



Designation: F1453 – 92 (Reapproved 2020)

Standard Guide for Training and Evaluation of First Responders Who Provide Emergency Medical Care¹

This standard is issued under the fixed designation F1453; 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 (ϵ) indicates an editorial change since the last revision or reapproval.

1. Scope

1.1 This guide covers the minimum training standards for First Responders (FRs) who may be responsible for the initial care of sick and injured persons of all ages in the prehospital environment.

1.2 The scope of training will be in accordance with Guide F1287.

1.3 Included in this guide is a standard for knowledge and skill evaluation.

1.4 This guide does not suggest a particular training sequence.

1.5 *Operating within the framework of this guide may expose emergency medical service personnel to hazardous materials, procedures 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, health, and environmental practices and determine the applicability of regulatory limitations prior to use.* For specific precautionary statements, see the documents cited in 2.2.

1.6 *This international standard was developed in accordance with internationally recognized principles on standardization established in the Decision on Principles for the Development of International Standards, Guides and Recommendations issued by the World Trade Organization Technical Barriers to Trade (TBT) Committee.*

2. Referenced Documents

2.1 *ASTM Standards:*²

F1031 [Practice for Training the Emergency Medical Technician \(Basic\)](#)

¹ This guide is under the jurisdiction of ASTM Committee F30 on Emergency Medical Services and is the direct responsibility of Subcommittee F30.02 on Personnel, Training and Education.

Current edition approved Nov. 1, 2020. Published November 2020. Originally approved in 1992. Last previous edition approved in 2012 as F1453 – 92 (2012). DOI: 10.1520/F1453-92R20.

² For referenced ASTM standards, visit the ASTM website, www.astm.org, or contact ASTM Customer Service at service@astm.org. For *Annual Book of ASTM Standards* volume information, refer to the standard's Document Summary page on the ASTM website.

F1177 [Terminology Relating to Emergency Medical Services](#) (Withdrawn 2018)³

F1287 [Guide for Scope of Performance of First Responders Who Provide Emergency Medical Care](#)

2.2 *Code of Federal Regulations:*⁴

Part 1910.1030 of Title 29 of the Code of Federal Regulations Concerning Bloodborne Pathogens

Part 1910.120 of Title 29 of the Code of Federal Regulations Concerning Hazardous Materials Emergency Response & Training

Part 1910.132 of Title 29 of the Code of Federal Regulations Concerning Personal Protective Equipment

Part 331.000 of Title 21 of the Code of Federal Regulations Concerning Registration of Medical Devices

2.3 *Other Documents:*

Most recent [Standards and Guidelines for Cardiopulmonary Resuscitation and Emergency Cardiac Care](#) as reprinted from the [Journal of the American Medical Association \(JAMA\)](#)⁵

3. Terminology

3.1 *Definitions of Terms Specific to This Standard:*

3.1.1 *basic life support/cardiopulmonary resuscitation (BLS/CPR)*—a set of skills that includes airway management, chest compressions, and others as defined by the American Heart Association (AHA).

3.1.2 *first responder (FR)*—an individual trained to provide initial care for sick or injured persons in accordance with this guide.

4. Significance and Use

4.1 This guide is for those responsible for the development and implementation of training and evaluation programs for first responders (FRs).

³ The last approved version of this historical standard is referenced on www.astm.org.

⁴ Available from Standardization Documents Order Desk, Bldg. 4 Section D, 700 Robbins Ave., Philadelphia, PA 19111-5094, Attn: NPODS.

⁵ Available from American Heart Association (AHA), 7272 Greenville Ave., Dallas, TX 75231, <http://www.americanheart.org>.

4.2 At the beginning of the program, students shall be informed of the course objectives and requirements for successful completion.

4.3 This guide is not intended for use as a training guide for emergency ambulance personnel.

5. Required Performance Objectives

5.1 The FR shall be trained to perform the following skills. These skills are not necessarily listed in the order in which they are to be taught or that in which they may have to be performed during the prehospital care of a sick or injured person.

5.1.1 *Roles and Responsibilities*—Describe and demonstrate an understanding of the roles and responsibilities of the FR for the provision of prehospital emergency care within the local emergency medical services (EMS) system.

5.1.2 *Medicolegal Aspects*—Describe and demonstrate an understanding of the medicolegal aspects of a FR's provision of emergency medical care in the jurisdiction having authority, including, but not limited to, duty to act, standard of care, consent to care, forcible restraint, abandonment, documentation, and any applicable Good Samaritan Laws.

5.1.3 *Vital Signs and Other Indicators of a Sick or Injured Person's Condition*—Determine and record vital signs exhibited by a sick or injured person, including pulse, respiration, skin color, temperature and moistness, level of consciousness, and an estimate of blood pressure.

5.1.4 *Emergency Medical Identification*—Identify the most commonly used medical identification devices and apply the information contained on or in the device to patient assessment and patient care procedures.

5.1.5 *Primary Assessment*—Conduct an assessment for problems that are a threat to life if not corrected immediately, including an inadequate airway, inadequate respirations, inadequate circulation, and profuse bleeding, using spinal precautions as appropriate.

5.1.6 *BLS/CPR*—Conduct basic life support procedures, including the establishment and maintenance of an open airway and the restoration of breathing and circulation by means of cardiopulmonary resuscitation.

5.1.7 *Bleeding:*

5.1.7.1 Control external bleeding by means of direct pressure and elevation.

5.1.7.2 Identify the likelihood of internal bleeding through the observation of signs, symptoms, and mechanisms of injury.

5.1.7.3 Care for a patient who exhibits the signs and symptoms of internal bleeding.

5.1.8 *Dressing and Bandaging:*

5.1.8.1 Identify items that can be used to control external bleeding and minimize the contamination of open wounds.

5.1.8.2 Apply pressure dressings that will control bleeding and minimize the contamination of open wounds.

5.1.9 *Shock:*

5.1.9.1 Recognize the likelihood that shock may occur or be present on the basis of patient assessment and observation of a mechanism of injury.

5.1.9.2 Provide anti-shock measures as a part of routine patient care.

5.1.10 *Mechanical Aids to Breathing:*

5.1.10.1 Use available mechanical devices to ensure the maintenance of an open airway.

5.1.10.2 Use available mechanical devices to assist ventilation.

5.1.10.3 Use available oxygen delivery equipment.

5.1.10.4 Use available suction equipment.

5.1.11 *Secondary Assessment:*

5.1.11.1 Conduct a methodical head-to-toe physical examination to discover conditions not found during the primary assessment.

5.1.11.2 Interview the sick or injured person to obtain facts relevant to the person's condition.

5.1.11.3 Interview co-workers, witnesses, family members, or other individuals to obtain facts relevant to the person's condition.

5.1.12 *Musculoskeletal Injuries:*

5.1.12.1 Identify the various types of musculoskeletal injuries.

5.1.12.2 Immobilize and otherwise care for suspected fractures, dislocations, sprains, and strains with available equipment.

5.1.13 *Spine Injuries:*

5.1.13.1 Determine the likelihood of a spinal injury on the basis of the patient assessment and an observation of a mechanism of injury.

5.1.13.2 Perform manual spinal stabilization.

5.1.13.3 Immobilize a person who has a suspected spinal injury with available equipment.

5.1.14 *Emergency Evacuation*—Alone or with a partner, use the most appropriate assist, drag, or carry to move a sick or injured person from a dangerous location to a safe place.

5.1.15 *Patient Transfer*—Use an available patient-carrying method or device to move a sick or injured person from the place of initial care to the location of transport.

5.1.16 *Non-Traumatic Chest Pain:*

5.1.16.1 Identify a patient who is experiencing non-traumatic chest pain on the basis of the patient assessment.

5.1.16.2 Care for a patient who is experiencing non-traumatic chest pain.

5.1.17 *Respiratory Distress:*

5.1.17.1 Identify a patient who is experiencing respiratory distress on the basis of the patient assessment.

5.1.17.2 Care for a patient who is experiencing respiratory distress.

5.1.18 *Diabetic Emergencies:*

5.1.18.1 Identify a diabetic emergency on the basis of the patient assessment.

5.1.18.2 Care for a patient who is experiencing a suspected diabetic emergency.

5.1.19 *Seizures:*

5.1.19.1 Identify a patient who is experiencing or has experienced a seizure on the basis of the patient assessment.

5.1.19.2 Care for a patient who is experiencing or has experienced a seizure.

5.1.20 *Poisoning:*

5.1.20.1 Identify poisoning as the possible cause of a patient's medical emergency on the basis of the patient assessment.

5.1.20.2 Care for a patient who has ingested a poisonous substance.

5.1.20.3 Care for a patient who has inhaled a poisonous substance.

5.1.20.4 Care for a patient who has absorbed a poisonous substance.

5.1.20.5 Care for a patient who has been injected with a poisonous substance.

5.1.21 *Altered Level of Consciousness:*

5.1.21.1 Identify a patient with an altered level of consciousness on the basis of the patient assessment and an observation of a mechanism of injury.

5.1.21.2 Care for a patient whose level of consciousness has been altered.

5.1.22 *Burns:*

5.1.22.1 Determine the severity of burns, including degree, body surface area, type, and location.

5.1.22.2 Care for a patient who has thermal burns.

5.1.22.3 Care for a patient who has chemical burns.

5.1.22.4 Care for a patient who has electrical burns.

5.1.23 *Environmental Emergencies:*

5.1.23.1 Determine that a medical emergency has resulted from exposure to heat or cold on the basis of the patient assessment.

5.1.23.2 Care for a patient who is experiencing heat cramps.

5.1.23.3 Care for a patient who is experiencing heat exhaustion.

5.1.23.4 Care for a patient who is experiencing heat stroke.

5.1.23.5 Care for a patient who is experiencing frostbite.

5.1.23.6 Care for a patient who is experiencing hypothermia.

5.1.24 *Special Patient Situations*—Care for patients who have special needs, such as children, the elderly, and the physically and developmentally challenged.

5.1.25 *Triage:*

5.1.25.1 Categorize the victims of multiple casualty incidents, according to the severity of injury or illness, on the basis of patient assessments.

5.1.25.2 Use triage tags or other identification devices available locally to indicate priorities for prehospital emergency care and transportation to medical facilities.

5.1.26 *Multiple Casualty Incidents:*

5.1.26.1 Work as a member of a team to perform triage at locations of multiple casualty incidents.

5.1.26.2 Work as a member of a team to perform patient assessments at locations of multiple casualty incidents.

5.1.26.3 Work as a member of a team to conduct patient care procedures at the locations of multiple casualty incidents.

5.1.27 *Potential Dangers:*

5.1.27.1 On the basis of an assessment of a scene, take steps to minimize the chance of injury or death to all involved when confronted with a potentially life-threatening situation.

5.1.27.2 Utilize appropriate precautions to minimize the risk of disease transmission.

5.1.28 *Entrapment Situations:*

5.1.28.1 Identify accident-related hazards and undertake hazard control measures consistent with the capabilities of the FR and available equipment.

5.1.28.2 Use available equipment safely to gain access to persons who are entrapped.

5.1.28.3 Use available equipment safely to disentangle persons from entrapment mechanisms.

5.1.29 *Childbirth:*

5.1.29.1 Evaluate a mother to determine whether delivery is imminent.

5.1.29.2 Assist with a normal delivery.

5.1.29.3 Care for the mother and baby.

5.1.29.4 Identify abnormal childbirth situations, and care for the mother and baby within the FR's capabilities.

5.1.30 *Critical Incident Stress:*

5.1.30.1 Identify stressors that may affect the performance of a FR.

5.1.30.2 Identify stressors that may affect the behavior of a sick or injured person.

5.1.30.3 Conduct procedures to minimize critical incident stress.

5.1.31 *Patient Information*—Communicate the observations and actions of the FR to whomever patient care is transferred.

6. Optional Objectives

6.1 The roles and responsibilities for the provision of initial emergency medical care vary among FRs. When the responsibilities for initial emergency medical care are limited, the ability of a FR to perform the tasks in Section 5 may be sufficient to ensure satisfactory care. When a FR must care for a greater variety of illnesses and injuries, additional training shall be necessary.

7. Evaluation

7.1 There shall be a final written and practical evaluation that measures the ability of the FR to meet the objectives listed in Section 5.

7.2 There shall be established pass/fail criteria or a method for grading, or both.

7.3 There shall be a method of remediation.

7.4 There shall be a method for retesting.

8. Keywords

8.1 basic life support; basic life support/cardiopulmonary resuscitation (BLS/CPR); emergency medical services (EMS); emergency medical technician (EMT); first responder (FR); prehospital; triage