Pre-hospital Care Standard Operating Procedure
Safety at Scene

Aims:

- To provide guidelines for safe working in the pre-hospital environment.
- To identify and describe the use of specific safety equipment.
- To identify particularly hazardous working situations.
- To describe the process for improving safety practices through incident reporting.

Background:

- Staff safety is paramount and comes before patient care.
- Safety is the responsibility of all members of the team.
- Never assume that a scene is safe until you have personally assessed it.
- The HEMS team are responsible for the safety of any observers who will have been briefed.
- Mechanisms exist for safety improvement through a process of reporting and review.
Policy:

GENERAL SAFETY CONSIDERATIONS:

1. Dispatch
   - Any LAS locality information from Redbase should be passed onto the team.
   - Any possible assault whether penetrating (stabbing / gunshot) or blunt should be passed on to the team during tasking. Stab vests should be put on at the time of tasking.

2. En route
   - While en route, the paramedic at Redbase will update the medical team with any additional hazards or safety information.
   - While driving to the job on DA77, appropriate car etiquette is to be observed.

3. Arriving on scene
   - Do not leave the aircraft or DA77 until you are sure that it is safe to do so.
   - Ensure that you have fully assessed the scene and identified all hazards before approaching.
   - Liaise with other services, especially the lead service for safety, before approaching the casualty.
   - Ensure that your personal protective equipment is working and correctly applied (e.g. are goggles or body armour required?).
   - The inner cordon or hazardous area will normally be demarcated by red (fire) tape, while the outer cordon will be demarcated by blue (police) tape.

SPECIFIC SAFETY CONSIDERATIONS:

1. Poor lighting / dark conditions
   - Remember to take the Sammellite.
   - Before assessing the casualty check the surrounding area for debris e.g. needles, glass. Patients’ clothing may also contain sharps.
   - Be aware that there may be undesirable people in certain areas at night e.g. parks, subways etc.
   - If not on scene, have a low threshold for requesting the police via Redbase.
   - If the scene is unsafe, consider rapid extrication of the patient.

2. Road traffic accidents
   - Liaise with police and fire services regarding scene safety, in particular:
   - Ensure that traffic has been stopped and roads closed where this is required to ensure scene safety (BEWARE THAT TRAFFIC MAY BE RESTARTED WITHOUT NOTIFICATION).
   - Potential fuel leakage identified and dealt with by the fire service.
   - Consider the potential of dangerous cargo being transported and look for any hazard warning signs (see below).
   - Ignition turned off and handbrake applied on all vehicles involved.
   - All vehicles stabilised and secured (choked) in position where required.
   - Assess for undeployed airbags and seat belt pre-tensioners: protect all personnel where possible, applying airbag restraints on the driver's side. Otherwise remain clear of undeployed devices.
   - Helmets & visors / goggles should be worn for all road traffic accidents requiring extrication.
   - You are the advocate for the casualty during extrications, ensure they are briefed and protected (usually soft (plastic sheet) and hard protection (“pear shield”)).
   - During extrication, be aware of warnings used by the fire service such as “Still” which means stop all movement.
3. Shootings and Stabbings
- Body armour should be donned whilst on the helipad prior to take-off if the mission sheet indicates an assault or penetrating trauma.
- On car missions, body armour should be worn by all personnel immediately following tasking.
- Do not approach the scene or leave the aircraft / DA77 until an RVP has been established by the police, this may need to be provided by Redbase while en route.
- Do not leave the RVP until the police have confirmed that the scene is secure. Nevertheless, still assume the scene is potentially unsafe and if any member of the HEMS team feels that the scene is not secure you should return to the RVP immediately.

4. Safety Triggers for Emergency Personnel (STEP 1-2-3)
When the cause of the incident is not obvious, be aware of safety triggers:

<table>
<thead>
<tr>
<th>Casualties</th>
<th>Action</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>ONE</strong> casualty</td>
<td>Approach using <strong>NORMAL</strong> procedures</td>
</tr>
<tr>
<td><strong>TWO</strong> casualties</td>
<td>Approach with <strong>CAUTION</strong></td>
</tr>
<tr>
<td><strong>THREE</strong> casualties (including unwell first responders)</td>
<td><strong>DO NOT APPROACH SCENE</strong></td>
</tr>
</tbody>
</table>

- Even in the context of trauma, consider reasons for multiple casualties such as carbon monoxide, electrical hazard or anoxia (especially in confined spaces).

5. Hazardous Materials (HazMat) / CBRN Incidents
- Do not approach the scene until you are certain that it is safe to do so and that the chemicals involved have been adequately identified.
- For transportation accidents, refer to Road Traffic Accident paragraph.
- Gain as much information as possible before approaching the scene: consult Guy’s Poisons Unit via Redbase (Tel: 0870 243 2241).
- Consider whether any cordons are required and wind direction. Wind direction may be available from the pilots.
- For actual incidents, consult HazMat / CBRN SOP.

6. Electrical incidents – e.g. electrocutions
- Beware any unexplained burns or traumatic / medical arrest. The patient may have been thrown some distance or fallen from the initial contact point.
- Ensure that the electricity supply is switched off before approaching the scene. This should be confirmed by either the HEMS physician or HEMS paramedic visualising the switch mechanism.
- If an external source of power is implicated e.g. a generator, then this too must be isolated or switched off.
- Consider the presence of conducting media e.g. water, and take appropriate action.
• Nominate another member of the emergency services e.g. a Police officer, to stand duty at the switch mechanism to avoid power being restored inadvertently.
• TRUST NO-ONE. The medical team is responsible for its own safety on scene. ▼

7. Building Sites and Collapsed Structures

- On arriving at a building site look for the Health and Safety Information Board at the entrance of the site. This will give the team an idea of hazards and personal protection equipment required. An example is given:
- As well as liaising with other emergency services, it is important to identify the building site manager to identify any hazards specific to the building site.
- Beware of building / demolition sites when there maybe a risk of asbestos. The fire service should be able to advise with local environmental health. Additional advice can be obtained from CHaPD(L), see above. If there is doubt, respiratory protection should be worn. ▼
- Additional resources can be requested, including Rescue Tenders and Urban Search and Rescue (USAR) via Redbase or local Fire Rescue Unit attending

8. Confined Spaces

- When dealing with casualties within a confined space, especially subterranean consider potential hazards including oxygen displacement, toxic gases (hydrogen sulphide) and flooding.
- Where the cause of the casualty’s condition is not obvious or STEP 1-2-3 is applicable, entry into the confined space should be limited to responders in gas tight suits with self-contained breathing apparatus, OR oxygen content has been confirmed AND toxic gases have been excluded. ▼

9. In the event of the Electronic Personal Dosimeter alarming

- Electronic Personal Dosimeters (EPDs) are to be carried by the clinical team.
- The default display screen is dose rate (μSv/hr).
- The most likely reason for the alarm to activate is due to low battery. Any other alarm should be considered significant.
- Should the alarm active due to dose rate (as shown on display) consider immediate withdrawal from the area, unless immediate life-saving interventions are required. Inform local responders and Redbase. ▼
- Alternative causes for alarm activation include iatrogenic radioisotope exposure (radioiodine treatment for hyperthyroid treatment), security devices and radiography.

10. Major Incidents ▼

- Major Incident scenes are likely to be hazardous. Safety considerations include environmental (weather), possible causes of the incident (transportation, explosive) and possible malicious intent (secondary devices).
- The outer cordon is likely to be controlled by the police (blue tape).
The inner cordon is likely to be controlled by the fire service (red tape) and delineates a high risk area. Any entry into the inner should be logged.

On arriving on scene it is important to report to the Ambulance / Medical Incident Commander. In addition there may be an ambulance safety officer.

Because of the likely distance from the landing site or RVP take any safety equipment that is likely to be needed (gloves, dusks masks and helmets).

11. Working On or Near Water
- If a call is received on the helipad where there is a possibility of working near or on a body of water, then the Lifejackets should be placed on the aircraft. They are contained in a black bag in the ‘bus shelter’, next to the Operations Room.
- Lifejackets should be worn when transported by, or working on a vessel or structure afloat but not secured to the shore.
- A dynamic risk assessment should be made as to whether lifejackets should be worn on any call where there is a risk of falling or being knocked into water. This may include piers, pontoons, bridges and river foreshore or canal banks.
- Three lifejackets are also in a bag in DA77
- Instruction in wearing lifejackets is located in the Equipment file.
- Refer to the SOP – Working on or near water

12. One Unders
- Refer to the SOP – One Unders

13. Working At Height Or Risk Of Falling
- Refer to the SOP – Working at Height

INCIDENT REPORTING:

There are three levels of incident reporting:
- Simple occurrence reporting - a local policy for minor safety issues via the database.
- Critical incident reporting - a trust policy with a dedicated trust form via the BLT intranet.
- Serious untoward incidents - a trust policy for serious incidents and injuries, discuss with the PHC Consultant.

All incidents should be documented on the occurrences database. These are discussed at the monthly Safety Committee meeting. However, remedial action should be immediate and where necessary the PHC Consultant informed and a group email sent. When in doubt, ASK!
### SUMMARY OF DANGEROUS GOODS – HAZARD DIAMONDS

<table>
<thead>
<tr>
<th>CLASS</th>
<th>SYMBOL</th>
<th>DEFINITION</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td><img src="image1.png" alt="Symbol" /></td>
<td><strong>EXPLOSIVE</strong>&lt;br&gt;Subgroups 1.1 – 1.6&lt;br&gt;1.1 – Mass explosion hazard&lt;br&gt;1.4 – No significant hazard</td>
</tr>
<tr>
<td>2</td>
<td><img src="image2.png" alt="Symbol" /></td>
<td><strong>GASES</strong>&lt;br&gt;Subgroup 2.1 – 2.3&lt;br&gt;2.1 – Flammable&lt;br&gt;2.2 – Non-flammable&lt;br&gt;2.3 – Toxic</td>
</tr>
<tr>
<td>3</td>
<td><img src="image3.png" alt="Symbol" /></td>
<td><strong>FLAMMABLE LIQUIDS</strong></td>
</tr>
<tr>
<td>4</td>
<td><img src="image4.png" alt="Symbol" /></td>
<td><strong>FLAMMABLE SOLIDS</strong>&lt;br&gt;Subgroups 4.1 – 4.3&lt;br&gt;4.1 – Flammable solid&lt;br&gt;4.2 – Spontaneous combustion risk&lt;br&gt;4.3 – Release of flammable gas on contact with water</td>
</tr>
<tr>
<td>5</td>
<td><img src="image5.png" alt="Symbol" /></td>
<td><strong>OXIDISERS (5.1)</strong>&lt;br&gt;<strong>ORGANIC PEROXIDES (5.2)</strong></td>
</tr>
<tr>
<td>6</td>
<td><img src="image6.png" alt="Symbol" /></td>
<td><strong>TOXIC (6.1)</strong>&lt;br&gt;<strong>INFECTIOUS SUBSTANCES (6.2)</strong></td>
</tr>
<tr>
<td>7</td>
<td><img src="image7.png" alt="Symbol" /></td>
<td><strong>RADIOACTIVE SUBSTANCES</strong></td>
</tr>
<tr>
<td>8</td>
<td><img src="image8.png" alt="Symbol" /></td>
<td><strong>CORROSIVE SUBSTANCES</strong>&lt;br&gt;(includes chlorine, sodium hydroxide, sulphuric acid)</td>
</tr>
<tr>
<td>9</td>
<td><img src="image9.png" alt="Symbol" /></td>
<td><strong>MISCELLANEOUS</strong>&lt;br&gt;Includes asbestos, CS spray</td>
</tr>
</tbody>
</table>