



pennsylvania
DEPARTMENT OF HEALTH

Pennsylvania Statewide Basic Life Support Protocols

**Pennsylvania Department of Health
Bureau of Emergency Medical Services**

Effective July 1, 2013

(717) 787-8740

March 1, 2013

Dear EMS Provider:

The Bureau of EMS, Department of Health, is pleased to provide these updated "Statewide BLS Protocols" to the EMS providers of Pennsylvania.

This 2013 update of the Statewide BLS Protocols focuses narrowly on:

- a) improved care for sudden cardiac arrest and
- b) updating the trauma patient destination protocol for the addition of Level IV trauma centers and increased consistency with the 2011 CDC/ACS national trauma field triage guidelines.

Recent advances have led to significant improvement in patient outcome from sudden cardiac arrest when EMS agencies have embraced a pit crew approach that focuses on CPR best practices. The Bureau of EMS, in conjunction with the Pennsylvania HeartRescue Project, has developed resources to educate EMS providers to these protocol changes.

Pennsylvania has used Statewide BLS Protocols since September 1, 2004, and this edition is an update to the version that has been in use since July 1, 2011. New sections of the protocols that correspond to these 2013 updates are identified with yellow highlighting and sections that have been removed are struck through and highlighted, which will assist EMS providers when reviewing changes. This 2013 version of the statewide protocols may be used by EMS providers as soon as they are familiar with the updates, but all providers must be using these updated protocols by the effective date of July 1, 2013.

Several resources will be available to assist ALS providers in becoming familiar with the protocol updates. These include an in-service presentation that will be available to regions and agencies and educational information on the Learning Management System (LMS). **All EMS providers should complete the course "High-functioning CPR Teams: Science Lecture" (BEMS course #006372) to familiarize themselves with these updates to cardiac arrest care.** The optional related simulation-based hands-on course "High-functioning CPR Team: Pit Crew High-Fidelity Simulation (BEMS course #006373) is recommended for providers within all EMS agencies.

EMS providers are permitted to perform patient care, within their PA defined scope of practice, when following the appropriate protocol(s) or when following the order of a medical command physician. Each EMS provider is responsible for being knowledgeable

regarding current state-approved protocols so that he/she may provide the safest, highest quality and most effective care to patients.

When providing patient care under the EMS Act, EMS providers of all levels must follow applicable protocols. Although the Statewide BLS Protocols are written for BLS-level care, they also apply to the BLS-level care that is performed by ALS providers. Since written protocols cannot feasibly address all patient care situations that may develop, the Department expects EMS providers to use their training and judgment regarding any protocol-driven care that would be harmful to a patient. **When the practitioner believes that following a protocol is not in the best interest of the patient, the EMS practitioner should contact a medical command physician if possible.** Cases where deviation from the protocol is justified are rare. The reason for any deviation should be documented. All deviations are subject to investigation to determine whether or not they were appropriate. In all cases, EMS providers are expected to deliver care within the scope of practice for their level of certification.

The Department of Health's Bureau of EMS website will always contain the most current version of the EMS protocols, the scope of practice for each level of provider, important EMS Information Bulletins, and many other helpful resources. This information can be accessed online at www.health.state.pa.us The Statewide BLS Protocols may be directly printed or downloaded into a PDA for easy reference.

The Department is committed to providing Pennsylvania's EMS providers with the most up-to-date protocols, and to do this requires periodic updates. The protocols will be reviewed regularly, and EMS providers are encouraged to provide recommendations for improvement at any time. Comments should be directed to the Commonwealth EMS Medical Director, Pennsylvania Dept of Health, Bureau of EMS, Room 606, 625 Forster Street, Harrisburg, PA 17120.

Joseph W. Schmider
Director
Bureau of Emergency Medical Services
Pennsylvania Department of Health

Douglas F. Kupas, MD
Commonwealth EMS Medical Director
Bureau of Emergency Medical Services
Pennsylvania Department of Health

SECTION 100:	Operations
102 – Scene Safety(GUIDELINES).....	102-1 thru 102-2
103 – Infection Control / Body Substance Isolation(GUIDELINES).....	103-1 thru 103-2
111 – Refusal of Treatment / Transport	111-1 thru 111-5
112 – Non-Transport of Patient or Cancellation of Response	112-1 thru 112-2
123 – EMS Vehicle Operations/Safety(GUIDELINES).....	123-1 thru 123-3
150 – Rehabilitation at Fire/ Incident Scene(GUIDELINES)	150-1 thru 150-4
180 – Trauma Patient Destination.....	180-1 thru 180-4
181 – Air Medical Transport for Non-Trauma Patients	181-1 thru 181-2
190 – Trauma Patient Destination [AIR AMBULANCE PROTOCOL].....	190-1 thru 190-8
192 – Air Ambulance Safety Considerations.....	192-1 thru 192-2
SECTION 200:	Assessments & Procedures
201 – Initial Patient Contact	201-1
202 – Oxygen Administration	202-1
204 – Abuse & Neglect (Child and Elder)	204-1 thru 204-2
210 – Indications for ALS Use.....	210-1
222 – Ventilation via Endotracheal Tube or Alternative/ Rescue Airway...(ASSISTING ALS).....	222-1
226 – Pulse Oximetry[Optional].....	226-1 thru 226-2
227 – Carbon Monoxide Co-oximetry..... [Optional].....	227-1 thru 227-2
251 – ECG Monitor Preparation.....(ASSISTING ALS).....	251-1
261 – Spinal Immobilization	261-1 thru 261-2
SECTION 300:	Resuscitation
322 – Dead on Arrival (DOA)	322-1
324 – Out-of-Hospital Do Not Resuscitate	324-1
331A – General Cardiac Arrest – Adult.....	331A-1 thru 331A-4
331P – General Cardiac Arrest – Pediatric.....	331P-1 thru 331P-3
332 – Cardiac Arrest – Traumatic	332-1
333 – Newborn/Neonatal Resuscitation.....	333-1 thru 333-2
SECTION 400:	Respiratory
411 – Allergic Reaction / Anaphylaxis	411-1 thru 411-2
421 – Respiratory Distress / Respiratory Failure	421-1 thru 421-3
SECTION 500:	Cardiac
501 – Chest Pain.....	501-1 thru 501-2
SECTION 600:	Trauma & Environmental
601 – Bleeding Control.....	601-1 thru 601-2
602 – Multisystem Trauma or Traumatic Shock	602-1 thru 602-2
605 – Blast / Explosive Injury	605-1 thru 605-2
611 – Head Injury.....	611-1
632 – Impaled Object	632-1
662 – Amputation	662-1
671 – Burn.....	671-1 thru 671-2
681 – Hypothermia / Cold Injury / Frostbite.....	681-1 thru 681-2
686 – Heat Emergency.....	686-1
691 – Near Drowning and Diving Injury	691-1
SECTION 700:	Medical & Ob/Gyn
702 – Altered Level of Consciousness/ Diabetic Emergency.....	702-1 thru 702-2
706 – Suspected Stroke.....	706-1 thru 706-2
781 – Emergency Childbirth.....	781-1 thru 781-2
SECTION 800:	Behavioral & Poisoning
801 – Agitated Behavior/Psychiatric Disorders.....	801-1 thru 801-2
831 – Poisoning / Toxin Exposure (Ingestion / Inhalation / Absorption / Injection).....	831-1 thru 831-2

SECTION 900:

Special Considerations

901 – Medical Command Contact	901-1 thru 901-3
904 – On-Scene Physician / RN	904-1 thru 904-2
910 Transportation of Service Animals(GUIDELINES).....	910-1
919 Crime Scene Preservation(GUIDELINES).....	919-1
921 – Indwelling Intravenous Catheters / Devices	921-1 thru 921-2
931 – Suspected Influenza-Like Illness.....	931-1 thru 931-3

APPENDICES

Resource Tables	R-1 thru R-7
Index.....	I-1 thru I-2

**SCENE SAFETY
GUIDELINES****Criteria:**

- A.** This guideline applies to every EMS response, particularly if dispatch information or initial scene size-up suggests:
1. Violent patient or bystanders
 2. Weapons involved
 3. Industrial accident or MVA with potential hazardous materials
 4. Patient(s) contaminated with chemicals

System requirements:

- A.** These guidelines provide general information related to scene safety. These guidelines are not designed to supersede an EMS agency's policy regarding management of providers' safety [as required by EMS Act regulation(s)], but this general information may augment the agency's policy.
- B.** These guidelines do not comprehensively cover all possible situations, and EMS practitioner judgment should be used when the EMS agency's policy does not provide specific direction.

Procedure:**A. If violence or weapons are anticipated:**

1. EMS providers should wait for law enforcement officers to secure scene before entry.
2. Avoid entering the scene alone.¹

B. If violence is encountered or threatened, retreat to a safe place if possible and await law enforcement. **MVAs, Industrial Accidents, Hazardous Materials situations:**

1. General considerations:
 - a. Obtain as much information as possible prior to arrival on the scene.
 - b. Look for hazardous materials, placards, labels, spills, and/or containers (spilling or leaking). Consider entering scene from uphill/upwind.
 - c. Look for downed electrical wires.
 - d. Call for assistance, as needed.
2. Upon approach of scene, look for place to park vehicle:
 - a. Upwind and uphill of possible fuel spills and hazardous materials.
 - b. Park in a manner that allows for rapid departure.
 - c. Allows for access for fire/rescue and other support vehicles.
3. Safety:
 - a. Consider placement of flares/warning devices.²
 - b. Avoid entering a damaged/disabled vehicle until it is stabilized.
 - c. Do not place your EMS vehicle so that its lights blind oncoming traffic.
 - d. Use all available lights to light up scene on all sides of your vehicle.
 - e. PPE is suggested for all responders entering vehicle or in area immediately around involved vehicle(s).
 - f. All EMS providers should wear ANSI compliant high-visibility reflective outerwear at scenes along roadways when required by federal regulation 23 CFR 634. EMS agencies should consider a policy requiring all EMS providers to wear high-visibility outerwear at all times when on an EMS call and outside of a vehicle.

C. Parked Vehicles (non-crash scenes):

1. Position EMS vehicle:
 - a. Behind vehicle, if possible, in a manner that allows rapid departure and maximum safety of EMS providers.
 - b. Turn headlights on high beam and utilize spotlights aimed at rear view mirror.
 - c. Inform the dispatch center, by radio, of the vehicle type, state and number of license plate and number of occupants **prior** to approaching the suspect vehicle.
2. One person approaches vehicle:
 - a. If at night, use a flashlight in the hand that is away from the vehicle and your body.
 - b. Proceed slowly toward the driver's seat; keep your body as close as possible to the vehicle (less of a target). Stay behind the "B" post and use it as cover.³
 - c. Ensure trunk of vehicle is secured; push down on it as you walk by.
 - d. Check for potential weapons and persons in back seat.
 - 1) Never stand directly to the side or in front of the persons in the front seat.

- e. Never stand directly in front of a vehicle.
3. Patients:
 - a. Attempt to arouse victim by tapping on roof/window.
 - b. Identify yourself as an EMS practitioner.
 - c. Ask what the problem is.
 - d. Don't let patient reach for anything.
 - e. Ask occupants to remain in the vehicle until you tell them to get out.
- D. Residence scenes with suspected violent individuals:**
 1. Approach of scene:
 - a. Attempt to ascertain, via radio communications, whether authorized personnel have declared the scene under control prior to arrival.
 - b. Do not enter environments that have not been determined to be secure or that have been determined unsafe.
 - 1) Consider waiting for police if dispatched for an assault, stabbing, shooting, etc.
 - c. Shut down warning lights and sirens one block or more before reaching destination.
 - d. Park in a manner that allows rapid departure.
 - e. Park 100' prior to or past the residence.
 2. Arrival on scene:
 - a. Approach residence on an angle.
 - b. Listen for sounds; screaming, yelling, gun shots.
 - c. Glance through window, if available. Avoid standing directly in front of a window or door.
 - d. Carry portable radio, but keep volume low.
 - e. If you decide to leave, walk backward to vehicle.
 3. Position at door:
 - a. Stand on the knob side of door; do not stand in front of door.
 - b. Knock and announce yourself.
 - c. When someone answers door – have him or her lead the way to the patient.
 - d. Open door all the way and look through the doorjamb.
 4. Entering the residence:
 - a. Scan room for potential weapons.
 - b. Be wary of kitchens (knives, glass, caustic cleaners, etc.).
 - c. Observe for alternative exits.
 - d. Do not let anyone get between you and the door, or back you into a corner.
 - e. Do not let yourself get locked in.
 5. Deteriorating situations:
 - a. Leave (with or without patient).
 - b. Walk backwards from the scene and do not turn your back.
 - c. Meet police at an intersection or nearby landmark, not a residence.
 - d. Do not take sides or accuse anyone of anything.
- E. Lethal weapons:**
 1. Do not move firearms (loaded or unloaded) unless it poses a potential immediate threat.
 2. Secure any weapon that can be used against you or the crew out of the reach of the patient and bystanders
 - a. Guns should be handed over to a law enforcement officer if possible or placed in a locked space, when available.
 - 1) If necessary for scene security, safely move firearm keeping finger off of the trigger and hammer and keeping barrel pointed in a safe direction away from self and others.
 - 2) Do not unload a gun.
 - b. Knives should be placed in a locked place, when available.

Notes:

1. Each responder should carry a portable radio, if available.
2. Flares should not be used in the vicinity of flammable materials.
3. Avoid side and rear doors when approaching a van. Vans should be approached from the front right corner.

INFECTION CONTROL / BODY SUBSTANCE ISOLATION GUIDELINES

Criteria:

- A.** These guidelines should be used whenever contact with patient body substances is anticipated and/or when cleaning areas or equipment contaminated with blood or other body fluids.
- B.** Your patients may have communicable diseases without you knowing it; therefore, these guidelines should be followed for care of all patients.

System Requirements:

- A.** These guidelines provide general information related to body substance isolation and the use of universal precautions. These guidelines are not designed to supersede an EMS agency's infection control policy [as required by EMS Act regulation 28 § 1005.10 (I)], but this general information may augment the agency's policy.
- B.** These guidelines do not comprehensively cover all possible situations, and EMS practitioner judgment should be used when the EMS agency's infection control policy does not provide specific direction.

Procedure:

A. All patients:

1. Wear gloves on all calls where contact with blood or body fluid (including wound drainage, urine, vomit, feces, diarrhea, saliva, nasal discharge) is anticipated or when handling items or equipment that may be contaminated with blood or other body fluids.
2. Wash your hands often and after every call. Wash hands even after using gloves:
 - a. Use hot water with soap and wash for 15 seconds before rinsing and drying.
 - b. If water is not available, use alcohol or a hand-cleaning germicide.
3. Keep all open cuts and abrasions covered with adhesive bandages that repel liquids. (e.g. cover with commercial occlusive dressings or medical gloves)
4. Use goggles or glasses when spraying or splashing of body fluids is possible. (e.g. spitting or arterial bleed). As soon as possible, the EMS practitioner should wash face, neck and any other body surfaces exposed or potentially exposed to splashed body fluids.
5. Use pocket masks with filters/ one-way valves or bag-valve-masks when ventilating a patient.
6. If an EMS practitioner has an exposure to blood or body fluids¹, the practitioner must follow the agency's infection control policy and the incident must be immediately reported to the agency infection control officer as required. EMS practitioners who have had an exposure² should be evaluated as soon as possible, since antiviral prophylactic treatment that decreases the chance of HIV infection must be initiated within hours to be most effective. In most cases, it is best to be evaluated at a medical facility, preferably the facility that treated the patient (donor of the blood or body fluids), as soon as possible after the exposure.
7. Preventing exposure to respiratory diseases:
 - a. Respiratory precautions should be used when caring for any patient with a known or suspected infectious disease that is transmitted by respiratory droplets. (e.g. tuberculosis, influenza, or SARS)
 - b. HEPA mask (N-95 or better), gowns, goggles and gloves should be worn during patient contact.
 - c. A mask should be placed upon the patient if his/her respiratory condition permits.

- d. Notify receiving facility of patient's condition so appropriate isolation room can be prepared.
8. Thoroughly clean and disinfect equipment after each use following agency guidelines that are consistent with Center for Disease Control recommendations.
9. Place all disposable equipment and contaminated trash in a clearly marked plastic red Biohazard bag and dispose of appropriately.
 - a. Contaminated uniforms and clothing should be removed, placed in an appropriately marked red Biohazard bag and laundered / decontaminated.
 - b. All needles and sharps must be disposed of in a sharps receptacle unit and disposed of appropriately.

Notes:

1. At-risk exposure is defined as "a percutaneous injury (e.g. needle stick or cut with a sharp object) or contact of mucous membrane or non-intact skin (e.g. exposed skin that is chapped, abraded, or afflicted with dermatitis) with blood, tissue or other body fluids that are potentially infectious." Other "potentially" infectious materials (risk of transmission is unknown) are CSF (cerebral spinal fluid), synovial, pleural, peritoneal, pericardial and amniotic fluid, semen and vaginal secretions. Feces, nasal secretions, saliva, sputum, sweat, tears, urine and vomitus are not considered potentially infectious unless they contain blood.

**REFUSAL OF TREATMENT / TRANSPORT
STATEWIDE BLS PROTOCOL****Criteria:**

- A.** Patient with illness or injury refuses treatment or transport.
- B.** Individual with legal authority to make decisions for an ill or injured patient refuses treatment or transport.

Exclusion Criteria:

- A.** Patient involved in incident but not injured or ill. See Protocol #112.

System Requirements:

- A. [OPTIONAL]** An EMS agency or region may require its providers to complete an EMS Patient Refusal Checklist as part of the PCR for every patient that refuses transport. Regional medical treatment protocol may require contact with medical command physician for all patients refusing treatment and/or transport.

Procedure**A. All Patients:**

1. Assess patient using Initial Contact and Patient Care Protocol #201.
 - a. If the patient is combative or otherwise poses a potential threat to EMS practitioners, retreat from the immediate area and contact law enforcement.
 - b. Consider ALS if a medical condition may be altering the patient's ability to make medical decisions.
2. Attempt to secure consent to treatment / transport. ^{1,2,3,4}
3. Assess the following (use EMS Patient Refusal Checklist if required by regional or agency):
 - a. Assess patient's ability to make medical decisions and understand consequences (e.g. alert and oriented x 4, GCS=15, no evidence of suicidal ideation/attempt, no evidence of intoxication with drugs or alcohol, ability to communicate an understanding of the consequences of refusal).
 - b. Assess patient's understanding of risks to refusing treatment/transport.
 - c. Assess patient for evidence of medical conditions that may affect ability to make decisions (e.g. hypoglycemia, hypoxia, hypotension)
4. If acute illness or injury has altered the patient's ability to make medical decisions and if the patient does not pose a physical threat to the EMS practitioners, the practitioners may treat and transport the patient as per appropriate treatment protocol. Otherwise contact medical command. See Behavioral Disorders/Agitated Patient (Restraint) protocol #801 is appropriate.
5. Contact medical command, when available communication technology permits, if using the EMS Refusal Checklist and any response is completed within a shaded box or if patient assessment reveals at least one of the following:
 - a. EMS practitioner is concerned that the patient may have a serious illness or injury.
 - b. Patient has suicidal ideation, chest pain, shortness of breath, hypoxia, syncope, or evidence of altered mental status from head injury intoxication or other condition.
 - c. Patient does not appear to have the ability to make medical decisions or understand the consequences of those decisions.
 - d. The patient is less than 18 years of age.

- e. Vital signs are abnormal.
6. If patient is capable of making and understanding the consequences of medical decisions and there is no indication to contact medical command or medical command has authorized the patient to refuse treatment/transport, then:
 - a. Explain possible consequences of refusing treatment/transport to the patient³
 - b. Have patient and witness sign the EMS Refusal Checklist or other refusal form⁴.
 - c. Consider the following:
 - 1) Educate patient/family to call back if patient worsens or changes mind
 - 2) Have patient/family contact the patient's physician
 - 3) Offer assistance in arranging alternative transportation.
- B. Document:** The assessment of the patient and details of discussions must be thoroughly documented on the patient care report (PCR), EMS agencies may choose to require that practitioners complete the EMS Patient Refusal Checklist that is included in this protocol as part of the PCR for every patient that refuses treatment. In the absence of a completed EMS Patient Refusal checklist, documentation in the PCR should generally include:
 1. History of event, injury, or illness.
 2. Appropriate patient assessment.
 3. Assessment of patient's ability to make medical decisions and ability to understand the consequences of decisions.
 4. Symptoms and signs indicating the need for treatment/transport.
 5. Information provided to the patient and/or family in attempts to convince the patient to consent to treatment or transport. This may include information concerning the consequences of refusal, alternatives for care that were offered to the patient, and time spent on scene attempting to convince the individual.
 6. Names of family members or friends involved in discussions, when applicable.
 7. Indication that the patient and/or family understands the potential consequences of refusing treatment or transport.
 8. Medical command contact and instructions, when applicable.
 9. Signatures of patient and/or witnesses when possible.

Possible MC Orders:

- A.** Medical command physician may request to speak with the patient, family, or friends when possible.
- B.** Medical command physician may order EMS providers to contact law enforcement or mental health agency to facilitate treatment and/or transport against the patient's will. In this case, the safety of the EMS practitioners is paramount and no attempt should be made to carry out an order to treat or transport if it endangers the EMS practitioners. Contact law enforcement as needed.

Notes:

1. If the patient lacks the capacity to make medical decisions, the EMS practitioner shall comply with the decision of another person who has the capacity to make medical decisions, is reasonably available, and who the EMS practitioner, in good faith, believes to have legal authority to make the decision to consent to or refuse treatment or transport of the patient.
 - a. The EMS practitioner may contact this person by phone.

- b. This person will often, but not always, be a parent or legal guardian of the patient. The EMS practitioner should ensure that the person understands why the person is being approached and that person's options, and is willing to make the requested treatment or transport decisions for the patient.
2. If the patient is 18 years of age or older, has graduated from high school, has married, has been pregnant, or is an emancipated minor, the patient may make the decision to consent to or refuse treatment or transport. A minor is emancipated for the purpose of consenting to medical care if the minor's parents expressly, or implicitly by virtue of their conduct, surrender their right to exercise parental duties as to the care of the minor. If a minor has been married or has borne a child, the minor may make the decision to consent to or refuse treatment or transport of his or her child. If the minor professes to satisfy any of the aforementioned criteria, but does not satisfy the criterion, the EMS practitioner may nevertheless comply with the decision if the EMS practitioner, in good faith, believes the minor.
3. If a patient who has the capacity to make medical decisions refuses to accept recommended treatment or transport, the EMS practitioner should consider talking with a family member or friend of the patient. With the patient's permission, the EMS practitioner should attempt to incorporate this person's input into the patient's reconsideration of his or her decision. These persons may be able to convince the patient to accept the recommended care.
4. For minor patients who appear to lack the capacity or legal authority to make medical decisions:
 - a. If the minor's parent, guardian, or other person who appears to be authorized to make medical decisions for the patient is contacted by phone, the EMS practitioner should have a witness confirm the decision. If the decision is to refuse the recommended treatment or transport, the EMS practitioner should request the witness to sign the refusal checklist of form.
 - b. If a person who appears to have the authority to make medical decisions for the minor cannot be located, and the EMS practitioner believes that an attempt to secure consent would result in delay of treatment which would increase the risk to the minor's life or health, the EMS practitioner shall contact a medical command physician for direction. The physician may direct medical treatment and transport of a minor if an attempt to secure the consent of an authorized person would result in delay of treatment which the physician reasonably believes would increase the risk to the minor's life or health.
 - c. If a person who appears to have authority to make medical decisions for the minor cannot be located, the EMS practitioner believes an attempt to secure consent would result in delay of treatment which would increase the risk to the minor's life or health, and the EMS practitioner is unable to contact a medical command physician for direction, the EMS practitioner may provide medical treatment to the and transport a minor patient without securing consent. An EMS practitioner may provide medical treatment to and transport any person who is unable to give consent for any reason, including minors, where there is no other person reasonably available who is legally authorized to refuse or give consent to the medical treatment or transport, providing the EMS practitioner has acted in good faith and without knowledge of facts negating consent.
5. The medical command physician may wish to speak directly to the patient if possible. Speaking with the medical command physician may cause the patient to change his or her mind and consent to treatment or transport.

Performance Parameters:

- A. Compliance with completion of the EMS Patient Refusal checklist for every patient that refuses transport, if required by agency or regional policy.
- B. Compliance with medical command physician contact when indicated by criteria listed in protocol.

EMS Patient Refusal Checklist

EMS Agency: _____ Date: _____ Time: _____
 Patient Name: _____ Age: _____ Phone #: _____
 Incident Location: _____ Incident # _____
 Situation: of Injury/Illness: _____

Check marks in shaded areas require consult with Medical Command before patient release

Patient Assessment:

Suspected serious injury or illness based upon patient History, mechanism of injury, or physical examination: Yes No

18 years of age or older:	<input type="checkbox"/> Yes	<input type="checkbox"/> No	Any evidence of:	Suicide attempt?	<input type="checkbox"/> Yes	<input type="checkbox"/> No
				Head Injury?	<input type="checkbox"/> Yes	<input type="checkbox"/> No
Patient Oriented to:	Person	<input type="checkbox"/> Yes <input style="background-color: #cccccc;" type="checkbox"/> No		Intoxication?	<input type="checkbox"/> Yes	<input type="checkbox"/> No
	Place	<input type="checkbox"/> Yes <input style="background-color: #cccccc;" type="checkbox"/> No		Chest Pain?	<input type="checkbox"/> Yes	<input type="checkbox"/> No
	Time	<input type="checkbox"/> Yes <input style="background-color: #cccccc;" type="checkbox"/> No		Dyspnea?	<input type="checkbox"/> Yes	<input type="checkbox"/> No
	Event	<input type="checkbox"/> Yes <input style="background-color: #cccccc;" type="checkbox"/> No		Syncope?	<input type="checkbox"/> Yes	<input type="checkbox"/> No

Vital Signs:	Consult Medical Command if:	If altered mental status or diabetic -(ALS only)- Chemstrip/Glucometer: _____mg/dl < 60mg/dl
Pulse _____	<50bpm or >100 bpm	If chest pain, S.O.B. or altered mental status -- SpO2 (if available): % < 95%
Sys BP _____	<100 mm Hg or > 200 mm Hg	
Dia BP _____	<50 mm Hg or > 100 mm Hg	
Resp _____	< 12rpm or > 24rpm	

Risks explained to patient: _____
 Patient understands clinical situation Yes No
 Patient verbalizes understanding of risks Yes No
 Patient's plan to seek further medical evaluation: _____

Medical Command:

Physician contacted: _____ Facility: _____ Time: _____
 Command spoke to patient: Yes No Command not contacted Why? _____
 Medical Command orders: _____

Patient Outcome:

- Patient refuses transport to a hospital against EMS advice
- Patient accepts transportation to hospital by EMS but refuses any or all treatment offered (specify treatments refused: _____)
- Patient does not desire transport to hospital by ambulance, EMS believe alternative treatment/transportation plan is reasonable

This form is being provided to me because I have refused assessment, treatment and/or transport by an EMS provider for myself or on behalf of this patient. I understand that EMS providers are not physicians and are not qualified or authorized to make a diagnosis and that their care is not a substitute for that of a physician. I recognize that there may be a serious injury or illness which could get worse without medical attention even though I (or the patient) may feel fine at the present time. I understand that I may change my mind and call 911 if treatment or assistance is needed later. I also understand that treatment is available at an emergency department 24 hours a day. I acknowledge that this advice has been explained to me by the EMS crew and that I have read this form completely and understand its terms.

Signature (Patient or Other)	Date	EMS Provider Signature
If other than patient, print name and relationship to patient		Witness Signature

EMS Patient Refusal Checklist (Spanish Language Version)

EMS Agency: _____ Date: _____ Time: _____
 Patient Name: _____ Age: _____ Phone #: _____
 Incident Location: _____ Incident #: _____
 Situation of Injury/Illness: _____

Check marks in shaded areas require consult with Medical Command before patient release

Patient Assessment:

Suspected serious injury or illness based upon patient

History, mechanism of injury, or physical examination: Yes No

18 years of age or older: Yes No Any evidence of: Suicide attempt? Yes No

Patient Oriented to: Person Yes No Head Injury? Yes No
 Place Yes No Intoxication? Yes No
 Time Yes No Chest Pain? Yes No
 Event Yes No Dyspnea? Yes No
 Syncope? Yes No

Vital Signs:	Consult Medical Command if:	If altered mental status or diabetic –(ALS only)–
Pulse _____	<50bpm or >100 bpm	Chemstrip/Glucometer: _____ mg/dl < 60mg/dl
Sys BP _____	<100 mm Hg or > 200 mm Hg	If chest pain, S.O.B. or altered mental status --
Dia BP _____	<50 mm Hg or > 100 mm Hg	SpO2 (if available): _____% < 95%
Resp _____	< 12rpm or > 24rpm	

Risks explained to patient: _____
 Patient understands clinical situation Yes No
 Patient verbalizes understanding of risks Yes No
 Patient's plan to seek further medical evaluation: _____

Medical Command:

Physician contacted: _____ Facility: _____ Time: _____
 Command spoke to patient: Yes No Command not contacted Why? _____
 Medical Command orders: _____

Patient Outcome:

- Patient refuses transport to a hospital against EMS advice
- Patient accepts transportation to hospital by EMS but refuses any or all treatment offered (specify treatments refused: _____)
- Patient does not desire transport to hospital by ambulance, EMS believe alternative treatment/transportation plan is reasonable

Este formulario se me ha entregado debido a que me he rehusado a recibir una evaluación, atención o transportación del personal de EMS (servicios médicos de emergencia) para mí o para el paciente al que represento. Entiendo que los de EMS no son médicos y que no están capacitados ni autorizados para diagnosticar y que su atención no toma el lugar de la de un médico. Reconozco que pudiera haber de por medio una grave herida o enfermedad que pudiera agravarse sino se recibe atención médica aunque yo (o el paciente) me sienta bien en estos momentos. Entiendo que podría yo cambiar de idea y llamar al 911 si el cuidado o asistencia son requeridos más tarde. Además sé que dicha atención está disponible en cualquier salón de emergencia de asistencia pública las 24 horas del día. Reconozco que este consejo me ha sido explicado por el personal de la ambulancia y que he leído y entendido este formulario completamente.

Firma (Paciente u otro) _____ Fecha _____ EMS, firma _____
 Signature (Patient or Other) _____ Date _____ EMS Provider Signature _____

Si no es el paciente, nombre y parentesco con el paciente (letra de imprenta) _____ Firma del testigo _____
 If other than patient, print name and relationship to patient _____ Witness Signature _____

THIS PAGE INTENTIONALLY LEFT BLANK

**NON-TRANSPORT OF PATIENTS OR CANCELLATION OF RESPONSE
STATEWIDE BLS PROTOCOL****Criteria:**

- A. EMS provider cancelled before arriving at the scene of an incident.
- B. EMS provider who has been dispatched to respond encounters an individual who denies injury/illness and has no apparent injury/illness when assessed by the EMS practitioner.¹
- C. EMS provider transfers care to another provider.

Exclusion Criteria:

- A. This protocol does not apply to an on-scene EMS provider evaluating a patient who is ill or injured but refuses treatment or transport – see Protocol # 111.

Procedure:**A. Cancellations:**

1. After being dispatched to an incident, an ALS or BLS provider may cancel its response when following the direction of a PSAP or dispatch center. Reasons for response cancellation by the PSAP or dispatch center may include the following situations:
 - a. When the PSAP/ dispatch center diverts the responding provider to an EMS incident of higher priority, as determined by the PSAP/ dispatch center's EMD protocols, and replaces the initially responding provider with another EMS provider, the initial provider may divert to the higher priority call.
 - b. When the PSAP/ dispatch center determines that another EMS agency can handle the incident more quickly or more appropriately.
 - c. When EMS providers on scene determine that a patient does not require care beyond the scope of practice of the on scene provider, the EMS practitioner may cancel additional responding EMS providers. This includes cancellation of providers responding to patients who are obviously dead (see Protocol #322).
 - d. When law enforcement or fire department personnel on scene indicate that no incident or patient was found, these other public safety services may cancel responding EMS providers.
 - e. When the PSAP/ dispatch center is notified that the patient was transported by privately owned vehicle or by other means (caller, police, or other authorized personnel on the scene).
 - f. When BLS is transporting a patient that requires ALS, ALS may be cancelled if it is determined that ALS cannot rendezvous with the BLS provider in time to provide ALS care before the BLS ambulance arrives at the hospital.
2. EMS agencies or regions may have policies that require the responding provider to proceed to the scene non-emergently if the on-scene individual that recommends cancellation is not an EMS practitioner.

B. Persons involved but not injured or ill:¹ The following apply if an individual for whom an EMS provider has been dispatched to respond denies injury/illness and has no apparent injury/illness when assessed by the EMS practitioner:

1. Assess mechanism of injury or history of illness, patient symptoms, and assess patient for corresponding signs of injury or illness
2. If individual declines care, there is no evidence of injury or illness, and the involved person has no symptoms or signs of injury/ illness, then the EMS practitioner has no further obligation to this individual.

3. If it does not hinder treatment or transportation of injured patients, documentation on the EMS PCR should, at the minimum, include the following for each non-injured patient:
 - a. Name
 - b. History, confirming lack of significant symptoms.
 - c. Patient assessment, confirming lack of signs or findings consistent with illness/injury.
4. If serious mechanism of injury, symptoms of injury or illness, or physical exam findings are consistent with injury or illness, follow Patient Refusal of Treatment Protocol # 111.

C. Release of patients:

1. When patient care is transferred to another EMS practitioner, the initial practitioner must transfer care to an individual with an equivalent or higher level of training (e.g. EMT to EMT, ALS to ALS, ground to air medical crew) except in the following situations:
 - a. Transfer to a lower level provider is permitted by applicable protocol or when ordered by a medical command physician. (e.g. ALS agency releases patient care and/or transport to BLS agency)
 - b. Patient care needs outnumber EMS provider resources at scene and waiting for an equivalent or higher level of care practitioner will delay patient treatment or transport.

D. Provider Endangerment:

1. Under no circumstances should a provider be required to endanger his or her life or health to provide patient care. See Scene Safety protocol #102.

Notes:

1. Pertains to persons who have had EMS summoned on their behalf by a third party, but deny being injured or ill (i.e.: a person in a minor MVA who denies complaints). This is not applicable if the patient has symptoms.

Performance Parameters:

- A.** Review cases of cancellation of ALS by BLS providers for appropriateness

**EMS VEHICLE OPERATIONS/SAFETY
GUIDELINES****Criteria:**

- A.** All EMS operations, including incident responses and patient transports.¹

System Requirements:

- A.** These guidelines provide general information and “best practice” guidelines related to the use of lights and sirens by EMS providers and EMS vehicle operators during incident response and patient transport. EMS agencies may use these guidelines to fulfill the agency’s requirement for a policy regarding the use of lights and other warning devices as required by EMS Act regulation 28 § 1005.10 (l) or regions may use these guidelines in establishing regional treatment and transport protocols.

Policy:**A. Use of lights and other warning devices [EMS Act regulation 28 § 1005.10 (g)]:**

1. EMS vehicle may not use emergency lights or audible warning devices, unless they do so in accordance with standards imposed by 75 Pa.C.S (relating to Vehicle Code) and are transporting or responding to a call involving a patient who presents or is in good faith perceived to present a combination of circumstances resulting in a need for immediate medical intervention. When transporting the patient, the need for immediate medical intervention must be beyond the capabilities of the ambulance crew using available supplies and equipment.
2. The use of L&S during response or transport should not be confused with whether a patient had an emergency condition requiring urgent assessment, treatment, or transport by EMS providers. Many patients that require emergency assessment, treatment, and transport may be appropriately and safely cared for by EMS personnel without the use of a L&S response or transport.

B. Response to incident:

1. The EMSVO is responsible for the mode of response to the scene based upon information available at dispatch. If the PSAP or dispatch center provides a response category based upon EMD criteria, EMS vehicles shall respond with L&S only when the dispatch category is consistent with a L&S response.² Response mode may be altered based upon additional information that is received by the dispatch center while the EMS vehicle is enroute to scene.
2. L & S use is generally NOT appropriate in the following circumstances:
 - a. “Stand-bys” at the scene of any fire department-related incident that does not involve active interior structural attack, hazardous materials (see below), known injuries to firefighters or other public safety personnel or the need for immediate deployment of a rehabilitation sector.
 - b. Carbon monoxide detector alarm activations without the report of any ill persons at the scene.
 - c. Assist to another public safety agency when there is no immediate danger to life or health.
 - d. Response to a hospital for immediate interfacility transport.
 - e. Response to a medical alarm system activation.
 - f. Response to patients who have apparently expired.
 - g. EMS agencies should consider whether L&S should be used when responding to emergency requests for EMS at facilities where health care personnel are already available to patients who are not suspected to be in cardiac arrest – for example skilled nursing facilities and medical offices.
 - h. EMS agencies should consider whether L&S should be used when responding to MVCs with unknown injuries.
3. Special circumstances may justify L&S use to an emergency incident scene when the emergency vehicle is not transporting a crew for the purposes of caring for a patient:
 - a. Transportation of personnel or materials resources considered critical or essential to the management of an emergency incident scene. Transportation of human or materials resources considered critical or essential to the prevention or treatment of acute

illness/injury at a medical facility or other location at which such a circumstance may occur (i.e. transportation of an amputated limb, organ retrieval, etc).

C. Patient transport:

1. The EMS provider primarily responsible for patient care during transportation will advise the driver of the appropriate mode of transportation based upon the medical condition of the patient.
2. In most situations, the use of L&S during patient transport is not indicated:⁴
 - a. Emergent transport should be used in any situation in which the most highly trained EMS practitioner believes that the patient's condition will be worsened by a delay equivalent to the time that can be gained by emergent transport. Medical command may be used to assist with this decision. The justification for using this criterion should be documented on the patient care report.
 - b. Examples of Medical Conditions that May Benefit by L&S Transport
 - 1) Inability to obtain or maintain a patent airway
 - 2) Critically unstable patient with impending cardiac arrest.
 - c. The vast majority of patient's will not have better medical outcomes by decreasing transport time by the time saved by L&S transport.
 - d. The patient's physiologic responses to L&S use (increased tachycardia and blood pressure) may be detrimental to some patient's medical conditions.
 - e. When EMS providers are not restrained, the increased risk of EMS vehicle crash while using L&S may increase the risk of injury to EMS providers. The extremely poor prognosis for patients transported with CPR in progress does not justify the use of L&S transport for most patients in cardiac arrest.
 - f. **When in doubt**, contact with a medical command may provide additional direction related to whether there is an urgent need to transport with L&S.
3. No emergency warning lights or siren will be used when ALS care is not indicated (for example, ALS cancelled by BLS or ALS released by medical command).⁵
4. Mode of transport for interfacility transfers will be based upon the medical protocol and the directions of the referring physician or medical command physician who provides the orders for patient care during the transport. Generally, interfacility transport patients have been stabilized to a point where the minimal time saved by L&S transport is not of importance to patient outcome.
5. Exceptions to these policies can be made under extraordinary circumstances (e.g., disaster conditions or a back log of high priority calls where the demand for EMS vehicles exceeds available resources). These exceptions should be documented.
6. Systems with field supervisors may consider a policy requiring notification of the supervisor before any L&S transport.

D. Other operational safety considerations:

1. The following procedures should be followed for safe EMS vehicle operations:
 - a. Operational Issues:
 - 1) Daytime running lights or low-beam headlights will be on (functioning as daytime running lights) at all times while operating EMS vehicles during L&S and non-L&S driving.
 - 2) L&S should **both** be used when exercising any moving privilege (examples include, proceeding through a red light or stop sign after coming to a complete stop or opposing traffic in an opposing lane or one-way street) granted to EMS vehicles that are responding or transporting in an emergency mode.
 - 3) When traveling in an opposing traffic lane, the maximum speed generally should not exceed 20 m.p.h.
 - b. PSAP and Dispatch Centers: EMS systems are encouraged to cooperate with the dispatch centers in developing procedures to "downgrade" the response of incoming units to Non-L&S when initial on-scene units determine that there is no immediate threat to life.
 - c. Documentation: The dispatch category (e.g., "code 3", "ALS emergency", etc.) that justifies L&S response should be documented on the patient care report. The justification for using L&S during transport should also be documented on the patient care report (e.g., "gunshot wound to the abdomen", "systolic BP<90", etc.).

- d. **Seat Belt and Restraint Use:** Seat belts or restraints will be securely fastened to the following individuals when the vehicle is in motion:
 - 1) All EMS vehicle operators
 - 2) All patients
 - 3) All non-EMS passengers (cab and patient compartment)
 - 4) All EMS practitioners (when patient care allows)
 - 5) All infants and toddlers (these children should be transported in an age appropriate child seat if their condition allows). Children should not be placed in cab passenger seat with airbag.
- e. **Avoid Distracted EMSVOs**
 - 1) Distracted driving is responsible for many MVCs, and EMS agencies should assure that policies reduce the risk of a distracted driving accident.
 - a) EMSVOs should not view pagers, cell phone screens, text messages, or mobile data terminals or enter data into GPS devices while an EMS vehicle is in motion.
 - (1) These functions should be the responsibility of another EMS provider when another provider is in the vehicle.
 - (2) When another EMS vehicle provider is not available, the EMSVO should stop the vehicle before using a cell phone or viewing a pager.
 - (3) EMS agencies should work with PSAPs and dispatch centers to create policies that reduce distracted driving. For example, radio communication should be used instead of a pager message when communicating a message to an EMS vehicle that is known to be travelling.
- f. **Sterile Cockpit Operations**
 - 1) When responding or transporting with L&S, there should be no communication with the EMSVO that is not specific to the mission or function of driving the vehicle.

Notes:

1. These guidelines are secondary to and do not supersede the Pennsylvania Motor Vehicle Code.
2. Dispatch centers/PSAPs and EMS regions are encouraged to have medically approved EMD protocols that differentiate which emergency situations or conditions are appropriate for L&S responses (for example, "Echo", "code 3", "red", etc...) from a lesser level of response (for example, "Alpha", "Bravo", "Code 2", "Yellow", etc...) based upon medical questions asked by the dispatcher. The dispatch category classification, or determinant that justifies L&S use should be documented on the PCR.
3. Firefighters cross-trained as EMS providers who respond in an EMS vehicle to a fire station or fire incident in order to complete a fire apparatus crew are considered an exception to this policy.
4. In most cases (more than 95% - 99% of EMS incidents), EMS providers can perform the initial care required to stabilize the patient's condition to a point where the small amount of time gained by L&S transport will not affect the patient's medical condition or outcome. In previous studies and in most situations, L&S transport generally only decreases transport time by a couple of minutes or less.
5. L &S may be indicated in some situations where ALS is indicated, but not available or cancelled, because the ALS crew cannot rendezvous with the BLS crew prior to transport to the closest appropriate medical facility.

Performance Parameters:

- A. Review for correlation between dispatch classification/category and documented mode of response to scene.
- B. Monitor percentage of "911" calls using L&S during response to EMS calls. Routine or scheduled transports should be excluded. [Potential benchmark <50% of responses with L&S].
- C. Review for documentation of reason for L&S transport when patient does not meet criteria listed in section C.2.b.(1 & 2).
- D. Monitor percentage of urgent/emergent ("911") calls using L&S during transport. [Potential benchmark <1%% of patients transported with L&S]
- E. Treat every L&S patient transport as a sentinel event for QI and medical director review

THIS PAGE INTENTIONALLY LEFT BLANK

REHABILITATION AT FIRE/ INCIDENT SCENE GUIDELINES

Criteria:

- A.** The intent of rehabilitation (Rehab) is to provide a structured, consistent method for the evaluation and remediation of common ailments associated with the activities at fire / hazardous materials and incident scenes; including but not limited to: overexertion, dehydration, metabolic disturbances, and exposure to temperature extremes.
 - 1. This guideline may be used by EMS agencies when requested to operate within an established rehabilitation area/sector at the scene of a working fire / hazardous materials, other comprehensive emergency incident, or extended training exercise.
 - 2. If a Rehab area has not been established at an incident scene, this guideline may still be used when providing medical monitoring to fire or other emergency personnel at an incident scene.

Procedure:

A. Primary EMS responsibilities

- 1. The primary responsibility of EMS personnel during Rehab is to provide medical monitoring, remediation of hypothermia/hyperthermia and emergency medical care.
- 2. Based on local practice/policy, EMS personnel may be involved in the other aspects of Rehab outside of their primary responsibility or other duties as assigned by the Incident Command (IC) or EMS Operations, but not to the extent which they interfere with medical monitoring and/or emergency medical care.

B. Emergency medical care

- 1. At any point in their Rehab period, personnel with any significant complaints (e.g. chest pain, respiratory distress, altered mental status, or trauma) should be treated using the applicable Statewide EMS protocol.
- 2. Medical treatment provided during Rehab must be in accordance with applicable Statewide EMS Protocol(s).
- 3. Appropriate notification should be made, following the Incident Command System (ICS) structure, regarding any personnel transported from the incident, refusing to cooperate with the Rehab process, returning to duty without meeting criteria for medical clearance, or who have successfully completed rehab but will not return to duty at the incident.
- 4. If any personnel refuse a medical assessment, treatment and/or medical advice as offered in Rehab, advise the appropriate line officer (IC, Safety Officer, etc), and follow Statewide BLS Protocol #111: Refusal of Treatment/Transport.

C. Equipment

- 1. Rehab should have the necessary EMS equipment/supplies to accommodate the nature/size of the operation. Suggested minimum equipment available should include:
 - a. Standard BLS equipment, including; stethoscope, sphygmomanometer, thermometer (electronic, digital, non-tympanic), hot/cold packs, oxygen, bandages, dressings, AED, pulse oximeter (if available), and CO co-oximeter (if available).
 - b. Clipboards, personnel accountability/log in sheets, tags, or other appropriate accountability and/or documentation forms.
 - c. If indicated by risk of incident, at least one ambulance (with staff) available to transport patients from the Rehab area.

D. Medical monitoring

1. Upon arrival at the scene, EMS providers should report to the IC, Rehab Officer, or other appropriate entity as designated by the ICS and confirm the EMS expectations based on the nature/scope of the incident.
2. EMS providers may be tasked with providing personnel accountability (via their documentation) within the Rehab area.
3. All personnel entering Rehab should have their initial vital signs assessed after a brief relaxation period (approximately 5 min.) (including pulse, respirations, blood pressure, and oral temperature). [See “Vital Signs Parameters” table below for range of vital signs considered to be normal for return to duty.]EMS providers should carefully monitor personnel for signs of heat stress (e.g. altered level of consciousness, abnormal vital signs, elevated temperature) and significant medical complaints (i.e. chest pain, dyspnea).
4. At any point during their Rehab period, personnel with “abnormal” vital signs should receive additional monitoring in Rehab, and should not be released for further activity until their vital signs are within “normal” parameters. Personnel with continued abnormal vital signs after 20 minutes in Rehab should be treated per applicable protocol which may include transport to the Emergency Department.
5. At the conclusion of their Rehab period (generally lasting at least 20 minutes in duration), personnel with “normal” vital signs and no serious signs or symptoms may be permitted to return to normal activity.
6. All vital signs and Rehab assessments should be documented. EMS services may choose to use a log, tag, or other means of appropriate documentation [See Emergency Scene Rehabilitation Tag in Appendix R-5]. An EMS PCR must be completed as required (e.g. for every patient transported by ambulance and every patient refusing treatment or transport).Suggested Vital Signs Parameters

	Pulse	Respiration	Blood Pressure	Oral Temperature	Oxygen Saturation ⁶ (SpO2%) (Optional)	Carbon Monoxide Saturation ⁷ (SpCO%) (Optional)
Normal	>60 or ≤100	>12 or <20	Systolic: < 160 Diastolic: < 90	< 99.5°F <37.5°C	≥ 95%	Non-smoker: < 5% Smoker: < 10%
Abnormal	>100	<12 or > 20	Systolic: <90 or >160 Diastolic: >90	≥ 99.5°F ≥37.5°C	< 95%	≥ 12% (w/assoc. signs & symptoms of CO poisoning)

Appendix A: Supporting Information - Rehab Plan Development**A. Pre-Event Planning**

1. The development a comprehensive Rehab plan should be a collaborative effort between the affected emergency services agencies (i.e. law enforcement, fire/rescue, hazardous materials response teams and emergency medical services) using established national standards, including National Fire Protection Association (NFPA) Standard 1584, or Emergency Incident Rehabilitation – Federal Emergency Management Agency.
2. When possible, EMS agencies should consider assisting responder agencies in recording baseline resting vital sign measurements on active crew members that they may routinely encounter while providing Rehab. This process could assist in the overall health well-being/prevention goals of the participating agencies, and strengthen inter-agency relations.
3. Responder health information may be stored in a secure manner on an ambulance or other emergency vehicle, in a manner which ensures confidentiality, until accessed for Rehab purposes.
4. Access to baseline vital signs would assist EMS practitioners involved in Rehab in determining abnormal deviations from patient specific "normal" values.

B. Incident Command System (ICS)

1. When circumstances/conditions warrant, the Incident Commander (IC) is responsible to ensure that a Rehab Area (Sector/Group/Unit) is established, including adequate EMS resources.
2. An individual with appropriate knowledge and experience should assume the role of Rehab Officer (position titles may vary), and follow the chain of command established by the IC. Rehab generally falls under the Logistics Section, but may operate under the Operations Section in a limited ICS structure.

C. Rehab Area Logistics

1. When possible, the Rehab Area should be located in an area:
 - a. Away from hazardous conditions including; smoke, run-off, and vehicle exhaust (uphill and upwind), media, and spectators.
 - b. Large enough to accommodate the expected number of personnel.
 - c. That provides adequate shelter from adverse environmental conditions (i.e. warmth in winter and shade in summer).
 - d. In close proximity to both the self-contained breathing apparatus (SCBA) exchange station and the ambulance staging area.
 - e. With access to or in close proximity to potable water (either running or bottled) and rest rooms if possible.
2. The Rehab Area should be established with a consideration for the optimal flow of personnel.

D. Rehab Operations

1. Rehab should provide a means for responder accountability during the Rehab period; all personnel entering should be logged in/out (i.e. firefighters may surrender their accountability tag on entry).
2. Personnel entering Rehab should remove excess outer clothing to extent possible to allow for passive cooling (i.e. removal of helmet, hood, turnout coat). Limit level of undress when operating in extreme cold conditions.
3. EMS personnel providing Rehab may facilitate the following:
 - a. Crew rest; all personnel should remain in Rehab for at least 20 minutes. Ideally, Rehab should contain adequate seating so personnel can rest comfortably.

- b. Rehydration; water and/or electrolytes replacement solution (i.e. sports drink) should be available to ensure **at least** sixteen (16) ounces per person, per visit. Carbonated and caffeinated beverages should be avoided.
- c. Nourishment; calorie replacement should be provided for prolonged incidents (i.e. more than 2 hours activity).

E. Rehab Specific Equipment

1. Additional Rehab specific equipment/supplies that may be of benefit may include, but is not limited to:
 - a. Tarp/tent/awning or other protection from the elements, chairs/adequate seating, towels.
 - b. Means for cooling in hot conditions (e.g. air conditioned vehicle or building, misting fans, forearm immersion chair, etc.); means for warming in cold conditions (heated vehicle or building, blankets, auxiliary heater).
 - c. Potable water, electrolyte replacement solutions.
 - d. Calorie/carbohydrate replacement snacks.
 - e. Broth, soup, or other more significant nourishment for prolonged incidents.
 - f. Means for washing hands and face; either antibacterial soap and water or pre-moistened towelettes.

TRAUMA PATIENT DESTINATION CRITERIA

Assess patient for any one of the following

↓

Physiologic Criteria:

- Patient does not follow commands (GCS Motor ≤ 5)
- Hypotension, even a single episode (SBP < 90 mmHg)
- Respiratory rate <10 or >29 breaths/minute or need for ventilator support (<20 in age < 1 year)

Anatomic Criteria:

- Penetrating injury to head, neck, torso and extremities proximal to elbow or knee (unless obviously superficial)
- Chest wall instability or deformity (for example, flail chest)
- Two or more proximal long-bone (humerus or femur) fractures
- Crushed/deglomed/mangled or pulseless extremity
- Amputation proximal to wrist or ankle
- Pelvic fractures
- Paralysis (spinal cord injury)

CATEGORY 1 TRAUMA

- Requires immediate transport to a trauma center (Level 1 or 2), if within 45 minutes
- Otherwise, transport to a Level 3 (preferred) or Level 4 trauma center if patient can arrive at the Level 3 or Level 4 center within 45 minutes or before an air ambulance can arrive to the patient's location
- Notify Trauma Center ASAP (including category and ETA)

→ YES →

NO
↓

Mechanism of Injury:

- Falls
 - Adult: > 20 feet (one story = 10 feet)
 - Children: > 10 feet or 2-3 x height of child
- High Risk Auto Crash
 - Passenger compartment intrusion, including roof: > 12 in. occupant site or > 18 in. into compartment any site
 - Ejection (partial or complete) from automobile
 - Death in same passenger compartment
- Auto vs. pedestrian/ bicyclist thrown, run over, or significant (>20 mph) impact
- Motorcycle crash > 20 mph

Other factors combined with traumatic injuries:

- Older Adults: SBP<110 may indicate shock after age 65
- Anticoagulants or bleeding disorder
- Burns with trauma mechanism
- Pregnancy (>20 weeks)
- Finger amputation

CATEGORY 2 TRAUMA

EITHER:

- Contact Medical Command at closest Trauma Center (Level 1,2,or 3) for authorization for air medical transport if needed.

OR

- Transport by ground to closest Trauma Center (Level 1, 2, or 3) (if within 45 minutes)
- Otherwise, transport to closest Level 4 Trauma Center (if within 45 minutes).

→ YES →

NO
↓

CATEGORY 3 TRAUMA

TRANSPORT TO CLOSEST APPROPRIATE RECEIVING FACILITY:

- Frequently reassess for Category 1 or 2 criteria
- Contact medical command, if doubt about appropriate destination

**TRAUMA PATIENT DESTINATION
STATEWIDE BLS PROTOCOL****CRITERIA:**

- A.** All patients, in the prehospital setting, with acute traumatic injuries.

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.
- C.** Patients transported by air ambulance. Air ambulance personnel will use the Statewide Air Medical Transport Trauma Patient Destination Protocol #190.

POLICY:**A. Extremely critical patients that are rapidly worsening:**

1. Patients with the following conditions should be transported as rapidly as possible to the closest receiving hospital:²
 - a. Patients without an adequate airway, including patients with obstructed or nearly obstructed airways and patients with inhalation injuries and signs of airway burns).
 - b. Patients that cannot be adequately ventilated.
 - c. Patients exsanguinating from uncontrollable external bleeding with rapidly worsening vital signs (for example, a patient with severe hypotension and rapid bleeding, from a neck or extremity laceration, that cannot be controlled.).
 - d. Other patients, as determined by a medical command physician, whose lives would be jeopardized by transportation to any but the closest receiving hospital.
2. The receiving facility should be contacted immediately to allow maximum time to prepare for the arrival of the patient.

B. All other patients with acute traumatic injuries: Use accompanying flow chart to determine patient's trauma triage category, and transport accordingly:³

1. **Category 1 trauma patient destination** [These anatomic or physiologic criteria are strongly correlated with severe injury and the need for immediate care at a trauma center, when possible]:
 - a. Transport patient to the closest trauma center (Level 1 or 2)^{4,5} by the method that will deliver the patient in the least amount of time if patient can arrive at the closest Level 1 or 2 trauma center in ≤ 45 minutes. These patients should only be taken to a level 3 (preferably) or level 4 trauma center when the patient can arrive at a level 3 or 4 trauma center by ground in less time than it will take for an air ambulance to arrive at the patient's location. It is generally best for these patients to be taken to a trauma center, but if they cannot reach any trauma center in a reasonable time (e.g. 45 minutes by ground), they should be transported to the closest ED. Consider contacting medical command to assist with this decision.
 - b. Transport patient by ground if driving time to a Level 1 or 2 trauma center is ≤ 30 minutes. Consider air transport if either:
 - 1) Air transport will deliver the patient to the Level 1 or 2 trauma center sooner than ground transport, or
 - 2) Patient has a GCS ≤ 8 , and air ambulance crew will arrive at patient in less time than the time to transport to closest trauma center.
 - c. Communicate patient report and ETA to receiving trauma center as soon as possible, because this permits mobilization of the trauma team prior to the patient's arrival.
2. **Category 2 trauma patient destination** [These patients may benefit from evaluation and treatment at a trauma center, but mechanism of injury alone is not strongly related to serious patient injuries. If ground transport to a trauma center (Level 1, 2, or 3) can be accomplished

in ≤ 45 minutes, air transport is generally not necessary for these patients who do not meet anatomic or physiologic trauma triage criteria.]

- a. If air ambulance transport is thought to be needed, contact medical command (if communication capability permits) at closest trauma center. If communication with medical command at closest trauma center is not possible, contact medical command at closest non-trauma center if possible.
 - b. Reassess patient's condition frequently for worsening to Category 1 trauma criteria.
 - c. Transport patient to the closest trauma center (preferably Level 1, 2, or 3)^{4,5} if patient can arrive at the closest trauma center in ≤ 45 minutes. It is generally best for these patients to be taken to a trauma center, but if they cannot reach any trauma center in a reasonable time (e.g. 45 minutes by ground), they should be transported to the closest ED. Consider contacting medical command to assist with this decision or to authorize air transport.
 - d. Communicate patient report and ETA to receiving trauma center as soon as possible, because some trauma centers may mobilize a trauma team for Category 2 trauma patients.
3. **Category 3 trauma patients** [Transportation of these patients to the closest receiving facility is generally acceptable.]
- a. Transport to appropriate local receiving hospital
 - b. Reassess patient frequently for worsening to Category 1 or 2 criteria.

C. Air medical transport considerations:

1. When choosing transport by air, in addition to the actual transport time, which is clearly faster by air, EMS providers should consider the amount of time required for arrival of an air ambulance, patient preparation by the air medical crew, and patient loading.
2. When air ambulance transport is indicated, EMS providers must request an air ambulance through the local PSAP without requesting a specific air ambulance service. The incident command system, when in place, should be used to accomplish this request. The PSAP should initially contact the air ambulance service that is based closest to the scene.
3. The air ambulance may bring equipment and personnel with resources that are not available on the ground ambulances. These may be useful in the following situations:
 - a. Patients with GCS ≤ 8 may benefit from advanced airway techniques that the air medical crew can perform.
 - b. Air ambulance services may transport specialized medical teams for the treatment of unusual situations (for example, severe entrapment with the possibility of field amputation).
4. Prolonged delays at scene while awaiting air medical transport should be avoided.
 - a. If an air ambulance is not available due to weather or other circumstances, transport the patient by ground using policy section B to determine destination.
 - b. If patient is not entrapped, transport to an established helipad (for example a ground helipad at the closest receiving hospital^{6,7}, an FAA helipad at an airport, or other predetermined landing zone) if the ETA to the helipad is less than the ETA of the air ambulance to the scene.
5. Air ambulances will transport patients with acute traumatic injuries to destinations consistent with the Air Ambulance Trauma Patient Destination Protocol #190, and these patients will generally be transported only to a Level 1 or 2 center.

D. Considerations related to contact with medical command:

1. When medical command is required for a Category 1 or 2 trauma patient, contact a medical command facility accessible to the EMS provider using the following order of preference:
 - a. The receiving trauma center if the destination is known and that center is also a medical command facility.
 - b. The closest trauma center with a medical command facility.

- c. The closest medical command facility.
2. If the patient will be transported by air ambulance, the air ambulance crew will determine the destination based upon the Statewide Air Medical Trauma Patient Destination Protocol.
3. Transport by ambulance to a facility other than the closest appropriate trauma center is permitted if directed by a medical command physician if 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 special situations including the following:
 - a. Specialty care is required that is not available at the closest trauma center (e.g. pediatric trauma center resources or burn center resources).
 - b. The closest appropriate trauma center is on "diversion" based upon information from that center.
 - c. The patient or other person with legal authority to act for the patient refuses transport to the closest appropriate trauma center.

Notes:

1. Patients in cardiac arrest who have penetrating trauma or are in third trimester (>24 weeks) of pregnancy should be taken to the closest trauma center if time to arrival at the closest trauma center is 15 minutes or less. Otherwise, patient should be transported to the closest hospital.
2. Transport should generally not be delayed while awaiting the arrival of ALS service or an air ambulance unless the ALS service or air ambulance has a confirmed ETA to the scene that is less than the ETA to the closest hospital.
3. Although these categories may be useful in identifying patients who should be transported to a trauma center during a mass casualty incident, patient transport prioritization should follow the system identified in the regional/ local mass casualty incident plan.
4. "Trauma Center" refers to a Level 1, 2, 3, or 4 Trauma Center that is currently accredited in this commonwealth and similarly qualified trauma centers in adjacent states. The most current Department lists of these resources should be used for reference. This definition of trauma center applies throughout this protocol.
5. **Pediatric patient considerations:** Patients that are 14 years of age or younger may be transported to the closest pediatric trauma center (Level 1 or 2 Pediatric Trauma Center) if the patient's condition is not extremely critical (see policy section B.1. above) and the difference between transport to the closest trauma center and transport to the pediatric trauma center is no more than 10 minutes.
6. If the patient is not entrapped, EMS providers should generally not wait on scene for an air ambulance if the ETA of the air ambulance is longer than the ground transport time to the closest hospital's helipad. Established helipads are generally safer than scene landing zones, and the resources of the adjacent hospital are available if the air ambulance is delayed or has to abort the flight. When using a helipad that can be accessed without entering a hospital, the patient's transport should not be delayed by stopping for evaluation within the hospital. If there is a significant delay in the arrival of the air ambulance, the patient should be taken to the hospital's ED for stabilization. Contact with medical command may be used if doubt exists about whether the patient should be evaluated in the hospital's ED.
7. This does not apply to hospital rooftop helipads that require access through the hospital. If a patient must be taken through a hospital to access their helipad, EMTALA requirements may cause a delay while the patient stops for an evaluation in the ED. EMS providers should avoid accessing these receiving facilities for the use of their helipad unless the patient meets the criteria of extremely critical patients who are worsening rapidly as defined in Policy section B.1. above.

Performance Parameters:

- A. Review all cases where patient meets criteria for Category 1 or 2 Trauma for appropriate destination and appropriate use of air transport.
- B. Review on-scene time of all patients meeting Category 1 or Category 2 criteria. Consider possible benchmark of <10 minute on-scene time at in at least 90% of non-entrapped cases. Review all cases where on-scene time is > 10 minutes for appropriateness of care and documentation of reason for prolonged on-scene time.

**AIR MEDICAL TRANSPORT FOR NON-TRAUMA PATIENTS
STATEWIDE BLS PROTOCOL**

Criteria:

- A. Patient with ST-elevation myocardial infarction (STEMI) for whom air transport is considered.
- B. Patient with acute stroke symptoms for whom air transport is considered.
- C. Patient with any medical emergency for which direct air medical transport from the scene is being considered.

Exclusion Criteria:

- A. Patient requiring air medical transport for traumatic injury – See Trauma Patient Destination Protocol #180

Possible Medical Command Orders:

- A. Authorization of Air Ambulance transport for the patient
- B. Transport by ground to appropriate facility (local hospital or more distant hospital for specialized care).

Policy:

- A. Medical considerations when requesting air ambulance transport:
 - 1. Extremely critical patients that are rapidly worsening:
 - a. Patients with the following conditions should be transported as rapidly as possible to the closest receiving hospital:
 - 1) Patients without an adequate airway.
 - 2) Patients that cannot be adequately ventilated
 - 3) Other patients, as determined by a medical command physician, whose lives would be jeopardized by transportation to any but the closest receiving hospital.
 - b. Transport should generally not be delayed while awaiting the arrival of ALS service or air ambulance unless the ALS service or air ambulance has a confirmed ETA to the scene that is less than the ETA to the closest hospital.
 - c. STEMI patients:
 - 1) A 12-lead ECG should be obtained before contact with medical command to request air transport for a patient with suspected STEMI. Also follow Suspected Acute Coronary Syndrome protocol #5001. For the best patient care, it is ideal that this ECG be transmitted to the medical command facility and (eventually) to the receiving facility once determined.
 - 2) Transport the patient by ground if driving time to the specialty center capable of providing emergency primary percutaneous coronary intervention (PPCI) is less than 30-45 minutes.
 - d. Acute stroke patients:
 - 1) Consider air medical transport if a patient has acute stroke symptoms **and** were last witnessed to be in their normal state within the last 3 hours. Also follow Stroke protocol #706/7006.
 - 2) The time urgency for acute stroke patients applies to patients who are candidates for thrombolytic therapy. Patients with contraindications to thrombolytic therapy should not be transported by air solely for the purpose of reducing transport time to a stroke center.