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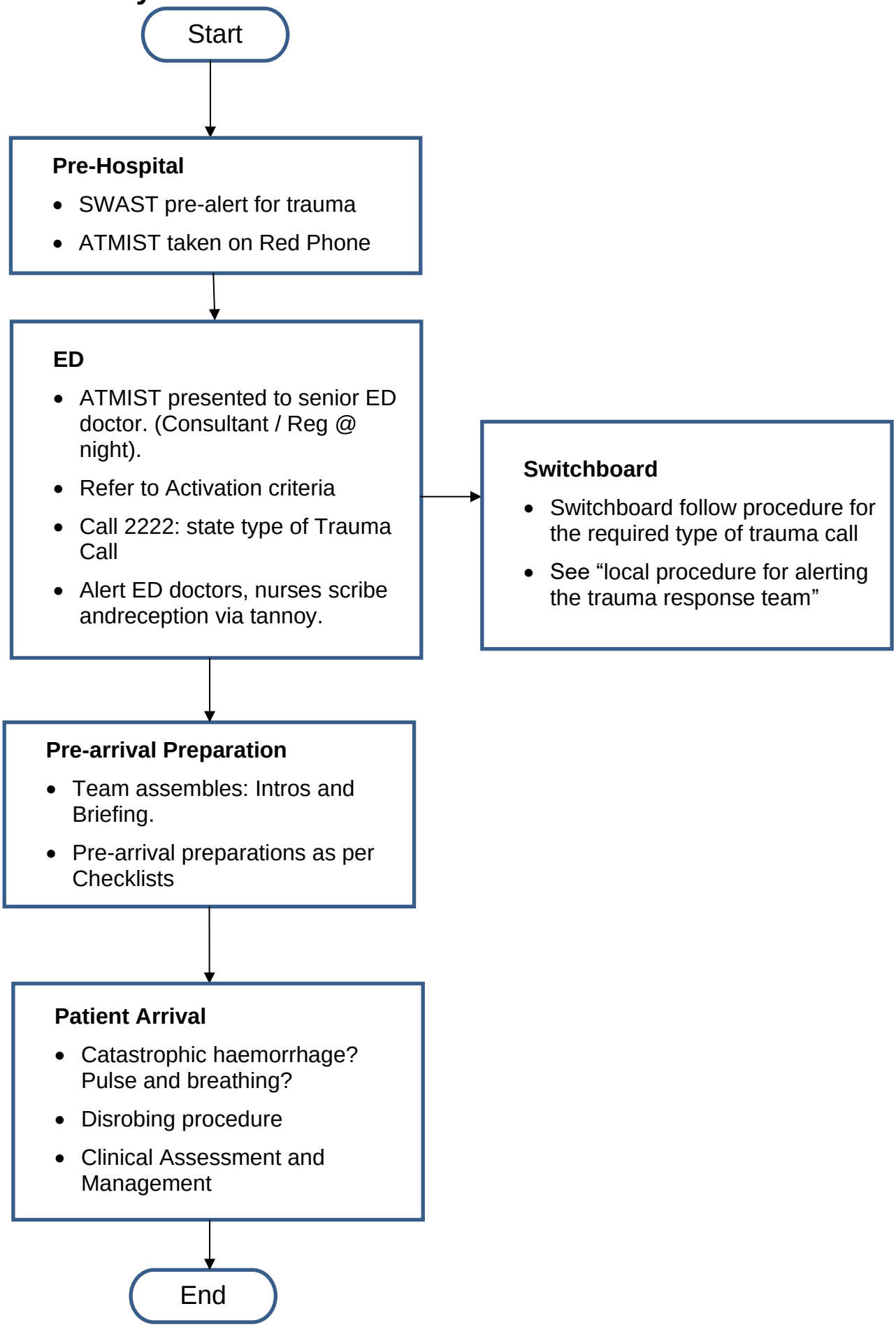
Royal Cornwall Hospitals NHS Trust

Trauma Teams
Standard Operating Procedure

V14.0

June 2023

Summary


Start
Pre-Hospital
SWAST pre-alert for trauma
ATMIST taken on Red Phone
ED
ATMIST presented to senior ED doctor. (Consultant / Reg @ night).
Refer to Activation criteria
Call 2222: state type of Trauma Call
Alert ED doctors, nurses scribe andreception via tannoy.
Switchboard
Switchboard follow procedure for the required type of trauma call
See “local procedure for alerting the trauma response team”
Pre-arrival Preparation
Team assembles: Intros and Briefing.
Pre-arrival preparations as per Checklists
Patient Arrival
Catastrophic haemorrhage? Pulse and breathing?
Disrobing procedure
Clinical Assessment and Management
End

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Data Protection Act 2018 (General Data Protection Regulation – GDPR) Legislation

The Trust has a duty under the Data Protection Act 2018 and General Data Protection Regulations 2016/679 to ensure that there is a valid legal basis to process personal and sensitive data. The legal basis for processing must be identified and documented before the processing begins. In many cases we may need consent; this must be explicit, informed, and documented. We cannot rely on opt out, it must be opt in.

Data Protection Act 2018 and General Data Protection Regulations 2016/679 is applicable to all staff; this includes those working as contractors and providers of services.

For more information about your obligations under the Data Protection Act 2018 and General Data Protection Regulations 2016/679 please see the Information Use Framework Policy or contact the Information Governance Team

Royal Cornwall Hospital Trust rch-tr.infogov@nhs.net

1. Introduction

1.1. This Standard Operating Procedure covers the activation of Major Trauma Teams.

1.1. This version supersedes any previous versions of this document.

2. Purpose of this Standard Operating Procedure

2.1. To ensure that the Major Trauma Patient is met in the ED resus room by senior clinicians able to rapidly decide on and institute appropriate emergency care and effect emergency transfers to tertiary care providers when required.

2.2. To ensure appropriate senior backup and resource provision for those attending Hospital Trauma Team calls.

2.3. To ensure that the Major Trauma Patient is dealt with expeditiously and admitted to a care environment appropriate to the level of care required.

2.4. To ensure that those involved in the ongoing care of the Major Trauma Patient are made aware of them from the point of admission.

3. Ownership and Responsibilities

This Standard Operating Procedure should be used by ED staff activating the Trauma Team, all staff participating in the Trauma Team, Switchboard staff responding to a Trauma Team activation and the Major Trauma Governance Staff monitoring compliance.

4. Standards and Practice

4.1. Procedure for Trauma Team Activation

4.1.1. How is major trauma identified?

All patients meeting the SWAST pre-alert criteria (Appendix 3) should have a call to the ED red phone.

This pre-alert should follow the ATMIST standard structure (Appendix 4). If information is not complete in all boxes of ATMIST, ED staff should request the missing information.

4.1.2. In the event of multiple casualties

The SWAST incident commander should ensure that information about the number of casualties and likely injuries is telephoned to the ED red phone. This may be in the form of a METHANE report (Appendix 5) even if Major Incident is not for Standby or Declared.

Each crew leaving the scene should telephone an ATMIST pre-alert to the ED red phone.

4.1.3. What response to a trauma pre-alert?

Appendix 6 shows the Hospital Full Trauma Team Activation Criteria. These are used when a telephone pre-alert is received regarding a trauma incident. The full ATMIST information is taken by the ED staff to allow accurate recognition of when a call is and is not appropriate. The level of trauma call requested by the Emergency Department Doctor or nurse is based on the ATMIST. The calls are listed below in increasing order of injury severity.

If a patient has a significant mechanism of injury without anatomical or physiological criteria then an ED Trauma Team should be activated (Appendix 7).

The ED staff should inform switchboard 2222 "ED Trauma Team to Resus": This enables logging of the call and informs the Scribe to attend.

With patients who have a significant mechanism of injury AND anatomical or physiological findings of concern then:

The Hospital Trauma Team is activated by a single 2222 call to switchboard stating "Hospital Trauma Team to ED Resus".

On occasions the doctor in charge may have significant clinical concern about the patient and activate a code red trauma call

The Code Red Trauma Team is activated by a single 2222 call to switchboard stating "Code Red Trauma Team to ED Resus". Additionally specify if the code red call is for an adult or a child.

The Paediatric Trauma Team is activated by a single 2222 call to switchboard stating, "Paediatric Trauma Team to ED Resus".

In the event of a patient arriving in ED for whom a Hospital Trauma Team call is appropriate but has not yet been activated, the ED staff must activate the call as per the Criteria in Appendix 6.

In the event of a patient in ED not initially meeting Hospital Trauma Team Activation Criteria deteriorating to a point where they do meet the Criteria, the patient MUST be moved to ED Resus, the ED Consultant MUST be informed, and a decision made whether or not to activate the Hospital Trauma Team belatedly. The risk of not activating the Team is that the patient receives inadequate seniority of care and decisions are inappropriately delayed.

In delayed identification of major trauma injures it may be pragmatic to only involve the specialists who are required in the patients onwards care rather than a full hospital trauma call. An example of this is where a patient is identified on trauma scan to have a splenic injury, but no orthopaedic injury for example. In this case it would be pragmatic to bleep the surgical registrar independently.

The use of the Activation Criteria will be audited annually or more frequently as required. The audit results will be presented to the Major Trauma Review Group.

On very rare occasions pregnant trauma patients may attend the Emergency Department. In addition to the ED trauma, Hospital and Code Red Trauma calls above the team may request additional support from the emergency obstetrics team. In which case the obstetrics registrar should also be fast bleeped to ED resus.

4.1.4. Code Red Trauma Team

The Code Red (Appendix 7) call is a response to the patient with potential massive haemorrhage. The activation is a single 2222 call to switchboard stating “Code Red Trauma Team to ED Resus”.

Activation Criteria:

- Request by pre-hospital physician
- Evidence of shock: consider shock index >0.9
- ED Clinician’s discretion: consider severe mechanism

4.1.5. Trauma Call Membership

During ED Consultant Hours **(Monday-Sunday: 08:00-22:00)**
Core Hospital Trauma Team Membership **ED Consultant (Shopfloor 1 consultant)** **Trauma and Transfer Consultant (on site 08:00-12:00 weekdays and on-call outside of these hours from home).** **2x ED Nursing staff** **ED Middle grade and / or Junior doctor** **Orthopaedic Middle grade on-call** **Surgical Middle grade on-call** **ICU Middle grade on-call** **Trained Scribe (HCA or Med Student)**
Additional Membership when available **ICU outreach specialist nurse / ODP (Airway Assistant)**

Alternative Scribe (any other member of medical or nursing staff) **Orthopaedic Junior doctor** **Surgical Junior doctor** **Transfusion practitioner** **Radiographer**
Paediatric Trauma Team Membership **Same as Hospital Trauma Team PLUS Paediatric Emergency Response (PERT) Team**
ED Trauma Team Membership **ED Consultant (Shopfloor 1 consultant) and / or ED Middle-grade** **2 x ED Nursing staff** **ED Junior doctor allocated to Resus** **Trained Trauma Scribe** **(Radiographer at the discretion of the Team Leader)**
Speciality Support **Radiology consultant available in reporting room ext 5182 09:00 – 19:00; Radiology registrar available in the reporting room ext 5182 until 21:00; PROC on call for radiology via switch board between 21:00 – 09:00** **Maxillo-facial surgery, ENT, Ophthalmology and Obstetric middle-grade doctors are available during working hours via switchboard. Consultants for these specialties also available via switchboard.** **Vascular Surgery middle-grade and consultant available via switchboard.** **Interventional Radiology available via switchboard or Newlyn Unit ext 3962.** **Pelvic Surgery Consultant at Derriford available via email (response within 24 hours) – please discuss with local on-call Orthopaedic Team.**
Code Red Trauma Team Membership **As for Hospital Trauma Team PLUS:** **Consultant General Surgeon** **Consultant Vascular Surgeon**

Consultant orthopaedic surgeon

Consultant interventional radiologist

Consultant Anaesthetist

Consultant Intensive Care

These consultants will be called by switchboard and may choose to telephone in or attend directly depending on circumstances.

Outside ED Consultant Hours
Core Hospital Trauma Team Membership **There is no change to the core membership of the Hospital Trauma Team at night.** **The initial Team Leader is the ED Middle grade until arrival of the ED Consultant and/or Trauma and Transfer Consultant.** **The ED Consultant is on-call from home (netpaged by switchboard and available within 30mins).** **The Trauma and Transfer Consultant is on-call from home (netpaged by switchboard and available within 30mins).** **All other team members are on site within the hospital.**
ED Trauma Team Membership **ED Middle grade.** **2x ED Nursing staff** **ED Junior doctor allocated to Resus** **(ED Consultant available on call from home at discretion of ED Middle grade)** **(Radiographer at discretion of the Team Leader)**
Senior Support at night **ICU, Orthopaedic and Surgical Consultants are on-call from home. Contact via switchboard.**
Speciality Support at night **Radiology PROC Middle grade available 21:00-09:00 via switchboard.** **Radiology Consultant available on-call from home via switch board.**

Default is that all Trauma CT reports given by Middle grade at night will be checked on Consultant arrival the following morning. For code red calls or for complex hospital trauma patients then it is appropriate to discuss directly with the radiology consultant on call.

Maxillo-facial, ENT and Obstetric Middle grades are on-call from home.

Vascular Surgery Consultant available on shared rota with Derriford: contact via switchboard.

Interventional Radiology only available 09:00 – 17:00 weekdays and 10:00-18:00 at weekends.

Pelvic Surgery Consultant at Derriford available via email (response within 24 hours) – please discuss with local on-call Orthopaedic Team.

Code Red Trauma Team Membership

There is no change to the core membership of the Code Red trauma Team during the night.

Seniority of Specialty Middle Grades on the Trauma Team

It is imperative that patients with multi-system trauma are met in the ED resus room by senior clinicians able to rapidly decide on and institute appropriate emergency care and effect emergency transfers to tertiary care providers when required.

Although the Team Leader will be the ED Consultant, the importance of having senior general surgical and orthopaedic clinicians at the bedside to support the decision-making, particularly in the haemodynamically compromised patient, cannot be underestimated.

To this end, all anaesthetic, general surgery and trauma and orthopaedics middle-grades who are on rota to attend as members of the Trauma Team need to satisfy their specialty trauma leads that they have the required skills and experience to do so without direct supervision. Where a specialty middle grade is deemed too junior or unskilled in trauma care, they are instructed to call their Consultant for ALL trauma calls until they are confirmed competent to attend without direct or indirect supervision.

The specialty leads will provide a list of middle grades to the Major Trauma Review Group, updated throughout the year to show the seniority and ATLS status of each member and whether or not they are judged competent to attend alone.

The Team Leader has explicit authority to call, or require the specialty middle grade to call, anaesthetic, orthopaedic and general surgical Consultants as required for cases needing their specialist knowledge, experience and skills.

4.2. Switchboard Procedure for Hospital Trauma Team Call

[This is taken from “LOCAL PROCEDURE FOR ALERTING THE TRAUMA RESPONSE TEAM” and is included here for completeness. Please see the most up to date version of that policy.]

Requests for Trauma Team response should come via the Emergency 2222 phone in switchboard. Answer the 2222 phone “2222 Emergency”. All trauma calls should originate from ED.

Note the time and the ED call maker. Repeat the message back to the caller so they can confirm then hang up.

Initiate the correct response which will also involve using Primetext SMS notification:

http://www.primetext.co.uk/

Organisation: rchtsw

Username: 01872250000

Password: sw1tch.

Select new message, then the correct messaging group in the “To” section. Type in the message in the “text” section and then send.

Actions for the Trauma Response Request:

4.2.1. ED Trauma Call

- Primetext the “ED Trauma Call” Group

4.2.2. ED Trauma Call and Anaesthetist

- Fast Bleep the Senior Anaesthetic Trainee (SAT)
- Primetext “ED Trauma and Anaes” Group

4.2.3. Hospital Trauma Call

- Bleep the Hospital Trauma Group

  To do this use the Multitone Bleep Console and press **RED 37# RED**. The Multitone Bleep Box will make a series of beeps. After the last longer beep, hold down the yellow button and say clearly into the microphone “Hospital Trauma call to ED, clinical details and mechanism of injury if given and then ETA or now” then repeat. Release the yellow button and press ** to end.

- Call the ED Consultant (if out of hours)
- Call the Trauma and Transfer Consultant (all hours as may not be in ED). Previously known as the Major Trauma Consultant.

- Primetext the “Hospital Trauma” Group

4.2.4. Code RED Trauma Call

- Bleep the Hospital Trauma Group

To do this use the Multitone Bleep Console and press **RED 37# RED**. The Multitone Bleep Box will make a series of beeps. After the last longer beep, hold down the yellow button and say clearly into the microphone “Code RED Trauma call to ED, clinical details and mechanism of injury if given and then ETA or now”, then repeat again. Release the yellow button and press ** to end.

- Primetext the “Code RED Trauma” Group

- Call the On Call Consultants for ED and the Trauma and Transfer Consultant.

- Cat the On Call Consultants for Vascular Surgery, Critical Care, Anaesthetics, Orthopaedics and General Surgery

4.2.5. Paediatric Trauma Call

- Bleep the Hospital Trauma Group

To do this use the Multitone Bleep Console and press **RED 37# RED**. The Multitone Bleep Box will make a series of beeps. After the last longer beep, hold down the yellow button and say clearly into the microphone “Paediatric Trauma, call to ED, clinical details and mechanism of injury if given and then ETA or now”, then repeat again. Release the yellow button and press ** to end.

- Bleep the Paediatric Bleep Group

To do this use the Multitone Bleep Console and press RED 36# RED. The Multitone Bleep Box will make a series of beeps. After the last longer beep, hold down the yellow button and say clearly into the microphone “Paediatric Trauma, call to ED, clinical details and mechanism of injury if given and then ETA or now”, then repeat again. Release the yellow button and press ** to end

- Primetext the “Paediatric Trauma” Group

Record the details of the call on the spreadsheet “Cardiac, Paeds, Trauma, 2222 log” in the shared drive, under the “Trauma” tab. Also record the details of this call in the 2222 Records Book, located on the shelf above Console 2002.

If you receive a follow up call advising that the Team have not responded, broadcast the message again and then record the details again.

The Hospital Trauma Bleep Call Group is to be tested weekly, on a Tuesday, to ensure that the bleeps are working and that the relevant personnel are carrying them. There is no requirement to test the Primetext SMS function or carrying out any other part of the procedure as part of the weekly test.

4.3. Trauma Team Roles and Responsibilities

4.3.1. Trauma Team Leader (ED Consultant)

- Commands the resuscitation coordinating staff and resources
- Makes decisions in conjunction with specialists
- Prioritises investigations and treatments
- Ensures team wear personal protective equipment including lead aprons if appropriate.
- Ensures allocated roles are clear and personal introductions are made

4.3.2. Consider

- Pre-arrival and on arrival checklists (consider E-resus).
- Pre-arrival sign in of team members and team introductions.
- Early calls to notify CT, interventional radiology, specialist Consultants on call (e.g. general surgeon if SBP<90), extra specialties (e.g MaxFax/ENT/ Paediatrics)
- Massive transfusion and Tranexamic acid protocol

  Damage Control Resuscitation in Theatre SOP (? need to activate)
- Aim to leave resus for CT within 30 minutes. (Refer to CT transfer checklist on e-resus screen and Trauma CT SOP for up to date guidance).
- Antibiotics, urinary catheter, arterial lines, tetanus all need early consideration but can be delayed to theatre if emergency surgery required. Resuscitation is a continuum not dependent on geographical location.
- Trauma Team accompany patient to CT taking blood products and airway kit as appropriate. Ensure resuscitation can continue in CT.
- It may be relevant for Trauma Team members to escort the patient to theatres. Request porters or send someone ahead to hold the lift.
- Stand-down activated pathways when appropriate to do so.

- **Handover** to anaesthetist so clear on drugs given, blood products and fluids transfused, key allergies, PMHx and diagnoses made.
- **Inform** blood bank of patient location and new clinical lead for massive transfusion protocol when patient is transferred or stand down as appropriate.
- **Speak** to relatives
- **Debrief** team
- **Documentation** to include checking major trauma proforma for completeness.

4.3.3. For roles and responsibilities of all other team members please see Appendix 10.

4.4. Procedure for Hospital Trauma Team Specialty Roles

Attendance in the ED Resus room immediately after receiving the Hospital Trauma Team Call is mandatory for key personnel.

See Appendix 10-18 for specialty specific role and responsibility cards.

It is to be remembered that Team members are chosen for their ability to make decisions about emergency care, not just to provide a pair of hands. When it is likely that a member of the Team will be unable to attend ED resus immediately, for example if they are going to theatre, a deputy should be nominated in advance. For a Registrar in anaesthesia, surgery or orthopaedics, the deputy should be someone of Registrar equivalent or greater seniority. Filling a Registrar's role with a more junior doctor means that they are unlikely to have the required decision-making ability and therefore this role is essentially unfilled.

The Trauma Team Leader should ensure that specialists are stood down when it is clear that their services are no longer required – usually after the primary survey in the less injured patient.

Attendance at Hospital Trauma Team calls is audited annually or more frequently as required. The results of the audit are presented to the Major Trauma Review Group.

5. Dissemination and Implementation

This Standard Operating Procedure will be made available on the document library.

6. Monitoring Compliance and Effectiveness

Information Category	Detail of process and methodology for monitoring compliance
Element to be monitored	Attendance at trauma calls Appropriateness of level of response activated
Lead	ED Major Trauma Lead Consultant
Tool	Audit
Frequency	Annual
Reporting arrangements	Via Major Trauma Review Group
Acting on recommendations and Lead(s)	Via Major Trauma Review Group
Change in practice and lessons to be shared	Via Major Trauma Review Group

7. Updating and Review

This Standard Operating Procedure will be updated, as a minimum, every three years.

8. Equality and Diversity

8.1. This document complies with the Royal Cornwall Hospitals NHS Trust service Equality and Diversity statement which can be found in the 'Equality, Inclusion and Human Rights Policy' or the Equality and Diversity website.

8.2. Equality Impact Assessment

The Initial Equality Impact Assessment Screening Form is at Appendix 2.

Appendix 1. Governance Information

Information Category	Detailed Information
Document Title:	Trauma Teams Standard Operating Procedure V14.0
This document replaces (exact title of previous version):	Trauma Teams Standard Operating Procedure V13.0
Date Issued/Approved:	30 March 2023
Date Valid From:	June 2023
Date Valid To:	June 2026
Author / Owner:	Michael Prosser, Consultant in Emergency Medicine and ED Trauma Lead
Contact details:	01872 252452
Brief summary of contents:	Major Trauma Team Activation and Performance
Suggested Keywords:	Major Trauma, Trauma Team, Code Red
Target Audience:	**RCHT:** Yes **CFT:** No **CIOS ICB:** No
Executive Director responsible for Policy:	Chief Medical Officer
Approval route for consultation and ratification:	Emergency Department Governance Meeting. Major Trauma Review Group.
Manager confirming approval processes:	Nigel D'Arcy (Interim)
Name of Governance Lead confirming approval by specialty and care group management meetings:	Paul Evangelista
Links to key external standards:	National Major Trauma Standards, NICE NG39, NICE NG40
Related Documents:	LOCAL PROCEDURE FOR ALERTING THE TRAUMA RESPONSE TEAM Polytrauma CT Standard Operating Procedure

Information Category	Detailed Information
Training Need Identified?	No
Publication Location (refer to Policy on Policies – Approvals and Ratification):	Internet and Intranet
Document Library Folder/Sub Folder:	Clinical / Major Trauma

Version Control Table

Date	Version Number	Summary of Changes	Changes Made by
01/03/2013	V6.0	Added “Check O2 cylinder full” to nurse 2 checklist	Mark Jadav – ED Clinical Director
29/10/13	V7.0	Added “Ultrasound machine on” to Team Leader checklist. Added massive haemorrhage protocol to doctor2 sampling. Added to nurse 1 preparations.	Mark Jadav – ED Clinical Director
15/12/13	V8.0	Changed “warm fluid” to “hotline” in team leader list. Moved FAST to doctor 1. Moved “order xrays / CT” to pre-arrival	Mark Jadav – ED Clinical Director
23/02/15	V9.0	Amalgamated the SOP for receipt of trauma patient. Redefined policy to cover all trauma teams (ie. ED team and Hospital team)	Mark Jadav – ED Clinical Director
19/09/17	V10.0	Added Code Red Team, Updated TTL checklist, Added Scribe checklist.	Mark Jadav – ED Clinical Director
23/01/18	V11.0	Added Disrobing procedure and included initial questions on TTL card	Mark Jadav – ED Clinical Director
24/05/18	V11.1	Changed all 4444 numbers to 2222. All trauma teams called via switch. Clarified memberships. Updated ATMIST (still needs further update when next ATMIST produced)	Mark Jadav – ED Clinical Director
13/09/18	V11.2	Added summary flowchart	Mark Jadav – ED Clinical Director
25/08/22	V12.0	Updated to latest Trust accessible template	Mike Prosser – ED Trauma Lead

Date	Version Number	Summary of Changes	Changes Made by
01/11/2022	V13.0	Added Trauma and Transfer Consultant role in main text. Updated Appendix boxes, including: Changing 4444 to 2222, Updated SWAST pre alert documentation, Updated ATMIST sheet, Updated job specific role tasks in appendix, Added role of Trauma and Transfer Consultant, Added Retrieve documentation, Added CT Trauma Transfer Checklist, Added Damage Control Surgery Checklist, Removed references to portable CXR / pelvis Xray-in resus as standard, Removed references to lead aprons for all providers.	Mike Prosser – ED Trauma Lead
1/3/2023	V14.0	Full review. Order of trauma calls in 4.1.3 amended, with addition of reference to potential for pregnant trauma patients. Addition of transfer checklists and retrieve contact details. Contact details for radiology and pelvic surgery advice updated.	Mike Prosser – ED Trauma Lead

All or part of this document can be released under the Freedom of Information Act 2000.

All Policies, Strategies and Operating Procedures, including Business Plans, are to be kept for the lifetime of the organisation plus 6 years.

This document is only valid on the day of printing.

Controlled Document.

This document has been created following the Royal Cornwall Hospitals NHS Trust The Policy on Policies (Development and Management of Knowledge Procedural and Web Documents Policy). It should not be altered in any way without the express permission of the author or their Line Manager.

Appendix 2. Equality Impact Assessment

Section 1: Equality Impact Assessment (EIA) Form

The EIA process allows the Trust to identify where a policy or service may have a negative impact on an individual or particular group of people.

For guidance please refer to the Equality Impact Assessment Policy (available from the document library) or contact the Equality, Diversity and Inclusion Team

rcht.inclusion@nhs.net

Information Category	Detailed Information
Name of the strategy / policy / proposal / service function to be assessed:	Trauma Teams Standard Operating Procedure V14.0
Directorate and service area:	Emergency Department
Is this a new or existing Policy?	Existing
Name of individual completing EIA (Should be completed by an individual with a good understanding of the Service/Policy):	Mike Prosser, ED Trauma Lead
Contact details:	01872 252452

Information Category	Detailed Information
1. Policy Aim - Who is the Policy aimed at? (The Policy is the Strategy, Policy, Proposal or Service Change to be assessed)	• To ensure that the Major Trauma Patient is met in the ED resus room by senior clinicians able to rapidly decide on and institute appropriate emergency care and effect emergency transfers to tertiary care providers when required. • To ensure appropriate senior backup and resource provision for those attending Hospital Trauma Team calls. • To ensure that the Major Trauma Patient is dealt with expeditiously and admitted to a care environment appropriate to the level of care required. To ensure that those involved in the ongoing care of the Major Trauma Patient are made aware of them from the point of admission.
2. Policy Objectives	To ensure that the Major Trauma Patient is met in the ED resus room by senior clinicians able to rapidly decide on and institute appropriate emergency care and effect emergency transfers to tertiary care providers when required.

Information Category	Detailed Information
3. Policy Intended Outcomes	Correct major trauma response given for the individual patient Full attendance at major trauma teams
4. How will you measure each outcome?	Annual audit
5. Who is intended to benefit from the policy?	Major trauma patients
6a. Who did you consult with? (Please select Yes or No for each category)	• Workforce: Yes • Patients/ visitors: No • Local groups/ system partners: No • External organisations: Yes • Other: No
6b. Please list the individuals/groups who have been consulted about this policy.	ED Staff Major Trauma Review Group Peninsula Major Trauma Network
6c. What was the outcome of the consultation?	This policy version
6d. Have you used any of the following to assist your assessment?	**National or local statistics, audits, activity reports, process maps, complaints, staff or patient surveys:** No

7. The Impact

Following consultation with key groups, has a negative impact been identified for any protected characteristic? Please note that a rationale is required for each one.

Where a negative impact is identified without rationale, the key groups will need to be consulted again.

Protected Characteristic	(Yes or No)	Rationale
Age	No	It is well recognised that the elderly major trauma patient receives a lower response to their injury. This has been the focus of national and regional scrutiny. Our trauma team activation policy specifically states a lower threshold for activating a hospital trauma team for the elderly patient in order to attempt to reduce this.
Sex (male or female)	No	

Protected Characteristic	(Yes or No)	Rationale
Gender reassignment (Transgender, non-binary, gender fluid etc.)	No	
Race	No	
Disability (e.g. physical or cognitive impairment, mental health, long term conditions etc.)	No	
Religion or belief	No	
Marriage and civil partnership	No	
Pregnancy and maternity	No	
Sexual orientation (e.g. gay, straight, bisexual, lesbian etc.)	No	

A robust rationale must be in place for all protected characteristics. If a negative impact has been identified, please complete section 2. If no negative impact has been identified and if this is not a major service change, you can end the assessment here.

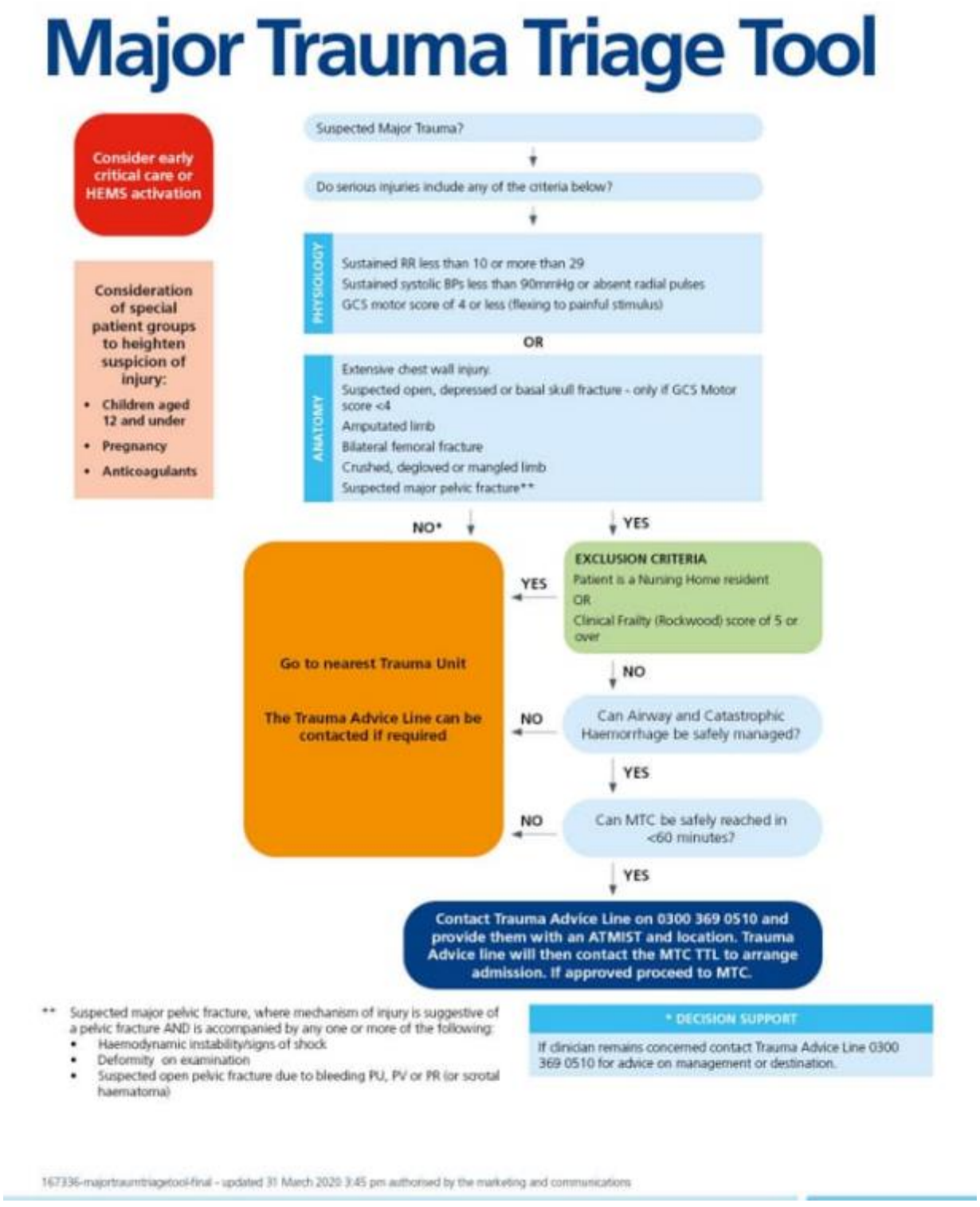
I am confident that section 2 of this EIA does not need completing as there are no highlighted risks of negative impact occurring because of this policy.

Name of person confirming result of initial impact assessment: Mike Prosser, ED Trauma Lead

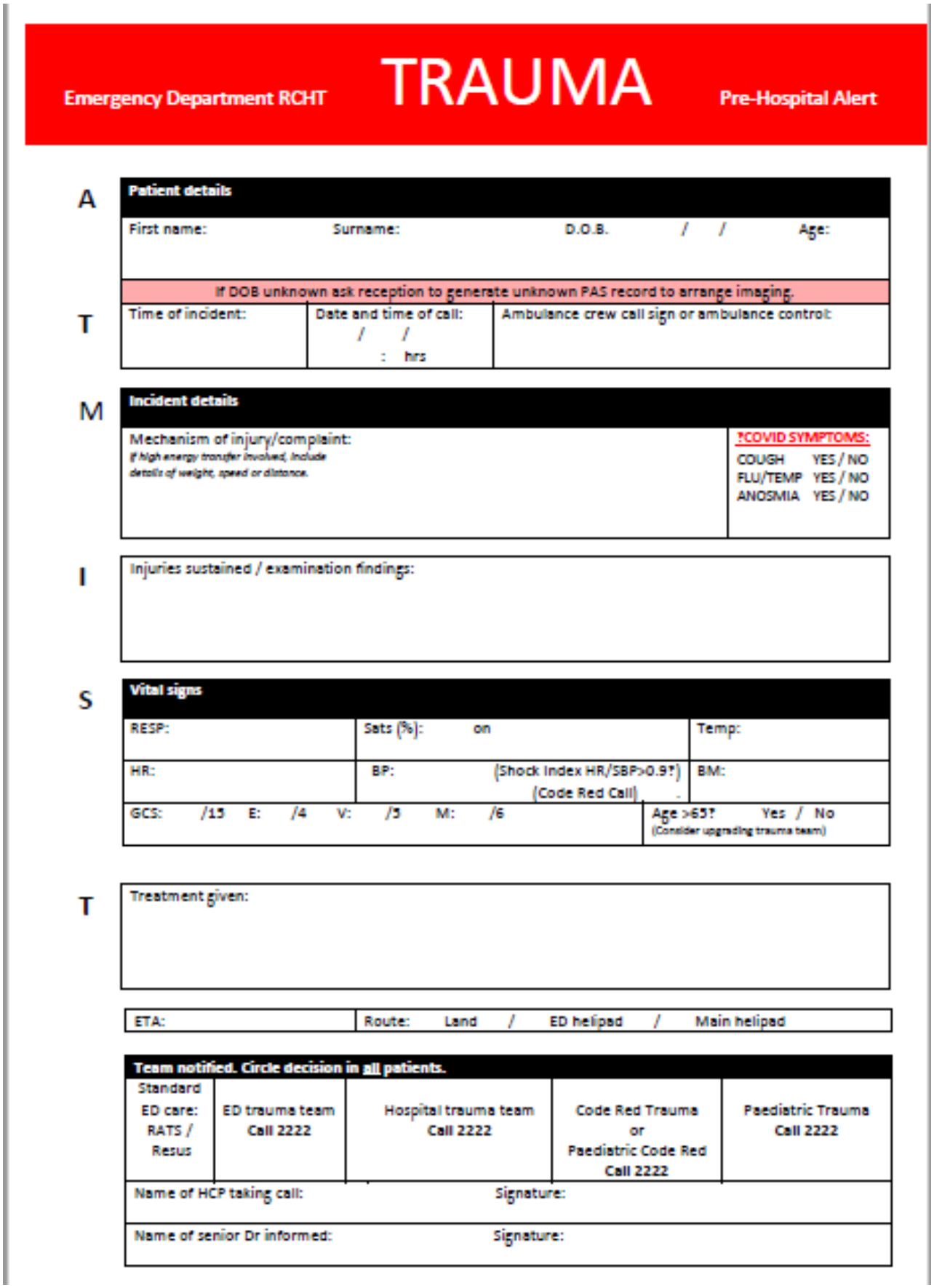
If a negative impact has been identified above OR this is a major service change, you will need to complete section 2 of the EIA form available here:
Section 2. Full Equality Analysis

Appendix 3. SWAST Emergency Department Pre-Alert Criteria

NHS
South Western Ambulance Service
NHS Foundation Trust



Appendix 4. Trauma Emergency Department Pre-Hospital Alert



Emergency Department RCHT **TRAUMA** Pre-Hospital Alert

A **Patient details**

First name: Surname: D.O.B. / / Age:

If DOB unknown ask reception to generate unknown PAS record to arrange imaging.

T

Time of incident:	Date and time of call: / / : hrs	Ambulance crew call sign or ambulance control:

M **Incident details**

Mechanism of injury/complaint: *If high energy transfer involved, include details of weight, speed or distance.*	?COVID SYMPTOMS: COUGH YES / NO FLU/TEMP YES / NO ANOSMIA YES / NO

I

Injuries sustained / examination findings:

S **Vital signs**

RESP:	Sats (%): on	Temp:
HR:	BP: (Shock Index HR/SBP>0.9?) (Code Red Call)	BM:
GCS: /15 E: /4 V: /5 M: /6	Age >65? Yes / No (Consider upgrading trauma team)	

T

Treatment given:

ETA:	Route: Land / ED helipad / Main helipad

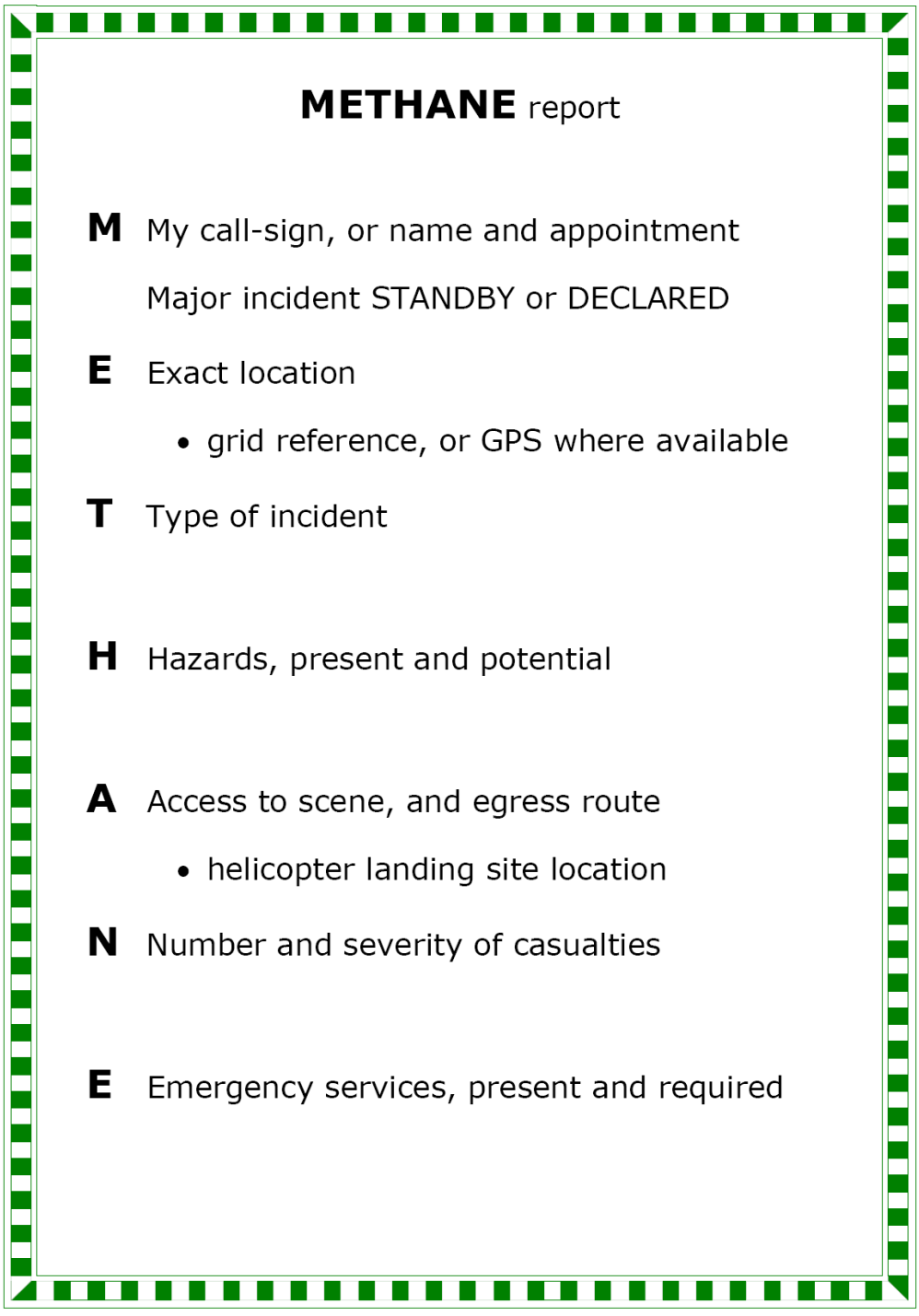
Team notified. Circle decision in all patients.

Standard ED care: RATS / Resus	ED trauma team Call 2222	Hospital trauma team Call 2222	Code Red Trauma or Paediatric Code Red Call 2222	Paediatric Trauma Call 2222

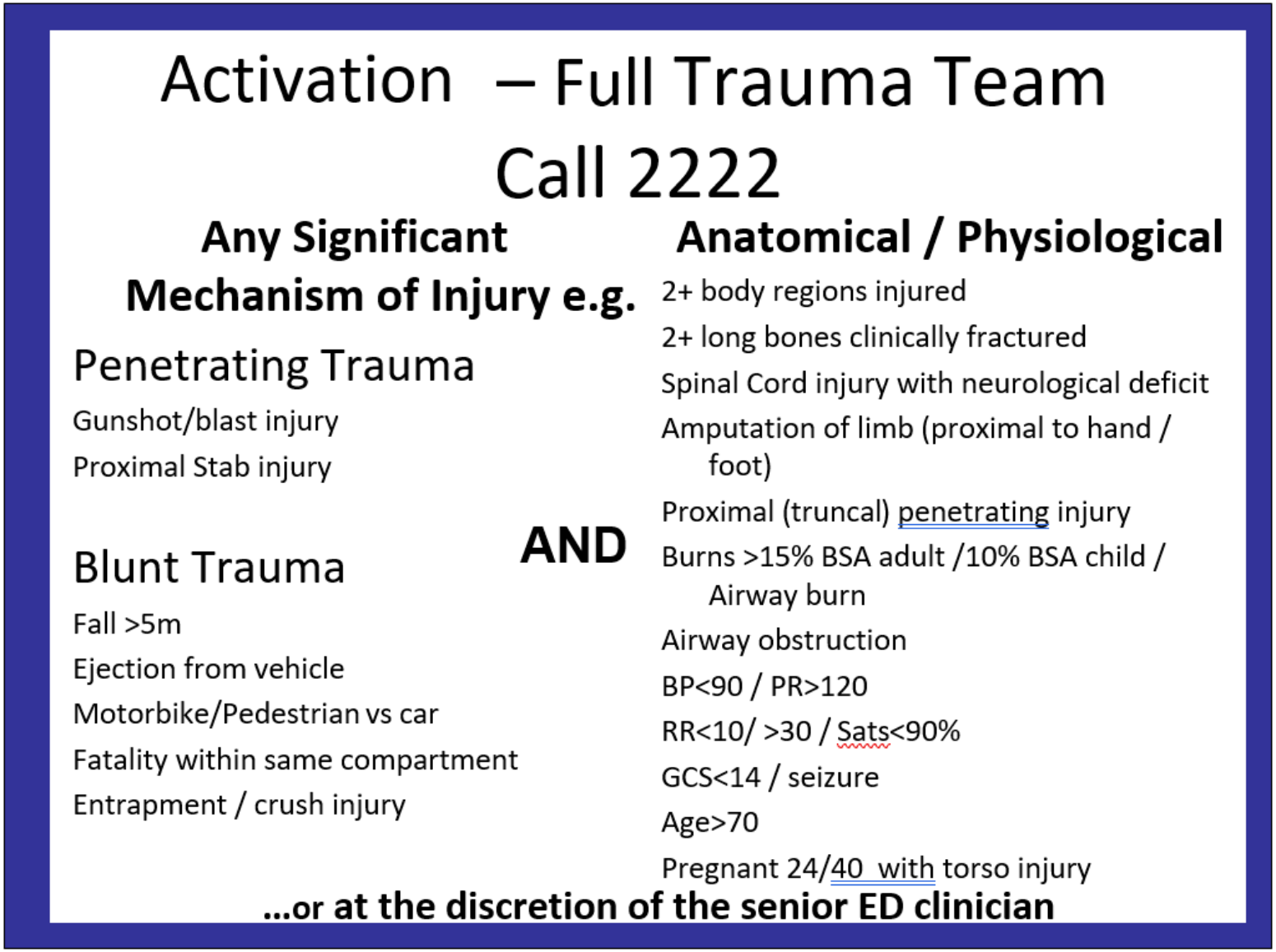
Name of HCP taking call: Signature:

Name of senior Dr informed: Signature:

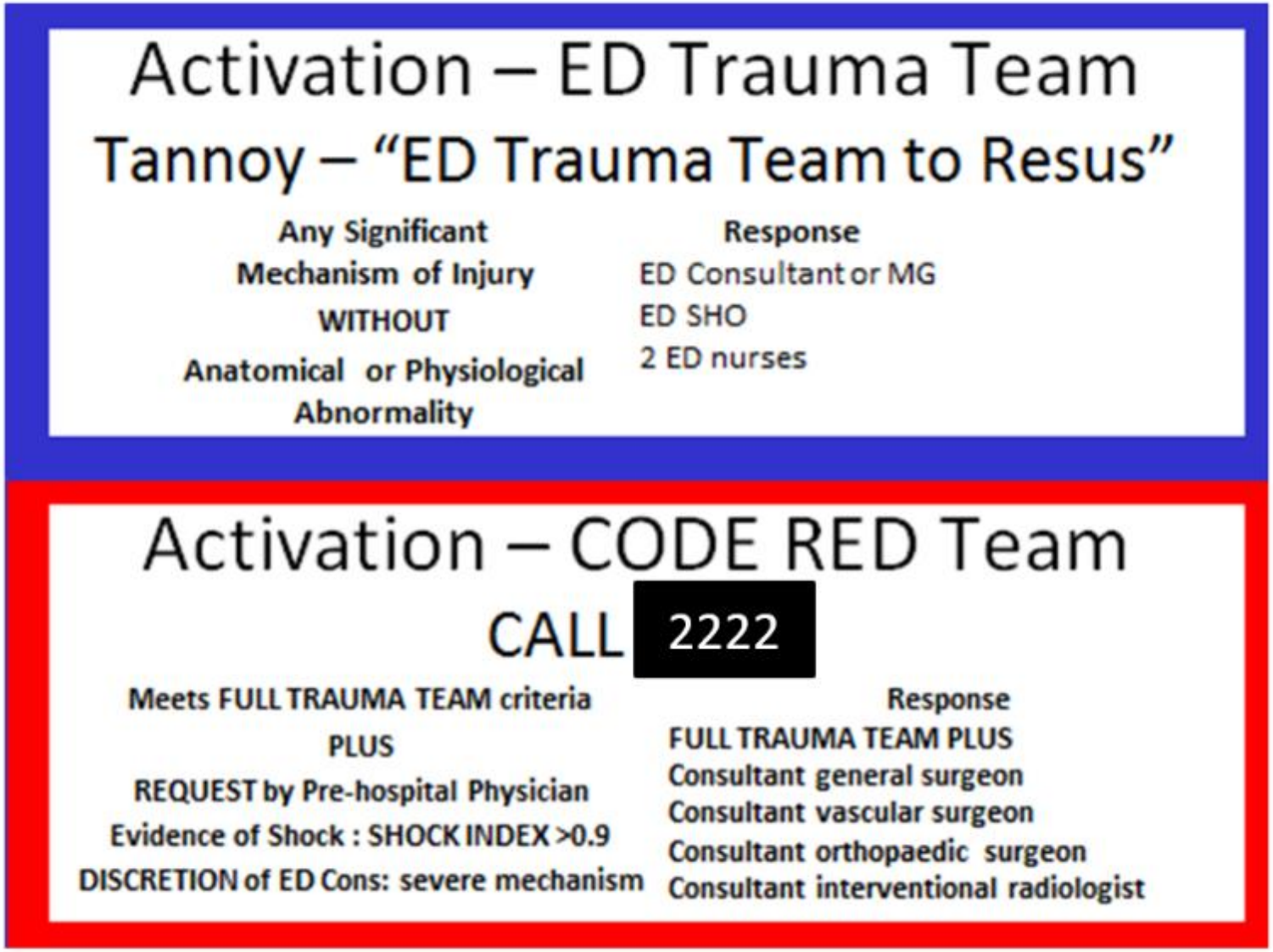
Appendix 5. Methane Report



Appendix 6. Activation – Full Trauma Team



Appendix 7. Activation – ED Trauma Team



Appendix 8. RCHT Disrobing Standard Operating Procedure

Pre-arrival

Hand out trauma cards.

Consider need for RSI and assemble relevant equipment.

Book and alert CT.

Place trauma mattress on ED trolley with sheet over top.

Arrival of patient

TTL to check:

- Patent airway?
- Massive haemorrhage?
- Cardiac arrest?

1. Transfer scoop to trolley.
2. Handover.
3. Cut clothes (trousers along seams, top cut from pubic symphysis to neck and sleeve seams).
4. Remove head blocks and apply MILS.
5. Split scoop.
6. Log roll to ~15○
7. Replace scoop above clothing on each side.
8. Lift patient into air and remove all clothes/debris.
9. Place pelvic splint on bed if indicated.
10. Lower patient onto bed and remove scoops by bracing patient.
11. Reapply head blocks.

NB if patient arrives on device other than scoop then patient will need to be transferred to a scoop first.

Placement of monitoring equipment

All monitoring lines (ECG leads, BP, etc) to be place on right side of patient.

Ventilator and tubing to left side of patient.

Appendix 9. Hospital Trauma Team Leader Checklist

Pre-Arrival Checklist

1 Activation Criteria met: Hospital Trauma Team Activated – 2222

2 Reception proactively gains info to book patient in / book as unknown

3 Alert CT radiologist as soon as criteria confirmed (5182)

4 Airway interventions prepared

5 Level 1 infuser primed and Blood Bank informed if SBP<90 / or Team leader decision (Code Red Call activated.)

6 Trauma Mattress and sheet placed on trolley.

7 Scoop stretcher ready if patient on Vacuum mattress.

8 Pelvic binder ready to place unless already done pre-hospital.

9 Paediatric calculations done on the board / WATCH drugs sheet printed.

10 Ultrasound machine ready in Resus Room to FAST scan

On Arrival Checklist

1 Start the clock (green button).

2 If airway compromised or immediate emergency- intervene, otherwise:

3 ALL team listen to ATMIST handover from paramedics / CCT

4 Transfer patient onto trolley

5 Cut remaining clothing and place scoop under skin

6 Lift scoop, remove clothes etc. and place binder on sheet.

7 Replace patient, remove scoop, apply binder if indicated.

8 Monitoring, Primary survey, IV access.

9 Request orthopaedic / general surgeons to assess when appropriate

10 Massive transfusion and Tranexamic Acid protocol as indicated.

11 Stay calm and ensure your team know your plan and next step

12 Discuss and involve team in decisions

13 Request CT as soon as criteria confirmed

14 Aim to leave for CT in 30 mins or sooner from arrival time.

Appendix 10. Action Card: Anaesthetist and Airway Assistant (Outreach Nurse/OPD) if available

Ensure the patient is oxygenated and ventilated with no airway obstruction.
Intubate when appropriate in discussion with the Team Leader.
Prepare for patient arrival by:

- Wear personal protective clothing.
- Preparing airway equipment.
- Drawing up RSI drugs.
- Prepare Video Laryngoscope unit for use if required.

On patient arrival:

- Listen to ATMIST handover
- Communicate airway patency and issues to the team leader.
- Ensure restriction of cervical spine movement at all times unless cleared.

Maintain in line stabilisation whilst:

- Team cut clothing and remove immobilisation device.
- Control log roll 20-30° each way to place scoop under skin
- Control lift to allow removal of clothing and oversee replacement of head blocks and tape.
- It is usually appropriate for the anaesthetist to talk to the patient and provide ongoing assessment of GCS. Reassure patient on arrival, explain what is happening and **take AMPLE history**:
  - A Allergies
  - M Medications
  - P Past Medical History
  - L Last meal
  - E Events / everything else relevant
- This role may be shared with Doctor 1.

Inform outcome to team leader.

- Consider need for orogastric tube
- Arterial lines may be indicated, to avoid delay to CT this can usually be done after CT or in the operating theatre. It should not delay either.
- Communication with theatres role is shared with surgeon.
-

Anaesthetist may have role of lead for massive transfusion protocol in ED, once in theatre this is almost certain. Blood bank must be informed of changes to contact name and telephone number.

Airway Assistant may assist with removing patient's clothes, have scissors to hand.

- Should be familiar with ED before being part of the Trauma Team.
- Is responsible for assisting set up of the airway equipment and / or drugs.
- Takes airway equipment and drugs to CT

Appendix 11. Action Card: Doctor 1

Usually an ED doctor, can be a specialist doctor with trauma experience.

Prepare for patient arrival by:

- Wear personal protective clothing.

On patient arrival:

- Listen to ATMIST handover.
- Aid the removal of initial immobilisation device, log-roll patient and perform lift for scoop off clothing.
- Lead closure of pelvic binder with Doctor 2.
- Aid anaesthetist in difficult Airway management eg MILS for intubation
- **Undertake Primary Survey** starting at B (A managed by anaesthetist).
- Clearly state findings to the Team Leader and Scribe.
- Allow surgical registrar to examine the abdomen and PR exam.
- Allow orthopaedic surgeon to assess pelvis and limbs.
- Neurology examination needed <u>before</u> paralysing anaesthetic agents used.
- **FAST** ultrasound if skilled to do so.
- Takes AMPLE history if anaesthetist busy, reassure patient on arrival, explain what is happening.

  A Allergies
  M Medications
  P Past Medical History
  L Last meal
  E Events / everything else relevant

- Perform procedures depending on skill level and training. Confirm skill levels with team leader prior to patient arriving.
- Undertake Secondary Survey including tympanic membranes. This will guide CT eg the need to include facial views.
- FAST scan if accredited and will not delay CT.
- Order x-rays and CT on MAXIMS (shared with Doctor 2) and calls CT to make aware.
- Ensure patient kept warm.

Appendix 12. Action Card: Doctor 2

Usually ED junior doctor, may be surgical or orthopaedic junior.

Prepare for patient by:

- Wear personal protective clothing.
- Setting up IV access and sharps bins.

On patient arrival:

- Listen to handover ATMIST.
- Aids the removal of initial immobilisation device, log-rolls patient and performs lift for scoop off clothing.
- Closure of pelvic binder with Doctor 1.
- Aids anaesthetist in difficult airway management e.g. gives RSI drugs.

Insert two peripheral lines, sampling blood for:
(Yellow, Lavender, Pink, Blue and Gas tubes)

  - UandE
  - LFT
  - Pregnancy test (β-HCG)
  - Glucose
  - FBC
  - Cross-Match / “massive haemorrhage protocol” (or occasionally G+S)
  - Coag
  - Venous gas
- Ensure blood samples are sent.

Order imaging on MAXIMS.

- FAST scan if accredited and will not delay CT.
- Arterial Blood Gas
- Performs procedures depending on skill level and training and as guided by team leader.
- Administer drugs eg Analgesia / antibiotics.
- Keep patient warm.

Appendix 13. Action Card: Nurse 1

Prepare for patient by:

- Wear personal protective clothing.
- Running fluids through giving set.
- If SBP<90 or traumatic cardiac arrest:
    - Prime Level 1 infuser (N Saline 0.9%)
    - Request extra staff to help run Level 1 infusor
    - Place thoracotomy tray onto a dressing trolley
- Consider setting out (for patients likely to need secondary transfer):
    - Urinary catheter set
    - Arterial line set
- Scissors and blanket ready
- Scoop stretcher and Pelvic binder to hand
- Collect RSI drugs box from CD cupboard for anaesthetist to draw.

On patient arrival:

- Listen to ATMIST handover
- Enable patient transfer to trolley
- Cut clothing and cover patient with blanket
- Log-roll and lift for scoop off clothing
- Help with IV access and sending bloods off if required.

Draw up drugs / administer as required eg analgesia, antibiotics

Help with procedures eg chest drain, urinary catheter, arterial line, splintage.

Prepare for transfer to CT, ideally within 30 minutes.

Appendix 14. Action Card: Nurse 2

Prepare for patient by:

- Wear personal protective clothing.
- Ensuring monitor is set up with leads, ETCO2 module and sampling line connected
- Oxygen cylinder full (for transfer to CT / theatre)
- Scissors and blanket ready
- Scoop stretcher and Pelvic binder to hand
- Observation chart ready

On patient arrival:

- Listen to ATMIST handover
- Enable patient transfer to trolley
- Cut clothing and cover patient with blanket
- Log-roll for scoop off clothing

When patient is lifted:

- REMOVE CLOTHES and immobilisation device.
- PLACE PELVIC BINDER on canvas roughly at level of greater trochanters.

Attach monitoring and gain first set of observations as priority

- Communicate observations clearly to Team Leader.

Continue to **document observations**.

Ensure **wrist labels** are secured on patient.

Help with iv access and sending bloods off if required.

Draw up drugs / administer as required eg analgesia, antibiotics

Keep record of infusions given, including blood products.

Help with procedures eg chest drain, urinary catheter, arterial line, splintage.

Prepare for transfer to CT, ideally within 30 minutes.

Appendix 15. Action Card: Surgical Registrar

Prepare for patient by:

- Identifying yourself to the Team Leader and rest of the Trauma Team.
- Log your details and time of arrival on the Trauma Proforma.
- Wear personal protective clothing.
- Inform General Surgical consultant on call if patient has an initial SBP<90, has complex multisystem injury or is likely to need early surgery.

On patient arrival:

- Listen to ATMIST handover
- Assist with log-roll and deadlift of scoop stretcher to remove clothing.

Perform abdominal examination during Primary Survey and PR exam during the Secondary Survey.

- Clearly inform Team Leader of the findings.

Discuss surgical plan / needs / priorities with Team Leader.

Stay with patient in resus / CT until stood down in agreement with Team Leader.

Liaise with theatres, anaesthetic colleagues, bed manager and consultant for patients needing theatre and / or admission.

Assist with ordering tests, liaising with specialists or performing procedures as training and ability allows eg chest drains, urinary catheter.

Document all actions and findings with a clear plan in the Trauma Proforma.

Appendix 16. Action Card: Orthopaedic Registrar

Prepare for patient by:

- Identifying yourself to the Team Leader and rest of the Trauma Team.
- Log your details and time of arrival on the Trauma Proforma.
- Wear personal protective clothing.
- Inform Orthopaedic consultant on call if patient has complex multisystem injury or is likely to need early orthopaedic surgery.

On patient arrival:

- Listen to ATMIST handover
- Assist with log-roll and deadlift of scoop stretcher to remove clothing.

Review pelvis x-ray.

Perform Secondary Survey of limbs.

- Clearly inform Team Leader of the findings.
- Document all wounds, grazes and degloving.
- Evaluate each joint and long bone for dislocation / stability / fracture.
- Neurovascular examination of all limbs.
- Record presence / absence of key peripheral pulses and neurological findings.
- Identify peripheral injuries that need to be included in the CT scan or require plain films on way back from CT.
- Splint fractures.
- Repeat neurovascular examination after splinting.
- Arrange appropriate x-rays.
- Peripheral x-rays must not delay CT scan.
- In some cases it may be best to delay x-rays until patient is in theatre and good quality traction x-rays can be obtained.

Discuss TandO plan / needs / priorities with Team Leader.

Stay with patient in resus / CT until stood down in agreement with Team Leader.

Liaise with theatres, anaesthetic colleagues, bed manager and consultant for patients needing theatre and / or admission.

Assist with ordering tests, liaising with specialists or performing procedures as training and ability allows.

Document all actions and findings with a clear plan in the Trauma Proforma.

Appendix 17. Action Card: Radiographer if requested to attend ED Resus

Prepare for patient by:

Bring x-ray equipment into resus.

Wear personal protective clothing including lead apron if required.

Liaise with Team Leader to ascertain which team members may need to with patient during x-ray and provide lead PPE as required.

Confirm with Team Leader that they wish Chest and/or Pelvis x-rays to be performed. Ask if **pregnancy status** is relevant in a woman of apparent childbearing age.

Gain exposures as early as possible.

Liaise with Team Leader if team members are obstructing your chance to x-ray.

As soon as the plate is positioned for the exposure, inform the Team that you are ready:

“Ready to x-ray.”

Inform Team Leader if unprotected members remain within 2m.

When ready to take the x-rays countdown clearly:

“Xrays in 3-2-1 XRAY”

This will let the team take their hands out of the way but should not need them to leave the bedside.

Bring images up on screen in resus and inform Team Leader of this.

Appendix 18. Action Card: Trauma and Transfer Consultant

This role is interchangeable with TTL. If, for example, multiple trauma patients arrive at same time or the ED TTL is otherwise occupied in role that they cannot be removed from the TTC may need to assume role of TTL.

TTL Role specific tasks:

- Assist in transfer of patient to hospital trolley if present.
- Assist with acute management of life or limb threatening injuries as directed by TTL.
- Obtain advanced IV access with Trauma lines if required.
- Liaise directly with radiology regards injuries identified on primary survey and booking of appropriate scan.
- Call in additional hospital specialists if required.
- Assist in transfer of patient to CT, review initial images, and assist in onwards transfer to Theatres, ITU or back to ED resus.
- Contact Retrieve team to arrange transfer if patient needs MTC

Appendix 19. CT Transfer Checklist (Available on E-Resus)

CT Transfer Checklist in ED:

1. CT request form done?
2. Is CT/ theatre ready for the patient and has it been discussed with radiologist?
3. Patient fully disrobed/exposed with ID band on patient?
4. Are all rings/jewellery/ hearing aids removed? (check under blocks)
5. Patient briefed?
6. Sharps check?
7. Bleeding wounds controlled?
8. Adequate analgesia given?
9. TXA given?
10. Pregnancy status considered?
11. Cannula for contrast? Flushed? In RIGHT ACF if possible.
12. Intubation required prior to CT?
13. Sufficient drugs?(sedation/paralysis/vasopressor)
14. Sufficient blood products?
15. Rapid infuser moving with patient?
16. Transfer bag?
17. Aqaquate oxygen on trolley?
18. Portable suction checked?
19. Transfer monitor?
20. Power cable for infusion pumps?
21. Are all drains/catheters clamped if appropriate?
22. Escort required? (nurse/Dr/TTL/ICU)
23. Other staff stood down?

Appendix 20. Damage Control Surgery Transfer Checklist (Available on E-Resus)

For Damage Control Surgery Declared Patients.

TTL direct communication with surgical consultant?

Theatre aware of Damage Control Surgery declared status.

Destination theatre confirmed?

Blood Bank informed of destination theatre?

Art line insertion deferred until theatre (use finger on pulse en-route)?

Theatre lift held?

=> TTL to go with patient to theatre, and handover in ATMIST form.

Appendix 21. Contacting Retrieve

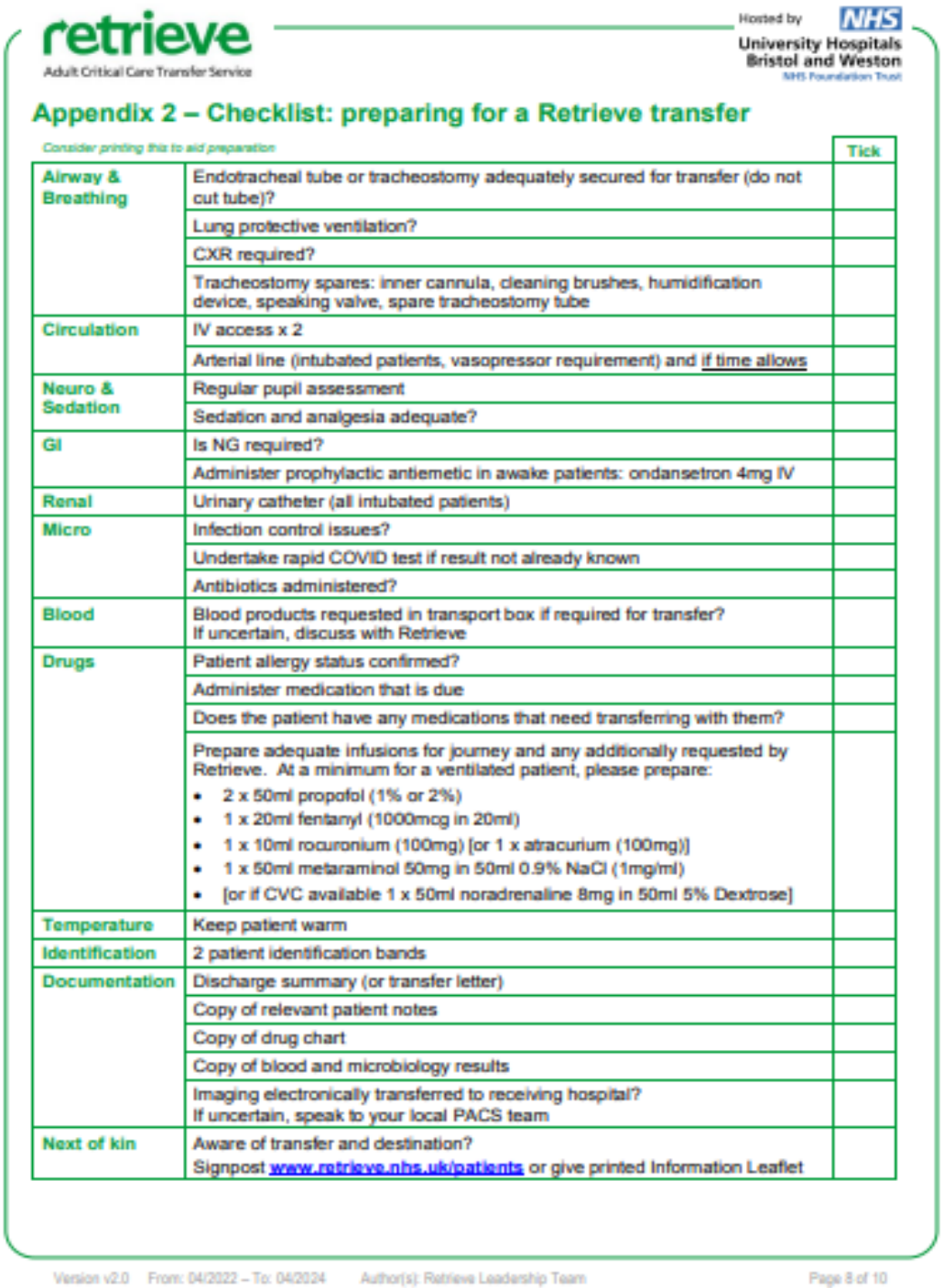
For Patients Likely for Transfer to MTC

ED Consultant to discuss with Major Trauma Consultant/Senior Anaesthetist prior to CT.

Referral to Derriford TTL by ED/Senior Anaesthetist may be appropriate whilst patient taken to CT.

Contact Retrieve: www.retrieve.nhs.uk Tel: **0300 030 2222**

Resus team start to prep kit/infusions as per Retrieve guidelines.



retrieve
Adult Critical Care Transfer Service

Hosted by NHS University Hospitals Bristol and Weston NHS Foundation Trust

Appendix 2 – Checklist: preparing for a Retrieve transfer

Consider printing this to aid preparation		Tick
Airway & Breathing	Endotracheal tube or tracheostomy adequately secured for transfer (do not cut tube)?	
	Lung protective ventilation?	
	CXR required?	
	Tracheostomy spares: inner cannula, cleaning brushes, humidification device, speaking valve, spare tracheostomy tube	
Circulation	IV access x 2	
	Arterial line (intubated patients, vasopressor requirement) and if time allows	
Neuro & Sedation	Regular pupil assessment	
	Sedation and analgesia adequate?	
GI	Is NG required?	
	Administer prophylactic antiemetic in awake patients: ondansetron 4mg IV	
Renal	Urinary catheter (all intubated patients)	
Micro	Infection control issues?	
	Undertake rapid COVID test if result not already known	
	Antibiotics administered?	
Blood	Blood products requested in transport box if required for transfer? If uncertain, discuss with Retrieve	
Drugs	Patient allergy status confirmed?	
	Administer medication that is due	
	Does the patient have any medications that need transferring with them?	
	Prepare adequate infusions for journey and any additionally requested by Retrieve. At a minimum for a ventilated patient, please prepare: • 2 x 50ml propofol (1% or 2%) • 1 x 20ml fentanyl (1000mcg in 20ml) • 1 x 10ml rocuronium (100mg) [or 1 x atracurium (100mg)] • 1 x 50ml metaraminol 50mg in 50ml 0.9% NaCl (1mg/ml) • [or if CVC available 1 x 50ml noradrenaline 8mg in 50ml 5% Dextrose]	
Temperature	Keep patient warm	
Identification	2 patient identification bands	
Documentation	Discharge summary (or transfer letter)	
	Copy of relevant patient notes	
	Copy of drug chart	
	Copy of blood and microbiology results	
	Imaging electronically transferred to receiving hospital? If uncertain, speak to your local PACS team	
Next of kin	Aware of transfer and destination? Signpost www.retrieve.nhs.uk/patients or give printed Information Leaflet	

Version v2.0 From: 04/2022 – To: 04/2024 Author(s): Retrieve Leadership Team Page 8 of 10