Disaster Medicine

THE STATED GOAL OF THIS NEW COMPENDIUM is to outline the foundational knowledge necessary for a specific discipline: disaster medicine. Just as there are expectations that an individual possess specific knowledge in order to practice regular medicine, it would seem reasonable that similar expectations exist for the management of or participation in disaster medical response. The editors of this text have brought together numerous authors (many with extensive and pertinent experience) in an attempt to present a variety of topics, some of which are fairly complex.

The text is divided into two sections. The first has the intent of providing overall principles for emergency and disaster response and includes a separate subsection that addresses terrorism-specific concepts. The second section individually describes a wide range of hazards and their effects. This second section is intended to serve as a real-time reference and covers an exhaustive list of potential hazards, including very rare events such as asteroid impacts and ecological terrorism. Throughout the text, there are excellent individual chapters that clearly outline the issues at hand, while providing salient, usable information. In the first section, several chapters answer important questions that address the essentials in preparing an organization to respond to a disaster event. In particular, chapter 25 provides an important conceptual approach to preparedness as well as specific processes and procedures that must be addressed in order to prepare a health care facility. Preparedness, as defined, includes attention to the important ability to maintain day-to-day functions (organizational resiliency) as well as preparing for the influx of potential patients. This chapter is a must-read for any administrator of a health care facility. In addition, chapters 11-14 provide a succinct and valuable description of how the public-sector response is structured in the United States. Such information is important for medical managers seeking to integrate with the larger response community while preparing their own organizations.

Specific topics covering response to different events are also well outlined, including presentations on the application of epidemiology in the postimpact environment (chapter 51) and the discussion of medical intelligence (chapter 53). The latter chapter lists multiple sources of information that can be of assistance during response and has a valuable discussion on how to evaluate and assess different types of information. The use and limitations of certain types of personal protective equipment are often not familiar topics to many in the medical field, and these are well outlined for the reader (chapter 36). In an effort to be comprehensive, the editors have even included a realistic discussion of the liability issues surrounding response to emergencies and disasters (chapter 10). In addition, individual chapters examine topics related to the international relief communities.

Unfortunately, these and other well-written chapters tend to be overshadowed by editorial shortcomings. As an example, traditional emergency management concepts and terminology are not adhered to consistently across the various chapters. For instance, numerous terms are used for what would traditionally be referred to as an emergency operations plan (EOP), the plan that guides an organization’s response. Throughout the text it is alternatively referred to as a “disaster plan,” an “emergency preparedness plan,” and an “emergency management plan.” These terms all have distinct meanings but do not equate to an EOP. A similar inconsistency is seen in the description of the four phases of emergency management (mitigation, preparedness, response, recovery). In chapter 1 they are described as components of a “disaster cycle” and are represented as reactive processes, although they in fact are intended to develop a proactive stance. In chapter 71, five phases are described, while in chapter 4 the activities listed as occurring during each phase do not appear to coincide with traditional emergency management concepts that have existed for decades and have not changed. If the aim is to define a discipline, a glossary would be helpful for readers and chapter authors alike. Moreover, rather than attempting to create definitions, it would be more helpful to adhere to established definitions, many of which are provided in the foundational emergency management documents listed in chapter 16.

The editorial shortcomings are also evident in undue redundancy and overlap. At least six chapters discuss the history of US emergency management (chapters 4, 11, 17, 27, 29, and 49). The first section ends with terrorism-specific topics, but these chapters address many concepts also covered in the second section detailing specific hazards. Is there really enough difference for the reader between an improvised explosive device and the many other explosive etiologies to warrant a separate chapter?

A few chapters have additional difficulties. Perhaps one of the most important, but flawed, is chapter 30, on the incident command system (ICS). The chapter is meant to describe the management architecture, processes, and procedures now mandated (through Homeland Security Presidential
available that reflect how the system has evolved to include additional capabilities and capacities (eg, enhanced hazardous materials response and light task force configurations for deployment after hurricanes). Other misinformation plagues this chapter, such as the erroneous statement that only paramedics may serve as medical assistants, which is incorrect. In many other fields, their delineation in medicine and public health is long overdue. Disaster Medicine has taken an important step in that direction.

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Financial Disclosures: None reported.


Dr Bernard Spilsbury was an early 20th-century British forensic pathologist. He gained fame after being involved in the forensic investigation of the famous “Dr Crippen Case”—his expert testimony in court made him the first modern forensic media figure. His methods were notable; for instance, he identified Crippen’s victim by detailed microscopic study of a single scar. To convince the lay jury, Spilsbury brought the glass slides of the scar—and his microscope—to court.

The Father of Forensics, by Colin Evans, relates Spilsbury’s career, particularly his involvement in such infamous cases as the Crippen case, “The Brides in the Bath,” and “The Butcher of Soho.” The book illustrates in part how forensic medicine and science were practiced in the early 20th century, when investigators were thinking in terms of ABO combinations and not short tandem repeat polymorphisms.

The name Spilsbury is identified with notorious murder cases. However, only 1% of his autopsies dealt with murder, and the results of his autopsy practice led to workplace safety and health regulations. Determination of the length of gallows rope was also based on his work, although those findings were criticized by Albert Pierrepoint, Britain’s chief executioner. Spilsbury also designed the “mudera bag,” used by pathologists and crime scene investigators to collect evidence. Tragically,