

# Review

## Veterinary hospice and palliative care: a comprehensive review of the literature

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**The death of a pet is a universal experience for those who share their lives with animals. In parallel with a rising interest in palliative medicine, hospice care and advance-care planning within human medicine, increasing attention is currently being given to serious illness and death within veterinary medicine. Our ability to prolong life has created the need for thoughtful end of life discourse. Interest in hospice and palliative care for companion animals is on the rise, yet there has been limited scholarly research in these areas to date. This review concludes that veterinary hospice and palliative care is currently hindered by an inadequate amount of scholarly research to guide clinicians. Given a lack of prospective studies in veterinary hospice and palliative care to date, a significant opportunity exists for veterinary teaching institutions to contribute to the literature in an important and growing field.**

MEDICAL advances once thought unthinkable for animals have become standard care within veterinary practice. With this advancement comes hope and promise, but also an array of ethical, emotional, financial and legal issues for veterinarians and pet owners who must navigate a large number of options as a proxy for nonverbal patients who are incapable of making decisions for themselves. Questions regarding what is reasonable or fair to an ailing companion animal, when and whether to stop treatment, what is in the patient's best interest, whether patient and client best interests align, how to judge quality of life and when or whether to purposefully end life via euthanasia are becoming increasingly essential components of veterinary care and decision making. Our ability to prolong life, as we do in human medicine, has created the need for thoughtful end-of-life discourse.

Hospice is the philosophy of care that regards death as a natural process, prioritises comfort and quality of life over quantity of life as death draws near and supports the cultural and spiritual aspects of dying. Palliative care, which may be provided at any time over the course of an illness, is a growing medical speciality that provides expert pain and symptom relief as well as emotional support and help navigating the healthcare system for patients and families. Hospice, simply defined, is palliative care at the end-of-life. While veterinarians have historically provided many of the defining elements of hospice and palliative care, establishment of hospice and palliative care as distinct areas of veterinary practice is a relatively recent phenomenon. Pet owners are increasingly seeking hospice and palliative care for their companion animals (Bishop and others 2008, Richtel 2013, Jarolim 2014, Rich-Kern 2015), yet there has been limited attention in the veterinary literature to date.

The purpose of this review is to identify the literature surrounding hospice and palliative care in veterinary medicine, thereby establishing the current state of the art for these disciplines. This is the first step in building a field of hospice and palliative care within the veterinary profession.

### Literature search

An extensive search of the literature was conducted using: 'hospice', 'palliative care', 'palliative medicine', 'end-of-life care', 'end-of-life training', 'hospice training' and 'palliative care training', with 'veterinarian', 'veterinary', 'animal' and 'pet' (all combinations of groups) on PubMed/Medline, ISI's Web of Science (includes BIOSIS, CABI, Food Science and Technology Abstracts, and Zoological Record), VetMed Resource and Google Scholar. To ensure that no relevant articles were missed, two additional searches were conducted on the same databases. The first using 'grief', 'loss', 'bereavement', 'euthanasia', 'compassion fatigue' and 'moral stress', with 'veterinarian', 'veterinary', 'animal' and 'pet' (all combinations of groups) and the second using 'mental health' and 'suicide' with 'veterinarian' and 'veterinary' (all combinations of groups). The rationale for these additional search terms is the myriad of potential connections between veterinary professional handling of end-of-life issues, veterinarian involvement in client grief and bereavement, veterinarian involvement in euthanasia, moral stress, compassion fatigue, veterinarian mental health and suicide (Fogle and Abrahamson 1990, Adams and others 2000, Cohen 2007, Shaw and Lagoni 2007, Rank and others 2009, Lerner and others 2011, Rollin 2011, Fernandez-Mehler and others 2013, Crane 2014, Tran and others 2014, Nett and others 2015). Each of these subjects stands alone in the literature; however, given the relevance of these topics to comprehensive end-of-life discourse, the author felt that the related literature should be checked for any references to hospice and/or palliative care within the veterinary profession.

All publications were checked for inclusion in the basic list of veterinary medical serials to assure adequate publication impact for peer-reviewed and refereed work (Ugaz and others 2010).

Inclusion criteria for this literature review are: work specifically referencing hospice and/or palliative care in a veterinary setting, or work that directly relates to one or more of the primary objectives or components of hospice and palliative care outlined in the introduction above.

### The literature

Five different types of references on the subject of hospice and palliative care in veterinary medicine are identified. Peer-reviewed

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Golden retrievers Patti (right) & Peppermint (left) snuggling soon before Patti's hospice-supported death in Ithaca, New York



Photograph: Tony Jenis

article or study; refereed work/subject to editorial review; non peer-reviewed section of a peer-reviewed publication; veterinary magazine or association publication; lay magazine or newspaper.

Additionally, five books have chapters devoted to hospice and palliative care (Hancock and others 2004, Villalobos 2008, Shearer 2009b, Jones 2013, Shanan 2015). Others have less hospice-specific, but relevant sections, such as cancer pain management, relationship-centred communication and family-present euthanasia (Lagoni 2011, Lascelles 2013, Shaw 2013). Three veterinary organisations also have position statements on hospice care (American Association of Feline Practitioners 2010, American Veterinary Medical Association [AVMA] 2011, American Association of Human Animal Bond Veterinarians 2014). Finally, the American Animal Hospital Association's Senior Care Guidelines for Dogs and Cats references hospice and palliative care in their section 'End-of-Life Issues' (Epstein and others 2005).

### Peer-reviewed literature

The first published peer-reviewed article on veterinary hospice care, and the only one that focuses on a hospice programme within a veterinary teaching hospital, describes Colorado State University's (CSU) pet hospice programme (Bishop and others 2008). Developed in 2003, CSU's programme was the first academic programme to address the growing need of caring for pets with terminal illnesses. CSU's pet hospice is described as a model for establishing similar programmes in other veterinary colleges (Bishop and others 2008). However, 13 years later, we have had minimal progress from other institutions. Integration of veterinary hospice and palliative care programmes into veterinary teaching institutions is beyond the scope of this review.

The CSU paper introduces the philosophy and best practices of hospice care, as well as a historical framework for the discipline, and addresses some key similarities and differences between human and veterinary hospices. It references the AVMA guidelines for hospice care, stating that these guidelines act as a reference for veterinarians creating hospice programmes across the USA (Bishop and others 2008). The CSU pet hospice programme is outlined, as are its key benefits and challenges for patients, clients, students and veterinarians. Given the similarity of benefits and challenges experienced by those in CSU's academic programme to those in private practice, this paper is pivotal in its ability to formalise in the veterinary literature what many clinicians focusing in these disciplines know from experience in their daily work. Unique to the CSU paper is data on the hospice caseload such as diagnosis, referral source, duration of hospice care and number of contacts between case managers and clients. This type of information is critical for building the hospice and palliative care field within veterinary medicine, and is readily available within human medicine (Institute of Medicine 2015, National Hospice and Palliative Care Organization 2015).

developing the scholarly literature in veterinary hospice and palliative care is one fundamental and essential step in achieving formal acknowledgement of these disciplines within veterinary medicine.

Of particular note is the authors' statement that formal integration of hospice and palliative care principles into zoologic medicine is not only beneficial for patients, but could also provide personal growth opportunities for zoo visitors and staff (Jessup and Scott 2011). This has been borne out by many studies in human medicine, which find that families of terminally and seriously ill patients benefit from hospice and palliative care support, as well as communication regarding serious illness care preferences (Godkin and others 1983, Baer and Hanson 2000, Ringdal and others 2002, Smith and others 2012, Bernacki and Block 2014, You and others 2015). The relationship between family member and professional caregiver satisfaction in hospice care has also been explored in the human literature and could be relevant for veterinary professionals (York and others 2009).

Important contributions to end-of-life discourse in the veterinary profession with relevance to hospice and palliative care, particularly in reference to end-of-life training of veterinary students, have been made by Dickinson's group (Dickinson and others 2010, 2011, Dickinson 2012, Dickinson and Paul 2014). Their project to determine the status of dying, death and bereavement within veterinary curricula was undertaken via a mailed questionnaire to all 28 veterinary colleges in the USA. The response rate was reported as 100 per cent, with 27 (over 96 per cent) of the schools having offerings related to end-of-life issues, 80 per cent of students exposed to these offerings and an average of 14.64 hours devoted to end-of-life issues (Dickinson and others 2010). This is in contrast to earlier assessments that end-of-life training for veterinary students was minimal, with accompanying concerns regarding comfort with and competence in particular end-of-life skills upon graduation such as euthanasia, delivering bad news and dealing with demanding people (Weirich 1988, Tinga and others 2001, Adams and others 2004). One study from the UK reported that 96 per cent of surveyed veterinarians said they had received no formal training in how to explain to a client that an animal is terminally ill, and 72 per cent felt that such training would be useful (Fogle and Abrahamson 1990). There is some evidence of correlation between year of graduation and level of preparedness in end-of-life topics, with recent graduates having more preparation (Dickinson and others 2011). While these statistics are not focused on hospice and palliative care per se, education in these areas is essential for veterinarians, given that skilled end-of-life communication, grief and bereavement support are core competencies for hospice and palliative care practice.

Dickinson lists 'hospice care', 'palliative care' and 'end-of-life decisions' as educational offerings for veterinary students in 4 to 7 per cent of US veterinary schools (Dickinson and others 2010). He acknowledges that simply saying that a topic is covered in the curriculum does not indicate the degree of coverage (Dickinson and others 2010). Regardless, 4 to 7 per cent (one to two) of 28 veterinary



colleges is a very small minority of institutions. A table of results from a similar survey in the UK shows six schools covering communication with owners of dying animals, yet only one school covering 'end-of-life decisions' (Dickinson and Paul 2014). Further investigation into the classifications of these curricular offerings would be useful. Additionally, the reported average of 14.64 hours of end-of-life training within a four-year veterinary curriculum is quite high (Dickinson and others 2010). It neither correlates with personal experience, nor that of colleagues (either for themselves or for their veterinary students) or attendees of continuing education programmes when personally surveyed. Further examination of these data would be beneficial in discerning exactly what is being taught and how it is categorised.

Palliative care as a discipline has received minimal formal integration into the veterinary literature to date. However, veterinarians in this emerging field should be familiar with individual case reports and descriptions of specific palliative procedures and techniques that have been published (Gilson 1998, Mayer and Grier 2006, Coomer and others 2009, Palmquist and Goldstein 2009, Bowles and others 2010, Gibbons and others 2011, Cerf and Lindquist 2012, Hansen and others 2012, Oblak and others 2012, Blackburn and others 2013, Rossmeisl and others 2013, Brace and others 2014, Knapp-Hoch and others 2014, Sabhlok and Ayl 2014, Fujiwara-Igarashi and others 2015).

Additional peer-reviewed material of note for this review includes important work on the veterinarian's role in, and views on, pet loss (Fogle and Abrahamson 1990, Adams and others 1999, 2000, Fernandez-Mehler and others 2013, Rujoiu and Rujoiu 2015). Exploration of pet loss and bereavement literature is beyond the scope of this review. However, the references listed here are highlighted because of their particular focus on veterinarians, as well as relevance to hospice and palliative care delivery within veterinary practice. Given that knowledge of, and support surrounding, loss, grief, and bereavement are core competencies for hospice and palliative care providers, veterinarians involved in this type of practice must have familiarity with these overlapping fields.

Specific education in serious illness communication and goals of care conversations are also essential for veterinarians if they are to be competent in hospice and palliative care delivery. While the broader veterinary communication literature is beyond the scope of this review, there are resources with particular relevance such as communication patterns, wellness versus health problem appointments and evaluation of veterinarian skills in euthanasia discussions (Shaw and others 2006, 2008, Nogueira Borden and others 2010). The human literature has much to offer as well, as goals of care conversations are a core competency of palliative care physicians and the subject of much discourse currently (Ahia and Blais 2014, Bernacki and Block 2014, You and others 2015).

Ethical considerations in veterinary euthanasia are explored in the literature and beyond the scope of this review, however, ethics specifically related to veterinary hospice and palliative care are underrepresented. There are many corresponding resources from human medicine, with paediatric palliative care ethics of particular relevance for veterinarians (Miller 1991, Byock 1994, Doka 2005, Jacobs 2005, Gavrin 2007, Zieske and Abbott 2011, Carter and Wocial 2012). A clinical practice article on ethical perspectives of feline cancer management is recommended, as it specifically references hospice care for cats and addresses key ethical considerations such as surrogate decision-making, informed consent and futility (Moore 2011).

Finally, hospice care for animals has received some attention from the veterinary nursing literature (Kerrigan 2013, 2014, Hewson 2015). This is noteworthy, given the significant contributions of the human nursing profession to the development of hospice for people (Campbell 1986, Dahlin and others 2005, Hoffmann 2005). Veterinary nurses (called technicians in the USA) are a tremendous, currently underused resource for the development of hospice and palliative care within the veterinary profession.

## Editorial reviews

Arguably, the most complete contribution to the professional



Photograph: Genevieve DeClerck

The human-animal bond is often strong in a hospice environment: the hospice family, Genevieve (right), Hugh (left) and Sylvia the dog

veterinary literature in the areas of hospice and palliative care to date is the *Veterinary Clinics of North America: Small Animal Practice*, volume 41, devoted entirely to the subject. Its preface identifies a dearth of information regarding hospice and palliative care applications in veterinary practice, and states that the issue's purpose is 'to give the veterinary profession the tools to care, not cure, when the burden of treatment has no benefit' (Shearer 2011e). A series of articles on various subjects related to hospice and palliative care follows including: pain management, hygiene, rehabilitation, legal issues, decision-making, tips for veterinarians dealing with terminally ill patients, quality of life assessment, history and delivery systems of animal hospice and three case reports (Akashi 2011, Downing and others 2011, Downing 2011a, b, c, Marocchino 2011, Shanan and Balasubramanian 2011, Shanan 2011, Shearer 2011a, b, c, d, Villalobos 2011a, c, d). The volume's limitation is its descriptive and opinion-based nature, with some treatments referenced without drug dosages or specific protocols (Shearer 2011a, Villalobos 2011a). Overall, the issue is a good starting point for additional scholarly work in the areas of veterinary hospice and palliative care.

Shearer's (2011d) contribution, 'Pet hospice and palliative care protocols', is particularly complete. It is recommended for any veterinarian desiring to provide hospice and palliative care to patients, as it addresses a comprehensive list of critical topics, including: circumstances warranting hospice and palliative care, goals of care conversations with clients, development of an individualised care plan, planning for death, education regarding the dying process, veterinary-social work partnerships and various illness trajectories. Palliative sedation is also addressed, which is a topic of much discussion within human medicine and an area deserving of attention within the veterinary profession (Sinclair and Stephenson 2006, Claessens and others 2008, Materstvedt and Bosshard 2009, Quill and others 2009, Alonso-Babarro and others 2010, Maltoni and others 2014).

Other refereed works with particular relevance to veterinary hospice and palliative care are of note. The importance of skillful end-of-life communication by veterinarians has been described, as well as veterinarian awareness of moral stress, compassion fatigue and self care (Cohen 2007, Shaw and Lagoni, 2007, Rollin 2011).

## Non-peer-reviewed publications

This is the most common type of attention to veterinary hospice and palliative care to date within professional publications. In the past 16 years, 11 letters to the editor, news, commentary, careers and conference reflection articles have been published with specific reference to veterinary hospice and/or palliative care (Monti 2000, Rezendes 2006, Nolen 2007, Bittel 2008, Osborne 2009, Feldmann 2011, Johnson and others 2011, Teachout 2012, Cooney 2015, Goldberg 2015, Kahler 2015). These articles all emphasise

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the importance of hospice and palliative care, and advocate for its integration into veterinary practice. Some controversial issues are addressed, primarily in regards to comparisons between human and veterinary hospice care, and balancing client needs with those of the patient (Feldmann 2011, Johnson and others 2011). Recently, the distinctions between mobile euthanasia services and hospice care have been addressed (Goldberg 2015). Additional scholarly work in veterinary hospice and palliative care will help in elucidating these distinctions.

While their inclusion in respected publications is significant, and reflects a growing interest in hospice and palliative care within the veterinary profession, all of these articles are descriptive and opinion-based in nature. The literature must continue to be built with prospective studies and other research-based work in order to bring academic rigour and new knowledge to these developing fields.

### Veterinary magazine and association publications

A handful of publications in this category are relevant because they demonstrate interest from veterinary organisations and industry. The Latham Letter, a publication of the humane organisation The Latham Foundation, indexes 15 articles on hospice care alone; eight are from a 2008 issue devoted entirely to veterinary hospice care (Marocchino and others 2008). The others address pet loss within a hospice context, and development of pet hospice centres and mobile services (Carmack 2009, Shearer 2009a, Smith 2009). Recent attention has been given to veterinary hospice and palliative care by the American Animal Hospital Association (Jarolim 2014, Moger 2015). *Clinician's Brief*, with circulation to small animal veterinarians and their team, has also increased exposure to veterinary hospice topics (McVety 2012a, b, Villalobos 2009, 2011b). While this material provides information regarding hospice and palliative care to a wide readership of veterinary practitioners in the USA, its classification in the literature is confusing; articles are labelled both peer reviewed and a matter of opinion. These articles serve a purpose in exposing veterinarians to hospice concepts, but additional academic rigour is required to move the discipline forward.

### Lay magazines and newspapers

While lay publications are typically not addressed in reviews of medical literature, they are of note here in order to demonstrate the discordance between popular and professional interest in veterinary hospice and palliative care to date, as well as provide context for some of the current barriers to integration within veterinary academia. The full complement of newspaper articles on the subject is too extensive to list here, but end-of-life care for pets has received attention from several major US news organisations in recent years (Battiata 2004, Shaw 2010, Holland 2012, Pierce 2012a, b, Said 2012, Vaughan 2012, Richtel 2013, Weich 2013, English 2014, Rich-Kern 2015, Shellenbarger 2015a, b). Pet interest magazines have also published a handful of features (Cox 2013a, 2013b, Edwards 2004, Goldberg 2014, Rodier 2010). These references are a minute sample of the blogs, websites and miscellaneous articles available to the public. This material is abundant compared to contributions from the professional literature. Not only does this demonstrate significant public interest, but also the importance of professional oversight so that veterinary hospice and palliative care can realise its full potential, validated by the scientific community.

### Research priorities

Veterinary hospice and palliative care is currently hindered by an inadequate amount of scholarly research to guide clinicians. Assessment of veterinary hospice and palliative care training within veterinary teaching institutions since the establishment of CSU's pet hospice programme is of utmost importance, as is exploration of barriers and opportunities for integration of hospice and palliative care into veterinary curricula. Most importantly, all veterinary students, not just 80 per cent of them (Dickinson and others 2010), need to be trained in end-of-life care through their required core curricula, even in the absence of specific hospice and palliative care programmes. UK veterinary schools today are moving in the right direction, with generally higher levels of end-of-life issues coverage than US schools



Photograph: Katherine Goldberg

Ithaca community pet memorial service giving owners the opportunity to memorialise their animals

(Dickinson and Paul 2014). It would be interesting to compare US and UK graduates' level of comfort and competence in end-of-life care. Other areas for future investigation include veterinary hospice census characteristics, patient and family outcomes, goals of care conversations, manner and location of patient death, triggers for palliative care consultation, professional caregiver characteristics and the impact of veterinary-social work partnerships.

This review establishes the current state of veterinary hospice and palliative care within the scholarly literature. As such, it is the first step in developing these fields with academic rigour. Additional work, such as needs assessment(s) that will drive future projects, may now proceed with an understanding of the current literature. Given a lack of prospective studies in veterinary hospice and palliative care to date, a significant opportunity exists for veterinary teaching institutions to contribute to the professional literature in an important and growing field.

### References

- ADAMS, C. L., BONNETT, B. N. & MEEK, A. H. (1999) Owner response to companion animal death: development of a theory and practical implications. *Canadian Veterinary Journal* **40**, 33-9
- ADAMS, C. L., BONNETT, B. N. & MEEK, A. H. (2000) Predictors of owner response to companion animal death in 177 clients from 14 practices in Ontario. *Journal of the American Veterinary Medical Association* **217**, 1303-1309
- ADAMS, C. L., CONLON, P. D. & LONG, K. C. (2004) Professional and veterinary competencies: addressing human relations and the human-animal bond in veterinary medicine. *Journal of Veterinary Medical Education* **31**, 67-72
- AHIA, C. L. & BLAIS, C. M. (2014) Primary palliative care for the general internist: integrating goals of care discussions into the outpatient setting. *Ochsner Journal* **14**, 704-711
- AKASHI, A. (2011) Ten tips for veterinarians dealing with terminally ill patients. *Veterinary Clinics of North America: Small Animal Practice* **41**, 647-649
- ALONSO-BABARRO, A., VARELA-CERDIERA, M., TORRES-VIGIL, I., RODRIGUEZ-BARRIENTOS, R. & BRUERA, E. (2010) At-home palliative sedation for end-of-life cancer patients. *Palliative Medicine* **24**, 486-492
- AMERICAN ASSOCIATION OF FELINE PRACTITIONERS (2010) Position Statement: Hospice for Cats. [www.catvets.com/public/PDFs/PositionStatements/HospiceCare.pdf](http://www.catvets.com/public/PDFs/PositionStatements/HospiceCare.pdf). Assessed date 22 March 2016
- AMERICAN ASSOCIATION OF HUMAN ANIMAL BOND VETERINARIANS (2014) Position Statement: End-of-life Hospice Care. Retrieved from: <http://aahabv.org/end-of-life-hospice-care/> Assessed date 22 March 2016
- AMERICAN VETERINARY MEDICAL ASSOCIATION (2011) Guidelines for Veterinary Hospice Care. Retrieved from: <https://www.avma.org/KB/Policies/Pages/Guidelines-for-Veterinary-Hospice-Care.aspx> Assessed date 22 March 2016
- BAER, W. & HANSON, L. (2000) Families' perception of the added value of hospice in the nursing home. *Journal of the American Geriatrics Society* **48**, 879
- BATTIATA, M. (2004) Whose life is it, anyway? *The Washington Post*. September 23. pp SR10
- BERNACKI, R. E. & BLOCK, S. D. (2014) Communication about serious illness care goals. *JAMA Internal Medicine* **174**, 1994-2003
- BISHOP, G. A., LONG, C. C., CARLSTEN, K. S., KENNEDY, K. C. & SHAW, J. R. (2008) The Colorado State University pet hospice programme: end-of-life care for pets and their families. *Journal of Veterinary Medical Education* **35**, 525-31



- BITTEL, E. (2008) Hospice care symposium 2008 reflections. *Journal of American Holistic Veterinary Medical Association* **28**, 25-28
- BLACKBURN, A., BERENT, A., WEISSE, C. & BROWN, D. (2013) Evaluation of outcome following urethral stent placement for the treatment of obstructive carcinoma of the urethra in dogs: 42 cases (2004-2008). *Journal of the American Veterinary Medical Association* **242**, 59-68
- BOWLES, D. B., ROBSON, M. C., GALLOWAY, P. E. & WALKER, L. (2010) Owner's perception of carboplatin in conjunction with other palliative treatments for cancer therapy. *Journal of Small Animal Practice* **51**, 104-112
- BRACE, M. A., WEISSE, C. & BERENT, A. (2014) Preliminary experience with stenting for management of non-urolith urethral obstruction in eight cats. *Veterinary Surgery* **43**, 199-208
- BYOCK, I. R. (1994) Ethics from a hospice perspective. *American Journal of Hospice and Palliative Care* **11**, 9-11
- CAMPBELL, L. (1986) History of the hospice movement. *Cancer Nursing* **9**, 333
- CARMACK, B. J. (2009) Loss and grief: dimensions in veterinary hospice care. *The Latham Letter* **30**, 11-12
- CARTER, B. S. & WOCIAL, L. D. (2012) Ethics and palliative care: which consultant and when? *American Journal of Hospice and Palliative Care* **29**, 146-50
- CERF, D. J. & LINDQUIST, E. C. (2012) Palliative ultrasound-guided endoscopic diode laser ablation of transitional cell carcinomas of the lower urinary tract in dogs. *Journal of the American Veterinary Medical Association* **240**, 51-60
- CLAESSENS, P., MENTEN, J., SCHOTSMANS, P. & BROECKAERT, B. (2008) Palliative sedation: a review of the research literature. *Journal of Pain and Symptom Management* **36**, 310-333
- COHEN, S. P. (2007) Compassion fatigue and the veterinary health team. *Veterinary Clinics of North America: Small Animal Practice* **37**, 123-134
- COOMER, A., FARESE, J., MILNER, R., LIPTAK, J., BACON, N. & LURIE, D. (2009) Radiation therapy for canine appendicular osteosarcoma. *Veterinary and Comparative Oncology* **7**, 15-27
- COONEY, K. (2015) Offering hospice care for pets. *Veterinary Record* doi:10.1136/vr.h4921
- COX, S. (2013a) Hospice care. *Bark Magazine*. <http://thebark.com/content/hospice-care>. Assessed date 22 March 2016
- COX, S. (2013b) The gift of good-bye. *Bark Magazine*. <http://thebark.com/content/gift-good-bye>. Assessed date 22 March 2016
- CRANE, M. (2014) New research examining the effect of euthanasia on the mental health of veterinarians. *Australian Veterinary Journal* **92**, pp N2
- DAHLIN, C., CARRILLO, J., DEMARCO, K., FARRELL, E., GASPER, A., GUNTER, & OTHERS (2005) Standards for Clinical Education of Hospice and Palliative Nurses, Hospice and Palliative Nurses Association pp 1-16
- DICKINSON, G. E. (2012) Twenty-first century end-of-life issues in selected U.S. professional schools. *Illness, Crisis and Loss* **20**, 19-32
- DICKINSON, G. E. & PAUL, E. S. (2014) UK veterinary schools: emphasis on end-of-life issues. *Veterinary Record* doi:10.1136/vr.102152
- DICKINSON, G. E., ROOF, P. D. & ROOF, K. W. (2010) End-of-life issues in United States veterinary medicine schools. *Society and Animals* **18**, 152-162
- DICKINSON, G. E., ROOF, P. D. & ROOF, K. W. (2011) A survey of veterinarians in the US: euthanasia and other end-of-life issues. *Anthrozoos* **24**, 167-174
- DOKA, K. J. (2005) Ethics, end-of-life decisions and grief. *Mortality* **10**, 83-90
- DOWNING, R. (2011a) A case report: veterinary palliative care and hospice for a west highland terrier with transitional cell carcinoma. *Veterinary Clinics of North America: Small Animal Practice* **41**, 677-681
- DOWNING, R. (2011b) Pain management for veterinary palliative care and hospice patients. *Veterinary Clinics of North America: Small Animal Practice* **41**, 531-550
- DOWNING, R. (2011c) The role of physical medicine and rehabilitation for patients in palliative and hospice care. *Veterinary Clinics of North America: Small Animal Practice* **41**, 591-608
- DOWNING, R., ADAMS, V. H. & MCCLLENAGHAN, A. P. (2011) Comfort, hygiene, and safety in veterinary palliative care and hospice. *Veterinary Clinics of North America: Small Animal Practice* **41**, 619-634
- EDWARDS, K. (2004) Pet hospice: Providing an alternative to end-of-life care. *Bark Magazine* **27**
- ENGLISH, B. (2014) A happier ending for dying pets and their owners. *The Boston Globe*. September 26
- EPSTEIN, M., KUEHN, N. F., LANDSBERG, G., LASCELLES, B. D. X., MARKS, S. L., SCHAEDELER, J. M. & TUZIO, H. (2005) AAHA senior care guidelines for dogs and cats. *Journal of the American Animal Hospital Association* **41**, 81-91
- FELDMANN, B. (2011) Comments on 'elements of, and factors important in, veterinary hospice'. *Journal of the American Veterinary Medical Association* **238**, 563
- FERNANDEZ-MEHLER, P., GLOOR, P., SAGER, E., LEWIS, F. I. & GLAUS, T. M. (2013) Veterinarians' role for pet owners facing pet loss. *Veterinary Record* doi:10.1136/vr.102152
- FOGLE, B. & ABRAHAMSON, D. (1990) Pet loss: A survey of the attitudes and feelings of practicing veterinarians. *Anthrozoos*, **3**, 143-150
- FUJIIWARA-IGARASHI, A., IGARASHI, H., HASEGAWA, D. & FUJITA, M. (2015) Efficacy and complications of palliative irradiation in three Scottish fold cats with osteochondrodysplasia. *Journal of Veterinary Internal Medicine* **29**, 1643-1647
- GAVRIN, J. R. (2007) Ethical considerations at the end-of-life in the intensive care unit. *Critical Care Medicine* **35**, 85-94
- GIBBONS, D. S., BENNETT, A. D. & TREUIL, P. L. (2011) Palliative radiation therapy in the treatment of canine appendicular synovial sarcoma. *Journal of the American Animal Hospital Association* **47**, 359-364
- GILSON, S. D. (1998) Principles of surgery for cancer palliation and treatment of metastases. *Clinical Techniques in Small Animal Practice* **13**, 65-69
- GODKIN, M., KRANT, M. & DOSTER, N. (1983) The impact of hospice care on families. *International Journal of Psychiatry in Medicine* **13**, 153
- GOLDBERG, K. (2014) Saying Good-Bye. *Bark Magazine*. Spring. pp 51-54
- GOLDBERG, K. (2015) In-home euthanasia versus hospice. *Journal of the American Veterinary Medical Association* **246**, 401-402
- HANCOCK, C. G., MCMILLAN, F. & ELLENBOGEN, T. (2004) Owner services and hospice care. In *Geriatrics and Gerontology of the Dog and Cat*. Eds. J. D. Hoskins. Saunders. pp 5-17
- HANSEN K. S., WEISSE C., BERENT A. C., DUNN M., CACERES A.V., TODD K. L. & OTHERS (2012) Use of a self-expanding metallic stent to palliate esophageal neoplastic obstruction in a dog. *Journal of the American Veterinary Medical Association* **240**, 1202-1207
- HEWSON, C. (2015) End-of-life care: the why and how of animal hospice. *Veterinary Nursing Journal* **30**, 287-289
- HOFFMANN, R. L. (2005) The evolution of hospice in America: nursing's role in the movement. *Journal of Gerontological Nursing*, **31**, 26-34
- HOLLAND, G. (2012) How to know when it's time to say goodbye to an animal companion? *LA Times*. October 4
- INSTITUTE OF MEDICINE. (2015) Dying in America. Dying in America: Improving Quality and Honoring Individual Preferences Near the End-of-life. Washington, DC: The National Academies Press
- JACOBS, H. H. (2005) Ethics in pediatric end-of-life care: A nursing perspective. *Journal of Pediatric Nursing* **20**, 360-369
- JAROLIM, E. (2014) Spreading the word on hospice care. *American Animal Hospital Association (AAHA). Trends May*, 39-42
- JESSUP, D. A. & SCOTT, C. A. (2011) Hospice in a zoologic medicine setting. *Journal of Zoo and Wildlife Medicine* **42**, 197-204
- JOHNSON, C. L., PATTERSON-KANE, E., LAMISON, A. & NOYES, H. L. (2011) Elements of, and factors important in, veterinary hospice. *Journal of the American Veterinary Medical Association* **238**, 148-150
- JONES, K. (2013) Pain management in hospice and palliative care. In *Pain Management in Veterinary Practice*. Eds C. Egger, L. Love, T. Doherty. John Wiley & Sons. pp 431-437
- KAHLER, S. C. (2015) The end-all practice: home euthanasia. *Journal of the American Veterinary Medical Association* **246**, 14-16
- KERRIGAN, L. (2013) Veterinary palliative and hospice care – making the transition from 'cure' to 'care'. *Veterinary Nurse* **4**, 316-321
- KERRIGAN, L. (2014) In-home hospice provision – a viable option for veterinary palliative care? *Veterinary Nurse* **5**, 146-151
- KNAPP-HOCH, H. M., FIDEL, J. L., SELLON, R. K. & GAVIN, P. R. (2014) An expedited palliative radiation protocol for lytic or proliferative lesions of appendicular bone in dogs. *Journal of the American Animal Hospital Association* **45**, 24-32
- LAGONI, L. (2011) Family-present euthanasia: Protocols for planning and preparing clients for the death of a pet. In *The Psychology of the Human-Animal Bond*. Ed C. Blazina. Springer Science and Business Media pp 181-202
- LASCELLES, B. D. X. (2013) Supportive care for the cancer patient: (section A) management of chronic cancer pain. In *Withrow and MacEwen's Small Animal Clinical Oncology*. 5th ed Eds S. J. Withrow, D. M. Vail, R. L. Page. Elsevier. pp 245-259
- LENER, H., LINDBLAD, A., ALGERS, B. & LYNÖE, N. (2011) Veterinary surgeons' attitudes towards physician-assisted suicide: an empirical study of Swedish experts on euthanasia. *Journal of Medical Ethics* **37**, 295-298
- MALTONI, M., SCARPI, E. & NANNI, O. (2014) Palliative sedation for intolerable suffering. *Current Opinion in Oncology* **26**, 389-94
- MAROCCHINO, K. D. (2011) In the shadow of a rainbow: The history of animal hospice. *Veterinary Clinics of North America: Small Animal Practice* **41**, 477-498
- MAROCCHINO, K. D., SAUNDERS, B., BAAR, S., BITTEL, E., TIMMINS, R. & RYAN, J. (2008) Veterinary hospice care. *The Latham Letter* **29**, 4-21
- MATERSTVEDT, L. J. & BOSSHARD, G. (2009) Deep and continuous palliative sedation (terminal sedation): clinical-ethical and philosophical aspects. *The Lancet Oncology* **10**, 622-627
- MAYER, M. N. & GRIER, C. K. (2006) Palliative radiation therapy for canine osteosarcoma. *Canadian Veterinary Journal* **47**, 707-709
- MCVET, D. (2012a) A matter of opinion: a case study in hospice care. *Clinician's brief December*, 11-13
- MCVET, D. (2012b) A matter of opinion: veterinary hospice: meditate, meditate, mitigate. *Clinician's Brief February*, 33-36
- MILLER, R. J. (1991) Ethics and hospice physicians. *American Journal of Hospice and Palliative Care* **8**, 17-26
- MOGER, S. (2015) Speaking of Loss: perspectives on hospice and professional grief counseling. *American Animal Hospital Association (AAHA), Trends November*, 28-33
- MONTI, D. J. (2000) Pawspice an option for pets facing the end. *Journal of the American Veterinary Medical Association* **217**, 969
- MOORE, A. S. (2011) Managing cats with cancer: an examination of ethical perspectives. *Journal of Feline Medicine and Surgery* **13**, 661-671
- NATIONAL HOSPICE AND PALLIATIVE CARE ORGANIZATION. (2015) NHPCO's Facts and Figures. Hospice Care in America 3-15
- NETT, R. J., WITTE, T. K., HOLZBAUER, S. M., ELCHOS, B. L., CAMPAGNOLO, E. R., MUSGRAVE, K. J. & OTHERS (2015) Risk factors for suicide, attitudes toward mental illness, and practice-related stressors among US veterinarians. *Journal of the American Veterinary Medical Association* **247**, 945-955
- NOGUIERA BORDEN, L. J., ADAMS, C. L., BONNETT, B. N., SHAW, J. R. & RIBBLE, C. S. (2010) Use of the measure of patient-centered communication to analyze euthanasia discussions in companion animal practice. *Journal of the American Veterinary Medical Association* **237**, 1275-1287
- NOLEN, R. S. (2007) Protecting pet hospice. *Journal of the American Veterinary Medical Association*

## Research

- Association **231**, 1793-1794
- OBLAK, M. L., BOSTON, S. E., HIGGINSON, G., PATTEN, S. G., MONTEITH, G. J. & WOODS, J. P. (2012) The impact of pamidronate and chemotherapy on survival times in dogs with appendicular primary bone tumors treated with palliative radiation therapy. *Veterinary Surgery* **41**, 430-435
- OSBORNE, M. (2009) Pet hospice gaining momentum. *Journal of the American Veterinary Medical Association* **234**, 998-999
- PALMQUIST, R. E. & GOLDSTEIN, R. S. (2009) Case report: longer than expected survival using a novel, integrative approach to hospice in a case of canine osteosarcoma with apparent chest metastasis treated with therapeutic nutrition and homotoxicology. *Journal of the American Holistic Veterinary Medical Association* **28**, 16-25
- PIERCE, J. (2012a) Deciding when a pet has suffered enough. *The New York Times*. September 22
- PIERCE, J. (2012b) Jessica Pierce on Fiona Apple and the loss of a pet: 'It's just a dog. Get over it.' *The Wall Street Journal*. November 30
- QUILL, T. E., LO, B., BROCK, D. W. & MEISEL, A. (2009) Last-resort options for palliative sedation. *Annals of Internal Medicine* **151**, 421-424
- RANK, M. G., ZAPARANICK, T. L. & GENTRY, J. E. (2009) Nonhuman-animal care compassion fatigue: training as treatment. *Best Practices in Mental Health* **5**, 40-61
- REZENDES, A. (2006) More veterinarians offer hospice. *Journal of the American Veterinary Medical Association* **229**, 484-485
- RICH-KERN, S. (2015) Peaceful passings: hospice, palliative care for pets grows in demand. *New Hampshire Business Review*. April 17
- RICHTEL, M. (2013) All dogs may go to heaven. These days, some go to hospice. *The New York Times*. December 1, p A1
- RINGDAL, G. I., JORDHOY, M. S., & KAASA, S. (2002) Family satisfaction with end-of-life care for cancer patients in a cluster randomized trial. *Journal of Pain and Symptom Management* **24**, 53-63
- RODIER, L. (2010) Moving from cure to care. *The Whole Dog Journal*, March, pp 14-19
- ROLLIN, B. E. (2011) Euthanasia, moral stress, and chronic illness in veterinary medicine. *Veterinary Clinics of North America: Small Animal Practice* **41**, 651-659
- ROSSMEISL, J., JONES, J., ZIMMERMAN, K. & ROBERTSON J. L. (2013) Survival time following hospital discharge in dogs with palliatively treated brain tumors. *Journal of the American Veterinary Medical Association* **242**, 193-198
- RUJOIU, O. & RUJOIU, V. (2015) Veterinarians' views on pet loss: evidence from Romania. *Journal of Loss and Trauma* **20**, 139-148
- SABHLOK, A. & AYL, R. (2014) Palliative radiation therapy outcomes for cats with oral squamous cell carcinoma (1999-2005). *Veterinary Radiology and Ultrasound* **55**, 565-570
- SAID, C. (2012) Hospice for pets comforts owners, too. *San Francisco Chronicle*, October 18
- SHANAN, A. (2011) A veterinarian's role in helping pet owners with decision making. *The Veterinary Clinics of North America: Small Animal Practice* **41**, 635-646
- SHANAN, A. (2015) Pain management for end-of-life care. In *Pain Management for Veterinary Technicians and Nurses*. Eds M. E. Goldberg N. Shaffran. John Wiley & Sons. pp 331-339
- SHANAN, A. & BALASUBRAMANIAN, V. (2011) Legal concerns with providing hospice and palliative care. *Veterinary Clinics of North America: Small Animal Practice* **41**, 661-675
- SHAW, J. R. (2013) Supportive care for the cancer patient: Section C) relationship-centered approach to cancer communication. In *Withrow and MacEwen's Small Animal Clinical Oncology* 5th ed Eds S. J. Withrow, D. M. Vail, R. L. Page. Elsevier pp 272-279
- SHAW, J. R., ADAMS, C. L., BONNETT, B. N., LARSON, S. & ROTHER, D. L. (2008) Veterinarian-client-patient communication during wellness appointments versus appointments related to a health problem in companion animal practice. *Journal of the American Veterinary Medical Association* **233**, 1576-1586
- SHAW, J. R., BONNETT, B. N., ADAMS, C. L. & ROTHER, D. L. (2006) Veterinarian-client-patient communication patterns used during clinical appointments in companion animal practice. *Journal of the American Veterinary Medical Association* **228**, 714-721
- SHAW, J. R. & LAGONI, L. (2007) End-of-life communication in veterinary medicine: delivering bad news and euthanasia decision making. *Veterinary Clinics of North America: Small Animal Practice* **37**, 95-108
- SHAW, L. (2010). Hospice care for pets: a viable option. *The Ann Arbor News*. October 18
- SHEARER, T. S. (2009a) Developing a pet hospice care center. *The Latham Letter* **30**, 10-11
- SHEARER, T. S. (2009b) Hospice and palliative care. In *Handbook of Veterinary Pain Management*. Vol 41. Ed. J. Gaynor. Mosby. pp 588-600
- SHEARER, T. S. (2011a) A case report: caring for a golden retriever with nasal cancer. *Veterinary Clinics of North America: Small Animal Practice* **41**, 689-692
- SHEARER, T. S. (2011b) Delivery systems of veterinary hospice and palliative care. *Veterinary Clinics of North America: Small Animal Practice* **41**, 499-505
- SHEARER, T. S. (2011c) Managing mobility challenges in palliative and hospice care patients. *Veterinary Clinics of North America: Small Animal Practice* **41**, 609-17
- SHEARER, T. S. (2011d) Pet hospice and palliative care protocols. *Veterinary Clinics of North America: Small Animal Practice* **41**, 507-518
- SHEARER, T. S. (2011e) Preface: the role of the veterinarian in hospice and palliative care. *Veterinary Clinics of North America: Small Animal Practice* **41**, 3-5
- SHELLENBARGER, S. (2015a) The challenge of grieving for a pet at work. *The Wall Street Journal*. November 10
- SHELLENBARGER, S. (2015b) Coping With the Death of a Pet. *The Wall Street Journal*. November 17
- SINCLAIR, C. T. & STEPHENSON, R. C. (2006) Palliative sedation: assessment, management, and ethics. *Hospital Physician* **42**, 33-38
- SMITH, A. J. (2009) A new option: mobile veterinary hospice care. *The Latham Letter* **30**, 8-10
- SMITH, T. J., TEMIN, S., ALESI, E. R., ABERNETHY, A. P., BALBONI, T. A., BASCH, & OTHERS (2012) American Society of Clinical Oncology provisional clinical opinion: The integration of palliative care into standard oncology care. *Journal of Clinical Oncology* **30**, 880-887
- TEACHOUT, D. (2012) Palliative medicine and hospice care, the third option. *Advances in Small Animal Medicine and Surgery* **25**, 1-3
- TINGA, C. E., ADAMS, C. L., BONNETT, B. N. & RIBBLE, C. S. (2001) Survey of veterinary technical and professional skills in students and recent graduates of a veterinary college. *Journal of the American Veterinary Medical Association* **219**, 924-931
- TRAN, L., CRANE, M. F. & PHILLIPS, J. K. (2014) The distinct role of performing euthanasia on depression and suicide in veterinarians. *Journal of Occupational Health Psychology* **19**, 123-32
- UGAZ, A. G., BOYD, C. T., CROFT, V. F., CARRIGAN, E. E. & ANDERSON, K. M. (2010) Basic list of veterinary medical serials, third edition: using a decision matrix to update the core list of veterinary journals. *Journal of the Medical Library Association* **98**, 282-292
- VAUGHAN, V. (2012) Hospice offers comfort for dying pets. *San Antonio Express*. October 22
- VILLALOBOS, A. E. (2009) Hospice: A way to care for terminal pets. *Clinician's Brief*, May, 39-45
- VILLALOBOS, A. E. (2011a) A case report: Pawspice for a visla with splenic lymphoma. *Veterinary Clinics of North America: Small Animal Practice* **41**, 683-688
- VILLALOBOS, A. E. (2011b) Ask the expert, geriatrics/senior care: end-of-life care. *Clinician's Brief*, December, 21-23
- VILLALOBOS, A. E. (2011c) Assessment and treatment of nonpain conditions in life-limiting disease. *Veterinary Clinics of North America: Small Animal Practice* **41**, 551-563
- VILLALOBOS, A. E. (2011d) Quality-of-life assessment techniques for veterinarians. *Veterinary Clinics of North America: Small Animal Practice* **41**, 519-29
- VILLALOBOS, A. E. (2008) Palliative care: End-of-life 'pawspice' care. In *Canine and Feline Geriatric Oncology: Honoring the Human-Animal Bond*. Ed L. Kaplan. Blackwell. pp 293-318
- WEICH, S. (2013) Veterinary hospice allows pet owners to say goodbye at home. *St. Louis Times*. November 25
- WEIRICH, W. (1988) Client grief following pet loss: implications for veterinary school education. In *Euthanasia of the Companion Animal: The Impact on Pet Owners, Veterinarians, and Society*. Eds W. J. Kay, S. P. Cohen, H. A. Nieburg, C. E. Fudin, R. E. Grey, A. H. Kutscher, M. M. Osman. Charles Press. pp 208-212
- YORK, G. S., JONES, J. L. & CHURCHMAN, R. (2009) Understanding the association between employee satisfaction and family perceptions of the quality of care in hospice service delivery. *Journal of Pain and Symptom Management* **38**, 708-16
- YOU, J. J., DOWNAR, J., FOWLER, R. A., LAMONTAGNE, F., MA, I., JAYARAMAN, D. & OTHERS. (2015). Barriers to goals of care discussions with seriously ill hospitalized patients and their families. *JAMA Internal Medicine* **175**, 1-8
- ZIESKE, M. & ABBOTT, J. (2011) Ethics Seminar: The hospice patient in the ED: An ethical approach to understanding barriers and improving care. *Academic Emergency Medicine* **18**, 1201-1207

# Veterinary hospice and palliative care: a comprehensive review of the literature

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