TRAUMA: CODE CRIMSON - CHW

PROCEDURE ©

DOCUMENT SUMMARY/KEY POINTS

- This document describes the steps involved to coordinate a "Trauma Code Crimson".

Trauma Code Crimson:

- **Identifies** exsanguinating trauma patients who would benefit from rapid access to definitive care for possible immediate life-saving surgery.
- **Aim** is to provide rapid haemorrhage control in critically injured and actively bleeding trauma patients by expediting transfer to Operating Theatre or Interventional Radiology via the Emergency Department (**within 30mins of arrival**), or on rarer occasions, straight from the helipad.
- Rapid decision by Trauma Team for disposition to operating theatre or interventional radiology
- Trauma Code Crimson also activates Massive Transfusion Protocol

ACTIVATION & DE-ACTIVATION:

- Code Crimson can be activated pre-hospital by Retrieval services. For more information please refer to the following link. https://www.aci.health.nsw.gov.au/__data/assets/pdf_file/0003/382917/Trauma-Code-Crimson-Pathway-Final-20170919.pdf

AT CHW:

- Can **only** be **Activated** by:
  - Emergency Staff Specialist/Fellow and Surgical Registrar on-call **in consultation with Trauma Consultant on-call**
- Can **only** be **De-activated** by the Surgical Registrar/Trauma Consultant on-call.

This document reflects what is currently regarded as safe practice. However, as in any clinical situation, there may be factors which cannot be covered by a single set of guidelines. This document does not replace the need for the application of clinical judgement to each individual presentation.

Approved by:	SCHN Policy, Procedure and Guideline Committee	
Date Effective:	1st April 2023	Review Period: 3 years
Team Leader:	Head of Trauma	Area/Dept: Trauma/Surgery CHW

This Policy/Procedure may be varied, withdrawn or replaced at any time. Compliance with this Policy/Procedure is mandatory.

CHANGE SUMMARY

- Flowcharts added for: pre arrival and on- arrival of code crimson patient and team roles.
- ED Bypass
- Pre-Hospital teams request to Helipad added

READ ACKNOWLEDGEMENT

- Local manager in clinical areas are to determine which staff are to read and acknowledge the document.

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What is Trauma Code Crimson

- **Identifies** exsanguinating trauma patients who would benefit from rapid access to definitive care.
- **Aim** is to provide rapid haemorrhage control in critically injured and actively bleeding trauma patients by expediting transfer to Operating Theatre or Interventional Radiology via the Emergency Department (**within 30mins of arrival**), or on rarer occasions, straight from the helipad.

Criteria for Activation

Trauma Code Crimson is activated in trauma patients with major blood loss **and** persistent haemodynamic instability despite standard trauma care requiring surgical or interventional haemorrhage control.

Examples of life threatening haemorrhage requiring immediate Surgical or interventional management include, but are not limited to:

Blunt trauma	Penetrating trauma
• Abdominal trauma with grossly positive E-FAST • Uncontrolled maxillo-facial haemorrhage • Gross pelvic disruption • Massive haemothorax • Traumatic amputation	• Penetrating trauma to chest/abdomen • Junctional penetrating trauma • Pericardial tamponade on E-FAST • Penetrating neck wounds with hard signs of vascular injury

Additional comments:

- Can only be Activated by:
  - Emergency Staff Specialist/Fellow and Surgical Registrar on call **in consultation with Trauma Consultant on-call**
- Can **only** be **De-activated** by the Surgical Registrar/Trauma Consultant on-call
- Once ED have confirmed the Activation of Trauma Code Crimson with Trauma Consultant/Surgical Registrar on-call, ED is to Call Switch on 2222 to activate Trauma Code Crimson.
- Once notification is received of Trauma Code Crimson, attendance is required in ED **immediately** or notify ED Medical team leader if there is going to be a delay in attending.
- **Other Specialist Teams notification** such as Vascular, Orthopaedics, Neurosurgery, Ophthalmology, Plastics, ENT, etc are **NOT** automatically activated as part of the

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Trauma Code Crimson Trauma Activation. These teams will require direct notification if required.

- Any patient triggering the Trauma Code Crimson activation should be Consultant led by **ALL** contributing disciplines.
- Trauma Code Crimson also activates Massive Transfusion Protocol. http://webapps.schn.health.nsw.gov.au/epolicy/policy/5458/download
- Code Crimson can be activated pre-hospital by Retrieval Services to facilitate early transfer to definitive care. For more information please refer to the following link: https://www.aci.health.nsw.gov.au/_data/assets/pdf_file/003/382917/Trauma-Code-Crimson-Pathway-Final-20170919.pdf
- In exceptional circumstances where a pre-hospital Code Crimson has **not** been activated, it should still be activated if the patient fits the CHW criteria for Trauma Code Crimson activation.

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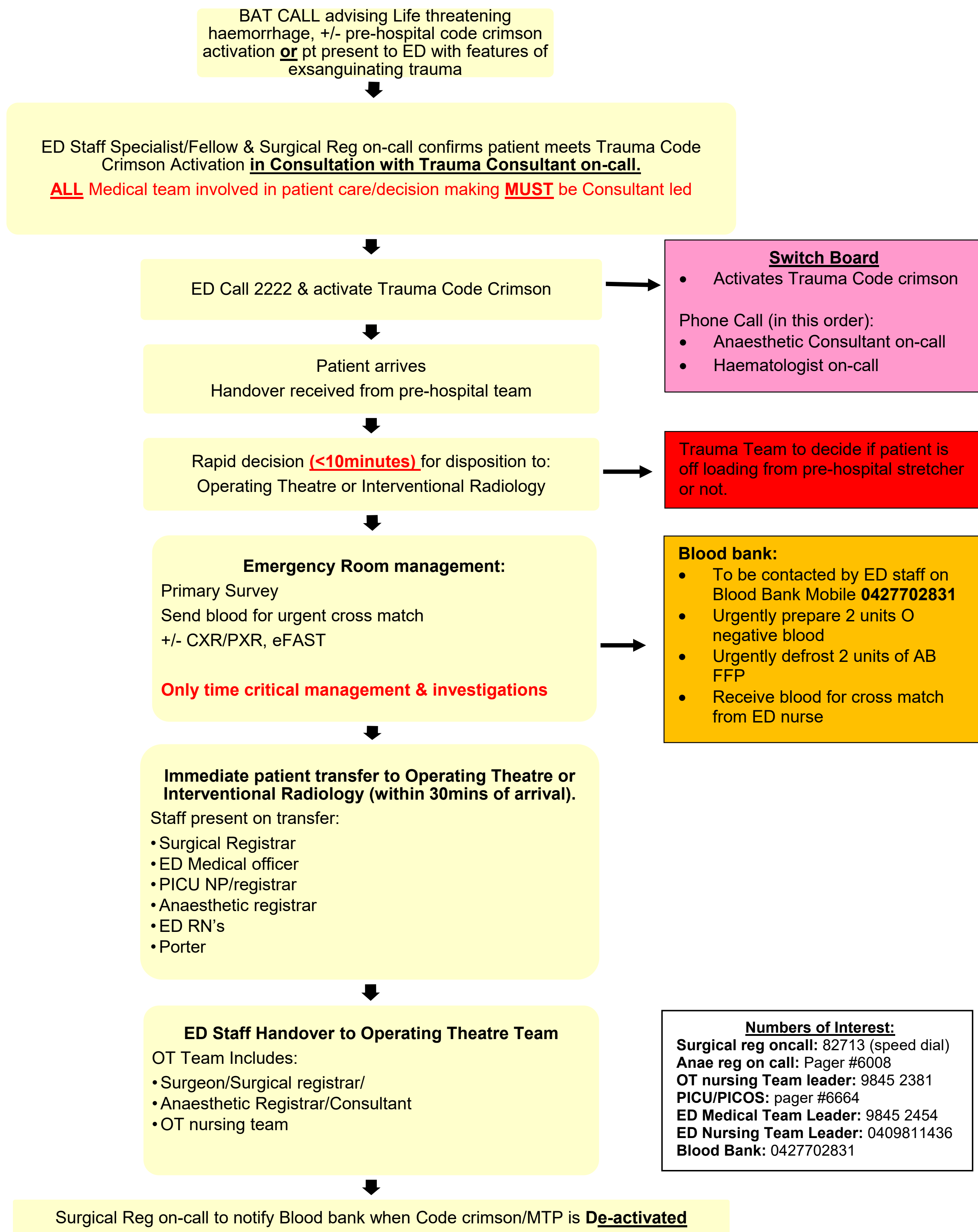
Trauma Code Crimson Flowchart



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Team Roles and Responsibilities

The following team roles and responsibilities are in addition to trauma team roles and responsibilities for a Trauma Attend.

Trauma Team Leader

- Contacts Trauma Consultant, & Haematologist on call & provides IMIST and ETA
- Contacts blood bank to notify them of activations of Trauma Code Crimson & MTP (notify all the blood products patient has received prehospital)
- Rapid disposition decision in consultation with Trauma Consultant: Operating theatre or interventional radiology or medical imaging
- Assign ED delegate to accompany patient to disposition location and support handover.

Nursing Team Leader

- Arrange collection of blood esky
- Rapid transfuser primed
- Manage crowd control and patient flow logistics

Trauma Consultant

- Liaise with ED Trauma team leader & Anaesthetics consultant to co-ordinate a clear plan
- Contact subspecialties, other general surgical consultants or interventional radiologist as required
- Liaise with operating floor team leader to specify preparation and equipment required
- After hours: Contact ED medical team leader of ETA
- Rapid disposition decision (<10min after arrival) in consultation with Trauma team leader: Operating theatre or interventional radiology or medical Imaging
- Assumes role of Trauma Team Leader in OT

Trauma Consultant may delegate informing subspecialties to the surgical registrar. Surgical registrar to report back to Trauma Consultant.

Anaesthetics Consultant

- Contact operating floor team leader & coordinate an OT plan & theatre staff

Haematology Consultant

- To be contacted by ED staff on Blood Bank Mobile 0427702831
- Liaise with ED medical team leader & Trauma consultant to co-ordinate a clear plan
- Review initial FBC & coagulation results when available
- Liaise with Blood bank if assistance required
- Urgently prepare 2 units O negative blood

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- Urgently defrost 2 units of AB FFP
- Receive blood for cross match from ED nurse

PICU

- Contact PICU Consultant on-call
- Determine requirement for PICU bed
- Liaise with PICU POD 2 team leader for bed space & staff allocation
- Assist with airway/circulation as required
- Assist with transfer to OR/IR/medical imaging

Subspecialty teams

- Liaise with ED medical team leader, Trauma consultant & Subspecialty Consultant on call
- Contact Subspecialty Consultant on call
- Plan for immediate life threating injuries
- Plan for non-immediate life threating injuries

ED Bypass

In rare circumstances, where the Code Crimson patient is in extremis, they may bypass the ED at the discretion of the on-call ED staff Specialist/Trauma Consultant in consultation with the on-call Anaesthetics Consultant.

Bypass will usually be to the Operating Theatre but may be to Interventional Radiology.

Bypass can occur from the Helipad, or from the Ambulance Bay.

The decision to proceed with ED Bypass can only be made when the on-call Trauma Consultant is present in the hospital to receive the Code Crimson patient. If there is no on-call Trauma Consultant in the hospital the patient must be transferred to the ED for ongoing resuscitation and management.

- The on-call Anaesthetic Consultant must ensure theatre /IR availability.
- When a decision to bypass ED has been made:
    - ED team leader is responsible for alerting blood bank of the patients destination and providing access to additional resuscitation medication enroute to operating theatres
    - ED nursing team leader will arrange ED clerk to register the patient as *Unknown/ Known patient* details and have patient labels printed.
    - Pt's identity should not be changed until the patient is no longer receiving ongoing blood product resuscitation, has no pending pathology results, has no pending imaging requests and does not have an imminent procedure scheduled.

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    - CHW team (ED,PICU, Anae) will wait for the patient at the ED critical care lifts bay to expedite movement and start receiving handover from the pre-hospital team.
- Pre-hospital personnel remains the team leader until handover of patient has occurred to the operating theatre team leader
- Trauma Team leader will ideally be the Anaesthetics Consultant in OT/IR
- Pre-hospital personnel may continue to assist the anaesthetics and surgical team in operating theatre until sufficient staff have arrived
- OT nursing team leader to allocate a scribe

Pre-Hospital Teams Requests to Helipad

There may be times where a Pre-hospital team may request blood products or assistance to the helipad from CHW. In these circumstances the following should be followed in conjunction with WSLDH Helipad policy.

- The usual transportation of blood products procedures should be followed
    - All staff involved in the transportation of blood products should be trained accordingly
    - Liaise with the Blood Bank staff on Blood Bank Mobile 0427702831
- The blood esky may be used for transportation as per the guideline Blood Esky use in Emergency Department - CHW
- If blood products are required before a specimen has been received, or a confirmed blood group obtained or pre-transfusion testing is completed:
    - Red cells must be group O, and ideally RhD negative prior to confirmation of ABO/RhD type
    - ABO/RhD compatible red cells (ideally the same group as the patient) may be issued once the patient has a confirmed ABO/RhD type
    - ABO non-identical platelets may be given in the absence of a confirmed blood group
    - (preferably group O)
    - Plasma products should be group AB if possible, although group A may be used
- Blood products will be given by the **retrieval staff** in accordance to NSWHP Retrieval Transfusion Procedure

Other relevant documents:

- Transfusion of Blood and Blood components
- ANZSBT Guidelines for Administration of Blood Products

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Performance Measures

All patients managed using a Trauma Code Crimson Activation will be reviewed by the CHW Trauma committee. All quality improvement opportunities and clinical issues of concern will be discussed at CHW Trauma committee and reported to appropriate Heads of Department for follow up.

Pre-Hospital		
Pre-hospital code crimson activated	Yes☐	No ☐
Met pre-hospital code crimson criteria https://www.aci.health.nsw.gov.au/__data/assets/pdf_file/0003/382917/Trauma-Code-Crimson-Pathway-Final-20170919.pdf	Yes☐	No ☐
Pre-hospital RSI	Yes☐	No ☐
Date & Time of BAT Call	Date:	Time:
CHW ED		
Date and Time of Trauma Code crimson activation	Date:	Time:
Met Trauma Code Crimson criteria	Yes☐	No ☐
ED bypass activated	Yes☐	No ☐
Date and time of patient arrival	Date:	Time:
Rapid decision for disposition < 10mins	Yes☐	No ☐
Investigations done in ED if not bypassed		
Date & time patient left ED	Date:	Time:
MTP activated	Date:	Time:
Consultants involved	ED ☐ Trauma☐ Anae☐ Haematology ☐ PICU ☐ Other ☐	
CHW OT/IT/		
Time to OT within 30mins of arrival	Yes☐	No ☐
Date & time patient arrived to OT	Date:	Time:
Date & time anaesthetic started	Date:	Time:
Date & time to knife to skin	Date:	Time:
Date & time surgery finished	Date:	Time:
Date & time patient left OT	Date:	Time:
Deceased in OT	Yes☐ date & time No☐	
CHW PICU/ward		
Pt disposition post OT	PICU ☐ Date:	Ward ☐ Time
Code Crimson deactivated	Date:	Time:
MTP deactivated	Date:	Time:
Blood products used- first 24hours		
PICU LOS		
Total LOS		
MOI		
Injuries		
ISS		

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