



BUREAU OF EMERGENCY MEDICAL SERVICES

EMS Information Bulletin - #67

DATE: May 6, 2009

SUBJECT: Trauma Patient Destination/Statewide Air Ambulance Transport Protocol

TO: All Ambulance Services, Air Ambulance Services, Regional Medical Directors, ALS Service Medical Directors, Medical Command Facilities, and Trauma Centers

FROM: Pennsylvania Department of Health
Bureau of Emergency Medical Services
(717) 787-8740

This memo supersedes the December 7, 2004 Information Bulletin # 24

The Department of Health has revised the Trauma Patient Destination/Statewide Air Ambulance Transport Protocol as attached. This protocol revision was developed after the Department considered comments and recommendations from the State Advisory Council, the Pennsylvania Trauma Systems Foundation, and EMS and trauma system stakeholders, including the medical directors of air ambulance services and trauma centers located in the Commonwealth.

EMS personnel functioning with ground ambulance services shall use the Statewide Trauma Patient Destination Protocol (Statewide Protocol #180) to triage patients with acute traumatic injuries to appropriate receiving facilities and to determine when air medical transport of these patients is appropriate. When an air ambulance is indicated for transport of a patient with an acute traumatic injury, the air ambulance crew is responsible for determining the appropriate destination consistent with the revised Trauma Patient Destination/Statewide Air Protocol (#190). EMS personnel functioning with a ground ambulance and medical command physicians giving command to ground ambulance services shall not make recommendations that are inconsistent with this revised protocol.

The Trauma Patient Destination/Statewide Air Ambulance Transport Protocol applies to all persons regulated under the EMS Act when they are involved with the transport of an acute trauma patient by an air ambulance or involved in the process of determining whether an air ambulance should be used to transport a trauma patient.

This protocol revision became effective January 1, 2005, and is issued pursuant to section 5(c) of the Emergency Medical Services Act, 35 P.S. § 6925(c), which gives the Department of Health authority to establish protocols for the transport and transfer of acutely ill and injured patients to the most appropriate facility, and pursuant to the Department's responsibility under section 4 of the EMS Act, 35 P.S. § 6924, to guide and coordinate the development of emergency medical service systems into a unified statewide system. Regional EMS council quality improvement plans include 100% review of trauma patients transported by air ambulance, and issues of compliance are reported to the Department.

Attachments:

1. Trauma Patient Destination/Statewide Air Medical Transport Protocol
2. EMS Information Bulletin #67 for immediate distribution to all ambulance services, air ambulance services, regional medical directors, ALS service medical directors, and medical command facilities.
3. Appendix A - Latitude and Longitude of PA Trauma Center Helipads
4. Appendix B - Primary and preferred contact information for PA trauma centers
5. Appendix C - Adjacent State Trauma Centers nearby Pennsylvania Borders that have Qualifications and Accreditation Processes similar to Pennsylvania

**TRAUMA PATIENT DESTINATION
STATEWIDE AIR PROTOCOL**

Purpose:

- A. This protocol shall ensure that when an air ambulance service has been contacted to transport a patient in the prehospital setting, and that patient has sustained an acute traumatic injury, the patient is transported to the most appropriate receiving facility.

Criteria:

- A. All patients, in the prehospital setting, with acute traumatic injuries for which air ambulance transport has been requested.

Exclusion Criteria:

- A. Patients who are being transported from one acute care hospital to another.
- B. Patients who do not have acute traumatic injuries, or patients with a medical problem that is more serious than any associated minor acute traumatic injuries.

Policy:**A. Trauma patients transported from prehospital scenes**

1. **Transport to closest trauma center.**¹ Unless specifically permitted by this protocol, trauma patients transported by air ambulance shall be transported to the closest trauma center without distinguishing between Level 1 and Level 2 centers. For the purpose of this protocol, a reference to “closest trauma center” shall be construed to mean the trauma center that is closest to the patient in terms of air transport distance.²
2. **Weather conditions exception.** Transport by air ambulance to a trauma center other than the closest center is permitted if the pilot determines that weather conditions prohibit air travel to the closest trauma center.
 - a. In this case, transport shall proceed to the closest trauma center permitted by weather conditions.
 - b. If air transport to the closest trauma center accessible due to weather will take longer than ground transport to the closest trauma center, the patient shall be transported by ground ambulance.
3. **Ten-mile exception.**^{3,4,5} Transport by air ambulance to a trauma center other than the closest center is permitted if the difference between the air transport distance to the other center and air transport distance to the closest center is ten nautical miles or less.
4. **Pediatric exception.**^{3,4,5} An air ambulance may transport a pediatric patient (14 years of age or younger) to the closest pediatric trauma center (which includes an adult trauma center with additional qualifications in pediatric trauma) if the difference between the air transport distance to the pediatric center and the air transport distance to the closest trauma center is 30 nautical miles or less.
5. **Burn patient exception.**^{3,4,5} An air ambulance may transport a patient with serious burns⁶ to the closest burn center if the difference between the air transport distance to the burn center and the air transport distance to the closest trauma center is 30 nautical miles or less. Additionally,
 - a. If there is no burn center within the additional 30 nautical miles of air transport distance and the air medical crew determines that the patient’s condition is stable, the crew shall contact a medical command facility for direction as to whether it should transport to a more distant burn center.
 - b. If the burn is associated with other acute traumatic injury, the burn center destination must also be a trauma center.
 - c. If the patient is 14 years of age or younger, the burn center must be capable of treating pediatric burn patients.
 - d. If a burn patient has a suspected inhalation injury, the patient must be transported to the closest trauma center unless the patient’s airway has been protected by endotracheal intubation prior to transport.
6. **Trauma center on “diversion” exception.**³ An air ambulance may transport a patient to the next closest trauma center if the closest center is on “divert” for trauma patients. [In some situations, necessary resources may not be available at the closest trauma center (e.g. the center is on diversion for trauma patients because the center’s resources are committed to other trauma patients).]

- a. The air ambulance service may not consider a trauma center to be on divert for trauma patients unless that center has notified the air ambulance service of the divert condition. This notification from the trauma center may be through the air ambulance service's communication center or by direct communication with the air ambulance. This notification may occur by any type of communication, including web-based diversion notification.
- b. In the case of a mass casualty incident, the air ambulance crew shall follow the direction of the designated EMS Transport Officer, or his/her designee, related to transport to an alternate trauma center if the closest trauma center does not have the resources to accept the patient based upon communication that occurs between the trauma center(s) and the EMS Transport Officer or other designated official.
7. **Medical command exception.** Transport by air ambulance to a facility other than the closest trauma center, or transport by ground ambulance to a facility instead of air transport to the closest trauma center, is permitted if directed by a medical command physician because the medical command physician is presented with medical circumstances that lead the medical command physician to reasonably perceive that a departure from the prior provisions in this protocol is in the patient's best interest. This may occur in the following situations:
 - a. The medical command physician determines, in conjunction with the closest trauma center, that anticipated specialty care is not available at the closest trauma center (e.g. hyperbaric oxygen, extracorporeal rewarming, burn care, specialty pediatric care, etc...).
 - b. The medical command physician determines that the patient has a condition that should be treated at the closest receiving facility or would be most appropriately treated by ground ambulance transport.
8. **Patient choice exception.**³ Transport by air ambulance to a facility other than the closest trauma center or other facility that meets the criteria in sections 1-7 is permitted if the patient or other person with legal authority to act for the patient (hereafter "legal representative")⁷ makes an unsolicited request for transport to a different facility. This is subject to the following:
 - a. The air medical crew does not discuss possible destinations other than destinations that meet the criteria in sections 1-7 of this protocol, unless such discussion is initiated by the patient or the patient's legal representative.
 - b. The air medical crew communicates the request to a medical command physician and, if the medical command physician has a reasonable cause to believe that the difference in estimated transport time could adversely affect the patient's condition or recovery, the air medical crew or medical command physician provides that information to the patient or legal representative.
 - c. The medical command physician determines that the patient or the patient's legal representative is alert and oriented and communicates an understanding of the potential adverse consequences to the patient if the request is followed.
 - d. The request is not unreasonable. Circumstances in which the request may be considered to be unreasonable include, but are not limited to, weather conditions as determined by the pilot make the transport to the trauma center hazardous, and the travel time to the trauma center is excessive.
9. **Medical command assistance.** If the crew of an air ambulance has any question regarding the facility to which a patient is to be transported or whether the transport should be made by ground or air ambulance, the crew shall contact a medical command facility for assistance. Ideally, this medical command facility will be either the medical command facility at the institution affiliated with the air ambulance service or at the closest trauma center.

B. Contact with receiving trauma/burn center

1. Communicate with the receiving center as soon as possible to provide patient information and an estimated time of arrival. The air ambulance crew should do this, if feasible, since it is the best source of patient information. Provide this information to the receiving facility as soon as possible, since the information may affect the mobilization of various resources within the facility in preparation for the arrival of the patient. The mobilization of these resources may vary among centers. In carrying out this responsibility the following apply to the air ambulance crew:
 - a. Give precedence to contact with the receiving center over contact with the air ambulance medical command when orders beyond standing treatment protocols are not needed or anticipated.

- b. Do not delay transporting the patient while waiting to establish communication with the receiving facility.
 - c. Contact the receiving center by the method preferred by the center (within the air ambulance's communication capabilities).
 - d. Follow medical direction given by the receiving center's medical command facility.
Note: The air ambulance service may require that medical command orders received from a receiving facility's medical command be verified or adjusted by the air ambulance service's primary medical command but this should be a rare exception.
- C. **Resources to assist air medical services.** When available, the most current Department records of the following resources shall be used to assist an air medical service when using this protocol, unless the air ambulance service has more recent information:
1. Centers Designated to Receive Patients with Trauma
 - a. Trauma Centers including a designation of centers specially qualified to receive pediatric trauma patients.
 - b. Burn Centers, including a designation of centers specially qualified to receive pediatric burn patients.
 - c. Centers capable of providing hyperbaric oxygen therapy
 - d. Centers capable of extracorporeal rewarming (cardiac bypass)
 2. Designated method of contacting each trauma center, including preferred radio frequency or telephone number.

NOTES:

1. "Trauma Center" refers to a Regional Resource Trauma Center (Level 1) or a Regional Trauma Center (Level 2) that is currently accredited in this Commonwealth and similarly qualified trauma centers in adjacent states (See section C.1.a.). This definition of trauma center applies throughout this protocol.
2. "Air transport distance" refers to the distance from the landing zone at the scene to the landing zone at the trauma center as measured in nautical miles.
3. This ten-mile exception, pediatric exception, burn patient exception, or patient choice exception is not applicable if:
 - a. During air transport the patient does not have an adequate airway and cannot be adequately ventilated, has rapidly worsening vital signs, or has absence of vital signs. Under these circumstances, the patient shall be transported by the fastest possible means to the closest trauma center, or based upon crew judgment may be transported to the closest receiving facility.
 - b. When the patient has not yet been loaded into an air ambulance, if the patient does not have an adequate airway and cannot be adequately ventilated or is exsanguinating externally with rapidly worsening vital signs. Under these circumstances, the air medical personnel shall strongly consider transport by ground ambulance if the estimated transport time to the closest receiving facility (whether or not this facility is a trauma center) by ground ambulance is shorter than the estimated transport time by air to that facility or any other receiving facility.
4. When this exception is applicable, the air ambulance crew may offer the patient or the patient's legal representative discretion to choose transport to any facility permitted by the exception.
5. This exception shall not be used in conjunction with or cumulative to any other exception.
6. Serious burns are defined as burns that meet the American Burn Association or American College of Surgeons burn unit referral criteria.
7. The ambulance crew need only have a good faith belief that the person has legal authority to make the decision for the patient, provided the crew is without knowledge of facts negating that authority.

Performance Parameters:

- A. Review of documentation for adherence to protocol for all acute trauma patients in the prehospital setting who are not transported to the closest trauma center.

Authority:

- A. This protocol applies to all persons regulated under the EMS Act when they are involved with the transport of a trauma patient by an air ambulance or involved in the process of determining whether an air ambulance should be used to transport a trauma patient.

B. This protocol is issued pursuant to section 5(c) of the Emergency Medical Services Act, 35 P.S. §6925(c), which gives the Department of Health authority to establish protocols for the transport and transfer of acutely ill and injured patients to the most appropriate facility.

**APPENDIX A – STATEWIDE TRAUMA DESTINATION PROTOCOL
LATITUDE AND LONGITUDE OF PA TRAUMA CENTER HELIPADS**

PA ACCREDITED TRAUMA CENTERS	Latitude (N)	Longitude (W)
Abington Memorial Hospital	40° 07.2'	075° 07.25'
Albert Einstein Medical Center	40° 02.23'	075° 08.53'
Allegheny General Hospital	40° 27.48'	080° 00.17'
Altoona Hospital	40° 31.2'	078° 23.5'
Children's Hospital of Philadelphia	39° 56.86'	075° 11.7'
Children's Hospital of Pittsburgh	40° 26.5'	079° 57.6'
Community Medical Center	41° 24.21'	075° 38.74'
Conemaugh Memorial Medical Center	40° 18.1'	078° 55.1'
Crozer-Chester Medical Center	39° 51.22'	075° 22.03'
Frankford Hospital Torresdale Campus	40° 04.25'	074° 58.95'
Geisinger Medical Center	40° 58.03'	076° 36.28'
Geisinger Wyoming Valley Medical Center	40° 42.3'	076° 22.2'
Hahnemann University Hospital	39° 57.45'	075° 09.75'
Hamot Medical Center	42° 08.00'	080° 05.0'
Lancaster General Hospital	40° 02.51'	076° 18.14'
Lehigh Valley Hospital	40° 33.9'	075° 31.5'
Reading Hospital and Medical Center	40°19.54'	075° 57.23'
Robert Packer Hospital	41° 58.8'	076° 031.3'
St. Christopher's Hospital for Children	40° 04.4'	075° 07.6'
St. Luke's Hospital	40° 36.5'	075° 23.7'
St. Mary Medical Center	40° 12.10'	074° 55.55'
Temple University Hospital	40° 00.3'	075° 09.15'
The Mercy Hospital of Pittsburgh	40° 26.2'	079° 59.3'
The Milton S. Hershey Medical Center	40° 15.55'	076° 40.28'
Thomas Jefferson University Hospital	39° 56.91'	075° 09.17'
University of PA Medical Center	39° 57.02'	075° 11.57'
University of Pittsburgh Medical Center Presbyterian	40° 26.5'	079° 57.6'
York Hospital	39° 56.8'	076° 43.1'
PA ACCREDITED LEVEL 3 TRAUMA CENTERS		
Pocono Medical Center	40° 9918'	076° 17.49'
Schuylkill Medical Center	40° 26.5'	076°18.979'

Appendix B—Primary and preferred contact information for PA trauma centers

Trauma Center	Address	Contact	Preferred	Radio frequency	Phone	Back-up
ABINGTON MEMORIAL HOSPITAL	1200 Old York Road Abington, PA 19001	Emergency/Trauma Charge Nurse	Telephone	464.575 MHz	(215) 481-2450	Security (215) 481-2828
ALBERT EINSTEIN MEDICAL CENTER	5501 Old York Road Philadelphia, PA 19141	ED Attending Physician	Telephone	464.925 MHz PL 263 Hz	(215) 456-5150	Command Center (215) 456-6911
ALLEGHENY GENERAL HOSPITAL	320 East North Avenue Pittsburgh, PA 15212	Life Flight Communications	Radio	155.235 MHz	(412) 359-3333	155.340 MHz
ALTOONA HOSPITAL	620 Howard Avenue Altoona, PA 16601	Emergency Department.	Radio	MED 3 PL 37 468.050/463.050	(866) 258-9111	STAT COM 155.265 PL 16 Blair County 911 Hospital Police 158.730 MHz
THE CHILDREN'S HOSPITAL OF PHILADELPHIA	34 th and Civic Center Boulevard Philadelphia, PA 19104	Emergency Transport Services	Telephone	None	(215) 590-2906 or (800) 590-2160	Security (215) 590-2374
THE CHILDREN'S HOSPITAL OF PITTSBURGH ¹ Landing info	3705 Fifth Avenue at DeSoto Street Pittsburgh, PA 15213	Stat MedEvac Communications Center	Radio	155.265 PL 103.5 Hz	(800) 633-7828	(412) 692-5000
THE CHILDREN'S HOSPITAL OF PITTSBURGH ¹ Clinical info	3705 Fifth Avenue at DeSoto Street Pittsburgh, PA 15213	Children's Hospital Communications	Radio	155.400 MHz or 155.340 MHz	(412) 692-5000	(800) 633-7828
COMMUNITY MEDICAL CENTER	1822 Mulberry Street Scranton, PA 18510	Emergency Department Physician	Radio	155.295 MHz	CMC Security (570) 969-8037	Lackawanna County EOC (570) 342-9111 CMC (570) 969-8128
CONEMAUGH MEMORIAL MEDICAL CENTER	1086 Franklin Street Johnstown, PA 15905	Emergency Department	Radio	155.340 MHz	(888) 356-0356	MedSTAR Dispatch radio 155.340 MHz phone: 800-633-7827

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Trauma Center	Address	Contact	Preferred	Radio frequency	Phone	Back-up
CROZER-CHESTER MEDICAL CENTER	One Medical Center Boulevard Upland, PA 19013	Medical Command Physician	Telephone	509.5875/506.5875 or 509.6875/506.6875	(610) 872-5387	(610) 872-0868 secondary contact (610) 447-2188 tertiary contact
FRANKFORD HOSPITAL - TORRESDALE	Knights & Red Lion Roads Philadelphia, PA 19114	Emergency Department Physician	Telephone	501.3375 MHz PL 192.8 Hz	(215) 612-4963	Bucks County Communications
GEISINGER MEDICAL CENTER	100 N. Academy Ave. Danville, PA 17822	Life Flight Communications Center	Radio	155.160 MHz PL151.4 Hz	(800) 852-7828	UNICOM 123.05
GEISINGER WYOMING VALLEY	1000 East Mountain Rd Wilkes-Barre, Pa 18711	Emergency Department	Radio	458.125 Tx 453.125Rx PL151.4	(570) 826-7762	Luzerne County Communications PL 155.160
HAHNEMANN UNIVERSITY HOSPITAL	Broad and Vine Streets Philadelphia, PA 19102	MidAtlantic MedEvac Communications Center	Radio	155.220 MHz PL 136.5 Hz	(877) 484-3278	Emergency Department (215) 762-7207 or 7963
HAMOT MEDICAL CENTER	201 State Street Erie, PA 16550	Emergency Department Physician	Radio	155.220 MHz	ED (814) 877-6047 Security (814) 877-6099	EMERGYCARE (814) 870-1020 or Med 9
LANCASTER GENERAL HOSPITAL	555 North Duke St. Lancaster, PA 17604	Medical Command Physician	Telephone	155.340 MHz PL192.8 Hz	(717) 544-5120	Not provided
LEHIGH VALLEY HOSPITAL	1200 S Cedar Crest Ave Allentown, PA 18105	LifeCom Communications Center	Radio	464.200 RX 469.200 TX PL 107.2 Hz	(877) 375-6033	Emergency Dept (610) 402-8111
THE MERCY HOSPITAL OF PITTSBURGH	1400 Locust Street Pittsburgh, PA 15219	Mercy TACC	Radio	155.340 MHz or 155.400 MHz	(412) 232-5678	ER Charge RN (412) 232-5757

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Trauma Center	Address	Contact	Preferred	Radio frequency	Phone	Back-up
THE MILTON S. HERSHEY MEDICAL CENTER	500 University Drive Hershey, PA 17033	Life Lion Communications Center	Radio	155.355 MHz PL 27	(800) 225-4837	Emergency Department (717) 531-8333
READING HOSPITAL AND MEDICAL CENTER	Sixth Avenue and Spruce Street, West Reading, PA 19611	Security	Telephone	155.385 MHz	(610) 988 4126	PennComm (800) 543-7827
ROBERT PACKER HOSPITAL	1 Guthrie Square Sayre, PA 18840	Guthrie Communications	Radio	123.05 MHz 458.9 Tx 453.9 Rx PL 14	(800) 535-0911	Bradford County EOC
ST. CHRISTOPHER'S HOSPITAL FOR CHILDREN	Erie Ave. at Front St. Philadelphia, PA 19134- 1095	Security	Telephone	NA	(215) 427-5053	ED Attending Physician (215) 427-5326
ST. LUKE'S HOSPITAL	801 Ostrum Street Bethlehem, PA 18015	Hospital Emergency Operator	Telephone	155.385 MHz PL 100 Hz	(610) 954-4008	PennComm (800) 543-7827
ST. MARY MEDICAL CENTER	1205 Langhorne- Newtown Road Langhorne, PA 19047	Emergency Department	Telephone	501.3375 MHz PL 192.8 Hz	(215) 752-5229	Bucks County EOC
TEMPLE UNIVERSITY HOSPITAL	Broad and Ontario St. Philadelphia, PA 19140	Emergency Department Physician	Telephone	None	(215) 707-4747	(215) 707-8758
THOMAS JEFFERSON UNIVERSITY HOSPITAL	125 S. 11th St. Philadelphia, PA 19107	Jeff STAT Communications	Telephone	None	(215) 955-4444	TJUH Emergency Department (215) 955-6840
UNIVERSITY OF PENNSYLVANIA MEDICAL CENTER	3400 Spruce St. Philadelphia, PA 19104	PennCOMM	Radio	155.385 MHz	(800) 543 STAR	PennCOMM (215) 662-7736

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Trauma Center	Address	Contact	Preferred	Radio frequency	Phone	Back-up
UPMC PRESBYTERIAN	200 Lathrop Street Pittsburgh, PA 15213	Stat MedEvac Communications Center	Telephone	155.265 MHz PL 103.5 Hz	(800) 633-7828	Pittsburgh Medic Command (412) 647-5858 155.340 MHz
YORK HOSPITAL	1001 South George St. York, PA 17405	Emergency Department Physician	Radio	155.205 MHz	(717) 851-4357	(717) 851-2311

1. Children's Hospital of Pittsburgh and St. Christopher's Hospital are not recognized as Medical Command Facilities by the Pennsylvania Department of Health.

Effective 2/1/04

Trauma Patient Protocol/Statewide Air Medical Transport Protocol

Appendix C—Adjacent State Trauma Centers nearby Pennsylvania Borders that have Qualifications and Accreditation Processes similar to Pennsylvania (includes contact information and radio frequencies)

	Address	Frequency	Telephone	Preferred method for contact	Helipad Lat/Long
DELAWARE					
A.I. duPont Hospital for Children	1600 Rockland Road Wilmington, DE 19803	467.475 Tx 462.475 Rx 210.7 Hz	(302) 651-5555	Radio or Phone	N 39° 46.83' W 075° 33.34'
Christiana Hospital	4755 Ogletown-Stanton Rd. Newark, DE 19718	160.020 MHz 156.7 Hz	(302)733 1700	160.020 MHz PL 156.7 Hz	N 39° 41.26' W 075° 40.03'
NEW JERSEY					
The Cooper Health System	One Cooper Plaza Camden, NJ 08103		(856)342-3420	856 342-3420	N 39° 56.40' W 075° 06.70'
Capital Health System of Fuld	750 Brunswick Ave. Trenton, NJ 08638		(609)396-4652	609 396-4652	N 40° 14.11' W 075° 45.02'
OHIO					
St. Elizabeth Health Center	1044 Belmont Ave. Youngstown, OH 44504	Med 5 468.100/463.100 103.5 Hz	(330)729-2929	Med 5 PL 103.5 Hz	N 41° 06.90' W 080° 39.70'
WEST VIRGINIA					
WVA Hospital Jon Michael Moore Trauma Center	PO Box 82209 Morgantown, W VA 26506	155.340 MHz	(800)255 2146	155.340 MHz	N 39° 39.2 ' W 079° 57.5'

Level I and II Trauma Centers in Maryland are beyond the transport distances identified in the protocol. For inter facility or disaster operations, air ambulance operators must contact SYSCOM on 44.74 when transporting trauma patients into Maryland.

The New York State trauma center accreditation process is not similar to the trauma center accreditation process used in the Commonwealth of Pennsylvania. New York trauma centers are not eligible to receive Pennsylvania trauma patients in accordance with the Pennsylvania statewide protocol.