuary	190	5.7%
Other	46	1.4%
Total	**3327**	**100.0%**

NOCA National Office of Clinical Audit

Phone: **+353 1 4028577**
Email: **auditinfo@noca.ie**
X: **@noca_irl**
www.noca.ie