Updated Cases for Medical Microbiology
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The fourth edition of Cases in Medical Microbiology and Infectious Diseases is a well-organized compendium of real-life case studies focused on the practical applications of medical microbiology. Primarily written for medical students to help them study for board exams and infectious disease rotations, this volume may also be useful for instructors of upper-division undergraduate microbiology courses.

The fourth edition contains timely updates reflecting the emergence of many new infectious diseases and an increase in multi-drug-resistant infections. In addition, this new edition encompasses information about the latest molecular diagnostic tools such as MALDI-TOF, transcription-mediated amplification (TMA), nucleic acid sequence based amplification (NASBA), and strand displacement amplification (SDA) assays and incorporates these into the cases. There is an entire chapter devoted to the explanation of these different diagnostic approaches. Each color-coded chapter of the book corresponds to a particular organ system and begins with an introduction to the incidence and transmission of diseases associated with that system. Important pathogens for each system are noted in a table at the beginning of each chapter, with information about the general characteristics of the pathogen, its reservoir, and disease manifestations.
The main focus of each chapter is the pathogens’ characteristics, their associated diseases, clinical manifestations, and an appropriate course of treatment.

The purpose of the case studies is to foster critical thinking, problem-solving ability, and real-life diagnostic skills for future healthcare professionals. Each case is concisely summarized with the relevant presentation of symptoms, history, and clinical findings. Color photos and micrographs of clinical findings accompany each case to give the reader a “hands-on” feel for the experience of diagnosing a patient’s illness. Each case scenario description is followed by five to eight questions that prompt the reader to work through a diagnosis of the case. Notably, these questions are targeted toward areas of common confusion that could lead to misdiagnoses. Over half of the 74 cases presented in the fourth edition are new and those that appeared in the third edition have been updated. The fourth edition includes an additional “Advanced Cases” chapter providing exposure to many emerging infectious diseases and special cases of multi-drug-resistant infections. An extensive “Case Discussion” is provided at the end of each scenario, with thorough, clearly-written explanations for each question. An up-to-date list of five to eight primary reference articles is also given at the end of each case. The last 50 pages of the book consist of a useful glossary of medical terms and an index that can be used to quickly find information on a particular topic.

Overall, the fourth edition provides a wealth of current resources for both students and instructors and can be used in a variety of ways in upper division microbiology courses (e.g., incorporating cases into lecture material, in-class group work, homework assignments).

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