



**AUSTRALIAN TRAUMA  
QUALITY IMPROVEMENT PROGRAM**

# **Bi-National Trauma Minimum Dataset (BNTMDS) for Australia and New Zealand**

## **Core Data Items Data Dictionary**

**Version 1.50  
July 2016**

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## Abbreviations

ACHI	Australian Classification of Health Interventions (ACHI) 7th edition
ACSQH	Australian Commission on Safety and Quality in Healthcare
AIHW	Australian Institute of Health and Welfare
AIS	Abbreviated Injury Scale
ASA	American Society of Anaesthetists
ATR	Australian Trauma Registry
ATS	Australasian Trauma Society
AusTQIP	Australian Trauma Quality Improvement Program
BNTMDS	Bi-National Trauma Minimum Dataset of Australia and New Zealand
CPR	Cardiopulmonary Resuscitation
CT	Computed Tomography
ED	Emergency Department
GCS	Glasgow Coma Score
ICD-10-AM	International Statistical Classification of Diseases and Related Health Problems, Tenth Revision, Australian Modification
ICU	Intensive Care Unit
INR	International Normalised Ratio
ISS	Injury Severity Score
METeOR	Metadata Online Registry
NISS	New Injury Severity Score
NTDB	National Trauma Data Bank
NTR	National Trauma Registry
NTRC	National Trauma Registry Consortium
OR	Operating Room
OTR	Ontario Trauma Registry
RACS	Royal Australasian College of Surgeons
RTS	Revised Trauma Score
TDWG	AusTQIP Trauma Data Working Group
TRISS	Trauma and Injury Severity Score
Utstein	The Utstein Trauma Template for Uniform Reporting of Data following Major Trauma Data Dictionary, Version 1.1.1, May 19 2009.

## Foreword

This data dictionary was originally created by Cameron Palmer on behalf of the Trauma Quality Improvement Sub-Committee of the Royal Australasian College of Surgeons Trauma Committee. The dataset was derived from the work performed by the National Minimum Dataset Working Party of the National Trauma Registry Consortium (2005-2008). Membership of the named committees, without whose work this dataset and data dictionary would not have been realised, are listed below.

### **RACS Trauma Quality Improvement Sub-Committee (formerly the RACS Systems Performance Improvement and Registries Committee), 2008-2011**

Cliff Pollard (*Chair to 2009*)

Russell Gruen (*Chair, 2009-2011*)

Robert Atkinson	Patrick Bade	Daniel Cass
Rangi Dansey	Peter Danne	Arthas Flabouris
James Hamill	Anthony Joseph	Leslie Lambert
Mary Langcake	Rod McClure	Len Notaras
Cameron Palmer	Sudhakar Rao	Michael Schuetz
Ron Somers	Daryl Wall	Stephen Wilkinson

### **National Trauma Registry Consortium (Australia & New Zealand) Executive and Steering Committees, 2003-2008**

Cliff Pollard (*Chair*)

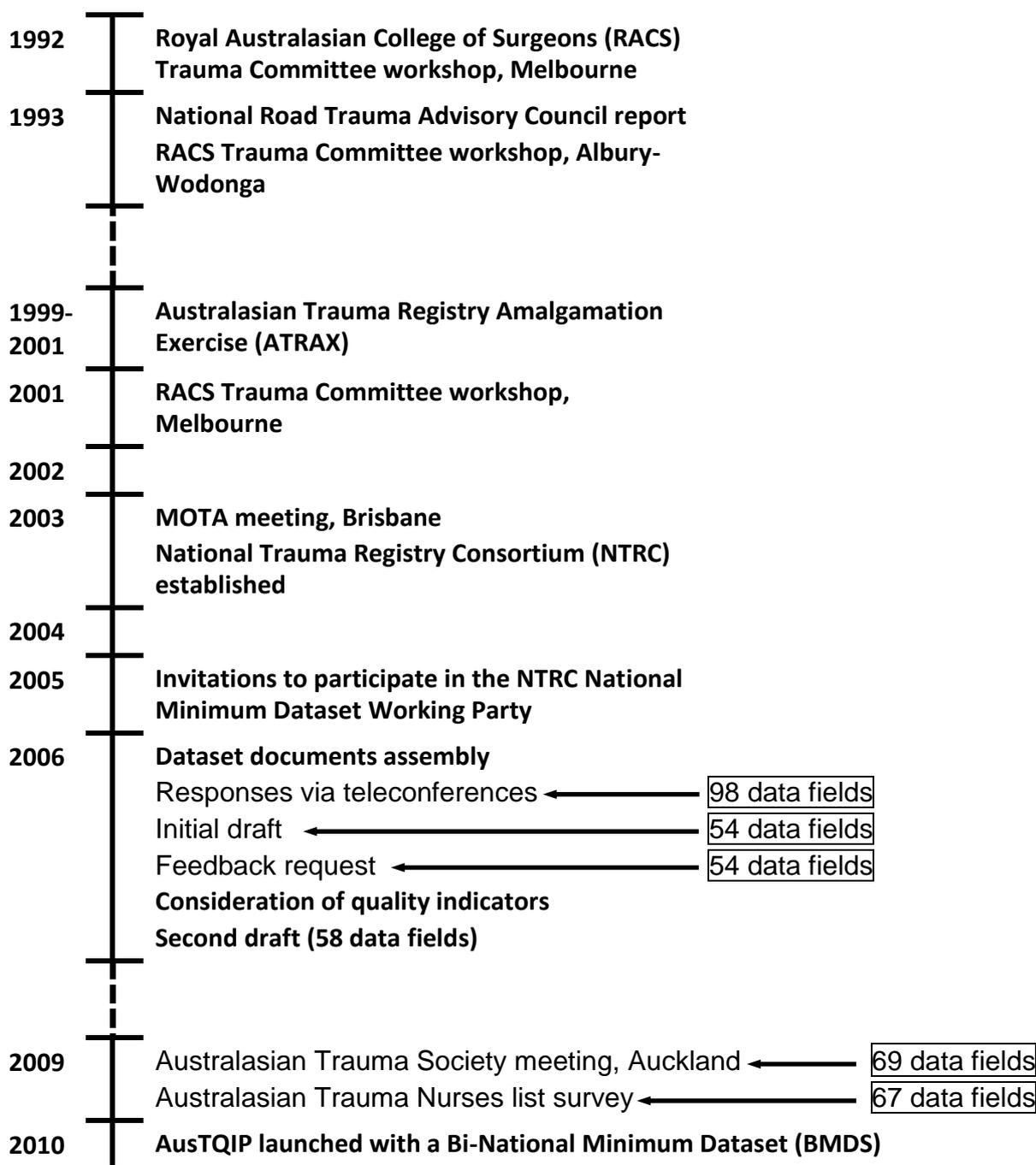
Leanne Aitken	Robert Atkinson	Patrick Bade
Nicholas Bellamy	Peter Cameron	Daniel Cass
Peter Danne	Tamzyn Davey	Mark Fitzgerald
William Griggs	James Hamill	James Harrison
Leslie Lambert	Patricia McDougall	Christine O'Connor
Frank Plani	Sudhakar Rao	Drew Richardson
Ron Somers		

### **National Trauma Registry Consortium National Minimum Dataset Working Party, 2005-2007**

Cameron Palmer (*Chair*)

Christine Allsopp	Lynn Ashton	Maxine Burrell
Erica Caldwell	Rangi Dansey	Tamzyn Davey
Rachael Henson	Carolyn James	Jennifer Leslie
David Martens	Deirdre McDonagh	Susan McLellan
Helen Naylor	Ian Rowbottom	Rebecca Weir

## Bi-National Trauma Minimum Dataset (BNTMDS) - A Brief History



It is now over 20 years since the concept of national-level or Australasian data collection was first discussed. In July 1993, the National Road Trauma Advisory Council released a report which recommended national standardisation of trauma registry datasets, to enable "a national program for quality assurance activities". Only a month later, and building on the results of a trauma systems seminar held the previous year, the Royal Australasian College of Surgeons (RACS) convened a workshop to develop a minimum dataset for Australia and New Zealand.

Whether due to lack of funding, centralised leadership or 'buy-in' from necessary stakeholders, there were a number of re-iterations of this process over the next decade, from both operational and clinical perspectives. Significant work was undertaken between 2003 and 2006 by the National Trauma Registry Consortium (NTRC), under the chair of Cliff Pollard, which attracted sponsorship

across three states as well as from RACS. In particular, the work of the NTRC included the formation of the National Minimum Dataset Working Party in 2005. Working essentially 'from scratch', the Working Party evaluated datasets used in other countries as well as clinical, quality and data collector input from across Australasia, to produce a draft Bi-National Minimum Dataset (BMDS) by late 2006.

Following the cessation of NTRC funding in 2006, oversight of the dataset passed to the RACS Trauma Quality Improvement Sub-Committee, which recommenced discussions around the BMDS in early 2009. In November 2010, the dataset was introduced as the Bi-National Minimum Dataset (BMDS) by Cameron Palmer, who had chaired the NTRC National Minimum Dataset Working Party, at the Trauma 2010 conference in Melbourne. At the same time, the first version of the BMDS Data Dictionary was made public.

The BMDS has now been adopted and recommended by the Australian Trauma Quality Improvement Program (AusTQIP) and the Australian Trauma Registry (ATR) as the minimum standard for the collection of trauma data for national reporting to be aligned with national trauma quality improvement strategies. As such, it has now been renamed the Bi-National Trauma Minimum Dataset (BNTMDS) for Australia and New Zealand.

## Comment on registry purposes

The Australian Commission on Safety and Quality in Healthcare released their Operating Principles and Technical Standards for Australian Clinical Quality Registries (ACQR)<sup>1</sup> in late 2008. While this may not provide the template ultimately used in the development of national trauma registries in Australia or New Zealand, it at least provides substantial food for thought regarding the design and implementation both of a national trauma registry, and the minimum dataset and data dictionary it uses.

In order to qualify as an ACQR, a future national trauma registry should use routinely collected electronic data where possible. While this lowers cost, the use of an Injury Severity Score (ISS) threshold (derived from assigned Abbreviated Injury Scale [AIS] codes) requires at least a proportion of data to be collected manually (ie. from written hospital records). An ACQR is felt to be practical only in situations where "differences in quality can have major impacts on quality of life or cost" (ACQR, p20); as a result, the estimated benefit of a national trauma registry (based on current evidence of differences in outcome across different regions in Australia and New Zealand, or between these countries and the rest of the world) should be carefully assessed. Alternatively, the potential utility of alternate data sources should be assessed. An example is ICD coding, which can in theory be mapped to AIS equivalents instead of using expensive manual AIS coding. However, the limitations of such data 'shortcuts' should be recognised. Current ICD maps offer outdated severity estimates compared to the current (2008) AIS; in addition, while similar patient numbers may be identified by this method there will be substantial differences in the actual group of patients identified.

While the elements of a minimum dataset can be to some extent developed independently (based on considerations such as completeness and ease of collection), they must also be governed by the population to be assessed by a future national trauma registry (ie., inclusion and exclusion thresholds) as well as the outcomes which are felt to be of relevance to that population. For severe injury, death has historically been regarded as a standard outcome measure; secondary outcomes may include the length of hospital treatment, and the discharge destination (other than death). It is compelling, though, that the ACQR principles and standards document specifically mentions trauma in this context. Based on the results of the Victorian State Trauma Registry, the document states that "in the case of severe trauma a six month follow-up is needed for clinical stability to be measured"(ACQR, p20). The cost associated with collection of medium- to long-term follow-up data could render a national trauma registry unfeasible. A case could be made that as overseas standards at national level comprise discharge destination, discharge Glasgow Outcome Score or 30-day mortality that these represent acceptable international standards; equally, though, this could be seen as indicative of the generally poor quality of trauma outcomes evaluation worldwide.

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<sup>1</sup> Australian Commission on Safety and Quality in Healthcare. Operating Principles and Technical Standards for Australian Clinical Quality Registries. 2008.

## **Inclusion and exclusion criteria**

Consideration should be given to the inclusion criteria which would be employed by an ATR employing the BNTMDS, as to some extent these will determine the particular relevance of fields within the BNTMDS (and hence their inclusion in the BNTMDS). While registries from a sole hospital, and to a lesser extent regional or state registries benefit from broad patient capture, at a national or international level only patients with injuries which are deemed significant (by some definition) should be included. The comparatively small proportion of patients which will meet assigned inclusion criteria should fit within the funding and time constraints which are imposed, particularly on smaller hospitals or regions without local data collection previously in place. It is therefore reasonable to limit inclusion in an ATR to patients meeting specified criteria for major trauma.

Although the threshold of an ISS >15 has been a widely accepted major trauma definition since the mid-1980s<sup>2</sup>, it has not been validated in over 20 years. During this time substantial changes have taken place in injury diagnosis and treatment which would be expected to produce differences in outcomes across a population. With the adoption of more contemporary (2005 and 2008) versions of the AIS in the majority of Australasian registries, it has been established that the number of patients classified as major trauma will decrease by between 15% and 25% when compared with populations coded using earlier (1990 and 1998) AIS versions.

Preliminary work conducted within the Victorian and Queensland trauma systems has identified that the use of a lower ISS threshold in conjunction with the 2005 and 2008 AIS versions is able to satisfactorily compensate for the lower ISS scores within a population. More specifically, an ISS >12 threshold appears to both maintain overall major trauma numbers, as well as closely adhering to the 10% mortality level which formed part of the original rationale behind the use of ISS >15.<sup>2</sup> With this in mind, major trauma (and the inclusion criterion for the ATR) is currently best defined at a national level as:

### **INCLUSIONS**

All patients of any age admitted to hospital with either:

- Injury Severity Score (ISS) >12 (based on AIS 2005 Update 2008)

or

- Death following injury

### **EXCLUSIONS**

- Patients with delayed admissions greater than 7 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
- Elderly (≥65 years of age) patients 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).

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<sup>2</sup> Boyd CR, Tolson MA, Copes WS. Evaluating trauma care: the TRISS method. Trauma Score and the Injury Severity Score. J Trauma 1987;27(4):370–8.

## **Dataset definition sources**

Dataset items ('fields') should offer substantial levels of international comparability while still providing usefulness for the specific local requirements of the registry. At the same time, ease of collection (in terms of time required or cost) is essential, particularly in order to obtain data from centres which do not currently have trauma data collection (and hence are more likely to be resource-poor).

Where possible, BNTMDS fields should be based on standard definitions created by authoritative Australian or New Zealand bodies, or (in the absence of such definitions) pre-existing comparable or contributing datasets.

The default standard sought for each field is a definition from the Australian Institute of Health and Welfare's Australian National Health Data Dictionary (METeOR). A number of METeOR standards are in turn based on, derived from or compatible with routinely collected International Classification of Diseases (ICD) codes. In order to maximise international dataset comparability, definitions used in established registries or agreed templates have also been considered. These include but are not limited to the European Utstein template, American National Trauma Data Bank [NTDB] or Canadian National Trauma Registry [NTR]. Reporting guidelines may also be taken from or based on these sources, as well as the data dictionaries of existing Australian state trauma registries.

Where no METeOR standard is felt to apply to a field as conventionally defined in existing trauma datasets, best matches are provided.

An estimate of field collectability amongst Australian and New Zealand trauma registries will be provided in future versions of this dictionary. The data will be collated from a sample of hospitals, regional and statewide registries across the two countries. Data fields are felt to be readily available ('Ready') if more than 80% of respondent registries currently collect the field; 'Near ready' if more than 70% of registries collect or could collect the field with current resources; and 'Not ready' if less than 70% of registries are currently capable of collecting the field.

## Guide to using this data dictionary

Development of the BTNMDS data dictionary is based on existing national health data standards where available. The national health metadata standards is overseen by the Australian Institute of Health and Welfare (AIHW) and is hosted online at the Metadata Online Registry (METeOR) website. For more information about METeOR, please go to:

<http://meteor.aihw.gov.au/content/index.phtml/itemId/181162>

The format of the following data dictionary is based on the ISO/IEC International Standard 11179-3:2003 (Information Technology - Metadata Registries - Part 3: Registry metamodel and basic attributes), as interpreted by AIHW. The following guide provides an overview of the types of data attributes and their definitions used for each of the BTNMDS data items.

Dates and times are in accordance to the recommendations of ISO 8601:2004 (Data fields and interchange formats - Information interchange - Representation of dates and times)

## Guide to meaning of categories and headings

### DATA FIELD NAME

#### Identifying and definitional attributes

Definition	A concise statement that expresses the essential nature of a data field and its differentiation from all other data fields.
Justification	The reason for collecting the data field.

#### Obligation

An indicator of whether the data field is mandatory, desirable or optional for the data collection or transmission. Derived values need not be collected but indicates how values are to be calculated or obtained.

#### Representational attributes

Data domain	The set of possible values for the data field. This may take the form of a code set, or a description of the possible values. Domain values are only specified where size of the code set is small enough to be reasonably reproduced in the document. In other instances the domain may be indicated by reference to a source document.
Guide for use	These are comments designed to assist in further defining aspects of the data domain.
Validation rules	These are included to assist in reducing input error. Where validation rules are known to exist, they have been included.
Related data field	Other data fields in this data dictionary that have some direct relationship with the data fields being described. This will generally specify fields which may be derived from, or may contribute to deriving the value of the field being defined.

Data type	The type of symbol or character, or other designation used to represent the data field, for example, alphanumeric values are text, numbers or Date/Time.
Representation class	Describes whether the valid values for the data field take the form of a code set or free text. If the form is described as 'Code' the relevant code set or sets will be specified in the Data Domain section.
Maximum field size	The maximum number of characters allowable to represent the data field values.
Format	A generic example of what the data field should look like in the unit record. It is a template for the presentation of values, including specification and layout of permitted characters. For example, dates should be represented in the format of DDMMYYYY where DD represents the day, MM represents the month, and YYYY represents the four-digit numeric for the year.
Column location/name	The mandated location and name of the column which contains the data field in the file format template.
Correspondence	The relationship of the data field (one:one or one:many) to the <i>primary key</i> in a database which is based on or using the BNTMDS. The default primary key for the BNTMDS is the field <b>1.03 Incident Number</b> , although alternate primary keys may be used. If a field has <i>single</i> correspondence, there is only one value per field per primary key; if a field has <i>multiple</i> correspondence, there may be one or many (or no) values per field per primary key.

### Additional information

References	Documents listed here have been used as references when designing the specified field. Also listed are names of the organisations that developed the source document or provided advice on the data field.
Related metadata	Relationship between other metadata fields.

### Format values and their associated meanings

Value	Valid character range
A	Alphabetic character set: contains the letters a-z and A-Z and may contain special characters*, but not numeric characters.
N	Numeric character set: contains whole and decimal numbers and may contain special characters, but not alphabetic characters.
X	Alphanumeric character set: contains alphabetic and numeric characters, and may contain blank characters.
D	A numeric character representing a number of days
M	A numeric character representing a number of months
Y	A numeric character representing a number of years

[ ]	The string within the square brackets is optional in any ordered combination (eg. [XXX] indicates 0, 1, 2 or 3 alphanumeric characters (i.e. blank, X, XX or XXX)).
( )	The character preceding the round brackets (parentheses) is repeated the number of times specified (eg. X(9) indicates 9 alphanumeric characters).

\* A special character is a character which has a visual representation and is neither a letter, number, ideogram, or blank. For example, punctuation marks and mathematical symbols.

## **Approval and Limitations**

This version of the data dictionary has been approved by the AusTQIP Steering Committee. Work on the dataset and data dictionary is an on-going iterative process. The Steering Committee is aware of this and understands that versions will be updated intermittently. Readers will need to be aware of certain limitations in the current version that do not affect the intended purpose or definitions for each of the data fields.

Data domains, that is, the list of specific data values may need further refinement and clarification. The availability or consensus agreement for data fields to be used for benchmarking is yet to be determined.

## **Glossary of Terms**

Certain terms referred to throughout this dictionary are commonly used in the clinical vernacular for trauma care. However, for the purposes of this data dictionary and also to help standardise definitions and data collection, the following definitions are used.

### **Definitive Care Hospital**

The hospital at the highest service level within the trauma system structure where the patient was treated. This is usually a tertiary hospital that is able to provide leadership and total care for all aspects of the injury from prevention through to rehabilitation.

### **Referring Hospital**

An acute care hospital from which the patient has been transferred following separation, to the Definitive Care Hospital. This usually occurs in an effort to move the injured patient to a higher level of care with the resources needed to optimise treatment. In some instances there may be multiple referring hospitals prior to a patient's arrival at a definitive care hospital.

### **First Hospital**

An acute care hospital to which the patient was transported initially following the injury event. This may not be the Referring Hospital, as defined above, but the first in a series of transferring hospitals.

### **Pre-hospital**

Refers to any event that occurred prior to a patient arriving at the Definitive Care Hospital. These include scene, transfer and any referring hospital/hospitals.

## Data Definitions

## 1.01 Institution

### Identifying and definitional attributes

<b>Definition</b>	The identifier for the establishment in which the episode of definitive (final) care occurred. Each separately administered health care establishment has a unique identifier at the national level.
<b>Justification</b>	Collected for administrative purposes, to assist in service provider identification.

### Obligation

Mandatory

### Representational attributes

<b>Guide for use</b>	Concatenation of: <ul style="list-style-type: none"><li>• Australian state/territory identifier (character position 1);</li><li>• Sector (character position 2);</li><li>• Region identifier (character positions 3-4); and</li><li>• Organisation identifier (state/territory), (character positions 5-9).</li></ul>
<b>Validation rules</b>	Field cannot be blank
<b>Related data field</b>	None
<b>Data type</b>	Text
<b>Representational class</b>	Identifier
<b>Field size maximum</b>	9
<b>Format</b>	NNX[X]NNNNN
<b>Data domain</b>	Valid identifier
<b>Column location</b>	ATR#_site_time-period_INC.csv
<b>Column name</b>	InstitutionId
<b>Correspondence</b>	Single

### Administrative information

#### References

<b>Related metadata</b>	METeOR ID: 269973
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## 1.02 Trauma Number

### Identifying and definitional attributes

<b>Definition</b>	A person identifier unique to the establishment or agency where the person received definitive (final) care.
<b>Justification</b>	Collected for administrative purposes, to assist in service provider identification.

### Obligation

Desirable

### Representational attributes

<b>Guide for use</b>	Individual agencies, establishments or collection authorities may use their own alphabetic, numeric or alphanumeric coding systems.  This field may be a hospital medical record (UR) number, or a local trauma registry case number.
<b>Validation rules</b>	
<b>Related data field</b>	None
<b>Data type</b>	Text
<b>Representational class</b>	Identifier
<b>Field size maximum</b>	20
<b>Format</b>	XXXXXX[X(14)]
<b>Data domain</b>	Valid identifier
<b>Column location</b>	ATR#_site_time-period_INC.csv
<b>Column name</b>	TraumaNo
<b>Correspondence</b>	Single

### Administrative information

#### References

<b>Related metadata</b>	METeOR ID: 290046
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## 1.03 Incident number

### Identifying and definitional attributes

<b>Definition</b>	An identifier which is unique to a specific trauma event for a specific person.
<b>Justification</b>	Collected for administrative purposes, to assist in the identification of the same episode of care for a trauma incident.

### Obligation

Mandatory

### Representational attributes

<b>Guide for use</b>	Individual agencies, establishments or collection authorities may use their own alphabetic, numeric or alphanumeric coding systems. The unique event identifier may be generated by the system or site and may equate to an admission number.
<b>Validation rules</b>	Field cannot be blank
<b>Related data field</b>	None
<b>Data type</b>	Text
<b>Representational class</b>	Identifier
<b>Field size maximum</b>	10
<b>Format</b>	XXXXXX[X(4)]
<b>Data domain</b>	Valid identifier
<b>Column location</b>	ATR#_site_time-period_INC.csv
<b>Column name</b>	IncidentNo
<b>Correspondence</b>	Primary key <sup>3</sup>

### Administrative information

#### References

<b>Related metadata</b>	Victorian State Trauma Registry Outcomes Monitoring Group (VSTORM) Data Dictionary V 4.0, Item 4.1 Victorian Admitted Episodes Dataset (VAED) Data Definitions V 1.0, Unique Key p. 146
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<sup>3</sup> Within the current specification of the ATR, this field has single correspondence with the 'Australasian Trauma Registry number' which serves as the primary key for this database.

## 2.01 Date of birth

### Identifying and definitional attributes

<b>Definition</b>	The date of birth of the person.
<b>Justification</b>	Collected for administrative purposes, to assist in individual identification and for derivation of age in demographic analyses.

### Obligation

Desirable

### Representational attributes

<b>Guide for use</b>	<p>If date of birth is not known or cannot be obtained, provision should be made to collect or estimate age.</p> <p>If year of birth is known (but date of birth is not) use the date, 0101YYYY of the birth year to estimate age (where YYYY is the year of birth).</p> <p>If person is aged under 2 years, date of birth should be estimated to the nearest three month period, ie 0101, 0104, 0107 or 0110 of the estimated year of birth.</p>
<b>Validation rules</b>	Less than all other dates
<b>Related data field</b>	<b>2.02 Age</b>
<b>Data type</b>	Text
<b>Representational class</b>	Date
<b>Field size maximum</b>	8
<b>Format</b>	DDMMYYYY
<b>Data domain</b>	Valid date
<b>Column location</b>	ATR#_site_time-period_INC.csv
<b>Column name</b>	DOB
<b>Correspondence</b>	Single

### Administrative information

#### References

**Related metadata** METeOR ID: 287007

## 2.02 Age

### Identifying and definitional attributes

<b>Definition</b>	The age of the patient on the date of the injury event, measured as a number of years.
<b>Justification</b>	Age is a core data field as a predictive measure of trauma treatment and outcomes.

### Obligation

Mandatory

### Representational attributes

<b>Guide for use</b>	Age in single years (if aged under one year, record as zero). Can be derived from: <ul style="list-style-type: none"><li>• <b>3.01 Date of Birth</b>; and</li><li>• <b>2.01 Date &amp; Time of Injury</b></li></ul> If both data fields are available, this should be derived as a calculated field. If age cannot be calculated, is not stated and cannot be estimated, value 999 should be used.						
<b>Validation rules</b>	Permissible values 0 - 130						
<b>Related data fields</b>	<b>2.01 Date of Birth</b> <b>3.01 Date &amp; Time of Injury</b>						
<b>Data type</b>	Number						
<b>Representational class</b>	Total						
<b>Field size maximum</b>	3						
<b>Format</b>	N[NN]						
<b>Data domain</b>	<table><thead><tr><th>Value</th><th>Description</th></tr></thead><tbody><tr><td>0-130</td><td>Valid Age</td></tr><tr><td>999</td><td>Unknown/not stated</td></tr></tbody></table>	Value	Description	0-130	Valid Age	999	Unknown/not stated
Value	Description						
0-130	Valid Age						
999	Unknown/not stated						
<b>Column location</b>	ATR#_site_time-period_INC.csv						
<b>Column name</b>	Age						
<b>Correspondence</b>	Single						

### Administrative information

#### References

**Related metadata** METeOR ID: 303794

## 2.03 Sex

### Identifying and definitional attributes

<b>Definition</b>	The biological distinction between male and female.
<b>Justification</b>	Collected to determine sex specific treatment. It is also a core field in a wide range of social, labour and demographic statistics.

### Obligation

Mandatory

### Representational attributes

<b>Guide for use</b>	Diagnosis and procedure codes should be checked against the national ICD-10-AM sex edits, unless the person is undergoing, or has undergone a sex change or has a genetic condition resulting in a conflict between sex and ICD-10-AM code.	
	Intersex or indeterminate, refers to a person, who because of a genetic condition, was born with reproductive organs or sex chromosomes that are not exclusively male or female or whose sex has not yet been determined for whatever reason.	
	Intersex or indeterminate, should be confirmed if reported for people aged 90 days or greater.	
<b>Validation rules</b>	Cannot be blank	
<b>Related data field</b>	None	
<b>Data type</b>	Number	
<b>Representational class</b>	Code	
<b>Field size maximum</b>	1	
<b>Format</b>	N	
<b>Data domain</b>	<b>Code</b>	<b>Description</b>
	1	Male
	2	Female
	3	Intersex or indeterminate
	9	Not stated/inadequately described
<b>Column location</b>	ATR#_site_time-period_INC.csv	
<b>Column name</b>	Sex	
<b>Correspondence</b>	Single	

### Administrative information

<b>References</b>	International Statistical Classification of Diseases and Related Health Problems, Tenth Revision, Australian Modification 9th edition.
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## 2.04 Pre-injury Co-morbidities

### Identifying and definitional attributes

<b>Definition</b>	Significant condition, conditions or complaint which pre-existed the injury incident, and which affect management of the injuries.
<b>Justification</b>	Co-morbidities may affect patient treatment and outcome.

### Obligation

Optional

### Representational attributes

<b>Guide for use</b>	Record all diagnosis codes existing prior to the episode of care for the injury incident, in accordance with the ICD-10-AM Australian Coding Standards.  The diagnosis can include a disease, condition, previous injury, poisoning, sign, symptom, abnormal finding, complaint, or other factor influencing health status.  ICD-10 AM Australian Coding Standards diagnosis codes can be used to map to specified co-morbidity groups such as the American Society of Anaesthesiologists' scale.
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### Validation rules

<b>Related data field</b>	None
<b>Data type</b>	Text
<b>Representational class</b>	Code
<b>Field size maximum</b>	6
<b>Format</b>	ANN{.N[N]}
<b>Data domain</b>	Valid ICD10-AM code
<b>Column location</b>	ATR#_site_time-period_INC.csv
<b>Column name</b>	Comorb
<b>Correspondence</b>	Multiple

### Administrative information

<b>References</b>	International Statistical Classification of Diseases and Related Health Problems, Tenth Revision, Australian Modification 9th edition.
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### Related metadata

## 3.01 Date & Time of Injury

### Identifying and definitional attributes

<b>Definition</b>	The date and time the person received the injuries requiring hospitalisation.
<b>Justification</b>	To identify the episode of injury by the date and time. Date is used to calculate the age at date of injury. Time is used to calculate the time to treatment and also report on the most common time of injury.

### Obligation

Mandatory

### Representational attributes

<b>Guide for use</b>	<p>If time is not accurately known, the best estimate should be used.</p> <p>Midnight should be entered as 00:01 of the following date (00:00 and 24:00 are not accepted). Example, midnight 25<sup>th</sup> November 2011 should be reported as 25112011T0001.</p> <p>Where the date and time is unknown, enter as:</p> <ul style="list-style-type: none"><li>• 01011900T0000</li></ul> <p>Where date is known but time is unknown, enter actual date:</p> <ul style="list-style-type: none"><li>• DDMMYYYYT0000</li></ul> <p>Where the time is known but date is unknown, enter actual time as:</p> <ul style="list-style-type: none"><li>• 01011900Thhmm</li></ul>
<b>Validation rules</b>	<p>Must be less than or equal to:</p> <ul style="list-style-type: none"><li>• <b>4.02 Date &amp; Time of Ambulance Arrival at Patient</b> (if used);</li><li>• <b>4.05 Date &amp; Time of Arrival at Referring Hospital</b> (if used);</li><li>• <b>4.06 Date &amp; Time of Departure from Referring Hospital</b> (if used); and</li><li>• <b>5.01 Date &amp; Time of Arrival at Definitive Care Hospital</b></li></ul>
<b>Related data field</b>	<b>2.02 Age</b>
<b>Data type</b>	Date/Time
<b>Representational class</b>	Date/Time
<b>Field size maximum</b>	13
<b>Format</b>	DDMMYYYYThhmm
<b>Data domain</b>	Valid Date and Time
<b>Column location</b>	ATR#_site_time-period_INC.csv
<b>Column name</b>	DOIJ
<b>Correspondence</b>	Single

## **Administrative information**

### **References**

#### **Related metadata**

Victorian State Trauma Registry Outcomes Monitoring Group (VSTORM)  
Data Dictionary V. 4.0, Item 2.1 and Item 2.2

## 3.02 Injury Cause

### Identifying and definitional attributes

<b>Definition</b>	The single environmental event, circumstance or condition (external factor) which was the primary circumstance or cause of the trauma event.
<b>Justification</b>	Enables categorisation of injury cause and identify trends in defining and monitoring cause of injuries.

### Obligation

Desirable

### Representational attributes

<b>Guide for use</b>	<p>This code must be used in conjunction with an injury or poisoning code and can be used with other disease codes. The external cause should be coded to the complete ICD-10-AM classification.</p> <p>If two or more cause categories are judged to be equally important, select the one that comes first in the code list.</p> <p>An external cause code should be sequenced following the related injury or poisoning code, or following the group of codes, if more than one injury or condition has resulted from this external cause. Provision should be made to record more than one external cause if appropriate.</p> <p>External cause codes must include a place of occurrence code.</p>
<b>Validation rules</b>	Cannot be blank if <i>Place of Injury Occurrence</i> and <i>Activity Engaged in When Injured</i> is not blank.
<b>Related data field</b>	<b>3.03 Dominant Injury Type</b>
<b>Data type</b>	Text
<b>Representational class</b>	Code
<b>Field size maximum</b>	6
<b>Format</b>	ANN{.N[N]}
<b>Data domain</b>	Valid ICD10-AM code
<b>Column location</b>	ATR#_site_time-period_INC.csv
<b>Column name</b>	InjuryCause
<b>Correspondence</b>	Single

### Administrative information

<b>References</b>	International Statistical Classification of Diseases and Related Health Problems, Tenth Revision, Australian Modification 9th edition
<b>Related metadata</b>	METeOR ID:589014

## 3.03 Dominant Injury Type

### Identifying and definitional attributes

<b>Definition</b>	The dominant type of injury produced by the trauma event.
<b>Justification</b>	Collected to determine trends and calculation of TRISS (blunt and penetrating only).

### Obligation

Desirable

### Representational attributes

**Guide for use** In most instances, determination of the dominant injury type will be based on the mechanism of injury, and relate directly to:

- **3.02 Injury Cause**

*Blunt* injuries generally occur from mechanisms such as motor vehicle collisions, pedestrian impacts, falls and sports injuries.

*Penetrating* injuries, require skin penetration by an external force as the principal component of injury. Examples include stab and gunshot wounds, glass-related injuries and impalements. Examples include stab and gunshot wounds, bomb fragments, glass-related injuries and impalements. This excludes compound fractures where the bone breaks the skin, but includes compound fractures where an external object travels through the skin and into the bone.

*Burn* injuries are caused by exposure to electrical, thermal or corrosive agents such as flames, hot substances, chemicals or radiation. Examples include situations where electricity has primarily damaged soft tissues (electrical burns).

*Other trauma* includes hangings, near drowning and electrocution injuries. Examples include cases where electricity has resulted in more diffuse injuries involving other body systems (ie. electrocution) such as cardiac arrest, neurological injuries, fractures and compartment syndrome.

*Not stated/inadequately described* - type of injury cannot be determined.

**In some cases, the dominant injury type will not be readily apparent.** For example, a patient injured in a severe motor vehicle collision (which generally result in blunt injuries) may have additional penetrating injuries. When compared with blunt injuries sustained in such an injury event, such penetrating injuries may be minor (as in superficially embedded glass from a broken window) or major (as in impalement on an object within the vehicle). In such cases, the dominant injury type may be established by additional review of:

- **3.08 Injury event description;** and
- **7.01 AIS Injury Codes**

Where an injury event results in both blunt and non-blunt trauma of equal AIS severity, the non-blunt injury type should be used. Where an electrocution event causes burn and internal ('Other trauma') injuries, the injury with the higher AIS severity should be used.

<b>Validation rules</b>	Should not be blank.													
<b>Related data fields</b>	<b>3.02 Injury Cause</b> <b>3.08 Injury event description</b> <b>7.01 AIS Injury Codes</b>													
<b>Data type</b>	Number													
<b>Representational class</b>	Code													
<b>Field size maximum</b>	1													
<b>Format</b>	N													
<b>Data domain</b>	<table border="0"> <thead> <tr> <th><b>Code</b></th> <th><b>Description</b></th> </tr> </thead> <tbody> <tr> <td>1</td> <td>Blunt</td> </tr> <tr> <td>2</td> <td>Penetrating</td> </tr> <tr> <td>3</td> <td>Burn</td> </tr> <tr> <td>8</td> <td>Other trauma</td> </tr> <tr> <td>9</td> <td>Not stated/inadequately described</td> </tr> </tbody> </table>	<b>Code</b>	<b>Description</b>	1	Blunt	2	Penetrating	3	Burn	8	Other trauma	9	Not stated/inadequately described	
<b>Code</b>	<b>Description</b>													
1	Blunt													
2	Penetrating													
3	Burn													
8	Other trauma													
9	Not stated/inadequately described													
<b>Column location</b>	ATR#_site_time-period_INC.csv													
<b>Column name</b>	InjuryType													
<b>Correspondence</b>	Single													

## Administrative information

### References

<b>Related metadata</b>	Victorian State Trauma Registry Outcomes Monitoring Group (VSTORM) Data Dictionary V. 4.0, Item 2.7
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## 3.04 Postcode of Injury

### Identifying and definitional attributes

<b>Definition</b>	The postcode where the trauma event occurred.
<b>Justification</b>	Used in the analysis of injury incident on a geographical basis. Where individual street addresses are available, postcodes can be mapped to more accurate Australian Standard Geographical Classification codes (ASGC) codes (e.g. SLAs).

### Obligation

Desirable

### Representational attributes

<b>Guide for use</b>	Leave Postcode - Australian blank for: <ul style="list-style-type: none"><li>• Any overseas address;</li><li>• Unknown address;</li><li>• No fixed address.</li></ul>
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### Validation rules

<b>Related data field</b>	None
<b>Data type</b>	Number
<b>Representational class</b>	Code
<b>Field size maximum</b>	4
<b>Format</b>	{NNNN}
<b>Data domain</b>	Valid postcode
<b>Column location</b>	ATR#_site_time-period_INC.csv
<b>Column name</b>	InjuryPcode
<b>Correspondence</b>	Single

### Administrative information

#### References

<b>Related metadata</b>	METeOR ID: 429894
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## 3.05 Injury Intent

### Identifying and definitional attributes

<b>Definition</b>	The most likely role of human intent in the occurrence of the trauma event as determined by a clinician's assessment.
<b>Justification</b>	Used for injury surveillance.

### Obligation

Optional

### Representational attributes

<b>Guide for use</b>	Select the code which best characterises the role of intent in the occurrence of the injury, on the basis of the information available at the time it is recorded.  If two or more categories are judged to be equally appropriate, select the one that comes first in the code list.
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**Validation rules** Should not be blank

**Related data field** None

**Data type** Number

**Representational class** Code

**Field size maximum** 2

**Format** N[N]

<b>Data domain</b>	<b>Value</b>	<b>Meaning</b>
	1	Accidental or unintentional - injury not intended
	2	Intentional self-harm
	3	Sexual assault
	4	Maltreatment by parent (including neglect)
	5	Maltreatment by spouse or partner (including domestic violence)
	6	Other and unspecified assault
	7	Event of undetermined intent
	8	Legal intervention (including police), operations of war or acts of terrorism
	9	Adverse effect or complications of medical and surgical care
	10	Other specified intent
	11	Intent not specified

**Column location** ATR#\_site\_time-period\_INC.csv

<b>Column name</b>	InjuryIntent
<b>Correspondence</b>	Single

## **Administrative information**

### **References**

<b>Related metadata</b>	METeOR ID: 268944
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## 3.06 Place of Injury Occurrence

### Identifying and definitional attributes

<b>Definition</b>	The type of location where the trauma event occurred.
<b>Justification</b>	To identify trends of injury and for injury prevention and control.

### Obligation

Desirable

### Representational attributes

<b>Guide for use</b>	<p>This code must be used in conjunction with an injury or poisoning code and can be used with other disease codes. The external cause should be coded to the complete ICD-10-AM classification.</p> <p>If two or more cause categories are judged to be equally important, select the one that comes first in the code list.</p> <p>An external cause code should be sequenced following the related injury or poisoning code, or following the group of codes, if more than one injury or condition has resulted from this external cause. Provision should be made to record more than one external cause if appropriate.</p> <p>External cause codes must include a place of occurrence code.</p> <p>Existing numerical codesets used for similar fields may be mapped to this field.</p>
<b>Validation rules</b>	Cannot be blank if <i>Injury Cause</i> and <i>Activity Engaged in When Injured</i> is not blank.
<b>Related data field</b>	None
<b>Data type</b>	Text
<b>Representational class</b>	Code
<b>Field size maximum</b>	6
<b>Format</b>	{ANN[.N[N]]}
<b>Data domain</b>	Valid ICD10-AM code
<b>Column location</b>	ATR#_site_time-period_INC.csv
<b>Column name</b>	InjuryPlace
<b>Correspondence</b>	Single

### Administrative information

<b>References</b>	ICD-10-AM International Statistical Classification of Diseases and Related data field Health Problems, Australian Modification
<b>Related metadata</b>	METeOR ID: 589028

## 3.07 Activity Engaged in when Injured

### Identifying and definitional attributes

<b>Definition</b>	The type of activity the person was engaged in at the time of the trauma event.
<b>Justification</b>	To identify trends of injury and for injury prevention and control. The basis for identifying work-related and sport-related injuries.

### Obligation

Desirable

### Representational attributes

<b>Guide for use</b>	<p>This code must be used in conjunction with an injury or poisoning code and can be used with other disease codes. The external cause should be coded to the complete ICD-10-AM classification.</p> <p>If two or more cause categories are judged to be equally important, select the one that comes first in the code list.</p> <p>An external cause code should be sequenced following the related injury or poisoning code, or following the group of codes, if more than one injury or condition has resulted from this external cause. Provision should be made to record more than one external cause if appropriate.</p> <p>External cause codes must include an activity code.</p> <p>Existing numerical codesets used for similar fields may be mapped to this field.</p>
<b>Validation rules</b>	Cannot be blank if <i>Injury Cause</i> and <i>Place of Injury Occurrence</i> is not blank.
<b>Related data field</b>	None
<b>Data type</b>	Text
<b>Representational class</b>	Code
<b>Field size maximum</b>	6
<b>Format</b>	ANN{.N[N]}
<b>Data domain</b>	Valid ICD10-AM 9 <sup>th</sup> Edition code
<b>Column location</b>	ATR#_site_time-period_INC.csv
<b>Column name</b>	ActEngaged
<b>Correspondence</b>	Single

### Administrative information

<b>References</b>	International Statistical Classification of Diseases and Related Health Problems, Tenth Revision, Australian Modification
<b>Related metadata</b>	METeOR ID: 589002

## 3.08 Injury Event Description

### Identifying and definitional attributes

<b>Definition</b>	A textual description of the environmental event, circumstance or condition as the cause of injury.
<b>Justification</b>	The narrative of the injury event is very important as it identifies features of the event not revealed by coded data.

### Obligation

Desirable

### Representational attributes

<b>Guide for use</b>	Text description should include information relating to the circumstances prior to and surrounding the trauma event (including place of injury and activity), and what 'went wrong' to cause the trauma event.
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Write a brief description of how the injury occurred. It should indicate:

- What went wrong (the breakdown event)
- The mechanism by which this event led to injury
- The object(s) or substance(s) most important in the event
- The type of place at which the event occurred
- The activity of the person who was injured

### Validation rules

<b>Related data field</b>	<b>3.03 Dominant Injury Type</b>
<b>Data type</b>	Text
<b>Representational class</b>	Text
<b>Field size maximum</b>	1000
<b>Format</b>	[X(1000)]
<b>Data domain</b>	
<b>Column location</b>	ATR#_site_time-period_INC.csv
<b>Column name</b>	InjuryEvent
<b>Correspondence</b>	Single

### Administrative information

#### References

<b>Related metadata</b>	METeOR ID: 268946
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## 3.09 Safety Devices Used

### Identifying and definitional attributes

<b>Definition</b>	The use (or lack of use) of safety equipment relevant to the injury cause.
<b>Justification</b>	To monitor the deployment and efficacy of safety devices, and to inform future safety initiatives.

### Obligation

Optional

### Representational attributes

<b>Guide for use</b>	<p><i>Seatbelt</i> include lap, shoulder and sash seatbelts.</p> <p><i>Child car restraint</i> examples include booster seat, child car seat, infant capsule.</p> <p><i>Safety Protection</i> examples include protective clothing (such as padded leather pants, industrial clothing), protective non-clothing (such as shin guard, knee or elbow pads) and eye protection (such as goggles, safety glasses).</p> <p><i>Helmet</i> examples include bicycle, skiing, motorcycle, rock climbing.</p> <p>Code 10 – Not worn or used, if safety devices for codes 2- 7 available but not used or worn.</p> <p>Code 11 – Not deployed, if code 8 available but has not deployed.</p>
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### Validation rules

<b>Related data field</b>	None
<b>Data type</b>	Number
<b>Representational class</b>	Code
<b>Field size maximum</b>	2
<b>Format</b>	N[N]

<b>Data domain</b>	<b>Code</b>	<b>Description</b>
	1	No safety device
	2	Seatbelt
	3	Child car restraint
	4	Safety protection
	5	Helmet
	6	Personal Floatation Device
	7	Safety harness
	8	Airbag deployed
	9	Other

10	Not worn or used
11	Not deployed
99	Not stated/inadequately described

**Column location** ATR#\_site\_time-period\_INC.csv

**Column name** SafetyDevice

**Correspondence** Multiple

## **Administrative information**

### **References**

**Related metadata** Ontario Trauma Registry Comprehensive Data Set Data Dictionary, May 2014. Protective Devices. p. 38

## 4.01 Mode of Transport from Scene

### Identifying and definitional attributes

<b>Definition</b>	The type of transport by which the person left the scene of the trauma event for transportation to hospital.
<b>Justification</b>	To monitor patterns and modes of transportation used.

### Obligation

Mandatory

### Representational attributes

<b>Guide for use</b>	Use of air ambulance services will take precedence in this field. For example, in the event that a patient requires road ambulance transport from the scene of an incident to a nearby helicopter, or from a helipad to a nearby hospital, the mode of transport is 'Helicopter', not 'Road'.
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#### Validation rules

**Related data field** *4.02 Date & Time of Ambulance Arrival at Patient*

**Data type** Number

**Representational class** Code

**Field size maximum** 1

**Format** N

<b>Data domain</b>	<b>Code</b>	<b>Description</b>
	1	Road Ambulance
	2	Helicopter Ambulance
	3	Fixed-wing Ambulance
	4	Private/Public Vehicle/Taxi/Walk-in
	5	Interstate Ambulance
	6	Private Ambulance
	7	Police/Prison Vehicle
	8	Other
	9	Not stated/inadequately described

**Column location** ATR#\_site\_time-period\_INC.csv

**Column name** TranspMode

**Correspondence** Single

### Administrative information

#### References

**Related metadata**

Victorian State Trauma Registry Outcomes Monitoring Group (VSTORM)  
Data Dictionary V. 4.0, Item 3.5

## 4.02 Date & Time of Ambulance Arrival at Patient

### Identifying and definitional attributes

<b>Definition</b>	The date and time the first ambulance service reached the person at the scene of injury.
<b>Justification</b>	To monitor patterns of transfer and mode of transportation used.

### Obligation

Optional

### Representational attributes

<b>Guide for use</b>	<p>If a person was transported by ambulance service from the scene, the date and time the first ambulance service reached the person.</p> <p>Midnight should be entered as 00:01 of the following date (00:00 and 24:00 are not accepted).</p> <p>Midnight should be entered as 00:01 of the following date (00:00 and 24:00 are not accepted). Example, midnight 25<sup>th</sup> November 2011 should be reported as 25112011T0001.</p> <p>Where the date and time is unknown, enter as:</p> <ul style="list-style-type: none"><li>• 01011900T0000</li></ul> <p>Where date is known but time is unknown, enter actual date:</p> <ul style="list-style-type: none"><li>• DDMMYYYYT0000</li></ul> <p>Where the time is known but date is unknown, enter actual time as:</p> <ul style="list-style-type: none"><li>• 01011900Thhmm</li></ul>
<b>Validation rules</b>	<p>Must be greater than or equal to:</p> <ul style="list-style-type: none"><li>• <b>3.01 Date &amp; Time of Injury</b></li></ul> <p>Must be less than or equal to:</p> <ul style="list-style-type: none"><li>• <b>4.05 Date &amp; Time of Arrival at Referring Hospital</b> (if used);</li><li>• <b>4.06 Date &amp; Time of Departure from Referring Hospital</b> (if used); and</li><li>• <b>5.01 Date &amp; Time of Arrival at Definitive Care Hospital</b></li></ul>
<b>Related data field</b>	<b>4.01 Mode of Transport from Scene</b>
<b>Data type</b>	Date/Time
<b>Representational class</b>	Date/Time
<b>Field size maximum</b>	13
<b>Format</b>	DDMMYYYYThhmm
<b>Data domain</b>	Valid Date and Time
<b>Column location</b>	ATR#_site_time-period_INC.csv
<b>Column name</b>	AmbulanceArrTime

**Correspondence**

Single

## **Administrative information**

**References**

**Related metadata**

Victorian State Trauma Registry Outcomes Monitoring Group (VSTORM)  
Data Dictionary V. 4.0, Item 3.9

## 4.03 Transfer from Other Hospital?

### Identifying and definitional attributes

<b>Definition</b>	Whether the person was treated at another acute-care hospital prior to arrival at the definitive care hospital.
<b>Justification</b>	To identify the treatment pathway and outcomes.

### Obligation

Mandatory

### Representational attributes

Guide for use

Validation rules

<b>Related data fields</b>	<i>4.04 Referring Hospital</i> <i>4.05 Date &amp; Time of Arrival at Referring Hospital</i> <i>4.06 Date &amp; Time of Departure from Referring Hospital</i> <i>4.07 Mode of Transport from Referring Hospital to Definitive Care Hospital</i>
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**Data type** Number

**Representational class** Code

**Field size maximum** 1

**Format** N

<b>Data domain</b>	<b>Code</b>	<b>Description</b>
	1	Yes
	2	No
	9	Not stated/inadequately described

**Column location** ATR#\_site\_time-period\_INC.csv

**Column name** OtherHospTransfer

**Correspondence** Single

### Administrative information

References

Related metadata

## 4.04 Referring Hospital

### Identifying and definitional attributes

<b>Definition</b>	The identifier for the establishment from which the person was transferred.
<b>Justification</b>	To identify the referring health service provider for patient tracking.

### Obligation

Desirable

### Representational attributes

<b>Guide for use</b>	Concatenation of: <ul style="list-style-type: none"><li>• Australian state/territory identifier (character position 1)</li><li>• Sector (character position 2)</li><li>• Region identifier (character positions 3-4)</li><li>• Organisation identifier (state/territory), (character positions 5-9)</li></ul> If the person attended multiple hospitals prior to arriving at the hospital of definitive care, record the last transferring hospital.
<b>Validation rules</b>	Must be completed if the following collected: <ul style="list-style-type: none"><li>• <b>4.03 Transfer from Other Hospital? 1 = Yes</b></li></ul>
<b>Related data field</b>	<b>4.03 Transfer from Other Hospital?</b>
<b>Data type</b>	Text
<b>Representational class</b>	Identifier
<b>Field size maximum</b>	9
<b>Format</b>	NNX[X]NNNNN
<b>Data domain</b>	Valid identifier
<b>Column location</b>	ATR#_site_time-period_INC.csv
<b>Column name</b>	RefHospld1
<b>Correspondence</b>	Multiple

### Administrative information

#### References

<b>Related metadata</b>	METeOR ID: 269973
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## 4.05 Date & Time of Arrival at Referring Hospital

### Identifying and definitional attributes

<b>Definition</b>	The date and time patient was first registered, triaged or assessed (whichever comes first), by clerical officer, nurse or doctor at the hospital from which they were transferred to the definitive care hospital.
<b>Justification</b>	Enables calculation of transfer time from referring hospital to definitive care hospital.

### Obligation

Desirable

### Representational attributes

**Guide for use** Midnight should be entered as 00:01 of the following date (00:00 and 24:00 are not accepted). Example, midnight 25<sup>th</sup> November 2011 should be reported as 25112011T0001.

Where the date and time is unknown, enter as:

- 01011900T0000

Where date is known but time is unknown, enter actual date:

- DDMMYYYYT0000

Where the time is known but date is unknown, enter actual time as:

- 01011900Thhmm

If not collected, can be concatenated if the following data is collected at the referring hospital:

- Health service event - presentation date (METeOR ID: 270393)
- Health service event - presentation time (METeOR ID: 270080)

### Validation rules

Must be completed if the following collected:

- **4.03 Transfer from Other Hospital? 1 = Yes**

Must be greater than or equal to:

- **3.01 Date & Time of Injury**; and
- **4.02 Time of Ambulance Arrival at Patient** (if used)

Must be less than or equal to:

- **4.06 Time of Departure from Referring Hospital** (if used); and
- **5.01 Date & Time of Arrival at Definitive Care Hospital**

### Related data field

**4.03 Transfer from Other Hospital?**

### Data type

Date/Time

### Representational class

Date/Time

### Field size maximum

13

<b>Format</b>	DDMMYYYYThmm
<b>Data domain</b>	Valid Date and Time
<b>Column location</b>	ATR#_site_time-period_INC.csv
<b>Column name</b>	RefHospArrDateTime1
<b>Correspondence</b>	Multiple

## **Administrative information**

### **References**

<b>Related metadata</b>	METeOR ID: 270393
	METeOR ID: 270080

## 4.06 Date & Time of Departure from Referring Hospital

### Identifying and definitional attributes

**Definition** The date and time patient departed from the hospital from which they were transferred to the definitive care hospital.

**Justification** Enables length of stay at referring hospital to be calculated.

### Obligation

Desirable

### Representational attributes

**Guide for use** Midnight should be entered as 00:01 of the following date (00:00 and 24:00 are not accepted). Example, midnight 25<sup>th</sup> November 2011 should be reported as 25112011T0001.

Where the date and time is unknown, enter as:

- 01011900T0000

Where date is known but time is unknown, enter actual date:

- DDMMYYYYT0000

Where the time is known but date is unknown, enter actual time as:

- 01011900Thhmm

If the patient is transferred by ambulance service, the time the patient is loaded into the transferring ambulance may be used.

**Validation rules** Must be completed if the following collected:

- **4.03 Transfer from Other Hospital? 1 = Yes**

Must be greater than or equal to:

- **3.01 Date & Time of Injury;**
- **4.02 Date & Time of Ambulance Arrival at Patient** (if used); and
- **4.05 Date & Time of Arrival at Referring Hospital** (if used)

Must be less than or equal to:

- **5.01 Date & Time of Arrival at Definitive Care Hospital**

**Related data field** **4.03 Transfer from Other Hospital?**

**Data type** Date/Time

**Representational class** Date/Time

**Field size maximum** 13

**Format** DDMMYYYYThhmm

**Data domain** Valid Date and Time

**Column location** ATR#\_site\_time-period\_INC.csv

<b>Column name</b>	RefHospDeptDateTime1
<b>Correspondence</b>	Multiple

## **Administrative information**

### **References**

<b>Related metadata</b>	METeOR ID: 270025
	METeOR ID: 270026
	METeOR ID: 621829
	METeOR ID: 621816

## 4.07 Mode of Transport from Referring Hospital to Definitive Care Hospital

### Identifying and definitional attributes

<b>Definition</b>	The type of transport by which the person was transferred from another hospital to the definitive care hospital.
<b>Justification</b>	To monitor patterns of transfer and modes of transportation used.

### Obligation

Desirable

### Representational attributes

<b>Guide for use</b>	Use of air ambulance services will take precedence in this field. For example, in the event that a patient is flown by the Royal Flying Doctor Service from Mt Isa to Townsville, lands at the airstrip in Townsville, is then loaded into an ambulance and taken to The Townsville Hospital, the mode of transport is 'Fixed Wing', not 'Road'. This applies to most fixed wing transfers, where transport to the hospital will be by road car from the airport, and some helicopter transfers where a road ambulance may (for example) transport a patient from a hospital to a nearby helipad.	
<b>Validation rules</b>	Must be completed if the following collected: <ul style="list-style-type: none"> <li>• <b>4.03 Transfer from Other Hospital? 1 = Yes</b></li> </ul>	
<b>Related data field</b>	<b>4.03 Transfer from Other Hospital?</b>	
<b>Data type</b>	Number	
<b>Representational class</b>	Code	
<b>Field size maximum</b>	1	
<b>Format</b>	N	
<b>Data domain</b>	<b>Code</b>	<b>Description</b>
	1	Ground Ambulance
	2	Helicopter Ambulance
	3	Fixed-wing Ambulance
	4	Private/Public Vehicle/Taxi/Walk-in
	5	Interstate Ambulance
	6	Private Ambulance
	7	Police
	8	Other
	9	Not stated/inadequately described
<b>Column location</b>	ATR#_site_time-period_INC.csv	
<b>Column name</b>	RefHospTranspMode1	

**Correspondence** Multiple

## **Administrative information**

**References**

**Related metadata** Victorian State Trauma Registry Outcomes Monitoring Group (VSTORM)  
Data Dictionary V. 4.0, Item 3.5

## 4.08 Pre-hospital Blood Transfusion?

### Identifying and definitional attributes

**Definition** Whether the person was administered any blood products prior to arrival at the definitive care hospital.

**Justification** Administration of blood is an indication of the hypovolaemic status of a patient and may be used in the evaluation of quality of care.

### Obligation

Optional

### Representational attributes

#### Guide for use

#### Validation rules

**Related data field** None

**Data type** Number

**Representational class** Code

**Field size maximum** 1

**Format** N

<b>Data domain</b>	<b>Code</b>	<b>Description</b>
	1	Yes
	2	No
	9	Not stated/inadequately described

**Column location** ATR#\_site\_time-period\_INC.csv

**Column name** PreHospBloodTransf

**Correspondence** Single

### Administrative information

#### References

#### Related metadata

## 4.09 Pre-hospital CPR?

### Identifying and definitional attributes

**Definition** Whether the person received cardiopulmonary resuscitation at any stage prior to arrival at the definitive care hospital.

**Justification** CPR is an indicator of cardiac arrest. Cardiac arrest is a predictor of adverse outcome and survival.

### Obligation

Desirable

### Representational attributes

**Guide for use** Refer to ambulance, emergency services, first responders or transferring hospital clinical notes for evidence of whether or not CPR was administered.

**Validation rules** Should not be blank if *Pre-hospital Cardiac Arrest* is not blank.

**Related data field** **4.10 Pre-Hospital Cardiac Arrest?**

**Data type** Number

**Representational class** Code

**Field size maximum** 1

**Format** N

<b>Data domain</b>	<b>Code</b>	<b>Description</b>
	1	Yes
	2	No
	9	Not stated/inadequately described

**Column location** ATR#\_site\_time-period\_INC.csv

**Column name** PreHospCPR

**Correspondence** Single

### Administrative information

**References**

**Related metadata**

## 4.10 Pre-hospital Cardiac Arrest?

### Identifying and definitional attributes

<b>Definition</b>	Whether the person suffered a cardiac arrest at any stage prior to arrival at the definitive care hospital.
<b>Justification</b>	Cardiac arrest is a predictor of adverse outcome and survival.

### Obligation

Desirable

### Representational attributes

<b>Guide for use</b>	Cardiac arrest requires the absence of a detectable pulse, unresponsiveness and apnoea.	
<b>Validation rules</b>		
<b>Related data field</b>	<b>4.09 Pre-Hospital CPR?</b>	
<b>Data type</b>	Number	
<b>Representational class</b>	Code	
<b>Field size maximum</b>	1	
<b>Format</b>	N	
<b>Data domain</b>	<b>Code</b>	<b>Description</b>
	1	Yes
	2	No
	9	Not stated/inadequately described
<b>Column location</b>	ATR#_site_time-period_INC.csv	
<b>Column name</b>	PreHospCardArrest	
<b>Correspondence</b>	Single	

### Administrative information

#### References

<b>Related metadata</b>	Victorian Cardiac Outcomes Registry (VCOR) Data Definitions Percutaneous Coronary Intervention (PCI) V.1.4, Item 2.3.2. Out of Hospital Cardiac Arrest
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## 4.11 First Pulse

### Identifying and definitional attributes

<b>Definition</b>	The first recorded heart rate measured at the scene of trauma, or (if unavailable or presented directly to referring hospital), the first recorded pulse measured at a referring hospital, before definitive care hospital, measured in beats per minute.
<b>Justification</b>	Used as a proxy to assess injury severity.

### Obligation

Desirable

### Representational attributes

<b>Guide for use</b>	First measurement taken by any of ambulance, retrieval team or other hospital prior to definitive care hospital.  Where the person's first presentation is at a definitive care hospital, code 996 – Not applicable  If the person is in cardiac arrest at the time of first measurement, value 997 should be used.  If the person's heart rate cannot be measured, code 999 - Not stated/inadequately described.												
<b>Validation rules</b>	Permissible values 0 - 300												
<b>Related data field</b>	None												
<b>Data type</b>	Number												
<b>Representational class</b>	Total												
<b>Field size maximum</b>	3												
<b>Format</b>	N[NN]												
<b>Unit of measure</b>	Heart beats per minute												
<b>Data domain</b>	<table><thead><tr><th>Value</th><th>Description</th></tr></thead><tbody><tr><td>0-300</td><td>Heart beats per minute</td></tr><tr><td>996</td><td>Not applicable</td></tr><tr><td>997</td><td>Cardiac arrest</td></tr><tr><td>998</td><td>Not recorded</td></tr><tr><td>999</td><td>Not stated/inadequately described</td></tr></tbody></table>	Value	Description	0-300	Heart beats per minute	996	Not applicable	997	Cardiac arrest	998	Not recorded	999	Not stated/inadequately described
Value	Description												
0-300	Heart beats per minute												
996	Not applicable												
997	Cardiac arrest												
998	Not recorded												
999	Not stated/inadequately described												
<b>Column location</b>	ATR#_site_time-period_INC.csv												
<b>Column name</b>	FirstPulse												
<b>Correspondence</b>	Single												

### Administrative information

**References**

**Related metadata**

MEteor ID: 285123

## 4.12 First Systolic BP

### Identifying and definitional attributes

<b>Definition</b>	The first recorded systolic blood pressure measured at the scene of trauma, or (if unavailable or presented directly to referring hospital), the first recorded systolic blood pressure measured at a referring hospital, before definitive care hospital.
<b>Justification</b>	Used in several scoring systems including TRISS and is one assessment of patient acuity.

### Obligation

Desirable

### Representational attributes

<b>Guide for use</b>	First measurement taken by any of ambulance, retrieval team or other hospital prior to definitive care hospital. Must be in millimetres of mercury (mmHg). Where the person's first presentation is at a definitive care hospital, code 996 – Not applicable. If the systolic blood pressure is not or cannot be measured, value 999 should be used. Measurement protocol for resting blood pressure: The systolic blood pressure is one component of a routine blood pressure measurement (i.e. systolic/diastolic) and reflects the maximum pressure to which the arteries are exposed.								
<b>Validation rules</b>	Permissible values 0 - 300								
<b>Related data field</b>	None								
<b>Data type</b>	Number								
<b>Representational class</b>	Total								
<b>Field size maximum</b>	3								
<b>Format</b>	N[NN]								
<b>Unit of measure</b>	Millimetre of mercury (mmHg)								
<b>Data domain</b>	<table><thead><tr><th>Value</th><th>Description</th></tr></thead><tbody><tr><td>0-300</td><td>Millimetre of mercury (mmHg)</td></tr><tr><td>996</td><td>Not applicable</td></tr><tr><td>999</td><td>Not stated/inadequately described</td></tr></tbody></table>	Value	Description	0-300	Millimetre of mercury (mmHg)	996	Not applicable	999	Not stated/inadequately described
Value	Description								
0-300	Millimetre of mercury (mmHg)								
996	Not applicable								
999	Not stated/inadequately described								
<b>Column location</b>	ATR#_site_time-period_INC.csv								
<b>Column name</b>	FirstSystolic								
<b>Correspondence</b>	Single								

**Administrative information**

**References**

**Related metadata**                      METeor ID: 270073

## 4.13 First Spontaneous Respiratory Rate

### Identifying and definitional attributes

<b>Definition</b>	The first recorded unassisted rate of respiration measured at the scene of trauma, or (if unavailable or presented directly to referring hospital), the first recorded unassisted rate of respiration measured at a referring hospital, before definitive care hospital.
<b>Justification</b>	Used in several scoring systems including TRISS and is one assessment of patient acuity.

### Obligation

Desirable

### Representational attributes

<b>Guide for use</b>	First measurement taken by any of ambulance, retrieval team or other hospital prior to definitive care hospital.  Where the person's first presentation is at a definitive care hospital, code 996 – Not applicable.  If the person is in respiratory arrest at the time of first measurement, value 997 should be used.  If the person has been intubated at the time of first measurement, value 998 should be used.  If the respiratory rate is not or cannot be measured, value 999 should be used.												
<b>Validation rules</b>	Permissible values 0 - 100												
<b>Related data field</b>	<b>5.14 Respiratory Qualifier on Arrival</b>												
<b>Data type</b>	Number												
<b>Representational class</b>	Total												
<b>Field size maximum</b>	3												
<b>Format</b>	N[NN]												
<b>Unit of measure</b>	Number per minute												
<b>Data domain</b>	<table><thead><tr><th>Value</th><th>Description</th></tr></thead><tbody><tr><td>0-100</td><td>Number per minute</td></tr><tr><td>996</td><td>Not applicable</td></tr><tr><td>997</td><td>Respiratory arrest</td></tr><tr><td>998</td><td>Intubated</td></tr><tr><td>999</td><td>Not stated/inadequately described</td></tr></tbody></table>	Value	Description	0-100	Number per minute	996	Not applicable	997	Respiratory arrest	998	Intubated	999	Not stated/inadequately described
Value	Description												
0-100	Number per minute												
996	Not applicable												
997	Respiratory arrest												
998	Intubated												
999	Not stated/inadequately described												
<b>Column location</b>	ATR#_site_time-period_INC.csv												
<b>Column name</b>	FirstRespiRate												

**Correspondence**

Single

**Administrative information**

**References**

**Related metadata**

Victorian State Trauma Registry Outcomes Monitoring Group (VSTORM)  
Data Dictionary V. 4.0, Item 4.16

## 4.14 First Temperature

### Identifying and definitional attributes

<b>Definition</b>	The first recorded body temperature measured at the scene of trauma, or (if unavailable or presented directly to referring hospital), the first recorded body temperature measured at a referring hospital, before definitive care hospital.
<b>Justification</b>	Useful in the measurement of a patient vital status. Very high and low temperatures can be an indication of organ decomposition for an injured patient. Hypothermia can present a significant management problem.

### Obligation

Desirable

### Representational attributes

<b>Guide for use</b>	First measurement taken by any of ambulance, retrieval team or other hospital prior to definitive care hospital.  Must be in degrees Celsius.  Where the person's first presentation is at a definitive care hospital, code 99.6 – Not applicable.  If the temperature is not or cannot be measured, value 99.9 should be used.								
<b>Validation rules</b>	Permissible value 20.0 – 50.0								
<b>Related data field</b>	None								
<b>Data type</b>	Decimals								
<b>Representational class</b>	Total								
<b>Field size maximum</b>	4								
<b>Format</b>	NN[.N]								
<b>Unit of measure</b>	Celsius								
<b>Data domain</b>	<table><thead><tr><th>Value</th><th>Description</th></tr></thead><tbody><tr><td>20.0 – 50.0</td><td>Temperature in Celsius</td></tr><tr><td>99.6</td><td>Not applicable</td></tr><tr><td>99.9</td><td>Not stated/inadequately described</td></tr></tbody></table>	Value	Description	20.0 – 50.0	Temperature in Celsius	99.6	Not applicable	99.9	Not stated/inadequately described
Value	Description								
20.0 – 50.0	Temperature in Celsius								
99.6	Not applicable								
99.9	Not stated/inadequately described								
<b>Column location</b>	ATR#_site_time-period_INC.csv								
<b>Column name</b>	FirstTemp								
<b>Correspondence</b>	Single								

### Administrative information

#### References

**Related metadata**

Victorian State Trauma Registry Outcomes Monitoring Group (VSTORM)  
Data Dictionary V. 4.0, Item 4.20

## 4.15 First GCS Eye

### Identifying and definitional attributes

**Definition** The first recorded Indication of the responsiveness to stimuli by eye opening at the scene of trauma, or (if unavailable or presented directly to referring hospital), the first recorded Indication of the responsiveness to stimuli by eye opening measured at a referring hospital, before definitive care hospital.

**Justification** GCS components are combined and used as an important component in a number of outcome prediction models, and provide an indication of the patient's initial neurological status prior to arrival at definitive care. Required for RTS and TRISS.

### Obligation

Desirable

### Representational attributes

**Guide for use** First measurement taken by any of ambulance, retrieval team or other hospital prior to definitive care hospital.

Where the person's first presentation is at a definitive care hospital, code 8 – Not applicable.

**Validation rules** Permissible values 1 - 4

**Related data field** **4.18 First Total GCS**

**Data type** Number

**Representational class** Code

**Field size maximum** 1

**Format** N

**Unit of measure** Valid code

<b>Data domain</b>	<b>Code</b>	<b>Description (Adult-Child-Infant)</b>
	1	None-No Response-No Response
	2	Pain-Pain-Pain
	3	Voice-Verbal Stimuli-Verbal Stimuli
	4	Spontaneous-Spontaneous-Spontaneous
	8	Not applicable
	9	Not stated/inadequately described

**Column location** ATR#\_site\_time-period\_INC.csv

**Column name** FirstGCSEye

**Correspondence** Single

### Administrative information

## References

### Related metadata

Victorian State Trauma Registry Outcomes Monitoring Group (VSTORM)  
Data Dictionary V. 4.0, Item 4.22

## 4.16 First GCS Voice

### Identifying and definitional attributes

<b>Definition</b>	The first recorded Indication of the level of verbal response at the scene of trauma, or (if unavailable or presented directly to referring hospital), the first recorded Indication of the level of verbal response measured at a referring hospital, before definitive care hospital.
<b>Justification</b>	GCS components are combined and used as an important component in a number of outcome prediction models, and provide an indication of the patient's initial neurological status prior to arrival at definitive care. Required for RTS and TRISS.

### Obligation

Desirable

### Representational attributes

<b>Guide for use</b>	First measurement taken by any of ambulance, retrieval team or other hospital prior to definitive care hospital.	
	Where the person's first presentation is at a definitive care hospital, code 8 – Not applicable.	
<b>Validation rules</b>	Permissible values 1 - 5	
<b>Related data field</b>	<b>4.18 First Total GCS</b>	
<b>Data type</b>	Number	
<b>Representational class</b>	Code	
<b>Field size maximum</b>	1	
<b>Format</b>	N	
<b>Unit of measure</b>	Valid code	
<b>Data domain</b>	<b>Code</b>	<b>Description (Adult-Child-Infant)</b>
	1	None-No Response-No Response
	2	Incomprehensible words- Incomprehensible words, cries- Moans to pain
	3	Inappropriate words- Inappropriate words- Cries to pain
	4	Confused- Confused –Irritable, cries
	5	Oriented- Oriented –Coos, babbles
	8	Not applicable
	9	Not stated/inadequately described
<b>Column location</b>	ATR#_site_time-period_INC.csv	
<b>Column name</b>	FirstGCSVoice	
<b>Correspondence</b>	Single	

**Administrative information**

**References**

**Related metadata**

Victorian State Trauma Registry Outcomes Monitoring Group (VSTORM)  
Data Dictionary v. 4.0, Item 4.23

## 4.17 First GCS Motor

### Identifying and definitional attributes

**Definition** The first recorded Indication of the level of motor response at the scene of trauma, or (if unavailable or presented directly to referring hospital), the first recorded Indication of the level of motor response measured at a referring hospital, before definitive care hospital.

**Justification** GCS components are combined and used as an important component in a number of outcome prediction models, and provide an indication of the patient's initial neurological status prior to arrival at definitive care. The GCS motor component alone may be useful as an independent predictor of outcome. Required for RTS/TRISS.

### Obligation

Desirable

### Representational attributes

**Guide for use** First measurement taken by any of ambulance, retrieval team or other hospital prior to definitive care hospital.  
Where the person's first presentation is at a definitive care hospital, code 8 – Not applicable.

**Validation rules** Permissible values 1 - 6

**Related data field** **4.18 First Total GCS**

**Data type** Number

**Representational class** Code

**Field size maximum** 1

**Format** N

**Unit of measure** Valid code

<b>Data domain</b>	<b>Code</b>	<b>Description (Adult-Child-Infant)</b>
	1	None-No Response-No Response
	2	Extension to pain- Extension to pain- Decerebrate posturing to pain
	3	Flexion to pain- Flexion to pain- Decorticate posturing to pain
	4	Withdraws to pain- Withdraws to pain– Withdraws to pain
	5	Localises pain- Localises painful stimulus–Withdraws to touch
	6	Obeys commands- Obeys commands– Moves spontaneously
	8	Not applicable

	9	Not stated/inadequately described
<b>Column location</b>	ATR#_site_time-period_INC.csv	
<b>Column name</b>	FirstGCSMotor	
<b>Correspondence</b>	Single	

## **Administrative information**

### **References**

<b>Related metadata</b>	Victorian State Trauma Registry Outcomes Monitoring Group (VSTORM) Data Dictionary V. 4.0, Item 4.24
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## 4.18 First Total GCS

### Identifying and definitional attributes

<b>Definition</b>	The first recorded total Glasgow Coma Scale score at the scene of trauma, or (if unavailable or presented directly to referring hospital), the first recorded total Glasgow Coma Scale score measured at a referring hospital, before definitive care hospital.
<b>Justification</b>	Used in several scoring systems including TRISS and required for the assessment of coma and impaired consciousness.

### Obligation

Desirable

### Representational attributes

<b>Guide for use</b>	First measurement taken by any of ambulance, retrieval team or other hospital prior to definitive care hospital.  If the person has been intubated at the time of first measurement, or is otherwise sedated or paralysed due to drug administration, value 96 should be used.  Where the person's first presentation is at a definitive care hospital, code 98 – Not applicable.  If the total GCS is not or cannot be measured, value 99 should be used.										
<b>Validation rules</b>	Permissible values 3 - 15.										
<b>Related data field</b>	<b>4.15 First GCS Eye</b> <b>4.16 First GCS Voice</b> <b>4.17 First GCS Motor</b>										
<b>Data type</b>	Number										
<b>Representational class</b>	Total										
<b>Field size maximum</b>	2										
<b>Format</b>	N[N]										
<b>Unit of measure</b>											
<b>Data domain</b>	<table><thead><tr><th>Code</th><th>Description</th></tr></thead><tbody><tr><td>3- 15</td><td>Total GCS</td></tr><tr><td>96</td><td>Intubated / sedated or paralysed due to drugs</td></tr><tr><td>98</td><td>Not applicable</td></tr><tr><td>99</td><td>Invalid / cannot be measured</td></tr></tbody></table>	Code	Description	3- 15	Total GCS	96	Intubated / sedated or paralysed due to drugs	98	Not applicable	99	Invalid / cannot be measured
Code	Description										
3- 15	Total GCS										
96	Intubated / sedated or paralysed due to drugs										
98	Not applicable										
99	Invalid / cannot be measured										
<b>Column location</b>	ATR#_site_time-period_INC.csv										
<b>Column name</b>	FirstTotalGCS										
<b>Correspondence</b>	Single										

**Administrative information**

**References**

**Related metadata**                      Victorian State Trauma Registry Outcomes Monitoring Group (VSTORM)  
Data Dictionary V. 4.0, Item 4.25

## 5.01 Date & Time of Arrival at Definitive Care Hospital

### Identifying and definitional attributes

<b>Definition</b>	The date and time patient was first registered, triaged or assessed (whichever comes first), by clerical officer, nurse or doctor at the definitive care hospital.
<b>Justification</b>	Enables calculation of transfer time from referring hospital to definitive care hospital (if applicable), time spent in ED, time to CT scan and time to operations and procedures. This field is also required for length of stay calculation.

### Obligation

Mandatory

### Representational attributes

Guide for use                      Midnight should be entered as 00:01 of the following date (00:00 and 24:00 are not accepted). Example, midnight 25<sup>th</sup> November 2011 should be reported as 25112011T0001.

Where the date and time is unknown, enter as:

- 01011900T0000

Where date is known but time is unknown, enter actual date:

- DDMMYYYYT0000

Where the time is known but date is unknown, enter actual time as:

- 01011900Thhmm

If not collected, can be concatenated if the following data is collected at the definitive care hospital:

- Health service event - presentation date (METeOR ID: 270393)
- Health service event - presentation time (METeOR ID: 270080)

### Validation rules

Must be greater than or equal to:

- **3.01 Date & Time of Injury;**
- **4.02 Time of Ambulance Arrival at Patient** (if used);
- **4.05 Time of Arrival at Referring Hospital** (if used); and
- **4.06 Time of Departure from Referring Hospital** (if used)

Must be less than or equal to:

- **5.18 ED Discharge Date & Time;** and
- **7.02 Date & Time of Discharge**

### Related data field

**7.06 Length of Stay**

### Data type

Date/Time

<b>Representational class</b>	Date/Time
<b>Field size maximum</b>	13
<b>Format</b>	DDMMYYYYThhmm
<b>Data domain</b>	Valid Date and Time
<b>Column location</b>	ATR#_site_time-period_INC.csv
<b>Column name</b>	ArrivalDateTime
<b>Correspondence</b>	Single

## **Administrative information**

### **References**

<b>Related metadata</b>	METeOR ID: 270393
	METeOR ID: 270080

## 5.02 Pulse on Arrival

### Identifying and definitional attributes

<b>Definition</b>	The first recorded heart rate measured following arrival at the definitive care hospital.
<b>Justification</b>	Used as a proxy to assess injury severity.

### Obligation

Mandatory

### Representational attributes

<b>Guide for use</b>	If the person is in cardiac arrest at the time of first measurement, value 997 should be used.  If the person's heart rate cannot be measured, code 999 - Not stated/inadequately described.	
<b>Validation rules</b>	Permissible values 0 - 300	
<b>Related data field</b>	None	
<b>Data type</b>	Number	
<b>Representational class</b>	Total	
<b>Field size maximum</b>	3	
<b>Format</b>	N[NN]	
<b>Unit of measure</b>	Heart beats per minute	
<b>Data domain</b>	<b>Value</b>	<b>Description</b>
	0-300	Heart beats per minute
	997	Cardiac arrest
	998	Not recorded
	999	Not stated/inadequately described
<b>Column location</b>	ATR#_site_time-period_INC.csv	
<b>Column name</b>	ArrivalPulse	
<b>Correspondence</b>	Single	

### Administrative information

#### References

<b>Related metadata</b>	METeor ID: 285123
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## 5.03 Systolic BP on Arrival

### Identifying and definitional attributes

<b>Definition</b>	The first recorded systolic blood pressure measured following arrival at the definitive care hospital.
<b>Justification</b>	Used in several scoring systems including TRISS and is one assessment of patient acuity.

### Obligation

Mandatory

### Representational attributes

<b>Guide for use</b>	Must be in millimetres of mercury (mmHg).  If the systolic blood pressure is not or cannot be measured, value 999 should be used.  Measurement protocol for resting blood pressure: The systolic blood pressure is one component of a routine blood pressure measurement (i.e. systolic/diastolic) and reflects the maximum pressure to which the arteries are exposed.	
<b>Validation rules</b>	Permissible values 0 - 250	
<b>Related data field</b>	None	
<b>Data type</b>	Number	
<b>Representational class</b>	Total	
<b>Field size maximum</b>	3	
<b>Format</b>	N[NN]	
<b>Unit of measure</b>	Millimetre of mercury (mmHg)	
<b>Data domain</b>	<b>Value</b>	<b>Description</b>
	0-250	Millimetre of mercury (mmHg)
	999	Not stated/inadequately described
<b>Column location</b>	ATR#_site_time-period_INC.csv	
<b>Column name</b>	ArrivalSystolic	
<b>Correspondence</b>	Single	

### Administrative information

#### References

**Related metadata** METeor ID: 270073

## 5.04 Respiratory Rate on Arrival

### Identifying and definitional attributes

<b>Definition</b>	The first recorded unassisted rate of respiration measured following arrival at the definitive care hospital.
<b>Justification</b>	Used in several scoring systems including TRISS and is one assessment of patient acuity.

### Obligation

Mandatory

### Representational attributes

<b>Guide for use</b>	If the person is in respiratory arrest at the time of first measurement, value 997 should be used.  If the person has been intubated at the time of first measurement, value 998 should be used.  If the respiratory rate is not or cannot be measured, value 999 should be used.	
<b>Validation rules</b>	Permissible values 0 - 100	
<b>Related data field</b>	<b>5.14 Respiratory Qualifier on Arrival</b>	
<b>Data type</b>	Number	
<b>Representational class</b>	Total	
<b>Field size maximum</b>	3	
<b>Format</b>	N[NN]	
<b>Unit of measure</b>	Number per minute	
<b>Data domain</b>	<b>Value</b>	<b>Description</b>
	0-100	Number per minute
	997	Respiratory arrest
	998	Intubated
	999	Not stated/inadequately described
<b>Column location</b>	ATR#_site_time-period_INC.csv	
<b>Column name</b>	ArrivalRespiRate	
<b>Correspondence</b>	Single	

### Administrative information

#### References

Related metadata Victorian State Trauma Registry Outcomes Monitoring Group (VSTORM) Data Dictionary V. 4.0, Item 4.16

## 5.05 Temperature on Arrival

### Identifying and definitional attributes

<b>Definition</b>	The first recorded body temperature measured following arrival at the definitive care hospital.
<b>Justification</b>	Useful in the measurement of a patient vital status. Very high and low temperatures can be an indication of organ decomposition for an injured patient. Hypothermia can present a significant management problem.

### Obligation

Desirable

### Representational attributes

<b>Guide for use</b>	Must be in degrees Celsius. If the temperature is not or cannot be measured, value 99.9 should be used.						
<b>Validation rules</b>	Permissible value 20.0 – 50.0						
<b>Related data field</b>	None						
<b>Data type</b>	Decimals						
<b>Representational class</b>	Total						
<b>Field size maximum</b>	4						
<b>Format</b>	NN[.N]						
<b>Unit of measure</b>	Celsius						
<b>Data domain</b>	<table><thead><tr><th>Value</th><th>Description</th></tr></thead><tbody><tr><td>20.0 – 50.0</td><td>Temperature in Celsius</td></tr><tr><td>99.9</td><td>Not stated/inadequately described</td></tr></tbody></table>	Value	Description	20.0 – 50.0	Temperature in Celsius	99.9	Not stated/inadequately described
Value	Description						
20.0 – 50.0	Temperature in Celsius						
99.9	Not stated/inadequately described						
<b>Column location</b>	ATR#_site_time-period_INC.csv						
<b>Column name</b>	ArrivalTemp						
<b>Correspondence</b>	Single						

### Administrative information

#### References

<b>Related metadata</b>	Victorian State Trauma Registry Outcomes Monitoring Group (VSTORM) Data Dictionary V. 4.0, Item 4.20
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## 5.06 GCS Eye on Arrival

### Identifying and definitional attributes

<b>Definition</b>	The first recorded Indication of the responsiveness to stimuli by eye opening following arrival at the definitive care hospital.
<b>Justification</b>	GCS components are combined and used as an important component in a number of outcome prediction models, and provide an indication of the patient's neurological status on arrival at the definitive care hospital. Required for RTS/TRISS.

### Obligation

Mandatory

### Representational attributes

#### Guide for use

<b>Validation rules</b>	Permissible values 1 - 4												
<b>Related data field</b>	<b>5.09 Total GCS on Arrival</b>												
<b>Data type</b>	Number												
<b>Representational class</b>	Code												
<b>Field size maximum</b>	1												
<b>Format</b>	N												
<b>Unit of measure</b>	Valid code												
<b>Data domain</b>	<table><thead><tr><th>Code</th><th>Description (Adult-Child-Infant)</th></tr></thead><tbody><tr><td>1</td><td>None-No Response-No Response</td></tr><tr><td>2</td><td>Pain-Pain-Pain</td></tr><tr><td>3</td><td>Voice-Verbal Stimuli-Verbal Stimuli</td></tr><tr><td>4</td><td>Spontaneous-Spontaneous-Spontaneous</td></tr><tr><td>9</td><td>Not stated/inadequately described</td></tr></tbody></table>	Code	Description (Adult-Child-Infant)	1	None-No Response-No Response	2	Pain-Pain-Pain	3	Voice-Verbal Stimuli-Verbal Stimuli	4	Spontaneous-Spontaneous-Spontaneous	9	Not stated/inadequately described
Code	Description (Adult-Child-Infant)												
1	None-No Response-No Response												
2	Pain-Pain-Pain												
3	Voice-Verbal Stimuli-Verbal Stimuli												
4	Spontaneous-Spontaneous-Spontaneous												
9	Not stated/inadequately described												
<b>Column location</b>	ATR#_site_time-period_INC.csv												
<b>Column name</b>	ArrivalGCSEye												
<b>Correspondence</b>	Single												

### Administrative information

#### References

<b>Related metadata</b>	Victorian State Trauma Registry Outcomes Monitoring Group (VSTORM) Data Dictionary V. 4.0, Item 4.22.
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## 5.07 GCS Voice on Arrival

### Identifying and definitional attributes

<b>Definition</b>	The first recorded Indication of the level of verbal response following arrival at the definitive care hospital.
<b>Justification</b>	GCS components are combined and used as an important component in a number of outcome prediction models, and provide an indication of the patient's neurological status on arrival at the definitive care hospital. Required for RTS/TRISS.

### Obligation

Mandatory

### Representational attributes

#### Guide for use

<b>Validation rules</b>	Permissible values 1 - 5														
<b>Related data field</b>	<b>5.09 Total GCS on Arrival</b>														
<b>Data type</b>	Number														
<b>Representational class</b>	Code														
<b>Field size maximum</b>	1														
<b>Format</b>	N														
<b>Unit of measure</b>	Valid code														
<b>Data domain</b>	<table><thead><tr><th>Code</th><th>Description (Adult-Child-Infant)</th></tr></thead><tbody><tr><td>1</td><td>None-No Response-No Response</td></tr><tr><td>2</td><td>Incomprehensible words- Incomprehensible words, cries- Moans to pain</td></tr><tr><td>3</td><td>Inappropriate words- Inappropriate words- Cries to pain</td></tr><tr><td>4</td><td>Confused- Confused –Irritable, cries</td></tr><tr><td>5</td><td>Oriented- Oriented –Coos, babbles</td></tr><tr><td>9</td><td>Not stated/inadequately described</td></tr></tbody></table>	Code	Description (Adult-Child-Infant)	1	None-No Response-No Response	2	Incomprehensible words- Incomprehensible words, cries- Moans to pain	3	Inappropriate words- Inappropriate words- Cries to pain	4	Confused- Confused –Irritable, cries	5	Oriented- Oriented –Coos, babbles	9	Not stated/inadequately described
Code	Description (Adult-Child-Infant)														
1	None-No Response-No Response														
2	Incomprehensible words- Incomprehensible words, cries- Moans to pain														
3	Inappropriate words- Inappropriate words- Cries to pain														
4	Confused- Confused –Irritable, cries														
5	Oriented- Oriented –Coos, babbles														
9	Not stated/inadequately described														
<b>Column location</b>	ATR#_site_time-period_INC.csv														
<b>Column name</b>	ArrivalGCSVoice														
<b>Correspondence</b>	Single														

### Administrative information

#### References

<b>Related metadata</b>	Victorian State Trauma Registry Outcomes Monitoring Group (VSTORM) Data Dictionary V. 4.0, Item 4.23
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## 5.08 GCS Motor on Arrival

### Identifying and definitional attributes

**Definition** The first recorded Indication of the level of motor response following arrival at the definitive care hospital.

**Justification** GCS components are combined and used as an important component in a number of outcome prediction models, and provide an indication of the patient's neurological status on arrival at the definitive care hospital. The GCS motor component alone may be useful as an independent predictor of outcome. Required for RTS/TRISS.

### Obligation

Mandatory

### Representational attributes

#### Guide for use

**Validation rules** Permissible values 1 - 6

**Related data field** *5.09 Total GCS on Arrival*

**Data type** Number

**Representational class** Code

**Field size maximum** 1

**Format** N

**Unit of measure** Valid code

<b>Data domain</b>	<b>Code</b>	<b>Description (Adult-Child-Infant)</b>
	1	None-No Response-No Response
	2	Extension to pain- Extension to pain- Decerebrate posturing to pain
	3	Flexion to pain- Flexion to pain- Decorticate posturing to pain
	4	Withdraws to pain- Withdraws to pain- Withdraws to pain
	5	Localises pain- Localises painful stimulus- Withdraws to touch
	6	Obeys commands- Obeys commands- Moves spontaneously
	9	Not stated/inadequately described

**Column location** ATR#\_site\_time-period\_INC.csv

**Column name** ArrivalGCSMotor

**Correspondence** Single

**Administrative information**

**References**

**Related metadata**                      Victorian State Trauma Registry Outcomes Monitoring Group (VSTORM)  
Data Dictionary V. 4.0, Item 4.24

## 5.09 Total GCS on Arrival

### Identifying and definitional attributes

<b>Definition</b>	The first recorded total Glasgow Coma Scale score following arrival at the definitive care hospital.
<b>Justification</b>	Used in several scoring systems including TRISS and required for the assessment of coma and impaired consciousness.

### Obligation

Mandatory

### Representational attributes

<b>Guide for use</b>	If the person has been intubated at the time of first measurement, or is otherwise sedated or paralysed due to drug administration, value 98 should be used.  If the total GCS is not or cannot be measured, value 99 should be used.	
<b>Validation rules</b>	Permissible values 3 - 15.	
<b>Related data field</b>	<b>5.06 GCS Eye on Arrival</b> <b>5.07 GCS Voice on Arrival</b> <b>5.08 GCS Motor on Arrival</b>	
<b>Data type</b>	Number	
<b>Representational class</b>	Total	
<b>Field size maximum</b>	2	
<b>Format</b>	N[N]	
<b>Unit of measure</b>		
<b>Data domain</b>	<b>Code</b>	<b>Description</b>
	3- 15	Total GCS
	98	Intubated / sedated or paralysed due to drugs
	99	Invalid / cannot be measured
<b>Column location</b>	ATR#_site_time-period_INC.csv	
<b>Column name</b>	ArrivalTotalGCS	
<b>Correspondence</b>	Single	

### Administrative information

#### References

<b>Related metadata</b>	Victorian State Trauma Registry Outcomes Monitoring Group (VSTORM) Data Dictionary V. 4.0, Item 4.25
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## 5.10 CPR on arrival?

### Identifying and definitional attributes

<b>Definition</b>	Whether the person received cardiopulmonary resuscitation at any stage within 24 hours of arrival at the definitive care hospital.
<b>Justification</b>	CPR is a determinant of Cardiac arrest. Cardiac arrest is a predictor of adverse outcome / survival.

### Obligation

Desirable

### Representational attributes

#### Guide for use

#### Validation rules

**Related data field** None

**Data type** Number

**Representational class** Code

**Field size maximum** 1

**Format** N

<b>Data domain</b>	<b>Code</b>	<b>Description</b>
	1	Yes
	2	No
	9	Not stated/inadequately described

**Column location** ATR1\_site\_time-period\_xxx.csv

**Column name** ArrivalCPR

**Correspondence** Single

### Administrative information

#### References

#### Related metadata

## 5.11 Blood Transfusion on Arrival?

### Identifying and definitional attributes

<b>Definition</b>	Whether the person was administered any blood products at any stage within 24 hours of arrival at the definitive care hospital.
<b>Justification</b>	Administration of blood is an indication of the hypovolaemic status of a patient and may be used in the evaluation of quality of care.

### Obligation

Desirable

### Representational attributes

#### Guide for use

#### Validation rules

<b>Related data field</b>	None
<b>Data type</b>	Number
<b>Representational class</b>	Code
<b>Field size maximum</b>	1
<b>Format</b>	N

<b>Data domain</b>	<b>Code</b>	<b>Description</b>
	1	Yes
	2	No
	9	Not stated/inadequately described

**Column location** ATR1\_site\_time-period\_xxx.csv

**Column name** ArrivalBloodTransf

**Correspondence** Single

### Administrative information

#### References

#### Related metadata

## 5.12 Patient Intubated?

### Identifying and definitional attributes

<b>Definition</b>	Whether the person was intubated at any stage of their care, whether prior to or at the definitive care hospital.
<b>Justification</b>	Identifies patients requiring definitive airway management and may be used in the evaluation of quality of care.

### Obligation

Mandatory

### Representational attributes

#### Guide for use

#### Validation rules

**Related data field** *5.14 Respiratory Qualifier on Arrival*

**Data type** Number

**Representational class** Code

**Field size maximum** 1

**Format** N

<b>Data domain</b>	<b>Code</b>	<b>Description</b>
	1	Yes
	2	No
	9	Not stated/inadequately described

**Column location** ATR1\_site\_time-period\_xxx.csv

**Column name** ArrivalPatIntubated

**Correspondence** Single

### Administrative information

#### References

#### Related metadata

## 5.13 Date & Time Patient Intubated

### Identifying and definitional attributes

<b>Definition</b>	The date and time patient was first intubated - at any stage of their care, whether prior to or at the definitive care hospital.
<b>Justification</b>	To calculate time to intubation.

### Obligation

Desirable

### Representational attributes

<b>Guide for use</b>	Midnight should be entered as 00:01 of the following date (00:00 and 24:00 are not accepted). Example, midnight 25 <sup>th</sup> November 2011 should be reported as 25112011T0001.
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Where the date and time is unknown, enter as:

- 01011900T0000

Where date is known but time is unknown, enter actual date:

- DDMMYYYYT0000

Where the time is known but date is unknown, enter actual time as:

- 01011900Thhmm

<b>Validation rules</b>	Must be completed if the following collected:
-------------------------	---

- **5.12 Patient intubated?**

Must be greater than or equal to:

- **3.01 Date & Time of Injury**

Must be less than or equal to:

- **7.02 Date & Time of Discharge from Definitive Care**

<b>Related data field</b>	<b>5.14 Respiratory Qualifier on Arrival</b>
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<b>Data type</b>	Date/Time
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<b>Representational class</b>	Date/Time
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<b>Field size maximum</b>	13
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<b>Format</b>	DDMMYYYYThhmm
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<b>Data domain</b>	Valid Date and Time
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<b>Column location</b>	ATR1_site_time-period_xxx.csv
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<b>Column name</b>	ArrivalPatIntubatedDateTime
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<b>Correspondence</b>	Single
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### Administrative information

#### References

## Related metadata

## 5.14 Respiratory Qualifier on Arrival

### Identifying and definitional attributes

<b>Definition</b>	Whether respiratory assistance was required at the time the respiratory rate was recorded on arrival at the definitive care hospital.
<b>Justification</b>	Provides documentation of assessment and care. Used in quality management for the evaluation of care.

### Obligation

Mandatory

### Representational attributes

#### Guide for use

<b>Validation rules</b>	Must be completed if any of the following collected: <ul style="list-style-type: none"><li>• <b>5.04 Respiratory Rate on Arrival</b>;</li><li>• <b>5.12 Patient Intubated?</b>; or</li><li>• <b>5.13 Date &amp; Time Patient Intubated</b></li></ul>
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<b>Related data fields</b>	<b>5.04 Respiratory Rate on Arrival</b> <b>5.12 Patient Intubated?</b> <b>5.13 Date &amp; Time Patient Intubated</b>
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<b>Representational class</b>	Code
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<b>Field size maximum</b>	1
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<b>Format</b>	N
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<b>Data domain</b>	<table><thead><tr><th>Code</th><th>Description</th></tr></thead><tbody><tr><td>1</td><td>Unassisted respiratory rate or no intervention – respiration rate is not assisted by any mechanical or assisted ventilation.</td></tr><tr><td>2</td><td>Assisted respiratory rate – includes Mechanical Ventilation (patient is intubated and receiving mechanical ventilation by ventilator and Bag Mask Ventilation (BMV); patient is receiving assisted ventilation by bag/mask device eg. face mask, bag and mask, guedel or naso, laryngeal mask, endotracheal tube, prior ETT.</td></tr><tr><td>8</td><td>Other</td></tr><tr><td>9</td><td>Not stated/inadequately described</td></tr></tbody></table>	Code	Description	1	Unassisted respiratory rate or no intervention – respiration rate is not assisted by any mechanical or assisted ventilation.	2	Assisted respiratory rate – includes Mechanical Ventilation (patient is intubated and receiving mechanical ventilation by ventilator and Bag Mask Ventilation (BMV); patient is receiving assisted ventilation by bag/mask device eg. face mask, bag and mask, guedel or naso, laryngeal mask, endotracheal tube, prior ETT.	8	Other	9	Not stated/inadequately described
Code	Description										
1	Unassisted respiratory rate or no intervention – respiration rate is not assisted by any mechanical or assisted ventilation.										
2	Assisted respiratory rate – includes Mechanical Ventilation (patient is intubated and receiving mechanical ventilation by ventilator and Bag Mask Ventilation (BMV); patient is receiving assisted ventilation by bag/mask device eg. face mask, bag and mask, guedel or naso, laryngeal mask, endotracheal tube, prior ETT.										
8	Other										
9	Not stated/inadequately described										

<b>Column location</b>	ATR1_site_time-period_xxx.csv
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<b>Column name</b>	ArrivalRespiQualifier
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<b>Correspondence</b>	Single
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**Administrative information**

**References**

**Related metadata**                      Victorian State Trauma Registry Outcomes Monitoring (VSTORM) Data Dictionary V. 4.0, Item 4.17

## 5.15 Blood Alcohol Concentration on Arrival

### Identifying and definitional attributes

<b>Definition</b>	The first blood alcohol concentration result recorded on arrival at the definitive care hospital.
<b>Justification</b>	Alcohol affects the Glasgow Coma Scale.

### Obligation

Desirable

### Representational attributes

<b>Guide for use</b>	Must be in gm% - convert from ethanol mmol/L by dividing by 217.1. If alcohol is recorded in mg/dl, divide result by 1000. Must be taken within the first 24 hours following arrival at the definitive care hospital. If the blood alcohol concentration is not or cannot be measured, value 9 should be used.	
<b>Validation rules</b>	Permissible values 0.000 – 1.000	
<b>Related data field</b>	None	
<b>Data type</b>	Number	
<b>Representational class</b>	Total	
<b>Field size maximum</b>	5	
<b>Format</b>	N.NNN	
<b>Unit of measure</b>	gm%	
<b>Data domain</b>	<b>Value</b>	<b>Description</b>
	0.000-1.000	Blood alcohol concentration (gm%)
	9.999	Not stated/inadequately described
<b>Column location</b>	ATR1_site_time-period_xxx.csv	
<b>Column name</b>	ArrivalBloodAlcoholCon	
<b>Correspondence</b>	Single	

### Administrative information

References

Related metadata

## 5.16 First Measured Arterial Base Excess

### Identifying and definitional attributes

<b>Definition</b>	The first recorded arterial base excess result following arrival at the definitive care hospital.
<b>Justification</b>	Clinical assessment of patient's condition on arrival at definitive care hospital which may indicate the need for additional treatment. Identify complication of trauma.

### Obligation

Desirable

### Representational attributes

<b>Guide for use</b>	Unit of measurement is mmol/L.  Must be taken within the first 24 hours following arrival at the definitive care hospital.  If more than one value has been measured within the first 24 hours after arrival at the definitive care hospital, report the first measured value, not the worst value.  If the arterial base excess is not or cannot be measured, value 99 should be used.						
<b>Validation rules</b>	Permissible values -3 - 3						
<b>Related data field</b>	None						
<b>Data type</b>	Number						
<b>Representational class</b>	Total						
<b>Field size maximum</b>	2						
<b>Format</b>	[A]N						
<b>Unit of measure</b>	mmol/L						
<b>Data domain</b>	<table><thead><tr><th>Value</th><th>Description</th></tr></thead><tbody><tr><td>-3 - 3</td><td>Arterial base excess value (mmol/L)</td></tr><tr><td>99</td><td>Not stated/inadequately described</td></tr></tbody></table>	Value	Description	-3 - 3	Arterial base excess value (mmol/L)	99	Not stated/inadequately described
Value	Description						
-3 - 3	Arterial base excess value (mmol/L)						
99	Not stated/inadequately described						
<b>Column location</b>	ATR1_site_time-period_xxx.csv						
<b>Column name</b>	FirstBaseExcess						
<b>Correspondence</b>	Single						

### Administrative information

References

Related metadata

## 5.17 First Measured INR

### Identifying and definitional attributes

**Definition** The first recorded prothrombin time INR result following arrival at the definitive care hospital.

**Justification** Clinical assessment of patient's condition on arrival at definitive care hospital which may indicate the need for additional treatment. Identify complication or comorbidity.

### Obligation

Desirable

### Representational attributes

<b>Guide for use</b>	Unit of measurement is mmol/L.  Must be taken within the first 24 hours following arrival at the definitive care hospital.  If the INR is not or cannot be measured, value 99.9 should be used.	
<b>Validation rules</b>	Permissible values 0.0 – 10.0	
<b>Related data field</b>	None	
<b>Data type</b>	Number	
<b>Representational class</b>	Total	
<b>Field size maximum</b>	3	
<b>Format</b>	N.N	
<b>Unit of measure</b>	mmol/L	
<b>Data domain</b>	<b>Value</b>	<b>Description</b>
	0.0 – 10.0	INR value (mmol/L)
	99.9	Not stated/inadequately described
<b>Column location</b>	ATR1_site_time-period_xxx.csv	
<b>Column name</b>	FirstINR	
<b>Correspondence</b>	Single	

### Administrative information

**References**

**Related metadata**

## 5.18 ED Discharge Date & Time

### Identifying and definitional attributes

**Definition** The date and time patient left the emergency department at the definitive care hospital, or (if dying in the emergency department) the time of death.

**Justification** Calculation of total length of ED stay.

### Obligation

Mandatory

### Representational attributes

**Guide for use** Midnight should be entered as 00:01 of the following date (00:00 and 24:00 are not accepted). Example, midnight 25<sup>th</sup> November 2011 should be reported as 25112011T0001.

Where date and time is unknown, enter as:

- 01011900T0000

Where date is known but time is unknown, enter actual date:

- DDMMYYYYT0000

Where the time is known but date is unknown, enter actual time as:

- 01011900Thhmm

If a patient is a direct admission and goes directly to another area in the hospital on hospital arrival (such as ICU or OR), this should be the same as:

- **5.01 Date & Time of Arrival at Definitive care Hospital**

If not collected, can be concatenated if the following data is collected at the definitive care hospital:

- Emergency department stay - physical departure date (METeOR ID: 621816)
- Emergency department stay - physical departure time (METeOR ID: 621829)

### Validation rules

Must be greater than or equal to:

- **5.01 Date & Time of Arrival at Definitive Care Hospital**

Must be less than or equal to:

- **7.02 Date & Time of Discharge from Definitive Care**

**Related data field** **5.19 Disposition after ED?**

**Data type** Date/Time

**Representational class** Date/Time

**Field size maximum** 13

**Format** DDMMYYYYThhmm

<b>Data domain</b>	Valid Date and Time
<b>Column location</b>	ATR1_site_time-period_xxx.csv
<b>Column name</b>	EDDischargeDateTime
<b>Correspondence</b>	Single

## **Administrative information**

### **References**

<b>Related metadata</b>	METeOR ID: 621816
	METeOR ID: 621829

## 5.19 Disposition After ED

### Identifying and definitional attributes

<b>Definition</b>	The first location for which the patient departed on leaving the emergency department at the definitive care hospital.
<b>Justification</b>	To monitor the status and location of patients on departure from the ED.

### Obligation

Desirable

### Representational attributes

<b>Guide for use</b>	If a patient is a direct admission and goes directly to another area in the hospital on hospital arrival (such as ICU or OR), code the unit or department where the patient was admitted to.
<b>Validation rules</b>	If a patient is a direct admission and goes directly to another area in the hospital on hospital arrival (such as ICU or OR), ED Discharge Date & Time should be the same as:

- **5.01 Date & Time of Arrival at Definitive Care Hospital**

**Related data field** *5.18 ED Discharge Date & Time*

**Data type** Number

**Representational class** Code

**Field size maximum** 1

**Format** N[N]

<b>Data domain</b>	<b>Code</b>	<b>Description</b>
	1	Ward
	2	Intensive Care Unit (ICU)
	3	High Dependency Unit (HDU)
	4	Operating Room (OR)
	5	OR to Ward
	6	OR to ICU
	7	OR to HDU
	8	OR then transfer to another hospital for acute care
	9	Transfer to another hospital for acute care
	10	Home
	11	Death
	12	Death in ED
	13	Other (eg. jail, institutional care, mental health, etc.)
	96	Not Applicable

	99	Not stated/inadequately described
<b>Column location</b>	ATR1_site_time-period_xxx.csv	
<b>Column name</b>	EDDisposition	
<b>Correspondence</b>	Single	

## **Administrative information**

### **References**

**Related metadata** Victorian State Trauma Registry Outcomes Monitoring (VSTORM) Data Dictionary V. 4.0, Item 4.33

## 6.01 Diagnosis made >24 hours after arrival?

### Identifying and definitional attributes

<b>Definition</b>	Whether any injury was diagnosed more than 24 hours after arrival at the definitive care hospital.
<b>Justification</b>	Represents the time required to initiate, report on and assess the results of key in-hospital diagnostic tests, and may be seen as a measure of the efficiency of the trauma system.

### Obligation

Optional

### Representational attributes

**Guide for use** This field may be used as a global indicator of delayed diagnosis (of any injury) for a given patient.

#### Validation rules

**Related data field** None

**Data type** Number

**Representational class** Code

**Field size maximum** 1

**Format** N

<b>Data domain</b>	<b>Code</b>	<b>Description</b>
	1	Yes
	2	No
	9	Not stated/inadequately described

**Column location** ATR1\_site\_time-period\_xxx.csv

**Column name** IsDiag24hr

**Correspondance** Multiple

### Administrative information

#### References

#### Related metadata

## 6.02 Date & Time CT Performed

### Identifying and definitional attributes

**Definition** The date and time patient received a CT scan - at any stage of their care, whether prior to or at the definitive care hospital.

**Justification** Represents the time required to initiate key diagnostic tests, and may be seen as a measure of the efficiency of the trauma system.

### Obligation

Mandatory

### Representational attributes

**Guide for use** Midnight should be entered as 00:01 of the following date (00:00 and 24:00 are not accepted). Example, midnight 25<sup>th</sup> November 2011 should be reported as 25112011T0001.

Where the date and time is unknown, enter as:

- 01011900T0000

Where date is known but time is unknown, enter actual date:

- DDMMYYYYT0000

Where the time is known but date is unknown, enter actual time as:

- 01011900Thhmm

May be limited to CT performed at the definitive care hospital.

**Validation rules** Must be greater than or equal to:

- **3.01 Date & Time of Injury**

Must be less than or equal to:

- **7.02 Date & Time of Discharge from Definitive Care**

**Related data field** None

**Data type** Date/Time

**Representational class** Date/Time

**Field size maximum** 13

**Format** DDMMYYYYThhmm

**Data domain** Valid Date and Time

**Column location** ATR1\_site\_time-period\_CT.csv

**Column name** CTDateTime

**Correspondence** Multiple

**Administrative information**

References

Related metadata

## 6.03 CT type

### Identifying and definitional attributes

<b>Definition</b>	The body region on which the specified CT scan was performed.
<b>Justification</b>	Diagnostic tool to evaluate the nature and extent of injuries and provides an indication for treatment.

### Obligation

Mandatory

### Representational attributes

<b>Guide for use</b>	May be limited to CT performed at the definitive care hospital.
<b>Validation rules</b>	Cannot be blank
<b>Related data field</b>	None
<b>Data type</b>	Number
<b>Representational class</b>	Code
<b>Field size maximum</b>	2
<b>Format</b>	N[N]

<b>Data domain</b>	<b>Code</b>	<b>Description</b>
	1	Brain
	2	Head/Face
	3	Orbits
	4	Neck
	5	Chest
	6	Spine - Cervical
	7	Spine - Thoracic
	8	Spine - Lumbar
	9	Limbs
	10	Abdomen
	11	Pelvis
	12	Angiogram
	13	Other
	99	Not stated/inadequately described

**Column location** ATR1\_site\_time-period\_CT.csv

**Column name** CTType

**Correspondence** Multiple

**Administrative information**

References

Related metadata

## 6.04 Operative Procedures in OR

### Identifying and definitional attributes

<b>Definition</b>	Operative intervention undertaken - at any stage of their care, whether prior to or at the definitive care hospital.
<b>Justification</b>	Used to characterise procedures used to treat specific injury types to enable analysis of triage and treatment.

### Obligation

Mandatory

### Representational attributes

<b>Guide for use</b>	Operative and/or essential procedures is defined as procedures performed in the Operating Room. Do not include procedures done in other departments such as ED, ICU, etc.  Limited to interventions for severe or potentially severe injuries only.  May be limited to interventions performed at the definitive care hospital.
<b>Validation rules</b>	Cannot be blank
<b>Related data field</b>	None
<b>Data type</b>	Text
<b>Representational class</b>	Code
<b>Field size maximum</b>	8
<b>Format</b>	NNNNN-NN
<b>Data domain</b>	Australian Classification of Health Interventions (ACHI) 9th edition
<b>Column location</b>	ATR1_site_time-period_OPPROC.csv
<b>Column name</b>	OperativeProc
<b>Correspondence</b>	Multiple

### Administrative information

#### References

**Related metadata** METeOR ID: 391349

## 6.05 Operation Date & Time

### Identifying and definitional attributes

<b>Definition</b>	The date and time operative intervention was undertaken - at any stage of their care, whether prior to or at the definitive care hospital.
<b>Justification</b>	Allows time to operation to be calculated.

### Obligation

Mandatory

### Representational attributes

**Guide for use** Midnight should be entered as 00:01 of the following date (00:00 and 24:00 are not accepted). Example, midnight 25<sup>th</sup> November 2011 should be reported as 25112011T0001.

Where the date and time is unknown, enter as:

- 01011900T0000

Where date is known but time is unknown, enter actual date:

- DDMMYYYYT0000

Where the time is known but date is unknown, enter actual time as:

- 01011900Thhmm

Limited to interventions for severe or potentially severe injuries only.

May be limited to interventions performed at the definitive care hospital.

Start time is the time anaesthesia is administered.

**Validation rules** Must be greater than or equal to:

- **3.01 Date & Time of Injury**

Must be less than or equal to:

- **7.02 Date & Time of Discharge from Definitive Care**

<b>Related data field</b>	None
<b>Data type</b>	Date/Time
<b>Representational class</b>	Date/Time
<b>Field size maximum</b>	13
<b>Format</b>	DDMMYYYYThhmm
<b>Data domain</b>	Valid Date and Time
<b>Column location</b>	ATR1_site_time-period_OPPROC.csv
<b>Column name</b>	OperationDateTime
<b>Correspondence</b>	Multiple

**Administrative information**

References

Related metadata

METeOR ID: 270298

## 6.06 Number of days on ventilator

### Identifying and definitional attributes

<b>Definition</b>	The total number of days (whole or partial) on which mechanical ventilation was used.
<b>Justification</b>	Ventilation increases risk of complications, such as Ventilator Association Pneumonia, and may lead to potentially poorer outcomes.

### Obligation

Desirable

### Representational attributes

<b>Guide for use</b>	Field allows for multiple “start” and “stop” dates and calculates total days spent (in part or in whole) on a mechanical ventilator (excluding during an Operating Room procedure).  If mechanical ventilation was used at the definitive care hospital, value must be 1 or more.  Exception is when the only mechanical ventilation used occurs during an Operating Room procedure.  Mechanical ventilation does not include non-invasive methods of ventilatory support, such as CPAP or BiPAP. Refer to Australian Coding Standard 1006 <i>Ventilatory Support</i> and the <i>Management of continuous ventilatory support</i> ACHI codes for guidance.
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### Validation rules

<b>Related data field</b>	None						
<b>Data type</b>	Number						
<b>Representational class</b>	Total						
<b>Field size maximum</b>	3						
<b>Format</b>	N[NN]						
<b>Unit of measure</b>	Days (Integer value, with partial days rounded up.)						
<b>Data domain</b>	<table><thead><tr><th>Value</th><th>Description</th></tr></thead><tbody><tr><td>1-400</td><td>Valid days</td></tr><tr><td>999</td><td>Not stated/inadequately described</td></tr></tbody></table>	Value	Description	1-400	Valid days	999	Not stated/inadequately described
Value	Description						
1-400	Valid days						
999	Not stated/inadequately described						
<b>Column location</b>	ATR1_site_time-period_INC.csv						
<b>Column name</b>	VentDays						
<b>Correspondence</b>	Single						

### Administrative information

**References**

*Australian Coding Standards (ACS) – ICD-10-AM/ACHI/ACS 9<sup>th</sup> Edition.* p. 132.

**Related metadata**

METeOR ID: 479010

## 7.01 AIS Injury Codes

### Identifying and definitional attributes

**Definition** The assigned Abbreviated Injury Scale anatomical scoring codes for each injury sustained by the patient.

**Justification** The main purpose is to calculate the overall injury severity of the patient which can be used for TRISS and outcome analysis.

### Obligation

Mandatory

### Representational attributes

**Guide for use** Abbreviated Injury Scale codes AIS 2005 Update 2008.  
If earlier AIS versions are used, these codes will need to be mapped to the comparable 2008 AIS estimates.<sup>4</sup>

If AIS coding is not used, it will be necessary to map from International Classification of Diseases (ICD) injury codes to obtain comparable AIS estimates.

**Validation rules** Cannot be blank.

**Related data fields** **3.03 Dominant Injury Type**  
**7.04 Injury Severity Score**  
**7.05 New Injury Severity Score**

**Data type** Text

**Representational class** Code

**Field size maximum** 8

**Format** NNNNNN.N

**Data domain** AIS 2005 Update 2008 codes

**Column location** ATR1\_site\_time-period\_INC.csv

**Column name** AISCode

**Correspondence** Multiple

### Administrative information

**References** Gennarelli TA, Wodzin E. , (Eds) The Abbreviated Injury Scale 2005 - Update 2008. Barrington, IL: Association for the Advancement of Automotive Medicine; 2008

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<sup>4</sup> Palmer CS, Franklyn M, Read-Allsopp C, McLellan S, Niggemeyer LE. Development and validation of a complementary map to enhance the existing 1998 to 2008 Abbreviated Injury Scale map. Scand J Resus Emerg Med 2011;19:29.

**Related metadata**

Victorian State Trauma Registry Outcomes Monitoring (VSTORM) Data Dictionary V. 4.0, Item 5.2

## 7.02 Date & Time of Discharge from Definitive Care

### Identifying and definitional attributes

**Definition** The date and time patient was discharged from the definitive care hospital, or (if dying in hospital) the time of death.

**Justification** To calculate length of stay at the definitive care hospital.

### Obligation

Mandatory

### Representational attributes

**Guide for use** Midnight should be entered as 00:01 of the following date (00:00 and 24:00 are not accepted). Example, midnight 25<sup>th</sup> November 2011 should be reported as 25112011T0001.

Where the date and time is unknown, enter as:

- 01011900T0000

Where date is known but time is unknown, enter actual date:

- DDMMYYYYT0000

Where the time is known but date is unknown, enter actual time as:

- 01011900Thhmm

It is the date of separation from the definitive care hospital.

If not collected, can be concatenated if the following data is collected at the definitive care hospital:

- Episode of admitted patient care - separation date (METeOR ID: 270025)
- Episode of admitted patient care - separation time (METeOR ID: 270026)

**Validation rules** Must be greater than or equal to:

- **5.01 Date & Time of Arrival at Definitive Care Hospital**; and
- **5.18 ED Discharge Date & Time**

**Related data field** **7.06 Length of Stay**

**Data type** Date/Time

**Representational class** Date/Time

**Field size maximum** 13

**Format** DDMMYYYYThhmm

**Data domain** Valid Date and Time

**Column location** ATR1\_site\_time-period\_INC.csv

**Column name** DischargeDateTime

**Correspondence**

Single

## **Administrative information**

**References**

**Related metadata**

METeOR ID: 270025

METeOR ID: 270026

## 7.03 Discharge Destination from Acute Care

### Identifying and definitional attributes

<b>Definition</b>	The location to which the patient was discharged from acute care in the definitive care hospital.
<b>Justification</b>	To determine the outcome status of patients.

### Obligation

Mandatory

### Representational attributes

<b>Guide for use</b>	If the patient is discharged back to the usual or original place of residence such as a nursing home, aged care facility or special accommodation, code 1 – Home.
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#### Validation rules

**Related data field** None

**Data type** Number

**Representational class** Code

**Field size maximum** 2

**Format** N[N]

<b>Data domain</b>	<b>Code</b>	<b>Description</b>
	1	Home
	2	Rehabilitation
	3	Residential aged care service or nursing home not the usual place of residence
	4	Special accommodation (includes prisons, hostels and group homes providing primarily welfare services) that is not the usual place of residence
	5	Hospital for convalescence
	6	Left against medical advice/discharge at own risk
	7	Death
	8	Other
	9	Acute hospital for further definitive care
	99	Not stated/inadequately described

**Column location** ATR1\_site\_time-period\_INC.csv

**Column name** DischargeDest

**Correspondence** Single

**Administrative information**

References

Related metadata

METeOR ID: 270094

## 7.04 Injury Severity Score

### Identifying and definitional attributes

<b>Definition</b>	The calculated Injury Severity Score based on the entered Abbreviated Injury Scale codes at discharge. ISS is an anatomical scoring system that provides an overall score for patients with multiple injuries.
<b>Justification</b>	To determine severity of injury for multiple trauma patients. Used to characterise patients and hospital outcomes based upon the presence, severity and type of injury.

### Obligation

Mandatory

### Representational attributes

<b>Guide for use</b>	A non-zero integer number calculated based on AIS codes. If AIS codes are available, this should be derived as a calculated field.  If an injury is assigned an AIS severity of 6 (unsurvivable injury), the ISS score is automatically assigned 75.
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**Validation rules** Permissible values 1 – 75. Cannot be blank.

**Related data field** **7.01 AIS Injury Codes**

**Data type** Number

**Representational class** Code

**Field size maximum** 2

**Format** N[N]

<b>Data domain</b>	<b>Code</b>	<b>Description</b>
	1 - 75	ISS codes
	99	Not stated/inadequately described

**Column location** ATR1\_site\_time-period\_INC.csv

**Column name** ISS

**Correspondence** Single

### Administrative information

**References** Baker SP, O'Neill B, Haddon W, Jr., Long WB. The injury severity score: a method for describing patients with multiple injuries and evaluating emergency care. *J Trauma* 1974;14:187-96

**Related metadata** Victorian State Trauma Registry Outcomes Monitoring (VSTORM) Data Dictionary V. 4.0, Item 5.5

## 7.05 New Injury Severity Score

### Identifying and definitional attributes

<b>Definition</b>	The calculated New Injury Severity Score based on the entered Abbreviated Injury Scale codes at discharge.
<b>Justification</b>	To determine severity of injury for multiple trauma patients. Used to characterise patients and hospital outcomes based upon the presence, severity and type of injury.

### Obligation

Optional

### Representational attributes

<b>Guide for use</b>	A non-zero integer number calculated based on AIS codes. If AIS codes are available, this should be derived as a calculated field.  If an injury is assigned an AIS severity of 6 (unsurvivable injury), the NISS score is automatically assigned 75.	
<b>Validation rules</b>	Permissible values 1 - 75	
<b>Related data field</b>	<b>7.01 AIS Injury Codes</b>	
<b>Data type</b>	Number	
<b>Representational class</b>	Code	
<b>Field size maximum</b>	2	
<b>Format</b>	N[N]	
<b>Data domain</b>	<b>Code</b>	<b>Description</b>
	1 - 75	NISS codes
	99	Not stated/inadequately described
<b>Column location</b>	ATR1_site_time-period_INC.csv	
<b>Column name</b>	NISS	
<b>Correspondence</b>	Single	

### Administrative information

<b>References</b>	Osler T, Baker SP, Long W: A modification of the injury severity score that both improves accuracy and simplifies scoring. <i>J Trauma</i> 1997;43:922–925.  Baker SP. Advances and adventures in injury prevention. <i>J Trauma: Injury Infect Crit Care</i> 42:369-73, 1997.
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### Related metadata

## 7.06 Length of Stay

### Identifying and definitional attributes

<b>Definition</b>	The total number of hospital days spent in the definitive care hospital from date of admission to date of discharge or death.
<b>Justification</b>	Length of stay can be associated with increased risk of complications and poorer outcomes. Length of stay also reflects the use of hospital resources.

### Obligation

Mandatory

### Representational attributes

<b>Guide for use</b>	Calculated length of stay in the definitive care hospital, measured as a fractional component expressed as a decimal.  Round up the decimal component to two decimal points, for example, if death or discharge occurs within 14 minutes i.e. < 0.01 days.  Bed days or whole days are commonly used, as per METeOR ID 329889 – Episode of admitted patient care—length of stay (including leave days, but this gives rise to data inaccuracies. n be calculated from: <ul style="list-style-type: none"><li>• <b>5.01 Date &amp; Time of Arrival at Definitive Care Hospital;</b> and</li><li>• <b>7.02 Date &amp; Time of Discharge from Definitive Care</b></li></ul> If both data fields are available, this should be derived as a calculated field.						
<b>Validation rules</b>	Must be completed if the following collected: <ul style="list-style-type: none"><li>• <b>5.01 Date &amp; Time of Arrival at Definitive Care Hospital;</b> and</li><li>• <b>7.02 Date &amp; Time of Discharge from Definitive Care</b></li></ul>						
<b>Related data fields</b>	<b>5.01 Date &amp; Time of Arrival at Definitive Care Hospital</b> <b>7.02 Date &amp; Time of Discharge from Definitive Care</b>						
<b>Data type</b>	Number						
<b>Representational class</b>	Total						
<b>Field size maximum</b>	6						
<b>Format</b>	[NN]N.NN						
<b>Unit of measure</b>	Days (with partial days expressed to two decimal points)						
<b>Data domain</b>	<table><thead><tr><th>Value</th><th>Description</th></tr></thead><tbody><tr><td>0.01-400.00</td><td>Valid days</td></tr><tr><td>999.99</td><td>Not stated/inadequately described</td></tr></tbody></table>	Value	Description	0.01-400.00	Valid days	999.99	Not stated/inadequately described
Value	Description						
0.01-400.00	Valid days						
999.99	Not stated/inadequately described						
<b>Column location</b>	ATR1_site_time-period_INC.csv						
<b>Column name</b>	LOS						
<b>Correspondence</b>	Single						

**Administrative information**

References

Related metadata METeOR ID: 329889

## 7.07 Length of ICU Stay

### Identifying and definitional attributes

<b>Definition</b>	The total number of hospital days spent in the Intensive Care Unit (ICU) at the definitive care hospital.
<b>Justification</b>	An important measure of the patient care process.

### Obligation

Mandatory

### Representational attributes

**Guide for use** Calculated length of stay in the intensive care unit at the definitive care hospital, measured as a (with fractional component expressed as a decimal), rather than bed days.

Round up the decimal component to two decimal points, for example, if death or discharge occurs within 14 minutes i.e. < 0.01 days.

The hours of length of stay in ICU calculated for Activity Based Funding purposes can be used as a guide.

If a patient was not admitted to ICU, code 0.

**Validation rules** Must be less than or equal to:

- **7.06 Length of Stay**

**Related data field** None

**Data type** Number

**Representational class** Total

**Field size maximum** 6

**Format** [NN]N.NN

**Unit of measure** Days (with partial days expressed to two decimal points)

<b>Data domain</b>	<b>Value</b>	<b>Description</b>
	0.00-400.00	Valid days
	999.99	Not stated/inadequately described

**Column location** ATR1\_site\_time-period\_INC.csv

**Column name** ICULOS

**Correspondence** Single

### Administrative information

#### References

**Related metadata** METeOR ID: 471553

## 7.08 Severe Complications

### Identifying and definitional attributes

<b>Definition</b>	Whether a condition arising following the injury event had a substantial effect on the management, progress or eventual outcome of the patient.  Complication refers to condition/s that develops after the injury, affecting the progress or outcome of the patient that requires management and/or treatment.
<b>Justification</b>	Significant complications are associated with poorer outcomes and may potentially lead to an increased length of hospital stay.

### Obligation

Optional

### Representational attributes

<b>Guide for use</b>	ICD-10 AM Australian Coding Standards diagnosis codes can be used to map to specified severe complications groups.
<b>Validation rules</b>	
<b>Related data field</b>	None
<b>Data type</b>	Text
<b>Representational class</b>	Code
<b>Field size maximum</b>	6
<b>Format</b>	ANN{.N[N]}
<b>Data domain</b>	ICD-10-AM International Statistical Classification of Diseases and Related data field Health Problems, Australian Modification
<b>Column location</b>	ATR1_site_time-period_INC.csv
<b>Column name</b>	SevereComp
<b>Correspondence</b>	Multiple

### Administrative information

#### References

**Related metadata** METeOR ID: 588981

## Appendix

The BNTMDS have been compared to other international trauma datasets to ensure high compatibility and alignment where possible, but modified to suit an Australian and New Zealand context.

These resources are:

1. European Utstein template (Utstein)

*Reference:* The Utstein Trauma Template for Uniform Reporting of Data following Major Trauma Data Dictionary, Version 1.1.1, May 19 2009.

2. American National Trauma Data Bank (NTDB)

*Reference:* National Trauma Data Standard, Data Dictionary 2011 Admissions, February 2011.

3. Canadian National Trauma Registry (NTR)

*Reference:* National Trauma Registry Comprehensive Data Set (NTR CDS) Data Element List, December 2001.

4. Ontario Trauma Registry (OTR)

*Reference:* Ontario Trauma Registry Comprehensive Data Set (OTR CDS) Data Dictionary, May 2014

## Change Log

Date	Author	Version	Change Reference
01/07/2010	Cameron Palmer	1.1	Original document
06/06/2011	Meng Tuck Mok	1.11	Addition Table of Contents; addition of Version and Change Reference table; Title changed to Australasian Trauma Minimum Dataset (ATMDS); registry name changed to Australian Trauma Registry (ATR).
07/07/2011	Meng Tuck Mok	1.11	Title changed to Bi-National Trauma Minimum Dataset (BNTMDS)
07/07/2011	Meng Tuck Mok	1.12	Revised - Inclusion & Exclusion criteria; definition for 'Sex';
08/07/2011	Cameron Palmer	1.12	Amendments to introductory sections.
12/07/2011	Meng Tuck Mok	1.12	Revised – Dominant Injury Type; First Pulse.
13/07/2011	Meng Tuck Mok	1.13	Revised format and layout for some Data Items.
14/07/2011	Meng Tuck Mok	1.13	Accepted track changes.
27/07/2011	Meng Tuck Mok	1.14	Revised format changes to data items 1.01 – 5.09, 7.08; revisions to data items 2.04, 3.03, 7.08; Title change to data items 3.08, 4.05, 4.06; additions to definition, justification, data domain and data format to Inclusion/exclusion criteria and data items 1.01 – 5.09, 7.08
06/10/2011	Meng Tuck Mok	1.15	Added glossary table; revised format, added Appendix; Renamed 'definitive care' to 'primary care';
28/10/2011	Sarah Lensen	1.16	Renames "primary care" to "definitive care"
07/11/2011	Meng Tuck Mok	1.16	Edits to 'Dominant Injury Type'; Added Glossary of Terms; Changed glossary table to Abbreviations;
14/11/2011	Meng Tuck Mok	1.17	Edits to data items 5.19-7.08;
15/11/2011	Meng Tuck Mok	1.17	Addition of Approval and Limitations; Addition of Future Work table in Appendix; Addition of 'Pelvis' to data item 6.03;
17/11/2011	Meng Tuck Mok	1.17	Updated NCTRC Executive and Steering Committee and Working Party membership; AusTQIP Steering Committee endorsement of data dictionary
20/12/2011	Meng Tuck Mok	1.17	Updated 'Justification' sections.
14/02/2012	Meng Tuck Mok	1.20	Changed '7.03 Discharge Destination from Acute Care' obligation from Optional to Mandatory.
23/11/2012	Meng Tuck Mok	1.30	Changed 'Inclusion and exclusion criteria'.

Date	Author	Version	Change Reference
22/07/2013	Meng Tuck Mok	1.31	<p>Changed '3.02 Injury Cause' external cause codes range to Y89; Changed '4.02 Time of Ambulance Arrival at Patient' to include Date and Time; removed validation ED Discharge Date &amp; Time for '5.13 Date &amp; Time Patient Intubated'; changed field size, format and data domains for '5.15 Blood Alcohol Concentration'; Revised '6.04 Operative Procedures in OR' abbreviations to reference Australian Classification of Health Interventions (ACHI) 7th edition; revised Data Domain for '7.06 Length of stay'; changed Guide For Use and Data Domain for '7.07 Length of ICU stay' ;</p>
09/08/2013	Cameron Palmer	1.40	<p>Reviewed document alongside Version 1.1 of BNTMDS;  Corrected title of data field '5.04 Respiratory Rate on Arrival';  Inserted definitions of representational attributes of 'location' and 'correspondence' of data fields;  Modified definition of representational attributes of 'related data fields';  Modified glossary for definitive care and referring hospitals;  Inserted guides for location and correspondence in each data field;  Standardised terminology relating to data 'fields', 'items' and 'elements';  Highlighted field references in other field definitions for easier reference;  Completed related indexing of related data fields;  Inserted footnotes annotating differences between Australasian BNTMDS and current specifications of ATR; and  Made minor additional revisions to aspects of fields 1.01, 2.02, 4.01, 4.04, 4.05, 4.06, 4.07, 4.09, 5.13, 5.14, 5.19, 6.01, 7.01, 4.05, 7.05 and 7.06.</p>

Date	Author	Version	Change Reference
10/6/2016	Jane Ford	1.50	<ul style="list-style-type: none"> <li>• Reviewed draft of Version 1.40</li> <li>• Inserted Column Location and Column Name in every data element.</li> <li>• Deleted Table Name from every data element.</li> <li>• Updated wording of Approvals and Limitations section to reflect input of the ATR Steering Committee.</li> <li>• Amended Glossary of Terms: <ul style="list-style-type: none"> <li>- Referring Hospital amendment.</li> <li>- First Hospital addition.</li> </ul> </li> <li>• Changes to definitions of data elements 4.01; 5.17; 6.06 and 7.03.</li> <li>• Added Value 9 Acute hospital for further definitive care to Data Domain of data element 7.03 Discharge Destination from Acute Care.</li> <li>• Minor changes to References and Related Metadata.</li> <li>• Deleted data items comparison table in Appendix (obsolete).</li> </ul>