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# Standard Guide for ~~Establishing the Qualifications, Education,~~ Qualification and Training of EMS, Air- Medical Patient Care Providers<sup>1</sup>

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## INTRODUCTION

This guide describes the ~~minimal qualifications, education,~~ minimum qualifications and training of ~~five, definitive, air-medical~~ air medical providers. These guidelines are built on a foundation of recognized courses that are used to ~~credential~~ train patient care ~~providers, emergency medical technicians, nurses, and physicians.~~ providers. The ~~members~~ developers of the task group ~~this standard~~ are experienced air- medical providers and users with broad and distinctive EMS backgrounds.

## 1. Scope

1.1 This guide applies ~~only~~ to patient care providers onboard medical flights involved in the provision of ~~emergency medical~~ patient care during ~~air transport, and~~ medical transport. It does not necessarily address the ~~qualifications, education, qualifications~~ and training of additional specialty care ~~responders~~ providers or other allied health professionals during air medical transport.

1.2 This guide establishes air- medical nomenclature.

1.3 This guide establishes ~~minimal qualifications, education,~~ minimum qualifications and training requirements for the air- medical patient care ~~member~~ provider(s) and the air- medical director.

1.4 This guide identifies the general content of the curricula for ~~air-medical education and~~ air medical training.

1.5 It is expected that a ~~standard guide for education and training curricula, certification, and air-medical operations will be developed.~~

~~1.6~~

1.5 *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:*

F 1031 Practice for Training the Emergency Medical Technician (Basic)<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.

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- F 1124 Specification for Rotary Wing Advanced Life Support Transport Units<sup>3</sup>
- F 1256 Guide for Selection and Practice of the Emergency Medical Services Instructor for Basic Life Support/Emergency Medical Technician (BLS/EMT) Training Programs<sup>2</sup>
- F 1257 Guide for Selection and Practice of the Emergency Medical Services Instructor for Advanced Life Support/Emergency Medical Technician (ALS/EMT) Training Programs<sup>2</sup>
- F 1274 Specification for Fixed Wing Advanced Life Support Transport Units<sup>3</sup>
- F 1453 Guide for Training and Evaluation of First Responders Who Provide Emergency Medical Care<sup>2</sup>
- F 1552 Practice for Training, Instructor Qualification, and Certification Eligibility of Emergency Medical Dispatchers<sup>2</sup>
- F 1651 Guide for Training the Emergency Medical Technician (Paramedic)<sup>2</sup>
- F 1705 Guide for Training Emergency Medical Services Ambulance Operations<sup>2</sup>
- 2.2 U.S. Department of Transportation National Standard Curricula:<sup>4</sup>
  - Emergency Medical Dispatcher
  - Emergency Medical Care—First Responder
  - Emergency Medical Technician—Basic
  - Emergency Medical Technician—Intermediate
  - Emergency Medical Technician—Paramedic
  - Emergency Medical Services Instructor
  - Emergency Vehicles Operator’s Course
  - Air-Medical Crew Education

### 3. Terminology

#### 3.1 ~~Descriptions~~Definitions of Terms Specific to This Standard:

- 3.1.1 *aeromedicine, n*—the branch of medicine that deals with the physiological, psychological, pathological, and epidemiological conditions, diseases, and disturbances that arise from flying.
- 3.1.2 *air- medical, n*—the practice of air- medicine.
- 3.1.3 *air-medical-crew member(s)*~~air medical director, (ACM)~~—~~patient care providers on-board~~*n*—~~a physician who is licensed, or otherwise legally authorized to practice, and who functions with an air medical flights. Identified by operation as the prefix flight before their credentialed title (that is, flight nurse).~~ individual ultimately responsible for the quality of patient care.
- 3.1.4 *air-medical director*—~~a physician who is licensed or otherwise legally authorized to practice and who functions within an air-medical operation as the individual ultimately responsible for the quality~~air medical operations, n—~~that aspect of patient care.~~ air medicine involving policies, procedures, and protocols.
- 3.1.5 *air-medical operations*—~~that aspect of air-medicine involving policies, procedures, and protocols.~~ air medical patient care providers, n— patient care providers onboard medical flights.
- 3.1.6 *air-medical patient care providers*—~~air-medical crew members and air-medical directors.~~
- 3.1.7 *air-medicine*air medicine, n—a discipline of medicine associated with the care and management of patients transported by aircraft.
- 3.1.8 *care*—patient care.
- 3.1.9—
- 3.1.7 *educational experience, n*—the accumulation of knowledge and skills through education, training, and clinical practice.
- 3.1.10 *emergency medical air transport*—the transport of EMS patients by air.
- 3.1.11 *mission*—the specific patient care task and responsibility that an EMS provider has accepted.
- 3.1.12—
- 3.1.8 *qualification, n*—possessing a recognized, definable body of knowledge or specific credential (certificate, license, registration, or degree).
- 3.1.13 *specialty-care responder*—emergency air-medical responders whose mission is clearly defined and exclusively dedicated to the care of patients with specific illness or injuries.
- 3.1.14 *training*—supervised acquisition of specific skill or judgment, or both.

### 4. Significance and Use

- 4.1 This guide provides ~~minimal criteria~~ minimum guidance for the development of ~~air-medical education and air medical training programs.~~
- 4.2 This guide ~~aids in the selection~~ identifies additional subject areas of ~~education and training programs that will correspond necessary to the level of the defined patient care mission.~~

<sup>2</sup> Annual Book of ASTM Standards, Vol 13.0T2.

<sup>3</sup> Training Program for the Emergency Medical Technician-Intermediate: National Standard Curriculum (see latest version).

<sup>3</sup> Discontinued. See 1999 Annual Book of ASTM Standards , Vol 13.01.

<sup>4</sup> Training Program for the Emergency Medical Technician-Paramedic: National Standard Curriculum DOT (see latest version).

<sup>4</sup> Available from U.S. Department of Transportation, 400 Seventh St., S.W., Washington, DC 20590.

4.3 It is recognized that the body of knowledge encompassed by become an education and training program, not the degree, certificate, or license, is crucial, although documentation of such training may be difficult without said credentials.

4.4 This guide pertains to education, training, and curricula development and is not intended to be used operationally to select the level of air medical patient care provider.

## ~~AIR-MEDICAL CREW MEMBERS~~

### ~~5. Flight-EMT-Basic—Qualifications, Education, EMT-P (Flight Paramedic)—Qualifications and Training~~

5.1 The education and training provided at this minimum entry level is recognized as producing the minimally qualified ACM. The training for a flight EMT-paramedic shall include be the body of knowledge and skills identified by both the required and optional objectives contained in Practice F 1031. Additional the EMT-Paramedic DOT National Standard Curriculum. Commensurate with the patient care mission, additional training is at the following discretion of the air medical director. Additional areas is required:

- ~~5.1.1 Air-medical patient handling considerations;~~
- ~~5.1.2 Aircraft safety;~~
- ~~5.1.3 Altitude physiology; include the following:~~
  - ~~5.1.1 Aircraft safety;~~
  - ~~5.1.2 Altitude physiology~~ and principles of atmospheric physics (gas laws);;
  - ~~5.1.43 Aviation communication;s;~~
  - ~~5.1.54 Crash and survival procedures;;~~
  - ~~5.1.65 Familiarization with EMS systems in the service area;;~~
  - ~~5.1.76 Hazardous materials response procedures;;~~
  - ~~5.1.87 In-flight treatment modalities;~~
  - ~~5.1.9 Infection control;~~
  - ~~5.1.10 Mapping/aircraft orientation;~~
  - ~~5.1.11 Oxygen modalities;~~
  - ~~5.1.8 Infection control;~~
  - ~~5.1.9 Oxygen~~ therapy in relation to altitude;;
  - ~~5.1.120 Patient assessment in the airborne environment;~~
  - ~~5.1.13 Quality assurance;~~
  - ~~5.1.14 Roles environment;~~
  - ~~5.1.11 Roles and responsibilities;; and~~
  - ~~5.1.152 Stress recognition and management;~~
  - ~~5.1.16 Urinary catheter, nasogastric tube, feeding tubes, and ostomy devices: indications, complications, and monitoring of these devices in the airborne environment, and~~
  - ~~5.1.17 Vital sign determination in the airborne environment.~~
- ~~5.2 Additional, desirable, education and training includes adult and pediatric cardiac, trauma, and burn life support management.~~

### ~~6. Flight-EMT-Intermediate—Qualifications, Education, Nurse—Qualifications and Training~~

6.1 The minimal minimum entry level for a flight-EMT-intermediate nurse shall be the body of knowledge and skills identified by the required and optional objectives contained in EMT-I as defined in an accredited registered nursing program. Commensurate with the DOT, National Standard Curriculum.<sup>3</sup> The patient care mission, the flight-EMT-intermediate nurse shall possess all of the knowledge and skills required of a flight-EMT-basic. Commensurate with the patient care mission, additional education EMT-paramedic and may have additional training is at in the discretion assessment and management of patients with special needs as prescribed by the air- medical director.

### ~~7. Flight EMT-P (Flight Paramedic)—Qualifications, Education, Air Medical Director, Flight Physician—Qualifications, Training, and Training-Educational Experience~~

7.1 The minimum entry level for a air medical director or flight-EMT-paramedic physician shall be the body of knowledge a physician who is licensed or otherwise legally authorized to practice and skills identified by both the required and optional objectives contained who has had educational experience in the EMT-Paramedic DOT National Standard Curriculum.<sup>4</sup> The flight EMT-paramedic shall possess all those areas of the knowledge medicine and skills required of a flight-EMT-intermediate. Commensurate prehospital care that are commensurate with the patient care mission, additional education and mission(s). Additional training is at the discretion of the air-medical director and shall include:

- ~~7.1.1 Airborne endotracheal intubation/ventilation and needle cricothyroidotomy.~~
  - ~~7.1.1.1 Rapid sequence induction as an adjunctive technique to intubation. include areas listed in 5.1.1-5.1.12.~~

### ~~8. Flight Nurse—Qualifications, Education, and Training~~

~~8.1 The minimum entry level for a flight nurse shall be the body of knowledge and skills identified by the objectives contained~~

in an accredited registered nursing program. Additional education and training in the areas 5.1.1-5.1.17. Commensurate with the patient care mission, the flight nurse shall possess all of the knowledge and skills required of a flight EMT-paramedic including those areas in 5.2, and may have additional education and training in the assessment and management of patients with special needs as prescribed by the air-medical director. Education and training shall include the airborne operation of monitoring and therapeutic devices and equipment.

#### **9. Flight Physician—Qualifications, Education, and Training**

9.1 The flight physician will be a doctor of medicine or osteopathy who is licensed or otherwise legally authorized to practice and who is educated and trained in areas 5.1.1-5.1.17 and, commensurate with the patient care mission, area 5.2.

#### **10. Air-Medical Director, Flight Medical Director—Qualifications, Education, Training, and Educational Experience**

10.1 The air-medical director shall be a physician who is licensed or otherwise legally authorized to practice and who has had educational experience in those areas of medicine and prehospital care that are commensurate with the patient care mission(s) including 5.2. Additional educational experience shall include areas listed in 5.1.1-5.1.17.

#### **11. Keywords**

11.1 aeromedicine; flight nurse; paramedic

8.1 air medical providers; EMS; patient care providers; training

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