



## Chapter 5: First Aid

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### Introduction

This chapter provides basic Emergency Responder response, safety and transportation for injured persons in the maritime environment. It may include:

- Providing immediate temporary assistance.
- Saving life
- Preventing further injury or unfavorable progression
- Preserving vitality and resistance to infection
- Delivering the victim if necessary

### In This Chapter

In this section we talk about crewmember roles as well as immobilizing and transporting a patient.

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## Section A. Crewmembers' Roles

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### Introduction

Proper knowledge and skill in first aid are essential for boat crewmembers. A well-trained crew that responds effectively and professionally to an emergency situation may be the difference between life and death or temporary injury and disability of the victim. [If the presence of injury is known prior to the departure from port of one of the Great Salt Lake rescue vessels it is the practice of the Division to wait for medical personnel from Unified Fire, Tooele County, or Davis County to arrive at the marina and then transport medical personnel to the scene.](#) If injury is not known prior to departure it is vitally important that boat crew members be trained in first aid/CPR in order to handle situations that are unknown at the time or that may arise. To be a certified Boat Crew Member (BCM) one must minimally have completed and be current with both basic first aid and CPR.

### A.1. Responsibilities

The Division authorizes crewmembers to render first aid, consistent with their training, in their role as emergency responders. Mission coordinators (Incident Command) or dispatch should always be advised of emergency medical situations. Crewmembers must contact incident command or dispatch and request immediate medical assistance for serious injury cases so that appropriate medical resources can be contacted. Incident command or dispatch will activate the appropriate EMS system. Crewmembers providing first aid must do the following:

- Evaluate the scene (SCENE SAFETY)
- Consider whether or not the rescuers are trained and equipped to safely render assistance

- Protect themselves from injury or infection
- Keep calm
- Act quickly
- Call Incident Command or dispatch as appropriate to activate EMS if necessary.

### **A.1.a Scene Assessment**

When responding, a quick survey of the scene is performed. An unsafe scene should not be entered until the crew is fully prepared and protected against hazards such as entanglement in rigging or lines, toxic vapors, fire, boat stability, blood, or body fluids. As rescuers it is important for the area around the injured to be safe before attempting first aid. Rescuer injury while administering first aid will only complicate an already difficult situation.

### **A.1.b Initial Patient Assessment**

Crewmembers should stop and assess the overall condition of the victim, and determine whether or not assisting the patient with the resources at hand is possible or if it requires further help. When more definitive care is required for more serious injury cases, assistance should be sought immediately by calling for help and activating the local EMS system. The following information is important to notice during an initial assessment:

- Number of patient(s)
- General condition of patient(s)
- Mechanism (type) of injury
- Patient(s) level of consciousness (AVPU)
- Causes or symptoms of shock:
  - Mechanisms consistent with a serious injury such as a gunshot wound, fall from a mast, major burn, crushing accident, etc.
  - If the patient's state of health has been compromised, for example, prolonged exposure to the elements, dehydration, malnourishment, etc.

NOTE: In this section, serious injury cases are considered those that need attention from a medical professional. A serious case also may be one in which the crew decides the injury is beyond its medical capabilities.

WARNING: Unprotected crewmembers, who come in direct contact with human blood, should immediately report each incident to the VO or their direct supervisor.

### **A.1.c. Protective Devices**

Human blood may contain blood borne pathogens such as Hepatitis B virus which cause Hepatitis B and AIDS, respectively. Crewmembers should take all reasonable precautions to prevent direct contact with human blood by wearing PPE such as clean disposable gloves or more complete equipment depending on the degree of contamination before making contact with the patient. If available, masks and eye protection should be worn in any instance of known or suspected respiratory infection (i.e., TB). Blood-soaked gloves and other material should be disposed of with great care.

## **A.2. Handling and Transporting of Injured**

Transporting injured persons aboard boats to medical treatment facilities is a serious problem that boat crewmembers may encounter. In many situations, it is difficult, if not impossible, for medical help to

reach victims. Therefore, the boat crew must possess a basic knowledge of how to transport injured persons safely and quickly to a location where appropriate medical treatment is available.

### **A.2.a VO Duty**

The sooner a victim arrives at a place where medical attention is available, the better. It is the responsibility of the VO and crew to safely transport the victim as rapidly as possible, while preventing further injury, shock, or unnecessary pain.

### **A.2.b. Moving a Patient**

Moving a patient is precise work and any carelessness is unacceptable. It requires close teamwork and great care. Even procedures that may seem simple and obvious, such as placing a patient in a litter, demand training, coordination, and skill.

These are important rules to remember when transporting an injured person:

- Notify Incident Command or dispatch so that appropriate medical resources can be activated
- If possible, avoid moving the patient until that person is examined and all injuries are protected by properly applied splints, dressing, etc.
- If head or neck injury is suspected, immobilize prior to movement
- Seek assistance before moving patient
- For conscious patients, always explain the move procedure in advance
- Patient movements should be careful, deliberate, and minimum required
- Almost all patients are transported laying down
- Do not further harm the patient
- Move the patient's body as a unit
- Use proper lifting and moving techniques to ensure your own safety
- Have one crewmember give commands when moving a patient (usually the crewmember at the patient's head)
- Move the patient as few times as possible

SAFETY NOTE: Whatever techniques you use for moving the patient, keep these rules of good body mechanics in mind:

- Know your own physical limitations and capabilities. Do not try to lift too heavy a load
- Keep yourself balanced when lifting or moving a patient
- Maintain a firm footing
- Lift and lower the patient by bending your legs, not your back. Keep your back as straight as possible at all times and use your large leg muscles do the work.
- Try to keep your arms close to your body for strength and balance
- Move the patient as little as possible

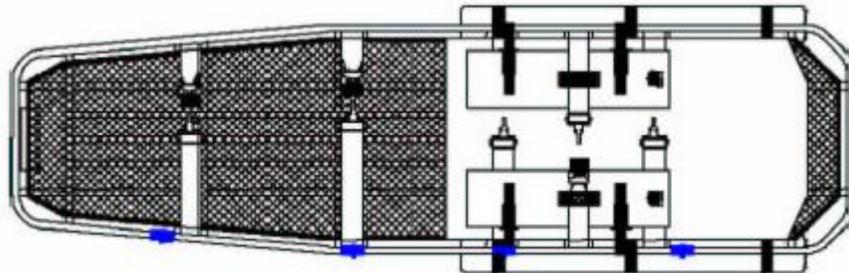
### **A.3. Backboard**

Division vessels may or may not be equipped with a backboard. Know before you go. [Rescue One is equipped with a backboard](#). The backboard is used to immobilize patients who have neck or back injuries. It can also be used to assist in lifting patients but the [Stokes litter should be used to move patients from a boat to Rescue One](#). Spider straps should be used to secure the patient to the backboard



#### A.4 Stokes Litter

The Stokes litter (ridged or folding) is a mobile transportation device designed to safely transport non-ambulatory personnel onboard a Division rescue vessel for the application. The basic stokes litter is used for surface operations only and should not be used for hoisting operations.



##### A.4.a Flotation Characteristics

When the litter is configured in accordance with the Maintenance Procedure Cards it will float face-up at a 45-degree angle with the foot end submerged. The top 18 to 24 inches at the head end of the litter will be above the surface of the water. The stokes litter is not self-righting

**WARNING** - PATIENTS WEARING BOYANT GARMENTS, SUCH AS EXPOSURE SUITS ORE PFD'S WILL AFFECT AND POSSIBLY NEGATE THE FLOTATION AND SELF-RIGHTING CHARACTERISTICS OF THE LITTER. DILIGENT ATTENTION TO FLOTATION CHARACTERISTIC CHANGES WHEN PATIENTS ARE SECURED IN THE LITTER MUST BE MAINTAINED.

**WARNING** - THE FOLLOWING IN-WATER PATIENT RESTRAINT PROCEDURE MUST BE TRAINED PRIOR TO USE. CREW COORDINATION BETWEEN THE SWIMMER AND DECK CREW IS CRITICAL TO EVOLUTION SUCCESS. RECURRENT TRAINING OF THIS PROCEDURE IS HIGHLY RECOMMENDED.

**NOTE** – Tending lines and hoisting sling cables must be kept from interfering with patient restraint straps. The restraint straps shall be disconnected and secured to the side of the litter prior to lowering the litter to the water surface. The flotation pad straps shall be secured to the litter.

**NOTE** – When securing restraint straps, difficulty may be encountered with patients wearing buoyant garments. Buoyant garments are not to be removed; instead place as much slack in the restraint strap as possible and attempt to connect the buckle.

**WARNING** – IF THE PATIENT IS SECURED TO A BACKBOARD OR SPINAL IMMOBILIZATION DEVICE, DO NOT REMOVE IT.

#### **A.4.b In-Water Patient Restraint**

Use the following procedure to secure a patient in the litter while in the water.

- Remove the litter from the cab of Rescue One
- Check to confirm flotation straps are secure and in good working order.
- Disconnect restraining straps.
- Deploy the litter in the water with the use of a tow line.
- Guide the patient into the litter with a collar or equipment tow.
- Secure the patient to the litter using restraining straps.
- Pull the litter towards the swim platform of Rescue One using the tow line.
- Retrieve litter and patient from water.

#### **A.4.c Configuration**

The VO is responsible for ensuring that the Stokes litter is maintained and configured properly.

#### **A.4.d Flotation Kit Requirements**

The flotation kit assembly shall be installed for operations from Division rescue vessels.

#### **A.4.e Helicopter Hoisting**

The Stokes litter carried aboard Rescue One is not authorized for helicopter hoists and shall not be used for that purpose.

#### **A.4.f Maintenance and Repair**

Salt water rapidly degrades and/or corrodes Stokes litters and associated components. If Stokes litters are used, they must be thoroughly rinsed after the completion of the mission. Maintenance requirements can be found on the applicable Maintenance Procedure Cards. Repairs are limited to the attached component replacement. Structural repairs to the litter frame are not authorized at the Division level. Structural repairs may be accomplished by the manufacturer.

#### **A.4.g Inspection**

The Stokes litter should be inspected quarterly as well as post-mission. It should also be thoroughly rinsed post mission.