Paramedicine Abroad: EMS in the United Kingdom

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Introduction
The EMS system in the United Kingdom is governed by the National Health Service (NHS). As a government entity, it’s responsible for the provision of EMS throughout the U.K. In the past few years, the NHS has begun a transformation from a monolithic institutionally based health service provider to a patient-oriented service delivery model. Many ambulance services in the U.K. have thus begun initiatives that help maximize resources and efficiency. For example, non-emergent patients in London are assessed and prioritized in terms of transport destinations.

Not everyone is transported to the hospital. Clinical telephone advisors who are specially trained paramedics have been hired in certain jurisdictions to help people who call 9-9-9 access the most appropriate form of care. In some circumstances, these clinical telephone advisors are authorized to not send an ambulance to people who do not require a 9-9-9 ambulance response. Instead, they’re able to offer advice on more appropriate ways of accessing treatment from the National Heath Service.1

Prehospital care in the United Kingdom is at crossroads in many respects, with increased attention being focused on evidence-based practice and research studies to support patient care interventions.

The country
The United Kingdom of Great Britain and Northern Ireland is slightly smaller than the state of Oregon in the United States. The U.K. is near vital North Atlantic sea lanes; it’s only 22 miles from France and now linked by tunnel under the English Channel. Because of heavily indented coastline, no location is more than 78 miles from tidal waters. EMS responds to a population of slightly more than 60 million people.2

These photos of the new and old style of ambulances in use in London show the modernization of the fleet to meet new European Union standards on markings and specifications.

The system
In the United Kingdom, EMS is provided by more than 30 NHS Ambulance Service Trusts that provide both ALS care and non-emergency patient transport services to both clinics and hospitals. Some ambulance service trusts, such as London Ambulance Service (LAS), provide professional ambulance training and nurse-based telephone advice to the public. Paramedics are the typical staff complement for ambulances, fast response units, motorcycles and bicycle units. In addition, a number of ambulance services operate both fixed-wing and rotary wing aircraft staffed by paramedics and physicians.

Dispatch
The UK uses 9-9-9 as the emergency telephone number for both public access and for primary care physicians to request urgent admission of their patients. Calls are routed to the nearest ambulance dispatch center, and ambulance dispatch is prioritized through the use of Emergency Medical Dispatch criteria.

Ambulances are equipped with VHF radios, mobile data terminals, pagers and portable radios. Satellite or land-based automatic vehicle location systems are used to track vehicles’ location relative to incident location.

Certain ambulance services, such as the LAS, have also taken on an emergency bed service as part of their dispatch responsibilities. This service involves the coordination of such key areas as general practitioners (GP) referrals of seriously ill patients to hospitals in and around London; the national intensive care bed register that monitors the availability of critical care units across England for general, pediatric and neuroscience patients; and the pediatric service that locates pediatric beds and cubicles in and around London. It also provides coordinating service for the British Red Cross and works with the Medic Alert program.
Training

Paramedics and EMTs are trained to national standards as defined by the Institute of Health Care and Development. EMS training was implemented in the 1960s, based in part on the recommendations of the Millar Report. During the ’70s, paramedics were being taught in the United States, and it wasn’t until the ’80s that training began initially in Brighton where ambulance staff were trained to defibrillate and intubate cardiac arrest patients. Throughout the ’80s, paramedic training slowly evolved to encompass the entire United Kingdom. In the early ’90s, a target was set to train enough paramedics to ensure that all ambulances would have a paramedic on board by 1996. This target was reached, and the U.K. currently operates an ALS ambulance service.

In addition to the standard paramedic curriculum, practitioners have access to continuing education programs, such as Pediatric Advanced Life Support (PALS), Prehospital Trauma Life Support (PHTLS) and Basic Trauma Life Support (BTLS). A number of universities have launched higher education courses of study at the certificate, diploma and baccalaureate level. Also, some university programs now offer Bachelor of Science degrees in Paramedic Science, which is a tremendous impetus for increasing the professionalism of prehospital care in the U.K.

Compensation

In general, salaries in the U.K. are not high, but benefits are often good. However, it’s difficult to make ends meet and even live in some of the larger metro areas, such as London. Salaries for prehospital care providers are currently being restructured in many of the NHS Ambulance Trusts. In consultation with the trade unions, most services are aiming at harmonizing the pay and benefits for staff across the NHS.

London Ambulance Service

The LAS is one of the largest EMS systems in the world. Last year alone, it received more than 1 million emergency calls, and responded to a total of 770,038 emergencies. It has diversified to provide not only 9-9-9 emergency service but also such initiatives as the Community Resuscitation program, which provides consultancy and training to both the private and public sector. Revenues generated from this program help support the delivery of free CPR training to such community groups as refugees or asylum seekers.

A major initiative of the LAS is to provide more training to the public in CPR, even employing bilingual trainers to reach refugee and South Asian communities. The LAS is focused on reaching out to the community and patients who are disadvantaged. Programs have been created to meet the health care needs of patients who are a perceived risk, such as the elderly and the mentally ill.

Other noteworthy programs include a referral program for older people who have fallen and called for an ambulance. These individuals are referred to appropriate support organizations as part of an integrated falls service. A recent research project enabled the LAS to develop and test a decision-making tool to allow ambulance crews to safely leave elderly people who have fallen at home.

LAS equipment & vehicles: LAS carries standardized equipment, including 12-lead cardiac monitors and medications, in all of its 395 ambulances. Recent additions to the drug kits used by paramedics is benzylpenicillin, an antibiotic for use in the most serious form of meningococcal disease.

The LAS has recently begun its fleet modernization program. In the past year, it received 130 new ambulances in harmony with the new European Union standards on markings and specifications. The remaining 265 ambulances in the fleet are due to be replaced at a rate of 65 new ambulances per year for the next four years.

The new Mercedes ambulances have been custom built for LAS with risk management concepts built in. The new ambulances all have backup cams that enable the driver to easily see behind the vehicle. One of the most striking innovations is a “back-saving” stretcher lift. Instead of having to lift a stretcher into the ambulance, you simply roll the stretcher onto the electric lift and it lifts into place on the ambulance. The reduction in potential back injuries and worker compensation claims is immeasurable. Why this isn’t standard equipment on all ambulances manufactured worldwide is mind-boggling. If these types of stretcher lifts were used throughout the United States, worker compensation claims for back injuries would presumably plummet.
This camera on the back of the new Mercedes ambulances allows vehicle operators to view possible obstacles before backing.

All of LAS’ 395 ambulances, 59 fast response cars and 10 duty station officers’ vehicles have been fitted with mobile data terminals and satellite navigation. This new technology allows LAS to dispatch emergency vehicles more efficiently and quickly. It also helps ensure the staff are more informed about the calls they are attending. Last year, the LAS became the first ambulance service in the U.K. to add new mobile phone technology to enable emergency medical dispatchers to locate people who dial 9-9-9 from mobile phones. Dispatchers now work with an additional mapping screen that shows the cell from which a mobile phone call is being made.1

The new Mercedes ambulances in London are also equipped with these automated, “back-saving” stretcher lifts.

The future
The future is bright for EMS services in the United Kingdom. As demonstrated in London, the need for transport alternatives for patients who don’t need to go to the hospital has spawned the use of specially trained paramedics, known as emergency care practitioners, to effectively manage patients on scene. These paramedics respond by car to assess patients with non-life threatening injuries or medical conditions and choose an appropriate course of action. The paramedic has the opportunity to choose such options as transport to a hospital, minor injuries unit or walk-in center, or to arrange care with local health professionals involved in the emergency care practitioner program.

This paradigm shift in prehospital care has resulted in such jurisdictions as London being pressured to expand the emergency care practitioner program at a rapid pace to meet the demand of patients who don’t need to go to the hospital but must be evaluated by a medical professional. The alternative to this is to continue transporting non-emergency patients to the Accident and Emergency Department of hospitals and contributing to hospital backlog.

It’s expected that the role of LAS and other ambulance service trusts will change its approach to not only traditional 9-9-9 emergency response but, as the NHS has realized, ambulance service in general as a significant role in the integrated emergency and urgent care system. It’s likely that emergency care practitioners may see an expanded role as more calls end up being visits made to patients who have what they perceive as a medical emergency, but who do not in reality have an immediately life-threatening condition.

In the United States, leaders in EMS have recently developed the “new” scope of practice for practitioners. As originally envisioned in Draft 1.0, the Advanced Practice Paramedic was conceptually designed to perform some of the skills of emergency care practitioners in London. Based on the successes of this model in the U.K., it provides a potential comparison model for other countries with significant demands on their prehospital resources.

Conclusions
The increased links between the prehospital care system and the health service has numerous distinct advantages. The LAS, for example, is very concerned with understanding and listening to its stakeholders. To this end, such programs as the Patient Advice and Liaison Service are noteworthy. These program provide information, advice and support to patients, the public and health and social care professionals. Through this system, emerging patterns of patient concerns are reported via quality assurance and performance improvement processes for appropriate action. It then works alongside health and social care partner organizations and uses concerns raised by patients to help improve the patient experience through the National Health Service. A particular strength of this type of program is the ability to find solutions for patients who ring 9-9-9 frequently, because they often have needs that can be better met by social or housing services or other health care providers.1

The EMS system in the United Kingdom is unique. It’s encouraging to see the close integration
between the ambulance service – a government-funded entity – and the overall health-care system. Ambulance services that are articulating the mission, vision and values of the NHS, such as the LAS, are role models for other services within Europe and abroad.

Five Minutes with the LAS Chief Executive Officer

I had an opportunity to spend a few minutes with the chief executive officer of the world’s largest EMS service — Peter Bradley.

AH: What’s your vision of prehospital care for LAS?

PB: My vision is for LAS to be a world-class ambulance service providing the right care for the right patient. This involves particular attention to partnerships, performance, people and patients.

AH: How is that vision translated into practice?

PB: One way is by becoming outcomes focused. Our management approach is competency based.

AH: What are some of the initiatives LAS is working on to meet your vision of “providing the right care for the right patient”?

PB: A number of initiatives are underway, such as the rapidly changing skill set of paramedics to manage more primary health care related calls. Programs to manage elderly falls better and tracking these patients that enter our system so that better follow up care can be given [and] the focus on cardiac care, with outcomes being measured by successful discharge from hospital, are another initiative being worked on.

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