

Χαρακτηριστικά:

- Organizes content both **by individual pathogens and by important clinical syndromes**, broadening the context to clearly present relevant, complex clinical information.
- Contains **multiple new chapters on both SARS-CoV-2 and anti-fungal therapy**, as well as new chapters on bacteriophages and related agents, infections following traumatic injuries, communication to the public about infectious diseases, and the effects of climate change on infectious diseases.
- Provides **up-to-date coverage of recent advances in the field**: an increasing understanding of the agents, immune responses, and the growing armamentarium of diagnostics (such as nucleic acid amplification and next-generation sequencing); new treatments (such as monoclonal antibodies, new antifungals, antivirals, and phage therapy); and emerging preventive measures (such as new vaccines being developed for RSV), and our relationship with the human microbiome.
- Features **more than 1,500 high-quality, full-color photographs** with many new to this edition.
- Shares the extensive experience of **new editors** Drs. Jeffrey I. Cohen and Steven M. Holland, both from Bethesda, MD, as well as a **new team of expert associate editors** Drs. Yohei Doi, Wendy S. Garrett, Ann R. Falsey, Eleanor Wilson, Kieren Marr, and Edward Mitre—each a leading authority in their field.
- Includes perspectives from **hundreds of leading experts from a truly global community**, including authors from Australia, Canada, and countries in Europe, Asia, and South America.
- Includes **regular updates online** for the life of the edition.
- **An eBook version is included with purchase.** The eBook allows you to access all of the text, figures and references, with the ability to search, customize your content, make notes and highlights, and have content read aloud. Additional digital ancillary content may publish up to 6 weeks following the publication date.

Περιεχόμενα:

Index

PART I: BASIC PRINCIPLES IN THE DIAGNOSIS AND MANAGEMENT OF INFECTIOUS DISEASES

Section A: Microbial Pathogens

1. A Molecular Perspective of Microbial Pathogenicity
2. The Human Microbiome
3. Prebiotics, Probiotics, and Synbiotics

Section B: Host Defense Mechanisms

4. Innate (General or Nonspecific) Host Defense Mechanisms
5. Adaptive Immunity: Antibodies and Immunodeficiencies

6. Cell-Mediated Defense Against Infection
7. Mucosal Immunity
8. Granulocytic Phagocytes
9. Complement and Deficiencies
10. Human Genetics and Infection
11. Nutrition, Immunity, and Infection
12. Evaluation of the Patient with Suspected Immunodeficiency

Section C: Epidemiology of Infectious Disease

13. Principles of Applied Epidemiology for the Practice of Infectious Diseases
14. Emerging and Reemerging Infectious Disease Threats
15. Bioterrorism: An Overview

Section D: Clinical Microbiology

16. The Clinician and the Microbiology Laboratory: Test Ordering, Specimen Collection, and Result Interpretation

Section E: Antiinfective Therapy

17. Principles of Anti-Infective Therapy
18. Molecular Mechanisms of Antibiotic Resistance in Bacteria
19. Pharmacokinetics and Pharmacodynamics of Anti-Infective Agents
20. Penicillins and β -Lactamase Inhibitors
21. Cephalosporins and Cephalosporin/ β -Lactamase Inhibitor Combinations
22. Carbapenems, Carbapenem/ β -Lactamase Inhibitor Combinations, and Aztreonam
23. Antibiotic Allergy
24. Aminoglycosides
25. Tetracyclines, Tetracycline Derivatives, and Chloramphenicol
26. Rifamycins
27. Metronidazole
28. Macrolides and Clindamycin
29. Glycopeptides (Vancomycin and Teicoplanin) and Lipoglycopeptides (Telavancin, Oritavancin, and Dalbavancin)
30. Streptogramins (Quinupristin-Dalfopristin) and Lipopeptides (Daptomycin)
31. Polymyxins (Polymyxin B and Colistin)
32. Linezolid, Tedizolid, and Other Oxazolidinones
33. Sulfonamides and Trimethoprim; Trimethoprim-Sulfamethoxazole
34. Quinolones
35. Antibiotics in Advanced Development and Other Agents
36. Urinary Tract Agents: Nitrofurantoin, Fosfomycin and Methenamine
37. Topical Antibacterials
38. Antimycobacterial Agents
39. Bacteriophage Therapy, Endolysin Therapy and Antimicrobial Peptide Therapy
40. Antifungal Agents: Polyene Antifungals
41. Antifungal Drugs: Azole

42. Antifungal Drugs: Echinocandins and Other Beta-D-glucan Inhibitors
43. Antifungal Drugs: Flucytosine
44. Antimalarial Drugs
45. Drugs for Protozoal Infections Other Than Malaria
46. Drugs for Helminths
47. Antiviral Agents: General Principles
48. Antiviral Drugs for Influenza and Other Respiratory Virus Infections Except for SARS-CoV-2
49. Antivirals Against Herpesviruses
50. Antiviral Drugs Against Hepatitis Viruses
51. Miscellaneous Antiviral Agents (Interferons, Tecovirimat, Imiquimod, Pocopavir)
52. Immunomodulators
53. Hyperbaric Oxygen
54. Antimicrobial Stewardship
55. Designing and Interpreting Clinical Studies in Infectious Diseases
56. Outpatient Parenteral Antimicrobial Therapy

PART II: MAJOR CLINICAL SYNDROMES

Section A: Fever

57. Temperature Regulation and the Pathogenesis of Fever
58. Fever of Unknown Origin
59. The Acutely Ill Patient with Fever and Rash

Section B: Upper Respiratory Tract Infections

60. The Common Cold
61. Pharyngitis
62. Acute Laryngitis
63. Otitis Externa, Otitis Media, and Mastoiditis
64. Sinusitis
65. Epiglottitis
66. Infections of the Oral Cavity, Neck, and Head

Section C: Pleuropulmonary and Bronchial Infections

67. Acute Bronchitis
68. Acute Exacerbations of Chronic Obstructive Pulmonary Disease
69. Acute Pneumonia
70. Pleural Effusion and Empyema
71. Bacterial Lung Abscess
72. Chronic Pneumonia
73. Cystic Fibrosis

Section D: Urinary Tract Infections

74. Urinary Tract Infections

Section E: Sepsis

75. Sepsis and Septic Shock

Section F: Intraabdominal Infections

76. Peritonitis and Intraperitoneal Abscesses

77. Infections of the Liver and Biliary System (Liver Abscess, Cholangitis, Cholecystitis)

78. Pancreatic Infection

79. Splenic Abscess

80. Appendicitis

81. Diverticulitis and Neutropenic Enterocolitis

Section G: Cardiovascular Infections

82. Endocarditis and Intravascular Infections

83. Prosthetic Valve Endocarditis

84. Infections of Nonvalvular Cardiovascular Devices

85. Prophylaxis of Infective Endocarditis

86. Myocarditis and Pericarditis

87. Mediastinitis

Section H: Central Nervous System Infections

88. Approach to the Patient with Central Nervous System Infection

89. Acute Meningitis

90. Chronic Meningitis

91. Encephalitis

92. Brain Abscess

93. Subdural Empyema, Epidural Abscess, and Suppurative Intracranial Thrombophlebitis

94. Cerebrospinal Fluid Shunt and Drain Infections

Section I: Skin and Soft Tissue Infections

95. Cellulitis, Necrotizing Fasciitis, and Subcutaneous Tissue Infections

96. Myositis and Myonecrosis

97. Lymphadenitis and Lymphangitis

Section J: Gastrointestinal Infections and Food Poisoning

98. Syndromes of Enteric Infection

99. Esophagitis

100. Diarrhea with Little or No Fever

101. Acute Dysentery Syndromes (Diarrhea with Fever)

102. Typhoid Fever, Paratyphoid Fever, and Typhoidal Fevers

103. Foodborne Disease (Food Poisoning)

104. Tropical Sprue and Environmental Enteric Dysfunction

Section K: Bone and Joint Infections

105. Infectious Arthritis of Native Joints

106. Osteomyelitis

107. Orthopaedic Implant-Associated Infections

Section L: Diseases of The Reproductive Organs and Sexually Transmitted Diseases

108. Anogenital Skin and Mucous Membrane Lesions

109. Urethritis

110. Vulvovaginitis and Cervicitis

111. Infections of the Female Pelvis

112. Prostatitis, Epididymitis, and orchitis

Section M: Eye Infections

113. Introduction to Eye Infections

114. Microbial Conjunctivitis

115. Microbial Keratitis

116. Endophthalmitis

117. Infectious Causes of Uveitis

118. Periocular Infections

Section N: Hepatitis

119. Viral Hepatitis

Section O: Acquired Immunodeficiency Syndrome

120. Human Immunodeficiency Viruses

121. Global Perspectives on Human Immunodeficiency Virus Infection and Acquired Immunodeficiency Syndrome

122. Epidemiology and Prevention of AIDS and HIV Infection, Including Preexposure Prophylaxis and HIV Vaccine Development

123. Diagnosis of Human Immunodeficiency Virus Infection

124. The Immunology of HIV-1 Infection, Mechanisms of Viral Persistence, and Prospects for Cure

125. General Clinical Manifestations of Human Immunodeficiency Virus Infection (Including Acute Retroviral Syndrome and Oral, Cutaneous, Renal, Ocular, Metabolic, and Cardiac Diseases)

126. Pulmonary Manifestations of Human Immunodeficiency Virus Infection

127. Gastrointestinal Hepatobiliary and Pancreatic Manifestations of Human Immunodeficiency Virus Infection

128. Neurologic Diseases Caused By Human Immunodeficiency Virus Type 1 and Opportunistic Infections

129. Pediatric Human Immunodeficiency Virus Infection

130. Antiretroviral Therapy for Human Immunodeficiency Virus Infection

131. Management of Opportunistic Infections Associated with Human Immunodeficiency Virus Infection

Section P: COVID-19

132. Severe Acute Respiratory Syndrome Coronavirus 2 (SARS-CoV-2) Virology

133. Global perspective and Epidemiology of COVID-19

134. Immunology and Diagnosis of SARS-CoV-2 and COVID-19

- 135. Clinical Manifestations of COVID-19 in Adults and Children
- 136. Treatment and Prevention of SARS-CoV-2 (COVID-19)

Section Q: Miscellaneous Syndromes

- 137. Myalgic Encephalomyelitis/Chronic Fatigue Syndrome

PART III: INFECTIOUS DISEASES AND THEIR ETIOLOGIC AGENTS

Section A: Viral Diseases

- 138. Biology of Viruses and Viral Diseases
- 139. Orthopoxviruses: Vaccinia (Smallpox Vaccine), Variola (Smallpox), Mpox, and Cowpox
- 140. Other Poxviruses That Infect Humans: (Including Orf Virus) Molluscum Contagiosum, and Yatapoxviruses
- 141. Introduction to Herpesviridae
- 142. Herpes Simplex Virus
- 143. Chickenpox and Herpes Zoster (Varicella-Zoster Virus)
- 144. Cytomegalovirus
- 145. Epstein-Barr Virus (Infectious Mononucleosis, Epstein-Barr Virus–Associated Malignant Diseases, and Other Diseases)
- 146. Human Herpesvirus Types 6 and 7 (Exanthem Subitum)
- 147. Kaposi’s Sarcoma–Associated Herpesvirus (Human Herpesvirus Type 8)
- 148. Herpes B Virus
- 149. Adenoviruses
- 150. Papillomaviruses
- 151. JC, BK, and Other Polyomaviruses: Progressive Multifocal Leukoencephalopathy, BK Nephropathy, and Merkel Cell Carcinoma
- 152. Hepatitis B Virus
- 153. Hepatitis D Virus
- 154. Human Parvoviruses, Including Parvovirus B19, Human Bocaviruses, and Adeno-Associated Viruses (AAVs)
- 155. Orthoreoviruses and Orbiviruses
- 156. Coltiviruses (Colorado Tick Fever Virus) and Seadornaviruses
- 157. Rotaviruses
- 158. Alphaviruses
- 159. Rubella Virus (German Measles)
- 160. Flaviviruses (Dengue, Yellow Fever, Japanese Encephalitis, West Nile Encephalitis, Usutu Encephalitis, St. Louis Encephalitis, Tick-Borne Encephalitis, Powassan Encephalitis, Kyasanur Forest Disease, Alkhurma Hemorrhagic Fever, Zika)
- 161. Hepatitis C
- 162. Coronaviruses, Including Severe Acute Respiratory Syndrome (SARS) and Middle East Respiratory Syndrome (MERS)
- 163. Parainfluenza Viruses
- 164. Mumps Virus
- 165. Respiratory Syncytial Virus

166. Human Metapneumovirus
167. Measles Virus (Rubeola)
168. Zoonotic Paramyxoviruses: Nipah, Hendra, and Menangle Viruses
169. Vesicular Stomatitis Virus and Related Vesiculoviruses (Chandipura Virus)
170. Rabies (Rhabdoviruses)
171. Marburg and Ebola Virus Hemorrhagic Fevers
172. Influenza Viruses, Including Avian Influenza and Swine Influenza
173. Bunyavirus Infections: Hantavirus Syndromes, La Crosse encephalitis, Rift Valley Fever, Crimean-Congo Hemorrhagic Fever, and Others
174. Lymphocytic Choriomeningitis Virus, Lassa Virus, Lujo Virus, and the South American Hemorrhagic Fever Viruses (Arenaviruses)
175. Human T-Lymphotropic Virus
176. Introduction to the Human Enteroviruses and Parechoviruses
177. Poliovirus
178. Coxsackieviruses, Echoviruses and Numbered Enteroviruses (EVD-68, EVD-70, EV-A71)
179. The Human Parechoviruses
180. Hepatitis A Virus
181. Rhinovirus
182. Noroviruses and Sapoviruses (Caliciviruses)
183. Astroviruses and Picobirnaviruses
184. Hepatitis E Virus

Section B: Prion Diseases

185. Prions and Prion Diseases of the Central Nervous System (Transmissible Neurodegenerative Diseases)

Section C: Chlamydial Diseases

186. Chlamydia Trachomatis (Urogenital Infections and Trachoma)
187. Psittacosis (Due to Chlamydia psittaci)
188. Chlamydia Pneumoniae

Section D: Mycoplasma Diseases

189. Mycoplasma pneumoniae (Mycoplasma pneumoniae)
190. Genital Mycoplasmas: Mycoplasma Genitalium, Mycoplasma Hominis, Ureaplasma Species

Section E: Rickettsioses, Ehrlichioses, and Anaplasmoses

191. Introduction to Rickettsioses, Ehrlichioses, and Anaplasmosis
192. Rickettsia Rickettsii and Other Spotted Fever Group Rickettsiae (Rocky Mountain Spotted Fever and Other Spotted Fevers)
193. Coxiella Burnetii (Q Fever)
194. Rickettsia Prowazekii (Epidemic or Louse-Borne Typhus)
195. Rickettsia Typhi (Murine Typhus)
196. Orientia Tsutsugamushi (Scrub Typhus)
197. Ehrlichia chaffeensis, Anaplasma phagocytophilum, and Other Anaplasmatataceae

Section F: Bacterial Diseases

198. Introduction to Bacteria and Bacterial Diseases

Sub-Section I. Infections due to Gram-Positive Bacteria

- 199. Staphylococcus Aureus
- 200. Staphylococcus Epidermidis and Other Coagulase-Negative Staphylococci
- 201. Classification of Streptococci
- 202. Streptococcus Pyogenes (Group A streptococcus)
- 203. Nonsuppurative Poststreptococcal Sequelae: Rheumatic Fever and Glomerulonephritis
- 204. Streptococcus Pneumoniae
- 205. Enterococcus Species, Streptococcus Gallolyticus Group and Leuconostoc Species
- 206. Streptococcus Agalactiae (Group B Streptococcus)
- 207. Viridans Streptococci, Nutritionally Variant Streptococci, and Groups C and G Streptococci
- 208. Streptococcus Anginosus Group
- 209. Corynebacterium Diphtheriae (Diphtheria)
- 210. Other Coryneform Bacteria and Rhodococci
- 211. Listeria Monocytogenes
- 212. Bacillus Anthracis (Anthrax)
- 213. Bacillus Species and Related Genera Other Than Bacillus Anthracis
- 214. Erysipelothrix Rhusiopathiae
- 215. Whipple Disease

Sub-Section II. Infections due to Gram-Negative Bacteria

- 216. Neisseria Meningitidis
- 217. Neisseria Gonorrhoeae (Gonorrhea)
- 218. Moraxella Catarrhalis, Kingella, and Other Gram-Negative Cocci
- 219. Vibrio Cholerae
- 220. Other Pathogenic Vibrios
- 221. Campylobacter Jejuni and Related Species
- 222. Helicobacter Pylori and Other Gastric Helicobacter Species
- 223. Enterobacterales (Enterobacteriaceae)
- 224. *P. Aeruginosa* and Other Pseudomonas Species
- 225. Stenotrophomonas Maltophilia and Burkholderia Cepacia Complex
- 226. Burkholderia Pseudomallei and Burkholderia Mallei: Melioidosis and Glanders
- 227. Acinetobacter Species
- 228. Salmonella Species
- 229. Bacillary Dysentery: Shigella and Enteroinvasive Escherichia coli
- 230. Haemophilus Species, Including H. Influenzae and H. ducreyi
- 231. Brucellosis (Brucella Species)
- 232. Francisella Tularensis (Tularemia)
- 233. Pasteurella Species
- 234. Plague (Yersinia Pestis)
- 235. Yersinia Enterocolitica and Yersinia Pseudotuberculosis

- 236. Bordetella Pertussis
- 237. Rat-Bite Fever: Streptobacillus Moniliformis and Spirillum Minus
- 238. Legionnaires' Disease and Pontiac Fever
- 239. Capnocytophaga Species
- 240. Bartonella, Including Cat-Scratch Disease
- 241. Klebsiella Granulomatis (Donovanosis, Granuloma Inguinale)
- 242. Other Gram-Negative and Gram-Variable Bacilli

Sub-Section III. Infections due to Spirochetal Bacteria

- 243. Syphilis (Treponema Pallidum)
- 244. Endemic Treponematoses
- 245. Leptospira Species (Leptospirosis)
- 246. Relapsing Fevers Due to Borrelia Species
- 247. Lyme Disease (Lyme Borreliosis) Due to Borrelia Burgdorferi

Sub-Section IV. Infections due to Anaerobic Bacteria

- 248. Anaerobic Infections: General Concepts
- 249. Clostridioides (Clostridium) difficile Infection
- 250. Tetanus (Clostridium Tetani)
- 251. Botulism (Clostridium Botulinum)
- 252. Diseases Caused by Clostridium
- 253. Bacteroides, Prevotella, Porphyromonas, and Fusobacterium Species (And Other Medically Important Anaerobic Gram-Negative Bacilli)
- 254. Anaerobic Cocci and Anaerobic Gram-Positive Nonsporulating Bacilli

Sub-Section V. Infections due to Acid-Fast Organisms

- 255. Mycobacterium Tuberculosis
- 256. Leprosy (Mycobacterium Leprae)
- 257. Mycobacterium Avium Complex
- 258. Infections Caused by Nontuberculous Mycobacteria Other Than Mycobacterium Avium Complex
- 259. Nocardia Species
- 260. Agents of Actinomycosis

Section G: Mycoses

- 261. Introduction to Mycoses
- 262. Candida Species
- 263. Aspergillus Species
- 264. Agents of Mucormycosis and Entomophthoromycosis
- 265. Sporothrix Schenckii
- 266. Chromoblastomycosis
- 267. Mycetoma
- 268. Cryptococcosis (Cryptococcus Neoformans and Cryptococcus Gattii)
- 269. Histoplasma Capsulatum (Histoplasmosis)
- 270. Blastomycosis

- 271. Coccidioidomycosis (Coccidioides Species)
- 272. Dermatophytosis (Ringworm) and Other Superficial Mycoses
- 273. Paracoccidioidomycosis
- 274. Uncommon Fungi and Related Species
- 275. Pneumocystis Species
- 276. Microsporidiosis

Section H: Protozoal Diseases

- 277. Introduction to Protozoal Diseases
- 278. Entamoeba Species, Including Amebic Colitis and Liver Abscess
- 279. Free-Living Amebae
- 280. Malaria (Plasmodium Species)
- 281. Leishmania Species: Visceral, Cutaneous, and Mucosal
- 282. Trypanosoma Species (American Trypanosomiasis, Chagas Disease): Biology of Trypanosomes
- 283. Agents of African Trypanosomiasis (Sleeping Sickness)
- 284. Toxoplasma Gondii
- 285. Giardia Lamblia
- 286. Trichomonas Vaginalis
- 287. Babesia Species
- 288. Cryptosporidiosis (Cryptosporidium Species)
- 289. Cyclospora Cayetanensis, Isospora Belli, Sarcocystis Species, Balantidium Coli, and Blastocystis Species

Section I: Diseases Due to Toxic Algae

- 290. Human Illness Associated With Cyanobacteria and Harmful Algal Blooms, Including Fish and Shellfish Poisoning Syndromes

Section J: Diseases Due to Helminths

- 291. Introduction to Helminth Infections
- 292. Intestinal Nematodes (Roundworms)
- 293. Tissue Nematodes, Including Trichinellosis, Dracunculiasis, and the Filariases
- 294. Trematodes (Schistosomes and Liver, Intestinal and Lung Flukes)
- 295. Tapeworms (Cestodes)
- 296. Visceral Larva Migrans and Other Uncommon Helminth Infections

Section K: Ectoparasitic Diseases

- 297. Introduction to Ectoparasitic Diseases
- 298. Lice (Pediculosis)
- 299. Scabies
- 300. Myiasis and Tungiasis
- 301. Mites, Including Chiggers

Section L: Diseases of Unknown Etiology

- 302. Ticks, Including Tick Paralysis

303. Kawasaki Disease

PART IV: SPECIAL PROBLEMS

Section A: Nosocomial Infections

304. Infection Prevention and Control in the Healthcare Setting

305. Disinfection, Sterilization, and Hospital Waste

306. Infections Caused by Percutaneous Intravascular Devices

307. Nosocomial Pneumonia

308. Catheter-Associated Urinary Tract Infection (CAUTI) and Catheter-Associated Asymptomatic Bacteriuria (CA-ASB)

309. Transfusion- and Transplantation-Transmitted Infections

Section B: Infections in Special Hosts

310. Infections in the Immunocompromised Host: General Principles

311. Prophylaxis and Empirical Therapy of Infection in Cancer Patients

312. Infections in Recipients of Hematopoietic Cell Transplantation +CAR-Tcell infections

313. Infections in Solid organ Transplant Recipients

314. Infections in Older Adults

315. Infections in Asplenic Patients

316. Infections in Persons Who Inject Drugs

Section C: Surgical- and Trauma-Related Infections

317. Surgical Site Infections and Antimicrobial Prophylaxis

318. Burns

319. Infections Following Traumatic Injuries

320. Bites

Section D: Immunization

321. Principles of immunization and public health

322. Immunizations for Specific Infections

Section E: Protection of Travelers

323. Protection of Travelers

324. Infections in Returning Travelers

Section F: Emerging Issues in Infectious Diseases

325. Zoonoses

326. Communicating about Infectious Diseases to the Public

327. Basic Principles in Climate Change and Infectious Diseases