

Time Critical Transfer (TCT) Preparation

Key Priorities

- Recognise emergency requiring time critical transfer
- Resuscitation and stabilisation of the child
- Timely imaging (CT head <30 mins for raised ICP)
- Have separate clinician to organise transfer process and another to run the clinical situation
- Establishing a transfer team early
- Discuss with SORT (02380 775502)
- Contact local ambulance service for ambulance time critical transfer (Consider HEMS)
- Get transfer trolley and transfer equipment
- Complete checklist (see back of page)

INDICATION FOR TIME CRITICAL TRANSFER

- Traumatic brain Injury (TBI)
- Raised Intracranial pressure i.e. tumour, spontaneous haemorrhage or blocked VP shunt
- Metabolic Emergency (e.g. hyperammonaemia)
- Acute intra-abdominal emergency

Transfer Team and Equipment

Airway and transport competent Doctor
Transfer competent Nurse and/or ODP
Inter-hospital transfer equipment and trolley
Relevant SORT guidelines & STOPP form

Stabilisation of Time Critical Transfers

Airway	<ul style="list-style-type: none">• ETT correctly positioned and secured• CXR confirmation of ETT placement, if concerns re position• Maintain c-spine immobilization (if indicated)• OG / NG tube inserted and on free drainage
Breathing	<ul style="list-style-type: none">• Establish on transport ventilator• Recent or post intubation blood gas• Aim SpO₂ ≥94%• Aim EtCO₂ 4.0-5.0
Circulation	<ul style="list-style-type: none">• Two secured and patent peripheral cannula or IO lines• Adequate maintenance fluid• Maintain BP for age specific target (see table of BP targets below for TBI)• Do not delay transfer for arterial or central access• Prepare peripheral phenylephrine or adrenaline as per SORT calculator
Disability	<ul style="list-style-type: none">• Adequate sedation and muscle relaxant as per SORT guidelines• Ensure normoglycemia• Maintain sodium >140• Maintain mid-line head position and 30° head up• Consider seizure prophylaxis• Treat signs of raised ICP with 3ml/kg 2.7% sodium chloride• Additional therapies as advised by SORT
Haematology & Infection	<ul style="list-style-type: none">• Start correcting coagulopathy if actively bleeding• Consider starting antibiotics, if sepsis or relevant open wounds• Take peripheral culture

Actions prior to leaving referring hospital

- Transfer team to inform SORT/PICU that they are leaving and their ETA
- Confirm location at tertiary centre (PICU, ED, Theatre)
- Ensure digital transfer of appropriate radiology to UHS or OUH
- Photocopy all paperwork and investigations
- Update family

COMPLETE PRE-DEPARTURE CHECKLIST ON BACK OF PAGE

Age	MAP	Systolic BP
< 1	55 - 65	> 80
1 - 5	70 - 80	> 90
6 - 11	80 - 90	> 100
12 - 14	85 - 95	> 100
> 14	>90	> 110

ACHIEVE LEAVING REFERRING HOSPITAL <60 MINS AFTER TIME CRITICAL EMERGENCY IDENTIFIED

Time Critical Transfer (TCT) Checklist

Airway

- ETT correctly positioned clinically and secured
- Cuff inflated
- Position confirmed with CXR (if time)
- Appropriate HME filter for patient
- C – Spine immobilisation (if indicated)
- Aspirated NG/OG

Breathing

- Pulse oximetry. Aim $\text{SpO}_2 \geq 94\%$
- Continuous ETCO_2
- Adequate ventilation. Aim $\text{ETCO}_2 4 - 5 \text{ kPa}$
- Appropriate ventilation circuit
- Recent or post intubation blood gas

Circulation

- IV or IO access x 2
- Maintenance fluids
- ECG and NIBP (cycling 5 mins)
- Maintain MAP for age specific target
- Arterial line (if not delaying transfer)
- Vasopressor support, if required
- Emergency drugs prepared

Disability

- Adequate sedation and muscle relaxant as per SORT guidelines
- C – Spine precautions (if indicated)
- Midline + head up at 30 degrees
- Seizures identified and treated
- Normoglycemia ensured – BM 4 – 12
- Normothermia ensured 36 – 37°C
- Ensure sodium > 140

Other

- Nil by mouth
- Emergency airway & breathing equipment / portable suction
- Adequate oxygen

Departure

- Patient adequately secured
- Most appropriate personnel transferring
- Mobile phone for assistance if needed
- Phone SORT to clarify departure / arrival destination
- Ensure SORT has contact details for transferring team
- Transfer Letter

Departure equipment checklist:

- Appropriate size endotracheal tubes
- Appropriate oropharyngeal airway & facemask
- Bougie / Magills forceps
- Laryngoscope & blade
- Syringe / tape / lubrication
- T – piece / Waters Circuit
- Ventilator and circuit appropriate to size of patient
- Full oxygen cylinder on transfer trolley
- Ambulance oxygen cylinder have sufficient O_2 for transfer.
- Monitor + ventilation alarms set
- Portable suction + minimum of two yankauers
- ECG / Non-invasive blood pressure / IV access
- Maternal x-match if baby less than one month
- Blood checked and running if needed
- Bloods including clotting sent
- IV bolus fluids + rescue line
- Sedatives
- Neuromuscular blockade
- Emergency drugs (adrenaline / fluid / extra muscle relaxants)
- Hypertonic saline if raised ICP
- Appropriate method for temperature control
- Batteries on monitor and infusion pumps charged
- Transfer bag
- SORT drug calculator printed out