Riley, L. W.

Molecular Epidemiology of Infectious Diseases. Principles and Practices


The author is affiliated with the School of Public Health, University of California, Berkeley. He emphasizes in the preface that this book is designed to provide a background and practices of epidemiology that take advantage of new molecular biology tools to solve infectious disease problems. The main goal of this book is to introduce interested epidemiologists to the standard vocabulary of molecular biology, interested molecular biologists to the basic concepts of epidemiology, and interested clinicians to the vocabulary and concepts of both disciplines.

The volume is composed of 12 sections subdivided into chapters and subchapters. Section 1 is intended to give the introduction to principles and approaches while discussing differentiating molecular epidemiology from taxonomy and phylogeny, and application to epidemiology of molecular strain-typing methods. Sections 2 and 3 focus on laboratory methods used for strain typing of pathogens: conventional and molecular techniques and PCR-based strain typing methods. Sections 4 through 6 are devoted to the analysis of similarity and relatedness in molecular epidemiology, to distinguishing epidemic and endemic occurrence in infectious diseases, and to stratification and refinement of data in epidemiologic investigations. Subsequent sections 7 through 9 comprise distinguishing pathovars from nonpathovars in Escherichia coli, Streptococcus pneumoniae and Helicobacter pylori. Sections 10 and 11 analyse clinical and epidemiologic issues related to nosocomial infections caused by Staphylococcus aureus and gram-negative bacteria. Final chapter 12 includes identifying a pathogen’s biologic determinants of disease transmission. In conclusion, there are a glossary and annotated websites of databases useful for molecular epidemiologic investigations.

Molecular Epidemiology of Infectious Diseases provides a state-of-the-art review of molecular epidemiology, using real-world examples that clearly illustrate basic concepts. While emphasis is placed on bacterial infectious diseases as the discussion model, ideas presented are generally applicable to other categories of infectious diseases. The glossary of terms propagates the language of molecular epidemiology and will foster improved communication and idea exchange among epidemiologists, microbiologists, and clinicians. This book is mainly intended for the health care professionals, researchers and practitioners working with infectious diseases, and students in medical schools interested in infectious diseases and epidemiology.

Jindřich Jíra

Schlossberg, D., editor

Infections of Leisure


The editor is affiliated with Temple University School of Medicine and with Jefferson Medical College of Thomas Jefferson University, Philadelphia, Pennsylvania. The list of contributors comprises 27 specialists mostly in the field of infectious and internal medicine, comparative, geographic and travel medicine, medical microbiology and zoonoses, and population health. As stated in the preface, this edition continues to identify and organize the infectious risks associated with our leisure activities. As a by-product of our prosperity, more time is available to travel, swim, camp, hike, garden, and taste exotic foods. We continue to pamper our (sometimes unusual) pets and to play increasingly challenging sports. However, all these activities expose us to an expanding list of pathogenic microbes, some of which are entirely new and others of which are resistant to current therapy.

The volume is arranged in 16 chapters. Two introductory chapters provide insights into health problems associated with sea and freshwater, namely with fish and shellfish intoxications and poisoning, pathogenic vibrios, invertebrate and vertebrate envenomations, hepatitis and other viral infections, furthermore with infections acquired in nonmarine environments (lakes, rivers etc.): diverse skin and soft tissue infections, ocular infections, urinary and pulmonary tracts infections, disseminated and central nervous infections. Chapter on the camper’s uninvited guests, nominally venturing into wilderness, may be associated with diseases transmitted by ticks. Infections in the garden implicate many fungal, bacterial, viral and parasitic affections. Chapters 5 through 10 encompass pathogens which may be transmitted from animals to human beings from dogs, cats, birds, less common house pets, and rats. In subsequent chapters attention is given to exotic and trendy cuisine, transmission of infectious diseases during sporting activities, and travelling abroad. Concluding chapters encompass sexually transmitted diseases and travel (“from budoir to bordello”), infections from body piercing and tattoos, and infectious diseases at high altitude. Textual parts are supplemented with a list of topical references in each chapter. Moreover, there are tabular overviews and