Chapter 10

Medical Support

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1. **Introduction**

Demining is always associated with hazards; however, the level of hazards can be reduced by preparing adequate support and by using safe working methods. Good medical support for UXO clearance by Silavan UXO Survey Clearance and Ordnance Disposal Co., Ltd. (abbreviated as SLV). is another way to ensure that the clearance deminers are adequately prepared and supported.
Medical support is not only about supporting the clearance task, it also includes all the preparations and initial requirements to ensure that all clearance deminers/technicians are healthy, ready to perform their work and have the commitment of their company to take care of their employees in the event of an accident.

2. Scope

This chapter of the standard operating procedure covers the basic requirements for medical support for UXO clearance work of Silavan UXO Survey, Clearance and Ordnance Company Limited (abbreviated as SLV).

3. Health Standards for UXO Clearance Deminers

Individuals who will be employed as UXO clearance deminers of Silavan UXO Survey, Clearance and Ordnance Company Limited (abbreviated name as SLV) must be in good health and have no health problems that would affect their work or the assistance they will provide to themselves or others in an emergency.
All clearance technicians and support staff must ensure that they are free from any physical disability, illness, infection or allergy that would affect the performance of their assigned duties.

4. Medical Support for Company Clearance Task

The reporting system of Silavan UXO Survey, Clearance and Ordnance Company Limited (abbreviated as SLV) is in accordance with the rules of Chapter 24 "National Standards". The company will use and comply with the rules as specified by the NRA and will submit reports as requested by the NRA by the 22nd of the following month.

The field team will complete all reports as required in the company's operating standards.

Completed reports must be submitted to the company office for review and approval by the field team before being sent to the relevant parties, such as the client and the NRA office.

5. Medical Support for Clearance Task.

5.1 Qualifications

Demining clearance and disposal shall not be carried out without a qualified field medic, equipped with a medical kit and emergency medical equipment, including all operations related to UXO clearance.

5.2 Ambulance Vehicles

Every clearance site shall have an ambulance vehicle available at all times near the site for a reasonable period of time at all times when the team is on duty. The ambulance vehicle shall:

a. Be suitable for the terrain of the site to be operated on.

b. Be capable of carrying a patient lying on a stretcher, along with a paramedic, two additional attendants and a driver.

c. Be in good technical condition, with at least one spare tire and a set of keys for changing the tire.

5.3 **Tasks Requiring Travel by Boat**

In cases where the task requires the travel by boat, a boat shall be kept on standby at all times to accommodate emergencies while the team is working and shall not be used for other tasks. The boat shall be large enough to carry all the injured persons lying on a stretcher, along with a paramedic and at least one attendant.

The boat dock place should be as close to the clearance area as possible to facilitate the transfer of patients. In addition, ambulances and drivers should be available during the demining process, on call when needed, to wait at the dock to take patients from the boat to the hospital.

Communication between the ambulance driver and the teamleader should be established and maintained at all times while the team is working.

6. Emergency Response Plan

An emergency response plan shall be developed prior to the operations to address the event of a clearance incident, specifying what needs to be done and who is responsible for what. The contingency plan shall be reviewed regularly, communicated clearly to all clearance and support personnel, and regularly rehearsed to ensure that all personnel are familiar with and understand their responsibilities.

The Contingency Plan of Silavan UXO Survey Clearance and Ordnance Disposal Company Limited (abbreviated as SLV). consists of two parts: a site-specific contingency plan and a general contingency plan.

a. A plan for stabilizing the injured and transporting the injured from the site along the route to a treatment facility (site-specific plan).

b. A plan for transporting the injured to a destination where the best treatment is available (general plan).

6.1 **Field Emergency Response Plan**

The field contingency plan covers the procedures for removing the casualty from the scene of the accident to the ambulance and until the ambulance leaves the field. The specific details of this plan will vary from field to field.

The field contingency plan should include:

a. Medical facilities and ambulances (including paramedics and drivers)

b. Approaching the site in the event of an accident

c. Routes from the site to the main road

Any tasks that are required but not specified in the emergency response plan, such as setting up a guard point to prevent outsiders from approaching the site.

6.2 **Overall Emergency Response Plan**

The overall emergency response plan includes the transportation of patients from any area where the clearance team is operating to the destination treatment facility. The emergency response plan should include the following:

a. Destination treatment facility for Silavan UXO Survey Clearance and Ordnance Disposal Company Limited (SLV) operations. This is typically the provincial or district hospital where the company's clearance team is operating.

b. The route used to transport the patient to the destination, which may include multiple routes, should include the following information:

(1) Road conditions

(2) Vehicles that can be used on the route

(3) Travel time between cities

(4) Road difficulties and restrictions

(5) Ferry and boat routes included in the contingency plan

(6) Details of ferry and bridge crossing fees (Tolls fees).

(7) Communication capabilities during travel along the designated route

(8) Route map

c. Details of medical facilities that may be used to assist in the process

(1) Location of the medical facility

(2) Route and travel time to the medical facility

(3) Hospital opening hours

(4) Number and qualifications of medical staff on duty at the hospital

(5) Types of illnesses and injuries that the hospital can treat

(6) Pharmaceutical supplies

(7) Special medical equipment such as X-ray machines

(8) Hospital Ambulance/emergency vehicles

d. Details of staff who will accompany the patient during the transfer

e. Communication throughout the transfer route

f. Procedures for transferring patients across borders, if any.

6.3 **Notification and Drill of Emergency Response Plan**

Before starting each task in each area, the task manager must ensure that all employees are informed of the emergency response plan, including:

a. Things to do in the event of an accident

b. The destination hospital and the nursing facility with the route to which the patient will be transferred.

c. The route used to transport the patient

d. What to do after the accident.

Before starting work in any area, the team must practice the patient evacuation plan in advance and practice it at least every 2 months. The task manager is responsible for training the teams under his command.

7. **Procedures in the event of an accident**

When an accident occurs, everyone will be immediately aware of it because of the sound of an explosion that occurs without planning or warning. The following steps must be taken:

a. Everyone must stop work and wait for instructions from the commander

b. The task manager must enter the area, command the situation.

The task manager must:

a. Designate personnel to assist injured persons in the accident and instruct other personnel to gather at the management area and wait there. Personnel may be required to:

(1) Assist medical personnel

(2) Maintain equipment

(3) Call for an ambulance

Prevent non-Silavan UXO survey and Ordnance Disposal Company Limited (SLV) personnel from entering the accident location.

b. Order the de-connecting/dismantle of the firing system in the event of an UXO demolitions.

c. Assign all personnel responsible for communication in the event of an accident to notify their superiors of the accident and the location of the accident. This step does not need to be detailed yet.

7.1 **Initial Situation Assessment**

The field supervisor should attempt to determine the cause of the accident and the type of UXO involved. If the cause of the accident is (or is suspected to be) a mine, do not allow anyone to enter the scene until the scene has been inspected. The area around the casualty should be inspected first and should be wide enough to allow other personnel to move the casualty to safety.

During the inspection, the same inspection methods should be used as during the clearance operation, with additional precautions. When inspecting into the casualty, the same distance should be used as for the clearance operation.

If the field supervisor determines that the scene is safe to approach, the paramedics should immediately proceed to assist the casualty. If there is more than one casualty, the paramedics should assess and prioritize the assistance.

In parallel with the assistance to the casualty, the ambulance/emergency vehicle should arrive at the designated point in the evacuation plan.

7.2 **Medical Assessment**

Medics should assess whether the injured person can be moved/or not to a safe location for treatment. If possible, the injured person should be moved to a safe location for treatment.

The medical staff is responsible for treating and stabilizing the injured person for transport to a hospital and advising the supervisor on the condition of the injured person, such as:

a. The severity of the injury.

b. The suitability of the injured person for transport.

c. The need for further treatment from a medical facility (before leaving for the destination hospital) to stabilize the injured person.

7.3 **Patient Transport**

Once the patient has received first aid and the injured person has been stabilized, the patient should be transported to a hospital immediately.

The patient should be transported by a medical staff with a medical kit and two rescuers with the same blood type as the injured person, following in the ambulance.

When transporting the patient, the vehicle used to transport the patient must have communication (radio, mobile phone or satellite phone) to be able to contact support.

If it is necessary to stop at an intermediate hospital on route before reaching the designed destination hospital, the paramedic and the ambulance must remain with the patient at all times until the patient is transported to the designated destination hospital.

The company field responsible officer, usually a Level 4 explosive ordnance disposal technician, must drive another vehicle to follow the ambulance to:

a. Monitor the patient's transport

b. Report the progress of the patient's cross-border transport, if necessary.

Note: If the field officer is not at the scene of the accident, he must accompany the ambulance during the transport of the patient to the hospital.

7.4 **Patient Tracking Form**

The patient tracking form is provided in the appendix A. These forms are used to:

a. Record the details of the casualty

b. Record the person treating the casualty

c. Record the patient's symptoms.

This form should be available to the paramedic operating at each field and should be completed for one casualty. This form should be completed when the casualty's condition has stabilized and while the casualty is being transported.

This form is to be kept and reviewed by the hospital staff when the patient is admitted for treatment.

8. Detailed accident report

As soon as an accident occurs, the field responsible officer must coordinate as specified in the accident response plan and notify the office and field manager.

When the injured person has been stabilized and will be transported to the hospital, the following information must be reported to the field manager:

a. Time and place of the accident

b. Name of the injured

c. Severity of the injury

d. Time of commencement of movement of the injured

e. Estimated time of arrival at the treatment facility or transit point

f. Details of the cause of the accident

h. Damaged equipment or tools

i. Other relevant information

The field manager, upon receiving notification of the accident, must prepare to meet with the

ambulance during the patient transfer and notify the office so that the office can notify the NRA as specified in the National Standard, Chapter 23.

9. Site Management

Once the casualty has been transported to the hospital, the field teamleader should prepare to close the accident scene and leave all equipment in place, possibly by cordoning off the site or by arranging for a guard to prevent animals or people from entering the site, waiting an internal investigation by the company and the NRA.

10. Incidents or accidents that must be reported to the NRA

Incidents or accidents that must be reported to the NRA include:

a. An UXO or explosives incident that results in injury or death to clearance deminers, visitors or local residents at the site.

b. An UXO or explosives incident that causes damage to equipment or property at the site.

c. An UXO or explosives incident that may cause harm to people or damage or destroy equipment or property.

d. UXO is found on land that has been handover to use, whether or not the munitions cause damage.

e. Where deminers, visitors or local residents are exposed to a risk of harm as a result of the implementation of national standards or the failure of equipment provided to deminers.

f. Explosion of UXO or explosives stored in explosive's storage facility, workplaces, vehicle offices or at clearance sites, regardless of the cause or outcome.

g. Accidents at clearance sites not involving UXO or explosives where the injured person is urgently transported to a modern medical facility. Accidents of this nature may indicate a deficiency in procedures or equipment.

11. Accident Investigation

After an accident occurs, Silavan UXO Survey Clearance and Ordnance Disposal Company Limited (abbreviated as SLV) will immediately appoint an internal investigation team to investigate the accident as specified in the National Standard, Chapter 23.

Further detailed investigation will be conducted by the NRA.

12. Vehicle Equipment or Non-clearance Accidents

The procedure for accidents involving vehicles or any non-clearance activity shall be as follows:

a. The person in a higher position at the scene shall take charge of the situation and remove the injured.

b. Remove the injured from the danger area, provide first aid and transport to hospital.

c. If communication with outside parties is possible, contact them for assistance as necessary.

d. The office of Silavan UXO Survey Clearance and Ordnance Disposal Co., Ltd. (Abbreviation as SLV) shall be notified of the accident, the injured and the transport of the injured.

The information to be reported to the office in this case is the same as for clearance accidents.

13. **Blood Group/Type**

Employees of Silavan UXO Survey Clearance and Ordnance Disposal Company Limited (abbreviated as SLV) will have their blood type checked and recorded in the office. Employees may need to donate blood to injured people in the event of an accident.

Details of each employee's blood type are only available to the teamleader and team paramedic.

14. **Treatment of White Phosphorus Injuries**

Details on the treatment of white phosphorus injuries and burns are provided in the appendix C at the end of this chapter.

Appendix B

Patient evacuation plan

1. A patient evacuation plan must be prepared at each site and must be available at the clearance site and at the company office.

2. The information to be considered when developing a patient evacuation plan for each site is as follows:

a. Location of the site (name of province, city and village)

b. Such information as:

(1) Types of vehicles that can operate on the roads/streets.

(2) Travel time between the site and the district hospital or health center and the provincial hospital or destination hospital.

(3) Details of ferry and bridge tolls.

(4) A map showing the roads in the area.

c. Information on the capacity of hospitals: such as health centers, district hospitals or provincial hospitals or hospitals in neighboring countries near the site of operation.

(1) Number of beds

(2) Qualifications of medical staff. Is there a doctor at the hospital?

(3) Types of diseases and injuries that the hospital can treat.

(4) Drug supply capacity

(5) Specialized medical equipment such as X-ray machines, etc.

(6) Hospital ambulances/emergency vehicles.

d. Communication capabilities along the route of transport.

e. Procedures for transporting patients across borders, if necessary, to a neighboring country for treatment.

Appendix C

Guidelines for the treatment of white phosphorus (WP) injuries

1. People injured by white phosphorus will receive special treatment. White phosphorus burns when exposed to air and will continue to burn until the oxygen in the body is depleted. The following treatment should be given:

a. Pour water over the burn. When the burning phosphorus in the body is exhausted, it will stop burning. This will cool the wound and protect it from heat.
b. If possible, immerse the white phosphorus burn in water. This is one way to stop the burn.
c. If possible, remove any object that is not flammable in white phosphorus and throw it away. This will reduce the risk of the fire starting again. Whatever the case, remember that you are unlikely to be able to remove it and that if you try to do so, you may take the victim's flesh with you.
d. Cover with a damp cloth and keep moist to protect the wound from contact and prevent re-injury.

2. Treat shock by providing warmth, rest, comfort, and fluids (if it is safe to give fluids, give fluids).

3. Prioritize the patient for transport to the hospital, remembering that these patients have permanent wounds and that only trained personnel with the appropriate equipment can remove the white phosphorus completely.

Note: If there is no water to soak the area, you can cover the newly exposed area with mud to keep it out of the air.