SG004.v1 Safety in and around Helicopters

1. Key Recommendations for operational use		
1	Landing zone	• Aircraft will land into wind - predict this from windsock: - stay 30m away at the 12 o'clock position • Downdraft and noise are considerable, especially SAR aircraft: - wear eye and ear protection • Clear up all medical debris in vicinity of landing zone: - foreign object damage (FOD) from debris is a substantial hazard
2	Approach to the aircraft	• Stay where the pilot can see you at all times • Do not approach from the rear of the aircraft • Do not enter rotor disc area during start up and shut down: - the rotor blades may tilt below head height • Only approach from the front within the "10 o'clock to 2 o'clock position" • Only approach after receiving a "thumbs-up" from the pilot: - regardless of whether rotors are turning or not • On sloping ground approach or leave on the downslope side for maximum rotor clearance • If blinded by swirling dust, grit or snow: STOP - crouch lower or sit down and wait for assistance • Remove hats - unless secured and are part of PPE • Do not reach up or chase after anything that blows away • Carry long objects horizontally below waist level, never upright or on the shoulder • All vehicle marshalling should be under the direction of the pilot or aircrew
3	At the aircraft	• Avoid the tail rotor: it is difficult to see, even if enclosed • Avoid contact with radio antennae • Avoid the rear exhausts • Do not stand on the grey floats attached to skids • Do not leave without a visual or spoken instruction to do so.
4	Medical Passengers	• Escorting clinical staff are considered "Medical Passengers", not crew • Medical passenger brief should be conducted prior to flight by pilot: - includes exits, harness, communications, emergency procedures • Validity of this briefing is 6 months
5	Patient movements	• Normally load or unload with rotors shut down • Exceptionally load or unload with rotors running under direction of the HEMS crewman following specific brief from the pilot • Allow crew to lead movement of patients in and out of aircraft • Ensure oxygen is turned on at the cylinders.

6	Considerations in flight	• Attach to communication lead and vocalise “On Comms” • If prompted during the startup checklist confirm “Secure in the back” • Silence during take-off and landing unless flight safety issue • If you see something out of the ordinary, no matter how insignificant, alert a crew member
7	Clinical considerations in flight	• In reach: bag-valve-mask; suction; emergency drugs • Review sedation / inotrope infusion and muscle relaxants • Ensure the IV access and arterial line / flush are accessible
8	Considerations with awake patients	• Make risk benefit decision on safety to fly awake: - including agitation and potential for deterioration requiring anaesthesia - ultimate flight safety decision rests with the pilot • Consider need for antiemetics in patients who are immobilised • Ensure sedative drugs are available / accessible in flight
9	Rotors running enplane	• Helmets on with clear visors down • Await “thumbs up” from pilot to approach • Approach from “10 o’clock to 2 o’clock” position • Enter the aircraft as directed • Plug into comms lead and vocalise “On Comms” • Fasten seatbelt
10	Rotors running deplane	• All deplaning crew to depart as a group • Remain in full PPE, including helmets with visors down • Proceed from the aircraft in the “10 o’clock to 2 o’clock” direction • Walk downhill away from the aircraft if on sloping ground • Remain visible to the pilot until well clear of the disc area – identify a safe area clear of the disk for initial "kit dump" before proceeding to the scene as a team • Access to the clamshell doors is permissible at the discretion of the pilot in command and <u>only</u> under direct supervision of the HEMS crewman. – be aware of hot exhaust gasses and reduced ability to communicate due to noise • HEMS crewman will secure all doors and any loose items.
11	PPE	• Aircrew helmets - are aircraft specific - be careful to leave on seat and strap in once leaving the aircraft • Life jackets at all times • Immersion suits as guided by the pilot
12	Airsickness	• prevention is generally better than cure (both patients and crew / medical passengers) • check suction and vomit bag are accessible

13	Winch Operations	• Winching is not a core technical skill for medical personnel. It is hazardous and requires specific training and mandatory regular practice of the necessary drills • Do not undertake winching operations during the course of a primary mission • If you are asked to undertake a winch descent or ascent at the incident site, politely decline, stating the above as justification During a complex primary mission, where access is difficult and winching operations are conducted, there are two options for medical teams: • Remain in the aircraft and be prepared to receive the patient under the direction of the crew as the winchman and patient are recovered into the aircraft • Under the direction of the crew, designate a safe area on the ground very near to the incident site and with unimpeded access, where the aircraft can land once it has performed the technical recovery of the patient. This is the site at which the patient can be properly assessed, and where critical care interventions can be performed, prior to loading the patient into a land ambulance or into the appropriate airframe for onward transport to the receiving hospital

2. Document History			
Reference Number	SG004		
Version	1		
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	Referring centres via service websites		X
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	Tayside Trauma Team		✓
	Rural GPs Association of Scotland		✓
	SAS Air Ambulance Division		✓

3. Scope and purpose

- Overall objectives:

The aim of this guideline is to summarise relevant safety issues around helicopters for medical responders working on behalf of SAS. This includes the medical teams that may function as medical passengers or responders who will occasionally be required to work around helicopters. It summarises generic issues; aircraft specific information can be found in *SG005 Airframe Information*.

- Statement of intent:

This guideline is not intended to be construed or to serve as a standard of care. Adherence to guideline recommendations will not ensure a successful outcome in every case, nor should they be construed as including all proper methods of care or excluding other acceptable methods of care aimed at the same results. The ultimate judgement must be made by the appropriate healthcare professional(s) responsible for clinical decisions regarding a particular clinical procedure or treatment plan.

- Feedback:

Comments on this guideline can be sent to: scotamb.CPG@nhs.net

- Equality Impact Assessment:

Applied to the ScotSTAR Clinical Standards group processes.

- Guideline process endorsed by the Scottish Trauma Network Prehospital, Transfer and Retrieval group.