Cancellation of ALS By On-Scene BLS; Guidelines for ALS Transport

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PURPOSE
To clarify for Department EMTs, in the context of their duties under 105 CMR 170.355, the procedures when on-scene Basic Life Support personnel may cancel Advanced Life Support (ALS) that has been dispatched, but has not yet established direct patient contact; and to provide guidelines for initiation of advanced life support by ALS personnel that have arrived at an incident and established direct patient contact.

CLINICAL CRITERIA
The Massachusetts Office of Emergency Medical Services requires that each ambulance service develop written guidelines (A/R 5-615) for use by BLS in determining when it is appropriate to cancel ALS. These same guidelines should be used by ALS personnel who have established direct patient contact when determining whether ALS intervention is appropriate. The term guideline implies a direction for care, but it is not an absolute. Guidelines are not meant to override justifiable, good clinical judgment. Two examples: an 80 year old suffering chest pain that is clearly from Herpes Zoster does not need ALS transport just because he/she is 80 with chest pain; conversely a 26 year old with suggestive chest pain and a family history of coronary artery disease may benefit from ALS despite the fact that he/she is only 26.

Boston EMS recognizes that there is no way to list every possible situation where ALS should transport, and strives to provide the best possible training and experience to its members to assist with these important decisions. Some situations are obvious: status epilepticus or cardiac arrest, for example. Many situations are not as clear cut, and require objective history taking, an appropriate exam, and low index of suspicion to always do what is best for the patient.

Boston EMS has established the following written guidelines for four high volume/high risk areas. In each of these areas there is variability in practice within BEMS and among all providers. The goal of these guidelines is to narrow that variability and provide the best care we can.

CHEST PAIN (Atraumatic): Absent recent history suggestive of non-cardiac etiology (rib fracture, dx of pneumonia, etc.), or clinical judgment or logistics that dictate otherwise, ALS should transport the following chest pain patients:
History (language barrier should lower threshold for ALS transport of chest pain patient):

Age 40 or older, especially with suggestive past medical history: coronary artery disease, diabetes, hypertension, hyperlipidemia, or family history of coronary artery disease. Pain suggestive of acute coronary syndrome: pressure, squeezing, heaviness, tightness, radiation to left upper extremity or jaw and/or associated signs and symptoms such as diaphoresis, nausea, dyspnea, syncope, or near syncope.

ASTHMA / BRONCHOSPASM:
Based on NIH guidelines and in consultation with BMC Pediatric Emergency Physicians, the Boston EMS physician group has the following expectations regarding when BLS can cancel ALS (assuming that it is not a situation when transport would be quicker than ALS contact) or when ALS can refer a patient to BLS. Unless justifiable, clinical judgment or logistics dictate otherwise, ALS should transport the following asthma / bronchospasm patients:

For Children 6 months to 2 years
- Oxygen Saturation < 95% (decreased saturation is often an indicator of severe obstruction in children)
- RR > 60
- respiratory distress (severe retractions, biphasic wheezing, use of accessory muscles, cyanosis)
- history of intubation or PICU admission
- hospital visit (including ED or admission) within past month

BLS prehospital Albuterol program is not open to children less than 6 months old.

For children 2 years - 15 years
- Oxygen Saturation < 95%
- RR > 40
- Presence of respiratory distress (severe retractions, biphasic wheezing, use of accessory muscles, cyanosis)
- prior history of intubation
- recent hospital visit (including ED, admission or PICU) within past month

Adults > 15 years
- Oxygen Saturation < 92%
- RR > 24
- prior history of intubation or MICU stay for asthma
- history of repeat ED visits for asthma within the last month
- Inability to speak in full sentences
- Patient states that symptoms are not improving with current treatment provided by EMS

SYNCOPE: Unless justifiable, clinical judgment or logistics dictate otherwise, ALS should transport the following types of patients following a syncopal episode(s):
History:

Age 50 or older; past medical history of Coronary Artery Disease or Congestive Heart Failure; History of present illness or exam suggests acute coronary syndrome or congestive heart failure; or Syncope occurred while supine or seated..

Physical Exam

- Heart rate <50 or >110 (adults)
- Systolic Blood Pressure <90
- Rales on chest exam
- If available, EKG shows brady or tachyarrythmia; long Q-T syndrome; or ST-T wave changes

SEIZURE: Unless justifiable, clinical judgment or logistics dictate otherwise, ALS should transport the following types of patients following a seizure:

History: Except in the case of a patient between the ages of 6 months and 5 years who is status post a single suspected febrile seizure, any patient with a known or suspected first time seizure should be transported by ALS. A patient of any age with continuous seizure of five minutes or more, or who has two or more discrete seizures within 30 minutes of each other should also be treated / transported by ALS.

TRANSPORT

Boston EMS utilizes a two-tier (BLS / ALS) response configuration to incidents likely to require Advanced Life Support intervention. Studies comparing various system configurations found that cities that deploy fewer paramedics in a two-tier response configuration tend to have better patient outcomes. Sending both a BLS and ALS unit to critical incidents allows the prehospital team to quickly assess, treat, and stabilize the patient prior to transport. In an effort to make the most efficient use of available resources, the BLS unit should be cleared whenever an ALS unit is transporting a patient unless both units are necessary for logistical or patient care purposes.

CANCELLATION OF ALS BY BLS: PROCEDURE

1. BLS Personnel must:
   1.1. Complete an appropriate patient assessment and provide treatment in accordance with the Statewide treatment protocols;
   1.2. Having determined there is no foreseeable need for ALS based on the written guidelines (above), or determining that the patient can be transported to an appropriate health care facility in less time than it would take ALS to arrive on scene, or intercept BLS during transport, the on scene BLS unit may cancel a responding ALS unit.
   1.3. Document their assessment and treatment of the patient on their patient care report (PCR); and
   1.4. Document the cancellation and reason(s) for cancellation on the patient care report.

Reference: OEMS A/R 5-615 "Cancellation of ALS", 07-11-05

Related: ALS Referral to BLS

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http://www.usatoday.com/news/health/2006-05-21-paramedics_x.htm