



# Standard Guide for Scope of Performance of First Responders Who Practice in the Wilderness or Delayed or Prolonged Transport Settings<sup>1</sup>

This standard is issued under the fixed designation F1616; 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 ( $\epsilon$ ) indicates an editorial change since the last revision or reapproval.

## 1. Scope

1.1 This guide covers minimum performance requirements for first responders who may initially provide care for sick or injured persons in the specialized pre-hospital situations of the wilderness or delayed or prolonged transport settings, including catastrophic disasters.

1.2 Individuals who will operate in the wilderness or delayed or prolonged transport settings need to be aware of the physical requirements necessary to be able to perform all identified objectives and necessary skills required for the setting.

1.3 This guide establishes supplemental or continuing education programs that will be taught to individuals trained to the first responder level by an appropriate authority.

1.4 This guide does not establish performance standards for use in the traditional emergency medical services (EMS) or ambulance transportation environment.

1.5 This guide does not establish medical protocols; nor does it authorize invasive procedures without specific authorization and medical control.

1.6 Successful completion of a course based on this guide does not constitute or imply certification or licensure.

1.7 *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 ASTM Standards:<sup>2</sup>

<sup>1</sup> 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 June 1, 2016. Published June 2016. Originally approved in 1995. Last previous edition approved in 2009 as F1616 – 95(2009). DOI: 10.1520/F1616-95R16.

<sup>2</sup> For referenced ASTM standards, visit the ASTM website, [www.astm.org](http://www.astm.org), or contact ASTM Customer Service at [service@astm.org](mailto: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](#)

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

[F1453 Guide for Training and Evaluation of First Responders Who Provide Emergency Medical Care](#)

[F1490 Terminology Relating to Search and Rescue \(Withdrawn 2011\)<sup>3</sup>](#)

2.2 *Code of Federal Regulations*:<sup>4</sup>

[Title 29, Part 1910.1030, Bloodborne Pathogens](#)

2.3 *Department of Transportation Document*:<sup>4</sup>

[U.S. DOT HS 900-25, Course Guide, Emergency Medical Services: First Responder Training Course, 1979](#)

## 3. Terminology

### 3.1 Definitions:

3.1.1 *access*—the process of reaching the patient/subject and establishing physical contact.

3.1.2 *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).

3.1.3 *definitive care (see Terminology F1177)* —a level of therapeutic intervention capable of providing comprehensive health care services for a specific condition.

3.1.4 *evacuation (see Terminology F1490)* —the process used between the time of extraction and transportation.

3.1.5 *extraction (see Terminology F1490)* —the process of initial assessment, treatment, stabilization, and packaging of the patient/subject as well as removal of the patient/subject from the immediately hazardous environment.

3.1.6 *first responder*—an individual trained to meet the requirements of Guide F1287.

3.1.7 *transportation*—the use of a specially designed vehicle to move a patient to a medical facility or definitive care facility.

<sup>3</sup> The last approved version of this historical standard is referenced on [www.astm.org](http://www.astm.org).

<sup>4</sup> Available from Standardization Documents Order Desk, Bldg. 4 Section D, 700 Robbins Ave., Philadelphia, PA 19111-5098, Attn: NPODS.

### 3.2 Definitions of Terms Specific to This Standard:

3.2.1 *delayed or prolonged transport setting*— when the time between patient injury and arrival at a definitive care facility is greater than 60 min.

3.2.2 *nontraditional EMS environment*—an environment that is not readily accessible to a ground ambulance.

3.2.3 *wilderness first responder (WFR)*—an individual trained to meet the requirements of this guide.

3.2.4 *wilderness setting*—situations in which the delivery of patient care by EMS providers is complicated by one or more of the following factors: (1) remoteness with respect to logistics and access; (2) a significant delay in the delivery of care to the patient; (3) an environment that is physically stressful to both patients and rescuers; and (4) lack of equipment, supplies, and transportation.

## 4. Significance and Use

4.1 This guide is intended to expand the scope of the practice of first responders and improve the emergency medical care delivered to patients in the wilderness or delayed or prolonged transport settings.

4.2 This guide does not suggest a particular performance sequence.

4.3 Individuals will be trained initially or concurrently in accordance with the U.S. DOT HS 900-25, *Course Guide*, and Guide **F1453**.

4.4 This guide may be used by individuals who develop training programs for nontraditional EMS environments.

4.5 This guide acknowledges the need for additional or specific training required for the wilderness or delayed or prolonged transport settings.

## 5. Required Objectives

5.1 The WFRs shall be able to accomplish the following:

5.1.1 Identify specific subjects included within the scope of Guide **F1287**, where traditional patient care is not sufficient or appropriate, due to a patient being in the wilderness or delayed or prolonged transport settings; and manage such problems in an appropriate manner.

5.1.2 Demonstrate a knowledge of anatomy and physiology sufficient to apply emergency care principles to the unique problems found in the wilderness or prolonged or delayed transport settings.

5.1.3 Identify and manage the following medical problems in the wilderness or delayed or prolonged transport settings:

5.1.3.1 Abdominal pain,

5.1.3.2 Vomiting,

5.1.3.3 Diarrhea,

5.1.3.4 Diabetes,

5.1.3.5 Seizure disorders,

5.1.3.6 Respiratory distress (for example, asthma and altitude),

5.1.3.7 Allergies,

5.1.3.8 Hypertension,

5.1.3.9 Cardiac emergencies, and

5.1.3.10 Dental emergencies.

5.1.4 Identify and manage illness or injury related to or caused by the environment in the wilderness or delayed or prolonged transport settings, including the following:

5.1.4.1 Altitude illness (for example, acute mountain sickness, high-altitude pulmonary edema, and high-altitude cerebral edema);

5.1.4.2 Barotrauma;

5.1.4.3 Cold injury (for example, hypothermia and frost-bite);

5.1.4.4 Heat illness (heat stroke and heat exhaustion);

5.1.4.5 Electrical and lightning injuries;

5.1.4.6 Exposure to plant or animal (for example, insect, reptile, arachnid, and marine) toxins;

5.1.4.7 Drowning, near-drowning, and cold water immersion; and

5.1.4.8 Dehydration.

5.1.5 Understand the proper disinfection of water, and identify and manage illnesses associated with improper water disinfection.

5.1.6 Identify and manage open wounds in the wilderness or delayed or prolonged transport settings.

5.1.7 Identify and manage orthopedic problems in the wilderness or delayed or prolonged transport settings, including dislocations, fractures, and open fractures.

5.1.8 Identify and manage spinal injuries and associated problems in the wilderness or delayed or prolonged transport settings.

5.1.9 Identify specific problems with managing cardiopulmonary arrest in the wilderness or delayed or prolonged transport settings.

5.1.10 Identify the uses, side effects, and administration concerns for nonprescription medications and prescription medications in the wilderness or delayed or prolonged transport settings.

5.1.11 Identify measures necessary to prevent illness or injury in the wilderness or delayed or prolonged transport settings, including the management of immediate stress reactions.

5.1.12 Identify unique problems related to rendering care in severe weather, in environmental extremes, when equipment is not readily available, access is limited, and there is little or no additional assistance.

5.1.13 Identify clothing, survival techniques, emergency communications, and bivouac considerations necessary to survive in environmental extremes.

5.1.14 Understand patient packaging in the wilderness or delayed or prolonged transport settings.

5.1.15 Understand the need to document all care provided to any patient.

5.1.16 Understand the EMS system and any unique legal aspects related to providing care in the wilderness or prolonged or delayed transport settings.

5.1.17 Understand the role of medical control as it relates to the WFR's practice, including patient care and quality improvement.

5.1.18 Understand and demonstrate familiarity with the principles of disease transmission, body fluid isolation, and the use of personal protective equipment.

5.1.19 The order of these objectives does not suggest a performance sequence.

## 6. Keywords

6.1 delayed; first responder; prolonged; nontraditional; pre-hospital; wilderness

## REFERENCES

- (1) Pre-Hospital Committee, Wilderness Medical Society, “Wilderness Pre-Hospital Emergency Care (WPHEC) Curriculum,” *Journal of Wild Medicine*, Vol 2, No. 2, 1991, pp. 80–87.
- (2) Rural Affairs Committee, National Association of EMS Physicians, “Clinical Guidelines for Delayed/Prolonged Transport: I, Cardiopulmonary Arrest,” *Prehospital and Disaster Medicine*, Vol 6, No. 3, July–September 1991.
- (3) Rural Affairs Committee, National Association of EMS Physicians, “Clinical Guidelines for Delayed/Prolonged Transport: II, Dislocations,” *Prehospital and Disaster Medicine*, Vol 8, No. 1, January–March 1993.
- (4) Rural Affairs Committee, National Association of EMS Physicians, “Clinical Guidelines for Delayed/Prolonged Transport: III, Spine Injury,” *Prehospital and Disaster Medicine*, Vol 8, No. 2, April–June 1993.
- (5) Rural Affairs Committee, National Association of EMS Physicians, “Clinical Guidelines for Delayed/Prolonged Transport: IV, Wounds,” *Prehospital and Disaster Medicine*, Vol 8, No. 3, July–September 1993.
- (6) *Emergency Medical Services: First Responder Training Course*, U.S. DOT HS 900-025, *Course Guide*, March 1979.
- (7) “Guidelines for Cardiopulmonary Resuscitation and Emergency Cardiac Care—Recommendations of the 1992 National Conference,” *Journal of the American Medical Association*, Vol 268, No. 16, Oct. 28, 1992, p. 2173.

*ASTM International takes no position respecting the validity of any patent rights asserted in connection with any item mentioned in this standard. Users of this standard are expressly advised that determination of the validity of any such patent rights, and the risk of infringement of such rights, are entirely their own responsibility.*

*This standard is subject to revision at any time by the responsible technical committee and must be reviewed every five years and if not revised, either reapproved or withdrawn. Your comments are invited either for revision of this standard or for additional standards and should be addressed to ASTM International Headquarters. Your comments will receive careful consideration at a meeting of the responsible technical committee, which you may attend. If you feel that your comments have not received a fair hearing you should make your views known to the ASTM Committee on Standards, at the address shown below.*

*This standard is copyrighted by ASTM International, 100 Barr Harbor Drive, PO Box C700, West Conshohocken, PA 19428-2959, United States. Individual reprints (single or multiple copies) of this standard may be obtained by contacting ASTM at the above address or at 610-832-9585 (phone), 610-832-9555 (fax), or service@astm.org (e-mail); or through the ASTM website (www.astm.org). Permission rights to photocopy the standard may also be secured from the Copyright Clearance Center, 222 Rosewood Drive, Danvers, MA 01923, Tel: (978) 646-2600; <http://www.copyright.com/>*