19. Secondary trauma transfers

Request a PRIORITY 1 ambulance	**YAS 0300 3000276 EMAS 0115 967 5097**
Leeds General Infirmary, LS1 3EX	**ED red phone 0113 245 9405**
Sheffield Children's Hospital, S10 2TH	**ED red phone 0114 276 7898**

C - Massive haemorrhage
Check tourniquets are tight and keep them visible. Document time applied. Consider placement of pelvic binder. Splint long bones. Give Tranexamic Acid bolus, if appropriate, before departure and consider starting infusion.

A - Airway and C-spine
Use capnography. Check tube position with chest X-ray. If not intubated take RSI drugs pre-drawn up in single dose syringes. Check suction is charged and working. Note tube length at lips before departure. Blocks, tape and a properly fitting collar are recommended for C-spine immobilization. If no properly fitting collar is available, then blocks or rolled blankets should be used to provide an immobilisation device. Use a vacuum mattress if one is available.

B - Breathing
Always have a self-inflating bag, mask and oropharyngeal airway available. Ensure chest drains are secured to trolley and visible. Place gastric tube and empty stomach prior to travelling to avoid vomiting and aspiration.

C - Circulation
Take a fluid bolus drawn up ready in case. Ideally this should be blood in the child with circulatory compromise, attached to the patient via a giving set and three-way tap. Have a spare IV access available. If IO in situ, ensure it is visible throughout.

D - Disability
Check pupils, recheck every 15 mins if head injury and take osmotic diuretic pre-drawn up. Check blood glucose prior to departure. If using muscle relaxant, take additional single doses pre-drawn up.

E - Everything else
Ensure patient is secured safely to trolley. Check temperature and maintain normothermia with blankets, hat etc.

	Minimum equipment list - pre-prepared grab bag preferable		
	Spare ETT and one size smaller, laryngoscope		Large bore cannula for needle decompression
	Self-inflating bag, mask, oropharyngeal airway		Scalpel for thoracostomy
	Suction with suction catheters and yankauer		Fluid bolus drawn up
	Adequate oxygen supply		Osmotic diuretic dose drawn up in head injury
	RSI drugs drawn up		Enteral syringe to aspirate gastric tube
	Muscle relaxant doses in single aliquots		Pen torch
	Enough sedation for journey + 30 mins at MTC		Stethoscope
			Paperwork

Checklist prior to leaving

The transport medicine environment is challenging, particularly for time critical transfers. For transfer to occur safely your patient may need interventions that would not be performed if the patient remained in your hospital. To minimise the time needed to prepare the patient for transport, please consider the following check list.

	Documentation and communication (*as appropriate)
	Update the parents on the child's condition and the plans for transfer
	Photocopies of the notes, investigations results, drug chart*
	Highlight / document any safeguarding concerns*
	Transfer radiology by PACS (CD or hard copy are alternatives)
	Maternal blood sample (6ml EDTA) for babies under 3 months

	Patient preparation (*as appropriate)
	Spinal immobilisation
	ETT secured and position confirmed on CXR (mid-trachea)*
	On transport ventilator with continuous etCO2 monitoring*
	Recent blood gas demonstrates adequate gas exchange and normal blood glucose
	Adequate analgesia, sedation and muscle relaxation*
	Chest drainage of pneumothorax / haemothorax
	Gastric tube on free drainage
	Urinary catheter in situ and draining freely*
	Immobilisation of long bone fractures, pelvic binder in situ
	Minimum 2 points of IV access and well secured
	Maintenance fluids and all other infusions fully labelled
	Pupillary responses monitored and recorded regularly
	Seizures controlled and metabolic causes excluded
	Maintain temperature above 36.5 ^{o}C
	Adequate patient monitoring – ECG, BP, SaO2, etCO2, Temp
	Patient and equipment adequately secured
	Emergency airway, breathing equipment and adequate gases
	Emergency fluids and drugs

Top Tips

Communication
When phoning MTC check seniority of person on phone, Trauma Team Leader if possible
Be clear and concise, use ATMIST (age, time, mechanism, injury, signs and treatment)
Phone MTC shortly after leaving with accurate ETA from driver
Phone MTC again when 15 minutes away so that trauma call can be put out in good time

Relatives
Consider arranging separate transport for family, to allow you to focus on patient
Police sometimes happy to help out with care and transfer of the parents
Document contact details for relatives before they leave
Do not allow them to chase the ambulance

999 Crew
Ensure one crew member stays in the back with you, and ask them to document observations
Determine driving style before departure i.e. “fast but smooth”, patient stability and safety will be compromised by excessive braking and cornering
Discuss actions in case of emergency with 999 crew - “Stop now” vs “Stop when safe”

Documentation
Bring paperwork from primary transfer, if arrived by ambulance
Copy notes from trauma call in your hospital
Document AMPLE history (Allergies, Medications, PMHx, Last meal, Events)
Put a patient ID band on child prior to departure, preferably with NHS number

Personal preparation
Hand over all clinical responsibilities and bleep
Ensure phone fully charged, with MTC number saved
Have two pens, pen torch, stethoscope, bottle of water and a snack
Take wallet and coat in case you don't get a lift home, empty bladder

During transfer:
Wear your seatbelt
Hold patient’s wrist to regularly feel temp of skin and pulse volume, most likely traumatic arrest rhythm is going to be PEA
Talk to 999 crew if you start to feel unwell
Don’t worry about documentation en route
Prepare for handover to the trauma team
Call MTC if condition changes en route, or if ETA changes more than 15 minutes