EDITOR'S CORNER

Times Have Changed

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It were good, therefore, that men in their innovations would follow the example of time itself which indeed innovateth greatly, but quietly and by degrees scarce to be perceived.
Francis Bacon, Essays: *Of Innovations*

The time seems right. As Disaster Medicine, Emergency Medicine, Public Health, Prehospital and Disaster Medicine, and the World Association for Disaster and Emergency Medicine mature, its seems cogent to gain perspectives on what each does, where they fit in the overall delivery of health care, and how and when they relate.

I am reminded of the continuum of care perspective espoused by the late Dr. Peter Safar (1st Editor of this journal). Peter believed that for care of the critically ill or injured to be effective, and efficient, as well as for it to provide maximal benefit for the cost, a seamless continuum of care had to exist that extended from the discovery of the need for medical help through intensive care and recovery. At the time, this concept was practical and simple, since prehospital emergency medical care, in-hospital emergency care, and intensive care medicine all were provided primarily by one medical discipline—Anesthesiology.

However, what had been, no longer holds true or seems appropriate. What has evolved is the cleavage of this continuum into multiple medical disciplines providing what previously was done by the anesthesiologists. For example, now in many places, system entry is conducted by emergency medical communicators/dispatchers specifically trained to obtain information via telephone from a person who calls for help, or by a nurse providing triage at an emergency department or clinic. Obtaining appropriate information requires a special set of skills. The information obtained then must be translated into the dispatch of appropriate, available resources to the scene or by appropriately triaging the patient into the correct venue in the doctor's office, clinic, or emergency department. This skill requires special expertise and training, and this set of skills is progressing into its own subspecialty. Prehospital response, assessment, and treatment increasingly have become dependent upon persons specially trained to perform in a generally unknown and hostile environment where all who wish can observe all that happens. This too requires special training and also is well along into becoming its own medical specialty. Similarly, Emergency Medicine now defines itself as a stand-alone medical specialty and the physicians, nurses, and others who provide such care require special training and education. Likewise, surgery and intensive care require that the physicians, nurses, and the other members of the staff have special training and education pursuant to their piece of the care pie.

For the most part, each of these areas of special expertise has evolved as the science for each has expanded to such a degree that it has become virtually impossible for one practitioner to "know it all". Each discipline has its own means of identifying special competence in a now well-circumscribed discipline. In general, there is little cross-over between these disciplines.

Perhaps a good example of what to expect in the future for Disaster Medicine can be provided by examining the evolution of Critical Care Medicine. Such care has become so complex that it is difficult for any one physician to be an expert in every area. What has evolved has been the development of the critical care physician (intensivist) who has assumed the role of the coordinator for all of the healthcare disciplines brought to bear on a single, critically ill patient: the internist, anesthesiologist, surgeon, nurse, infectious disease specialist, nutritionist, respiratory therapist, laboratory technicians, cardiologist, nephrologist, neurologist, pharmacist, and so on. While each brings her/his own expertise to the bedside, it is the trained intensivist, as the coordinator of the care, that leads the team and carries the responsibility and, hopefully, is the recognized authority to guide and direct the team.

In many ways, Disaster Medicine follows a model similar to that of Critical Care Medicine. The practitioner of Disaster Medicine also becomes the coordinator of care, albeit on a much larger scale. As I was reminded recently by Mark Keim, "If you can't take care of one patient, you can't take care of the masses." He sees a continuum of care along an axis of numbers of patients extending from one patient to increasing numbers of patients; when the number becomes so great that the emergency care system no longer can provide the care needed, a medical disaster is present.

As I see it, Disaster Medicine deals with large numbers of patients and its practitioners serve as the coordinators of medical care at a broader level, for they not only must interact with a multitude of patients, but must plan for, respond to, and interact with all of the other basic societal functions. Disaster Medicine, like public health, is responsible for the health of populations; Disaster Medicine must meld all of the medical and public health subdisciplines into a seamless continuum

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integrated with all the other basic functions in the affected society. In order to be effective, Disaster Medicine not only must have the mandate to provide this coordination, but must be granted the power and ability to optimize the use of available resources. This responsibility for providing coordination and control of the medical and public health aspects of the management of such events is essential. Each of the other medical disciplines involved in the delivery of medical care and public health to a society overwhelmed by a catastrophic event must understand this role of Disaster Medicine during such a crisis. Specialists in Disaster Medicine must be given the mandate, power, and resources by all of the other disciplines during times of such crises and for the planning for such. Those who are used to providing care for a few patients must transfer these three essential elements to designated Disaster Medicine specialists or the medical and public health responses are doomed to fail. A major aspect of the practice of Disaster Medicine is the ability to make seamless the transitions between all of the other medical disciplines relied upon during such medical crises. Times of crisis are different than normal times, and we all have not had the special training and education to do what is required in the practice of Disaster Medicine.

In order for Disaster Medicine to become formalized as a medical discipline with its own education and training, it must have specific educational objectives and a process for recognizing competence. The International Education Committee of the World Association for Disaster and Emergency Medicine is developing minimum standards for competence in Disaster Medicine for use in curriculum development for advanced academic degrees and practical, operational fellowships. It is essential that this work be keyed around the coordinating and control aspects of Disaster Medicine including preparation for the management of the medical and public health aspects of Disaster Medicine, and how this role relates to the management of the other societal functions during planning for and response to those events that may result in a disaster. However, Disaster Medicine cannot be practicedwithout each of the other disciplines and the role and importance of each of these disciplines must be recognized by those responsible for developing programs to prevent, mitigate, or respond to disasters.

Thus, Disaster Medicine is not an extension of Emergency Medicine or Prehospital Emergency Care or Critical Care or Public Health. There can be no optimal disaster response without a prehospital emergency medical care system, an in-hospital emergency care component, a critical care component, etc. Agencies whose principal focus is on disaster health management must incorporate all of these disciplines into their respective programs. To fail to do so falls short of being able to accomplish their respective missions. Times have changed.

The wisest thing is Time, for it brings everything to light.
Thales (Diogenes Laertius) *Thales*, Book I, Sec 35

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