



Improving the Euthanasia Experience in the Clinic Setting

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Introduction

- Graduated KSU CVM 2007
- GP associate for 8 years
- HVSN and surgical contract work, GP relief, and vaccine clinics
- Slowly started providing in-home euthanasia to friends and family
- April 2018 I started Tenderheart Vet ~ In-Home Pet Euthanasia
- Memorial Day 2018 – “inherited” a single-doctor practice
- For the next 2 years I juggled HVSN, practice ownership, GP relief, and my growing IHE business
- 2020 brought closure to all my other veterinary endeavors, and I’ve been solely IHE since



Euthanasia – the art of providing a gentle death

- 80-85% dogs die by euthanasia
- 6 million+ dogs die every year in the US
 - Over 5 million dogs euthanized annually
- The inclusion of dogs as “members of the family” is still on the rise, >85% pet owners giving this distinction
- 70% of owners experience emotional impact surrounding the loss of their pet, and 30% report severe grief
- Veterinarians are present at the death of their patients 5x more often than MDs





Managing Experiences

- OWNER
- PATIENT
- VETERINARIAN/STAFF

Owner Experience

Before the appointment

- Prioritize scheduling, within your own boundaries
- Be clear with expectations – which Dr they will be seeing, QOL exam, separate entrance, paperwork, payment, etc
- Provide aftercare info in advance
- Provide opportunity to do as much in advance as possible, but don't require it
 - Software may provide options
 - Jotform for releases
 - Payment before appointment
- Discuss getting patient into clinic
 - Mobility issues for pet or owner
 - Painful, anxious or fractious pets
 - If you have a VCPR and timing allows, offer medications!



Packages

Individual pet cremation offers you peace of mind by helping provide a dignified farewell to a dear friend along with options for your pet's final resting place. Our high quality urns help you memorialize your companion in a meaningful and everlasting way.

Should your family prefer to work with a Wichita based contracting partner animal clinic, your pet will be safe in the trained & caring hands of Kansas Humane Society staff. Please see our website for a full list of partnering veterinarians.

Kansas Humane Society is dedicated to providing the absolute best for our furry friends, both in life, and after.

Additional Services

Keep your companion close to your heart with a jewelry pendant filled with your pet's cremains.

*Product styles will vary based on availability.

\$25
PER PENDANT



To memorialize your beloved pet, you also have the option to insert a vial of pet cremains in a paver in our new Friends of the Kansas Humane Society Garden, creating a peaceful space for reflection and remembrance. To order your custom paver, please visit kshumane.org/pavers.



All Prices listed include a fee for transportation to Kansas Humane Society by Dr Linot following her visit.

Bronze \$230

Our Bronze Package is the foundation of the cremations program and is the most affordable cremation solution offered in Wichita.

- ☛ Signed "Certificate of Care" assuring your pet was in the care of trained & qualified staff at the Kansas Humane Society.
- ☛ ID tag to ensure you receive **your** cherished friend's cremains.
- ☛ Return of your pet's cremains; carefully placed in a temporary, biodegradable box to be picked up at KHS or your Wichita-based contracting animal clinic.

Should you wish to forever memorialize your pet by placing their cremains in more stylish urn, please select one of our full-service packages.

Silver \$280

- ☛ Includes all benefits of the Bronze Package PLUS:
- ☛ Your choice of one "Silver Package" urn.



Traditional Urns

This simple and understated wooden urn will allow your beloved pet to spend eternity where they feel most comfortable; close to you.

Steel Urns

These metal vase urns are available in two popular colors: Antique Silver or Antique Copper.



Gold \$350

- ☛ Includes all benefits of the Bronze Package PLUS an upgrade to:
- ☛ Your choice of one "Gold Package" urn.
- ☛ Engraved plate with custom engraving of your choosing. (Limited to 25 characters, spaces & punctuation. 2 lines on plate.)



Tower Urns

These hardwood tower urns are designed for the pet owner who wishes to display their favorite "vertical" photograph to create a timeless memorial. Three options: Cherry, Oak & Walnut.

Garden Rock Urns

These beautiful poly-resin reproduction stones can be placed in a flower garden or displayed on your mantle.



Marble Urns

An elegant and peaceful resting place for your cat or dog, these 100% Natural stone urns are carved from solid pieces of marble by true old-world artisans. Three options: Dark, Light or Medium (colors will vary)

Brass Pawprint Urns

Take your beloved pet home in one of these wonderfully designed Paw Print Series urns with hand-carved paw prints and a personalized solid brass display base. Two options: Teal or Brushed Nickel.



*Size of urn will be based on pre-cremation weight of animal.

*All urns pictured are based on availability.

Owner Experience

The Appointment

- Get family and pet into exam or comfort room as soon as possible
 - Don't make them wait in lobby, if possible
 - Have them call when they arrive
 - Give them the option to wait in car or outside, if you're not ready
 - Have team member ready to go greet them in parking lot if they need help
- Complete remaining paperwork first thing
 - Clarify and confirm aftercare plans, even if arranged and paid in advance!
 - Collect payment now, if you haven't already



North Orange Animal Hospital – Apopka, FL

Owner Experience

Provide a calm and peaceful space

- Dedicated comfort room
 - Private entrance/exit
 - Decorate and furnish the room to fit the use
- Well situated exam room
 - Access to a separate exit
 - Quieter, away from clinic work flow
- Transform a standard exam room
 - Cabinet or basket filled with comfort items



Oakcrest Pet Hospital – Wichita, KS





OWNER VISITING

PETS NAME

Gizmo Christina

DOCTOR ON CASE

[Handwritten signature]

TIME LAST CHECKED ON

3:35
1:40

Quiet, please.



Owner Experience

Adding comfort

- Beds, pillows, and blankets
 - For pets and owners
 - Outdoor area rug
- Noise machine that plays calm music
- Battery operated candle
- Soft lighting
 - Lamps
 - Daylight
 - Task lighting
 - Necklight
- Wireless doorbell
- Small, cordless clippers
 - Brav mini
 - Pet Hair Clipper



Euthanasia Process

Communicate with owner through entire process

- Separating pet from owner? – placing an IV catheter
 - I prefer to leave pets with owners, if possible
 - Adequate sedation (or anesthesia) from premeds facilitates stress-free venipuncture
- Pre-medication
 - Multiple route and drug options
 - Slow, peaceful sleepiness seems more palatable to owners
- Give owners time alone for sedation to take effect
 - Give the doorbell
 - Check on them via camera or peephole
- Administer euthanasia agent – tell owner what to expect through this process
 - Multiple routes
 - IV – works quickly with fairly predictable timing
 - Intra-organ – prepare owners that time to death is a broader spectrum with these methods 1-15 minutes



Owner Experience Afterwards

- Allow owner time alone in room afterwards
 - Offer to take pet, if seems needed
 - Explain post-mortem changes – twitches, eyes won't stay closed
 - Cover pet's body with a blanket, but not the head unless owner requests
 - Tell them how to leave
- Memorial items
 - Ink prints
 - Standard ink pads, paint, or bingo dabbers
 - Paw and nose
 - Can use a paw conditioner
 - Clay prints
 - Claypaws – Veterinary Wisdom
 - Sculpey clay – paint them
 - Hair clippings
- Sympathy cards – have a staff member in charge



Patient Experience

Before the appointment – Pre-visit medications

- Painful, anxious, and fractious pets
- Valid VCPR
- Factors influencing doses and drug choice
 - Ease of administration
 - Timing
 - Weight and fat content
 - Alertness and tendencies to aggression
- When considering dosing, remember that a peaceful death is our goal, but transfer into clinic is necessary



Pre-visit drug choices

Medication	Dose	Class/Use	Considerations
Trazadone	20mg/kg	SSRI	Serotonin syndrome Low BP
Gabapentin	100-300mg/cat 100mg/kg – dogs	Neuropathic pain/sedation	Not great alone Combine with Ace
Acepromazine	100mg – sm dogs and cats 150-300mg large dogs	Phenothiazine	Can give injectable orally
Sileo / dormosedan	Sileo- go by label Dormosed - 0.1ml/10#	Alpha-2 agonist	Owner safety Low BP
Phenobarbital	70mg/kg	Barbituate/ sedation	Lots of tablets

Pre-visit meds – maximizing success



- Have owners withhold food the night before
- Advise on methods of hiding meds
 - Alternating treats
 - Whip cream for sileo
 - Liquid ace mixed with coffee creamer for cats
- Give meds 3 hours before leaving for the clinic
 - Disagreement among vets on whether an initial dose the night before or 4-6 prior to main dose is beneficial
- If patient has high stress level entering clinic, try having them enter another way

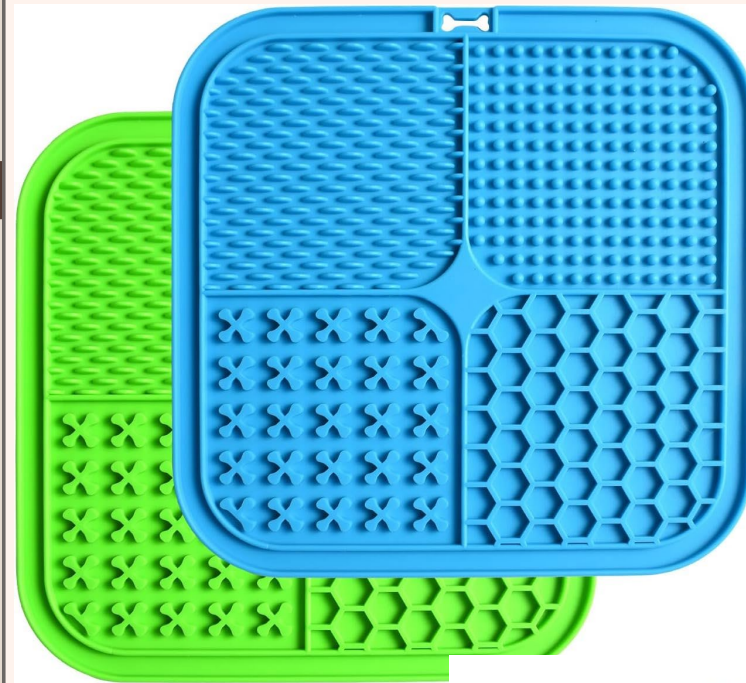
Patient comfort in clinic

- Many of the measures taken for owner comfort also improve patient comfort
 - Outdoor/washable rug in room, hallway runners
 - Beds, blankets, and pillows
 - Softer lighting
 - Door bell to give privacy
- Phermone usage
 - Adaptil & feliway diffusers in room
 - Feliway wipes or spray on surfaces
- Treats to offer



Pre-Euthanasia Sedation/Anesthesia

- My goal is anesthesia
 - Allows for pain and struggle free venipuncture
 - AVMA Guidelines for Euthanasia, 2020 - Administration of euthanasia agents via intracardiac, intrahepatic, intrasplenic, or intrarenal injections are acceptable only when performed on anesthetized or unconscious animals
- Route of administration should be least likely to cause reaction from pet
 - Most cats and smaller dogs tolerate SQ
 - Larger dogs tolerate IM in the lumbar spine or back legs
 - Fractious cats can get injectables given orally
- Warming drugs, using very small needles (27g or smaller), diluting, giving slowly, and distracting for injection all reduce reaction to the initial injection



Pre-euthanasia drug choices

Acepromazine

- Sedation via dopamine blockage
- SQ, IM, IV, PO
- Dosing – much higher for euthanasia cases
 - dogs - 3-30mg/dog
 - cats - 3mg/cat
- Pros
 - effective if given orally (and transmucosal)
 - dilates blood vessels
 - antiemetic
- Cons
 - tastes bad
 - not reversible
 - lowers seizure threshold
 - rarely can increase aggressiveness
 - not a good solo agent



Pre-euthanasia drug choices

Butorphanol

- SQ, IM, IV, PO (not well absorbed)
- Pros
 - Causes rapid sedation
 - Least likely of the opioid family to cause vomiting (possibly anti-emetic properties)
 - In combination with ace it tends to minimize respiratory distress in patients with underlying respiratory function issues – CHF, tracheal collapse, larpar, etc
- Cons
 - Moderately expensive
 - Longer time to effect when given SQ, PO or transmucosal
 - Only moderate pain control – short lived



Pre-euthanasia drug choices

What about other opioids?

- Morphine, hydromorphone, fentanyl, methadone, oxycodone, buprenorphine
- These options offer stronger pain control and better sedation
- Higher potential for human abuse
- Schedule 2
- Most are more costly than butorphanol
- Pure μ agonists more likely to cause vomiting, panting, whining, and respiratory depression

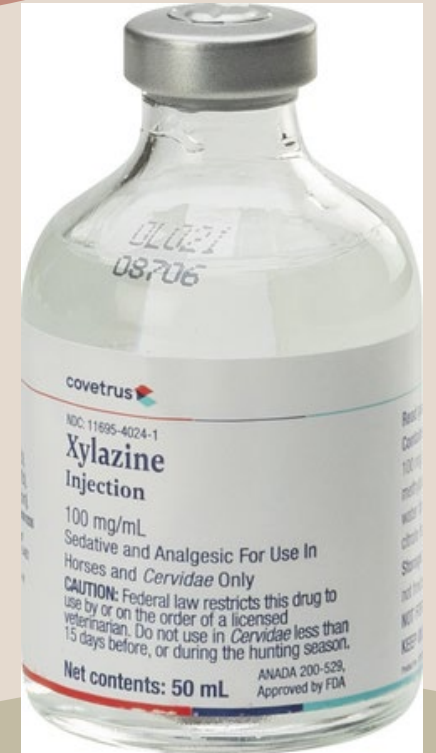
Pre-euthanasia drug choices

α -2 agonists

- Sedative via agonist effects on α -2 adrenoreceptors, ↓ norepinephrine
- Dexmedetomidine & medetomidine, xylazine, romifidine
- IV or IM (Sileo TM)
- Pros
 - Profound sedation
 - Cost (xylazine)
 - Reversible
 - On your shelf, not controlled

• Cons

- Peripheral vasoconstriction, apnea, lowers seizure threshold
- Nausea & vomiting – especially xylazine
- Restlessness, increased vigilance, hyperreactive to sounds
- Sedation is not predictable, especially as sole agent



Pre-euthanasia drug choices

Benzodiazepines

- Exact mode of action unknown – serotonin antagonists, ↑ GABA activity, ↓ acetylcholine release – makes patients feel relaxed (confusion, loss of orientation, weakness)
- Diazepam VS Midazolam
- Diazepam IV only, so Midazolam more versatile
- When to use
 - Seizure patients or those with brain disease
 - In cases of cardiac or respiratory compromise – minimal effects
 - In conjunction with ketamine to achieve anesthesia

Ketamine

- NMDA antagonist – induces anesthesia, smoother in conjunction with a benzo
- IM, IV, SQ, PO
- Pros
 - Cost
 - Less likely to sting
- Cons
 - Logging additional meds
 - I find it less predictable in time to effect and smoothness of transition

Pre-euthanasia drug choices

Anesthetics

- Alfaxalone – a neuroactive steroid, binds GABA receptors
 - IM use limited to smaller patients due to injection volume
 - Always use with a benzo for IM +/- an opioid
 - Short duration of action
 - Apnea possible with IV, less than with propofol
 - Great option for IV catheter placement

IM sedation	Alfaxalone	midazolam	+/- butorphanol	Volume in 10# patient
Dog	2-4 mg/kg	0.3 mg/kg	0.2 mg/kg	1.75ml
Cat	0.5-2 mg/kg	0.2mg/kg	0.2 mg/kg	0.75ml

- Propofol – alkyl phenol-derivative, enhances effects of GABA
 - IV use only – immediate unconsciousness
 - Apnea possible, especially if given quickly
 - Very short duration of action



Pre-euthanasia drug choices

Anesthetics – cont.

- Tiletamine/Zolazepam (Telazol, Tzed, Zoletil, Tizolan)
 - Combo drug of NMDA antagonist and benzodiazepine
 - My first choice for pre-euth anesthetic
 - IM, SQ, PO
 - SQ stings, PO tastes bad
 - Minimizing discomfort
 - Smallest needle possible – 27g
 - Warm injection
 - Dilute (+/- reconstituting with ace)
 - B12
 - Saline
 - Give it slowly
 - Splitting premeds into 2 step process
 - butorphanol and ace first, wait 5 minutes, then give Telazol



My pre-euthanasia protocol

Weight (in lbs)	Acepromazine	Butorphanol	Tiletamine/Zolazepam	Xylazine*
<5	0.1	0.1	0.1	-
5-10	0.15	0.15	0.15	-
10-20	0.2-0.25	0.2-0.25	0.2-0.25	-
20-40	0.3-0.6	0.3-0.6	0.3-0.6	hub
40-60	0.6-1	0.6-1	0.6-1	0.1-0.2
60-80	1-1.6	1-1.6	1-1.6	0.2-0.3
80-100	1.6-2.5	1.6-2.5	1.6-2.	0.3-0.4
>100	3+	3+	3+	0.6

- Same doses for dogs and cats
- Meds are given SQ or IM
- Reasons to go higher on dose: giving SQ, overweight, high strung, vocal breed, in active CHF, young/systemically healthy, patients I want to go to sleep quickly

* I rarely use xylazine, but may add it in very large dogs, hyper or overstimulated dogs, very obese dogs

- I will NEVER use xylazine in a vomiting or nauseous patient or in cats

Patient Experience - Euthanasia

Drug choices – blue juice vs pink juice

- Cost
- Schedule 2 vs 3
- Viscosity
- Familiarity
- Other options when euthanasia solution is not available
 - KCI
 - Epsom salt mixture
 - Propofol

Positioning

- Pillow under head
- Potty Pad or washable waterproof blanket

Administration of euthanasia agent

- Lateral saphenous in dogs, medial saphenous or cephalic in cats
- Shave the hair
- Use a tourniquet that you can easily release
- Have good lighting – neck light
- Venous access – “off the needle”, butterfly, IV catheter
- Give euthanasia solution slowly



Patient Experience - Euthanasia

When things don't go as planned.... What next?

In the moment, stay calm and project confidence to owners

- Sedatives/anesthetics not working the expected way
 - Give them more time
 - Add another drug into the combo – $\alpha 2$ agonists minimize athetosis
 - Give more of the same drugs
- Cannot attain venous access
 - Try lesser used veins – dorsal pedal
 - Intra-organ administration – **under anesthesia**
 - Cats- intrarenal, double my dose, isolate kidney in my hand and give with a 1 inch needle
 - can be done under a blanket
 - can redirect the needle a few times
 - time to effect is variable – 30 seconds to several minutes
 - Dogs- hepatic is generally the most reliable, double dose, longest needle in your bag 1.5-2”
 - insert needle caudal to xiphoid, aiming cranially
 - redirect needle, you should get negative pressure if in the parenchyma
 - time to effect can be up to 15 minutes, but as short as 1-2 minutes
 - If 15 minutes has elapsed and your patient is still alive
 - give more
 - intra-cardiac injection as last option in front of owners
 - use a blanket to drape your patient behind the shoulders
 - administer in the down side of the chest where the heartbeat palpates strongest



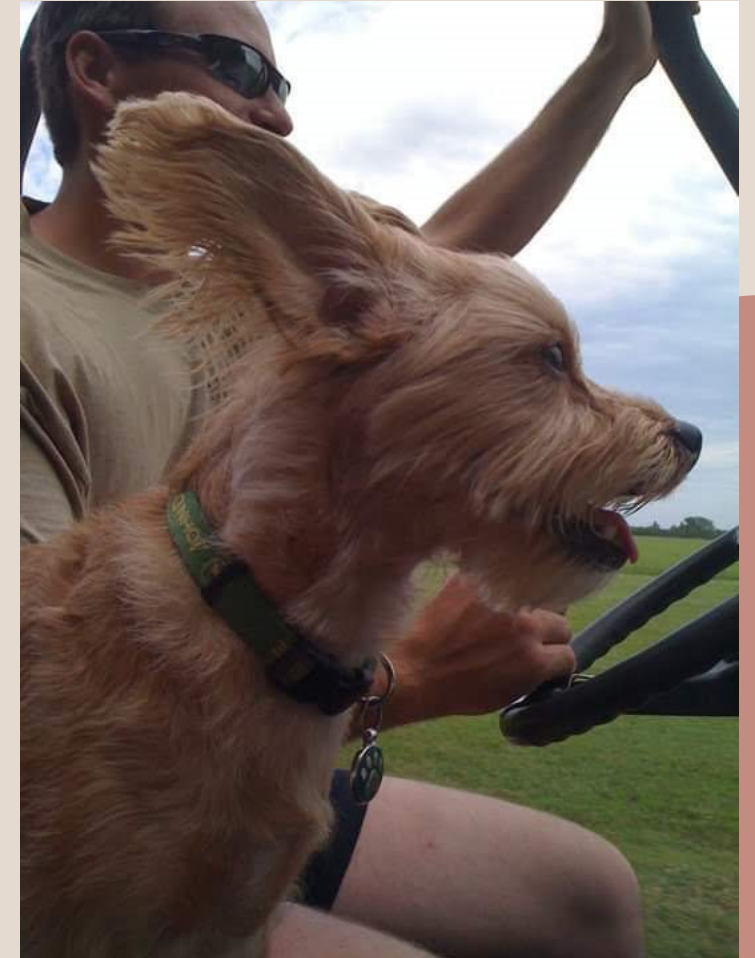
Veterinarian and staff experience

Staff can struggle with owners' decisions and reasons for euthanasia

- As veterinarians, we have more autonomy in this process
- Its important to offer our staff that same opportunity to say “no”
 - Other times offering our perspective and experiences may help them accept the process as necessary
- I try to maintain the mindset of my purpose is to help
 - Our role in this process is the “how” of death, not the “why”
 - Natural death is rarely pain free and peaceful

As a veterinarian, deriving meaning from your work requires you to reflect on the profound privilege of being with a person and their pet who is suffering, and doing your best to relieve it.

This should sustain you instead of drain you.





Thank you!

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