

Preface

Infectious diseases have made a strong comeback after a lull in the years immediately following World War II. The ability of microbes to adapt to host immune responses and intense pressure from antibiotic use, combined with societal changes, has contributed to a resurgence of many infectious diseases. In addition, there are now several “new” diseases, including Legionnaires’ disease, Lyme disease, ehrlichiosis, SARS, toxic shock syndrome, and Ebola hemorrhagic fever. In just the last twenty years we have seen the appearance of a virulent strain of avian influenza that attacks humans, a human variant of “mad cow” disease, and new drug-resistant forms of *Staphylococcus aureus*. These new or emerging infectious diseases have raised considerable concern about the possibility of widespread and possibly devastating disease epidemics.

It could be argued that at least some of the increase in vector-borne disease is the result of increased recognition and reporting. Specific disease recognition is certainly made easier by newer technologies such as the polymerase chain reaction (PCR). However, such societal changes as population increases, ecological and environmental changes, and especially suburbanization (building homes in tracts of forested lands) are contributing to an increase in the incidence of many of these vector-borne diseases.

In light of this vector-borne disease increase, information about these entities – their distributions, hosts, reservoirs, and vectors – is much needed. Thus, *Infectious Diseases and Arthropods, Second Edition* is intended to provide physicians, as well as entomologists and other interested parties, with a reference on the biological and entomological aspects of infectious diseases. The primary approach has been to present readily accessible information on each of the major vector-borne diseases, with an emphasis on the relevant biology and ecology of each one. Since I am writing as an entomologist, the text obviously leans heavily to the organismal side of each disease, with, in some cases, less emphasis on clinical aspects. No effort has been made to present an in-depth review of each disease; instead, there is a middle-of-the-road consensus of current thought on each subject. It is the author’s hope that *Infectious Diseases and Arthropods, Second Edition* will prove a useful adjunct to the clinical texts employed by infectious disease specialists, public health and travel medicine physicians, epidemiologists, and others with duties encompassing vector-borne diseases. Treatments are mentioned (but without specific dosages) for the

various diseases, but are only intended as general guidelines. They are in no way intended to be the sole, specific treatment for any particular patient. Physicians should consult clinical texts or drug package inserts for the most current recommendations.

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