



LONDON'S
AIR AMBULANCE
roadside intensive care



Pre-hospital Care Standard Operating Procedure

Enplaning, Deplaning and Loading

REVIEW:	May 2010	
APPROVAL/ ADOPTED:	PHC Policy Board	
DISTRIBUTION:	PHC Doctors PHC Paramedics PHC Pilots	
RELATED DOCUMENTS:	SOP Mission Activation SOP Packaging	
THIS DOCUMENT REFERS TO:	PHC Clinical Practice PHC Non-clinical Practice <input checked="" type="checkbox"/> PHC Operational Procedure	Ref: OP-4

Aims:

- To provide information regarding helicopter enplaning, deplaning, loading and offloading

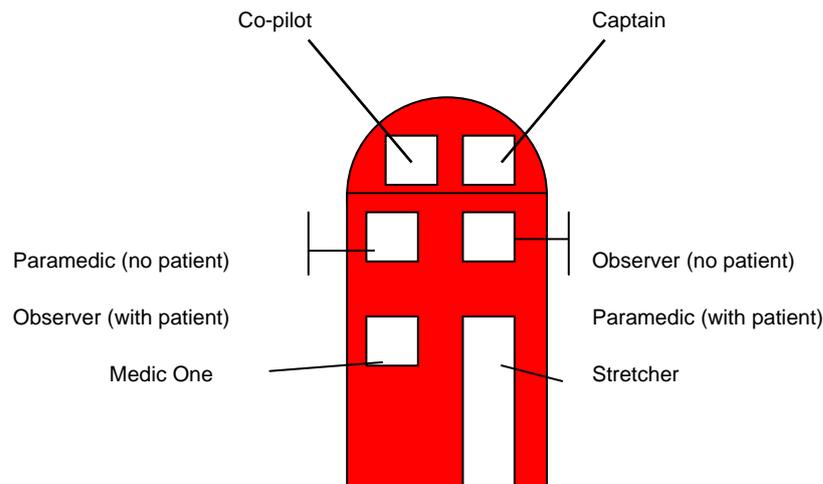
Background:

Getting on and off the aircraft must be done in a safe, efficient and controlled manner. Patient transfer in any environment is commonly associated with adverse events and there is a much greater risk in the pre-hospital phase. Moving the patient into and out of the aircraft (& land ambulances) should be performed in a standard and controlled manner. Even when patients require urgent surgical intervention, hot offloads (rotors running) must not be attempted. The rotors can be stopped in less than a minute.

Policy:

1. Seating plan

The seating plan is illustrated in the picture below. Medic One sits in the forward facing seat. The paramedic sits on the rear facing seat on the left hand (port) side of the aircraft. This arrangement ensures that both Medic One and the paramedic can clearly see the incident when the aircraft turns overhead (left hand circuit). When there is no patient on board, any observer should sit on the rear facing seat forward of the stretcher. When a patient is on board, the paramedic and observer should swap seats (see below).



2. Enplaning (boarding) – Rotors stationary

- Medical Team ensure radios and telephones are switched off and that any necessary equipment is to hand.
- Medical Team approach aircraft from 10 o'clock position after receiving positive signal from pilot (thumbs up) if pilot is already on board.
- Medic One opens cabin door, puts helmet on and stands to rear of door.
- Observer is instructed to board aircraft, put helmet on and fasten seatbelt.
- Flight Paramedic puts helmet on, boards aircraft and from kneeling position in cabin, checks Observer's seatbelt and helmet, secures any equipment passed into aircraft by Medic One, takes seat and fastens seatbelt.
- Medic One boards aircraft and takes seat. Firecrew or Co-pilot closes cabin door. Medic 1 ensures both cabin door handles are in 'safelock' position and fastens seatbelt.
- When asked to confirm cabin secure in pre-takeoff checks, Medic One confirms 'Helmets, harnesses and doors secure. Radios and phones are off.'
- Medical team monitor pilot communications during take off and speak only to warn of hazards (using the clock face system to indicate direction).

3. Enplaning (boarding) – Rotors running

- Medical team should wait upwind of the landing area until the aircraft has landed.
- Bystanders should be warned of the incoming aircraft and hazards should be identified and dealt with appropriately.
- Radios and telephones should be off and ear defenders worn when aircraft is seen to approach.
- Once the aircraft has landed, the team should approach the aircraft from the 10 o'clock position and wait outside the rotor disk until a positive signal (thumbs up) is received from the pilot. The thumbs up should be acknowledged with thumbs up and the team should approach the aircraft door.
- Medic One opens cabin door, puts helmet on, establishes communications with pilot and stands to rear of door.
- Observer is instructed to board aircraft, put helmet on and fasten seatbelt.
- Flight Paramedic puts helmet on, boards aircraft and from kneeling position in cabin, checks Observer's seatbelt and helmet, secures any equipment passed into aircraft by Medic One, takes seat and fastens seatbelt.
- Medic One boards aircraft and takes seat. Co-pilot closes cabin door. Medic One checks other cabin door and fastens seatbelt.
- When asked to confirm cabin secure in pre-takeoff checks, Medic One reports 'Helmets, harnesses and doors secure. Radios and telephones off.'
- Medical team monitor pilot communications during take off and only speak to warn of any hazards.

4. Deplaning – Rotors running

- Medic One reports 'All Secure' on request from pilot during pre-landing checks.
- All crew monitor pilots' communications and observe for hazards during descent. There should be no talking amongst the medical team except to report hazards during descent and landing.
- On hearing 'All clear' from pilot, Medic One opens cabin door.
- Medic One unstraps, steps out with helmet on and stands rear of side door.
- Medic One checks to rear of aircraft from this position and reports any hazards.
- Flight paramedic instructs observer to remove helmet and attach it to carabiner, apply ear defenders, unbuckle and remain in seat until instructed to exit.
- Flight paramedic unstraps, kneels on floor and releases Thomas pack, suction, Monitor Bag and any other necessary equipment. Each item is passed to Medic One and all retaining straps are fastened again.
- Once equipment off-loaded, Flight paramedic removes helmet and straps it to seat. Flight paramedic and observer step out of aircraft.

- Medic One ensures cabin secure removes helmet, applying ear defenders and attaching helmet to carabiner.
- Medic One, Flight paramedic and observer proceed as a team to 10 O'clock position outside rotor disc with all equipment.
- If there is no suitable position to the left of the aircraft, Medic One, Flight paramedic and observer move together around the front of the aircraft within the rotor disc to exit at 2 o'clock.
- Once the team is outside the rotor disc, Medic One looks back to aircraft and checks for hazards (e.g. approaching vehicles or spectators). If there are any hazards, these should be indicated to the pilots and the medical team should remain with the aircraft until the hazard is controlled.
- The Co-pilot will close the cabin door.

5. Loading and offloading patients

- Loading is only performed with the rotors stationary.
- The pilots will prepare the aircraft stretcher. Only the pilots or HEMS fire crew should operate the aircraft stretcher assembly.
- The patient should be fully packaged as per Packaging SOP prior to loading.
- The Flight paramedic should co-ordinate the loading whilst Medic One should prepare the aircraft and position within the aircraft to receive the patient.
- Once packaged the patient is placed in line with the stretcher with feet facing towards the rear of the aircraft.
- Lifting of the patient requires six people. The six people nominated to lift should take up position on both sides of the patient. The Flight paramedic should co-ordinate the lift from the head end and take responsibility for the airway and ventilation.
- The lift is in three stages. Stage one is lifting from ground or trolley to waist height (may not be necessary with high trolley). Stage two is lift from waist height to shoulder height. Stage three is placing the patient on the stretcher feet first. The Flight paramedic should ensure that all persons are aware of the extent of the lift, are able to lift the patient and are clear about the words of command. These should be 'ready, brace,' followed by the appropriate command (lift, move, slide etc.).
- Once the lower half of the patient is on the aircraft stretcher, the two bearers nearest the aircraft should break away and assist with other equipment.
- As soon as the patient is positioned on the stretcher, Medic One should briefly re-assess to ensure that lines, tubes, sensors etc. have not been dislodged, attach the monitor and ventilator where appropriate and take control of the patient.
- Once Medic One has taken control of the patient, the pilots will re-position the stretcher on its base. Medic One should co-ordinate these movements.
- Headset and microphone or ear defence should be provided for conscious patients.
- Once released from co-ordinating the load, the Flight paramedic should ensure that the remainder of the medical equipment is loaded, the observer is helmeted (with the

correct helmet), seated on the correct side of the aircraft (see seating plan above) and secured. Flight paramedic should also ensure that radios and telephones are off.

- The Flight paramedic should then check with Medic One to see what equipment may be required in flight. All other equipment should, where possible, be secured.
- The paramedic should then take their seat and secure helmet and seatbelt.
- Medic One should ensure that any telephone calls (blue call) to receiving hospitals have been completed and that the patient is secure before allowing the engine start. Medic One should then secure helmet and fasten seatbelt.
- The pilots will close the cabin doors. Medic One should check the doors and that the Flight paramedic and observer are secure. When asked to confirm cabin secure in pre-takeoff checks, Medic One reports 'Helmets, harnesses and doors secure. Radios and phones are off.'
- If it is necessary to unbuckle and move during the flight, the Flight paramedic or Medic One should advise the pilots as appropriate.
- Prior to landing, Medic One should report 'All Secure' on request from pilot pre-descent. All crew should then monitor pilots' communications and observe for hazards during descent. There should be no talking by medical team except to report medical deterioration of casualty or hazards during descent and landing.
- Once landed, the medical team should wait with their helmets on until the rotors have stopped. At the RLH, the firecrew will bring an A&E trolley and will approach the stretcher side of the aircraft. They will wait by the door until Medic One indicates that it is safe to open the door. At other landing sites, the pilots will usually open the door and an ambulance trolley or A&E trolley will be brought to the aircraft.
- The offloading is the reverse of the loading. The Flight paramedic should exit the aircraft, come round to the stretcher side and when appropriate, take control of the patient from Medic One. Only the pilots or HEMS fire crew should operate the stretcher assembly.
- Offloading also requires six people to lift and is usually in two stages. Stage one is sliding the patient to the shoulder position and stage two is lowering the patient on to the trolley. The Flight paramedic should co-ordinate these movements and give the appropriate commands.
- Medic One should ensure that during the offload, the monitor is released and no straps or cables become tangled. The ventilator should be removed from its mount and offloaded with the patient. The patient can be fully offloaded before it is necessary to switch the oxygen supply from the aircraft to oxygen cylinders on the trolley. Ensure that oxygen cylinders on A&E and ambulance trolleys have the appropriate Schraeder valve before disconnecting the aircraft supply.
- Once on the trolley, the patient should be secured and Medic One should briefly re-assess the patient to ensure no critical complications have occurred. The patient is then taken to the department or ambulance with Medic One controlling the movement of the trolley.
- Both Medic One and the Flight paramedic should accompany the patient to A&E with all necessary equipment.