

NOTICES

Required Ground and Air Ambulance Equipment and Supplies

[36 Pa.B. 7346]

[Saturday, December 2, 2006]

Under 28 Pa. Code §§ 1005.10(c) and 1007.7(c) (relating to licensure and general operating standards; and licensure and general operating requirements), the following equipment and supplies shall be carried and readily available in working order for use on basic life support (BLS) and advanced life support (ALS) ambulances, which also includes air (rotorcraft) ambulances.

A. Ground Ambulance Requirements

Ground Ambulances: Basic Life Support/ALS Mobile Care Unit /ALS Squad Unit

The ambulance must:

1. Meet the requirements of Federal Specifications KKK 1822 in effect at the time of the vehicles manufacture regarding design type, floor plan, general configuration and exterior markings. (Does not apply to an ALS squad unit.)
2. Meet the Pennsylvania Vehicle Code requirements, especially 67 Pa. Code Chapter 173 (relating to flashing or revolving lights on emergency and authorized vehicles), which includes:
 - a. Red flashing or revolving exterior emergency lighting visible 360° around the vehicle.
 - b. No more than one flashing or revolving white or clear light or a light bar assembly that may contain no more than two flashing or revolving white or clear lights.
 - c. No more than two amber lights other than the turn signal indicators.
3. The following emblems and markings must be affixed to the vehicle exterior:
 - a. The word "AMBULANCE" shall be mirror imaged in letters not less than 4" high, centered above the grill. The placement of the word "AMBULANCE" shall be on the curved surface of the hood or can be placed on a flat plastic type bug screen.
 - b. The word "AMBULANCE" shall be in letters of not less than 6" on each side and rear of the vehicle.
 - c. "Star of Life" shall be in the following sizes and numbers:
 - * Two 3" sizes located on each side of the word "AMBULANCE" on the hood of the vehicle or on a plastic bug screen.
 - * Two 16" sizes on the right and left side panels.
 - * Two 12" sizes on the rear of the vehicle.
 - * One 32" size on the vehicle rooftop.

Note: An ALS squad unit is required to have only 3" size "Stars of Life" and no other markings or emblems, but it must have the required number, that is 6. These are 2 on the front, 1 on each side and 2 on the rear.

4. The name of the ambulance service or its registered fictitious name in letters at least 3" in size on both the right and left exterior sides of the vehicle. Service name must be the dominant lettering.
5. Be equipped with an electronically operated audible warning device with a 110-watt speaker.
6. Overhead interior lighting that illuminates the entire top surface of the patient litter, stair-well lighting and courtesy lights that must illuminate the ambulance's controls (Does not apply to an ALS squad unit.)
7. A dual battery system. (Does not apply to an ALS squad unit.)
8. One fully charged fire extinguisher rated at least 2 A: 10 B: C easily accessible by personnel and mounted securely in an exterior compartment or mounted and easily accessible in the cab of the vehicle. The fire extinguisher must be intact with safety seal and have been inspected within the previous 12 calendar months and have the appropriate and completed inspection tag attached.
9. A power supply to generate sufficient current to operate all accessories without excessive demand on the generating system. All exterior and interior lighting and on-board equipment shall be able to run at least five minutes without placing a demand on the engine.
10. A floor that is flat, reasonably unencumbered, free of equipment in the walk through areas, nonskid and well maintained. (Does not apply to an ALS squad unit.)
11. A minimum interior dimensions of 60" from floor to ceiling. (Does not apply to an ALS squad unit.)
12. An installed patient partition to separate the patient area from the driver area. (Does not apply to an ALS squad unit.)
13. Storage cabinets with sliding doors or with latches or have a cargo-type netting or other means to ensure against opening during vehicle movement. (Does not apply to an ALS squad unit.) Bulky items such as portable radios and AEDs, oxygen equipment and jump bags must be secured at all times during patient transport to prevent them from falling on patients or crew or becoming projectiles if the vehicle is involved in an accident. Equipment on an ALS squad unit must be in cabinets or otherwise secured at all times.
14. Two IV hangers mounted flush with the ceiling. (Does not apply to an ALS squad unit.)
15. A litter for transporting a patient and at least three patient restraint straps in good operating condition which is secured to the litter. (Does not apply to an ALS squad unit.)
16. Doors that function properly with door seals that are in good condition; that is, not cracked, broken or missing pieces.
17. A "No Smoking" signs in both the driver and the patient compartment. On an ALS squad unit only one sign in the driver's compartment is required.
18. Operational heating, cooling and ventilation equipment.
19. A current vehicle inspection validation issued by the state where the vehicle is registered.
20. Operational radio equipment for communication with a public safety answering point (PSAP) (where 9-11 calls are answered) and hospitals in the ambulance services emergency service areas. A cellular phone may be used as a backup means of communication and not as the primary means of communication.
21. An installed, on-board oxygen system with the following (Does not apply to an ALS squad unit.):

- a. At least 122 cubic feet supply of oxygen in a cylinder that is secured to provide maximum safety for patients and personnel. The securing brackets must be mounted to the vehicle frame. Services may use a liquid oxygen system that provides the same volume.
 - b. The cylinder must have more than 500 psi (500 liters of oxygen) of pressure at all times and be secured with at least 3 metal or nylon brackets while in the compartment.
 - c. The unit must be equipped with a reducing valve (from 2000 psi to 50 psi line pressure).
 - d. The unit must be equipped with one flow meter with a range of 0-25 lpm delivery.
 - e. The unit must be equipped with a nonbreakable humidifier.
22. An installed, on-board suctioning system with the following components and/or capabilities (Does not apply to an ALS squad unit.):
- a. It is fitted with a large bore, nonkinking tubing.
 - b. It has power enough to provide within 4 seconds a vacuum of over 300 mm/Hg or 11.8 inches of water when the tube is clamped.
 - c. It is controllable for use on children and intubated patients. The vacuum gauge, when attached to the tubing, must be adjustable to the amount of vacuum to ensure that the unit can maintain vacuum levels without requiring continuous increase in control.
 - d. It is equipped with a lateral opening between the suction tube and the suction source.
 - e. The tubing must be able to reach airways of patients regardless of the patient's position in the ambulance and must be able to reach the head and foot of the litter.
23. Proof of current motor vehicle insurance.

B. Air (Rotorcraft) Ambulance Requirements

The following will apply to all air ambulances. The air ambulance must have:

1. The name of the air ambulance service or its registered fictitious name prominently displayed on the exterior of the aircraft.
2. Exterior lighting that illuminates the tail rotor and pilot controllable search/spot/landing lights.
3. An "Air Worthiness Certificate" from the Federal Aviation Administration (FAA).
4. A patient litter capable of carrying one adult in the supine position and capable of being secured according to FAA requirements.
5. An FAA Form 337 with items 1 (which identifies the aircraft), 2 (which identifies the aircraft owner), and 7 (which shows that the aircraft is approved to "Return to Service") completed and signed by the appropriate FAA official.
6. Climate controls for maintaining an ambient cabin temperature of between 65-85° during flight.
7. Sufficient interior lighting to allow for close observation of patients.
8. A pilot partition to prevent patient interference with flight controls.

9. A barrier or an FAA approved mechanism for securing a patient's chest, pelvis, legs, wrist and ankles.
10. A 110-volt electrical outlet for each patient transported.
11. Two-way radio communications for the pilot to be able to communicate with hospitals, PSAPs and ground ambulances in areas to which the air ambulance routinely provides service.
12. At least three headsets to allow for voice communication among the crew when the aircraft is operating and noise levels prevent normal conversation.
13. One fully charged fire extinguisher rated at least 5 B: C, securely mounted where it can be reached by the pilot or crewmembers. The fire extinguisher must be intact with safety seal and have been inspected within the previous 12 calendar months and have the appropriate inspection tag attached.
14. Installed, on-board suctioning equipment that meets the same requirements as a transporting ground ambulance. (See requirements under Ground Ambulances.)
15. An on-board oxygen system with the following:
 - a. Cylinder(s) with a capacity of 1,200 liters.
 - b. The cylinder(s) must have at least 1,650 psi at the time of inspection.
 - c. If a liquid oxygen system is used, manufacturer documentation must be provided that the system has at least a 1,200-liter capacity.
 - d. A flow meter with a range of 0-25 lpm delivery.

Required Equipment and Supplies

Approved equipment and supplies shall be carried and readily available in working order for use on both ground and air ambulances. Some patients and crewmembers of an ambulance service may have allergies to latex. Latex free supplies are recommended, where possible. The following equipment and supplies must be carried on each ground and air ambulance, as indicated.

EQUIPMENT/ SUPPLIES	AMBULANCE TYPE			
	BLS	ALS MOBILE CARE	ALS SQUAD	AIR
1. Rechargeable Portable Electric Suction Unit with wide-bore tubing. Must achieve 300 mm/Hg or 11.8" in 4 sec.	X	X	X	X
2. Suction catheters, pharyngeal: Rigid (2) Flexible: 6 and 8 (1 ea) 10 or 12 (2) 14 or 16 (2) Total of 6 (Must be sterile) Size is FR for each	X	X	X	X
3. Airways: Nasopharyngeal (5 different sizes) Oropharyngeal (6 different sizes)	X	X	X	X
4. Sphygmomanometer: Child, Adult and Thigh (large)	X	X	X	X

(1 each) Interchangeable gauges	are permitted				
5. Stethoscope (1)		X	X	X	X
6. Stethoscope Doppler (1)					X
7. Penlight (1)		X	X	X	X
8. Portable Oxygen Unit (1):		X	X	X	X
Cylinder capacity of at least 300 Liters, D size, with 500 psi Yoke					
Cylinder with a minimum total pressure of 500 psi.					
Nonsparking wrench/tank opening device.					
Gauge/flow meter not gravity dependent and can deliver 0-25 liter per minute					
Full spare cylinder with a 300 liter capacity					
Cylinders must be secured in the vehicle at all times.					
9. Folding Litter/Collapsible Device (1)		X	X		
10. Oxygen Delivery Devices:		X	X	X	X
Nasal Cannulae--adult/pediatric 1 ea.					
High concentration mask capable of providing 80% or greater concentration adult, pediatric, infant--1 each.					
Pocket mask with one way valve and oxygen port (1)					
Humidifier bottle					
		X	X		
11. Adhesive Tape (4 rolls assorted)		X	X	X	X
1 roll must be hypoallergenic.					
12. Dressings:		X	X	X	X
Multi Trauma (10" by 30") (4)					
Occlusive (3" by 4") (4)					
Sterile Gauze Pads (3" by 3") (25)					
Soft self-adhering (6 rolls)					
13. Bandage Shears (1)		X	X	X	X
14. Immobilization Devices:		X	X	X	X
Lateral cervical spine device (1)					
Long spine board (1)					
Short spine board (1)					
Rigid/Semirigid neck immobilizer S, M, L, pediatric (1 each) Multi-size are permitted and will suffice for the S, M, L (3)					(Short board not required)
15. Bag-Valve-Mask Devices:		X	X	X	X
Hand operated adult (1)					
Hand operated infant/pediatric (450-700cc) (1) Must be capable of high concentration oxygen delivery with adult and pediatric masks					
16. Pediatric Equipment Sizing Tape/Chart		X			
17. Pediatric length-based Drug Dosing/ Equipment Sizing Tape			X	X	X
18. Straps--9' (5) (may substitute spider straps or speed clips for 3 straps)		X	X	X	X
19. Splinting Devices:		X	X		
Lower extremity mechanical traction splint adult and pediatric (1 each or combination)					
Padded board splints 4.5`/3`/15" (2 ea)					

20. Sterile Water/Normal Saline (2 liters)	X	X	X	X
21. Sterile Burn Sheet (4' by 4') (2)	X	X	X	
22. Cold Packs, Chemical (4)	X	X	X	X
23. Heat Packs, Chemical (4)	X	X	X	X
24. Triangular Bandages (8)	X	X	X	
25. Sterile OB Kits (2)	X	X	X	X
				(Only 1 required)
26. Separate Bulb Syringe (1) Sterile	X	X	X	X
27. Sterile Thermal Blanket (Silver Swaddler) (1), or 1 roll of sterile aluminum foil for use on infants/newborns	X	X	X	X
28. Blankets (2)--cloth	X	X	X	X
29. Sheets (4)	X	X		X
30. Pillowcases (2)	X	X		
31. Pillow (1)	X	X		
32. Towels (4)	X	X		
32. Disposable Tissues (1 box)	X	X		
34. Emesis Container (1)	X	X		
35. Urinal (1)	X	X		
36. Bed Pan (1)	X	X		
37. Disposable Paper Drinking Cups (3 oz) (4)	X	X		
38. State Approved Triage Tags (20)	X	X	X	
39. Hand-lights (6 volts) (2)	X	X	X	X
40. Hazard Warning Device (3)	X	X	X	
41. Emergency Jump Kit (1)	X	X	X	X
42. Survival Bag (1)				X
43. Emergency Response Guidebook (1) (current edition)	X	X	X	
44. Thermometer--electronic, digital, non- tympanic	X	X	X	X
45. Sharps Receptacle--Secured	X	X	X	X
46. Instant Glucose (40% dextrose-d-glucose gel) 45 grams	X	X	X	
47. Activated Charcoal--50 grams	X	X	X	
48. Access Equipment:	X	X	X	
Large Screwdriver, Phillips and slotted (1 each)				
Pliers (1 ea) (slip joint, lineman's needle nose, arc joint and locking)				
Hand-held Sledgehammer (3 lbs) (1)				
Impact metal Cutting Tool (1)				
Short pry-bar (1)--12"				
Cold Chisel (7" by 3/4") (1)				
Hacksaw w/2 extra blades (1)				
Adjustable Wrench--10" (1)				
Center Punch (1)				
Gloves (leather) (2 pairs)				
Hard-Hat and goggles (2)				
49. Flight Helmet (1 per crewmember)				X
50. Personal Infection Control Kit:	X	X	X	X
Eye protection, clear, disposable (1 per crew member)				

Face Mask, disposable (1 per crew member)			
Gown/coat (1 per crew member)			
Surgical Caps/Foot Coverings disposable (1 set per crew member)			
Double Barrier gloves (1 set per crew member)			
Container (1 per vehicle) or disposable red bags (3 per vehicle)			
51. Sponges, Alcohol, Prep (10)	X	X	X
52. Endotracheal Tubes Sizes/Quantities:	X	X	X
2.5 mm or 3.0 mm (2 uncuffed)			
3.5 mm or 4.0 mm (2 uncuffed)			
4.5 mm or 5.0 mm (2)			
5.5 mm or 6.0 mm (2)			
6.5 mm or 7.0 mm (2)			
7.5 mm or 8.0 mm (2)			
8.5 mm or 9.0 mm (2)			
Must be sterile and individually wrapped			
53. Nonsurgical Alternative/Rescue Airways. Either 2 Combitubes, TM small and adult, or 3 King, ^{LT} 3, 4 and 5.	X	X	X
Note: required by 7/1/2007			
54. Endotracheal Tube Placement Validation Device (1ea) Ad/Ped. to verify correct placement (per regional protocol)	X	X	X
55. Wave-Form Electronic Capnograph	X	X	X
Note: required by 7/1/2008			
56. Laryngoscope handle with batteries and spare batteries and bulbs and the following blades:	X	X	X
Straight Curved			
#1 (S) #3			
#2 (M) #4			
#3 (L)			
(1 each of the blades)			
57. Meconium Aspirator (1)	X	X	X
58. Lubrication (2cc or larger tubes) sterile water soluble (2)	X	X	X
59. Forceps, Magill (adult/pediatric 1 each)	X	X	X
60. Medication and Supplies:	X	X	X
Emergency Drugs--(per regional protocols and within state rules and regulations and within exp. date)			
Nebulizer System (1)			
Hypodermic needles:			
16-18 gauge (4), 20-22 gauge (4)			
23-25 gauge (4) Total of 12 and each Must be individually wrapped and sterile.			
61. Defibrillator/Monitor: (FDA approved) (battery powered, monophasic or biphasic, energy dose range capable of treating adult and pediatric patients, paper readout), ECG cables with 3 lead capability and pediatric and adult paddles with pacing capabilities or separate stand-alone pacer.	X	X	X
62. Defibrillator/Monitor Supplies:	X	X	X
Paddle pads (4) or electric gel (2 tubes), electrodes, (ECG, adult and pediatric sizes 6 each)			
63. Automated External Defibrillator (for authorized BLS services)	X		
64. Stylette, Malleable--pediatric (2)/adult (1). Must be sterile.	X	X	X
65. Cricothyrotomy Set (Surgical or Needle) Must be sterile.			X
66. Phlebotomy Equipment (per regional protocols)	X	X	
67. Flutter valve (1) Must be sterile.			X

68. Epinephrine Auto-Injector (For authorized BLS Services) 0.3 mg/0.3 ml of 1:1000 solution for adult use (2) 0.15 mg/0.3 ml of 1:2000 solution for pediatric use (2) (Not required for licensure)	X				
69. Pulse Oximetry (for services with medical director) (Not required for licensure)	X	X	X	X	X
70. Electronic Glucose Meter Note: required by 7/1/2007		X	X	X	X

All equipment that may be used in direct contact with patients must be reasonably clean and easily cleaned of blood and body fluids and no drug and/or medication may be carried beyond an expiration date assigned to it.

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Secretary

[Pa.B. Doc. No. 06-2361. Filed for public inspection December 1, 2006, 9:00 a.m.]

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