

**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