

Second Edition

Hospice and Palliative Care for Companion Animals

Principles and Practice

Edited by

Amir Shanan • Jessica Pierce • Tamara Shearer



WILEY Blackwell

Hospice and Palliative Care for Companion Animals

Hospice and Palliative Care for Companion Animals

Principles and Practice

Second Edition

Edited by

Amir Shanan, DVM

*Founder, International Association for Animal Hospice and Palliative Care
Compassionate Veterinary Hospice, Chicago, IL, USA*

Jessica Pierce, BA, MTS, PhD.

*Center for Bioethics and Humanities, University of Colorado, Anschutz Medical Campus
Denver, CO, USA*

Tamara Shearer, MS, DVM, CCRP, CVPP, CVA, MSTCVM

Western Carolina Animal Pain Clinic

Sylva NC, USA

Shearer Pet Health Hospital, USA

WILEY Blackwell

This edition first published 2023
© 2023 by John Wiley & Sons, Inc.

Edition History

John Wiley & Sons, Inc. (1e, 2017)

All rights reserved. No part of this publication may be reproduced, stored in a retrieval system, or transmitted, in any form or by any means, electronic, mechanical, photocopying, recording or otherwise, except as permitted by law. Advice on how to obtain permission to reuse material from this title is available at <http://www.wiley.com/go/permissions>.

The right of Amir Shanan, Jessica Pierce, Tamara Shearer to be identified as the authors of the editorial material in this work has been asserted in accordance with law.

Registered Office

John Wiley & Sons, Inc., 111 River Street, Hoboken, NJ 07030, USA

For details of our global editorial offices, customer services, and more information about Wiley products visit us at www.wiley.com.

Wiley also publishes its books in a variety of electronic formats and by print-on-demand. Some content that appears in standard print versions of this book may not be available in other formats.

Trademarks: Wiley and the Wiley logo are trademarks or registered trademarks of John Wiley & Sons, Inc. and/or its affiliates in the United States and other countries and may not be used without written permission. All other trademarks are the property of their respective owners. John Wiley & Sons, Inc. is not associated with any product or vendor mentioned in this book.

Limit of Liability/Disclaimer of Warranty

The contents of this work are intended to further general scientific research, understanding, and discussion only and are not intended and should not be relied upon as recommending or promoting scientific method, diagnosis, or treatment by physicians for any particular patient. In view of ongoing research, equipment modifications, changes in governmental regulations, and the constant flow of information relating to the use of medicines, equipment, and devices, the reader is urged to review and evaluate the information provided in the package insert or instructions for each medicine, equipment, or device for, among other things, any changes in the instructions or indication of usage and for added warnings and precautions. While the publisher and authors have used their best efforts in preparing this work, they make no representations or warranties with respect to the accuracy or completeness of the contents of this work and specifically disclaim all warranties, including without limitation any implied warranties of merchantability or fitness for a particular purpose. No warranty may be created or extended by sales representatives, written sales materials or promotional statements for this work. The fact that an organization, website, or product is referred to in this work as a citation and/or potential source of further information does not mean that the publisher and authors endorse the information or services the organization, website, or product may provide or recommendations it may make. This work is sold with the understanding that the publisher is not engaged in rendering professional services. The advice and strategies contained herein may not be suitable for your situation. You should consult with a specialist where appropriate. Further, readers should be aware that websites listed in this work may have changed or disappeared between when this work was written and when it is read. Neither the publisher nor authors shall be liable for any loss of profit or any other commercial damages, including but not limited to special, incidental, consequential, or other damages.

Library of Congress Cataloging-in-Publication Data

Names: Shanan, Amir, editor. | Pierce, Jessica, 1965– editor. | Shearer, Tamara S., editor.

Title: Hospice and palliative care for companion animals : principles and practice / edited by Amir Shanan, Jessica Pierce, Tamara Shearer.

Description: Second edition. | Hoboken, NJ : Wiley-Blackwell, 2023. |

Includes bibliographical references and index.

Identifiers: LCCN 2022037174 (print) | LCCN 2022037175 (ebook) | ISBN 9781119808787 (paperback) | ISBN 9781119808794 (adobe pdf) | ISBN 9781119808800 (epub)

Subjects: MESH: Pets | Animal Diseases | Hospice Care | Palliative Care | Human-Animal Bond | Veterinary Medicine

Classification: LCC SF981 (print) | LCC SF981 (ebook) | NLM SF 981 | DDC 636.089/6029–dc23/eng/20220826

LC record available at <https://lcn.loc.gov/2022037174>

LC ebook record available at <https://lcn.loc.gov/2022037175>

Cover image: © Anna Kraynova/Shutterstock, Lenar Nigmatullin/Shutterstock

Cover design by Wiley

Set in 9.5/12.5pt STIXTwoText by Straive, Pondicherry, India

Contents

List of Contributors	xxi
Acknowledgments	xxiii
About the Companion Website	xxiv

Part I Core Concepts 1

1 Introduction	3
<i>Jessica Pierce, BA, MTS, PhD</i>	
References	5
Further Reading	5
2 What Is Animal Hospice and Palliative Care?	6
<i>Amir Shanan, DVM and Tamara Shearer, MS, DVM, CCRP, CVPP, CVA, MSTCVM</i>	
Introduction	6
History of Animal Hospice	8
Scientific and Philosophical Roots	8
Early Beginnings	9
Organization and Recognition	10
Animal Hospice and Human Hospice	12
Ethical and Legal Differences	12
Economic Differences	13
Summary	14
References	14
3 The Interdisciplinary Team	16
<i>Tammy Wynn, MHA, LISW, RVT, CHPT and Amir Shanan, DVM</i>	
Interdisciplinary Teams in Human Hospice and Palliative Care	16
Interdisciplinary Teams (IDT) in Animal Hospice and Palliative Care	17
Operating a Successful Interdisciplinary Team	18
Common Mission and Vision	18
Team members, Their Roles, and Responsibilities	19
Effective Communication and Collaboration	22
Summary	25
References	25

4 Quality of Life Assessments 26*Jessica Pierce, BA, MTS, PhD and Amir Shanan, DVM*

What are Quality of Life Assessments and Why are they Important in End-of-Life Care? 26

Definitions of Quality of Life 26

Quality of Life and Well-being 27

Quality of Life Assessments and Euthanasia Decisions 28

The Importance of Context in Quality of Life Assessment 28

Quality of Life and Patient-Centered Care 29

Physical Discomfort, Emotional Distress, Pain, and Suffering 30

Coping and Adaptation 32

Measuring Quality of Life in Animal Patients 33

A Variety of Approaches to QOL 34

McMillan's Affect Balance Model 35

Weighing Positive and Negative Affect at the End of Life 36

Quality of Life Assessment Tools 36

Quality of Life Assessment Over Time 38

Summary 40

References 40

Further Reading 42

5 Recognizing Distress 44*Emma K. Grigg, PhD, CAAB, Suzanne Hetts, PhD, CAAB, and Amir Shanan, DVM*

Stress, Distress, Emotions, and Suffering 44

The Stress Response 44

What Is Distress? 45

Behavioral Needs of Dogs and Cats 46

Assessing Quality of Life in Nonhuman Animals 47

Relevance to Animal Hospice and Palliative Care (AHPC) 48

Are Humans Adept at Recognizing Emotional States in Animals? 49

Body Language of Fear, Anxiety, and Pain 49

Fear- and Discomfort-Related Body Postures Commonly Observed in Dogs and Cats 49

Pain-Related Facial Expressions Commonly Observed in Dogs and Cats 51

Relevance to Animal Hospice and Palliative Care (AHPC) 52

Changes in Behavioral Patterns as Indicators of Pain and Distress 53

Do Animals "Hide" their Pain? 53

Decreased Response to and Engagement with their Surroundings 54

Unusual Patterns of Movement or Positioning 55

Focused Attention to One Specific Body Part 56

Displacement Behaviors 56

Can Sick Animals Suffer from Boredom? 56

Relevance to Animal Hospice and Palliative Care (AHPC) 57

End-of-Life Decisions 57

Conclusion 58

References 58

6	Balancing Efficacy of Treatments Against Burdens of Care	62
	<i>Kristina August, DVM, GDVWHM, CHPV</i>	
	Establishing the Goals of Care	63
	Assessing Efficacy and Burdens of Medical Treatment	66
	Assessment of Treatment Efficacy	66
	Appetite and Hydration Needs at the End of Life	66
	Emotional Well-Being	67
	Animal Individual Preferences	67
	Do-Not-Resuscitate and “Advance Directives”	67
	Assessment of Treatment Burden	68
	Assessing Diagnostic Procedures	69
	Adverse Events: Treatment-Related Consequences	70
	Steroids and End-of-Life Care	71
	Adverse Events: Indirect Consequences of Medical Care	71
	Assessing the Burdens of Caregiving	72
	Conclusion	73
	References	73
7	Ethical Decision-Making in Animal Hospice and Palliative Care	76
	<i>Jessica Pierce, BA, MTS, PhD and Amir Shanan, DVM</i>	
	A Method for Moral Decision-Making	77
	Part 1: Clinical Considerations and Their Moral Dimensions	77
	Part 2: Patient Considerations: How the Animal Feels and What the Animal Wants	78
	Understanding What Animals Want	79
	Will to Live	79
	Respecting What Animals Want	80
	Suffering	80
	Part 3: Human Factors Influencing Moral Decision-Making	83
	Providing Adequate Information	85
	Guiding Client Decision-Making: How Much Is Too Much?	86
	Guiding the Choice between Euthanasia and Continued Palliative Care	88
	Societal Ethics and the Role of Cultural Values	90
	Ethical Business Practices	91
	Moral Stress, Decisional Regret, and Mental Health	91
	Conclusion: Finding the Path of Least Regrets	92
	References	93
8	Supportive Relationships: Veterinarians and Animal Hospice Providers’ Nonmedical Roles	95
	<i>Amir Shanan, DVM and Laurel Lagoni, MS</i>	
	Defining the Nonmedical Roles of Veterinary Professionals and Other Animal Hospice Providers (except licensed mental health professionals)	98
	The Role of Source of Support	98
	The Role of Educator	100

The Role of Facilitator	100
The Role of Resource and Referral Guide	101
Resources	101
Extended Services	102
Limiting the Role of Animal Hospice Veterinary Professionals and Other Providers (except licensed mental health professionals)	102
Know Thyself, Healer	105
Conclusion	105
Grief Support Resources	106
Memorials and Grief Support Resources	106
Counselors and Grief Support	106
Grief Support Training	106
Books for Caregivers	106
Books for Veterinarians	107
References	107

9 Management and Administration: Business Models 108

<i>Kathleen Cooney, DVM, MS, CHPV, CCFP</i>	
Guidelines for Animal Hospice and Palliative Care Practice	108
Service Delivery Models	109
Model 9.1 Hospice in the Veterinary Hospital Setting	110
Model 9.2 Hospice with Specialized Mobile Veterinarians	112
Model 9.3 Animal Hospice Case Managers	113
Model 9.4 Animal Hospice Sanctuaries/Rescues	114
Practicalities of Starting an Animal Hospice Service	114
Telehealth as a Bridging Component for all Models	117
Conclusion	118
References	119

Part II Patient Care 121

10 Cancers in Dogs and Cats 123

<i>Alice Villalobos, DVM, FNAP and Betsy Hershey, DVM, DACVIM (Oncology), CVA</i>	
Approach to End-of-Life Cancer Patients	124
Tumors of the Skin and Soft Tissues	124
Canine Lymphoma	125
Head and Neck Cancer	126
Oropharyngeal and Neck Tumors in Dogs and Cats	126
Nasal Passage Cancer	127
Brain Tumors	127
Cancer of the Skeletal System	128
Abdominal Tumors	129
Hemangiosarcoma in Dogs	129
Transitional Cell Carcinoma	129
Hepatic, Pancreatic, Intestinal, Adrenal, and Renal Cancer	130
Chest Cavity Tumors	130

Palliative Cancer Medicine	131
Advances in Noninvasive Technology for the Diagnosis of Cancer	134
Summary	135
Conflicts of Interest	135
References	135

11 Integrative Therapies for Palliative Care of the Veterinary Cancer Patient 138

<i>Betsy Hershey, DVM, DACVIM (Oncology), CVA</i>	
Nutrition and Food Therapy	138
Herbs and Supplements	141
Herbal Supplements	141
Antioxidants	143
Medicinal Mushrooms	143
B Vitamins	143
Digestive Enzymes	144
Probiotics	144
Vitamin D	144
Omega-3 Polyunsaturated Fatty Acids (PUFAS)	145
Curcumin	145
High Dose IV Vitamin C Therapy	145
Acupuncture	146
Manual Massage Therapies	147
Energy Therapy (Biofield Therapy)	148
Sound Therapy	148
Reiki, Therapeutic Touch, and Healing Touch Therapies	148
Ozone Therapy	148
Hyperbaric Oxygen Therapy	150
Cannabis and Cannabidiol (CBD) Oil	151
Essential Oils	154
Homeopathy and Homotoxicology	155
Chiropractic	156
Photobiomodulation Therapy (PBM)	157
Summary	158
References	158

12 Chronic Kidney Disease 163

<i>Shea Cox, DVM, CHPV, CVPP and Christie Cornelius, DVM, CHPV</i>	
Description of Disease	163
Disease Trajectory	163
Clinical Manifestations of Disease	163
Management	164
Management of Factors that Accelerate Chronic Kidney Disease Progression	164
Dehydration	164
Nonregenerative Anemia	164
Systemic Hypertension	165
Proteinuria and Activation of the Renin–Angiotensin–Aldosterone System	165
Renal Secondary Hyperparathyroidism	165

Symptomatic, Supportive, and Palliative Therapies 166

Oral Ulcerations and Uremic Gastritis 166

Nausea/Vomiting 166

Constipation/Obstipation 167

Loss of Appetite 167

Urinary Tract Infection 167

Hyperphosphatemia 168

Hypokalemia 168

Seizures 168

Dietary Considerations 168

Other Comfort Measures 168

Conclusion 168

References 169

13 Congestive Heart Failure 171

Shea Cox, DVM, CHPV, CVPP and Christie Cornelius, DVM, CHPV

Description of Disease 171

Disease Trajectory 171

Clinical Manifestations of Disease 171

Palliative Management 172

Pulmonary Edema/Cardiac Function 172

Diuretics 173

Ace Inhibitors 173

Positive Inotrope, Vasodilator 174

Calcium Channel Blocker 174

Pleural and Abdominal Effusion 174

Hypokalemia 174

Prerenal Azotemia 174

Balancing Renal and Cardiac Disease 174

Coughing 175

Respiratory Distress 175

Aortic Thromboembolism 175

Dietary Considerations 176

Heart-Gut Interactions in Heart Failure 176

Other Considerations 176

Conclusion 176

References 176

14 Respiratory Distress 178

Cheryl Braswell, DVM, DACVECC, CHPV, CHT-V, CVPP

Airway Collapse 178

Description 178

Trajectory/Prognosis 179

Manifestations 179

Management 179

Pharmacologic 179

Physical 179

Nutritional	180
Surgery	180
Brachycephalic Airway Obstruction Syndrome	180
Description	180
Trajectory/Prognosis	180
Manifestations	181
Management	181
Pharmacologic	181
Physical	181
Nutrition	181
Surgery	181
Airway Inflammation	181
Description	181
Trajectory/Prognosis	182
Manifestations	182
Management	182
Pharmacologic	182
Physical	183
Nutritional	183
Pneumonia	183
Description	183
Trajectory/Prognosis	183
Manifestations	183
Management	183
Pharmacologic	183
Physical	184
Nutritional	184
The Suffering of Dyspnea: Palliative Care	184
References	185
15 Gastrointestinal Conditions	186
<i>Shea Cox, DVM, CHPV, CVPP and Christie Cornelius, DVM, CHPV</i>	
Inflammatory Bowel Disease	186
Description of Disease	186
Disease Trajectory	186
Clinical Manifestations of Disease	186
Palliative Management	186
Medical Support	186
Immunosuppressive Therapy	186
Antibiotic Therapy	187
Additional Support Therapy	187
Nutritional Support	188
Fecal Microbial Transplantation (FMT): The Ultimate Probiotic	188
Pancreatitis	188
Description of Disease	188
Disease Trajectory	188
Clinical Manifestations of Disease	189

Palliative Management	189
Medical Support	189
Analgesia	189
Antiemetics	189
Antibacterials	189
Immunosuppressants	189
Subcutaneous Fluid Therapy	189
Nutritional Support	189
Cholangitis/Cholangiohepatitis Syndrome	190
Description of Disease	190
Disease Trajectory	190
Clinical Manifestations of Disease	190
Palliative Management	190
Medical Support	190
Antimicrobial Therapy	190
Immunosuppressive Therapy	190
Analgesia	191
Antiemetics	191
Support Therapy	191
Subcutaneous Fluid Therapy	191
Nutritional Support	191
Conclusion	191
References	191
16 Musculoskeletal Disorders	193
<i>Tamara Shearer, MS, DVM, CCRP, CVPP, CVA, MSTCVM</i>	
Osteoarthritis	193
Description	193
Trajectory/Prognosis	194
Manifestations	194
Management	195
Cranial Cruciate Ligament Pathology	197
Description	197
Trajectory/Prognosis	197
Manifestations	197
Management	197
Medical Management	198
Surgical Management	198
Strains, Sprains, and Myofascial Pain	199
Description	199
Trajectory/Prognosis	199
Manifestations	199
Management	199
Coxofemoral Luxation	200
Description	200
Trajectory/Prognosis	200
Manifestations	200
Management	200

Fractures	201
Description	201
Trajectory/Prognosis	201
Manifestations	201
Management	201
Conclusion	201
References	202
17 Nervous System Disease	204
<i>Tamara Shearer, MS, DVM, CCRP, CVPP, CVA, MSTCVM</i>	
Intervertebral Disc Disease	204
Description	204
Trajectory/Prognosis	205
Manifestations	205
Management	206
Cervical Spondylomyelopathy	207
Description	207
Trajectory/Prognosis	208
Manifestations	208
Management	208
Fibrocartilagenous Embolic Myelopathy	208
Description	208
Trajectory/Prognosis	209
Manifestations	209
Management	209
Vestibular Disorders	209
Description	209
Trajectory/Prognosis	210
Manifestations	210
Management	210
Laryngeal Paralysis/Geriatric Onset Laryngeal Paralysis Polyneuropathy	211
Description	211
Trajectory/Prognosis	211
Manifestations	211
Management	211
Degenerative Myelopathy	212
Description	212
Trajectory/Prognosis	213
Manifestations	213
Management	213
Disorders of Micturition/Urination	214
Description	214
Trajectory/Prognosis	214
Manifestations	214
Management	214
Bladder Is Difficult or Cannot Be Expressed	215
Bladder Can Be Expressed with Effort	215
Straining to Urinate with spurts of urine produced	215

- Bladder Easily Expressed with Continuous Leakage 216
- Urine Leakage when Urine Accumulates 216
- Ancillary Therapies for Micturition Disorders 216
- Conclusion 216
- References 216

18 Cognitive Dysfunction 219

- Tamara Shearer, MS, DVM, CCRP, CVPP, CVA, MSTCVM*
- Description 219
- Trajectory/Prognosis 220
- Manifestations 220
- Management 221
 - Client Education and Prevention 221
 - Behavior Modification and Environmental Enhancement 221
 - Diet Modification 222
 - Supplements 222
 - Alternative Care 223
 - Pharmaceutical Interventions 223
- Conclusion 224
- References 225

19 Pharmacology Interventions for Symptom Management 227

- Shea Cox, DVM, CHPV, CVPP*
- Introduction 227
- Pain 227
 - Clinical Signs of Pain 227
 - Behavioral Indicators of Pain 227
 - Pharmacology for Pain Management 228
- Nonsteroidal Anti-Inflammatory Drugs 228
 - Glucocorticoids 229
 - Acetaminophen 229
 - Opioids 229
- Tricyclic Antidepressants 231
- Serotonin-Norepinephrine Reuptake Inhibitors 232
 - Anticonvulsants 232
 - N-methyl-D-aspartate Receptor Antagonists 232
 - Monoclonal antibodies 233
- Pharmacologic Protocols 233
- Assessing Response to Treatment 234
- Anxiety 234
- Dysphoria 236
- Weakness or Fatigue 237
- Respiratory Symptoms 237
 - Dyspnea 237
 - Cough 239
 - Nausea and Vomiting 239
 - Anorexia and Cachexia 240

Dehydration	241
Constipation	241
Oral Health	242
Ulcers	242
Dry Mouth (Xerostomia)	242
Conclusion	242
References	242

20 Physical Medicine and Rehabilitation for Hospice and Palliative Care Patients 245

<i>Tamara Shearer, MS, DVM, CCRP, CVPP, CVA, MSTCVM</i>	
Physical Medicine vs. Physical Rehabilitation	245
Considerations for Physical Medicine with Hospice and Palliative Care Patients	245
Assistive Devices: Priority in Hospice Care	247
Slings and Harnesses	247
Straps and Bands	248
Protective Footwear	248
Support of Joints: Orthotic Devices	249
Support for Paralysis/Pararesis: Carts and Drag Bags	250
Four Simple but Important Manual Therapies and Therapeutic Exercises	250
Range of Motion	250
Assisted Standing and Walking	251
Proprioceptive and Balance Techniques	251
Massage and/or <i>Tui-na</i>	252
The Role of Acupuncture for Hospice and Palliative Care Patients	252
Innovative and Noninvasive Techniques	254
Kinesiology Taping	254
Extracorporeal Magnetotransduction Therapy: EMTT	257
Extracorporeal Shockwave Therapy	257
Targeted Pulsed Electromagnetic Field Therapy	258
Other Therapeutic Modalities for Hospice and Palliative Care Patients	259
Thermal Modalities	259
Photobiomodulation Therapy (also known as Laser Therapy)	260
Pulsed Signal Therapy	261
Electrotherapy	261
Therapeutic Ultrasound	262
Manual Therapy/Medical Manipulation/Chiropractic Care	262
Conclusion	263
References	263

21 Integrative Medicine in Animal Hospice and Palliative Care 265

<i>Kristina August, DVM, GDVWHM, CHPV</i>	
Terms	265
Going Mainstream	266
Safety and Adverse Reactions	267
Healing Philosophies	268
Nutritional Supplements	269
Herbal Medicine	269

Essential Oils	271
Other Therapies	272
Ensuring Quality of Life	273
Reliable Choices and Client Education	273
Conclusion	274
Educational Opportunities	274
References	274

22 Nursing Care for Seriously Ill Animals: Art and Techniques 278

Shea Cox, DVM, CHPV, CVPP and Mary Ellen Goldberg, CVT, LVT, SRA-retired, CCRVN, CVPP, VTS-lab animal-retired, VTS-Physical Rehabilitation-retired, VTS-anesthesia/analgesia-Honorary

Introduction	278
Nurses' Medical Roles	279
Intake	279
Planning of Care	279
Ongoing Monitoring and Assessments	279
Frequency of Assessments	279
Parameters of Assessments	279
Assessment of Pain	280
Pain Scales	280
Assessment of Other Signs of Discomfort	282
Assessment for Dehydration	282
Assessment of Medication Administration	282
Assessment of Mobility	282
Assessment of Mental and Emotional Status	283
Delivery of Care: Nursing Care Considerations	284
Comfort for the Patient	284
Oral and Ocular Comfort	284
Nutrition	286
Hydration	287
Treating Fluid Deficit (Dehydration)	287
Maintenance Fluids Administration	288
Calculating Fluid Deficit	288
Hygiene	288
Bedding	288
Environment	289
Mobility	289
Range of Motion (ROM)	289
Transitions	290
Standby Assisted Standing	290
Weight Shifting Exercises	290
Assisted Standing Exercises	290
Aids for Assisted Standing	290
Mobility Carts	290
Nursing Care for Recumbent Patients	290
Urination	291
Defecation	291

Respiration	291
Skin Care	292
Mobilizing the Recumbent Patient	292
Nurses as Advocates and Educators	292
Nurses' Role as Advocates for Patient and for the Caregiver	293
Nurses' Role as Educators	293
Awareness of Signs of Pain	294
Hygiene and Safety	294
Death and Dying	295
Conclusion	295
References	296
Further Reading	298

23 Comfort Care During Active Dying 299

<i>Gail Pope and Amir Shanan, DVM</i>	
Natural Death and Euthanasia	299
Goals of Caring for the Dying Patient	301
Advance Preparation and Education of Caregivers and Hospice Team	301
Desirable Environment of Care	302
Prognostication	303
Changes During Early and Late Stages of Active Dying	303
Available Information	303
Changes During Early Stages of Active Dying	303
Physical Changes	303
Behavioral Changes	304
Indications of Pain	304
Changes During Late Stages of Active Dying	305
Behavior, Sleeping Pattern, Responsiveness	305
Respiration	305
Eyes, Mucus Membranes, Jaw, and Extremities	306
Muscle Twitching, Stretching, and the Agonal Position	306
Odor	306
Summary	306
At the Time of Death	306
The Different Types of Active Death	308
Managing Clinical Signs During Active Dying	309
Management of Pain	309
Management of Anxiety and Agitation	310
Fatigue and Weakness	310
Loss of Ability to Swallow	311
Respiration	311
Cardiac Dysfunction and Renal Failure	311
Diminished Skin Vitality	311
Mucosal and Conjunctival Care	312
Incontinence	312
Administration of Medications, Fluids, and Food	312
Administration of Fluids	313

Administration of Food	314
Administration of Medications	314
Summary	315
References	315

24 Euthanasia in Animal End-of-Life Care 318

Kathleen Cooney, DVM, CHPV, DACAW

Decision-Making for the Animal Hospice Patient	318
Advance Preparation and Education of the Professional Team	319
Advance Preparation and Education of Caregivers and Family	321
Euthanasia Setting: Desirable Environment of Care	323
Euthanasia Techniques and Criteria	324
Intravenous Injection	325
Intracardiac Injection	325
Intraperitoneal Injection	327
Intrahepatic Injection	328
Intrarenal Injections	329
Variability and Unpredictability	330
References	331

Part III Caregiver Needs: Providing Support 333

25 Caregivers' Emotional Burden: Understanding, Acknowledging, and Addressing Caregivers' Emotional Burden 335

Amir Shanan, DVM

Caregiving Experience	336
The Mental Health Impact of Caregiving	339
Supporting caregivers' Emotional Needs	340
The Role of a Licensed Mental Health Professional	343
Qualified Mental Health Professionals	345
Summary	346
References	347

26 Caregiver Burden in the Companion Animal Owner 349

Mary Beth Spitznagel, PhD and Mark D. Carlson, DVM

What Is Caregiver Burden?	349
A Word About Research Data, the Terminology Used, and this Article's Audience	349
Caregiver Burden Is Present in Owners of Seriously Ill Companion Animals	350
How Caregiver Burden Differs from Other Client Experiences in this Context	350
How Does Caregiver Burden Affect the Veterinary Client?	351
Impact of Caregiver Burden on the Client	351
Impact of Caregiver Burden on the Patient	352
Research-Based Suggestions for Interacting with the Burdened Owner	352
Understand the Owner's Perspective	352
Collaborate on the Care Approach	353
Lighten the Load	353

One Size Does Not Fit All: Toward Individualized Client Interactions	354
Interacting with the Distressed Client	354
Interacting with the Resilient Client	355
Interacting with the Non-Distressed Client	355
Interacting with the “Other Influences” Client	355
More than Compassion Fatigue: When Client Burden Transfers to the Clinician	355
The Burden Transfer DANCE	356
Conclusions	357
References	357
27 Addressing Spiritual Needs of Caregivers	360
<i>Carol Rowehl, LVT, MAR, STM</i>	
Spiritual Needs of Caregivers	361
Spiritual Distress	362
Taking a Spiritual History	363
When to Call in the Experts (and Who Are the Experts?)	364
Spiritual Questions Unique to Veterinary Practice and Hospice and Palliative Care	366
Including a Chaplain on the Interdisciplinary Veterinary/Hospice Team	367
Resources	370
References	371
28 Factors Contributing to the Decision to Euthanize Pet Dogs and Cats	374
<i>Nathaniel Cook, DVM, CVA, CVFT, CTPEP and Beth Marchitelli, DVM, MS</i>	
Introduction	374
Pet Factors: Symptoms and Clinical Signs that Affect Quality of Life	374
Appetite and Weight Loss	375
Appetite	375
Weight Loss	377
Elimination Disorders	377
Impaired Mobility	379
Sensory and Cognitive Decline	380
Dyspnea and Respiratory Compromise	381
Perception of Pain	382
Pet Factors: Severe Illness Diagnosis	382
Cancer	382
Organ Failure: Congestive Heart Failure	383
Endocrine Disorders: Diabetes Mellitus	384
Pet Owner Factors: Psychosocial Factors of Caregiving	384
Conclusion	385
References	385
29 Supporting Other Needs	389
<i>Shea Cox, DVM, CHPV, CVPP and Mary Ellen Goldberg, CVT, LVT, SRA-retired, CCRVN, CVPP</i>	
<i>VTS-lab animal-retired, VTS-Physical Rehabilitation-retired, VTS-anesthesia/analgesia-Honorary</i>	
Caring for the Caregiver: Addressing Emotional and Physical Needs	389
Maintaining Self-Care	390
Maintain Personal Nutrition and Sleep	390

Engage in Exercise	390
Make Time for Relaxation	390
Time Considerations of Hospice Care	391
Managing Time Commitments of Care	391
Tips for Balancing Caregiving with Ongoing Responsibilities	391
Understanding the Physical Labor of Care	391
Utilizing Proper Body Mechanics During Delivery of Care	392
Environmental Considerations of Hospice Care	393
Assessment of the Physical Space	393
Household and Environmental Modifications	393
Financial Considerations of Hospice Care	393
Cost of Medications	394
Cost of Diagnostics	394
Cost of Other Healthcare Providers	394
Cost of Environmental Modifications	394
Cost of End-of-Life Care	394
Helping to Defer Costs of Hospice Care	395
Pet Health Insurance	395
Equipment Rental, Recycling, and Reduced Cost Programs	395
Creating a Memorial Fund	395
Creating a Donation Bank	395
References	396
Further Reading	396
30 Aftercare	398
<i>Coleen A. Ellis, CT, CPLP</i>	
Hospice Options and Accompanying Rituals	398
Emotional Support: Honoring the Journey	401
Assisting Children, Other Pets, and Family Members in Their Journey	402
After-Death Care Options	402
Summary	406
References	406
Index	407

List of Contributors

Kristina August, DVM, GDVWHM, CHPV

Harmony Housecalls
Ames, IA, USA

Cheryl Braswell, DVM, DACVECC, CHPV, CHT-V, CVPP

Regional Institute for Veterinary
Emergencies & Referrals
Chattanooga, TN, USA

Mark D. Carlson, DVM

Stow Kent Animal Hospital
Kent, OH, USA

Nathaniel Cook, DVM, CVA, CVFT, CTPEP

Chicago Veterinary Geriatrics
Chicago, IL, USA

Kathleen Cooney, DVM, CHPV, DACAW

Companion Animal Euthanasia Training
Academy (CAETA)
Loveland, CO, USA
Caring Pathways
Windsor, CO, USA
Colorado State University
Fort Collins, CO, USA

Christie Cornelius, DVM, CHPV

Fair Winds Pet Hospice
Galveston, Texas, USA

Shea Cox, DVM, CHPV, CVPP

Founder, Medical Director, BluePearl
Pet Hospice
Temecula, California

Coleen A. Ellis, CT, CPLP

Founder, Two Hearts Pet Loss Center
Certified in Pet Loss and Grief
Companioning
Southlake, TX, USA

Mary Ellen Goldberg, CVT, LVT, SRA-retired, CCRVN, CVPP, VTS-lab animal-retired, VTS-Physical Rehabilitation-retired, VTS-anesthesia/analgesia-Honorary

Independent Contractor, Canine
Rehabilitation Institute
Boynton Beach, FL, USA

Emma K. Grigg, PhD, CAAB

Lecturer and Staff Research Associate,
University of California, Davis
Davis, CA, USA

Betsy Hershey, DVM, DACVIM (Oncology), CVA

Integrative Veterinary Oncology
Phoenix, AZ, USA

Suzanne Hetts, PhD, CAAB

Animal Behavior Associates, Inc.
Sun City, AZ, USA

Laurel Lagoni, MS

Co-founder, Argus Institute
Colorado State University Veterinary Teaching
Hospital
Co-owner, World by the Tail, Inc.
Fort Collins, CO, USA

Beth Marchitelli, DVM, MS

4 Paws Farewell Mobile Pet Hospice, Palliative
Care and Home Euthanasia
Asheville, NC, USA

Jessica Pierce, BA, MTS, PhD

Center for Bioethics and Humanities
University of Colorado Anschutz
Medical Campus
Denver, CO, USA

Gail Pope

President, Founder, and Educator,
BrightHaven Center for Animal Rescue,
Hospice and Holistic Education
Founding Partner, Instructor, and Mentor,
Animal Hospice Group
Palm Desert, CA, USA

Carol Rowehl, LVT, MAR, STM

Adjunct Chaplain, Hospital of the University
of Pennsylvania
Philadelphia, PA, USA

Amir Shanan, DVM

Founder, International Association for Animal
Hospice and Palliative Care Compassionate
Veterinary Hospice
Chicago, IL, USA

***Tamara Shearer, MS, DVM, CCRP, CVPP,
CVA, MSTCVM***

Smoky Mountain Integrative Veterinary Clinic
Sylva, NC, USA

Chi Institute Faculty
Reddick, FL, USA

Western Carolina Animal Pain Clinic
Sylva NC, USA

Shearer Pet Health Hospital, USA

Mary Beth Spitznagel, PhD

Department of Psychological Sciences
Kent State University
Kent, OH, USA

Alice Villalobos, DVM, FNAP

Pawspice and Animal Oncology
Consultation Service
Hermosa Beach, CA, and Woodland
Beach CA, USA

Tammy Wynn, MHA, LISW, RVT, CHPT

Founder and Owner, Angel's Paws, LLC
Cincinnati, OH, USA

Acknowledgments

Amir Shanan

To my parents, who taught me creativity and resilience, and whose lifelong struggle with grief and post-traumatic stress prepared me for my life's calling.

To my wife, the love of my life, thank you for half a century of friendship, love, support, and sacrifice.

To the books that taught me so much about emotions in human and non-human animals – *The Human-Animal Bond and Grief*, *Mental Health and Well-being in Animals*, and *The Emotional Lives of Animals* –and to (books' authors), the pioneering scholars and authors who eloquently articulated the concepts underlying the mission of Animal Hospice and Palliative Care (AHPC).

To Tina Ellenbogen, Kathryn Marocchino, Coleen Ellis, and Kathy Cooney who helped me lay the foundation of AHPC as an important new field in veterinary medicine and companion animal care.

And to my Co-editors and professional soul mates, Tami Shearer, and Jessica Pierce – thank you for your friendship, support, and guidance throughout the years.

Jessica Pierce

To Ody and Maya, who each in their own way helped me better appreciate the profound challenge and gift of taking that last walk with someone you love.

To Bella, who demonstrates adaptability and optimism in the face of life-altering disability.

To my mother, who showed me how the dying can dwell in possibility.

To my father, who was the most devoted and generous caregiver I can imagine.

To my husband and daughter, who are everything.

To my colleagues and friends in the world of animal hospice – your work on behalf of animals and their people inspires me every day.

To the many caregivers of animals who have shared their stories of pain, struggle, small triumphs, and beauty, and who understand the sacredness of human-animal friendships and the profound importance of a good and meaningful death.

To Amir and Tami, the best collaborators one could ever hope for. It has been an honor working with you both.

Tami Shearer

The support of many family members, friends, and colleagues set the stage for my contributions to this textbook.

To my parents, sister, and brother who were always there when I needed them.

To my late husband, for his tolerance and patience of being married to a veterinarian and his acceptance of the many animals that shared our home throughout the years and were instrumental in my pursuit of hospice and palliative care.

I would like to thank my past and present staff and clients who have inspired me to work hard on their behalf to find solutions to preserve the human-animal bond and prevent distress.

Professional thanks to my special mentors Drs. Don Van Vlerah, Azaria Akashi, Alice Villalobos, and Huisheng Xie who shaped my philosophy of care and improved my ability to treat my patients.

A personal thanks to Amir Shanan and Jessica Pierce who without their dedication and support this publication would not be possible.

From all of us:

We would like to thank Merryl Le Roux, Susan Engelken, Erica Judish, and the rest of the team at Wiley for their hard work on behalf of this project. We are grateful for your dedication to this book.

About the Companion Website

This book is accompanied by a companion website:

www.wiley.com/go/shanan/palliative



The website includes:

- Client handouts.

Part I

Core Concepts

1

Introduction

Jessica Pierce, BA, MTS, PhD

A paradigm shift is under way in how we understand and relate to companion animals. Although neglect and poor treatment are still endemic to pet keeping, a growing number of guardians seek to provide their animals with everything they need to be healthy and happy, including good, quality food; proper socialization; ample physical and mental stimulation; and thoughtful veterinary care during all life stages. As people integrate animals into their families, they are paying more attention to the physical needs of their companions. They are also increasingly attentive to their companion's emotional and behavioral well-being.

At least some of the changes in how people view and relate to companion animals are a result of evolving ideas not just about the human–animal bond, but about animals themselves. Over the past several decades, a tremendous surge in research into animal cognition and emotions has altered our understanding of who animals are, which has led to a much greater appreciation of their intelligence, emotional sensitivity, and sociality. We now understand, for instance, that a whole range of animals, including fish and birds, feel pain in much the same way as humans. We also understand that all mammals – and perhaps other taxa as well – have the same repertoire of basic emotions as humans and many of the same patterns of social attachment. This scientific

knowledge is gradually translating into a greater sense of responsibility for animals and an appreciation of all the good care that this involves for an animal. An example of this translation is the fact that nearly all discussions of well-being now pay attention not only to physical comfort, but also to the emotional and social needs of companion animals.

An outgrowth of this changing paradigm of animals and human–animal relations is that pet guardians and veterinarians are giving greater attention to the final stages of life. When animals are highly valued members of a family, it is only natural that people would strive to provide loving care even as an animal becomes elderly, sick, or otherwise near the end of life. Caregivers and veterinarians are challenging what they see as unnecessarily stark choices: allow an animal to suffer or euthanize; provide aggressive curative treatment; or do nothing. Hospice veterinarians are broadening the possibilities for providing care and helping pet caregivers take a proactive role in making sure animals are eased more gently through their final months, weeks, days, and hours. Furthermore, veterinary teams increasingly recognize that the death of a companion animal can be a source of both meaning and profound suffering for people, and as a result, they are looking for ways to make the dying process less painful not only

Hospice and Palliative Care for Companion Animals: Principles and Practice, Second Edition.

Edited by Amir Shanan, Jessica Pierce, and Tamara Shearer.

© 2023 John Wiley & Sons, Inc. Published 2023 by John Wiley & Sons, Inc.

Companion website: www.wiley.com/go/shanan/palliative

for the animals, but also for their human families. The provision of home-based care allows animals and families a greater measure of privacy and comfort. Finally, hospice veterinary teams are paying attention to the details of death itself, whether it occurs over time and is supported by palliation, or whether euthanasia is the ultimate end point, and are helping caregivers honor their animals through ceremonies, memorials, and aftercare.

In human medicine, end-of-life care has undergone a metamorphosis. After decades of misunderstanding and fear, hospice has been firmly embraced by the public and by health professionals as a sensible and compassionate alternative to intensive, cure-oriented, hospital-based care. Palliative care, which focuses on pain and management of symptoms both in the context of curative treatments and hospice care, finally became a board certified subspecialty of internal medicine in 2006. A similar transition is now occurring within the veterinary realm: more and more veterinarians are interested in offering clients a broad range of end-of-life options, and many are specializing in hospice care and in the treatment of pain.

Hospice care and palliative care represent two separate though overlapping modes of care within human medicine; within veterinary medicine, they are comfortably paired – at least for now – and will likely develop as a single intertwined entity. Although there is currently no certification or advanced training in animal hospice and palliative care, it is our hope that this possibility will eventually be realized in the veterinary field. This book represents a step in this process, by officially introducing the field of Animal Hospice and Palliative Care (AHPC) and providing what we hope will be an indispensable text for hospice and palliative care practitioners.

Four core philosophical concepts lie at the heart of human hospice philosophy, as developed by Cicely Saunders, one of the leading voices of the early hospice movement. These concepts stand at the core of animal hospice, too. And building from these core concepts,

the field can work to develop consensus over how these values can best be served.

- 1) Dying is a meaningful experience. The experiential process of dying involves all aspects of personhood (emotional, physical, spiritual, and social) and can be deeply meaningful, for the dying and for their loved ones.
- 2) Dying takes place within a system of interrelationships and a network of shared meanings. Care should support relational structures, not disrupt them.
- 3) Hospice takes an expansive and holistic view of the nature and relief of suffering. Saunders used the phrase “total pain” to reflect that suffering is not just physical, but also psychological and relational. When it is not possible to eliminate the physical causes of pain, the goal becomes to keep suffering below the level of phenomena experienced by the patient.
- 4) Care should seek to protect the integrity of the patient and allow the patient to live in ways that honor what they find most valuable and meaningful in their lives (Kirk 2014, p. 43).

Animal hospice and palliative care is an inherently moral practice, embodying in its philosophy and practice this basic set of values. It is also an area of heightened ethical complexity: the potential for prolonged life must often be delicately balanced against the potential for suffering, and decisions often have life or death consequences for an animal. As Kirk and Jennings note, ethics is more than just discussing or settling disagreements about right and wrong; it is also about “creating moments of stillness and introspection, allowing teams to identify and explore resonances and dissonances....” and finding “ways of bringing the values, hopes, and fears of team members from the background to the foreground so they can be discussed, explored, addressed” (Kirk and Jennings 2014, p. 4).

As ethicist Courtney Campbell points out (in the context of human hospice), the