



CSOP 006- Inter-facility Transfer
- Incorporating TU/LEH to MTC transfers

Version No: 3.2

Effective date: 14/07/2017

APPROVALS

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HISTORY

Effective Date	Version No.	Summary of Amendment
Feb 2010	1.0	Creation of document
Oct 2012	2.0	Review and update to TAAS
13/02/15	3.0	Review of document
16/05/2015	3.1	Addition to title for Trauma network clarity.
Feb 2017	3.2	Review

REFERENCES

Document Reference Number	Document Title
Annex A	Transfer request form



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1. Scope

TAAS may be asked to carry out transfer work during operational duties.

This document serves as a guide to:

1. Ensuring a uniform approach to requests for air transfer
2. Identifying those patients where air transfer is appropriate
3. Ensuring appropriate utilisation of the aircraft and minimising disruption of HEMS cover
4. Minimising the risks associated with complex interfacility transfers

2. Definitions/acronyms:

Abbreviations/Acronym	Definitions
ECMO	Extra Corporeal Membrane Oxygenation
TU	Trauma Unit
HEMS	Helicopter Emergency Medical Service
LEH	Local Emergency Hospital
NHS	National Health Service
TAAS	The Air Ambulance Service
ICU	Intensive Care Unit
MTC	Major Trauma Centre
ED	Emergency Department
STEMI	ST Segment Elevation Myocardial Infarction
PPCI	Primary Percutaneous Coronary Intervention
EOC	Emergency Operations Centre



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3. Background / principles

The principal benefits that TAAS can bring to patients requiring inter-facility transfer are;

- A. Potentially faster transfer time by helicopter
- B. Involvement of clinicians with expertise in 'hyperacute' transfer and resuscitation

The final decision to undertake a transfer rests with TAAS and not with either the ambulance service or the referring and receiving hospitals.

Even in a time critical transfer, time spent planning is not time wasted; rather, it will probably reduce the time to definitive care.

3.1 Transfer by air

There are risks associated with the movement of the critically ill or injured from one safe environment to another by any means. These risks may be amplified when the patient is placed in a helicopter. For each request, the patient's clinical condition and potential for deterioration needs to be assessed against the benefits of rapid transport. This assessment needs to take into account the impact of secondary landing sites and how the patient will be transferred to / from the aircraft.

Air ambulances are not NHS resources and should not be used as an alternative mode of transport due to non-availability of land ambulances or for the purposes of achieving targets.



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4. Classification of transfers

For the purposes of this document, transfers will be classified as:

Category 1 (emergency)

This applies to patients where an assessment has been made that there is a **time-critical** need to transfer them to another facility for **immediate** life- or limb-saving intervention / specialist care.

Examples include:

- Trauma patient at a TU / LEH who requires immediate MTC level care
- Confirmed STEMI for PPCI
- Leaking aortic aneurysm
- Stroke patient for mechanical thrombectomy

Category 2 (other clinical need)

This applies where a transfer is required in order to meet a clinical need that cannot be met at the existing facility but there is no immediate or time-critical requirement for transfer.

Examples include:

- Stroke patient for stroke rehabilitation
- Patient requiring investigation not available at current location (e.g. PET scan)

Category 3 (non-clinical)

This applies when patients are being transferred for reasons other than a clinical need that cannot be met at their current facility. Examples include:

- Repatriation to a facility closer to home / family
- To create capacity to allow admission of other patients to a service at the current facility

Category 2 and 3 transfers are not part of the core HEMS service and will only be undertaken in *exceptional* circumstances as agreed by one of the Base Managers or by The Head of Operations.



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5. Crew Competence

The HEMS crew must only accept a patient transfer for a patient that they have the knowledge, skills and experience to support. HEMS paramedics are **not** allowed to transfer patients on medications or infusions of drugs which are not on the JRCALC / POMS Exemptions list, or for which they do not hold a patient group direction.

If the crew members are not confident that they can look after the patient, then the transfer must be declined.

TAAS should only undertake inter-facility transfers that can be managed by the operational duty team. If there is a need for personnel from the referring hospital to travel with the patient an alternative means of transport should be used.

6. Equipment

Other than with the express permission of the pilot, no non-unit equipment is to be used in flight.

Aortic Balloon Pumps

Patients with aortic balloon pumps are not to be flown. There is not enough space for the equipment and the risks of failure / dislodgment are very high.

ECMO

As with Aortic balloon pumps there is not enough space for current ECMO equipment to be transferred. The RAF are able to do this and it is coordinated through the ECMO unit at Leicester Glenfield Hospital.

Baby Capsules

In general, the unit does not retrieve neonates or sick children alone. Requests of this nature should be forwarded to or discussed with the receiving neonatal or paediatric intensive care



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facility. Requests to facilitate the transfer of a neonate or child by a dedicated retrieval team should be passed to The Children's Air Ambulance. Baby capsules are available at both bases.

Vacuum Mattress

This is the preferred means of transport for all trauma transfers that are not time-critical. It must be used for all spinal transfers and transfers of immobilised patients where the total time of the patient journey exceeds one hour. A clean sheet must be placed inside the mattress and checked to see that there are no creases or folds that could act as pressure points. The patient is to be placed in the mattress using a scoop stretcher, the scoop removed and the mattress deflated and secured around the patient.

7. Procedure for dealing with inter-facility transfer requests

On receipt of a request, the first priority of the duty crew is to determine the urgency of transfer (according to the classification outlined above). Assessing requests for inter-facility transfers can be complex – a three-way conference call between TAAS, EOC and the referring clinician may be helpful.

7.1 Category 1 (emergency)

Transfers that the duty crew consider to be category 1 can be authorised by the duty HEMS doctor (or, for CCP-led crews, the on-call clinical supervisor) if they feel that TAAS facilitating the transfer is appropriate. The amount of information that needs to be obtained in order to reach a decision will vary on a case-by-case basis. The transfer request form in Appendix B may act as a helpful prompt but its completion is not mandatory for emergency transfers.

In the unlikely event that a request for an emergency transfer is made direct to TAAS it is essential that this is co-ordinated with the relevant ambulance service - the crew must be allocated to an ambulance service task.

In some circumstances, despite a transfer being a clear emergency, other considerations will result in an assessment that TAAS facilitating the transfer is not appropriate and another course



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of action is recommended. In these situations the reasoning behind the decision should be explained to the referring clinician and documented within the clinical database as a declined tasking.

7.2 Category 2 or 3 (other clinical need / non-clinical)

For non-emergency requests, a transfer request form should be completed as fully as possible (Appendix B) and passed to a Base Manager or the Head of Operations for consideration.

If such a transfer is authorised, the operational team tasked with completing the transfer should confirm prior to departure;

- Current location of the patient, with referring hospital
- Location the patient is going to, with the receiving hospital
- Readiness of both hospital sites to receive the aircraft, via ambulance service HEMS desk

8. Patient Handover

The HEMS crew must only take handover and receipt of the patient at the referring hospital - under no circumstances should the patient be brought to the helicopter by referring hospital staff.

It is vital that the HEMS crew make a final assessment at handover that the patient is suitable to fly including:

- Clinically safe
- No risks to aircrew
- All lines, tubes and monitoring secured
- No need for additional equipment.
- All documentation, images and if necessary blood products ready and labelled to go with patient.
- There is adequate oxygen available on the aircraft for the duration of transfer



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Handover of the patient should only take place in the receiving unit with a member of the receiving team present; it is not acceptable to handover to another ambulance crew. Documentation should be completed including an appropriate transfer form, a copy of which must be left with the patient's notes.

9. HEMS Car shifts

HEMS 53 & 54 critical care car shifts explicitly include transfer from TU/ LEH to MTC in the dispatch criteria. Whilst the aviation considerations are no longer relevant, the medical standards relating to the competence of crews, equipment usage, documentation and safe handover still exist and should be followed.

End of Document



CSOP 006 Interfacility Transfer Annex A TRANSFER REQUEST FORM

1. Patient Details

NAME			
DATE OF BIRTH		HOSPITAL NUMBER	
WEIGHT (KG)		HEIGHT (CM)	
REFERRING HOSPITAL		WARD/UNIT	
REFERRING CONSULTANT/REGISTRAR		CONTACT NUMBERS	
RECEIVING HOSPITAL		WARD/UNIT	
RECEIVING CONSULTANT/REGISTRAR		CONTACT NUMBERS	
TIMEE REQUIRED		NXT OF KIN NAME & CONTACT NUMBER	

2. Flight Details

Consider and discuss the following with the pilot of the aircraft concerned:

- Flight time
- Fuel requirements⁵
- Oxygen requirements⁶
- Weight limitations – will the aircraft have to be stripped of surplus equipment
- Weather⁷
- Clinical implications of altitude
- Flight and duty hours limitations and impact on next shift

Details

⁵ Consider the need to divert in case of bad weather

⁶ Oxygen requirements = (Minute Volume + Ventilator Driving Gas consumption, for the entire duration, including transit to and from the aircraft), Doubled. Consider a further increase if the flight could be diverted due to bad weather.

⁷ If the weather is marginal, diversion to an alternative site will greatly increase the transfer time, making road transfer more appropriate.

3. Clinical Details

DIAGNOSIS			
CURRENT ISSUES			
ONSET DATE/TIME			
REASON FOR REFERRAL			
ANY KNOWN INFECTIONS OR COMMUNICABLE DISEASES			
AIRWAY			
BREATHING			
VENT SETTINGS/SPONTANEOUS			
MODE	RATE	TIDAL VOLUME	FiO ₂
CIRCULATION			
HEART RATE		BLOOD PRESSURE	
NEUROLOGY			
GCS	C/SPINE CLEARED <input type="checkbox"/> BY/HOIW?	FOCAL SIGNS <input type="checkbox"/>	
LINES & TUBES			
<input type="checkbox"/> PERIPH LINE 1	<input type="checkbox"/> PERIPH LINE 2	<input type="checkbox"/> IABP	<input type="checkbox"/> CVP
<input type="checkbox"/> CATHETER	<input type="checkbox"/> CHEST DRAINS	<input type="checkbox"/> ICP BOLT	<input type="checkbox"/> NG TUBE
DRUGS / INFUSIONS			
DRUG	STRENGTH	INFUSION RATE	TARGET HR/BP

Aim to have the patient on the least number of infusions needed to minimise risk. Make sure that the patient is stable after changes have been made.

4. Tasking

Aircraft tasked _____
Cross Cover arrangements _____
Cost Implications _____
Authorised By _____

5. Pre-Transfer Check List

- Risk vs. Benefit analysis favours air transport
- Patient aware and consented if appropriate
- Receiving Hospital Aware and waiting
- Transport at each end organised
- Relatives aware
- Notes copied and available
- Images on CD/DVD/Films
- Lab results copied
- New syringes on syringe pumps
- Chest X-ray to confirm tube position
- Drains and catheters secured; bags emptied
- NG tube inserted
- EOC Updated
- Cross-cover arranged

Signed _____

Date _____ Time _____

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