A Holistic View of Emerging Infectious Diseases

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This book gives a comprehensive description of many diseases currently emerging and re-emerging in different regions of the world. The author has presented well-rounded information on select diseases currently found in the Americas (e.g., Lyme disease, ehrlichiosis), Africa (e.g., Lassa hemorrhagic fever, monkeypox), and in all parts of the world (e.g., cryptosporidiosis, tuberculosis).

The author has divided the book into well-organized parts with introductory chapters presenting a general review of basic background information in microbiology and immunology. This may help set the stage for useful classroom discussions on how host defenses work and the implications of their breakdown.

The introductory chapter includes a short discussion on emerging and re-emerging diseases, factors and underlying causes for their emergence, and a very useful timeline of emerging diseases. The heart of the book is devoted to diseases separated by the type of causative agents: bacteria, viruses, parasitic protozoa, and prions. The similarly organized chapters make it easy for the reader to find the desired information quickly. Although there is a great amount of detailed information, each chapter is “an onion,” with layers of information about the disease. Depending on the goal of the reader, he or she may opt to peel one layer at a time, delving deeper if needed. My favorite part was the “Major Concepts” at the beginning of each chapter, which gives the reader a bird’s eye view of the disease. In contrast to many other books in this category, this section is presented at the beginning of the chapter, allowing the reader to get a quick “big picture” update on the disease within minutes.

Pertinent information on causative agents, virulence factors, treatments, and recent developments seem current and present a robust package of information. Treatments include not only the usual mainstream options, but also a few herbal/plant derived treatments (for example, the use of apple peel polyphenols to inhibit Helicobacter pylori urease activity). The final two chapters address diseases of concern in the immune-suppressed population and in bioterrorism. The author has done an excellent job in addressing these very important issues that may determine the next generation of emerging and re-emerging diseases in the population.

The book is accompanied by a very basic companion website that includes monochromatic images, figures, and answers to the review questions from the book. In addition, it includes some interesting case studies that instructors may find useful. Its lack of adequate resources for students and instructors, however, may make this a tough sell for adoption as a text.

Overall, I found this book to be a wonderful resource with an immense amount of valuable information. I am positive that microbiology instructors, health professionals and the advanced microbiology/biology student will benefit from its use as an additional reference.

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