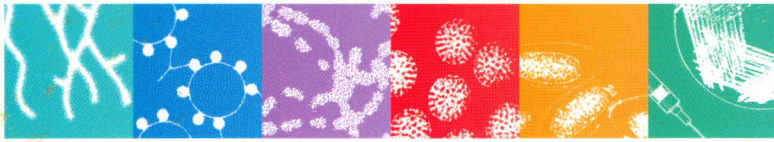


151785
L EDITION • INTERNATIONAL EDITION • INTERNATIONAL EDITION • INTERNATIONAL EDI
, Canada, Europe, Japan or USA • This book is not for sale in Australia, Canada, Europe, Japan or



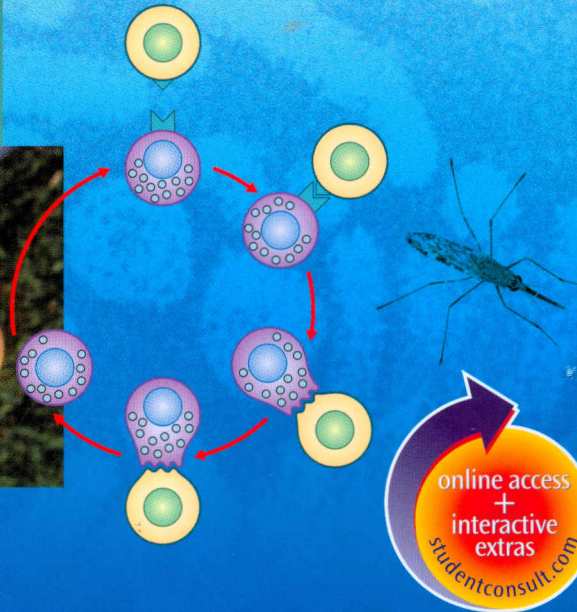
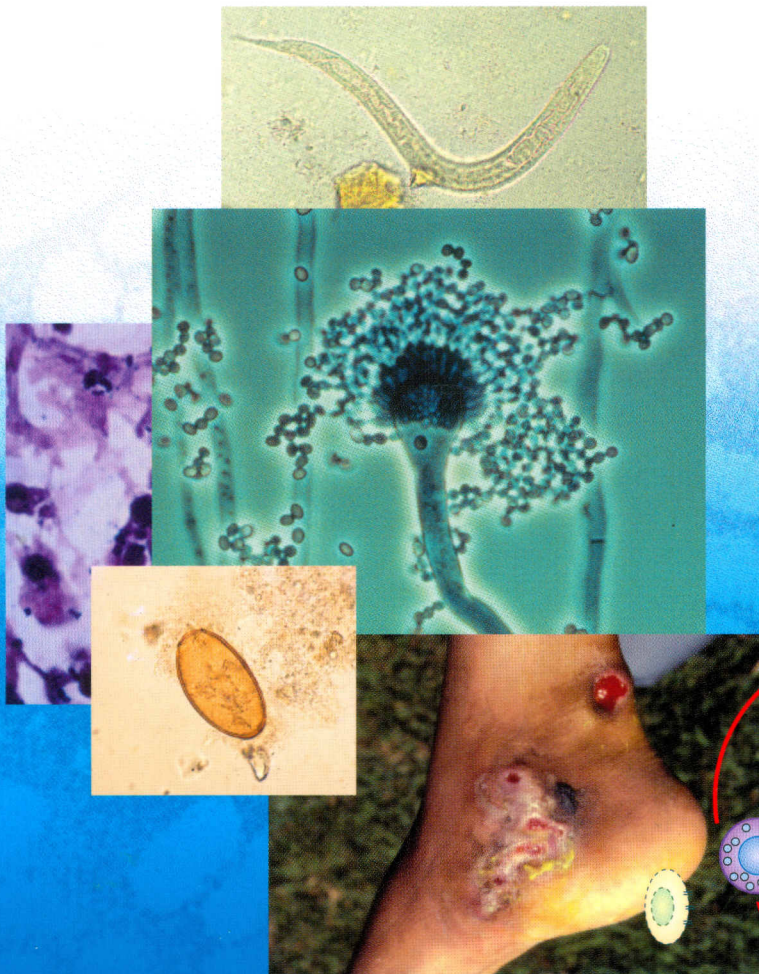
MEDICAL MICROBIOLOGY

SEVENTEENTH
EDITION

A GUIDE TO MICROBIAL
INFECTIONS: PATHOGENESIS,
IMMUNITY, LABORATORY
DIAGNOSIS AND CONTROL

EDITED BY

David Greenwood
Richard Slack
John Peutherer
Mike Barer



CHURCHILL
LIVINGSTONE
ELSEVIER



**PART 1
MICROBIAL BIOLOGY**

- 1 Microbiology and medicine 2
D. Greenwood and M. R. Barer
- 2 Morphology and nature of micro-organisms 8
M. R. Barer
- 3 Classification, identification and typing of micro-organisms 24
T. L. Pitt
- 4 Bacterial growth, physiology and death 38
M. R. Barer
- 5 Antimicrobial agents 52
D. Greenwood and M. M. Ogilvie
- 6 Bacterial genetics 68
K. J. Towner
- 7 Virus-cell interactions 80
M. Norval

**PART 2
INFECTION AND IMMUNITY**

- 8 Immunological principles: antigens and antigen recognition 96
J. Stewart
- 9 Innate and acquired immunity 107
J. Stewart
- 10 Immunity in viral infections 134
J. Stewart
- 11 Parasitic infections: pathogenesis and immunity 142
J. Stewart
- 12 Immunity in bacterial infections 149
J. Stewart

- 13 Bacterial pathogenicity 154
D. A. A. Ala'Aldeen
- 14 The natural history of infection 165
M. R. Barer

**PART 3
BACTERIAL PATHOGENS AND ASSOCIATED DISEASES**

- 15 Staphylococcus 172
Skin infections; osteomyelitis; food poisoning; foreign body infections; MRSA
H. Humphreys
- 16 Streptococcus and enterococcus 178
Pharyngitis; scarlet fever; skin and soft tissue infections; streptococcal toxic shock syndrome; pneumonia; meningitis; urinary tract infections; rheumatic fever; post-streptococcal glomerulonephritis
M. Kilian
- 17 Coryneform bacteria, listeria and erysipelothrux 194
Diphtheria; listeriosis; erysipeloid
J. McLauchlin and P. Riegel
- 18 Mycobacterium 206
Tuberculosis; leprosy
J. M. Grange
- 19 Environmental mycobacteria 221
Opportunist disease
J. M. Grange
- 20 Actinomyces, nocardia and tropheryma 228
Actinomycosis; nocardiasis; Whipple's disease
J. M. Grange
- 21 Bacillus 232
Anthrax; food poisoning
R. W. Titball and H. S. Atkins

- 22 **Clostridium** 240
Gas gangrene; tetanus; food poisoning;
pseudomembranous colitis
T. V. Riley
- 23 **Neisseria and moraxella** 251
Meningitis; septicaemia; gonorrhoea;
respiratory infections
D. A. A. Ala'Aldeen
- 24 **Salmonella** 260
Food poisoning; enteric fever
H. Chart
- 25 **Shigella** 270
Bacillary dysentery
H. Chart
- 26 **Escherichia** 275
Urinary tract infection; travellers' diarrhoea;
haemorrhagic colitis; haemolytic uraemic
syndrome
H. Chart
- 27 **Klebsiella, enterobacter, proteus and other
enterobacteria** 285
Pneumonia; urinary tract infection;
opportunistic infection
H. Chart
- 28 **Pseudomonads and
non-fermenters** 293
Opportunistic infection; cystic fibrosis;
melioidosis
J. R. W. Govan
- 29 **Campylobacter and
helicobacter** 300
Enteritis; gastritis; peptic ulcer
J. M. Ketley
- 30 **Vibrio, mobiluncus, gardnerella and
spirillum** 309
Cholera; vaginosis; rat bite fever
H. Chart
- 31 **Haemophilus** 318
Respiratory infections; meningitis;
chancroid
M. P. E. Slack
- 32 **Bordetella** 325
Whooping cough
N. W. Preston and R. C. Matthews
- 33 **Legionella** 332
Legionnaires' disease; Pontiac fever
J. Hood and G. F. S. Edwards
- 34 **Brucella, bartonella and
streptobacillus** 336
Brucellosis; Oroya fever; trench fever; cat
scratch disease; bacillary angiomatosis; rat
bite fever
M. J. Corbel
- 35 **Yersinia, pasteurilla and
francisella** 343
Plague; pseudotuberculosis; mesenteric
adenitis; pasteurellosis; tularaemia
M. J. Corbel
- 36 **Non-sporing anaerobes** 352
Wound infection; periodontal disease;
abscess; normal flora
R. P. Allaker
- 37 **Treponema and borrelia** 359
Syphilis; yaws; relapsing fever; Lyme
disease
A. Cockayne
- 38 **Leptospira** 369
Leptospirosis; Weil's disease
T. J. Coleman and A. S. Johnson
- 39 **Chlamydia** 375
Genital and ocular infections; infertility;
atypical pneumonia
M. E. Ward
- 40 **Rickettsia, orientia, ehrlichia, anaplasma
and coxiella** 385
Typhus; spotted fevers; scrub typhus;
ehrlichioses; Q fever
D. H. Walker and Xue-Jie Yu
- 41 **Mycoplasmas** 395
Atypical pneumonia; genital tract
infection
D. Taylor-Robinson

PART 4
VIRAL PATHOGENS AND ASSOCIATED DISEASES

- 42 Adenoviruses 408**
 Respiratory disease; conjunctivitis; gut infections
J. S. M. Peiris and C. R. Madeley
- 43 Herpesviruses 415**
 Herpes simplex; varicella and zoster; infectious mononucleosis; B cell lymphomas; cytomegalovirus disease; roseola infantum; Kaposi's sarcoma; herpes B
M. M. Ogilvie
- 44 Poxviruses 440**
 Smallpox; molluscum contagiosum; parapoxvirus infections
T. H. Pennington
- 45 Papillomaviruses and polyomaviruses 446**
 Warts: warts and cancers; progressive multifocal leuco-encephalopathy
H. A. Cubie
- 46 Hepadnaviruses 457**
 Hepatitis B infection; deltavirus infection
P. Simmonds and J. F. Peutherer
- 47 Parvoviruses 467**
 B19 infection; erythema infectiosum
P. J. Molyneaux
- 48 Picornaviruses 476**
 Meningitis; paralysis; rashes; intercostal myositis; myocarditis; infectious hepatitis; common cold
S. M. Burns
- 49 Orthomyxoviruses 489**
 Influenza
S. Sutherland
- 50 Paramyxoviruses 497**
 Respiratory infections; mumps; measles; Hendra/Nipah disease
J. S. M. Peiris and C. R. Madeley
- 51 Arboviruses: alphaviruses, flaviviruses and bunyaviruses 507**
 Encephalitis; yellow fever; dengue; haemorrhagic fever; miscellaneous tropical fevers; undifferentiated fever
A. D. T. Barrett and S. C. Weaver
- 52 Togavirus and hepacivirus 524**
 Rubella; hepatitis C and E viruses
P. Morgan-Capner, P. Simmonds and J. F. Peutherer
- 53 Arenaviruses and filoviruses 536**
 Lassa, Junin, Machupo, Sabia and Flexal virus haemorrhagic fevers; Marburg and Ebola fevers
C. A. Hart
- 54 Reoviruses 545**
 Gastro-enteritis
N. A. Cunliffe and O. Nakagomi
- 55 Retroviruses 553**
 Acquired immune deficiency syndrome; lymphoma
P. Simmonds and J. F. Peutherer
- 56 Caliciviruses and astroviruses 565**
 Diarrhoeal disease
W. D. Cubitt
- 57 Coronaviruses 573**
 Upper respiratory tract disease
J. M. Darville
- 58 Rhabdoviruses 579**
 Rabies
S. Sutherland
- 59 Transmissible spongiform encephalopathies (prion diseases) 587**
 Scrapie; bovine spongiform encephalopathy; Creutzfeldt-Jakob disease; variant Creutzfeldt-Jakob disease
J. W. Ironside



**PART 5
FUNGAL PATHOGENS, PARASITIC INFECTIONS
AND MEDICAL ENTOMOLOGY**

- 60 Fungi 596
Superficial, subcutaneous and systemic
mycoses
D. W. Warnock
- 61 Protozoa 621
Malaria; toxoplasmosis; cryptosporidiosis;
amoebiasis; trypanosomiasis; leishmaniasis;
giardiasis; trichomoniasis
D. Greenwood
- 62 Helminths 634
Intestinal worm infections; filariasis;
schistosomiasis; hydatid disease
D. Greenwood
- 63 Arthropods 647
Arthropod-borne diseases; ectoparasitic
infections; allergy
D. Greenwood



**PART 6
DIAGNOSIS, TREATMENT AND CONTROL OF
INFECTION**

- 64 Infective syndromes 656
R. C. B. Slack
- 65 Diagnostic procedures 667
R. C. B. Slack
- 66 Strategy of antimicrobial
chemotherapy 674
R. C. B. Slack
- 67 Epidemiology and control of community
infections 684
D. Reid and D. Goldberg
- 68 Hospital infection 693
R. C. B. Slack
- 69 Immunization 702
R. C. B. Slack
- INDEX 713