



SimSTaR

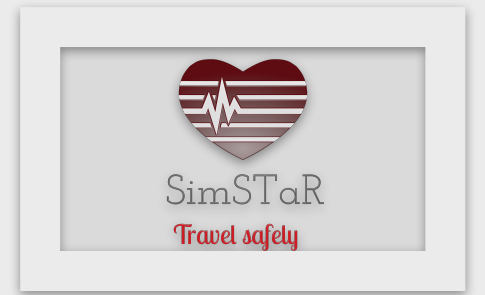
Travel safely



SimSTaR

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Pre – Transfer Stabilisation



Patient Assessment
Patient stabilisation
Identification of
patients at risk of
deterioration

Overview

Get to know your patient



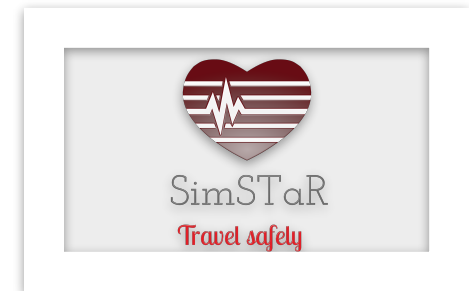
- There is NEVER an excuse not to know your patient
- Review
 - History of presenting complaint
 - Past medical history
 - Regular medications
 - Observations and trends
 - Interventions and treatments administered
 - Investigations
- Thorough A-E assessment

Airway

Must be both patent and protected for transfer

If in doubt INTUBATE

- Indications to consider intubation
 - GCS <8 or fluctuating
 - Falling GCS by more than 2 points
 - Patient agitation
 - Seizure control
 - Inadequate ventilation/ oxygenation
 - Facial injuries
 - Facial burns



Airway

- Already intubated?
 - ETT size and length at lips
 - Airway grade/ease of intubation
 - CXR to confirm position
 - Ensure adequately secured
- C-spine
 - History compatible with injury?
 - Cleared? By whom? Documentation
 - If in doubt IMMOBILISE





Breathing

- Spontaneous breathing
 - Does the patient need intubated?
- Ventilated
 - Do they need optimisation?
- Check ABG
- Monitoring



Chest drains

- Does the patient need a chest drain?
 - RIB FRACTURES + INVASIVE VENTILATION = consider CHEST DRAIN even in absence of visible pneumothorax
- In situ
 - ALWAYS keep UNCLAMPED during the transfer

Oxygen

- Oxygen supply
 - Piped and cylinder O₂ supply
 - Transfer trolley 2x E cylinders
 - Ambulance 2x F cylinders
 - NIAS Transfer bag D cylinder
- Oxygen calculations
 - Allow TWICE expected O₂ requirement
 - $MV = TV \times RR$
 - Ventilator driving gas
 - Oxylog 3000+ = 0.5 L/min



$$O_2 \text{ required (L)} = 2 \times \text{transport time (min)} \times [(MV \times FiO_2) + \text{vent driving gas}]$$



Circulation

- Resuscitation goals - adult (case-dependent)
 - HR 60-100 bpm
 - SBP >100 mmHg MAP >65 mmHg
 - CRT <2s
 - UO > 0.5 mls/kg/hour
 - Euvolaemic
 - Vasopressor requirements stable
- Paediatric goals dependent on age/weight



Circulation

- IV access
 - At least x2 wide bore IV access
 - CVC position checked on CXR
- Monitoring
- Infusions



Bleeding

- Expedited Transfer vs Transfer after Stabilisation
- Ruptured AAA v splenic laceration
- Blood products - red cells can be transferred between unit
- Anticoagulants - ideally correct coagulopathy before transferring



Neurology

- Is conscious level adequate? Is intubation indicated?
- Evidence of raised ICP?
- Adequate cerebral perfusion pressure?
- Drugs
 - Sedation
 - Analgesia
 - Muscle relaxant

Exposure

- Temperature
- Pressure points
- Lines
- ATLS Secondary survey





Fluids and electrolytes

- Resuscitation goals
 - DO NOT attempt rapid sodium correction unless active seizures
 - K^+ 4-5 mmol/L
 - Mg >1
 - Glucose 6-10 mmol/L
 - pH >7.25
- Fluids
- NGT

Infection

- Infection control issues in local hospital
 - Multiresistant/transmissible organism outbreaks
- Patient specific issues
 - MRSA status
 - Transmissible infection
 - Covid-19
- Active infection
 - Antibiotics given
 - Cultures taken





Infusions and drugs

- Rationalise
- Syringe drivers
- Allow enough for DOUBLE the journey
- Identify bolus port and ensure accessible

Pre-transfer Check list 1. Is patient stable for transport?

Airway

- Airway safe or secured by intubation
- Tracheal tube position confirmed on chest x ray

Ventilation

- Adequate spontaneous respiration or ventilation established on transport ventilator
- Adequate gas exchange confirmed by arterial blood gas
- Sedated and paralysed as appropriate

Circulation

- Heart rate, BP optimised
- Tissue & organ perfusion adequate
- Any obvious blood loss controlled
- Circulating blood volume restored
- Haemoglobin adequate
- Minimum of two routes of venous access
- Arterial line and central venous access if appropriate

Neurology

- Seizures controlled, metabolic causes excluded
- Raised intracranial pressure appropriately managed

Trauma

- Cervical spine protected
- Pneumothoraces drained
- Intra-thoracic & intra-abdominal bleeding controlled
- Intra-abdominal injuries adequately investigated and appropriately managed
- Long bone / pelvic fractures stabilised

Metabolic

- Blood glucose > 4 mmol/l
- Potassium < 6 mmol/l
- Ionised Calcium > 1 mmol/l
- Acid – base balance acceptable
- Temperature maintained

Monitoring

- ECG
- Blood pressure
- Oxygen saturation
- End tidal carbon dioxide
- Temperature

Checklist 1

Is the patient stable for transfer?



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Summary

- No excuse for not knowing your patient
- Review presentation history and past history
- Thorough A-E assessment
- Adequate resuscitation pre transfer essential
- Adequate preparation pre transfer essential