

Preface ix

Acknowledgments x

## **Section A: Pharmacology Guidelines**

1 Understanding Minimum Inhibitory Concentrations (MICs) 1

2 Static versus Cidal Antibiotics 1

3 In Vitro versus In Vivo Efficacy 2

4 Approaching Infectious Disease Cases 2

5 Why Antibiotics Fail 4

6 Adjusting Doses in Renal Failure 5

7 Pregnancy Risk Categories 6

8 Lactation Guidelines: Penetration of Drugs into Milk 7

9 Safe Writing Skills 7

10 Basic Math Skills 8

## **Section B: Empiric Therapy Pending Diagnostic Results**

11 Arthritis Osteomyelitis 9

12 Bacteremia and Sepsis 10

13 Central Nervous System Infections (Meningitis) 11

14 Endocarditis (Bacterial) 12

15 Intra-Abdominal Infections 13

16 Neonatal Infections 14

17 Infections Associated with Neutropenia 15

18 Otitis Externa and Otitis Media 15

19 Pancreatitis 16

20 Peritonitis and Abscesses 17

21 Pneumonia/Bronchitis 18

22 Prostatitis 19

23 Pyothorax Infections 20

24 Sinus Infections 20

25 Skin and Soft Tissue Infections 21

26 Urinary Tract Infections 22

### **Section C: Therapy of Established Infections**

27 Acanthamoeba 25

28 Acinetobacter 26

29 Actinomyces 27

30 Adenovirus (Infectious Canine Hepatitis) 28

31 Aelurostrongylus Abstrusus (Feline Lungworm) 29

32 Anaerobic Species (Bacteroides and Prevotella) 30

33 Anaplasma Species 30

34 Ancylostoma Species (Hookworms) 31

35 Ascaris Species (Roundworms) 32

36 Aspergillus Species 33

37 Babesia Species 35

38 Bartonella Species (Cat Scratch Disease) 36

39 Blastomycosis 37

40 Bordetella Bronchiseptica (Kennel Cough) 38

41 Borrelia Burgdorferi (Lyme Disease) 39

42 Brucella (Canine Brucellosis) 40

43 Calicivirus 42

44 Campylobacter Species 43

45 Candida Species 43

46 Canine Influenza Virus (CIV) 44

47 Capillaria Aerophila (Lungworm) 45

|    |                                                           |    |
|----|-----------------------------------------------------------|----|
| 48 | Cestode Species (Tapeworms)                               | 46 |
| 49 | Cheyletiella Species (Walking Dandruff)                   | 47 |
| 50 | Chlamydia Species                                         | 48 |
| 51 | Citrobacter Species                                       | 49 |
| 52 | Clostridium Difficile                                     | 50 |
| 53 | Clostridium Tetani/Botulinum                              | 51 |
| 54 | Coccidiomycosis                                           | 52 |
| 55 | Corynebacterium Species                                   | 53 |
| 56 | Coxiellosis Species (Q Fever)                             | 54 |
| 57 | Cryptococcus Species                                      | 55 |
| 58 | Cryptosporidium Species                                   | 56 |
| 59 | Ctenocephalides Species (Fleas)                           | 56 |
| 60 | Cuterebra Species (Botfly Larvae)                         | 57 |
| 61 | Cytauxzoon Felis                                          | 59 |
| 62 | Dematiaceous Fungi (Phaeohypomycosis Chromoblastomycosis) | 59 |
| 63 | Demodex Canis/Felis (Red Mange)                           | 60 |
| 64 | Dermatophytosis                                           | 61 |
| 65 | Dipylidium Caninum (Flea Tapeworm)                        | 62 |
| 66 | Dirofilaria Immitis (Heartworm)                           | 63 |
| 67 | Distemper (Canine)                                        | 64 |
| 68 | Ehrlichia Species                                         | 65 |
| 69 | Entamoeba Histolytica                                     | 66 |
| 70 | Enterobacter Species                                      | 67 |
| 71 | Enterococcus                                              | 68 |
| 72 | Erysipelothrix Species                                    | 69 |
| 73 | Escherichia Coli (Enterotoxigenic/Enterohemorrhagic)      | 70 |

- 74 *Escherichia Coli* (Nonenterohemorrhagic) 71
- 75 Feline Coronavirus (Feline Infectious Peritonitis: FIP) 72
- 76 Feline Immunodeficiency Virus (FIV) 73
- 77 Feline Leukemia Virus (FeLV) 74
- 78 Feline Panleukopenia Virus 75
- 79 *Francisella Tularensis* (Tularemia) 75
- 80 *Fusarium* Species 76
- 81 *Giardia* Species 77
- 82 *Helicobacter* Species 78
- 83 *Hepatozoon Americanum/Canis* (Hepatozoonosis) 79
- 84 Herpes Virus (Canine) 80
- 85 *Histoplasma Capsulatum* 80
- 86 *Hyalohyphomycosis* (*Paecilomyces/Scedosporium*) 81
- 87 *Isospora* Species 82
- 88 *Klebsiella* Species 83
- 89 Leishmaniosis 84
- 90 *Leptospira* Species 85
- 91 Lice 86
- 92 *Malassezia* 87
- 93 Microsporidia 88
- 94 *Mucor* Species 89
- 95 *Mycobacterium* Species 90
- 96 *Mycoplasma* Species 91
- 97 Myiasis (Maggots) 92
- 98 *Neospora Caninum* 92
- 99 *Neorickettsia Helminthoeca* 93

- 100 Nocardia Species 94
- 101 Otodectes Cynotis (Otodectic Mange) 95
- 102 Papilloma Virus 96
- 103 Paragonimus Species (Liver Flukes) 97
- 104 Parvovirus 97
- 105 Pasteurella Species 98
- 106 Poxvirus 99
- 107 Proteus Species 100
- 108 Prototheca Species 101
- 109 Pseudomonas Aeruginosa 102
- 110 Pseudorabies (Aujeszky's Disease) 103
- 111 Rabies Virus 104
- 112 Rhodococcus Equi 104
- 113 Rickettsia Rickettsii (Rocky Mountain Spotted Fever) 105
- 114 Salmonella Species 106
- 115 Sarcoptes Scabiei (Sarcoptic Mange) 107
- 116 Serratia Species 108
- 117 Shigella Species 109
- 118 Sporothrix Species 110
- 119 Staphylococcus Species 111
- 120 Streptococcus Species 112
- 121 Strongyloides Species (Threadworms) 113
- 122 Toxocara Canis/Cati 114
- 123 Toxoplasma Gondii (Toxoplasmosis) 115
- 124 Trichomonas Species 115
- 125 Yersinia Pestis (Plaque) 116

## **Section D: Antibiotics**

- 126 Amikacin 118
- 127 Amoxicillin 120
- 128 Ampicillin 122
- 129 Azithromycin 124
- 130 Cefadroxil 126
- 131 Cefazolin 128
- 132 Cefdinir 130
- 133 Cefepime 132
- 134 Cefotaxime 134
- 135 Cefovecin 136
- 136 Cefoxitin 138
- 137 Cefpodoxime 140
- 138 Ceftazidime 142
- 139 Ceftiofur 143
- 140 Cefuroxime 145
- 141 Cephalexin 147
- 142 Chloramphenicol 149
- 143 Ciprofloxacin 151
- 144 Clarithromycin 153
- 145 Clavamox 155
- 146 Clindamycin 157
- 147 Dicloxacillin 159
- 148 Doxycycline 161
- 149 Enrofloxacin 163
- 150 Erythromycin 166

151 Florfenicol 168  
152 Gentamicin 170  
153 Imipenem and Cilastatin 172  
154 Linezolid 174  
155 Marbofloxacin 176  
156 Meropenem 178  
157 Metronidazole 180  
158 Minocycline 182  
159 Nitrofurantoin 185  
160 Orbifloxacin 187  
161 Oxytetracycline 189  
162 Penicillin 191  
163 Pradofloxacin 193  
164 Rifampin 195  
165 Potentiated Sulfas 197  
166 Timentin 200  
167 Tobramycin 202  
168 Tylosin 204  
169 Unasyn 206  
170 Vancomycin 208  
171 Zosyn 211

**Section E: Antifungal Agents**

172 Amphotericin B 221  
173 Caspofungin 224  
174 Clotrimazole 226  
175 Enilconazole 228

176 Fluconazole 230

177 Flucytosine 232

178 Itraconazole 234

179 Ketoconazole 237

180 Posaconazole 239

181 Terbinafine 241

182 Voriconazole 243

## **Section F: Antiparasitic Agents**

183 Albendazole 247

184 Atovaquone 249

185 Fenbendazole 251

186 Fipronil 253

187 Imidacloprid 255

188 Imidocarb Dipropionate 257

189 Ivermectin 259

190 Lufenuron 262

191 Meglumine Antimoniate 263

192 Melarsomine 265

193 Miltefosine 268

194 Milbemycin Oxime 269

195 Moxidectin 272

196 Nitazoxanide 274

197 Nitenpyram 276

198 Ponazuril (Toltrazuril Sulfone) 278

199 Praziquantel 280

200 Primaquine Phosphate 282



201 Pyrantel Pamoate 283

202 Ronidazole 285

203 Selamectin 287

204 Spinosid 289

205 Sulfadimethoxine 291

206 Tinidazole 294

**Section G: Antiviral Agents**

207 Acyclovir 297

208 Famciclovir 299

209 Cidofovir 301

210 Idoxuridine 302

211 Oseltamivir 304

212 Vidarabine 306

213 Zidovudine 307

Index 310