Trauma Team Roles and Responsibilities

1. Activation of the trauma team is based on anatomical and physiological parameters

2. This team should manage the initial assessment, resuscitation, imaging and co-ordination of disposal for trauma patients presenting to NBT

3. The decision to activate the trauma team is made by the senior doctor and Band 7 on duty following pre-alert from the ambulance service.

4. The trauma team is activated by ringing '2222' and stating 'trauma call'

5. The trauma team leaders should be available within 5 minutes of notification

6. All members of the trauma team should inform their respective speciality team members of incoming trauma and attend the resus area as soon as possible on receipt of the trauma call

7. All trauma team members must remain with the patient until appropriate disposal is achieved

Trauma Call Adult Team	**Contact Number**
Trauma Team Leader	Bleep: 9745
Anaesthetist 3rd On Call	Bleep: 9034
General Surgeon Reg On Call	Bleep: 9772 & 9656
Orthopaedic Reg On Call	Bleep: 9750
Radiology Reg	Bleep: 9746
Radiographer	Bleep: 9740
Trauma Nurse Co-ordinators	Bleep: 9747, 9748, 9749
ED Nurse 1 l ED Nurse 2 l ED Nurse 3	
Porter	Bleep: 9567
Matron ED	Bleep: 9744
Senior Nurse ED	Bleep: 9743
Receptionist	Bleep: 9742
Other specialties may be called as clinically indicated:	
Neurosurgery Reg	Dial: 45726
Plastics Reg	Bleep: 1311
Cardiothoracics	BRI via switchboard
Haematologist	Bleep: 9433

Generic Trauma Team Role

Start of Shift

Collect Speciality Trauma bleep and receive handover + relevant Speciality situational report.

Trauma Call Activation

Inform respective Speciality team members/ Consultant/ Theatres of incoming Trauma – thereby allowing for proactive planning of personnel, resources and theatre space.
Attend Resus area of the Emergency Department as soon as possible on receipt of Trauma call.

The decision to activate the Trauma team is based on the expectation that the alerted team members will be present to receive the patient. There is no requirement for team members to ring the ED to discuss the case prior to the patient's arrival.

On arrival to the Emergency Department:

- Identify yourself to the Trauma Team Leader.
- Give name, specialty and grade to the scribe
- Fill in your identification sticker and place in a visible place
- Confirm expected role
- Ensure adequate personnel protective equipment
- On arrival of trauma team, all team members should be on the patient's left of the ED trolley, except the airway nurse and anaesthetist. The paramedics will then be on the patient's right.

Remain with the patient until appropriate disposal is achieved
If you need to leave the Trauma Team environment – this *must* be discussed and be agreed by the Trauma Team Leader

Trauma Team Activation

Activation of the trauma team is based on anatomical and physiological parameters. Mechanism of injury does not form the basis of the activation triage tool.
A trauma team can be called at any stage of a patient's journey.
There is an automatic acceptance policy. A copy of South West Ambulance Service NHS Trust Major Trauma Triage Tool can be found in the appendix (see Appendix A, page 231).

Anatomy

- Unsafe airway
- Flail chest
- Penetrating injury to head, neck or torso
- Severe pelvic injury
- Major crush injury to torso or upper thigh
- Limb amputation
- Two or more long bone fractures
- Paralysis from spinal cord injury
- Burns over 20% or potential airway burns

Abnormal Physiology

- Respirations <10 or >30 or other signs of respiratory compromise
- Pulse < 50 or >120
- Systolic blood pressure < 90 mmHg
- Systemic signs of shock
- Head injury with Motor Score ≤ 4
- Any signs of respiratory distress, shock or reduced conscious level in paediatrics

Special Circumstances

- Multiple patients
- HEMS requested

Trauma Team

The ethos is that this team manage the initial assessment, resuscitation, imaging and co-ordination of disposal be it theatre, ITU or ward for Trauma patients presenting to NBT.
Each team member will have generic roles within this structure, as well as, providing individual expertise. The aim is that a consistent and predictable Trauma team response is provided to each trauma, where roles and responsibilities are well defined and adhered to by each member of the team.
There is a switchboard test call at 10:00am and at 16:00

Call Activation

- Following pre-alert from ambulance service the senior doctor and Band 7 on duty will decide whether trauma team is activated: decision supported by the use of trauma activation guidelines.
- Ring x2222
- State Trauma call
- The Trauma Team leader and Senior Nurse will carry out a situational appraisal of the department with the Duty ED lead to allocate appropriate bays and resources.
- On arrival of patient the Trauma Team Leader must identify themselves to the Lead Prehospital clinician and receive handover.
- The salient points of this handover will be written on the Trauma Board to prevent repetition of information, using the ATMIST handover formula – see separate guideline. A sticker for ATMIST handover should be available and completed by the scribe.
- Each member of the trauma team should fulfil their roles unless the team leader dictates otherwise.
- Members of the trauma team must not leave resuscitation without discussion with the Trauma Team Leader (TTL).

Trauma Team Leader

Present in ED or available within 5 minutes of notification.

Start of Shift: Liaise with Lead Nurse, collect Trauma bleep and TTL folder, take Departmental situational report and meet with Trauma Team Nurse 1&2.

Trauma Team Activation

Pre-Hospital: Alert Call

- Take call / review call as details taken
- Take patient identifiers as available
- Decide with ED nursing shift lead whether to initiate Trauma Team Activation
- Call Switchboard to initiate Trauma Call – an ETA is not required
- If patient is transferred by Air then Security and Clinical site teams needs to be informed.

In-Hospital: Alert Call

- Can be initiated at any stage by the Trauma Team Leader for a patient within the Emergency Department.
- The decision to activate the Trauma team is based on the expectation that the alerted team members **will be present** to receive the patient. There is **no** requirement for team members to ring the ED to discuss the case prior to the patient's arrival.
- All team members receiving a Trauma call are expected to alert their respective speciality teams of an incoming Trauma.
- (Thus theatre, radiology, ITU beds and blood product availability can be planned for by respective teams)

Consider:

- Early notification to Neurosurgery, Plastic Surgery, Interventional Radiology, Cardiothoracic Surgery, Urology and Vascular Surgery as required.
- Massive transfusion protocol activation

Trauma Lead

Pre-arrival

- Add Alert Call details to Trauma Board – update Trauma Team.
- Lead resuscitation, coordinate staff and resources.
- Ensure personal introductions by Team members and confirm roles.
- Ensure team wear personal protective equipment.

Patient Reception

- Ensure Resus clock and Video recorder started.
- Co-ordinate ATMIST handover from Pre-Hospital Team – add details to Trauma Board.
- Co-ordinate transfer to Resus Trolley.
- Manage Trauma Team response.
- Make decisions in conjunction with team members and relevant specialists.
- Prioritise investigations and treatments.
- Ensure imminent life threatening conditions are treated and direct rapid transfer to CT or Theatre.

Promote an environment of open communication with review of ongoing management priorities and plans, ensuring involvement of all team members.

Aim for CT within 15 minutes unless reasons prevent this

Consider CT in lieu of primary survey x-rays in some cases see "Imaging in Trauma Guidance"

Consider early use of:

- O Neg blood
- Massive Transfusion Policy
- Tranexamic acid 1g over 10 mins.
  - The maintenance dose, 1g over 8hrs (given within 3 hours of Trauma) should be given on return from CT in order to minimise infusions needed in the CT scanner, and to focus the team on preparation for the CT scanner.
- Combat Application Tourniquet – use and management.
- Consider eFAST – if this would enhance and not delay ongoing patient care.

Patient Transfer

Team members may be required to remain with the patient during transfer to CT or Theatre.
Whilst sliding the patient up or down into the head cradle, the TTL should hold the trauma mattress fixed in position whilst the trauma team slide the patient.
Trauma Team members must remain with the patient until appropriate disposal is achieved.
If any Team member needs to leave the Trauma Team environment – this must be discussed and agreed by the Trauma Team Lead.
Antibiotics, urinary catheter, arterial lines, tetanus, pregnancy test need early consideration but can be delayed if transfer to theatre for emergency surgery is required.
Resuscitation is managed as a dynamic process which is not dependent on geographical location.

Handover: The Trauma Team leader determines the Speciality to lead ongoing inpatient care.
Inform Blood Bank: When patient transferred and likely ongoing blood product requirements.
Speak to Relatives
Documentation: Review complete case note documentation and complete Hot Debrief form.
Debrief team

Orthopaedic Registrar

Key Roles

- Catastrophic Haemorrhage control
- Cervical Spine and Pelvic stabilisation
- Venous access
- Perform Secondary Survey

Patient Management

- Direct pressure Haemorrhage control as required, in extreme conditions for extremity bleeds – consider tourniquet use.
- Ensure C-spine collar in situ, correct size and placement
- Ensure Pelvic splint in situ, correct size and placement
- Ensure legs aligned with internal rotation – bandage ankles to maintain position

Venous Access

- Venous access – shared role – as directed by Team Leader
- Confirm patency of i.v. access
- Unless the patient has two patent i.v. access sites - Gain i.v./ i.o. access with 20mls blood samples for:- FBC, UE's, LFT's, Lipase, Clotting screen, X- match, Venous blood gas and Blood Glucose
- <u>If possible, free cannula to be placed in the back of the left hand for the IV contrast.</u>
- If the patient has two patent i.v. access sites then gain 20mls blood for samples from a femoral arterial puncture
- Ensure samples are labelled correctly and dispatched to the appropriate departments.

Perform baseline peripheral neurological examination, if RSI planned or just prior to log roll, as directed by Team Leader.

Splint any long bone fracture

Contribute to case discussion with the Team Leader, particularly where limb or lifesaving interventions are required.
Once the primary survey and immediate lifesaving interventions have been achieved, the Orthopaedic Consultant must be informed of the likely case progression. This may require the attendance of the Consultant to the Resuscitation Room or to theatre as appropriate.

Secondary Survey

Carry out secondary survey, when deemed appropriate and verbally report findings to Team Leader and designated scribe.

- Document all wounds, grazes and degloving.
- Evaluate each joint and long-bone for dislocation / stability / fracture.
- Neurovascular examination of all limbs.
- Record presence or absence of key pulses & neurological findings.
- Identify peripheral injuries that need to be included in the CT scan
- Splint fractures.
- Repeat neurovascular examination after splinting.

Any additional imaging requirements in addition to a CT Trauma series (review "Imaging in Trauma Guidance") should be discussed. Requesting of departmental films can impede the rapid progress of patients to definitive or staging care – and must be agreed amongst team members to ensure co- ordinated care.
Patients who have anterior pelvic injuries may require a retrograde-urethrogram prior to insertion of urinary catheters – this is to be undertaken by the Orthopaedic Registrar.
Discuss Orthopaedic assessment / plan / needs / priorities with team leader. Case discussion should also consider the need for Vascular or Plastic Surgery specialty attendance, dependent on injury patterns.
Liaise with theatres, anaesthetic colleagues, bed manager and consultant for patients needing theatre and / or admission.
Assist with sending/ordering tests, liaising with specialists or performing procedures as training and ability allows e.g. chest drains, urinary catheter.

Post Trauma Call

Document all actions and findings with a clear plan in patient notes.
Remain with the patient until appropriate disposal is achieved
If you need to leave the Trauma Team environment – this *must* be discussed and be agreed by the Trauma Team Leader.

Surgical Registrar

Key Roles

- Assess Breathing and Circulation.
- Perform logroll examination.
- Determine need for immediate surgical intervention in theatres.

Patient Management

B – Breathing:

- Assess air entry, chest expansion, percussion and tracheal position to allow identification of significant chest pathology.
- Report findings to Trauma Lead, discuss, agree and institute appropriate interventions.

C - Circulation

- Venous access – shared role – as directed by TTL
- Confirm patency of i.v. access
- Unless the patient has two patent i.v. access sites - Gain i.v./ i.o. access with 20mls blood samples for:- FBC, UE's, LFT's, Lipase, Clotting screen, X- match, Venous blood gas and Blood Glucose
  If possible, free cannula to be placed in the back of the left hand for the
  IV contrast.
- If the patient has two patent i.v. access sites then gain 20mls blood for samples from a femoral arterial puncture
- Ensure samples are labelled correctly and dispatched to the appropriate departments.

Perform abdominal examination

Perform examination on log roll – ensure full exposure. Assess for occipital head trauma, thoracic/ lumbar spinal injury, examine posterior chest including auscultation, palpate flanks, perform rectal examination and assess posterior aspect of limbs.

Contribute to case discussion with the Team Leader. Discuss Surgical assessment/ plan / needs / priorities particularly: decision on Transfer to CT or Theatre - Communication with theatres role is shared with ITU. Case discussion should also consider the need for Vascular or Plastic Surgery speciality attendance, dependent on injury patterns.

Once the primary survey and immediate lifesaving interventions have been achieved, the Surgical Consultant must be informed of the likely case progression if patient has initial SBP <90, has complex multi-system injury or is likely to need early surgery. This may require the attendance of the Consultant to the Resuscitation Room or to theatre as appropriate.

Stay with the patient in Resus / CT until stood down by the team leader. Liaise with theatres, Anaesthetic colleagues, bed manager and Consultant for patients needing theatre and / or admission.

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

Post Trauma Call

Document all actions and findings with a clear plan in patient notes.

Remain with the patient until appropriate disposal is achieved

If you need to leave the Trauma Team environment – this *must* be discussed and be agreed by the Trauma Team Leader.

Anaesthetics 3rd On Call

Key Roles

- Ensure patient oxygenated and ventilated with no airway obstruction.
- Intubate when appropriate in discussion with the Team leader – ensuring baseline neurological examination performed beforehand.
- Control patient logroll
- Ensure safe patient transfer

Patient Management

A- Airway

Intubated patients

Take physical handover of ETT or LMA from pre-hospital team. Ensure end tidal capnography confirms placement.

Assess effectiveness of BMV/ Mapleson C ventilation in conjunction with surgical registrars assessment of Breathing

Attach to ventilator as soon feasible – with confirmation of effective bilateral ventilation.

Non-Intubated patients – requiring intubation

Intubate when appropriate in discussion with the TTL – ensuring baseline neurological examination performed beforehand, orthopaedic registrar will assess peripheral limb response, anaesthetist to assess pupil response and formal GCS.

Perform co-ordinated RSI with Nurse 1.

Ensure end tidal capnography confirms placement.

Assess effectiveness of BMV/ Mapleson C ventilation in conjunction with Surgical Registrars assessment of Breathing

Attach to ventilator as soon feasible – with confirmation of effective bilateral ventilation.

Non-Intubated patients

Communicate airway patency and issues to team leader / scribe.

Assess respiratory rate and inform team leader / scribe.

It is usually appropriate for the anaesthetist to talk to the patient and provide ongoing assessment of GCS and pupil size.

Reassure patient on arrival, explain what is happening, take AMPLE history and inform Team leader/scribe

- **A** Allergies
- **M** Medications
- **P** Past medical history
- **L** Last meal
- **E** Everything else relevant

E- Exposure

Once primary survey completed and when directed by the TTL the anaesthetist will control the log roll

Consider need for endogastric tube (nasal or oral).

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.

Contribute to case discussion with the TTL. Case discussion should also address ongoing fluid management, blood products and inotropic support. Discuss massive transfusion protocol use in the ED and manage its implementation once in theatre, informing blood of any changes to contact name and telephone number.

Once the primary survey and immediate lifesaving interventions have been achieved, the ITU Consultant must be informed of the likely case progression. This may require the attendance of the Consultant to the Resuscitation Room or to theatre as appropriate.

Communicate any requirements with theatres - role shared with surgical registrar. Liaise with additional anaesthetist as appropriate if care to be handed over for theatre etc.

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

Post Trauma Call

Document all actions and findings with a clear plan in patient notes.

Remain with the patient until appropriate disposal is achieved

If you need to leave the Trauma Team environment – this *must* be discussed and be agreed by the Trauma Team Leader.

Non Airway Nurse

Liaise with Trauma Team Lead, Senior ED Nurse and other Trauma Team Nurse. Review resus bays and ensure Resus checklists are completed and signed. Highlight and address any deficiencies.

Prior to Patient Arrival

Responsible for supporting Trauma Team Leader. infuser
Prepare for the trauma call with level one infuser run through when indicated, warmed iv fluids run through, chest drain sets out if suggested, scoop stretcher and pelvic binder to hand. Ensure equipment for gaining large bore IV access and taking bloods is available.
Ensure availability of O Neg Blood.
Meet patient at helicopter if required – co-ordinate porters/ transfer equipment.

Patient Arrival

Ensure clock started when patient arrives in Resus Bay
Assist in transfer to the Resus trolley
Position yourself to the patients left side
Have scissors ready, remove enough clothing initially to attach monitoring,
Clearly state first observations to team leader & scribe as soon as available.
Then continue to remove all clothing including underwear and store securely.
Check temperature
Cover with forced air warming blanket / blankets
Help with getting IV access and sending bloods off if required, set up intraosseous kit (ez-IO) if no/ difficult IV access. Attach patient to level one infuser if required.
Assist with log roll
Draw up drugs / administer as prescribed
Prepare for transfer to CT ASAP (within 10 minutes ideally) and/or theatre
Help with procedures as identified e.g. catheter, chest drain, and arterial line Dressings and splints of open fractures / significant wounds.
Ensure patient kept warm.

Post Trauma Call

Ensure you have documented all your interactions in the notes
Ensure you have signed for any drugs
Only leave the patient after liaising with the Trauma team leader

Airway Nurse

Liaise with Trauma Team Lead, Senior ED Nurse and other Trauma Team Nurse. Review Resus bays and ensure Resus checklists are completed and signed. Highlight and address any deficiencies.

Prior to Patient Arrival

- Responsible for assisting with the initial assessment and management of airway supporting anaesthetist.
- Assist in preparing any drugs requested by anaesthetist.
- Check all appropriate airway equipment is available and working
- Check suction available and working

Patient Arrival

- Position yourself to patient's right side
- Assist in transfer to resus trolley
- Reassure and establish a rapport with patient
- Assist anaesthetist with airway patency and ventilation passing adjuncts as necessary
- Prepare any drugs needed by anaesthetist (check drugs with them or Nurse 2) Assist during log roll
- Prepare arterial line equipment if requested

Post Trauma Call

- Ensure you have documented any of your interactions
- Ensure you have signed for any drugs
- Only leave patient after liaising with the Trauma team leader

Radiographer MSK

Place cassettes under the trolley to speed up initial x-rays.
Liaise with TTL or nurse in charge if team members are not wearing lead. Liaise with team leader if team members are obstructing your chance to x-ray to prioritise actions.

Radiologist

Liaise with CT radiographer to clear the CT Scanner and communicate with Resus when scanner is likely to be available.
Attend the trauma call whenever possible as your expertise will be valuable in reviewing x-rays, eFAST scans and early recognition of interventional radiology requirements and planning of imaging (CT vs US).
Most trauma patients will need early CT, national guidelines are = complete the CT and have the initial report within 30 mins of arrival in ED.
A standardised reporting proforma is used to ensure rapid reporting.

SCRIBE - emergency Nurse Assistant (eNA)

A complex job but vital. Ensure you are being given the information you require and inform the team leader if not.

Prior to Patient Arrival

Ensure Receptionist is on-hand for rapid patient registration

- Ensure paperwork is available for documentation
- Ensure bags/documentation available for patient property
- Ensure team sign onto white board on arrival
- Document team member's presence on Trauma Board: including speciality, grade e.g. ST3 and supervising consultant.
- Ensure tabards/role labels available – encourage members to place labels visibly in center of chest.

Patient Arrival

Ensure clock has been started when patient arrives in the Resus Bay. Get Patient Care Record (PCR) handover from Paramedics.
Ensure all patient details correct and NOK information is documented. Ensure patient wrist labels are secured on the patient. List and store safely any patient belongings

Responsible for documentation of observations, events and interventions

- Document all prehospital drugs and fluids – times and amounts.
- Document initial vital signs and then every 5 mins in unstable pt and every 15 mins otherwise. This role continues into CT and until discharged from ED.
- Maintain a chronological record of all events e.g. time of venflon, CXR, FAST, move to CT etc.

Inform the team leader if key observations have not been taken e.g. Temp or GCS.
Inform the team leader every 15 mins that pass, the aim is to be in CT within 15 mins when appropriate ask and document reasons for any delays.
Keep a log of the running total of blood products transfused – this role may be done by a specified nurse member responsible for the level one infuser. In a massive transfusion after every 4-5 units prompt the TTL of need for adjuncts (such as calcium or insulin / dextrose).

Post Trauma Call

- Ensure all documentation is complete
- Liaise with police if any property handed over for evidence
- Ensure all drugs/fluids signed for by appropriate person
- Only leave the patient after liaising with the trauma team leader