

Tips and Tricks for Behavioral Euthanasia Appointments

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INTRODUCTION

Deciding to euthanize a pet for aggression can be ethically challenging. We usually associate euthanasia with physically ill pets who no longer have a good quality of life (QOL) and see this as a kind choice to end suffering. However, QOL is not just about physical health; it is also about mental health, and animals that are extremely fearful or anxious and show aggressive behavior are also ill. Living in a constant state of fear and anxiety negatively impacts QOL. Dogs that cannot be trusted to have safe social interactions with people or other animals are often kept in housing that is not suitable for a social species which contributes to a poor QOL. Many owners seek professional advice from a behaviorist, enroll their dog in behavior modification training programs, and try behavioral medications before considering euthanasia. There are many ways to approach these situations and clear communication with all stakeholders is key to a good outcome.

COMMUNICATION

It is essential to gather as much information as possible about the dog or cat prior to the appointment. If pre-visit drugs are necessary (dispensed or prescribed), then a veterinarian-client-patient relationship (VCPR) must be established, if one is not already in place. It is important that you gain the owner's trust and that they provide truthful information—this is for their safety, their pet's safety, and your safety. Ask the owner if they can safely transport the pet to your hospital and have it restrained or if they can use an escape-proof carrier. If this is not possible, or they feel it will be extremely stressful for their pet, you may want to refer them to a veterinarian who performs in-home euthanasia. There is a national (US) in-home euthanasia register and you can check by zip code to see if this is an option in their area (see Resources). Explain to the owners that it may take longer than a typical euthanasia appointment and that plans may change during the appointment.

RULES AND REGULATIONS

During the pre-appointment conversation with the owner, it is important to ascertain if there is a bite history and if so, when it occurred. The rabies vaccination status of the pet must be obtained. In situations where a dog, cat, or ferret has bitten a person, a 10-day confinement (a "bite hold") and a bite report are typically required. Rules and regulations vary from state to state and it's important to know what is required by your local health department under these circumstances regarding euthanasia and possible post-euthanasia testing.

RECOGNIZING FEAR, ANXIETY, AND STRESS

Recognizing dog and cat behaviors and reading their body language quickly are superpowers we must develop to avoid being injured. We have to know when to back off and use plan B or C because once things escalate, it is hard to regroup. There are several options for individual and team training to enable us to work with difficult patients; these include but are not limited to Fear Free® training and Cat Friendly programs offered by the American Association of Feline Practitioners (see Resources for details and other options).

PLANNING, STANDARD OPERATING PROCEDURES, AND TRAINING

It is essential that you feel safe and confident during these difficult euthanasia appointments, and this requires pre-planning with the owners and the veterinary team. In dogs, injectable sedation or anesthesia protocols are reliable and can be used if the pet can be safely restrained, preferably with a muzzle; a second choice would be to have a large E-collar on the pet. Injectable techniques are also reliable in cats if they are safely enclosed in a carrier. Assess the situation and create plan A as your goal; be sure to have plans B and C in place as a backup and to know when to switch plans. If things become dangerous, it will be necessary to abort and reschedule. In these situations, identify the trigger that caused the escalation and devise another plan. If the pet cannot be safely restrained for an injection, pre-visit drugs will be necessary. Dogs and cats that are scheduled for euthanasia for behavioral reasons often will respond to drugs very differently than mentally healthy patients. They are "wired" differently and when aroused, seem to be able to "fight" the sedative effects of many drugs, likely due to high sympathetic nervous system activity and circulating catecholamines. It is important to inform owners that you have a plan, but that their pet's illness makes things less predictable.

DRUGS

Pre-visit Drugs (often referred to as pre-visit pharmaceuticals or PVPs).

Using PVPs can render patients calm and relaxed, and they can be used for any pet, regardless of their behavior. For aggressive dog and cat appointments, PVPs are a key step in the process and there are several options for oral administration. PVPs may be given the night before (as a priming dose) and the day of the appointment. In many cases, a single drug will not be sufficient and combinations must be carefully selected to suit specific situations. The goal of pre-visit drugs is to decrease anxiety and fear and also to slow the patient down to facilitate handling; the target is the mind and the body.

Dogs

Individual drugs are listed below; however, use of a single drug is rarely sufficient in many fearful and/or aggressive dogs and it cannot be emphasized enough that responses are highly variable.

Trazodone: Individual variation in response to administration of trazodone is common and not surprising based on a pharmacokinetic study in which time to peak plasma concentration and oral bioavailability were highly variable.¹ Suggested doses range from 3–18 mg/kg; however, some dogs will be sedated on doses in the lower range and some will appear unaffected. Doing a “test dose” is suggested to assess the individual dog’s response and may be possible with a planned canine euthanasia. Trazodone alone is rarely sufficient.

Gabapentin: Gabapentin can also be used in dogs with recommended doses of 20–80 mg/kg 1 to 2 hours prior to euthanasia. This drug has anxiolytic properties and can “slow” some dogs down.

Acepromazine: Acepromazine is a sedative/tranquillizer and is available in liquid (injectable) and tablet formulations. It should not be used as a sole drug in aggressive dogs as they can be aroused and paradoxical reactions can occur. Tablets can be used but the onset time is variable. If the liquid formulation can be given transmucosally (on the gums, or into the buccal pouch, or with peanut butter or whipped cheese that is licked from a plate) onset time is usually more predictable and noticeable sedation usually occurs within 20–30 minutes. Suggested doses range from 2 to 4 mg/kg orally.

Alprazolam: Alprazolam is often used as an adjunctive drug in anxious and/or aggressive dogs and those that show panic reactions to specific triggering events. Alprazolam should be administered 30–60 minutes before a known triggering event (e.g., the presence of a stranger). Its use in aggressive dogs is controversial because there may be paradoxical reactions, including worsening of anxiety and aggression. Because it is not possible to predict the response, testing a dose ahead of the appointment would be ideal. Suggested doses range from 0.02–0.1 mg/kg.

Phenobarbital: Phenobarbital is inexpensive and there are a variety of tablet sizes available (15 mg, 16.2 mg, 30 mg, 32.4 mg, 60 mg, 64.8 mg, 90 mg, 97.2 mg, and 100 mg). Veterinarians within the Lap of Love network suggest doses as high as 70 mg/kg. This is 10 times the dose used to produce sedation for a clinic visit, so it can sound daunting, but remember that our goal is a peaceful euthanasia. It may take up to 4 hours to achieve sedation, therefore timing of administration by the owner is critical. Phenobarbital is best used in combination with other drugs (see below).

Combinations of drugs: Alprazolam and acepromazine can be combined, as can gabapentin and acepromazine (this latter combination is part of the “Chill Protocol,” see page 3 and Resources). Trazodone plus gabapentin is rarely sufficient but the addition of phenobarbital can render some dogs approachable, although caution is still needed as unexpected arousal is possible, especially with sudden movements or loud noises.

These drugs (and those given orally at the appointment) can be given with the dog’s favorite food (including previously forbidden foods like chocolate or greasy hamburgers) since the pet usually has a good appetite and owners like to see them enjoying a good last meal. It can be helpful to have the owners fast the dog before giving oral medications.

Cats

Gabapentin: Gabapentin has a suitable pharmacokinetic profile for oral administration, with a reported mean systemic availability of 90 to 95%.^{2,3} It is frequently used to decrease stress and anxiety in cats caused by transport and veterinary visits. Gabapentin reduced fear responses in community cats (i.e., unsocialized or feral cats).⁴ These reports support its use in cats for a scheduled euthanasia appointment; cats that are still voluntarily eating will usually consume it in a small amount of wet food. The time to maximum plasma concentration and peak clinical effect is between 1 and 2 hours.

Doses are usually given as “mg per cat;” most often 100 mg, 150 mg, or up to 200 mg in large cats. In published studies the effective doses on a mg/kg basis range from 10 to 30 mg/kg. Oral gabapentin often results in a very sedated or “sleepy” cat, but do not let your guard down as they are still arousable.

Trazodone: Trazodone has variable effects in cats, but 100 mg/cat is suggested.

NON-INJECTABLE DRUG ADMINISTRATION AT THE APPOINTMENT

Dogs

Transmucosal detomidine gel (Dormosedan gel®, detomidine hydrochloride, 7.6 mg/mL, Zoetis, USA). Published studies report that doses between 0.35 and 2.0 mg/m² result in good sedation, with an onset time of less than 15 minutes. In these studies, the gel was placed in the buccal pouch, but clearly for aggressive dogs alternatives must be used. Try mixing it with peanut butter, whipped cheese, or thick syrup and placing it on a plastic plate or smearing it on a favorite toy for the dog to lick. A dose of 1.0 mg/m² produced lateral recumbency in approximately 40 minutes.⁵⁻⁷ For pre-euthanasia sedation, a dose of 0.1 mL per 7 kg body weight will usually result in good sedation within 10 minutes, however many clinicians use doses 3 to 5 times higher than this. Do not use detomidine gel in cats as vomiting always occurs and is unpleasant for the cat and observers.⁸

Pentobarbital (powdered formulation) at a dose of 63.2 ± 5.1 mg/kg placed in gel capsules inside food resulted in lateral recumbency in 6 out of 7 dogs in a mean time of 59 minutes.⁹ In the years since that study, to this author’s knowledge, no other studies using this method have been published; however, it is frequently mentioned and discussed. Veterinarians who have used this technique suggest that 90 mg/kg will have an onset time between 45 and 90 minutes and this can be shortened by increasing the dose to 180–270 mg/kg. Liquid formulations can be used but they often dissolve the gel capsules and expose the dog to the bitter taste of the drug. When using the liquid formulation, hide it in high-value foods such as hamburgers, meatballs, hot dogs, or chicken. Sweet treats like cupcakes with icing or Twinkies® can help mask the bitter flavor, as well.

Tiletamine/zolazepam (use the powder in the vial, 20 mg/kg) and **acepromazine** (2 mg/kg) can be hidden in food and after 50 minutes, up to 80% of dogs will be laterally recumbent.⁹ A vial of tiletamine/zolazepam contains 500 mg of powder, which is sufficient for a 25 kg dog. This is a costly protocol for large dogs.

Caution: despite how sedate a dog may look after drugs have been given, be aware that they can be aroused by loud noises, sudden movements, or by being repositioned; therefore, never let your guard down. It is a good idea to prod them gently from a distance with something like a broom to test their response before moving closer.

Cats

Transmucosal tiletamine/zolazepam (100 mg/mL): after buccal administration of 0.1 mL/kg, cats were laterally recumbent (but some could raise their head), did not respond to clippers being turned on, and did not resist physical restraint within 15 minutes.¹⁰ With cats that cannot be approached, I have been successful spraying the tiletamine/zolazepam orally into the mouth through the cage or carrier, or offering it mixed with gravy or maple syrup. Compared to oral ketamine, there is less salivation, but it may still occur.

Aggressive pet euthanasia appointments certainly spotlight the art and science of veterinary medicine. With experience and open discussions, we will continue to learn what combinations work best in different patients and situations. The consensus is to “go big” and combine drugs (i.e., gabapentin, trazodone, and phenobarbital) for large, aggressive dogs.

THE CHILL PROTOCOL (see Resources)

This protocol combines gabapentin, melatonin, and acepromazine and is recommended to facilitate interactions with aggressive and fearful dogs. It is a three-step process. All three drugs can be administered by the owner, but this protocol requires planning and the shortest lead time needed for it to work is 2 hours (if the first dose of gabapentin is omitted). This protocol was developed to facilitate the care of aggressive and fearful dogs in a clinical setting; in a pre-euthanasia setting, higher doses of drugs can be used. The protocol also works in cats.

INJECTABLE DRUG COMBINATIONS

Many injectable protocols will result in deep sedation or anesthesia. In dogs, combinations of ketamine, α_2 -adrenergic drugs (dexmedetomidine, medetomidine, or xylazine), acepromazine, and butorphanol are often used (for drug combinations, see Euthanasia Drug Protocols from Lap of Love in the Resources). If you have a total intramuscular anesthetic technique you use to anesthetize cats for surgery (e.g., some version of “kitty magic”), use this.

TIPS AND TRICKS TO MAXIMIZE SEDATION

1. A hungry animal is more likely to eat food with drugs in it.
2. Choose high-value food and treats.
3. Avoid known triggers (e.g., strangers, restraint).
4. Minimize noise, activity, and the number of people in the area where the sedation and euthanasia will take place. Sometimes the owner may offer drug-laced food in their car outside the clinic (give them gloves to wear in case they touch the food).
5. Leave the pet undisturbed after drugs have been administered, regardless of route.

INJECTION TECHNIQUES

It would be negligent not to mention safety during these appointments. This was touched on earlier but includes training yourself and your staff, knowing when to back off, and always having an escape route and something to protect yourself with or throw over the patient (big blanket, pillows, etc.)

Learn how to administer intramuscular sedative/anesthetic drugs to a dog that cannot be physically restrained (but has a leash and muzzle on) by watching the two videos created by Mele Tong, CVT, VTS Anesthesia & Analgesia on YouTube (see Resources).

The best carriers for difficult cats are constructed with mesh, as you can inject through these. If the cat can be coaxed or transferred into a community cat trap, injection is easily performed just as it's done in community (feral) cat clinics. Excellent cat equipment sources can be found in the Resources section.

Aggressive pet euthanasia appointments are nobody's favorite; however, with good planning, training, the correct drug or drug combination choices, and extra time, they can be well conducted with minimal stress for the patient and without putting you and your staff in harm's way.

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RESOURCES

Where to find an in-home euthanasia provider:

[Vet Angel In-Home Pet Hospice & Euthanasia Provider Directory](#)

Training Programs – animal handling and recognizing the body language of fear, stress, and anxiety

- [Fear Free®](#)
- [Foote and Friends](#)
- American Association of Feline Practitioners [Cat-Friendly Programs](#) – Practice and Individual

Euthanasia Training Programs

[The Companion Animal Euthanasia Training Academy](#) (CAETA)

Animal Handling Programs

- [The National Animal Care and Control Association](#) (NACA)
- Some free NACA online training is available via [Maddie's Fund](#)

[Oral Pre-Visit Pharmaceuticals for Euthanasia](#)

[The Chill Protocol](#) to Manage Aggressive and Fearful Dogs

[Euthanasia Drug Protocols](#) from Lap of Love

IM Injection by Mele Tong, CVT, VTS Anesthesia & Analgesia:

- [IM Sedation with Minimal Restraint](#)
- [Less Stress IM Sedation Setup](#)

Cat Handling Equipment

[Tomahawk Live Trap](#)