

Table of contents

Contributors ix

Preface xi

Acknowledgements xiii

Chapter 1 Advancing Veterinary Pain Management into a New Era 1
Patricia R. Zehna

Chapter 2 Pain Management Careers for Veterinary Technicians and Nurses 8
Mary Ellen Goldberg, Kristen Hagler, and Janel Holden

Chapter 3 Pain Recognition in Companion Species, Horses, and Livestock 15
Cheryl Irzyk Kata, Samantha Rowland, and Mary Ellen Goldberg

Chapter 4 Physiology of Pain 30
Kristen Cooley

Chapter 5 Analgesic Pharmacology 42
Michelle Albino

Chapter 6 Locoregional Analgesic Blocking Techniques 67
Mary Ellen Goldberg, Nancy Shaffran, Kim Spelts, David Liss, Tasha McNerney, Trish Farry, Samantha Rowland, and Jennifer L. Dupre

Chapter 7 Surgical Pain Management 93
Tasha McNerney and Trish Farry

Chapter 8 Analgesia for Emergency and Critical Care Patients 115
Kim Spelts and David Liss

Chapter 9 Chronic Pain Management for the Companion Animal 125
Christopher L. Norkus

Chapter 10 Analgesia for Shelter Medicine and Trap-Neuter-Return Programs 147
Mary Ellen Goldberg

Chapter 11 Analgesia in Equine Practice 157
Samantha Rowland and Jennifer L. Dupre

Chapter 12 Analgesia for Livestock and Camelids 185
Mary Ellen Goldberg

Chapter 13 Analgesia in Exotic Animals 216
Kate Lafferty, Stephen J. Cital, and Mary Ellen Goldberg

Chapter 14 Analgesia for Zoo Animal and Wildlife Practice 263

Lindsay Wesselmann, Stephen J. Cital, and Mary Ellen Goldberg

Chapter 15 Nutritional Considerations for Pain Management in Dogs and Cats 286

Kara M. Burns

Chapter 16 Physical Rehabilitation and the Veterinary Technician 295

Stephanie Ortel

Chapter 17 The Veterinary Technician in Alternative Therapies 309

Stephanie Ortel, Mary Ellen Goldberg, Lis Conarton, Kari Koudelka, and Robin Downing

Chapter 18 Pain Management for End-of-Life Care 331

Amir Shanan

Appendices

Appendix A: Formulary 340

Appendix B: Constant Rate Infusions Example Calculations 384

Appendix C: Critical Care Case Studies 393

Appendix D: Routine Case Protocols 396

Appendix E: Key Signs of Pain According to Chapters of Text 399

Appendix F: Further Reading 401

Index 403