

Guideline: **Adult Code Crimson Trauma Call**

Purpose

To facilitate early collaborative decision making and rapid access to theatre or interventional radiology for patients aged 15 and over (see [Paediatric Code Crimson](#) Trauma call for paediatric guideline) presenting to Middlemore Emergency Department (ED) following major trauma and to adhere to national best practice as per the HQSC critical bleeding bundle of care¹.

Activation Criteria:

Activation is based on the Assessment of Blood Consumption (ABC) score². Each parameter is worth (1) point. A patient scoring **2 or more points** meets the criteria for Code Crimson. (If co-existing medical or toxicological pathology are suspected, the ED clinician may decide to assess the patient prior to Code Crimson activation based on prehospital information.)

ABC score of **2 or more**:

- | | |
|---|-----|
| • Pulse rate ≥ 120 | (1) |
| • Systolic BP < 90 | (1) |
| • Penetrating truncal mechanism of injury | (1) |
| • Positive eFAST (including intra-abdominal or pericardial blood) | (1) |

Activation

The decision to activate a Code Crimson Trauma call is made by the most senior ED clinician on site. This decision may be based on prehospital information (via "R40" and/or indicated by HEMS clinical team) or at any time once the patient is in the ED and assessed as potentially requiring surgical or interventional radiology to control haemorrhage following trauma.

A Code Crimson Trauma call may be activated 24 hours a day, 7 days a week.

Staff notified and required to attend the ED Resus (24/7):

- ED SMO
- General Surgical SMO
- Anaesthetics SMO
- Anaesthetic Technician
- ICU SMO
- Plus, standard 777 Trauma Call attendees

Staff notified but not required to attend unless specifically requested:

- Blood Bank
- Theatre Coordinator
- Radiology Registrar
- Anaesthetic supervisor

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How to activate a Code Crimson

- Dial 777 and ask for “Adult Code Crimson Trauma Call to Resus X in (e.g.) 5 minutes”. The telephonist will activate the pager response for [standard 777 Trauma calls](#) and 777 [Massive Haemorrhage Pathway](#) (MHP) calls.
- Switchboard will also phone the General Surgical SMO, the ED SMO (if between 0100hrs-0800hrs), ICU SMO and the Anaesthetic SMO (if between 1700-0800). The message to be passed is: ‘Please respond immediately to Resus X for an Adult Code Crimson Trauma Patient.’
- The Radiology Registrar and Anaesthetic technician will also be notified via pager (theatre coordinator / anaesthetic supervisor pagers).

Medical Roles and Responsibilities

While a coordinated resuscitation often requires a dynamic approach, the following is a guide to what may be expected from team members during a Code Crimson:

ED SMO (or most senior ED doctor on-site)

- Ensure Code Crimson is activated when appropriate criteria are met
- Assume the role of team leader to coordinate the resuscitation
- Allocate roles to attendees depending on skill, experience and availability
- [ED SMO roster](#)

ED charge nurse

- Coordinate nursing team
- Ensure that all required personnel are present

[Massive Haemorrhage Pathway](#) coordinator

- Liaise with blood bank and ED team leader to facilitate MHP
- May be performed by any trained member of ED team

General Surgical SMO (or most senior registrar on site)

- Haemorrhage control
- Liaison with radiology, anaesthesia, theatre and other surgical services

ICU SMO

- Assist with disposition and post-operative planning
- If required, may be asked to assist with advanced airway or vascular access

Anaesthetic SMO

- Facilitation of rapid transfer to theatre (not Interventional Radiology) for patients requiring surgical interventional.
- If required, may be asked to assist with advanced airway or vascular access, or provision/use of specialist equipment (such as Belmont blood warmer)
- [Anaesthetic SMO roster link](#)

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Anaesthetic Tech

- Support/assist the anaesthetist with advanced airway or vascular access.
- If required, assist with provision/use of specialist equipment (such as Belmont blood warmer, TEG/ROTEM)

Deactivation of Code Crimson Trauma Call

Once it is clear a patient does not require immediate surgical or interventional radiology a Code Crimson Trauma call should be deactivated. This should ideally be done within 30 minutes of patient arrival into ED. Trauma Team Leader or Emergency Department Charge Nurse can deactivate the Trauma Code Crimson by contacting 777 "I am deactivating Code Crimson".



Note: Code Crimson and Red Blanket

While the goal of a Code Crimson is to get senior decision-makers to the patient's bedside, the goal of a Red Blanket is to rapidly transfer the patient to theatre, minimizing time between injury and definitive surgical treatment.

In a patient for whom a Code Crimson has been activated, if the decision has been made that urgent surgery is required, consideration should be made to the activation of a [Red Blanket](#) if criteria are met.

References

1. Health Quality & Safety Commission New Zealand and Te Hononga Whētuki ā-Motu National Trauma Network. (2020). *Improving trauma care for critically bleeding patients. A National best-practice critical bleeding bundle of care with associated guidance and massive transfusion protocol.* https://www.hqsc.govt.nz/assets/Our-work/National-trauma-network/Publications-resources/Improving_trauma_care_for_critically_bleeding_patients_WEB-v2.pdf
2. Nunez TC, Voskresensky IV, Dossett LA, Shinall R, Dutton WD, & Cotton BA. Early prediction of massive transfusion in trauma: simple as ABC (assessment of blood consumption) Journal of Trauma. 2009 Feb; 66 (2): 346-52. Doi: 10. 1097/TA.0b013e3181961c35. PMID: 19204506.

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Definitions/Description

Terms and abbreviations used in this document are described below:

Term/Abbreviation	Description
ED	Emergency Department
HEMS	Helicopter Emergency Medical System
SMO	Senior Medical Officer
R40	Advance Notification by Ambulance personnel (R40)
ABC score	Assessment of Blood Consumption
eFAST	Extended Focused Assessment using Sonography in Trauma
MHP	Massive Haemorrhage Pathway

Associated Documents

Other documents relevant to this guideline are listed below:

NZ Legislation & Standards	NZ Blood Te Ratonga Toto O Aotearoa Adult Massive Transfusion Haemorrhage Pathway
Te Whatu Ora Counties Manukau Documents	Criteria for Adult Surgical (Trauma) Emergency Call (2745) Initial Assessment and Management of Major Trauma (A2750) Massive Haemorrhage Pathway Adult Massive Haemorrhage Protocol for ALL Hospital
Other related documents	Inter-hospital guidelines

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