Pandemic Influenza: Emergency Planning and Community Preparedness

Edited by Jeffrey R. Ryan


Pandemic Influenza: Emergency Planning and Community Preparedness is a further addition to the ever-expanding repertoire of pandemic influenza literature. This book is targeted primarily at public health planners involved in preparing community responses to the next influenza pandemic. However, this book also serves as a good reference to many aspects of pandemic influenza, providing a historical perspective as well as up-to-date information in the field of molecular virology. It is fortuitous that the timing of this book has coincided with the current global activity surrounding the emergence of the swine influenza A (H1N1) virus, which, at the time of writing, is emerging as a potential candidate for a future pandemic virus.

The first chapters provide a historical summary of previous pandemics, and the material included about pandemics of plague and cholera make for interesting reading and a timely reminder that outbreaks of infectious disease on a global scale are not new events. There is also a short review of the emergence and spread of human immunodeficiency virus infection, an example of a modern-day pandemic.

Any book on pandemic influenza should make reference to one of the greatest outbreaks of disease in recorded history; it is estimated that, during the 1918–1919 pandemic, >500 million people were infected and some 25–100 million died. In this book, there is a good review of the events of that pandemic, with particular emphasis on some of the crude control infection measures adopted by authorities during 1918–1919 in an attempt to control the spread of the pandemic, such as the cancellation of mass-gathering events. As the authors conclude, however, we should take note of these methods; many are included in modern-day national pandemic plans, and thus their longevity is testament to the efforts and achievements of local public health officials during the 1918–1919 pandemic.

The book covers the major routine aspects of influenza biology, including the natural history of influenza, clinical aspects of the disease, and an overview of avian influenza. It is interesting to note the relative importance that has been placed on avian influenza and swine influenza in this book (a chapter and paragraph, respectively), which only goes to show how it was believed that the next pandemic would originate from a highly pathogenic avian influenza virus. In the chapter on the clinical aspects of influenza, all of the manifestations associated with influenza infection, including both common and less common presentation, are described for uncomplicated seasonal influenza. There is also some material describing the clinical presentation of cases of H5N1 infection and the more severe systemic symptoms that are associated with H5N1 infections resulting in particularly high mortality rates of >60%.

It is, however, the material in part 3 that sets this book apart from many other standard influenza books and is now particularly relevant with respect to current global events. The authors set out to define the community-based response that will be required for the next influenza pandemic. The chapter covering federal and international programs and assets provides information on pandemic plans (including presumptions about the pandemic), priority groups for pandemic influenza vaccine and antiviral treatment, and the strategies that will be required to maximize preparedness and response. These issues are then covered at the local level, highlighting more intricate matters in preincident planning. The authors introduce the use of a pandemic severity index, establish trigger points that can be adopted at the local or organizational level, and discuss a variety of nonpharmaceutical interventions (including quarantine, isolation, respiratory hygiene, social distancing, and school closures) in addition to the established pharmaceutical interventions using antiviral drugs and vaccines.

Other areas of planning covered in this book include a specific chapter on service continuity planning for businesses, which covers aspects such as absenteeism, relocation of facilities, human resource policies, and prioritizing essential functions within the business. Finally, fatality management during a pandemic is addressed in some detail in chapter 9, which covers the many considerations of and assumptions about pandemic fatality management, including issues such as the pronouncement and certification of deaths as well as the transportation, storage, and disposal of bodies. Specific guidelines for the management of mortuaries during a pandemic, including prophylaxis of mortuary staff and considerations of social and religious groups, are also covered.

Perhaps the one disappointing aspect of this book is the lack of international representation on the panel of authors. The majority of the planning documented in the book revolves around pandemic planning in the United States at the state level.
Although this does not detract from the value of the book, when writing about a disease that does not stop spreading once it reaches state or international boundaries, it would have appealed to a wider audience had some of the recommendations been more generic in their description.

Otherwise, this is a very interesting book that covers some of the less documented and less understood aspects of pandemic planning. For those planners who delve into the finer details, it will improve their ability to inform communities and businesses to “fight back” when the “big one” hits, which, given the current global situation, may be sooner than we had all previously anticipated.

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