Aims

- To ensure that all patients are optimally packaged for transfer
- To provide all team members with guidelines in order to promote uniformity throughout the team
- To provide guidance for temperature control in patients

Application

EMRS team members
SAS airwing Paramedics

Background

Being a critical care retrieval and prehospital medical service, it is imperative that we uniformly package our patients to protect them and insulate them during their transport between medical facilities, or between incident site and receiving hospital. This provides our patients with comfort and safety. The critical care practitioners and registrars should take the lead for packaging the patient and ensure that the packaging SOP is adhered to.
EMRS standard packaging configuration

- ETT securely tied +/- Thomas tube holder
- Ventilator tubing secured under strapping
- Soft mat across patient’s legs
- Oxylog screen visible to R side of patient
Standardised system of packaging:(secondary missions)

All patients

- Package within the vacuum mattress for comfort and safe transfer
- Ensure patient is wrapped in the thermal blanket
- Place soft mat on patient’s legs then keep equipment on mat throughout transit (between hospital – ambulance – hospital)
- If there is a bracket available (Ambulance, EC135, EC145, King air) – secure MRX and Oxylog in bracket when patient is secure on trolley.
- Secure infusion pumps with bracket held in monitor pack. Please note only 1 syringe pump can be secured in the bracket on the ceiling rails of the EC-145. This is due to the ceiling rails having a max weight limit.
- Place the monitoring equipment in such a position so that you can read the screen clearly – remember that in an ambulance the monitor will be situated at the right side of the patient
- The O2 cylinder should be accessible and if possible not be next to the patient.
- When an inter-costal drain has been sited, any under-water seal must be replaced with a flutter valve system (carried by EMRS). This must be kept below chest level and you must be vigilant to avoid kinked tubes
- The invasive blood pressure transducer must be secured to the patient at the mid-chest position in the mid axillary line, and be accessible.
- IV lines accessible and flushed
- Ear protection

Ventilated patients

- Eye protection
- Ear protection
- Endotracheal tube securely tied +/- Thomas tube holder or bite block
- NG tube / Temp probe taped and secure
- Urine catheter in situ and drainage bag emptied before transfer
- Temperature control – insulate head and neck if indicated (see below)
• BVM / intubation kit accessible during full transfer (consider @ patients head)
• Rapid access to emergency monitoring (EMMA / pulse oximetry)
• When securing IV lines – use a double loop technique to reduce the risk of cannulae being inadvertently pulled out (see photo below)

![Image of IV line secured with double loop technique]

• **Spinal control** should be achieved by moulding the vacmat around the patients head and neck when removing the air and applying tape.

**Temperature control**

• Patients should be wrapped in the LESS thermal blanket and the blizzard thermal hat used if required. Both are located in the vacuum mattress bag.
Primary missions

Packaging should be seen as an intervention and part of the treatment process. The process aims to:
  • Minimise spinal movements
  • Minimise clot disturbances and repeated blood loss
  • Minimise cytokine release
  • Maintain normothermia

Aims

  • Severely injured patients should be packaged “skin to scoop”
  • Spinal boards are for extrication only and not for patient transfer
  • The patient should have all their clothes cut off in a standard fashion.
  • The patient should be transferred on the scoop stretcher for journeys 30 minutes or less. Any longer necessitates transfer onto a vacuum mattress.
  • We should aim to maintain normothermia in all patients using the thermal blanket if indicated.

Patients found prone or in the lateral position

  • Carry out the initial stages of the assessment in this position.
  • Unless the patient’s airway is obstructed or there is apnoea leave the patient prone and apply an oxygen mask and airway adjuncts.
  • Cut the clothes at the back from top to bottom all layers. Clothes can be cut in a Y shape, vertically down the midline of the back and then down both legs.
  • Draw the scoop out to length and split. Place one half on the ground ready to roll the patient on to it. Prepare thermal blanket if indicated and position appropriately.
  • With the patient prone assess the chest, spine and pelvis. If the mechanism or clinical examination suggests a fractured pelvis, a pelvic splint should be placed on top of the scoop blade. Take time to get positioning correct - you don’t want to have to move the patient again.
  • When the scoop +/- pelvic splint are in place roll the patient in a controlled manner. Roll to 90 degrees. Stop here and change hand positions for the rest of the roll to horizontal. The patient should now be on half a scoop blade, skin to scoop.
  • Next a small 10° roll should allow you to place the other scoop blade in position, and pull through the pelvic splint +/- thermal blanket – again ensure it is next to skin.
• With the scoop secured (top and bottom) the patient can be placed on a trolley bed or in the vacuum mattress.

Patients found supine

• Clothes should be cut up the sides to facilitate exposure. This includes the arms.
• If there is no requirement to examine the back of the patient, two 10 degree rolls will allow insertion of separated scoop blades (+/- thermal blanket and pelvic splint) between the patient’s skin and the cut clothes.
• If there is a need to examine the back, the patient can be rolled to 90° to assess the back and place the patient skin to scoop on the first side. The second roll can be 10° to place the second scoop blade.
• With the scoop secured (top and bottom) the patient can be placed on a trolley bed or in the vacuum mattress.

Thermal blankets.

The service is currently stocking two types of thermal blankets. The LESS thermal bubble wrap blanket for secondary missions and the “Blizzard” EMS blanket for primary missions. We also carry blizzard thermal hats. They are located in the blue HEMS bag and in the vacuum mattress bag.
Blizzard EMS blanket

LESS thermal bag
Indications for Thermal insulating blankets.

Secondary missions

- All ventilated transfers where we wish to maintain normothermia
- Any patient who the duty team feel will benefit from increased thermal protection, e.g. prolonged sea king transfer in winter.

Primary missions

- All patients suffering major trauma
- Any patient who requires additional measures to maintain normothermia.

On primary missions the insulating procedure should take place at the same time as the scoop is placed (as described above), and ideally before any interventions are performed e.g. RSI. However if the patient requires immediate intervention e.g. crash induction then do not delay with application of thermal blanket.

Please complete the ready to go checklist before leaving scene/centre with all patients.