



PENNSYLVANIA EMERGENCY HEALTH SERVICES COUNCIL

Your Voice In EMS

RECOMMENDATION FOR CONSIDERATION

Board Meeting Date: June 11, 2014

Subject: Minimum Equipment Standards for Air and Critical Care Ground Ambulances

VTR#: 0614-01

Committee/Task Force: Air Medical Task Force

Recommended Goal

Recommended Policy Change

Other:

Recommendation:

The Pennsylvania Department of Health should adopt the attached minimum equipment standards for air and critical care ground ambulances.

Rationale [Background]:

In anticipation of the April 10, 2014 effective date for the Act 37 rules and regulations, the Air Medical Task Force initiated a project to:

1. Review the current minimum equipment standards for air ambulances in Pennsylvania.
2. Recommend minimum equipment standards for the new critical care ground transport licensing category.

The task force found the typical equipment complement carried on Pennsylvania's air ambulances far exceeded the current requirements set forth in 41 Pa.B. 2296. The task force's recommendations will align the minimum required equipment with the current standard of practice for air ambulances and meet or exceed the Commission on Accreditation of Medical Transport Systems (CAMTS) and Association for Critical Care Transport standards (ACCT) standards.

28 Pa Code §1027.39 establishes licensing standards for a Critical Care Transport Ambulance Service. To assist the Department of Health with implementing this new licensing category, the task force has developed recommended minimum equipment standards. These recommended standards are, to a certain extent, a fusion of the current equipment requirements for an ALS ambulance and elements of the recommended equipment requirements for an air ambulance.

Medical Review [Concerns]:

The project workgroup was physician led and there was significant agency-level medical director involvement during task force level discussion.

Fiscal Concerns:

The task force believes there will be no significant financial impact on air ambulance operators since the recommendations reflect the standard of practice currently maintained by these agencies. EMS agencies contemplating the addition of critical care transport as a new service line should, as part of their financial analysis, consider the cost to acquire, maintain and provide training on the recommended equipment.

Educational Concerns:

An EMS agency, through its medical director, is responsible to ensure that providers are trained in the proper operation of all equipment carried on board the aircraft and/or ground transport vehicle.

Plan of Implementation:

The Department of Health, upon acceptance of this recommendation, should publish the updated minimum required equipment list in the Pennsylvania Bulletin and follow their normal procedure to disseminate this information to the regulated community.

The PEHSC Committee/Task Force offers consultation to the Department in regard to the content of this Vote to Recommend (VTR) and its attached documents. The PEHSC Committee/Task Force specifically offers staff or member support to participate in Department deliberations regarding this recommendation in an effort to convey committee/task force discussions.

Board Meeting Comments/Concerns:

Signed: David Jones
President

Date 6-11-14

For PEHSC Use Only – PA Department of Health Response

Accept: ____ Table: ____ Modify: ____ Reject: ____

Comments:

Date of Department Response: _____

**Proposed Minimum Required Equipment Standards:
Air Ambulance & Critical Care Ground Transport Ambulance
June 11, 2014**

Equipment		Air Ambulance	CCT Ambulance
AIRWAY & VENTILATION			
1.	Portable Suction Unit with wide-bore tubing. Must achieve 300 mm/Hg or 11.8" in 4 sec.	Current	Proposed
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	Current	Proposed
3.	Airways: Nasopharyngeal (5 different sizes to include at least one between size 16-24 fr. and one between size 26-34 fr.) Oropharyngeal (6 different sizes to include at least one size 0-1, one 2-3 and one size 4-5)	Current	Proposed
4.	Portable Oxygen Unit (1): Cylinder capacity of at least 300 Liters, (D Size), with 500 psi Yoke Cylinder with a minimum total pressure of 500 psi. Non-sparking wrench/tank opening device. Gauge/flow meter not gravity dependent and can deliver 0-25 liter per minute. Full spare cylinder with at least 300 liter capacity. Cylinders must be secured in the vehicle at all times.	Current	Proposed
5.	Oxygen Delivery Devices: Nasal Cannula—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	Current	Proposed
6.	Humidifier bottle (1)	No	Proposed
7.	Bag-Valve-Mask Devices: Hand operated adult (1) Hand operated infant/pediatric (450-700cc) (1) Must be capable of high concentration oxygen delivery with adult and pediatric masks to include neonatal, infant, and child sizes	Current	Proposed
8.	Endotracheal Tubes Sizes/Quantities: 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	Current	Proposed

	Equipment	Air Ambulance	CCT Ambulance
9.	Laryngoscope handle with batteries and spare batteries and bulbs and the following blades: Straight # 1, #2, #3 Curved #3, #4 (1 each of the blades)	Current	Proposed
10.	Difficult Airway Equipment: Bougie Gum Elastic ET Introducer (1) Video Capable, Laryngoscope w/ Appropriate Size Blades	Proposed	Proposed
11.	Nonsurgical Alternative/Rescue Airways: Either 2 Combitubes™, small and adult, or 3 King LT™ 3, 4 and 5.	Current	Proposed
12.	Stylette, Malleable—pediatric (2)/adult (1) must be sterile.	Current	Proposed
13.	Lubrication (2cc or larger tubes) sterile water soluble (2)	Current	Proposed
14.	Forceps, Magill (adult/pediatric 1 ea)	Current	Proposed
15.	Electronic Wave-Form Capnography, Intubated Patient, Capable of Wave-Form Display	Current	Proposed
16.	Electronic Wave-Form Capnography, Non-Intubated Patient, Capable of Wave-Form Display	Proposed	Proposed
17.	Meconium Aspirator (1)	Current	Proposed
18.	Portable Transport Ventilator: Capabilities must include, but are not limited to controlling rate, volume, FiO2 (up to 100%), I:E Ratio, PEEP and has volume control, pressure control, SIMV and NPPV modes. Device must have both volume and pressure modes and low/high pressure warning alarms.	Proposed	Proposed
19.	Portable Transport Ventilator Circuits (2) (Appropriately sized for patient being transported)	Proposed	Proposed
20.	CPAP Ventilation—portable equipment	Current	Proposed
21.	Cricothyrotomy Set (Surgical or Needle) must be sterile.	Current	Proposed
22.	Flutter valve (1) Must be sterile.	Current	Proposed
23.	3 ¼" Over-the-Needle Catheter 10, 12 or 14 gauge for thoracic decompression (2)	Proposed	Proposed
PATIENT ASSESSMENT & MONITORING			
24.	Sphygmomanometer: Child, Adult and Thigh (large) (1 each) Interchangeable gauges are permitted	Current	Proposed
25.	Non-Invasive Blood Pressure Monitoring Device, Automated (1)	Proposed	Proposed
26.	Stethoscope (1) Adult and (1) Pediatric	Current	Proposed
27.	Penlight (1)	Current	Proposed
28.	Thermometer—electronic, digital, non-tympanic	Current	Proposed
29.	Temperature monitoring (esophageal, skin, etc. appropriate population served and treatments delivered) (1)	Proposed	Proposed (Type I Team) ⁵
30.	Endotracheal Cuff Pressure Manometer (1)	Proposed	Proposed
31.	Defibrillator/Monitor: (FDA approved) (battery powered, 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 standalone pacer.	Current	Proposed

	Equipment	Air Ambulance	CCT Ambulance
32.	Defibrillator/Monitor Supplies: Paddle pads (4) or electric gel (2 tubes), electrodes, (ECG, adult and pediatric sizes 6 each)	Current	Proposed
33.	12 Lead EKG w/Wireless Transmission Capability (See Note 3)	Proposed	Proposed
34.	Pulse Oximetry	Current	Proposed
35.	Electronic Glucose Meter	Current	Proposed
36.	Invasive Pressure Monitoring Capability, Electronic Wave-Form, Two Channels	Proposed	Proposed (Type I Team) ⁵
37.	Portable Doppler w/ Venous and OB Probe (1)	Proposed	Proposed
BANDAGING & SPLINTING			
38.	Dressings: Multi Trauma (10" by 30") (4) Occlusive (3" by 4") (4) Sterile Gauze Pads (3" by 3") (25) Soft self-adhering (6 rolls)	Current	Proposed
39.	Adhesive Tape (4 rolls assorted) 1 roll must be hypoallergenic.	Current	Proposed
40.	Bandage Shears (1)	Current	Proposed
41.	Splinting Devices: Lower extremity mechanical traction splint adult and pediatric (1 each or combination) Upper and Lower extremity splints (2 ea)	No	Proposed
42.	Pelvic Stabilization Device (1)	Proposed	Proposed
43.	Triangular Bandages (8)	Current	Proposed
44.	Sterile Burn Sheet (4' by 4') (2)	Current	Proposed
45.	Commercial Tourniquet (1) Recommend > to (2) devices	Current	Proposed
MEDICATION & FLUID ADMINISTRATION			
46.	Pediatric length-based Drug Dosing/Equipment Sizing Tape, most current version available	Current	Proposed
47.	Medication and Supplies: 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. Two syringes of assorted sizes, including at least one with a 1 mL volume.	Current	Proposed
48.	"IV" fluid Therapy Supplies Catheters over the Needle sized (per regional requirements): 14, 16, 18, 20, 22 (4 ea) and 24 (2) Micro drip 50-60 drops/ml (2) Macro drip 10-20 drops/ml (2) I.V. solutions (2,250) ml total Tourniquets (2) Intraosseus Needle 14-18 gauge (2)	Current	Proposed
49.	Phlebotomy Equipment (per regional protocols)	Proposed	Proposed

	Equipment	Air Ambulance	CCT Ambulance
50.	Blood Administration Set (2) (only if agency provides/maintains blood products during transport)	Proposed	Proposed (Type I Team) ⁵
51.	Intravenous Infusion Pump (1) or manual flow control device capable of being set at a specific rate (use per drug list requirements)	No	No
52.	Intravenous Infusion Pump (3) or (1) multi-channel unit capable of managing (3) simultaneous infusions	Proposed	Proposed
53.	Instant Glucose (40% dextrose-d-glucose gel) 45 grams	No	No
IMMOBILIZATION & EXTRICATION			
54.	Folding Litter/Collapsible Device (1)	No	Proposed
55.	Immobilization Devices: Lateral cervical spine device (1) [Optional] Long spine board (1) [Optional as extrication device] Short spine board (1) Rigid/Semi-rigid neck immobilizer S, M, L, pediatric (1 each) Multi-size are permitted and will suffice for the S, M, L (3)	Proposed	Proposed
56.	Straps—9' (5) (may substitute spider straps or speed clips for 3 straps)	Current	Proposed
57.	Pediatric Safe Transport Device (See Note 4)	Proposed	Proposed
PERSONAL PROTECTIVE & SAFETY EQUIPMENT			
58.	Personal Protective Equipment (PPE) Helmet, eye protection, gloves and high-visibility safety apparel (1 per provider)	No	Proposed
59.	Flight Helmet (1 per crew member)	Current	No
60.	Personal Infection Control Kit, which includes the following: Eye protection, clear, disposable (1 per crew member) Face Mask, disposable (1 per crew member) Gown/coat (1 per crew member) Surgical Cap/Foot Coverings, disposable (1 set per crew member) Double Barrier Gloves (1 set per crew member) Sharps Containers and Red Bags per Infectious Control Plan Fit-tested disposable N95 respirator (1 per crew member) Hand Disinfectant—Non water hand cleaner/disinfectant (1 container)	Current	Proposed
61.	Sharps Receptacle—Secured	Current	Proposed
62.	Survival Bag (1)	Current	No
63.	Hazard Warning Device (3)	No	Proposed
64.	Emergency Response Guidebook (1) (current edition)	No	Proposed
65.	Hand-lights (6 volts) (2)	Current	Proposed
MISCELLANEOUS			
66.	Copy of most current version Statewide EMS Protocols	Current	Proposed
67.	Regional Approved Triage Tags (20)	No	Proposed
68.	Emergency Jump Kit (1)	Current	Proposed
69.	Sterile Water/Normal Saline (2 liters)	Current	Proposed
70.	Cold Packs, Chemical (4)	Current	Proposed
71.	Heat Packs, Chemical (4)	Current	Proposed

	Equipment	Air Ambulance	CCT Ambulance
72.	Sterile OB Kit w/ Sterile Scalpel/Scissors and Cord Clamps (2)	(1) Required	Proposed
73.	Separate Bulb Syringe (1) Sterile	Current	Proposed
74.	Sterile Thermal Blanket (Silver Swaddler) (1), or 1 roll of sterile aluminum foil for use on infants/newborns	Current	Proposed
75.	Sponges, Alcohol, Prep (10)	Current	Proposed
76.	Disposable Paper Drinking Cups (3 oz) (4)	No	Proposed
77.	Gastric Decompression Device, Age Appropriate Size (1)	Proposed	Proposed
78.	Blankets (2)	Current	Proposed
79.	Sheets (4)	Current	Proposed
80.	Pillowcases (2)	No	Proposed
81.	Pillow (1)	No	Proposed
82.	Towels (4)	No	Proposed
83.	Disposable Tissues (1 box)	No	Proposed
84.	Emesis Container (1)	No	Proposed
85.	Urinal (1)	No	Proposed
86.	Bed Pan (1)	No	Proposed

Notes:

1. The current requirements for Air ambulances are based to the "Required Ground and Air Ambulance Equipment and Supplies" list as published in the PA Bulletin [41 Pa.B. 2296] on Saturday, April 30, 2011.
2. Use of additional critical care transport equipment, e.g. isolette/neonatal equipment, IABP, medical air blender, etc. is agency specific based on scope of services provided and appropriate crew configuration.
3. Transmission of 12 lead EKG data not permitted during flight unless authorized by FAA Part 135 certificate holder.
4. Use of a pediatric safe transport device should be in accordance with the manufacturer's specifications and follow the recommendations in NHTSA document "Safe Transport of Children in Emergency Ground Ambulances (www.nhtsa.gov/staticfiles/nti/pdf/811677.pdf)
5. A "Type I" critical care transport team is staffed by (2) providers above the level of AEMT, with one provider being a PHRN, PHPE or PHP, plus a certified EMSVO.