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# Standard Guide for Performance of a Water Rescuer—Level I<sup>1</sup>

This standard is issued under the fixed designation F1739; the number immediately following the designation indicates the year of original adoption or, in the case of revision, the year of last revision. A number in parentheses indicates the year of last reapproval. A superscript epsilon ( $\varepsilon$ ) indicates an editorial change since the last revision or reapproval.

# 1. Scope

- 1.1 This guide covers minimum requirements for the scope of performance of a water rescuer I who may be responsible for the initial on scene evaluation, performing land based water rescues, and providing initial patient care at a water rescue incident.
- 1.2 This guide is one in a series; water rescuer I is only a beginning level designed for a water rescue responder. Duties and responsibilities at water rescue operations vary according to the water rescuer's skills and knowledge. As the water rescuer level I progresses and becomes more proficient, the individual will move from responder to in-water rescuer to rescue boat operator.
- 1.3 This standard may involve hazardous materials, operations, and equipment. This standard does not purport to address all of the safety concerns, if any, associated with its use. It is the responsibility of the user of this standard to establish appropriate safety and health practices and determine the applicability of regulatory limitations prior to use.

#### 2. Referenced Documents

2.1 American Red Cross Standards:<sup>2</sup> Standards and Guidelines for Cardiopulmonary Resuscitation (CPR) and Emergency Cardiac Care Standards and Guidelines for Standard First Aid

2.2 American Heart Association: Basic Cardiac Life Support (BCLS)

### 3. Terminology

- 3.1 Definitions of Terms Specific to This Standard:
- 3.1.1 *water rescuer I, WRI, n*—an individual competent to perform on scene evaluations, water rescues only from land, and provide initial care for victims.
- <sup>1</sup> This document is under the jurisdiction of ASTM Committee F32 on Search and Rescue and is the direct responsibility of Subcommittee F32.03 on Personnel, Training and Education.
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- $^2$  Available from American Red Cross, 2025 E. St., NW, Washington, DC 20006, http://www.redcross.org.

- 3.1.2 basic life support cardiopulmonary resuscitation, BLS/CPR, n—a set of skills which includes airway management, artificial respiration, and chest compressions.<sup>3</sup>
- 3.1.3 *drowning*, *n*—death due to submersion and usually suffocation in water or other fluid media.
- 3.1.4 *near drowning, n*—a resuscitated drowning victim who survives, at least temporarily, following a submersion injury.
- 3.1.5 cold water near drowning, n—a complex series of physiological reactions which occur as a result of being immersed in cold water (21°C or 70°F and below) which may allow a person to survive up to an hour, possibly more, under water.
- 3.1.6 *floating tether, tag line, n*—a water rescue technique which stretches a line across a body of water. This line has a flotation device attached to it to keep the rope on the surface of the water and to provide a buoyant object for the victim to grab and hold.
- 3.1.7 *heat-related illnesses*, *n*—conditions consisting of heat cramps, heat exhaustion, and heat stroke which develop from an overexposure to heat.
- 3.1.8 *hypothermia*, n—reduction of the body core temperature to 35°C (95°F) and below.
- 3.1.9 *h.e.l.p. position, n*—heat escape lessening posture is a single person water rescue technique for heat conservation when immersed in cold water. This technique conserves heat by using personal flotation devices, clothing, and body posture to limit exposure of the body's major heat loss areas to the cold water.
- 3.1.10 *huddle position*, *n*—a multiple person water rescue technique for heat conservation when immersed in cold water and the majority of the rescuers are wearing personal flotation devices. This technique conserves heat by using personal flotation devices and clothing, group body contact, and body posture to limit exposure of the body's major heat loss areas to the cold water.

<sup>&</sup>lt;sup>3</sup> Available from your local American Red Cross Chapter or your American Heart Association Chapter. Reprinted from the Journal of the American Medical Association (JAMA). Copies are available from the American Heart Association, 7272 Greenville Ave., Dallas, Texas 75231.

- 3.1.11 *PFD*, *n*—a buoyant device suitable for use by one person in water emergencies. These devices may be vests, ring buoys, life preservers, cushions, and other special purpose buoyant devices.
- 3.1.12 *self rescue swim in moving water, n*—a defensive water survival/rescue technique for swimming swift rivers and rapids consisting of lying on the back (as horizontal and near to the surface as possible), feet first going downstream to fend off all obstacles including rocks, backstroking with arms, flutter kicking with feet, and angling body towards shore.
- 3.1.13 *sinking tether, snag line, n*—a water rescue technique which stretches a weighted line across a body of water to snag or support fully or partly submerged objects and people.

## 4. Significance and Use

- 4.1 The purpose of this guide is to establish a minimum level of knowledge and skills for the water rescue responder. The application will improve the quality of initial emergency response, the rescue of the water victims, and the safety of the rescuers.
- 4.2 All persons who are identified as water rescuers and water rescue responders shall meet the requirements of this guide.
- 4.3 This guide does not preclude the scope of performances for water rescuers needing more advanced or more specialized water rescue training.
- 4.4 This guide will assist government agencies, state, local, or regional organizations; fire departments; rescue teams, and others who are responsible for establishing a minimum performance for personnel who respond to water emergencies.

# 5. Requirements

- 5.1 *Knowledge Requirements*—These are not in any order and do not suggest a particular performance sequence. The water rescuer I shall be able to:
  - 5.1.1 Identify potential water hazards,
  - 5.1.2 Identify a drowning victim's behavior,
- 5.1.3 Identify treatment for a drowning victim and near drowning victim according to the standard of care to which the responder has been trained,
- 5.1.4 Identify heat-related illnesses and their treatments according to the standard of care to which the responder has been trained,
- 5.1.5 Identify hypothermia and its treatment according to the standard of care to which the responder has been trained,
- 5.1.6 Identify cold water near drowning and its treatment according to the standard of care to which the responder has been trained.
- 5.1.7 Identify the purpose and the important factors in selecting a personal flotation device (PFD) for basic water

- rescue work, that is, flotation for individual self, fit, freedom of movement, visibility, protection, and physical comfort. These devices should conform to standards set by the appropriate national regulatory, that is, the U.S. Coast Guard in the United States, and be in good and serviceable condition,
- 5.1.8 Identify other appropriate key pieces of personal safety equipment, that is, thermal protection, helmet, whistle, knife, lights, footwear,
- 5.1.9 Identify the elements of a water emergency, that is, extrication, medical, evacuation, communication, support,
- 5.1.10 Identify the water rescue sequence, that is, talk, reach, throw, row, go,
- 5.1.11 Identify the different types of lines (ropes) and their applications for basic water rescue, and
- 5.1.12 Identify the uses of a figure 8 knot (stopper), figure 8 on a bight, and the figure 8 bend knots, that is, to prevent the rope from slipping through equipment, to provide a reliable loop, to join two ropes together.
- 5.2 *Performance Requirements*—These are not in any order and do not suggest a particular performance sequence. The water rescuer I shall be able to:
- 5.2.1 Provide BLS/CPR in accordance with American Heart Association/American Red Cross (AHA/ARC) or other nationally accredited program,
- 5.2.2 Provide patient assessment and initial patient care according to the standard of care to which the responder has been trained,
- 5.2.3 Demonstrate the ability to continuously swim 30 m (100 ft) while wearing a PFD,
  - 5.2.4 Demonstrate the h.e.l.p. position,
  - 5.2.5 Demonstrate the huddle position,
  - 5.2.6 Demonstrate a self rescue swim in moving water,
  - 5.2.7 Demonstrate a reach technique,
- 5.2.8 Demonstrate throwing rescues using a throw bag and using a coiled line,
- 5.2.9 Demonstrate the floating tether (tag line) rescue and the sinking tether (snag line) rescue as a shore based rescue,
- 5.2.10 Demonstrate by tying the figure 8 knot (stopper), figure 8 on a bight, and the figure 8 bend knot,
- 5.2.11 Evaluate a simulated rescue incident and initiate an appropriate shore based water rescue technique,
  - 5.2.12 Evaluate the patient's current situation and condition,
- 5.2.13 Evaluate the current environmental conditions and take appropriate actions to protect rescuers, victims, and other persons, and
- 5.2.14 Evaluate the available flotation, reaching and throwing equipment, and use them properly.

#### 6. Keywords

6.1 water rescue; water rescue responder; water rescue techniques; water rescuer I

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