

GUIDELINES TO ANTIMICROBIAL THERAPY AND THE LABORATORY DIAGNOSIS OF INFECTIOUS DISEASES

FIFTH EDITION

COMPILED BY THE
AMPATH INFECTIOUS DISEASES
PEER GROUP

COPYRIGHT - AMPATH TRUST
JUNE 2017

PATHOLOGISTS · PATOLOË
PROS20005200431

Drs Du Buisson, Kramer, Swart, Boucher Inc./Ing.



PREFACE TO THE FIFTH EDITION

The 4th edition of this book was published in July 2014 and the feedback we received was very favourable together with recommendations on how we could improve future editions, for which we are grateful. Our existing chapters have been extensively revised and updated in line with current local and international guidelines. We have consolidated certain chapters and have included a new chapter on the management of snake and spider bites, and scorpion stings.

A current focus area in clinical microbiology is antimicrobial drug resistance and managing patients with limited or no effective antimicrobial choices. Over the past few years we have seen the emergence and growing prevalence of carbapenem-resistant Enterobacteriaceae, and most recently MCR-1 plasmid mediated colistin resistance in clinical isolates of *Escherichia coli*. In addition, *Candida auris* infections have become increasingly common, particularly in Gauteng, with increasing rates of echinocandin resistance. Antimicrobial stewardship is key to our response and we have included as an introduction, an update on antimicrobial stewardship initiatives in South Africa written by Dr Adrian Brink, Co-Chair of the South African Antibiotic Stewardship Programme. A component of this response is the appropriate use of diagnostic laboratory tests and antimicrobial agents which is further detailed in the chapters that follow.

As with previous editions, this publication is not intended to be comprehensive reference but an easily accessible local guideline to common infectious diseases, with the focus on the appropriate use of laboratory diagnostic tests and antimicrobial therapy.

Dr Craig Corcoran and Dr Marcelle Myburgh

On behalf of the Ampath Infectious Diseases Peer Group

June 2017

Copyright: Ampath Trust

Disclaimer: This document is published for educational purposes. The recommendations are based on currently available scientific evidence together with consensus opinion of the authors.

TABLE OF CONTENTS

Antimicrobial stewardship: From theory to practice 9

ANTIMICROBIAL AGENTS

Chapter 1 19

Prescribing antimicrobials: General principles

Chapter 2 23

Notes on Selected Antibiotics

ANTIMICROBIAL USE IN SPECIFIC PATIENT GROUPS

Chapter 3 39

Antimicrobial use in pregnant and breastfeeding patients

ANTIMICROBIAL PROPHYLAXIS

Chapter 4 47

Pre-exposure and post-exposure prophylaxis

Chapter 5 69

Antibiotic prophylaxis for surgical procedures

Chapter 6 81

Antibiotic prophylaxis for non-surgical procedures

DIAGNOSIS AND MANAGEMENT OF COMMONLY ENCOUNTERED INFECTIONS

Chapter 7	91
Central nervous system infections	
Chapter 8	109
Eye infections	
Chapter 9	131
Ear, nose and throat infections	
Chapter 10	139
Lower respiratory tract infections	
Chapter 11	149
Infective endocarditis	
Chapter 12	157
Gastrointestinal tract infections	
Chapter 13	177
Laboratory diagnosis of urinary tract infections	
Chapter 14	187
Treatment of urinary tract infections	
Chapter 15	197
Genital tract infections	
Chapter 16	215
Bone and joint infections	
Chapter 17	225
Skin and soft tissue infections	
Chapter 18	235
Systemic bacterial syndromes	
Chapter 19	247
Sepsis and septic shock	

FUNGAL INFECTIONS

Chapter 20	255
Antifungal therapy	
Chapter 21	259
Treatment of common fungal infections	

PARASITIC INFECTIONS

Chapter 22	273
Common worm infestations in South Africa	
Chapter 23	281
Malaria: Diagnosis, prevention and treatment	

TUBERCULOSIS

Chapter 24	295
Laboratory diagnosis of mycobacterial infections	
Chapter 25	305
Treatment of mycobacterial infections	

VIRAL INFECTIONS

Chapter 26	323
Diagnosis and treatment of common viral infections	
Chapter 27	353
Management of HIV infection in adults	
Chapter 28	371
Management of HIV infection in children	

PYREXIA OF UNKNOWN ORIGIN

Chapter 29	385
An approach to pyrexia of unknown origin	

ALLERGIES AND IMMUNE DEFICIENCIES

Chapter 30 395

An approach to antibiotic allergies

Chapter 31 407

Primary immune deficiencies

VACCINATION

Chapter 32 421

Vaccination against infectious diseases

SNAKE, SPIDER AND SCORPION BITES AND STINGS

Chapter 33 433

Snake bites, spider bites and scorpion stings:
Diagnosis and management

INDEX 441