

A photograph showing two yellow helicopters parked on a grassy, hilly terrain. Five crew members in high-visibility yellow jackets and red trousers are standing between the two helicopters. The background shows a steep, grassy hillside under a cloudy sky.

Transfer of Critically Ill Patients.

Blackpool Victoria Hospital
6th August 2002.

Clinical Situation.

- 50 year old man
- Doused himself in petrol.
- 55% Burns. Partial and Full Thickness.
- Head, trunk, thighs.
- Volume Replacement.
- Intubated & ventilated.
- Need for care in a specialist centre.

Awaiting transfer.

- Difficulty finding a specialist centre.
- No bed anticipated locally.
- Nearest centres full or closed.
- Escharotomy required in A&E Dept.
- High ongoing fluid requirements.
- Nearest centre with a bed 150 miles away.
- ...estimated three hour transfer time by road.

Modality of transfer.



- 3h by road.
- Midnight.
- Help requested from RAF.
- Sea King aircraft.

Initial difficulties.

- Transfer to aircraft.
- Noise (mic/ headphones).
- Vibration.
- Darkness (hand held torch).
- ECG impossible to interpret.
- NIBP function on monitor ineffective.

Subsequent difficulties.

- Failure of transfer monitor.
- Mains inverter not compatible with aircraft.
- Monitor cables incompatible with aircraft's monitor, NIBP & ECG ineffective.
- Bad Weather.
- Infusion pump failure.
- Clinical monitoring/ pulse with aneroid sphygmomanometer.

At specialist centre...

- Haemodynamically stable.
- Temperature satisfactory.
- Oxygenation good.
- Initial course uncomplicated.
- Death at 2 weeks (MOFS).

Preparing for transfers.

- Personnel.
 - Seniority, Skill/ competencies.
 - Training.
 - Dedicated team within the hospital.
 - Critical Care Network. Protocols, QA.
 - Dedicated team for the network.
 - Insurance. AAGBI, ICS.

Preparing for transfers.

- Personnel.
- Equipment.
 - Airway.
 - Ventilation.
 - Suction.
 - Circulation.
 - Monitoring.

Preparing for transfers.

- Personnel.
- Equipment.
- Patient.
 - Stabilise prior to transport.
 - Need for transfer?
 - Transfer other patients?

Preparing for transfers.

- Personnel.
- Equipment.
- Patient.
- Vehicle.
 - Road vehicle.
 - Helicopter.
 - Specialised Fixed Wing Aircraft.
 - Scheduled Aircraft.

Stable for the journey?

- Airway.
- Ventilation.
- Circulation.
- Neurology.
- Trauma/ injuries.
- Metabolic/ Temperature.
- Monitoring.
 - ECG, BP, SpO₂, ETCO₂, Temp.

Road Vehicles



- Low cost.
- Dedicated vehicles?
- Rapidly available.
- Weather tolerant.

Road Vehicles



- Low cost.
- Dedicated vehicles?
- Rapidly available.
- Weather tolerant.
- Ease of monitoring.
- Space.
- Familiarity.

Helicopters



- Faster ground speed.
- If road access is difficult...

Helicopters



- Faster ground speed.
- If road access is difficult...
- Less comfortable.
- Smaller.
- Unpressurised.
- Expensive.
- Less safe.

Fixed Wing Aircraft.



- More space.
- Pressurisation.
- Faster.
- Need airport.
- Tx >150 miles.
- Specialised aeromedical vehicles.

Fixed Wing Aircraft.



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- Other aircraft...

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Arrival.

- Formal Handover.
- Clear medical & nursing records.
- Record of the journey.
- Standard documentation.
- Core data set (audit).



**Guidelines for
the transport of
the critically ill
adult**

STANDARDS AND GUIDELINES

ICS Guidelines

Transport of the critically ill adult.

Updated for 2002.

Paediatric guidelines exist, published by the Paediatric Intensive Care Society.

