**19. Secondary trauma transfers**

**Request a PRIORITY 1 ambulance YAS 0300 3000276 EMAS 0115 967 5097**

**Leeds General Infirmary, LS1 3EX ED Consultant 0113 3920901**

 **PEM Consultant 0113 3920902 (0900-0000 weekdays,**

 **1500-0000 weekends)**

**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 oC |
|  | 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

**More detailed guidance on West Yorkshire MTN Paediatric Transfers can be found here** <https://www.wymtn.com/uploads/5/1/8/9/51899421/paediatric_transfer_guidance_v4__final.pdf>