

Trauma Services - Adult

CSCF v3.2

Module overview

Please note: This module must be read in conjunction with the Fundamentals of the Framework (including glossary and acronym list) and the [individual specialty services modules](#) relevant to each trauma service section (please refer to Table 1).

Introduction

Trauma is a complex clinical condition. The term 'trauma' refers to patients who have sustained physical injury, ranging from minor trauma that is resolved within a short period of time, to major trauma that can leave people with serious disability requiring ongoing care. Treatment for trauma is emergency or unplanned in nature.

Hospital trauma services range in structure and organisation depending upon the type and size of the facility, sector (public or private), geographical location and workforce. At its simplest, minor trauma care is provided by primary care services. At its most complex, major trauma care is provided by a specialised and discrete trauma service. In between are various compositions of clinical teams, services, and individuals allocated responsibility for trauma care. At present, trauma services are predominantly provided by public sector hospitals, though this module does provide the base level requirements per capability level for private and public hospitals to establish new or upgrade existing trauma services.

Trauma services are delivered from patient retrieval to discharge from care by clinicians from multiple specialty groups, disciplines and organisations. Patients usually access trauma services via emergency departments, with various influencing factors determining where and when the treatment of trauma occurs, e.g., severity of injury, services and expertise required, levels of supporting services. No single trauma service model will suit the needs of all populations, variation is expected.

A trauma patient's journey through the system may extend across the care continuum to surgery, intensive care, inpatient wards, rehabilitation services (specialised and non-specialised), and outpatient services before and after definitive discharge. While rare in Queensland at this point in time, some facilities may have designated trauma wards or units where the same treating team has overall responsibility for care of the trauma patient throughout their admission (a surgical trauma admitting service is sometimes referred to as a Trauma Bed Card).

The trauma population serviced within Queensland by health services is broad, in age as well as geography and culture. The most assured way to deliver optimal patient outcomes is

to facilitate clear and rapid access to safe and appropriate levels of trauma services, specific for the clinical needs of patients across metropolitan, regional and rural Queensland.

The Trauma services Clinical Services Capability Framework (CSCF) module applies to adults and provides guidance for the severity of injury able to be safely treated by hospitals, dependent upon assessment of service capability.

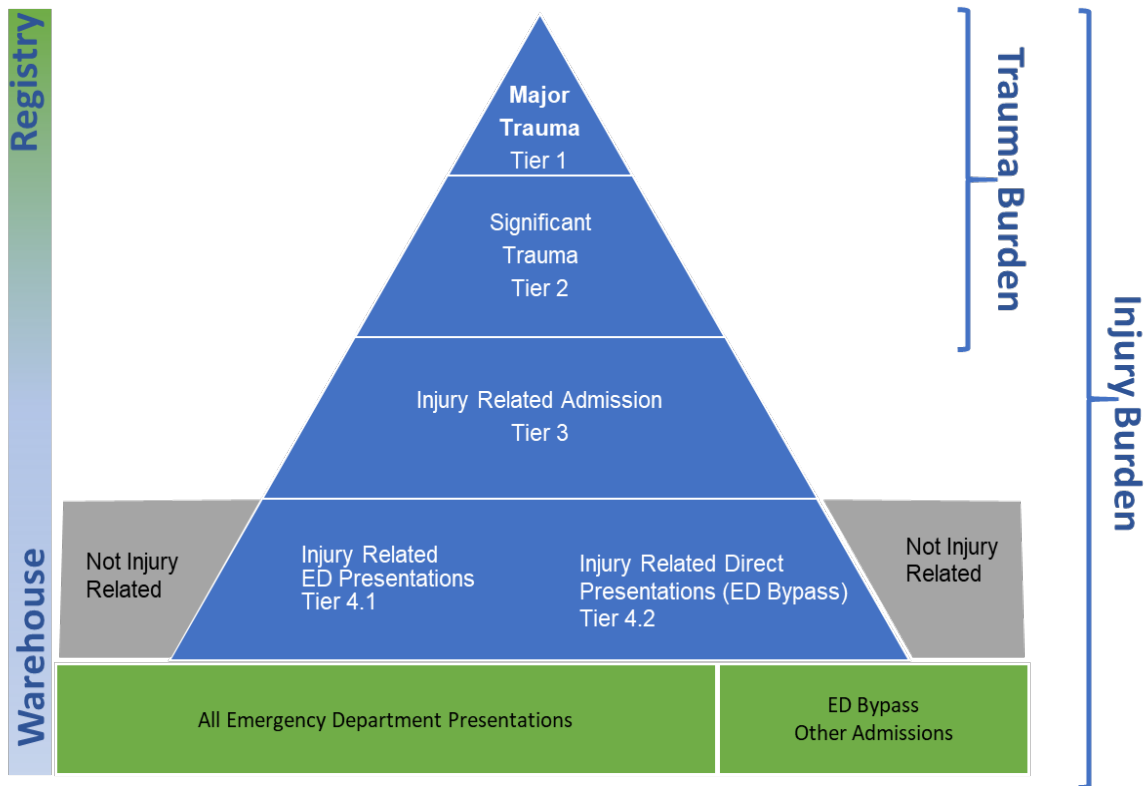
In addition to ensuring safe and appropriate delivery of care, the module intents are:

- Improved timeliness and patient access to appropriate trauma care regardless of residence and geography
- Enhanced standardisation of care delivery and improved patient outcomes
- Equitable opportunity for positive clinical outcomes regardless of geography or health sector
- Implementation of a framework reflecting the burden of trauma care.

Due to the close interfaces between trauma and other services across that care continuum, sections of the Trauma services module must be read in conjunction with the major relevant modules for those interfacing services (Table 1). Note also that the scope of the CSCF does not permit exhaustive inclusion of all services necessary to support all trauma services, and that the perioperative and surgical components are primarily focused on emergency surgery.

Queensland Trauma Burden Definition

Trauma Burden includes Tier 1 Major Trauma and Tier 2 Significant Trauma Injury. The definition for Major Trauma in Australia and New Zealand is admitted Patients who subsequently die after injury, or who sustain major trauma (defined as an Injury Severity Score greater than 12).



Tier 1. Major Trauma (Australia and New Zealand Trauma Definition)

- Inclusions: Admitted Patients who subsequently die after injury, or who sustain major trauma (defined as an Injury Severity Score greater than 12) are included.
- Exclusions: Patients with delayed admissions greater than seven days after injury; Poisoning or drug ingestion that do not cause injury; Foreign bodies that do not cause injury; Injuries secondary to medical procedures; Isolated neck of femur fracture; Pathology directly resulting in isolated injury ; Older adults (≥ 65 years of age) who die with superficial injury only (contusions, abrasions, or lacerations) and/or have co-existing disease that precipitates injury or is precipitant to death (e.g. stroke, renal failure, heart failure, malignancy).

Tier 2. Significant Trauma

Patients that meet Tier 3 Admissions with any of the following criteria:

- Acute Hospital Admission with Length of stay > 72 hr
- Requiring mechanical ventilation
- Admission to intensive care or critical care unit for more than 24 hours
- Transferred to or received from another facility for further care

- Intracranial, intrathoracic or intraabdominal surgical procedure, fixation of pelvic or spinal fractures, burns, or requiring any interventional radiological procedure
- Injury Severity Score ISS>9 (where available).

Tier 3. Injury Related Admissions

Admissions with all the following criteria:

- Acute Hospital Admission with Length of stay >24 hours AND
- Hospital discharge diagnosis due to traumatic injury as per agreed ICD-10-AM Code List or ED presentations with ICD10/SNOMED Equivalent (previously known as the QHERS 10-3 Trauma Data Extract); AND
- Hospital external cause code of V01-X59 Accidents; X60-X84 Intentional Self Harm; X85-Y09 Assault; Y10-Y34 Event of undetermined intent; Y35-Y36 Legal intervention and operations of war; Y85-Y86 Sequelae of Transport Accidents; Y87.1-Y87.2 Sequelae of assault or events of undetermined intent; Y89 Sequelae of other external causes; Y96 Work-related condition.

Tier 4. Injury Related Presentations

All presentations to an Emergency Department which meet the following criteria:

- EDIS: Any case with an ED diagnosis of an injury or external cause code from the following range:
 - ICD-10-AM codes from Chapter 19 (Range: S00–T75 or T79), Chapter 20 (V, W, X, Y codes), Z codes which refer to accidents (Z04.1, Z04.2, Z04.3).
- FIRSTNET: Any cases with SNOMED codes which map to EDIS list of ICD-10-AM codes described above OR Any case for which any of the following are true:
 - An ieMR (Integrated Electronic Medical Record) trauma form is completed
 - The ED tracking dashboard indicates a model of care pathway of trauma
 - A trauma specialty is assigned to manage the case
 - Trauma activation criteria selected from the ED triage form
 - Presentation direct result of injury- YES selected within the triage form
 - Trauma alert or trauma respond DTA complete within IView (Interactive View) of ieMR.

An integrated and sustainable Queensland trauma system

Trauma services involve a range of interconnected clinical services to ensure care is safe, coordinated and responsive to need, in both public and private sectors. A close interface amongst various clinical and support services is critical to delivery of an efficient and effective trauma service, and includes emergency, surgical, perioperative, diagnostic, inpatient and rehabilitation services.

Minimising and managing the burden of trauma whilst working toward a sustainable trauma system across metropolitan, regional, rural and remote services in Queensland is a key focus of Queensland's trauma services. To that end, the Trauma services CSCF will assist to define the capabilities and potential roles of hospital services in the overall management of trauma care delivery.

Additionally, a number of Queensland hospital trauma services participate in the Royal Australasian College of Surgeons (RACS) Trauma Verification Program, an independent benchmarking process that Queensland trauma services are encouraged by peers to participate in. While there is no direct relationship or substitute effect between the Trauma services CSCF and the RACS Trauma Verification Program, it is recommended that both should be referred to in facilities that routinely provide trauma services and be acknowledged for their contributions toward ensuring the quality and safety of trauma services and models of care.

It is important to note the inverse service level sequencing in the CSCF and the RACS Trauma Verification Program. The CSCF service levels increase in complexity from 1 to 6, with level 6 reflecting the highest degree of service complexity. Conversely, the RACS Trauma Verification Program service levels decrease in complexity from 1 to 6, with level 1 reflecting the highest level of service complexity.

Encompassing the spectrum of trauma care is essential to understanding the impact, reach and safety requirement. Trauma care is not limited to the well-recognised front end hours or days of a patient's acute admission but extends through to 'back end' services such as rehabilitation and transitional care. All of which are significant determinants of functional outcome for moderate and major trauma patients and require early referral to allied health and access to rehabilitation services.

Trauma data

The collection of trauma activity data is considered to be a fundamental supporting mechanism to the delivery of an efficient and effective trauma service. Inclusion of core activity components (patient information, admission data, intensive care admissions, trauma transfers, deaths after injury) supports the monitoring of safety and quality, which may then inform models of care and service delivery, service improvement, and trauma related research.

Sites collecting trauma data shall comply with the Queensland Trauma Data Collection Tier 1 Traumatic Injury Data Set-Definitions which is in line with the Australia New Zealand Trauma Registry (ATR). The Queensland Trauma and Burns Quality Assurance Committee provides a statewide mechanism to identify opportunities for improvement in the management of patients with traumatic and burns injuries, through a process of data analysis and case review.

Format

The Trauma services module applies to adults and encompasses nine (9) service sections, each describing the minimum safety requirements for trauma service provision through capability Levels 1 to 6. Complexity and specialisation increase incrementally per level. Level 1 and 2 trauma services are not intended to care for moderate and/or major trauma. They are included in the module as they provide care of minor trauma, and are required at times to resuscitate, stabilise and prepare patients with moderate or major trauma for rapid transfer to higher level services.

Sections 1 to 7 and 9 of the Trauma services CSCF align with the flow of services or care continuum that trauma patients may receive throughout their journey (Table 1), while

Section 8 is dedicated to the service requirements to address the management of pain, a critical element of trauma care.

Section 9 contains details that are specific to trauma, and not represented in any existing CSCF.

Note that not all patients will necessarily receive all services, such decisions are dependent upon individualised clinical assessment of patient needs. The different service levels take into consideration the complexity and risks associated with delivering a safe clinical service and the need for specialised support.

Table 1: Trauma service sections

Service section	Major related CSCF modules
1. Emergency Service	Emergency services Maternity services Medical Imaging services Pathology services Surgical services
2. Perioperative Service	Surgical services Anaesthetic services Maternity services Medical Imaging services
3. Surgical Service	Anaesthetic services Perioperative services Surgical services Maternity services Medical Imaging services Pathology services
4. Intensive Care Service	Intensive Care services Surgical services Anaesthetic services
5. Acute Inpatient Service	Surgical services Medical services Rehabilitation services
6. Rehabilitation Service	Rehabilitation services Persistent Pain Management services

Service section	Major related CSCF modules
7. Specialist Outpatient Service	Surgical services Rehabilitation services Persistent Pain Management services
8. Pain Management Service	Anaesthetic services Perioperative services Surgical services Persistent Pain Management services
9. Dedicated Trauma Service	

Service networks

In addition to the requirements outlined in the Fundamentals of the Framework, specific trauma service network requirements include:

- Trauma services are provided within the context of an established service network.
- Where clinical management is considered to be beyond a service's capability (e.g., major – moderate trauma), the patient must be managed in consultation with higher level trauma services supported by telehealth service capability.
- Documented processes and collaborative working partnerships with other health services (government and non-government) to facilitate the delivery of timely and appropriate trauma care under the guiding philosophy of 'right care, right place, right time'.
- Consultation, escalation, and documented transfer procedures with higher level and/or specialty services, inclusive of back transfer protocols and procedures.
- Membership of relevant local and statewide networks and committees where trauma is heavily implicated, e.g., theatre management, retrieval services, pathology (blood product), radiology, disaster planning etc.
- Facilitation of educational opportunities to support capability levels.

Service requirements

In addition to what is outlined in the Fundamentals of the Framework, specific service requirements include:

- Linkage with and fulfilment of requirements of other relevant service modules.
- Established service networks, policies, protocols, and infrastructure (government and non-government) to support care of the trauma patient from retrieval to discharge (includes stabilisation and transfer protocols or equivalent).
- Level 6 services have direct access from helipad to emergency department, operating theatre, and intensive care unit.

- Level 4, 5 and 6 trauma services provide timely advice and support to those services managing trauma at lower service capability levels.
- Consultation with referring and receiving multidisciplinary teams.
- Agreed parameters for acceptance of transfer of patients in a timely manner (applies to retrieval, interhospital, and back transfers).
- Access to telehealth facilities for trauma care management and coordination.
- Provision of necessary clinical indicator data to satisfy accreditation requirements (hospital, college etc) and any statutory reporting obligations.
- Participation in hospital accreditation processes in relation to the provision of trauma care.
- Compliance with mandatory trauma training and credentialing requirements.

Workforce requirements

In addition to what is outlined in the Fundamentals of the Framework, specific workforce requirements include:

- The trauma workforce in a health facility extends from the emergency department through perioperative services, intensive care, inpatient wards, rehabilitation, and outpatient services, to discharge and community based ambulatory services.
- Multiple supporting services with their own workforces are also recognised participants in the care of the trauma patient.
- All registered medical practitioners (registrars) in training must be supervised by a registered medical specialist with credentials in emergency medicine (as per ACEM guidelines), and/or surgery or surgical sub-specialty (as per RACS guidelines).
- Trauma related interventions (e.g., thoracotomy) may only be performed by a person who is appropriately trained.
- It is expected that all clinicians working within a trauma service undertake the following activities to a level applicable to their assessed service capability:
 - Further education and/or training in trauma care for adults, children, maternity, and neonates (see Appendix 1 for a list of recommended courses).
 - Formal quality improvement programs
 - Data collection as required by the service or facility
 - Research activities.
- Care pathways collaboratively led and implemented by multi-professional clinical teams, including nurse practitioners and advanced allied health practitioners, and supported by clinical assistants, are required to facilitate integrated delivery of care and optimise the workforce resources available locally and across the state.

Specific risk considerations

In addition to risk management outlined in the Fundamentals of the framework, specific risk considerations for trauma services include:

- Trauma patients are at risk of adverse outcomes and disability related to hospitalisation, surgery and high-risk clinical status, and may require complex medical and social care coordination up to and beyond discharge.
- Complex trauma patients are at risk of medical complications in the perioperative period which may result in a prolonged stay.
- In addition, elderly, neurological and complex musculoskeletal trauma patients are likely to require rehabilitation, with a proportion resulting in the need for alternative accommodation at discharge.
- Where access to a specialty workforce does not exist for a service, skills training to enable those services to perform critical emergency procedures and lifesaving interventions is recommended to ensure safe provision of care.
- It is recognised that in emergency situations services may need to implement care interventions that would normally be undertaken at higher capability services. This should occur in consultation with an appropriate higher-level service.
- Rural and remote services:
 - Lower level trauma services (L1-3) must have agreed stabilisation and transfer policies and protocols in place with higher level trauma services, as some rural and remote hospitals and health care facilities may not have an immediately available medical practitioner, imaging, or acute care infrastructure. These may involve external supporting services such as retrieval and ambulance services, police etc.
 - Isolated rural and remote services (L1-2) may be required to intermittently perform at a higher service capability level (than that assessed) to manage major trauma, in consultation with and/or support from retrieval services, until retrieval teams arrive.
 - To enable the safe provision of life saving interventions beyond a rural and remote service's CSCF level, it is recommended that higher level trauma services provide or facilitate the necessary training and upskilling of rural and remote clinicians to support specific capabilities.
 - Where applicable, it is recommended that patients with major trauma retrieved from rural and remote centres be transferred to services recognised as having the relevant clinical expertise/centre of excellence (brain injury, unstable pelvis etc) for the mechanism of injury.
 - Trauma Symptom Checklist for Children (TSCC) and Pre-Hospital Trauma Life Support (PHTLS) certification is recommended.
- It has been estimated that up to 50% of all trauma patients will require post-discharge follow-up.

Support service requirements

The Trauma services CSCF support service requirement table indicates the level of other services that are necessary to be in place for a trauma service to operate safely at each CSCF level. Support service requirements for a clinical service (e.g., trauma) must also align with the requirements identified as necessary in the respective supporting service's CSCF support services table.

To determine the support services levels required for the Trauma service CSCF, the following process was undertaken:

- Each clinical service's CSCF was reviewed to determine the level of service that met the requirements identified in the Trauma services CSCF at each level
- Each level of Trauma services CSCF support services was assessed to determine if they were required to be on-site or accessible for trauma services. Definitions for on-site and accessible are as follows (standard for all CSCFs):
 - On-site means staff, services and/or resources located within the health facility or adjacent campus including third party providers.
 - Accessible means ability to utilise a service (either located on-site or off-site) or skills of a suitably qualified person (who may be either on-site or off-site) without difficulty or delay—via various communication mediums including but not limited to face-to-face, telehealth, telepharmacy, and/or outreach.

For the public sector only, it is integral to the CSCF process that where a service (in this instance, trauma) is unable to meet/attain a particular service level because a relevant supporting service is not available at the required level needed, the service/site is able to implement a risk mitigation plan that includes actions to overcome the identified risk. With local Executive endorsement of the mitigation plan, the service may then meet the required CSCF service level requirements.

Section 1: Trauma services – Emergency services

Please note: This section should be read in conjunction with the [Fundamentals of the Framework](#); and the [Emergency services, Maternity services, Surgical services, Medical Imaging services](#), and [Pathology services](#) modules.

Trauma services – Emergency	Level 1	Level 2	Level 3	Level 4	Level 5	Level 6
Service description	As per module overview, plus: <ul style="list-style-type: none"> On-site Emergency Services Level 1 	As per Level 1, plus: <ul style="list-style-type: none"> On-site Emergency Services Level 2 	As per Level 2, plus: <ul style="list-style-type: none"> On-site Emergency Services Level 3 	As per Level 3, plus: <ul style="list-style-type: none"> On-site Emergency Services Level 4 	As per Level 4, plus: <ul style="list-style-type: none"> On-site Emergency Services Level 5 	As per Level 5, plus: <ul style="list-style-type: none"> On-site Emergency Services Level 6
Service requirements	As per module overview, plus: <ul style="list-style-type: none"> On-site access to Rural and Remote Emergency Services Standardisation Guidelines, and Primary Clinical Care Manual to guide service requirements and processes Defined processes to provide early notification of trauma Equipment on-site to support patient stabilisation while awaiting rapid 	As per Level 1, plus: <ul style="list-style-type: none"> On-site or rapid access to medical officer with intubation capability (subject to experience) 24 hour telehealth capability that enables consultation and communication with higher level trauma services and specialists. 	As per Level 2, plus: <ul style="list-style-type: none"> Clearly defined escalation and transfer protocols in place to support and guide provision of high quality, clinically appropriate trauma care for medium and minor level trauma patients; and enable rapid transfer of deteriorating or major trauma patients On-site airway management / intubation capability 	As per Level 3, plus: <ul style="list-style-type: none"> A localised Trauma Alert System is established Equipped resuscitation bays in the Emergency Department On-site ability to perform emergency surgery Access to, or on-site, CT imaging 24/7 Access 24/7 to a radiologist Onsite x-match and blood product storage capability 	As per Level 4, plus: <ul style="list-style-type: none"> A formal Trauma Alert System is established Equipped trauma bays in the Emergency Department Rapid transfer to theatre protocol/ guideline in place (e.g. Red Blanket) On-site CT imaging 24/7 Access to Tier B interventional radiology services Provision for helicopter landing on-site to receive 	As per Level 5, plus: <ul style="list-style-type: none"> Consultant led care for trauma available 7days a week Sufficient case volumes to sustain clinical excellence Provide leadership and support to other hospitals within a defined geographical region Provision for helicopter landing on-site to receive patient transfers Senior surgical staff on site, or

Trauma services – Emergency	Level 1	Level 2	Level 3	Level 4	Level 5	Level 6
	<p>retrieval of deteriorating or major trauma patients to specialised clinical services</p> <ul style="list-style-type: none"> Identified aerial retrieval location (fixed wing, helicopter etc.) May participate in collection of relevant data for Queensland trauma data collections. 		<ul style="list-style-type: none"> Access to FAST scan (Focused Assessment with Sonography for Trauma) Access to on-site emergency surgery or have the ability to transfer to a higher service with emergency surgery capability Contributing to trauma data collections /registries Lead member of local trauma team to participate in disaster planning groups. 	<ul style="list-style-type: none"> Contributing to trauma data collections/registries. 	<p>patient transfers desirable</p> <ul style="list-style-type: none"> Provides any training considered necessary for/to rural and remote clinicians to optimise patient safety and care prior to transfer to specialised clinical services. 	<p>accessible within 30 minutes, 24/7</p> <ul style="list-style-type: none"> Provides and/or facilitates support, training and outreach services to lower level trauma services.
Workforce requirements	As per module overview	As per Level 1	<p>As per Level 2, plus:</p> <ul style="list-style-type: none"> Strongly recommended that medical and nursing staff undertake additional training in trauma care 	<p>As per Level 3, plus:</p> <ul style="list-style-type: none"> Accountable officer for trauma data collection desirable Access to allied health professionals experienced in trauma care. 	<p>As per Level 4, plus:</p> <p>Medical</p> <ul style="list-style-type: none"> Access to a part-time Trauma Director up to 1.0FTE, or a clinical lead/consultant with responsibility for trauma services 	<p>As per Level 5, plus:</p> <p>Medical</p> <ul style="list-style-type: none"> On-site designated Trauma Director who is a registered medical specialist with credentials in trauma care/ or equivalent

Trauma services – Emergency	Level 1	Level 2	Level 3	Level 4	Level 5	Level 6
			<ul style="list-style-type: none"> • Access to physiotherapist, social worker, and other allied health professionals • Officer/point of contact for trauma data collection desirable. 		<ul style="list-style-type: none"> • Access to, or on-site/visiting, medical specialists with credentials in surgical sub-specialties: • <u>On-Site</u> • General surgery, Anaesthetics, Orthopaedics/ortho trauma, Ophthalmology • <u>Accessible</u> within timeframes advised by RACS or the health service: • Neurosurgery, Vascular, Plastics, Maxillofacial, Burns, ENT, Cardiothoracic, Urology, Spinal, Obstetrics • Chair of Trauma Review Committee portfolio • Practitioners providing trauma care should provide evidence of additional trauma training <p>Nursing</p>	<ul style="list-style-type: none"> • Medical specialists with credentials in General Surgery and surgical sub-specialties on-site or visiting 24/7: General surgery, Burns, Orthopaedics/ orthotrauma, Ophthalmology, Plastics, Neurosurgery, Vascular, Maxillofacial, ENT, Cardiothoracic, Urology, Spinal, Obstetrics <p>Nursing</p> <ul style="list-style-type: none"> • Suitably qualified and experienced lead trauma nurse on site for each shift <p>Allied Health</p> <ul style="list-style-type: none"> • Access to prosthetists and orthotists, or staff who are trained in the provision of collars, braces etc. required for trauma care

Trauma services – Emergency	Level 1	Level 2	Level 3	Level 4	Level 5	Level 6
					<ul style="list-style-type: none"> Suitably experienced lead trauma nurse, with or working towards suitable qualifications, is on site for each shift <p>Allied Health</p> <ul style="list-style-type: none"> Onsite allied health professionals experienced in trauma care, including physiotherapists, social workers, speech pathologists, occupational therapists, dietitians, psychologists Access to afterhours social worker support as deemed appropriate by the facility <p>Other</p> <ul style="list-style-type: none"> Trauma service medical and nursing staff have, or are, undertaking additional trauma care training/ qualifications 	<ul style="list-style-type: none"> Access to other allied health professionals such as podiatrists, etc.

Trauma services – Emergency	Level 1	Level 2	Level 3	Level 4	Level 5	Level 6
					<ul style="list-style-type: none"> Multidisciplinary team training, including leadership, is facilitated. 	
Specific risk considerations	<ul style="list-style-type: none"> Nil 	<ul style="list-style-type: none"> Nil 	<ul style="list-style-type: none"> Nil 	<ul style="list-style-type: none"> Nil 	<ul style="list-style-type: none"> Nil 	<ul style="list-style-type: none"> Nil

Section 2: Trauma services – Perioperative services

Please note: This section should be read in conjunction with the [Fundamentals of the Framework](#); and the [Perioperative services, Surgical services](#), [Anaesthetic services](#), [Maternity services](#), and [Medical Imaging services](#) modules. The Perioperative services module encompasses Day Surgery, Acute Pain, Endoscopy, Operating Suite and Post-Anaesthetic Care Services.

Trauma services - Perioperative	Level 1	Level 2	Level 3	Level 4	Level 5	Level 6
Service description	As per module overview, plus: <ul style="list-style-type: none"> On-site Perioperative Services Level 1 	As per Level 1, plus: <ul style="list-style-type: none"> On-site Perioperative Services Level 2 	As per Level 2, plus: <ul style="list-style-type: none"> On-site Perioperative Services Level 3 	As per Level 3, plus: <ul style="list-style-type: none"> On-site Perioperative Services Level 4 	As per Level 4, plus: <ul style="list-style-type: none"> On-site Perioperative Services Level 5 	As per Level 5, plus: <ul style="list-style-type: none"> On-site Perioperative Services Level 6
Service requirements	As per module overview	As per Level 1	As per Level 2, plus: <ul style="list-style-type: none"> May have capacity to mobilise staff and allocate theatre for unplanned returns to theatre Rapid transfer to theatre protocol or equivalent principles and processes in place to expedite patients to theatre Documented processes in place to monitor patient flow in post anaesthetic care 	As per Level 3, plus: <ul style="list-style-type: none"> Capacity to mobilise staff and allocate theatre for unplanned returns to theatre Documented pathway that facilitates access to an operating theatre for emergency/ trauma surgery Access 24/7 to a radiologist Onsite x-match and blood product storage capability. 	As per Level 4, plus: <ul style="list-style-type: none"> Access to or on-site operating theatre for emergency trauma surgery A dedicated emergency surgery or trauma theatre is desirable Has a designated trauma list Access to appropriately equipped hybrid theatre suite is desirable Rapid transfer to theatre protocol or 	As per Level 5, plus: <ul style="list-style-type: none"> On site trauma operating theatre available 7 days a week On-site operating theatre that can be either a dedicated orthotrauma theatre, or a dedicated emergency surgery theatre, and is available 5-7 days a week Access to appropriately equipped hybrid

Trauma services - Perioperative	Level 1	Level 2	Level 3	Level 4	Level 5	Level 6
			facilities (PACU, recovery room etc.) <ul style="list-style-type: none"> Lead member of local trauma team to participate in disaster planning groups. 		guideline in place to expedite patients to theatre <ul style="list-style-type: none"> Access to Tier B interventional radiology services. 	theatre suite recommended <ul style="list-style-type: none"> Trauma services input into service planning at system and HHS levels for mass casualty and multi-trauma scenarios.
Workforce requirements	As per module overview	As per Level 1	As per Level 2, plus: <ul style="list-style-type: none"> Recommended that surgeons performing trauma related surgery be DSTC trained Strongly recommended that medical and nursing staff undertake additional training in perioperative trauma care. 	As per Level 3	As per Level 4, plus: <ul style="list-style-type: none"> Trauma services must facilitate perioperative training for medical staff prior to rural and remote rotations. 	As per Level 5
Specific risk considerations	<ul style="list-style-type: none"> Nil 	<ul style="list-style-type: none"> Nil 	<ul style="list-style-type: none"> Nil 	<ul style="list-style-type: none"> Nil 	<ul style="list-style-type: none"> Nil 	<ul style="list-style-type: none"> Nil

Section 3: Trauma services – Surgical services

Please note: This section should be read in conjunction with the [Fundamentals of the Framework](#); and the [Surgical services](#), [Anaesthetic services](#), [Perioperative services](#), [Maternity services](#), [Medical Imaging services](#), and [Pathology services](#) modules.

Trauma services - Surgical	Level 2	Level 3	Level 4	Level 5	Level 6
Service description	<p>As per module overview, plus:</p> <ul style="list-style-type: none"> On-site Surgical Services Level 2 May perform life-saving procedures as per EMST/ETM or equivalent principles and training. 	<p>As per Level 2, plus:</p> <ul style="list-style-type: none"> On-site Surgical Services Level 3 May perform emergency surgery for stabilisation of major trauma prior to retrieval/transfer. 	<p>As per Level 3, plus:</p> <ul style="list-style-type: none"> On-site Surgical Services Level 4 Provides 24 hour access to emergency trauma surgery and some elective trauma surgery Capacity to provide orthopaedic trauma surgery. 	<p>As per Level 4, plus:</p> <ul style="list-style-type: none"> On-site Surgical Services Level 5 Provides major trauma emergency surgery and elective trauma surgery Provides a trauma consultative service for patients within catchment or statewide, and where necessary, cross border Involved in trauma surgery research desirable Involved in trauma surgery education. 	<p>As per Level 5, plus:</p> <ul style="list-style-type: none"> On-site Surgical Services Level 6 Involved or leading in trauma surgery research and education at the highest level (investigators for clinical trials, external programs, outreach education and clinical support).
Service requirements	<p>As per module overview plus:</p> <ul style="list-style-type: none"> Agreements and/or access pathways should be in place with referral centres for the transfer of patients requiring 	<p>As per Level 2, plus:</p> <ul style="list-style-type: none"> Capability for general and/or orthopaedic surgery 	<p>As per Level 3, plus:</p> <ul style="list-style-type: none"> Access 24/7 to a radiologist Onsite x-match and blood product storage capability sufficient to 	<p>As per Level 4, plus:</p> <ul style="list-style-type: none"> Capacity to provide emergency surgery 24 hours a day, 7 days per week 	<p>As per Level 5, plus:</p> <ul style="list-style-type: none"> Urgent access to an operating theatre equipped for trauma surgery, desirable within 15 minutes, 24 hours a day 7 days per week

Trauma services - Surgical		Level 2	Level 3	Level 4	Level 5	Level 6
	<p>emergency trauma surgery</p> <ul style="list-style-type: none"> 24 hour telehealth capability to facilitate surgical support from referral facilities. 	<ul style="list-style-type: none"> Contributing to trauma data collections / registries. 	<p>meet the needs of emergency /trauma surgery</p> <ul style="list-style-type: none"> On-site or rapid access to laboratory services 24 hours a day Strongly recommended that medical and nursing staff undertake additional training in surgical trauma care as per local service requirements Contributing to trauma data collections/registries. 	<ul style="list-style-type: none"> Daily emergency and orthotrauma theatre lists Trauma surgery is led by a consultant surgeon in collaboration with anaesthetics Rapid transfer to theatre protocol/ guideline in place (e.g., Red Blanket) Major haemorrhage protocol is in place Access to appropriately equipped hybrid theatre suite is desirable Access to Tier B interventional radiology services. 	<ul style="list-style-type: none"> Additional trauma theatre list for complex, sub-acute, staged or similar surgeries desirable A dedicated emergency surgery theatre is desirable Response times per surgical specialty is as per Trauma Verification Program requirements VHA point of care testing available. 	
Workforce requirements	As per module overview	<p>As per Level 2, plus:</p> <ul style="list-style-type: none"> Recommended that surgeons performing trauma related surgery be DSTC trained. 	<p>As per Level 3, plus:</p> <ul style="list-style-type: none"> On-site capability to perform thoracotomy and sternotomy procedures, and craniotomy with clinical support from neurosurgeons at referral facilities Part-time trauma nurse coordinator that is responsible for liaising with theatre coordinators 	<p>As per Level 4, plus:</p> <p>Medical</p> <ul style="list-style-type: none"> On-site or rapid access to a consultant with experience or credentials in trauma surgery Access to, or on-site/visiting, medical specialists with credentials in surgical sub-specialties. On-Site: 	<p>As per Level 5, plus:</p> <p>Medical</p> <ul style="list-style-type: none"> 24 hour availability of consultant with experience or credentials in trauma care/ or equivalent Medical specialists with credentials in General Surgery and surgical sub-specialties on-site or visiting 24/7: General surgery, Orthopaedics/ 	

Trauma services - Surgical	Level 2	Level 3	Level 4	Level 5	Level 6
			<p>and staff to schedule patients</p> <ul style="list-style-type: none"> Onsite allied health professionals experienced in post-operative trauma rehabilitation. 	<ul style="list-style-type: none"> General surgery, Anaesthetics, Orthopaedics/ ortho trauma, Ophthalmology Accessible: within timeframes advised by RACS or the health service for Neurosurgery, Vascular, Plastics, Maxillofacial, Burns, ENT, Cardiothoracic, Urology, Spinal, Obstetrics All medical practitioners providing trauma care should provide evidence of additional trauma training <p>Nursing</p> <ul style="list-style-type: none"> Suitably experienced onsite trauma nurse coordinator/ CNC (full-time) that is responsible for liaising with theatre coordinators and staff to schedule patients Surgical nursing staff undertaking further education and/or training in trauma surgery is desirable. 	<p>orthotrauma, Ophthalmology</p> <ul style="list-style-type: none"> Neurosurgery, Vascular, Plastics, Maxillofacial, Burns, ENT, Cardiothoracic, Urology, Spinal, Obstetrics <p>Nursing</p> <ul style="list-style-type: none"> Suitably experienced onsite trauma nurse coordinator/ CNC (full-time) that is responsible for liaising with theatre coordinators and staff to schedule patients, and who holds additional quality assurance and governance responsibilities.

Trauma services - Surgical	Level 2	Level 3	Level 4	Level 5	Level 6
Specific risk considerations	As per module overview, plus: <ul style="list-style-type: none"> Awareness of surgical complexity and combination of anaesthetic risk appropriate to this level of service. 	As per Level 2, plus: <ul style="list-style-type: none"> Where specialist services e.g., obstetrics and paediatrics are provided, staff working in specialist service must have qualifications in/or experience in that specialty. 	As per Level 3	As per Level 4	As per Level 5

Section 4: Trauma services – Intensive Care services

Please note: This section should be read in conjunction with the [Fundamentals of the Framework](#); and the [Intensive Care services, Surgical services](#), and [Anaesthetic services](#) modules.

Trauma services – Intensive Care	Level 4	Level 5	Level 6
Service description	<p>As per module overview plus:</p> <ul style="list-style-type: none"> • On-site Intensive Care Service Level 4 • Capacity to facilitate access and management of the complex multi-trauma patient, with ability to maintain the patient within the unit if required for management • Subspecialties are available within the facility or as staging to facilitate retrieval to a facility where subspecialist care is available. 	<p>As per Level 4, plus:</p> <ul style="list-style-type: none"> • On-site Intensive Care Service Level 5 	<p>As per Level 5, plus:</p> <ul style="list-style-type: none"> • On-site Intensive Care Service Level 6 • On-site ECMO (Extra Corporeal Membrane Oxygenation) service desirable.
Service requirements	<p>As per module overview, plus:</p> <ul style="list-style-type: none"> • Formalised collaboration between ICU and trauma clinicians in: <ul style="list-style-type: none"> – trauma specific treatment regimens, protocols, and guidelines – early rehabilitation planning – coordination of patient transfers – discharge planning processes – patient follow up/outcome processes after discharge • Onsite x-match and blood product storage capability. 	<p>As per Level 4, plus:</p> <ul style="list-style-type: none"> • Access to Tier B interventional radiology services. 	<p>As per Level 5, plus:</p> <ul style="list-style-type: none"> • Capability to provide ECMO (Extra Corporeal Membrane Oxygenation) as per Queensland Health and/or Statewide Intensive Care Clinical Network service guidelines desirable.

Trauma services – Intensive Care	Level 4	Level 5	Level 6
Workforce requirements	As module, plus: <ul style="list-style-type: none"> Recommended that medical, nursing and allied health staff undertake additional training in trauma care as per local service requirements. 	As per Level 4	As per Level 5
Specific risk considerations	<ul style="list-style-type: none"> Nil 	<ul style="list-style-type: none"> As per Intensive Care services module Level 5 	<ul style="list-style-type: none"> Nil

Section 5: Trauma services – Acute Inpatient services

Please note: This section should be read in conjunction with the [Fundamentals of the Framework](#); and the [Surgical services](#), [Medical services](#), and [Rehabilitation services](#) modules.

Trauma services – Acute Inpatient	Level 3	Level 4	Level 5	Level 6
Service description	<p>As per module overview, plus:</p> <ul style="list-style-type: none"> On-site Surgical Service Level 3 Provides ambulatory and inpatient services for trauma patients that may require subspecialty outpatient referral. 	<p>As per Level 3, plus:</p> <ul style="list-style-type: none"> On-site Surgical Service Level 4 Provides inpatient and outpatient surgical and medical services to trauma patients with moderate level of complexity Inpatient ward provides post-operative and post ICU surgical care Admitted patients are managed by a designated surgical team Rehabilitation services are involved early in the patient's admission. 	<p>As per Level 4, plus:</p> <ul style="list-style-type: none"> On-site Surgical Service Level 5 Provides inpatient and outpatient surgical and medical services to trauma patients with high levels of complexity Designated surgical wards providing a 7-day service May provide a shared care model between admitting consultant/surgical team and sub-specialists involved in the patient's care. 	<p>As per Level 5, plus:</p> <ul style="list-style-type: none"> On-site Surgical Service Level 6 There are designated trauma admitting wards Trauma bed card is desirable Structured admission criteria Patients are managed by a trauma admitting team.
Service requirements	<p>As per module overview, plus:</p> <ul style="list-style-type: none"> Access to rehabilitation services including referral pathways for specialised complex multitrauma, brain injury, and spinal injury services Access to diagnostic services for inpatient care including CT scan Agreed clinical treatment pathways, guidelines and/or 	<p>As per Level 3, plus:</p> <ul style="list-style-type: none"> Access to diagnostic services for inpatient care including MRI and CT scan Access 24/7 to a radiologist Onsite x-match and blood product storage capability Access to an emergency theatre and ICU 24/7 	<p>As per Level 4, plus:</p> <ul style="list-style-type: none"> On-site rehabilitation services, including referral pathways for specialised complex multitrauma, brain injury, and spinal injury services Dedicated allied health team based in trauma admitting wards desirable 	<p>As per Level 5, plus:</p> <ul style="list-style-type: none"> Established communication and referral pathways with other facilities that provide specialised and/or statewide clinical services in use Dedicated allied health team based in trauma admitting wards

Trauma services – Acute Inpatient	Level 3	Level 4	Level 5	Level 6
	<p>protocols used, including referral pathways to allied health professionals who may be hospital or community based</p> <ul style="list-style-type: none"> Agreed referral and interhospital transfer pathways and protocols, including those for back transfer, to other facilities are in use Agreed communication pathways are in use with higher level facilities for clinical advice and support, and for early referral. 	<ul style="list-style-type: none"> Access to on-site Acute Pain Service 5 or 7 days per week Telemetry is available Integrated approach to care interventions, including discharge and follow-up arrangements (outpatients, community services etc.) Agreed clinical pathways, guidelines and/or protocols used, including referral pathways to allied health professionals and support services Agreed guidelines for back transfer of trauma patients to local facility Access to telehealth services. 	<ul style="list-style-type: none"> Access to Tier B interventional radiology services. 	<ul style="list-style-type: none"> Policies and/or protocols for management of brain, spinal and burns injuries in use.
Workforce requirements	<p>As per module overview, plus:</p> <ul style="list-style-type: none"> Access to patient support staff and security personnel. 	<p>As per Level 3, plus:</p> <ul style="list-style-type: none"> Suitably experienced onsite trauma nurse coordinator/ CNC that is responsible for liaising and coordinating services with the trauma team, health care professionals and other staff On-site allied health professionals including occupational therapists, physiotherapists and social workers Access to allied health professionals which may include dietitians, pharmacists, speech 	<p>As per Level 4, plus:</p> <ul style="list-style-type: none"> On-site trauma admitting ward/s allied health professionals are suitably experienced and recommended to be undertaking trauma related education or professional development relevant to their respective discipline, where the opportunity exists. 	<p>As per Level 5, plus:</p> <ul style="list-style-type: none"> Integrated Trauma Nurse Practitioner as part of the trauma service Dedicated physiotherapist, occupational therapist and social worker allocated to trauma admitting wards Access to clinical psychologists and/or neuropsychologists On-site or access to prosthetists, orthotists, and podiatrists.

Trauma services – Acute Inpatient	Level 3	Level 4	Level 5	Level 6
		pathologists, and prosthetists and orthotists <ul style="list-style-type: none"> • 24 hour access to physiotherapy services • Access to acute psychiatric services, including drug and alcohol services • Weekly multidisciplinary team case conference. 		
Specific risk considerations	<ul style="list-style-type: none"> • Nil 	<ul style="list-style-type: none"> • Nil 	<ul style="list-style-type: none"> • Nil 	<ul style="list-style-type: none"> • Nil

Section 6: Trauma services – Rehabilitation services

Please note: This section should be read in conjunction with the [Fundamentals of the Framework](#); and the [Rehabilitation services](#) and the [Persistent Pain Management services](#) modules.

Trauma services - Rehabilitation	Level 1	Level 2	Level 3	Level 4	Level 5	Level 6
Service description	As per module overview, plus: <ul style="list-style-type: none"> On-site Rehabilitation Service Level 1 	As per Level 1, plus: <ul style="list-style-type: none"> On-site Rehabilitation Service Level 2 	As per Level 2, plus: <ul style="list-style-type: none"> On-site Rehabilitation Service Level 3 	As per Level 3, plus: <ul style="list-style-type: none"> On-site Rehabilitation Service Level 4 Rehabilitation services are involved early in the trauma patient's admission. 	As per Level 4, plus: <ul style="list-style-type: none"> On-site Rehabilitation Service Level 5 	As per Level 5, plus: <ul style="list-style-type: none"> On-site Rehabilitation Service Level 6
Service requirements	As per module overview	As per Level 1	As per Level 2, plus: <ul style="list-style-type: none"> Agreed referral and transition to rehabilitation pathways and protocols established in collaboration with inpatient services are in use Agreed communication pathways with higher level facilities for clinical advice and support, 	As per Level 3, plus: <ul style="list-style-type: none"> Collaboration and participation in rehabilitation service processes as locally indicated, e.g., multidisciplinary / multi-team ward rounds, transition phases from ward-based care, treatment etc. 	As per Level 4, plus: <ul style="list-style-type: none"> Rehabilitation services are accessible or on-site. 	As per Level 5, plus: <ul style="list-style-type: none"> Specialised rehabilitation services including complex multi-trauma, brain injury, and spinal injury services are accessible or on-site.

Trauma services - Rehabilitation	Level 1	Level 2	Level 3	Level 4	Level 5	Level 6
			and for early referral are in use <ul style="list-style-type: none"> Rehabilitation services including specialised complex multi-trauma, brain injury, and spinal injury services are accessible. 			
Workforce requirements	As per module overview	As per Level 1	As per Level 2	As Level 3	As per Level 4	As Level 5
Specific risk considerations	<ul style="list-style-type: none"> Nil 	<ul style="list-style-type: none"> Nil 	<ul style="list-style-type: none"> Nil 	<ul style="list-style-type: none"> Nil 	<ul style="list-style-type: none"> Nil 	<ul style="list-style-type: none"> Nil

Section 7. - Trauma services – Specialist Outpatient services

Please note: This section should be read in conjunction with the [Fundamentals of the Framework](#); and the [Rehabilitation services](#) and the [Persistent Pain Management services](#) modules.

Trauma services – Specialist Outpatient	Level 5	Level 6
Service description	<ul style="list-style-type: none"> • Access to multidisciplinary follow up clinics for trauma patients should be provided • When provided, specialist trauma clinics / outpatient services are delivered in a hospital setting, which also has access to telehealth for virtual service delivery • Specialist trauma outpatient services may provide outreach services to lower level services within catchment – in-person or via telehealth, FIFO, Flying surgeon. 	<p>As per Trauma services Level 5, plus:</p> <ul style="list-style-type: none"> • Access to on-site multidisciplinary follow up clinics for trauma patients • May provide outreach specialist trauma outpatient services statewide in some specialties.
Service requirements	<ul style="list-style-type: none"> • Involvement of consultant surgeon, with experience or credentials in trauma care, in trauma clinics • On-site medical, nursing, allied health (dietetics, occupational therapy, pharmacy, physiotherapy, prosthetics & orthotics, social work, and speech pathology and psychology), and radiology. 	<ul style="list-style-type: none"> • As per Trauma services Level 5
Workforce requirements	<ul style="list-style-type: none"> • On-site medical, nursing, allied health (dietetics, occupational therapy, pharmacy, physiotherapy, social work and speech pathology psychology), radiology, and prosthetists / orthotists. 	<ul style="list-style-type: none"> • As per Trauma services Level 5
Specific risk considerations	<ul style="list-style-type: none"> • Impact of waitlist management. 	<ul style="list-style-type: none"> • As per Trauma services Level 5

Section 8. - Trauma services – Persistent Pain Management services

Please note: This section should be read in conjunction with the [Fundamentals of the Framework](#); and the [Anaesthetic services, Perioperative services](#) and the [Persistent Pain Management services](#) modules.

Trauma services - Pain	Level 1	Level 2	Level 3	Level 4	Level 5	Level 6
Service description	<p>As per module overview, plus:</p> <ul style="list-style-type: none"> Provides multidisciplinary pain management as per local services. 	As per Level 1	As per Level 2	<p>As per Level 3, plus:</p> <ul style="list-style-type: none"> Provides designated, structured, high-level multidisciplinary pain management services to manage complex patient need May provide outreach to lower-level services. 	<p>As per Level 4, plus:</p> <ul style="list-style-type: none"> On-site Perioperative Services: Acute Pain Services Level 5 Provides outreach to lower level services. 	As per Level 5
Service requirements	<p>As per module overview, plus:</p> <ul style="list-style-type: none"> On-site access to Rural and Remote Emergency Services Standardisation Guidelines, Primary Clinical Care Manual, or advice from retrieval/ referral centre to guide treatment of pain Telehealth capability to facilitate pain 	<p>As per Level 1, plus:</p> <ul style="list-style-type: none"> 24 hour telehealth capability to facilitate pain management support from referral facilities Timely access to a chronic or Persistent Pain Management service for patients with complex and/or ongoing clinical needs (use of pathways, 	<p>As per Level 2, plus:</p> <ul style="list-style-type: none"> Agreed communication pathways are in use with higher level facilities for clinical collaboration and advice from involved subspecialties Access to an anaesthetic team or acute pain service 5 days a 	<p>As per Level 3, plus:</p> <ul style="list-style-type: none"> 24/7 access to acute pain management/ treatment services (Acute Pain Service, anaesthetics) Multidisciplinary approach to the management of acute pain includes but not limited to physiotherapists, pharmacists, psychologist Agreed clinical treatment pathways, 	<p>As per Level 4, plus:</p> <ul style="list-style-type: none"> Capacity to perform interventional pain management services (regional blocks etc.). 	As per Level 5

Trauma services - Pain	Level 1	Level 2	Level 3	Level 4	Level 5	Level 6
	management support from referral facilities.	outreach, telehealth etc.).	week and after hours.	guidelines and/or protocols for pain management and services.		
Workforce requirements				<ul style="list-style-type: none"> • Access to acute pain management teams staffed by registered medical practitioners with credentials in anaesthetics, which may be consultant or GP anaesthetists, and nurses with specialist expertise and/or qualifications in the discipline • Access to an after-hours service with consultant involvement. 	As per Trauma services Level 4	As per Trauma services Level 5
Specific risk considerations	<ul style="list-style-type: none"> • Nil 	<ul style="list-style-type: none"> • Nil 	<ul style="list-style-type: none"> • Nil 	<ul style="list-style-type: none"> • Nil 	<ul style="list-style-type: none"> • Nil 	<ul style="list-style-type: none"> • Nil

Section 9. - Trauma services – Dedicated Trauma services

Please note: This section should be read in conjunction with the [Fundamentals of the Framework](#); and the [Emergency services](#), [Anaesthetic services](#), [Perioperative services](#), [Surgical services](#), [Intensive Care services](#), [Maternity services](#), [Cardiac services](#), [Medical services](#), [Renal services](#), [Rehabilitation services](#), [Geriatric services](#), [Persistent Pain Management services](#), [Palliative Care services](#), [Alcohol and Other Drugs](#), [Mental Health](#), [Medication services](#), [Medical Imaging services](#), [Nuclear Medicine](#), and [Pathology services](#) modules.

Trauma services – Dedicated Trauma	Level 1	Level 2	Level 3	Level 4	Level 5	Level 6
Service description	<p>As per module overview, plus:</p> <ul style="list-style-type: none"> Nurse or GP led clinic with RN accessible 24 hours for emergency presentations Part of a District trauma network. 	<p>As per Level 1, plus:</p> <ul style="list-style-type: none"> Can perform life-saving procedures as per EMST/ETM or equivalent principles and training. 	<p>As per Level 2, plus:</p> <ul style="list-style-type: none"> Staff members have allocated trauma response roles across all shifts. 	<p>As per Level 3, plus:</p> <ul style="list-style-type: none"> Has a trauma service established Manages patients from presentation to stabilisation and transfer, and may be involved in ongoing care of the trauma patient through to rehabilitation and discharge May also navigate patient’s post-discharge. 	<p>As per Level 4, plus:</p> <ul style="list-style-type: none"> Manages trauma patients with high levels of clinical complexity Dedicated allied health team based in trauma admitting wards desirable. 	<p>As per Level, 5 plus:</p> <ul style="list-style-type: none"> Has sufficient Tier 1 trauma case volumes (>250 pa) to maintain expertise Manages trauma patients with the highest levels of clinical complexity from presentation to rehabilitation and discharge Designated trauma admitting wards with structured admission criteria Dedicated allied health team based in trauma admitting wards Trauma bed card is desirable Access to on-site multidisciplinary

Trauma services – Dedicated Trauma	Level 1	Level 2	Level 3	Level 4	Level 5	Level 6
						follow up clinics for trauma patients <ul style="list-style-type: none"> • Navigates patient’s post-discharge • Recommended Trauma Service follow up post-discharge.
Service requirements	As per module overview, plus: <ul style="list-style-type: none"> • Nurse led service coordination and navigation for trauma patients • Participates in collection of relevant data for Queensland trauma data collections • Participates in trauma network Mortality and Morbidity processes. 	As per Level 1	As per Level 2, plus: <ul style="list-style-type: none"> • Active involvement in, and leadership of, district Quality Improvement activities and Mortality and Morbidity processes • Contributing to trauma data collections /registries. 	As per Level 3, plus: <ul style="list-style-type: none"> • 24 hour access to emergency trauma surgery • Active involvement in, and leadership of service area network Quality Improvement activities and Mortality and Morbidity processes • Local Trauma Committee • May collect data for the Queensland Trauma Data Collection • Participation in accreditation and verification programs recommended e.g., RACS Trauma 	As per Level 4, plus: <ul style="list-style-type: none"> • Trauma service is available 7 days a week • Active engagement in trauma research is desirable • Active engagement in trauma education; quality improvement; data collection and analysis • Should collect data for the Queensland Trauma Data Collection • Should undertake accreditation and verification programs e.g., RACS Trauma Verification 	As per Level 5, plus: <ul style="list-style-type: none"> • Provides leadership and clinical support to other hospitals that provide trauma services • Active engagement or leadership in research and education at state and national levels; quality improvement; and data collection and analysis at the highest level • Collects data for the Queensland Trauma Data Collection • Undertakes formal assessment of service through accreditation and verification programs e.g., RACS

Trauma services – Dedicated Trauma	Level 1	Level 2	Level 3	Level 4	Level 5	Level 6
				Verification Program; agencies approved by the Australian Commission on Safety and Quality in Health Care.	Program; agencies approved by the Australian Commission on Safety and Quality in Health Care.	Trauma Verification Program; agencies approved by the Australian Commission on Safety and Quality in Health Care.
Workforce requirements	<p>As per module overview, plus:</p> <ul style="list-style-type: none"> 24 hour access to registered medical officer. 	<p>As per Trauma services Level 1 plus:</p> <ul style="list-style-type: none"> On-site or rapid access to medical officer with intubation capability (subject to experience). 	<p>As per Trauma services Level 2 plus:</p> <ul style="list-style-type: none"> Suitably experienced, part-time, onsite trauma nurse coordinator desirable Resource allocated to quality improvement and data collection responsibilities. 	<p>As per Trauma services Level 3 plus:</p> <ul style="list-style-type: none"> Suitably experienced onsite clinical case coordinator that is responsible for liaising and coordinating services with the trauma team, theatres, health care professionals and other staff Data coordination role allocated, responsible for Queensland Trauma Data Collection desirable May have a research coordinator May have an injury prevention program 	<p>As per Trauma services Level 4 plus:</p> <ul style="list-style-type: none"> Access to a part-time Trauma Director up to 1.0FTE, or a clinical lead/consultant with responsibility for trauma services Chair of Trauma Review Committee portfolio 24 hour access to physiotherapy services Trauma services must facilitate perioperative training for medical staff prior to rural and remote rotations Multidisciplinary team training, 	<p>As per Trauma services Level 5 plus:</p> <ul style="list-style-type: none"> On-site designated Trauma Director who is a registered medical specialist with credentials in trauma care/ or equivalent Consultant led care for trauma available 7days a week 24 hour availability of consultant with experience or credentials in trauma care/ or equivalent Integrated Trauma Nurse Practitioner as part of the trauma service is recommended Access to after-hours social worker support

Trauma services – Dedicated Trauma	Level 1	Level 2	Level 3	Level 4	Level 5	Level 6
				coordinator e.g., P.A.R.T.Y. <ul style="list-style-type: none"> May participate in trauma survivor network. 	including leadership, is facilitated <ul style="list-style-type: none"> Dedicated trauma data manager role, or locally nominated data coordinator, responsible for Queensland Trauma Data Collection Research coordinator role / position recommended Injury prevention program coordinator role / position e.g., P.A.R.T.Y. recommended. 	<ul style="list-style-type: none"> Dedicated trauma data manager Research Coordinator Injury prevention program Coordinator e.g., P.A.R.T.Y. Recommended participation in trauma survivor network.
Specific risk considerations	<ul style="list-style-type: none"> Nil 	<ul style="list-style-type: none"> Nil 	<ul style="list-style-type: none"> Nil 	<ul style="list-style-type: none"> Nil 	<ul style="list-style-type: none"> Nil 	<ul style="list-style-type: none"> Nil

Section 9B. - Trauma services –Support services

Support service requirements for trauma services	Level 1		Level 2		Level 3		Level 4		Level 5		Level 6	
	On-site	Accessible	On-site	Accessible	On-site	Accessible	On-site	Accessible	On-site	Accessible	On-site	Accessible
Alcohol and Other Drugs (Ambulatory) *						4		4		4		4
Alcohol and Other Drugs (Emergency) *						3	3		4		4	
Anaesthetic			3		3		4		5		6	
Cardiac care unit								5	5		5	
Cardiac (cardiac diagnostic & interventional)								5	5		5	
Cardiac (cardiac surgery)												6
Cardiac (Medicine)						4		4		5	5	
Emergency services	1		2		3		4		5		6	
Geriatric (Emergency) *						5	4		5		6	
Geriatric (Ambulatory) *						4		5		5		5
Geriatric (Ortho-geriatric) *						4		4		5		5
Intensive care						4	4		5		6	
Maternity *						5		5	5		5	
Medical		1		2		4	4		5		6	
Medical imaging		1		2		4	4		5		6	
Medication					3		4		5		5	
Mental Health - Acute Inpatient *						4		4		5	5	
Mental Health - Child & Youth *						4		4		5		5
Mental Health - Older Persons *						4		4		5		5
Nuclear Medicine						4		4		4		5
Perioperative - Acute Pain						5		5	5		6	
Persistent Pain Management						4		4		5		5
Palliative Care						3		4		4		5
Pathology		2		2		3	4		5		5	
Perioperative - relevant section/s				3	3		4		5		6	
Rehabilitation						4		4		5		6
Renal						4		4		5		5
Surgery				2		3	4		5		6	

Table notes:” On-site means staff, services and/or resources located within the health facility or adjacent campus including third party providers

Accessible means ability to utilise a service (either located on-site or off-site) or skills of a suitably qualified person (who may be either on-site or off-site) without difficulty or delay—via various communication mediums including but not limited to face-to-face, telehealth, telepharmacy, and/or outreach

* Required if providing this service

Legislation, regulations and legislative standards

Refer to the Fundamentals of the Framework for details.

Non-mandatory standards, guidelines, benchmarks, policies and frameworks

In addition to what is outlined in the Fundamentals of the Framework, the following are relevant to Trauma services:

- Queensland Clinical Guidelines. Trauma in pregnancy. Guideline No. MN19.31-V2-R24. Queensland Health. 2019. Available from: <http://www.health.qld.gov.au/qcg>
- Royal Australasian College of Surgeons Trauma Verification Program (<https://www.surgeons.org/research-audit/trauma-verification>)
- Emergency Surgery Guideline, Clinical Excellence Queensland. Queensland Health; 2017
- Tier 1 Traumatic Injury Data Set – Definitions, eHealth Queensland, Queensland Health; 2021
- Australian Commission on Safety and Quality in Health Care, Framework for Australian clinical quality registries. Sydney. ACSQHC, March 2014

Reference list

10. Royal Australasian College of Surgeons. The Australasian Trauma Verification Program Manual. Melbourne: RACS; 2020. [RACS Trauma Verification Program](#)
11. Royal Australasian College of Surgeons Guidelines. www.surgeons.org
12. Australian and New Zealand College of Anaesthetists. Professional Standard PS7: Recommendations for the Pre-Anaesthesia Consultation. ANZCA; 2008. <https://www.anzca.edu.au/safety-advocacy/standards-of-practice/policies,-statements,-and-guidelines>
13. Australian and New Zealand College of Anaesthetists. Professional Standard PS4: Recommendations for the Post-Anaesthesia Recovery Room. ANZCA; 2006. <https://www.anzca.edu.au/safety-advocacy/standards-of-practice/policies,-statements,-and-guidelines>
14. Australian and New Zealand College of Anaesthetists. Professional Standard PS41: Guideline on acute pain management <https://www.anzca.edu.au/safety-advocacy/standards-of-practice/policies,-statements,-and-guidelines>

Appendix 1

Recommended trauma courses

Please note that these courses are not updated in the CSCF module, they are intended as a guide only. Please refer to the relevant course website for current details and information.

Mandatory trauma training

There are no mandatory trauma specific courses for medical, nursing, or allied health professionals.

Any mandatory training requirements are as per medical rotation conditions (e.g., ASU/trauma rotation) or surgical training program requisites, e.g., Emergency Management of Severe Trauma (EMST) and Care of the Critically Ill Surgical Patient (CCRiSP).

Highly desirable trauma training

Medical and Surgical

The Definitive Surgical Trauma Course (DSTC) is considered highly desirable at consultant level and for final year Surgical trainees.

In addition to trainee requirements, the Emergency Management of Severe Trauma (EMST) and Care of the Critically Ill Surgical Patient (CCRiSP) courses are highly desirable for all medical officers providing trauma care.

Courses also considered highly desirable are the Emergency Trauma Management Course (ETM) for emergency medicine practitioners and the Definitive Anaesthetic Trauma Course (DATC) for experienced anaesthetists and Provisional Fellows.

Course providers:

DSTC - www.surgeons.org

EMST - www.surgeons.org

CCRiSP - www.surgeons.org

ETM - www.etmcourse.com

DATC - www.surgeons.org

Trauma TRAPS <https://www.traumatraps.com.au>

Nursing

Course providers:

CENA Trauma Nursing Program (TNP) - Emergency Module - www.cena.org.au/cena-tnp/

CENA Trauma Nursing Program (TNP) - Trauma Ward Module - www.cena.org.au/cena-tnp/

Course in Applied Physiology in Emergency Nursing (CAPEN) - <https://acen.com.au/course/>

Definitive Peri-operative Nursing Trauma Course (DPNTC) - www.surgeons.org

Trauma Nursing Core Course (TNCC) - www.acen.com.au

Multidisciplinary

Course providers:

Emergency Management of Severe Burns (EMSB) - www.anzba.org.au

International Trauma Life Support (ITLS) - www.acen.com.au

Pre-Hospital Trauma Life Support (PHTLS) - www.csds.qld.edu.au

Paediatrics

Course providers:

Advanced Paediatric Life Support - www.apls.org.au

Australian College of Emergency Nursing - www.acen.com.au

Clinical Skills Development Service, RBWH, Brisbane - www.sdc.qld.edu.au

Australian College of Emergency Nursing - www.acen.com.au

Recommended Professional Memberships

Australasian Trauma Society (ATS)

Australian and New Zealand Association for the Surgery of Trauma (ANZAST)

The International Association for Trauma Surgery and Intensive Care (IATSIC)

The Chest Wall Injury Society (CWIS)

American Association for the Surgery of Trauma (AAST)

The Society of Trauma Nurses (STN)

Trauma Association of Canada (TAC)