Dispatch Life Support

Establishing Standards That Work

by Jeff J. Clawson, MD, and Scott A. Hauert, AEMT

In the emergency medical services world of “seconds count,” acronyms help keep things simple and direct. Public acceptance of these shortened versions of names or products is assured when the acronyms can stand by themselves without explanation. EMT is one such example. EMD (Emergency Medical Dispatcher) is still relatively new, in existence less than a decade, having successfully won the battle against EMS-D (Emergency Medical Services-Dispatcher), which rolled easily off no one’s tongue and is now obsolete.

A new acronym was recently coined to establish an identity for, and to enhance understanding of, a new key component of EMD. DLS, which stands for Dispatch Life Support, represents the sum of knowledge, procedures and skills used by trained EMDs to provide care via pre-arrival instructions given to callers. It consists of those BLS and ALS principles that are appropriate for use by emergency medical dispatchers. But isn’t this really just basic life support in disguise? The answer is a resounding “no” (see Figure 1, item 1). Each item serves as an example of how these standards relate to the role of the medical dispatcher.

The core of BLS, CPR and ACLS revolves around the standards and guidelines developed by the American Heart Association (AHA), which are tailored for EMS providers (see Figure 1, item 2). Unfortunately, difficulties arise when these guidelines are applied directly to medical dispatching.

The consistency of care and acceptance brought about by these much-needed standards created order from the chaos that previously existed in these areas of EMS. However, to some extent, blind acceptance of the standards, coupled with their limitations in certain situations, has caused significant difficulties when the standards are applied directly to pre-arrival instructions given by EMDs (see Figure 1, item 3).

These problems often surface when medical control physicians adopt and review pre-arrival instruction protocols, and find that they appear to deviate from current guidelines, such as those of the AHA. Actually, the medical director’s real dilemma is in attempting to understand the special limitations that are inherent in the dis-
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The National Association of EMS Physicians (NAEMSP) stated in its 1988 Consensus Document on Emergency Medical Dispatching that, “Training and recertification of EMDs in basic life support, as is appropriate to application by medical dispatchers, is necessary to maintain and improve this unique, and at times, lifesaving, non-visual skill.”

NAEMSP’s more recent position paper on EMD makes this distinction more specific by defining this area as Dispatch Life Support.

The AHA’s BLS standards are designed for the teaching of physical procedures in person to a willing student, often over many hours (see Figure 1, item 5). Although the creators of these standards could not have foreseen the limitations placed on dis-
of the hazards of neck manipulation if the patient has sustained a significant mechanism of injury. Fortunately, this scenario is less likely to occur, as most callers reporting traumatic incidents have not remained on scene.

cern first surfaced many years ago when the initial process for doing CPR differed in witnessed vs. unwitnessed arrest situations. One might think that people would, if confused, decide immediately that either method was better than doing nothing at all. But this is not always the case, as people sometimes hesitate or, even worse, give up.

Although this cannot be observed firsthand at the scene of an actual citizen CPR case, the fact that it occurs in practice on mannequins supports the contention that it occurs in the confusion of a real crisis. This delaying mental trap has been appropriately termed “paralysis by analysis” (see Figure 1, item 10).

There are several other examples that illustrate the problems of applying BLS training taught in a controlled environment directly to medical dispatching. The following are important concepts that are not present in BLS guidelines, but are essential to DLS:

- A seizure or convulsion may be a symptom of the onset of cardiac arrest. Any patient 35 years or older who presents with a seizure as the chief complaint should be assumed to be in cardiac arrest until proven otherwise. This is a statistical probability that occurs with some regularity.
- Cardiac arrest in a previously healthy child should be considered to be caused by a foreign body obstructing the airway until proven otherwise.
- Dispatchers should be trained to

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Callers need simple, easy-to-understand "verbal pictures" to follow (see Figure 1, item 9). During the evolution of citizen CPR, it was discovered that, if training instructions were too complicated and confusing as to the sequence of CPR, people might hesitate and delay the procedure. This is better than doing nothing at all. But this is not always the case, as people sometimes hesitate or, even worse, give up.

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The following are excerpts from the American Heart Association’s “Standards and Guidelines for Cardiopulmonary Resuscitation and Emergency Cardiac Care,” published in the Journal of the American Medical Association on June 6, 1986.

1. **Emergency Cardiac Care**: Basic life support is that particular phase of ECC that either (1) prevents circulatory or respiratory arrest or insufficiency through prompt recognition and intervention, early entry into the EMS system, or both, or (2) externally supports the circulation and respiration of a victim of cardiac or respiratory arrest.

2. **Standards and Guidelines**: The 1980 standards and guidelines were intended (1) to identify a body of knowledge and certain performance skills that are commonly necessary for the successful treatment of victims of cardiopulmonary arrest or of serious or life-threatening cardiac or pulmonary disturbance.

3. **Standards and Guidelines**: The 1980 standards and guidelines were intended (2) to indicate that the knowledge and skills recommended or defined do not represent the only medically or legally acceptable approach to a designated problem, but rather an approach that is generally regarded as having the best likelihood of success in view of present knowledge.

4. **Standards and Guidelines**: The standards and guidelines were not intended to imply (1) that justifiable deviations from suggested standards and guidelines by physicians qualified and experienced in CPR and ECC under appropriate circumstances represent a breach of a medical standard of care, or (2) that new knowledge, new techniques, or clinical circumstances may not provide sound reasons for alternative approaches to CPR and ECC before the next definition of national standards and guidelines.

5. **Basis for Changing Recommendations**: In some subject areas, sound data had accumulated, and changes were recommended on that basis. In other areas, while the experimental data were not conclusive, changes were recommended on the basis of clinical evidence or in order to improve educational efficacy.

6. **Standards and Guidelines**: “Loose constructionists,” while realizing the need for uniformity and consistency, have believed that more flexibility is needed, for two principal reasons: (1) New knowledge and innovation are ongoing, and failure to permit flexibility can result in delay of potentially lifesaving advances; (2) The physician prerogative for discretionary action may be threatened by overly rigid standards, particularly because the term has important legal, as well as medical, overtones.

7. **Emergency Cardiac Care**: Emergency cardiac care is dependent for its success on laypersons’ appreciation of the critical importance of activating the EMS system as well as their willingness to initiate CPR promptly and their ability to provide it effectively.

8. **Basis for Changing Recommendations**: Final decisions took into account not only which technique or adjunct or therapy was the most correct, but also how the public could best be served, which brought into the decision-making such factors as safety, effectiveness, teachability and ease of sequencing into related maneuvers.

9. **Public Education**: Other changes for improving retention should include simplification of the sequences of BLS and inclusion of only one method of managing foreign-body obstruction in the adult.

10. **Public Education**: There are many reasons why lay individuals do not become involved in performing CPR. These include lack of motivation, fear of doing harm, inability to remember exact sequences and poor retention of psychomotor skills.

11. **Reasons to Withhold CPR**: Few reliable criteria exist by which death can be defined immediately. Decapitation, rigor mortis and evidence of tissue decomposition and extreme dependent lividity are usually reliable criteria. When they
identify obvious death situations (as defined by medical control), mobilize the response accordingly and give limited pre-arrival instructions (see Figure 1, item 11).

- If the victim is unconscious and breathing cannot be verified by a second-party caller, the victim should be assumed to be in cardiac arrest until proven otherwise.

- EMDs should assume that bystanders have inappropriately placed a pillow under the head of an unconscious victim, until proven otherwise, and ensure that it is removed.

- BLS protocol for choking victims should be modified to reflect that EMDs recommend a specific number of thrusts, rather than stating a range of six to 10 thrusts. The present guidelines contain no basis for deciding during the crisis how many to use. This simplification will eliminate any confusion and subsequent hesitation on the caller’s part.

- The Heimlich maneuver should be the primary treatment for infants, children and adults who are choking (see Figure 1, item 9).

Many readers will assume that EMDs are aware of these concepts. But most of this information is not directly taught to the majority of EMTs and paramedics and is not covered in the current EMT and paramedic textbooks. Addressing these omissions highlights the need for “dispatcher-specific training.”

The psychology behind pre-arrival instructions is currently undergoing some unique and very useful expansion. As callers’ actions can now be predicted to a reasonable extent, EMD protocols need to reflect these new understandings. There is no question that DLS is different from BLS, just as EMDs are different from EMTs—not better or worse, but different. You don’t get “apples” by training people to be “oranges.” Likewise, you won’t get good guidelines for baking apples by using the recipe for peach cobbler.

The next step in solving this problem seems an obvious one: Medical dispatch experts, line dispatchers and the standard setters must work together in creating sound DLS guidelines.

The AHA has correctly stated that, “Basic life support can and should be initiated by any person present when cardiac or respiratory arrest occurs,” and, furthermore, “The most important link in the CPR-ECC system in the community is the layperson.”

In the future, every time the requirement of BLS is mentioned in the AHA Standards and Guidelines, it should be preceded by a reference to DLS. And every discussion of the layperson being an important link in the initial provision of emergency cardiac care should emphasize the dispatcher’s role as teacher of that layperson. Until this is accomplished, no standards or guidelines, regardless of how well-intentioned, will best serve people in crisis who need immediate, but realistic, Dispatch Life Support intervention.

References


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