NHS
South Western
Ambulance Service
NHS Foundation Trust

Clinical Guideline

Trauma Care: Accessing Trauma Services

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Directorate	Medical
Authorised Staff	☐ Ambulance Care Assistant ☒ Emergency Care Assistant ☒ Student Paramedic ☒ Advanced Technician ☒ Ambulance Practitioner ☒ Newly Qualified Paramedic ☒ Nurse ☒ Paramedic (non-SP) ☒ Specialist Paramedic ☒ Doctor
Clinical Publication Category	**Guidance (Green) - Deviation permissible; Apply clinical judgement**

1. Scope

1.1 This guideline outlines the operational function of the major trauma system across the South West.

2. Background and Definitions

2.1. Major trauma is the leading cause of death in all groups under 45 years of age and a significant cause of short and long-term morbidity. The National Audit Office (NAO) estimates that there are at least 20,000 cases of major trauma each year in England, resulting in 5,400 deaths and many others resulting in permanent disabilities requiring long-term care.

2.2 The challenge in delivering major trauma care is that whilst the clinical skills and experience required to deliver optimum care are considerable, for most clinicians, the frequency of exposure to cases is negligible.

2.3 When considering trauma, there are three types of designated hospitals across the South West, as detailed in Table 1.

2.4 Table 1 - Designated Centres

Type	Location	Description
Major Trauma Centre	Derriford (Plymouth) Bristol Royal Hospital for Children (under 16yrs only) John Radcliffe (Oxford) Southampton General Southmead (Bristol) - Patients under 16yrs must go to Bristol Royal Hospital for Children	Provides the highest level of trauma care, through the provision of specialist services available 24/7
Trauma Unit	Bristol Royal Infirmary Dorset County (Dorchester) Gloucester Royal Great Western (Swindon) Musgrove Park (Taunton) North Devon District Poole General Royal Devon and Exeter (Orthoplastics) Royal United Bath Salisbury District (Orthoplastics) South Devon (Torbay) Royal Cornwall Hospital Yeovil District	Provides a level of trauma care suitable to stabilise a patient suffering major trauma, prior to transfer to an MTC Ability to manage non-major trauma on-site.
Emergency Department	Royal Bournemouth Cheltenham General Weston General (Will not accept patients under 16yrs unless peri-arrest or in cardiac arrest)	Not offering major trauma services

3. Guidance

3.1 Patient Assessment

3.1.1 All patients who may be experiencing trauma or major trauma must continue to be assessed using the Trusts standard CABCD assessment process, supported by JRCALC guidelines. Clinicians should be mindful of the additional Trust clinical guidelines and PGDs (e.g. tranexamic acid) which support trauma management.

3.2 Major Trauma

3.2.1 In all cases where major trauma is suspected, the ambulance clinician must complete the Major Trauma Triage Tool (MTTT) checklist **(please note, the ePCR MTTT is currently out of date, follow Appendix A until the ePCR has been updated),** in order to determine the most appropriate receiving hospital. The MTTT must be used in all cases of suspected/actual major trauma, even when the patient's nearest hospital is an MTC.

3.2.2 The Bristol Royal Hospital for Children and Southampton General Hospital are the designated paediatric MTCs. Patients known to be under the age of 16 years, who meet the Trust criteria for transportation to an MTC, must be conveyed to these units, in preference to another MTC, where it can safely be reached within 60 minutes. Please note that Southmead Hospital do not accept patients under the age of 16 years.

3.2.3 Irrespective of whether they have major trauma, all paediatric patients (under 16 years old) who require admission within the current catchment area for Southmead Hospital must be transported to the Bristol Royal Hospital for Children, as Southmead do not offer paediatric services.

3.2.4 The decision on which hospital to transport a patient to is dynamic and may need to be reassessed at any time should the patient's condition change. If a patient deteriorates whilst en-route to an MTC, the lead ambulance clinician may consider diverting to another TU/ED where the travel time to the hospital is less than that to the MTC, and they believe that the patient may no longer be able to safely continue the journey.

3.3 Anatomical and Physiological Criteria

3.3.1 If the patient fulfils any of the physiological or anatomical criteria, the lead ambulance clinician is responsible for deciding whether the airway and catastrophic haemorrhage (if present) can be safely managed whilst on-route to the MTC.

3.3.2 Following the publication of new NICE guidance, all open fractures now require treatment in a specialist orthoplastics centre within 6 hours of injury. This will often be the MTC. However, in the Wessex Trauma Network (Dorset and parts of Wiltshire), orthoplastics are provided at Salisbury, which will require MTC bypass. In East Devon, RD&E will also provide orthoplastics. Only consider bypassing the MTC if the patient has an Isolated open long bone fracture with no other injuries requiring MTC transfer. If you are unsure contact the MTC for advice.

3.3.3 Audit data demonstrates that an isolated suspected pelvic fracture is the most frequent reason for over-triage of patients to an MTC. Patients should now only be considered as having a suspected pelvic fracture, where mechanism of injury is suggestive of a pelvic fracture AND is accompanied by any of the following:

- Haemodynamic instability/signs of shock;
- Deformity on examination;
- Suspected open pelvic fracture due to bleeding PU, PV or PR (or scrotal haematoma).

Should any of the above criteria be met a pelvic binder should be applied.

3.4 Airway and Catastrophic Haemorrhage

3.4.1 If either the airway and/or catastrophic haemorrhage (if present) cannot be safely managed, the patient must be transported to the nearest designated unit which may be an MTC or TU; whichever is the closest. If cardiac arrest is imminent, consideration should be given to utilising an Emergency Department not designated as a TU or MTC, where this is the closest hospital. This is a clinical judgement by the lead ambulance clinician caring for the patient, taking into consideration the additional travelling time to a TU or MTC, against the advantage of the trauma care available at these destinations.

3.4.2 If the airway and catastrophic haemorrhage (if present) can be safely managed, the lead clinician is responsible for deciding whether the patient can safely reach a MTC within a 60 minute travelling time from the incident. The 60 minute rule is applied purely to the travel time, and does not include time on-scene, such as that during an entrapment RTC.

3.5 Special Patient Groups

3.5.1 Consideration must be given to special groups of patients who are more prone to occult injury or complications from injury, they include:

- Patients over 65;
- Children aged 12 and under;
- Pregnancy;
- Anticoagulants;
- Polypharmacy.

3.6 Clinical Concern

3.6.1 There may be exceptional cases where a patients do not trigger the MTTT for bypass to a Major Trauma Centre, but the lead ambulance clinician on-scene has significant concerns that not taking the patient to the MTC may have a detrimental effect (e.g. due to the potential for underlying injury, or the risk of deterioration). In these circumstances, the Trust will support clinicians to bypass to an MTC. It is advisable that a call is first made to the MTC to discuss the patient and provide support for decision making. If you contact the MTC, ensure that you are speaking to the trauma team leader or senior clinician.

3.7 Air Ambulance

3.7.1 Consider the use of an Air Ambulance (HEMS) or other air asset (e.g. SAR, Coastguard) where this will enable patients to reach an MTC within a 60 minute travel time that is otherwise not achievable by road, or when the patient could arrive at the MTC considerably quicker by air than by road. Air assets should also be considered when the patient would benefit from the skills of the critical care team in facilitating prolonged transfer times.

3.7.2 The decision to use air assets is a dynamic one, which should be reassessed throughout the patient journey. For example, if the decision has been taken to transport by road and traffic conditions unexpectedly deteriorate, consideration should be given to arranging a secondary transfer to an Air Ambulance. Contacting the HEMS desk through your normal Dispatcher will assist with identifying suitable transfer site en-route.

3.8 Early Alerts and Pre-Alerts

3.8.1 Many of the Trauma Units will be operating a Consultant on-call system during the out-of-hours period. Whilst historically an ATMIST pre-alert would only be provided as the conveying resource leaves scene, consideration should be given to the benefit of providing an early alert, at the earliest opportunity once the lead ambulance clinician on-scene has decided that a patient will be transported to a particular unit.

- Early Alert - Provided in the ATMIST format, clearly stating ‘this is an ATMIST early alert’. Under the ETA section state ‘patient not yet mobile to hospital’. Provide an approximate arrival time if this is possible (circumstances such as the patient being trapped may prevent an ETA from being provided). Whilst not all elements of the ATMIST structure may be available at this point, as much information as possible should be included.
- Pre-alert - Provided in the ATMIST format in accordance with Clinical Guideline CG06 - ATMIST Patient Pre-Alert and Handover System, clearly stating ‘this is an ATMIST pre-alert’.

3.8.2 The following route of communication must be used for each unit:

- All other MTCs and TUs - Call the normal ED red phone / designated ATMIST phone.
- Southmead MTC - Call the Trauma Consultant on 07703 886400. If not immediately answered, call the normal ED red phone.
- Bristol Royal Hospital for Children - Call the Paediatric Trauma Team Leader on 0117 342 0906. - If not immediately answered, call the normal ED red phone.

3.8.3 If the patient can be transported to an MTC within approximately 60 minutes, the on-scene clinician must telephone the MTC directly to provide an ATMIST pre-alert. All MTCs are commissioned to operate an automatic acceptance policy, and will not refuse any patient who meets the major trauma triage criteria and the 60 minute window.

3.8.4 If the travel time to the major trauma centre exceeds approximately 60 minutes, the patient should be transported to the nearest TU. If cardiac arrest is imminent, consider ED guidance in Para 3.4.1.

3.8.5 If the patient is transported to a TU or non-designated ED, the patient will be handed over and the ambulance resource will book clear in the normal manner. If a subsequent secondary transfer is required to an MTC, the TU/ED will book this with the Clinical Hub. In certain very limited circumstances the TU/ED may attempt a rapid turnaround. The original ambulance resource must continue to book clear from the incident. Whilst they may be reallocated to the subsequent transfer, the Clinical Hub must consider the priority of all emergency incidents within the local area.

3.9 Non-Major Trauma

3.9.1 If following completion of the Major Trauma Triage Tool the patient is not considered to have suffered from major trauma, they must be transported to the nearest TU. If the MTC is the closest hospital, then the patient should be transported there. Some Emergency Department may be able to accept certain minor trauma presentations such as an isolated arm fracture- see local guidance.

3.10 Secondary Transfers

3.10.1 Where a patient suffering major trauma requires transfer from a TU to an MTC, the TU will contact the Clinical Hub following agreed network policies and procedures to request an appropriate level of transfer. The transfer will be undertaken within normal Trust policies and practices.

3.11 Clinical Decision Making

3.11.1 The responsibility for clinical decision making rests with the lead ambulance clinician on-scene. This may be the attending Paramedic (SPCC, SPUEC, HART), Bronze Commander, BASICS Doctor or other clinician.

3.11.2 If further support is required, there is disagreement between clinicians on-scene (e.g. Bronze Commander and Doctor) which cannot be resolved or the MTC fail to accept a patient who meets the criteria, the case must be escalated to the Senior Clinician on-call. The Senior Clinician on-call is available via radio or telephone to provide 24/7 clinical advice within minutes of a request being placed with the clinical hub via your area dispatcher. Further details of the role are included within the SOP C15 (Senior Clinical Advisor on-call).

3.11.3 The Major Trauma Triage Tool has been agreed by a range of trauma and associated specialists within the Trauma Networks, and by the Trusts senior clinical team following extensive evaluation. Staff will receive the full support of the Trust when this clinical guidance and the triage tool are followed, or any exceptions can be clinically justified.

3.12 Further On-scene Support

3.12.1 Early consideration should be given to whether additional clinical support may be beneficial at the scene. Potential options include:

- Air Ambulance;
- BASICS;
- Critical Care Team.

3.13 Major Trauma Centre Capacity

3.13.1 In the unlikely event that the demand placed on an individual MTC exceeds its capacity; the MTC will contact the Clinical Hub Duty Manager to highlight the potential capacity issue. The Duty Manager will escalate the issue to the Gold Commander and Senior Clinical Advisor who are jointly responsible for resolving the issue. In the unlikely event that an MTC becomes unable to accept major trauma patients, the message will be disseminated to staff using the data head message function.

3.14 Major Incidents

3.14.1 During a major incident, the demand on each MTC may exceed capacity. The additional demand placed on ambulance resources by the extended travelling time to an MTC also may no longer be viable. The Senior Clinical Advisor will discuss the incident with the MTC Consultant, to decide whether to temporarily suspend the normal MTC bypass.

3.14.2 In the unlikely event that a major incident is declared within a MTC and they are unable to accept major trauma patients, the Senior Clinical Advisor will discuss the incident with the MTC Consultant, to decide whether to temporarily suspend the normal MTC bypass procedure.

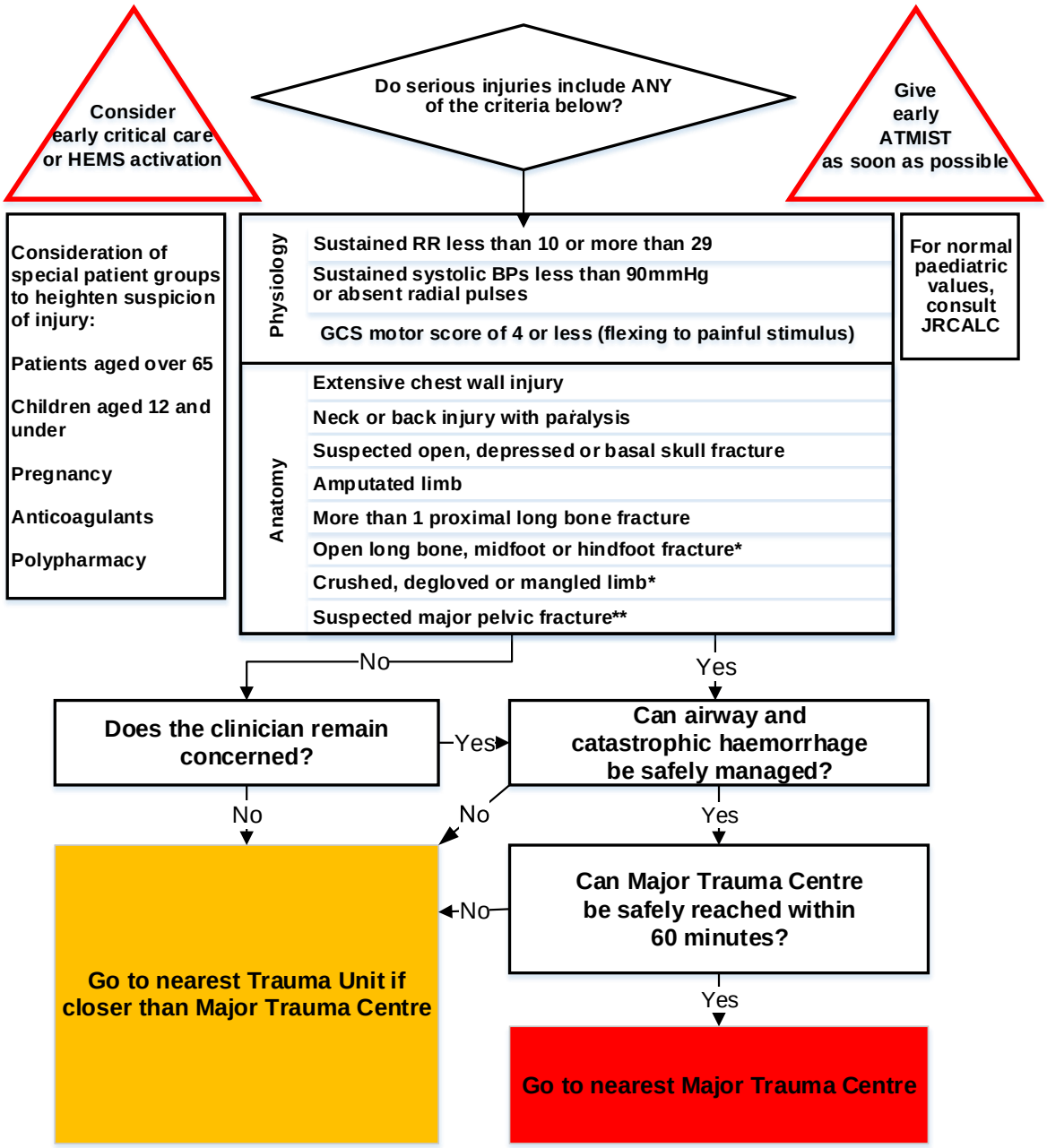
3.15 Audit

3.15.1 A random sample of trauma cases will be regularly reviewed using a structured clinical review process by the Trusts Trauma Clinical Review Group, with feedback provided to each clinician and their Operations Officer. The Trust will continue to work closely with all units and the Trauma Networks to ensure two way feedback on cases is provided.

4. Documentation

4.1 In line with Trust Policy, a Patient Clinical Record must be completed and annotated appropriately. A Trauma Checklist must also be completed for all patients where major trauma is suspected. The Trauma Checklist must be completed even when the MTC is the nearest hospital to the incident. Any deviation from this guideline must be recorded, with any potential or actual adverse event reported through the incident reporting system.

Appendix 1 - Major Trauma Triage Tool



*Open fractures require treatment in a specialist orthoplastics centre within 6 hours of injury. If this is the only injury, consider contacting the MTC (or Salisbury ED if in Wessex Network area, RD&E in East Devon) for discussion of direct transport to orthoplastics.

** Suspected major pelvic fracture, where mechanism of injury is suggestive of a pelvic fracture AND is accompanied by any one or more of the following:

- Haemodynamic instability/signs of shock
- Deformity on examination
- Suspected open pelvic fracture due to bleeding PU, PV or PR (or scrotal haematoma)