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Paediatric Innovation, Education and Research Network

Paediatric Secondary Trauma Transfer Guideline

Description	Guideline/Pathway
Author(s) (names and job titles)	Shona Main - ED Registrar Clarissa Chase – PEM Consultant David James – PEM Consultant
Main contact email (Substantive staff member, to be used for future guideline review)	Clarissa.Chase@uhs.nhs.uk
Ratification Group (e.g. clinical network)	Wessex Paediatric Emergency Medicine clinical network
Date of Ratification	June 2024
Signature of ratifying Group Chair	Clarissa Chase
Relevant national or international guidance e.g. NICE, SIGN, BTS, BSPED	JRCALC (bypass criteria), SORT & PIER (STOPP form), NICE [NG40]

Final PIER approval committee	Approval date	
Wessex Trauma Network	06/03/2024	
Version	Publication date	Next review due
1	June 2024	June 2028

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1 Version control

Date	Consultation / Comments	Version created	Page	Key changes
June 24	All specialities and Wessex DGH trauma leads approved	1		
June 24	University Hospitals Sussex trauma leads approved	1		

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2 Appendix

Wessex Paediatric Secondary Trauma Transfer Pathway

National STOPP form (Safe Transfer of the Paediatric Patient) Tool

SCAS Trauma Triage Tool - Bypass Criteria

Wessex Paediatric Level 1 Trauma Call Criteria

3 Introduction

These guidelines are the current policies and practice for **secondary paediatric** (<16 years) major trauma transfers within Wessex. They have been designed to ensure that patients with traumatic injuries who are initially seen outside of a major trauma centre (MTC), due to not meeting bypass criteria or self-presenting, are transferred to the MTC (University Hospital Southampton) in a safe and timely fashion when appropriate. The guideline is for children requiring transfer **within 24 hours of injury** (most relevant to those in the first 6 hours) and refers to transfers from Emergency Departments rather than DGH wards (except in exceptional circumstances). Roles and responsibilities of clinical teams and their members are explained.

Any time-critical transfers to theatre or those requiring critical care input should be discussed with SORT regarding stabilisation and retrieval. All other secondary trauma transfers should be discussed with the paediatric trauma team lead. All transfers should come via the MTC Emergency Department as a level 1 trauma call unless they are Time Critical to theatre where theatre plans will be orchestrated by SORT clinicians. This enables all relevant teams to review the patent in resus and ensure consistent, high-quality care, whatever time of day and wherever the patient presents.

There will be situations where it is appropriate to deviate from the guidelines or where the guidelines do not cover the specific circumstances. In these cases the patient's needs should be kept at the centre of the discussion with direct involvement of senior staff and documentation of these conversations.

Please note these Paediatric Secondary Trauma Transfer Guidelines are for **Wessex Paediatric Major Trauma Patients requiring non-critical-care transfer**.

These guidelines are regularly updated.
Check www.piernetworkd.org/trauma.html for the latest version.
DO NOT PRINT HARD COPIES

If you require critical-care input for a patient <16 year please contact **SORT** (02380775502) for clinical advice, assistance and transfer if required.
http://www.sort.nhs.uk/home.aspx

The Wessex **Paediatric Major Trauma Guidelines** may be found at
https://www.piernetwork.org/trauma.html

The Wessex **Adult Major Trauma Guidelines** may be found at
https://www.uhs.nhs.uk/Media/SUHTExtranet/WessexTraumaNetwork/UHS-adult-major-trauma-guidelines.pdf

4 Scope and purpose

This guidance has been developed to assist all emergency medicine physicians dealing with major trauma in children under the age of 16 years outside a major trauma centre (MTC) and where the need for ongoing care at the MTC has been identified.

4.1 Purpose

The aim of this document is to standardise and improve secondary transfer of paediatric patients (<16 years) with major trauma from a trauma unit or local receiving hospital to the MTC. It aims to guide clinicians through the process so that all patients can be transferred safely to the correct place of ongoing care without delay.

This document summarises the following:
- Indications
- Contraindications
- Referral using the Secondary Trauma Transfer pathway
- Considerations Pre- Transfer
- Instructions for Transfer
- Communication on Departure
- Receiving Unit response

5 Definitions

The Wessex Paediatric Level 1 trauma call criteria and definitions by system of major trauma can be found below along with agreed indications for transfer and time-critical automatic acceptance criteria.

<table>
<tr><td>A</td><td>Airway compromise</td><td>Airway injury, facial injury, penetrating neck injury, intubated</td></tr>
<tr><td>B</td><td>Breathing compromise</td><td>Respiratory failure, pulmonary contusions, open pneumothorax, multiple rib fractures, flail chest, haemothorax</td></tr>
<tr><td>C</td><td>Cardiovascular compromise</td><td>Shock, haemothorax, intra-abdominal or retro-peritoneal bleeding, pelvic disruption</td></tr>
<tr><td>D</td><td>Neurological compromise</td><td>GCS motor score of 4 or less, traumatic seizures, pupil abnormalities, intracranial haemorrhage, brain injury, open or depressed skull fracture</td></tr>
<tr><td rowspan="3">E</td><td>Environmental injury</td><td>Core body temperature below 35 degrees Celsius, frostbite, drowning.</td></tr>
<tr><td>Peripheral injuries</td><td>Crushed, degloved or mangled limb, 2 or more fractured proximal limb bones, Amputated limb, nerve or vascular injuries</td></tr>
<tr><td>Spinal injuries</td><td>Spinal fractures, spinal cord injury or nerve root injury</td></tr>
</table>

Figure 1: Major Trauma Definitions from the Wessex Paediatric Guideline

Level 1 Trauma Criteria

Absolute Indications

Traumatic Cardiac Arrest
Intubated
Transfer by HEMS

GCS 13 or less
Blood given Pre Hospital (CODE RED)
Secondary Trauma Transfer

Mechanism

RTC:	>30mph, Bullseye, Ejected, Entrapment, Death of occupant in same vehicle
Fall:	uninterrupted fall of >2 metres (or more than 3 times height of child), fall from or kicked by large animal <6 months fall downstairs while being carried
Burn:	>20 % TBSA, explosion, inhalation

Hanging
Drowning
Penetrating Injury (Head, Neck, Trunk or Groin)

Anatomy

Head:	Open/Depressed Skull fracture
Face:	Significant facial trauma
Chest:	Flail chest, open wound, significant bruising/abrasions
Abdo:	Severe blunt trauma, open wound, significant bruising/abrasions
Pelvis:	Significant concerns regarding fracture
Spine:	Suspected injury with altered Neurology
Haemorrhage:	Significant uncontrolled haemorrhage
Limb:	Amputation, degloving, crush, neurovascular compromise, >1 long bone fracture

Physiology

Abnormal Physiology i**n addition** to Mechanism or Anatomy concerns

Age	RR	HR
<1 year	30-40	110-160
1-2 years	25-30	100-150
2-5 years	25-30	95-140
5-11 years	20-25	80-120

Sats abnormal <92%

Code Red

Blood given Pre Hospital
Penetrating Trauma
Active Haemorrhage suspected

Other

Significant PMH (eg Bleeding disorder)

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Figure 2: Wessex Paediatric Level 1 Trauma Call Criteria

Criteria for transfer to the MTC:

If treatment exceeds the capability of the local unit then a secondary trauma transfer to the MTC is required.

SORT liaison is required for:
- Unstable paediatric patients
- Time-critical transfers

Secondary Trauma Transfer Pathway is suitable for stable patients where:
- Injuries exceed trauma unit capabilities (as decided by the Trauma Unit clinicians using the Major Trauma Criteria) but patient currently stable and not requiring critical care.

6 Details of policy

6.1 Indications

All Paediatric patients <16 years of age, who meet major trauma criteria and are managed initially in a trauma unit or local receiving hospital and where a need for ongoing care in the MTC has been identified by the Trauma Unit clinicians. Transfers should occur from Emergency Departments to MTCs within 24 hrs from injury and within 6 hours from presentation.

6.2 Contraindications

Patients requiring a time-critical transfer are excluded from the above and also those who are unstable requiring early critical care input.

These patients should be discussed with SORT (Southampton and Oxford retrieval team) regarding advice for stabilisation and the need for retrieval. SORT: **02380775502**

This pathway does NOT apply to all burns patients. Please see separate guidance for the management of these patients on the SORT website.

6.3 Referral using secondary trauma pathway

Once the appropriate patient has been identified a referral should be made to the UHS PEM Trauma Leader on **02381205999**, the Paediatric Red Phone. Declare the call is for a Paediatric Secondary Trauma Transfer at the start of the call.

The ATMIST format should be used at all times to handover patients.

- A – Age
- T – Time of injury
- M – Mechanism
- I – Injuries
- S – Signs
- T – Treatment

Age + Sex (+ name from handover)
Time of incident (= when it happened)/Time of onset of symptoms

Mechanism of injury/Medical Complaint

Injuries/Exam findings

Vital Signs* (first set + significant changes)

Pulse	**BP**
Resps	**Pupils** L R
SATs	*Size Reactivity*
BM	**Initial GCS** E V M = /15

Treatment:

Triage Tool: Trauma Unit Bypassed?		Yes	No
Response activated	ED trauma team	Hospital trauma team	
Massive Transfusion Policy Activated (Code Red)		Yes	No
Senior Doctor Informed		Yes	No

Name of Senior Doctor Informed ....

Person taking call	Date	Time
ETA..........................	Land	Helicopter

Most senior clinician at scene: Tech / Paramedic / CCP / Nurse / Doctor

Figure 3: South Central Ambulance Service ATMIST sheet

6.4 Considerations Pre-Transfer

The following considerations should be made prior to transferring a patient on the secondary trauma pathway to ensure a controlled and safe situation to achieve the best possible outcome.

If there is a need for speciality discussions to be had within UHS, this will be done by the SGH Trauma Team Lead (as with adults).

Considerations Pre-Transfer
A – Airway protection: Are there any facial injuries/inhalation injuries present that need addressing prior to transfer?
B – Breathing: Are there any chest injuries (e.g. Haemato/pneumothorax) which require drainage?
C – Circulation: Haemorrhage control (e.g. is iv access adequate? Dressings in situ, tourniquets, binder, TXA, blood products, inotropes etc.)
D – Immobilisation, Neuroprotection required (e.g. 2.7% Saline, Mannitol), Analgesia (Consider different routes of Analgesia: oral, intranasal, intravenous and immobilisation)
E – Temperature control, tetanus, IV abx
Safeguarding - considered, documented, handed over, initial actions done (eg called social services)
Primary survey completed and documented in the trauma booklet
Are there any other causes for concern?
Is there any additional imaging required?

6.5 Instructions for Transfer

To enable a controlled and safe transport use the STOPP FORM from the SORT website for ALL paediatric secondary trauma transfers (see Appendix B).

The transfer team should ask themselves the following questions:

- Are there appropriate personnel to *transfer the patient?*
- *If trauma unit staff are transferring the patient is the trauma unit safe i.e. have adequate senior staff been called in from home if required?*
- *Are there appropriate* transfer drugs and fluids available?
- What is the most likely deterioration en route and what is the emergency plan for this deterioration? (Is the appropriate equipment and drugs available?)

All paperwork and the trauma booklet must accompany the patient. All images should be transferred electronically prior to transfer.

Are the parents (person with parental responsibility) aware of the need to transfer and have they been invited to accompany (if appropriate)

6.6 On Departure

On Departure the transferring crew must phone the UHS Children's Emergency Department on the Red Phone **02381205999** to ensure:

- Confirmation of an accurate estimated time of Arrival (ETA)
- Confirmation around the appropriate destination of the patient in UHS (e.g. Resus versus CED)
- Discussions around anticipated ongoing care needs

6.7 Receiving Unit Response

Following a secondary transfer call to the PEM Trauma Team Lead (PEM EPIC Consultant/SpR overnight) the optimum response is for the Trauma Team Lead to put out a full Level 1 Trauma Transfer Call, followed by liaison with any additional relevant speciality teams. It is expected that these patients will have a management plan in place before arrival to UHS and following a repeat primary survey with repeat bloods, analgesia, further imaging and immediate management if indicated, should move swiftly from ED to their destination. The receiving teams should be present with the trauma team ready for the patient's arrival. Transferred imaging should be reviewed prior to the arrival of the patient. All paediatric patients seen in resus should have an ISF completed and wider safeguarding concerns should be considered concurrently.

7 Communication and training plans

- Include in the Wessex Paediatric Major Trauma Guideline and list on the PIER website
- Include document title, pier link and staffnet location with level 1 trauma criteria in triage and by the paediatric red phone so UHS staff know where to look for further information
- Regional education to include paediatric secondary trauma transfer simulation during annual Wessex trauma team training day
- Local education to include adding to registrar induction for PEM, PICU, Orthopaedics, Paediatric Surgery, Neurosurgery, Spinal, Cardiothoracics, MaxFax, ENT and Vascular. PEM Education Fellow to include in local simulation programme with potential for cross-speciality and site involvement
- Disseminate via Wessex Trauma Network

8 Process for monitoring compliance

The purpose of monitoring is to provide assurance that the agreed approach is being followed. This ensures that we get things right for patients, use resources well and protect our reputation. Our monitoring will therefore be proportionate, achievable and deal with specifics that can be assessed or measured.

Key aspects of this policy will be monitored:

Element to be monitored	- Number of secondary trauma transfers, appropriateness of initial destination, use of the paediatric secondary trauma transfer pathway, initial destination on arrival at UHS and to identify any delays to secondary transfers using TARN data. - Discussion at monthly trauma M&Ms to review whether pathway being used appropriately - To include in regional trauma M&Ms when set up - PEM Trauma lead to feedback learning points from above to UHS and DGH teams -
Lead (name/job title)	Clarissa Chase – Consultant PEM
Tool	Audit, Paediatric Trauma M&M Case Reviews
Frequency	Monthly/as required
Reporting arrangements	Network feedback where required

Where monitoring identifies deficiencies actions plans will be developed to address them.

9 Document review

Guideline to be reviewed after three years or sooner as a result of audit findings or as any changes to practice occurs.

10 References

Wessex Adult Major Trauma Guidelines
http://staffnet/TrustDocuments/Departmentanddivision- specificdocuments/Major-trauma-centre/Major-trauma-centre.aspx

NICE Guideline NG40 - Major Trauma: Service Delivery
https://www.nice.org.uk/guidance/ng40/evidence/full-guideline-pdf-2313258877

SORT STOPP Safe Transfer of Paediatric Patients Tool (interhospital transfer tool)
https://www.sort.nhs.uk/Media/Guidelines/Referral-forms/Wessex-PICU-Network-interhospital-transfer-form-Aug2020.pdf

SORT Wessex Paediatric Major Trauma Guideline - Trauma Unit Version
https://www.sort.nhs.uk/Media/Guidelines/Trauma-guidelines-reference-document.pdf

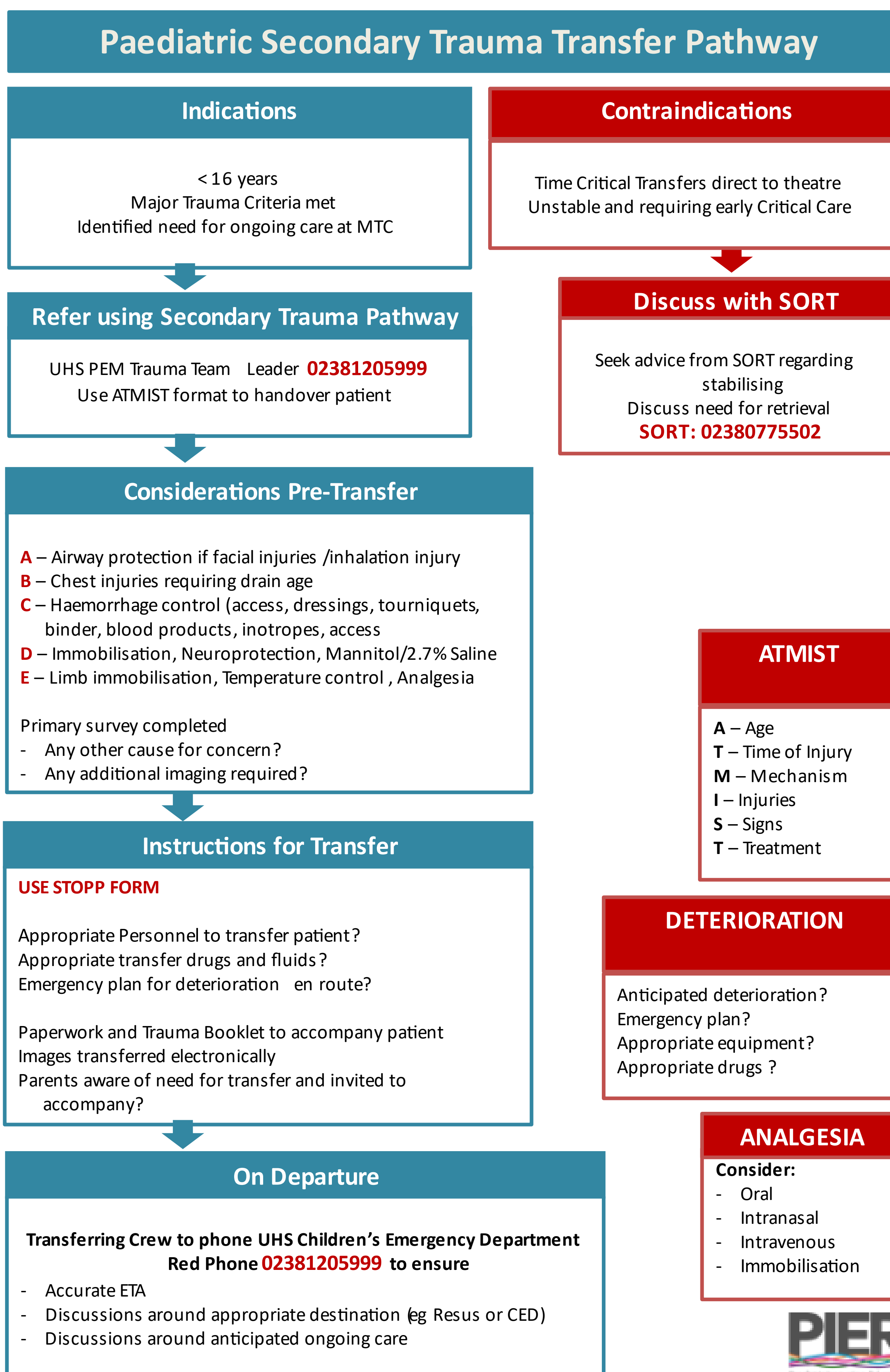
PIER Emergency Medicine Guidelines
https://www.piernetwork.org/guidelines.html

TARN Severe Injury in Children Report 2019-2020
https://user-lfb0jbt.cld.bz/Severe-Injury-In-Children-Report-2019-20/7/

JRCALC Major Trauma Triage Tool via JRCALC app

11 Appendices

Appendix A - Paediatric Secondary Trauma Transfer Pathway



Appendix B - STOPP (**S**afe **T**ransfer **o**f the **P**aediatric **P**atient) Tool

Also accessible from the PIER and SORT websites:
https://www.piernetwork.org/guidelines.html
https://www.sort.nhs.uk/Guidelines/Guidelines.aspx

STOPP (Safe Transfer of the Paediatric Patient) Tool

Thames Valley & Wessex
PAEDIATRIC CRITICAL CARE
Operational Delivery Network

For use on ALL non PICU retrieval team transfers of children BETWEEN hospitals. The referring hospital is responsible for the completion of this form prior to and during transfer. It is recommended that on arrival at the receiving hospital, a copy is made, the original returned to the local hospital for audit purposes and filed in the patient notes.

Patient Details:

Family name: **First name:**

Date of Birth: **Age:**

NHS No: **Hospital Number:**

Address:

Post code:

GP Name: **GP Practice:**

Weight: **Kg True/Est** **Age:**

Date of referral: D D M M Y Y Y Y

Time of referral: H H M M

Call made by: (Name, signature, grade)

Contact Details Referring Team:

Referring Consultant:

Referring Hospital:

Ward/Location:

Ward Direct No:

Contact Details Receiving Team:

Receiving Consultant:

Destination Hospital:

Ward/Location:

Ward Direct No:

Please describe details of case including any discussion with SORT: (SBAR format can be used if wished)

Problem: **Covid Status**

Indication for transfer: Escalation of treatment ☐ Investigations ☐ Repatriation ☐ Palliation ☐ Bed Status ☐
For any bed status transfer you must follow internal escalation policy and prioritise transfer of a level 0 patient wherever possible. Please document any discussions in notes.

Consensus Risk assessment

PERFORM RISK ASSESSMENT ON PAGE 2 THEN TICK RESULTS CATEGORY BELOW:
If Paediatric Consultant not aware: STOP AND INFORM

Transfer Category:

- ☐ Transfer no longer required
- ☐ Ward level (level 0)
- ☐ Basic critical care (HD1, level 1)
- ☐ Intermediate critical care (level 2)
- ☐ Advanced critical care (level 3)
- ☐ AND/OR Time critical

ASSESSMENT COMPLETED BY:

Nurse: (Name, Role, Signature)

Doctor: (Name, Role, Signature)

Please photocopy this completed tool and return the signed original to the referring

Transfer Team:

DGH:

- ☐ Parents
- ☐ Paediatric
- ☐ DGH Anaesthetics
- ☐ DGH Hybrid Paediatric + Anaesthetist

PICU Trained:

- ☐ SORT
- ☐ OTHER

Ambulance Crew Requested:

- ☐ Standard crew
- ☐ Paramedic

Handover received (sign/ name/PIN/GMC)

SYSTEM	OBSERVATION	ASSESSMENT
A	Stridor/Stertor or anticipated Airway Risk i.e. Foreign body	YES/NO
B	Respiratory Rate = [ ] Is it outside normal age adjusted range?	YES/NO
	Respiratory Distress of concern, i.e. marked retractions or early exhaustion	YES/NO
	O2 Need > 2L/min to maintain > 94% saturations, Empyema in any oxygen, High Flow Oxygen, CPAP/BiPAP	YES/NO
	Intubated and Ventilated	YES/NO
C	Systolic BP = [ ] Is it outside normal age adjusted range?	YES/NO
	Capillary Refill > 2 sec Or HR outside normal range = [ ]	YES/NO
	Is Blood Gas lactate > 2 OR Base Deficit > 2	YES/NO
	Fluid boluses > 40mls/kg within 6 hours	YES/NO
D	Level of consciousness – AVPU (P or U) or falling/fluctuating level	YES/NO
	Risk of progressive intracranial event or signs of raised ICP i.e. bradycardia; hypertension; abnormal breathing; unequal, dilated or fixed pupils	YES/NO
	Newly Diagnosed inborn error of metabolism	YES/NO

ARE ANY OF A B C D TRIGGERED?

IF YES, ENSURE PAEDIATRIC CONSULTANT IS AWARE AND HAS AGREED TRANSFER

COMPLETE TRANSFER RISK ASSESSMENT BELOW

IF INDICATED CONTACT PICU CONSULTANT VIA SORT: 02380 775502 FOR ADVICE BEFORE PROCEEDING

Planner for staff and communication requirements before transfer

TRANSFER CATEGORY	ANY TRIGGERS	Is SORT DISCUSSION MANDATORY?	STAFF REQUIRED (examples only)
Time Critical (Level 1-3) Traumatic Brain Injury, Ischaemic gut, Life or limb threatening diagnosis	Anticipated - yes	YES	Local Team: Anaesthetist, Nurse/ODP , and senior airway and Paediatric resuscitation competent Doctor AND appropriately trained ambulance crew
Level 3 (Advanced critical care) Intubated and Ventilated	Anticipated - yes	YES	SORT transfer unless time critical (rare exception may be palliative care)
Level 2 (Intermediate critical care) Level 1 + single system support requirements (e.g. CPAP, NIV) Or any PCCMDS Level 2 care	Anticipated - yes	YES	Nurse/ ODP AND Senior Airway and Paediatric resuscitation competent Doctor AND appropriately trained ambulance crew OR SORT transfer if agreed Jointly
Level 1 (Basic critical care) Children needing continuous monitoring or iv therapy Or any PCCMDS Level 1 Care *Can be difficult transfer: Joint decision between senior Nurse and Consultant*	NO	No	Competent Nurse or doctor OR appropriately trained ambulance crew
	YES	Probably (DISCUSS ALL EMPYEMAS)	Competent Nurse or doctor AND appropriately trained ambulance crew
	YES And potential for airway compromise	YES	Nurse/ ODP AND Senior Airway and Paediatric resuscitation competent Doctor AND appropriately trained ambulance crew OR SORT transfer if agreed Jointly
Level O (ward Level) Children not requiring continuous monitoring	Non-anticipated	NO	Parent/carer or Nurse or both Standard crew/transport

TRANSFER DOCUMENTATION:

Personnel:

- ☐ Doctor 1 (name, speciality & grade):
- ☐ Doctor 2 (name, speciality & grade):
- ☐ Nurse/ODP (name, speciality & grade):
- ☐ Parent/guardian details (if accompanying):

Equipment

- ☐ Appropriate drugs & Grab bag available
- ☐ Suction unit available and batteries fully charged
- ☐ Sufficient oxygen in portable cylinder available
- ☐ Appropriate restraint device available
- ☐ Batteries on monitor and/or infusion pumps fully charged
- ☐ Infusion devices rationalised and secured

Drugs/Fluids:

- ☐ Analgesia
- ☐ Intubation drugs
- ☐ Emergency drugs
- ☐ IV Fluids
- ☐ Blood

Communication

- ☐ Bed in destination hospital identified and availability confirmed
- ☐ Consultant/Registrar in destination hospital has agreed transfer
- ☐ Parents/Carers informed of transfer and any parental concerns discussed
- ☐ Parents/Carers invited to accompany child
- ☐ Child has 2 name bands on +/- allergy band

Transport:

- ☐ Time ambulance service called: ☐
- ☐ Ambulance reference no.: ☐
- ☐ Ambulance arrival at referring hospital: ☐
- ☐ Transfer mobile phone available
- ☐ Money/cards available for emergencies
- ☐ Return travel arrangements confirmed & Team have contact details e.g.: taxi/ward numbers

Paperwork for transfer (photocopy the following):

- ☐ Referral letter
- ☐ Recent clinic letter for long term patients
- ☐ Current medical and nursing notes with blood results
- ☐ Current drugs chart, PEWs chart and fluid charts
- ☐ 3 Copies Inter hospital Transfer form (for patient notes, referring and receiving hospitals and audit)
- ☐ Upload radiology onto EXOPACS

Patient Specific Instructions for transfer:

- ☐ Temperature monitoring
- ☐ Nil By Mouth/consider NG tube for surgical patients
- ☐ Blood glucose monitoring
- ☐ Maintenance IV fluids
- ☐ IV access x 2

Other:

OBSERVATIONS RECORDED ON TRANSFER:

☐ Observations completed and recorded just prior to departure

☐ Observations required during transfer: (circle) continuous / 15m / 30 m

☐ Observations completed and recorded on arrival

Temperature °C	39															39
	38															38
	37															37
	36															36
	35															35
Heart Rate & Blood Pressure	240															240
	230															230
	220															220
	210															210
	200															200
	190															190
	180															180
	170															170
	160															160
	150															150
	140															140
	130															130
	120															120
	110															110
	100															100
	90															90
	80															80
	70															70
Respiratory Rate	60															60
	50															50
	40															40
	30															30
	20															20
	15															15
	10															10
	5															5
	0															0
Neurological Assessment	AVPU															
	Pupil R															
	Pupil L															
	Pre departure					Transfer										
Date																
Time																
O_2 Sats																
FiO2																

Pain assessment:

Details of any treatments given or incidents en-route:

Time departed base: | **Time handed over:**

Date: | **Signed:**

Please photocopy this completed tool and return the original to the referring centre

Appendix C - SCAS Trauma Triage Tool - Bypass Criteria (as per JRCALC)

NHS
South Central
Ambulance Service
NHS Foundation Trust

Trauma Triage Tool

Is there a history of trauma and any criteria below?

NO → Go to local Trauma Unit if closer than MTC

YES ↓

	Criteria	
Physiology	*Sustained* RR <10 or >29	For abnormal paed values check JRCALC
	Systolic BP < 90mm Hg or absent radial pulses	
	GCS motor score of 4 or less (withdrawal to pain)	
Anatomy	Open pneumothorax or flail chest	
	Crushed, degloved or mangled limb	
	Suspected major pelvic fracture	
	Neck or back injury with paralysis	
	> 1 fractured proximal long bone	
	Amputated limb	
	~~Suspected open or depressed skull fracture~~	Removed Jan 2023

Consider Enhanced Care Team Activation

Consider EARLY Helicopter dispatch

Can Major Trauma Centre be reached within 60 minutes ?

NO → Go to local Trauma Unit if closer than MTC

YES ↓

Consider going to nearest ED if cardiac arrest imminent

Can airway and catastrophic haemorrhage be controlled ?

NO → Go to local Trauma Unit if closer than MTC

YES ↓

Go to Major Trauma Centre

Prealert hospital ASAP

Go to local Trauma Unit if closer than MTC

Appendix D - Wessex Paediatric Level 1 Trauma Call Criteria

Level 1 Trauma Criteria

Absolute Indications

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Intubated
Transfer by HEMS

GCS 13 or less
Blood given Pre Hospital (CODE RED)
Secondary Trauma Transfer

Mechanism

RTC: >30mph, Bullseye, Ejected, Entrapment, Death of occupant in same vehicle

Fall: uninterrupted fall of >2 metres (or more than 3 times height of child),
fall from or kicked by large animal
<6 months fall downstairs while being carried

Burn: >20 % TBSA, explosion, inhalation
Hanging
Drowning
Penetrating Injury (Head, Neck, Trunk or Groin)

Anatomy

Head: Open/Depressed Skull fracture
Face: Significant facial trauma
Chest: Flail chest, open wound, significant bruising/abrasions
Abdo: Severe blunt trauma, open wound, significant bruising/abrasions
Pelvis: Significant concerns regarding fracture
Spine: Suspected injury with altered Neurology

Haemorrhage: Significant uncontrolled haemorrhage
Limb: Amputation, degloving, crush, neurovascular compromise, >1 long bone fracture

Physiology

Abnormal Physiology in **addition** to Mechanism or Anatomy concerns

Age	RR	HR
<1 year	30-40	110-160
1-2 years	25-30	100-150
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5-11 years	20-25	80-120

Sats abnormal <92%

Code Red

Blood given Pre Hospital
Penetrating Trauma
Active Haemorrhage suspected

Other

Significant PMH (eg Bleeding disorder)

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Documentation of regional consultation:
(Signatures will be collected using an on-line electronic format – please ensure all email addresses are entered for all signatories)

Trust	Name of person consulted*	Email address	Designation
Sussex	Michaela Lazner Erin Burns Pete Westhead	michaela.lazner1@nhs.net erin.burns@nhs.net peter.westhead@nhs.net	Paeds MTC lead UHSx Sussex MTN manager Sussex MTN Clinical Director
Dorchester	Kevin Samarasingha	kevin.samarasingha@dchft.nhs.uk	DCHFT MT Lead
Hampshire	Antonella Ardonlino	antonella.ardolino@hhft.nhs.uk	HHFT MT Lead
Poole	Ben Elkins	Ben.elkins@uhd.nhs.uk	UHD MT Lead
Portsmouth	Joe Schrieber Bryan Macleod	Joe.schrieber@porthosp.nhs.uk Bryan.macleod@porthosp.nhs.uk	PHU MT Lead WTN Clinical Director
Salisbury	Nola Lloyd	Nola.lloyd@nhs.net	SFT MT Lead
Isle of Wight	Robin Beal	Robin.beal@nhs.net	IOW MT Lead

*this person agrees they have read the guidelines, consulted with relevant colleagues and members of MDT, managers and patients, young people & their families as appropriate. Any queries raised during consultation and review process should be documented with responses and any changes made to the guideline.

Documentation of trauma centre consultation:
(Signatures will be collected using an on-line electronic format – please ensure all email addresses are entered for all signatories)

Specialty	Name of person consulted*	Email address	Designation
General surgeons	Ori Ron	ori.ron@uhs.nhs.uk	Speciality Trauma Lead
Orthopaedic surgeons	Matthew Barry	matthew.barry@uhs.nhs.uk	Speciality Trauma Lead
Neurosurgeons	Ryan Waters	ryan.waters@uhd.nhs.uk	Speciality Trauma Lead
Radiology	Stuart Forbes	stuart.forbes@uhs.nhs.uk	Speciality Trauma Lead
PICU	Kim Sykes	kim.sykes@uhs.nhs.uk	Speciality Trauma Lead
SORT	Kim Sykes	kim.sykes@uhs.nhs.uk	Speciality Trauma Lead
MTC	Mark Baxter Chris Hill	Mark.baxter@uhs.nhs.uk Chris.hill@uhs.nhs.uk	Clinical Director Deputy Clinical director

*this person agrees they have read the guidelines, consulted with relevant colleagues and members of MDT, managers and patients, young people & their families as appropriate. Any queries raised during consultation and review process should be documented with responses and any changes made to the guideline.