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Back to the Basics - The Lost Art of BLS Care

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- December 2009 JEMS Vol. 34 No. 12
- 2009 Dec 1

There was a time, not too long ago, when paramedic services were a luxury available to a relative few. Only large, well-funded, progressive EMS systems had paramedics responding routinely to medical emergencies; by and large, providers trained in BLS were the norm, with ALS-trained personnel being the exception. Today, ALS is the standard, with paramedic service via fire department, hospital-based agencies, third service, private provider or other combination available to everyone living in metropolitan areas. Residents of rural and unincorporated urban areas throughout the country also have access to paramedic service on a scale that could not have been imagined 20 years ago.

Too Many Paramedics?

One clear advantage realized by this explosion in paramedic-level care is that lifesaving ALS therapies, including antidysrhythmic medications, advanced airway management and cardiac defibrillation, are available to more patients than ever before.

Unfortunately, along with the benefits brought about by the increased availability of ALS have come serious liabilities. A 2003 *USA Today* investigation found that, overall, EMS systems in the U.S. are inadequate and failing to provide an acceptable level of care as measured by several factors. The lead author of the *USA Today* investigative report suggested that a greater ratio of paramedics to BLS providers in a given area correlates with significantly less favorable patient outcomes than a smaller paramedic-to-BLS provider ratio.

Although some would argue that multiple paramedics might be of benefit in certain situations, such as multiple-patient scenarios or in single patient circumstances in which several ALS interventions need to be performed simultaneously, it has been suggested

that, overall, having more than two paramedics at a medical emergency tends to be counter-productive.

Several factors no doubt contribute to this finding, but one likely cause is that important aspects of BLS care are being overlooked in favor of moving immediately into ALS interventions. As such, inadequate, incomplete or absent BLS care results in faster deterioration of a patient's condition, and may lead to serious perfusion compromise that can move a patient toward such fatal conditions as arrhythmias or irreversible shock.

Why We're Falling Short

Given its importance and the consequences that can follow from its neglect, why has BLS become all but an afterthought in some systems, rather than the foundation of excellent patient care as it was in the 1970s, '80s, and '90s? Here are four probable reasons:

Strong BLS skills need to be developed through solid training and refined through years of experience. This training and experience is lacking in many systems. Increasingly, EMTs are applying for, and being accepted into, paramedic programs that require as little as six months of BLS experience; often this experience includes little in the way of thorough patient assessment and treatment. Students then begin study of a paramedic curriculum that emphasizes (and tests for) primarily ALS knowledge, and finish off their training with field internships overseen by preceptors who themselves may not have been taught the importance of solid BLS assessment and care. As a result, many paramedics enter the field without an appreciation for the importance of complete, thorough BLS care.

First responder agencies that have become predominantly ALS providers have lost focus. With their equipment, training and clearly defined role in handling the most dangerous aspects of an emergency environment, fire departments have traditionally been recognized as the "shock troops" of emergency services. As such, scene assessment and control was an integral part of the task at hand for them. With the advent of fire-based ALS, the focus has expanded to include much greater involvement in patient care, with an emphasis on getting to the patient's side and beginning assessments and interventions as soon as possible. Unfortunately, this often comes at the expense of the scene-control steps that provide the foundation for good patient care.

Second-in agencies, finding themselves among paramedics already on scene, have lost focus. When second-in ALS providers arrive on scene to find other ALS personnel in the process of patient assessment/care, they sometimes assume relevant findings from a BLS assessment have been addressed. Also, because EMS culture places a strong emphasis on teamwork, there's a natural tendency for second-in EMS crews to avoid conflict through deference to the assessment and treatment already in progress. This practice is in contrast to a time when ALS providers arrived to find BLS personnel on scene who were focused exclusively on BLS and had thorough BLS measures either completed or in progress on ALS arrival.

BLS personnel are not properly valued and don't understand their role. With so many ALS providers on scene, BLS personnel often find themselves having little to no role in patient assessment or care. True BLS skills—from patient positioning and vital signs to providing oxygen, from bandaging and splinting to placement of airway adjuncts, from the physical examination to spinal immobilization—should ideally be performed by BLS personnel whenever possible, leaving the ALS personnel to perform ALS interventions and formulate a treatment plan based on a diagnostic impression.

As more and more fire departments realize that their futures are staked on the ability to position themselves as frontline EMS providers, "paramedic saturation" is likely to continue. It's therefore incumbent on those in the field to acknowledge the problems that can result from absent or inadequate BLS care and incorporate into their paradigm and on-scene procedures a strong commitment to appreciating and implementing the principles underlying the admonition, "BLS comes before ALS."

Missing in Action

The most commonly overlooked aspects of medical calls tend to be the most basic and integral to building a base from which ALS can really make a difference. The following are the vital BLS procedures that can make a significant difference in maintaining/restoring perfusion and that tend to be commonly overlooked in the provision of patient care.

Scene control: Although it has nothing to do with physiology or perfusion per se, the first, most basic consideration on arrival at an emergency is scene control. In the rush to get to the patient and begin care, scene control is often neglected, and the result is difficulty in providing care to the patient as well as increased risk to the patient and rescuers. A genuine assessment of the scene should be undertaken by the first-arriving responders and appropriate actions taken to ensure the scene is both safe as well as conducive to providing patient care and enabling second-in responders to bring in equipment, gurneys and remove the patient from the scene in a safe and efficient manner.

Gates and doors should be propped open, and all objects should be moved well out of the way before making contact with the patient so they don't become obstacles to be negotiated during patient moves. Small rugs and doormats should also be moved. Lights should be turned on in the area where the patient is located, as well as in hallways, entryways and rooms through which the patient will be moved in the process of extrication. The area around the patient should also be cleared to allow for easy access, care and packaging; this includes removing bedding if applicable.

Trauma rule-out: Regardless of where a patient is found or apparent nature of illness, consideration must always be given to the possibility of trauma. Depending on the patient's condition, the rule-out can sometimes be accomplished immediately, and other times an interview of the patient and/or bystanders is appropriate. In other situations, a complete physical exam must be performed to rule out trauma, which may be the primary cause of an event, a contributing factor or incidental to the event. In all cases, however,

trauma must be reasonably ruled out before proceeding with the rest of our assessment. Failure to do so can result in the formulation of an incorrect diagnostic impression. In one well-known case, a patient was determined to be suffering from dehydration rather than traumatic pericardial tamponade. The resultant treatment worsened the patient's condition and prolonged his recovery.

Airway control & positioning: The airway should be assessed and aggressively managed with proper positioning and adjuncts. Patients without a gag reflex are at significant risk for inadequate ventilation and subsequent hypoxia. An oropharyngeal airway (OPA) is—and always has been—the appropriate intervention. For obtunded patients with a gag reflex, a nasopharyngeal airway (NPA) should be used. Some systems don't carry NPAs in their kits; this is a basic flaw that needs to be corrected.

Expose the patient: The four basic patient assessment techniques are visualization, palpation, auscultation and percussion, and you simply cannot do any of these effectively through clothing. Failure to properly expose the patient can result in missed findings, such as one case in which an exam was performed on a female patient without exposing her torso in order "to protect modesty" and resulted in the crew overlooking several penetrating knife wounds to her thoracic cavity.

Keep the patient warm: Although some studies have found that a slightly hypothermic state correlates with better outcomes for trauma patients, the mechanism is poorly understood. The U.S. military has found their trauma patients do better when kept warm. So, until there's definitive direction on whether keeping patients cool is beneficial in certain circumstances, we should minimize stress on the patient's physiology by keeping blankets on the patient after they have been exposed and rapidly examined. Expose, then cover.

Patient positioning: Use the high Fowler's position for pulmonary edema/respiratory distress (supine with legs slightly elevated for hypotension/shock). Use the left lateral position for the obtunded patient with adequate ventilations but at risk for vomiting/aspiration.

Early oxygen therapy & vitals: Based on the need for supplemental oxygen, supply either high flow (12–15 L/min) or low flow (2–6 L/min) as appropriate and as soon as possible. Take blood pressure and heart rate, noting the rhythm (regular versus irregular) as well as quality (strong or weak). Take the time to actually assess the respiratory rate and rhythm (regular versus irregular). Note the work of breathing (labored versus non-labored) as well as the tidal volume. Vital signs should be taken as soon as possible after exposing the patient.

Physical exam: Regardless of chief complaint or apparent condition, a thorough, comprehensive physical exam (on scene or en route, depending on the patient's status) should be performed on all patients, both trauma and medical. Failure to complete this basic step of assessment can lead to missed pertinent findings and incomplete or inappropriate care.

Overall, for ALS providers to ensure strong BLS is part of their repertoire, they should make a commitment to focus exclusively on BLS for the first few minutes of patient care. This approach will ensure all the BLS bases are covered, so that an unconscious, unresponsive hypoglycemic patient doesn't lie in bed, with IV dextrose being administered by an ALS team that failed to appropriately expose the patient, rule out possible trauma, control the airway or perform a comprehensive exam.

Conclusion

Although it would seem that more ALS providers at a patient's side would lead to better care, research has been unable to prove this. Not only has the public assumed and come to expect they'll be served by paramedics, agencies have all but staked their futures on their ability to bring predominantly ALS resources to their communities. Because it's not likely that the genie will be put back into the bottle anytime soon, it's vital for every paramedic to understand where we're failing our patients and that one likely cause is minimized or overlooked BLS care. We should each take immediate steps, including "forgetting about ALS" for the first few minutes and being mindful of the important aspects of BLS care, to ensure that, regardless of developments in our profession, we continue to be of greatest benefit to those who matter most—our patients. **JEMS**

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