Transfer of the Patient with an Acute Brain Injury
Transfer - General Principles
Risks of Transfer

- Uncontrolled Environment
- Risk to staff as well as patient
- Risks are well documented in literature, range from minor critical incidents (common) to death (rare)
- Need for dedicated equipment and training of staff
Transfer - basic preparation

- Personnel – suitably qualified to deal with any problems encountered
- Equipment – O₂/drugs/monitoring
- Personal Protective Equipment
- Means of Contact
- Means of return
Preparing yourself

- Clothing
- Nutrition
- Fluid status
- Bowels and bladder
- Travel sickness
- Mobile phone
- Money / credit card
- Insurance
Equipment

- Ensure you are familiar with
  - Airway equipment
  - Ventilator
  - Drugs
  - Contents of transfer bags
  - Monitors
  - Infusion pumps
  - Ancillary equipment i.e. VacMat
Assessment

- Airway
- Breathing
- Circulation and lines
- Disability – neurology/sedation
- Examination – top to toe
- Farmacology
- GI/GU
- Haematology
- Intervention and investigation
Who not to Transfer/move

- Pts with a deteriorating GCS
- Pts with a GCS of <8
- Unstable patients i.e. pts with life-threatening thoracic, abdominal or limb injuries!
Pre-departure check

- Golden rule
  - Don’t leave until you are happy
- Run through pre-departure checks
- Check, check and check again
- If still stable then leave
- If unstable, start again and consider alternative options
- REMEMBER THE NOTES !!!!!
Transfer Goals

- Get to the neurosurgical centre safely
- Get there promptly (< 4hrs from time of injury)
- Avoid worsening secondary injury:
  - Sedation & analgesia - enable ventilation
  - Ventilation - control CO$_2$ + ensure oxygenation
  - Fluid Resuscitation - Adequate MAP + CPP
  - Prevent hyperglycaemia and hyperthermia
  - Control ICP - mannitol if signs of herniation
Guidelines for Transfer of Pts with an Acute Brain Injury

- Association of Anaesthetists of Great Britain and Ireland (AAGBI) - 2006

- European Intensive Care Society
AAGBI Guidelines 2006

- Aimed at prevention of secondary brain injury
- Cover stabilisation/ resuscitation as well as transfer
- Stressed:
  - Minimum Monitoring
  - Physiological Targets
  - Adequate documentation
  - Need for audit
AAGBI Guidelines 2006

- Monitoring
  - SPO$_2$
  - IBP
  - Capnograph
  - Pupils
  - Temp
  - Urine Output

- Parameters
  - MBP $> 80$ mmHg
  - PO$_2$ $> 13$ kPa
  - PCO$_2$ $4.5 - 5.0$ kPa
Departure Checklist

- Case notes
- Scans
- Contact Numbers
- Kit Checked
- Phone Receiving Neurosurgical Centre
Questions ?