The history of companion animal euthanasia includes a blend of good and bad methodology, the shifting landscape of the human-animal bond, and maturation of the veterinary euthanasia experience. Time has shown us that critical exploration of what once was acceptable will lead the way to modern best practices. Animal welfare remains at the heart of the procedure, with equally matched attention now given to client and veterinary team well-being. Although euthanasia will continue to evolve, it is clear through the twenty-first century advancements, a tipping point of necessary change is upon us.

The science of transitional states of consciousness is reviewed. Despite intensive study, determining the subjective experience of animals during transitional states of consciousness remains inherently limited. Until better assessment tools become available, behavior-based observations, such as loss of righting reflex/loss of posture, remain among our most useful guides to the onset of unconsciousness in animals. To minimize potential animal suffering and to ensure a truly unconscious state is unambiguously achieved, a state of general anesthesia relying on gamma amino butyric acid type A agonists or N-methyl-d-aspartate antagonist agents continues to be a necessary component of the companion animal euthanasia process.

The pathophysiology of dying and death, related to veterinary patients, has warranted less attention than normal and abnormal physiologic processes related to life preservation. In addition, many veterinary patients are euthanized, which prevents observation of natural disease progression, while ameliorating suffering. Acute death in human medicine can serve as a model for understanding mechanisms of death in veterinary patients under certain conditions. The specific cause of cardiac arrest in several different models of disease elucidates end-stage disease processes. Understanding the path to death and dying in veterinary patients physiologically serves to guide best practices focused on alleviating suffering.
Pre-euthanasia sedation or anesthesia offers many benefits. It allows the owners to spend time with their pet before euthanasia, improves safety for the person performing euthanasia and others who are present, decreases stress for the patient, reduces or eliminates the need for physical restraint for intravenous injection. Under anesthesia, non-intravenous routes may be used for administration of euthanasia solutions. Some drugs that do not require injection; the oral transmucosal route is non-invasive and suitable for several drugs or drug combinations. The oral route also is feasible, but there are fewer data available on suitable drugs and doses.

Kathleen Cooney

There are many acceptable routes of euthanasia solution administration in companion animals. The most common ones are those with consistent use and success, and that align with what is best for the patient, client, and veterinary team. Common injection sites include the venous, hepatic, and renal systems. The barbiturate drugs are in consistent use today, but other drugs may be better given the setting and circumstances at the time. Alternative techniques are available, but only reached for when other more suitable routes of administration are not ideal.

Tamara Shearer

Data collection and research about adverse effects associated with euthanasia are lacking in the veterinary profession. The goal of this article is to review current research about euthanasia and propose concepts to collect and document euthanasia data to support future studies. A better understanding of the side effects witnessed near perimortem should provide benefits to pet owners, veterinarians, and staff, especially if methods are uncovered to minimize or mitigate the adverse events witnessed. Such data can provide valuable insight and guidance in improving the quality of death and furthering education about the dying process.

Beth Marchitelli, Tamara Shearer, and Nathaniel Cook

This article reviews factors contributing to the decision to euthanize a patient by exploring the diagnosis, clinical signs, and triggers behind the choice. By investigating these triggers, the article helps guide practitioners
to proactively manage areas of concern that lead to the decision of euthanasia. Included in this article is a benchmark comprehensive survey for pet families that standardizes documentation of family decision making surrounding end of life and euthanasia. Increased knowledge about diagnosis, clinical signs, and triggers may improve the technical and communication skills of professionals about specific conditions that are encountered at the end of life.

Euthanasia from the Veterinary Client’s Perspective: Psychosocial Contributors to Euthanasia Decision Making

Mary Beth Spitznagel, Beth Marchitelli, Mary Gardner, and Mark D. Carlson

End-of-life decision making for a companion animal relies on the veterinarian acting as educator and counselor. However, little research has been conducted to understand client variables in this context. The current study examined potential client-related contributors to steps taken toward a euthanasia decision. Caregiver burden, anticipatory grief, depression, stress, and income all correlated positively with this outcome. However, when client factors were examined in a regression model controlling for animal quality of life, only caregiver burden and income emerged as significant predictors. All 3 caregiver burden factors: general strain, affective/relation discomfort, and guilt/uncertainty were significantly related to consideration of euthanasia.

Communication: Difficult Conversation in Veterinary End-of-Life Care

Mary Lummis, Beth Marchitelli, and Tamara Shearer

Video content accompanies this article at http://www.vetsmall.theclinics.com.

This article demonstrates how good communication sets the foundation to provide superior comprehensive care during the stressful time surrounding end of life. Communication addressing end-of-life care in veterinary medicine has significant impact on all involved: the patient, the client, the health care team, and the practice. These conversations require training and practice to achieve mutually satisfying outcomes. Suggested guides for facilitating these conversations and several typical scenarios are presented to provide methods for future evidenced-based evaluation in effective communication. The Critical Incident Stress Management is presented as a model for mitigation of adverse consequences related to traumatic events in veterinary practice.

A Comparison of Human and Animal Assisted Dying Protocols

Beth Marchitelli and Jessica Pierce

This article compares human and veterinary assisted dying protocols, exploring the relevant similarities and differences in the practice of euthanasia between these related fields of medicine. Special focus is placed on the use of medical terminology and technical application of drug protocols. Comparative research in this area may provide useful insights for the fields of veterinary medicine and human medicine alike.
Nonpharmacologic Methods to Improve the Euthanasia Experience

Tamara Shearer

Nonpharmaceutical methods to improve the euthanasia experience are equally important as the drugs used to carry out a good euthanasia. Introduction of a hospice care plan to the family and their pet is supportive of all aspects surrounding death including the euthanasia process. This article reviews the tools necessary to use a hospice care plan and covers tips on how to improve the euthanasia experience using commonsense methods that are affordable for the pet owner. The integration of pharmaceutical and nonpharmaceutical methods is paramount in providing a good death.

The Role of the Veterinary Technician in End-of-Life Care

Kelly Carter

In addressing end-of-life care in veterinary medicine, the role of the veterinary technician can have a profound impact on quality of life during the final days in a pet’s life. The role of the veterinary technician in end-of-life care is multifaceted, as duties range from nursing care to social and emotional support for pet caregivers. Human hospice care is helpful as a model to better understand the importance of palliative care in animals. The skills of the veterinary technician are well suited for caring for hospice and palliative care patients. This article demonstrates and reviews how a technician’s expertise is used in end-of-life care including assistance in the euthanasia process.

Case Reports: Challenging Euthanasia Cases

Lauren Orvin

There are many factors that influence a family’s decision for euthanasia, including prognosis, cost of treatment, the pet’s quality of life, and the impact on the family in caring for an ill pet. Owners face the challenge of making the decision for euthanasia, whereas practitioners face the challenge of providing a peaceful and humane euthanasia to the pet and family. The cases discussed in this article explore the challenges surrounding euthanasia of an unpredictably aggressive pet, an obese pet, and a pet with respiratory disease. Each case required improvisation, problem-solving skills, and open communication with the family.