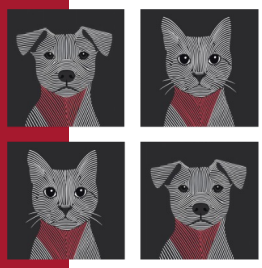
What's the Plan?
Gassing Up
Anesthesia Protocols
That Don't Stink

Tracey Mahoney, LVT, VTS (Anesthesia & Analgesia)



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What's the Plan?

- **Introduction** - where are we?
- **Protocol building** - L.O.G.I.C.
- (Case examples)
- **Q&A**

2

INTRODUCTION

"In the intricate dance of veterinary anesthesia, every beat, every breath, and every decision hinges on a foundation of shared understanding and unwavering support."

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INTRODUCTION - Audience Poll

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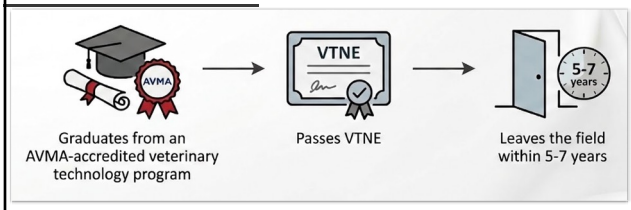
INTRODUCTION - The ***Average*** Veterinary Technician's Career



"...Only 36% of Veterinary Technicians agreed that they were being fully employed in their roles, while 44% felt they were sometimes utilized, and 19% felt they were not used to their fullest potential."

- NAVTA Demographic Survey Results, 2024.

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INTRODUCTION - *Burnout*

***Burnout** is a syndrome conceptualized as resulting from chronic workplace stress that has not been successfully managed. It is characterized by three dimensions:*

- *feelings of energy depletion or exhaustion,*
- *increased mental distance from one's job, or feelings of negativism or cynicism related to one's job; and*
- *reduced professional efficacy.*

World Health Organization. Burn-out an "occupational phenomenon": International Classification of Diseases, 2019. May, 2019.

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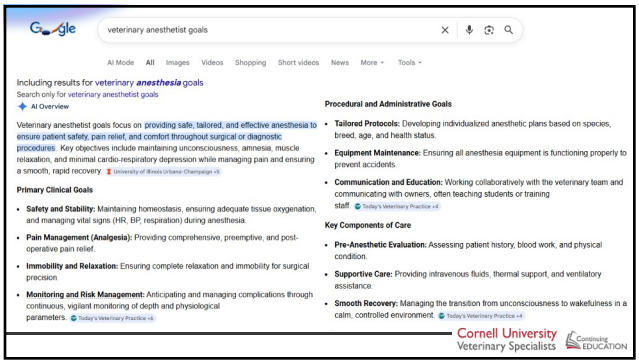
veterinary anesthetist goals
AI Mode All Images Videos Shopping Short videos News More Tools
Including results for veterinary anesthesia goals
Search only for veterinary anesthetist goals
AI Overview
Veterinary anesthetist goals focus on providing safe, tailored, and effective anesthesia to ensure patient safety, pain relief, and comfort throughout surgical or diagnostic procedures. Key objectives include maintaining unconsciousness, amnesia, muscle relaxation, and minimal cardio-respiratory depression while managing pain and ensuring a smooth, rapid recovery.
Primary Clinical Goals
Safety and Stability: Maintaining homeostasis, ensuring adequate tissue oxygenation, and managing vital signs (HR, BP, respiration) during anesthesia.
Pain Management (Analgesia): Providing comprehensive, preemptive, and post-operative pain relief.
Immobility and Relaxation: Ensuring complete relaxation and immobility for surgical precision.
Monitoring and Risk Management: Anticipating and managing complications through continuous, vigilant monitoring of depth and physiological parameters.
Procedural and Administrative Goals
Tailored Protocols: Developing individualized anesthetic plans based on species, breed, age, and health status.
Equipment Maintenance: Ensuring all anesthesia equipment is functioning properly to prevent accidents.
Communication and Education: Working collaboratively with the veterinary team and communicating with owners, often teaching students or training staff.
Key Components of Care
Pre-Anesthetic Evaluation: Assessing patient history, blood work, and physical condition.
Supportive Care: Providing intravenous fluids, thermal support, and ventilatory assistance.
Smooth Recovery: Managing the transition from unconsciousness to wakefulness in a calm, controlled environment.
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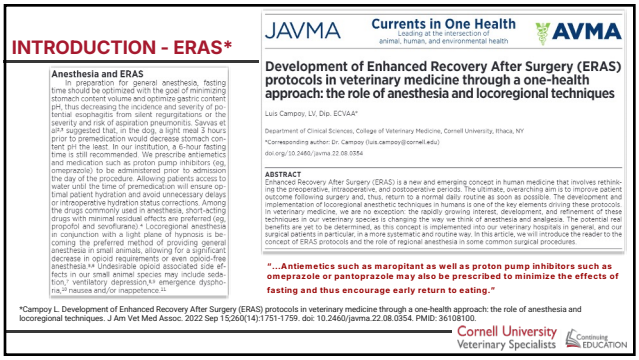
INTRODUCTION - ERAS*
Anesthesia and ERAS
In preparation for general anesthesia, fasting time should be optimized with the goal of minimizing stomach content volume and optimize gastric content pH, thus decreasing the incidence and severity of potential esophagitis from silent regurgitations or the severity and risk of aspiration pneumonitis. Savvas et al[9] suggested that, in the dog, a light meal 3 hours prior to premedication would decrease stomach content pH the least. In our institution, a 6-hour fasting time is still recommended. We prescribe antiemetics and medication such as proton pump inhibitors (eg, omeprazole) to be administered prior to admission the day of the procedure. Allowing patients access to water until the time of premedication will ensure optimal patient hydration and avoid unnecessary delays or intraoperative hydration status corrections. Among the drugs commonly used in anesthesia, short-acting drugs with minimal residual effects are preferred (eg, propofol and sevoflurane).[9] Locoregional anesthesia in conjunction with a light plane of hypnosis is becoming the preferred method of providing general anesthesia in small animals, allowing for a significant decrease in opioid requirements or even opioid-free anesthesia.[9,10] Undesirable opioid associated side effects in our small animal species may include sedation,[1] ventilatory depression,[9,1] emergence dysphoria,[2] nausea and/or inappetence.[11]
JAVMA
Currents in One Health
Leading at the intersection of animal, human, and environmental health
AVMA
Development of Enhanced Recovery After Surgery (ERAS) protocols in veterinary medicine through a one-health approach: the role of anesthesia and locoregional techniques
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doi.org/10.2460/javma.22.08.0354
ABSTRACT
Enhanced Recovery After Surgery (ERAS) is a new and emerging concept in human medicine that involves rethinking the preoperative, intraoperative, and postoperative periods. The ultimate, overarching aim is to improve patient outcome following surgery and, thus, return to a normal daily routine as soon as possible. The development and implementation of locoregional anesthetic techniques in humans is one of the key elements driving these protocols. In veterinary medicine, we are no exception: the rapidly growing interest, development, and refinement of these techniques in our veterinary species is changing the way we think of anesthesia and analgesia. The potential real benefits are yet to be determined, as this concept is implemented into our veterinary hospitals in general, and our surgical patients in particular, in a more systematic and routine way. In this article, we will introduce the reader to the concept of ERAS protocols and the role of regional anesthesia in some common surgical procedures.
"...Antiemetics such as maropitant as well as proton pump inhibitors such as omeprazole or pantoprazole may also be prescribed to minimize the effects of fasting and thus encourage early return to eating."
*Campoy L. Development of Enhanced Recovery After Surgery (ERAS) protocols in veterinary medicine through a one-health approach: the role of anesthesia and locoregional techniques. J Am Vet Med Assoc. 2022 Sep 15;260(14):1751-1759. doi: 10.2460/javma.22.08.0354. PMID: 36108100.
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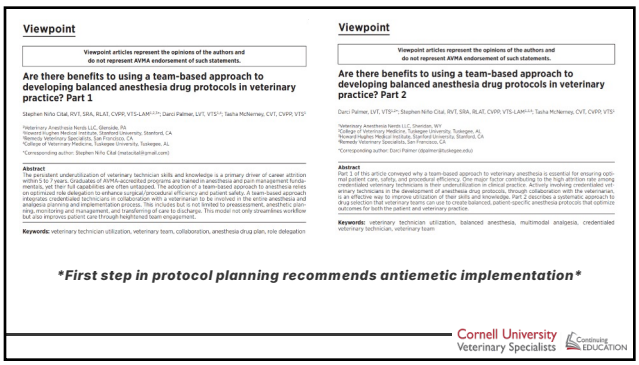
Viewpoint
Viewpoint articles represent the opinions of the authors and do not represent AVMA endorsement of such statements.
Are there benefits to using a team-based approach to developing balanced anesthesia drug protocols in veterinary practice? Part 1
Abstract
Keywords: veterinary technician utilization, veterinary team, collaboration, anesthesia drug plan, role delegation
Viewpoint
Viewpoint articles represent the opinions of the authors and do not represent AVMA endorsement of such statements.
Are there benefits to using a team-based approach to developing balanced anesthesia drug protocols in veterinary practice? Part 2
Abstract
Keywords: veterinary technician utilization, balanced anesthesia, multimodal analgesia, credentialed veterinary technician, veterinary team
First step in protocol planning recommends antiemetic implementation
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INTRODUCTION - Protocol considerations*

1. Antiemetic?
2. NSAID?
3. Opioid?
4. Sedative(s)?
5. Can we use an anticholinergic?
6. Induction agents(s)?
7. Maintenance agent(s)?
8. Local/regional block?
9. Intraop pain plan?
10. Postop analgesia plan?

*Palmer D, Cital SN, McNerney T. Are there benefits to using a team-based approach to developing balanced anesthesia drug protocols in veterinary practice? Part 2. J Am Vet Med Assoc. 2025 Aug 14;263(S2):S81-S84. doi: 10.2460/javma.25.04.0222. PMID: 40816323.

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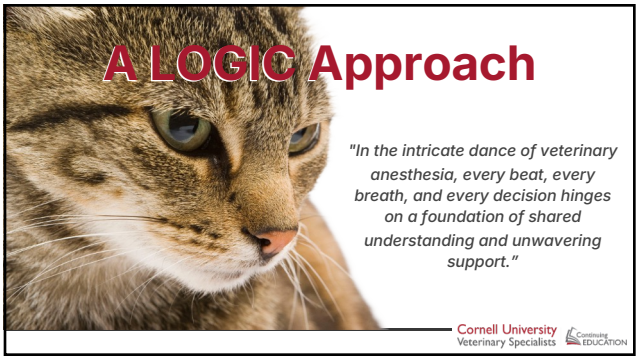

A LOGIC Approach

"In the intricate dance of veterinary anesthesia, every beat, every breath, and every decision hinges on a foundation of shared understanding and unwavering support."

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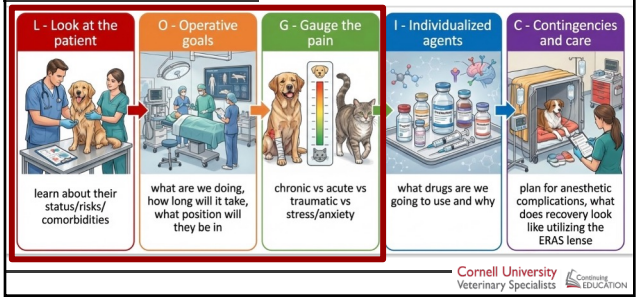
L.O.G.I.C. Summarized



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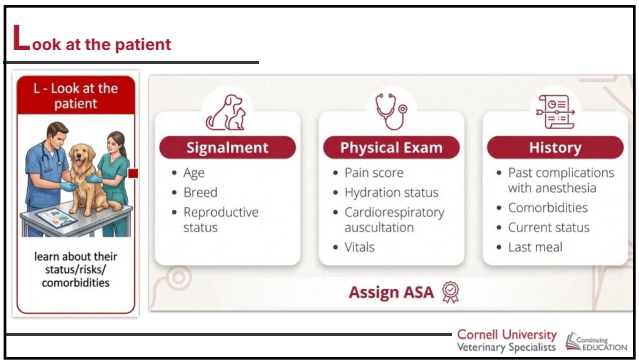
Look at the patient
L - Look at the patient
learn about their status/risks/ comorbidities
Signalment
• Age
• Breed
• Reproductive status
Physical Exam
• Pain score
• Hydration status
• Cardiorespiratory auscultation
• Vitals
History
• Past complications with anesthesia
• Comorbidities
• Current status
• Last meal
Assign ASA
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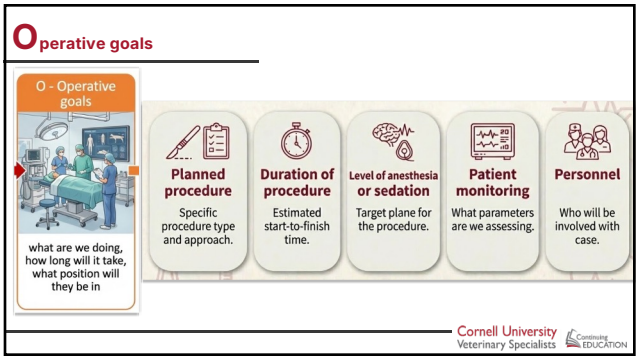
Operative goals
O - Operative goals
what are we doing, how long will it take, what position will they be in
Planned procedure
Specific procedure type and approach.
Duration of procedure
Estimated start-to-finish time.
Level of anesthesia or sedation
Target plane for the procedure.
Patient monitoring
What parameters are we assessing.
Personnel
Who will be involved with case.
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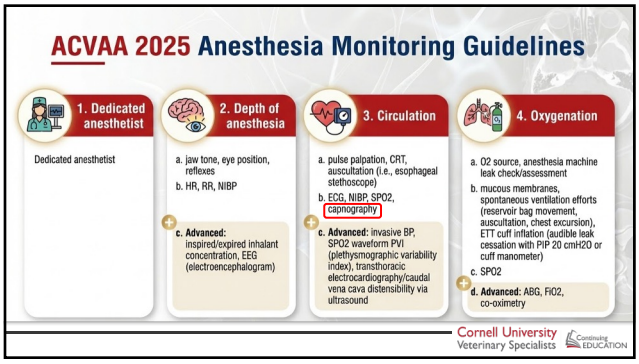
ACVAA 2025 Anesthesia Monitoring Guidelines
1. Dedicated anesthetist
Dedicated anesthetist
2. Depth of anesthesia
a. jaw tone, eye position, reflexes
b. HR, RR, NIBP
c. Advanced: inspired/expired inhalant concentration, EEG (electroencephalogram)
3. Circulation
a. pulse palpation, CRT, auscultation (i.e., esophageal stethoscope)
b. ECG, NIBP, SPO2, capnography
c. Advanced: invasive BP, SPO2 waveform PVI (plethysmographic variability index), transthoracic electrocardiography/caudal vena cava distensibility via ultrasound
4. Oxygenation
a. O2 source, anesthesia machine leak check/assessment
b. mucous membranes, spontaneous ventilation efforts (reservoir bag movement, auscultation, chest excursion), ETT cuff inflation (audible leak cessation with PIP 20 cmH2O or cuff manometer)
c. SPO2
d. Advanced: ABG, FiO2, co-oximetry
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Surgical "huddle"/"time out"*

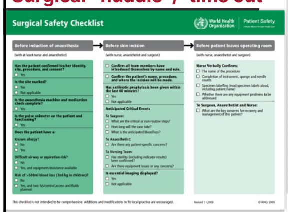

Table 1
Summary of complication rates within previous veterinary surgical checklist studies.

Study	No. of patients	Pre-intervention complication rate (%)	Post-intervention complication rate (%)	P value
Bergstrom et al[2]	520	52/300 (17.3); all complications	15/220 (6.8); all complications	P = .0003
		14/300 (4.7); SSI	3/220 (1.4); SSI	P = .045
		14/300 (4.7); wound healing	1/220 (0.45); wound healing	P = .0006
Launcelott et al[9]	302	40/201 (19.9); all procedures	12/101 (11.9); all procedures	P = .002
		9/80 (11.3); enterotomy	4/52 (8.3); enterotomy	P < .001
		16/105 (15.2); solitary FB	5/75 (6.7); solitary FB	P < .001
Cray et al[8]	677	140/342 (40.9); more than one complication	98/335 (29.3); more than one complication	P = .002
		27/342 (7.9); SSI*	10/335 (3); SSI*	P = .005
		9/342 (2.6); Neurologic signs	2/335 (0.6); Neurologic signs	P = .04
Thieman et al[10]	2,537	32/1065 (3.0); unplanned return to the OR	21/1472 (1.4); unplanned return to the OR	P = .006

FB = Foreign body. OR = Operating room. SSI = Surgical site infection.

RESULTS
A greater proportion of Diplomates of the American College of Veterinary Surgeons (49/77 [64%]) reported using an SSC than other veterinarians (257/1157 [22%]; $P < .0001$). A greater proportion of veterinarians working in university and multispecialty hospitals reported using a SSC (71/142 [50%]) than in other practice settings (235/1092 [22%]; $P < .0001$). Use of a SSC correlated with consistent performance of surgical safety practices listed above ($P < .0001$). Primary care veterinarians commonly reported not using a SSC because they did not know about them (359/590 [61%]). Of the 507 respondents who had ever used a SSC, 333 (66%) believed the checklist had prevented an error or complication.

*Davidow EB, Owen T, Rishniw M. Knowledge and attitudes towards surgical safety checklists: a survey of veterinary professionals. J Am Vet Med Assoc. 2023 Jan 9;261(5):1-9. doi: 10.2460/javma.22.09.0405. PMID: 36626287.

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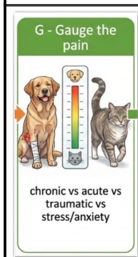
Gauge the pain



Surgical pain (acute/traumatic)
- Incisions, osteotomy, inflammation

Pre-existing pain (chronic)
- Osteoarthritis, chronic wound (central sensitization), dental disease

Stress/anxiety (catecholamines)
- Aggression level
- Panting
- Vocalizing

Can we handle this patient without exacerbating stress/anxiety or chronic pain?

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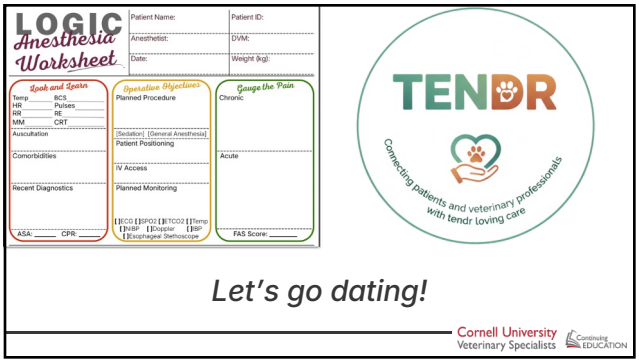

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GEORGIA

"Sweet, spicy, and looking to lose a few organs."

The Stats: 1.5yr Golden Retriever | 42 kg | BCS 7/9 (Thicc)
Here For: Ovariohysterectomy at Amazing Vet Hospital

ABOUT ME:
I'm a high-maintenance gal with a complex history. I like long naps and stabilization.

- **I'm Extra Sweet:** I have **Diabetes Mellitus** (controlled on BID insulin).
  - *Date Night Rule:* Check my BG often and remember my ½ dose of insulin this morning. Keep the Dextrose handy!
- **My Hips Don't Lie: Bilateral Hip Dysplasia**.
  - *Date Night Rule:* Go easy on the leg abduction and extra padding on the table, please.
- **Hard to Get:** Moderate **Fear-Based Anxiety/Aggression**.
  - *Date Night Rule:* I'm a "drugs before hugs" kind of girl. Please use fear-free handling and heavy pre-meds before you try to touch my paws.

TURN ONS:
Early morning surgery slots, padded tables, and chemically induced relaxation.

TURN OFFS:
Hypoglycemia, slippery floors, and people who think I'm friendly just because I'm a Golden.

Message me if: You have a steady hand, a warm Bair Hugger, and a stash of Dextrose 50% just in case things get too low. Let's make this a safe, drama-free procedure! 💗

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GEORGIA

L

- **1.5yr Golden Retriever, 42 kg**
- **Problem List:**
  - DM, bilateral hip dysplasia, obesity, fearful
- **Physical exam:**
  - T 102.8
  - HR 140 bpm, pulses SS, no murmur
  - RR panting, bilateral lung auscultation normal
  - MM pink
  - CRT 1-2 sec
- **Diagnostics**
  - CBC - NSF
  - Chem - glucose 150 mg/dL, rest WNL
  - PCV/TS - 52%/8.5 g/dL
- **Current Medications**
  - Vetsulin 6U SQ BID
  - Trazodone 200 mg prior to vet visits
- **ASA II**

O

- **General Anesthesia**
- **Laparotomy**
  - Ovariohysterectomy
- **Patient positioning**
  - Dorsal recumbency w/ legs extended
- **Vascular access**
  - Peripheral IVC
- **Patient Monitoring**
  - Multiparameter monitoring
    - ECG, SPO2, NIBP, ETCO2, Temp
  - Physiologic monitoring
    - Jaw tone, eye position, palpebral reflexes, MM/CRT
  - Glucose checks
- **Surgery huddle at start of procedure**

G

- **Chronic pain**
  - Mild-moderate; pain on hip extension
- **Surgical pain**
  - Moderate-high; laparotomy
- **Stress/anxiety**
  - High; fearful
  - FAS score: 4

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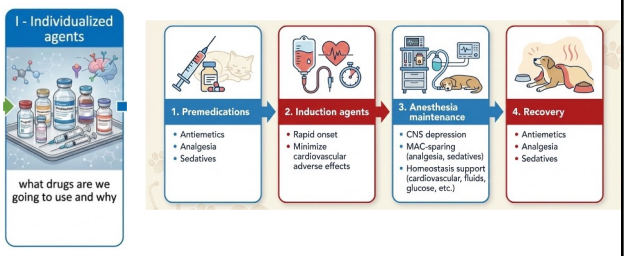
Individualized agents



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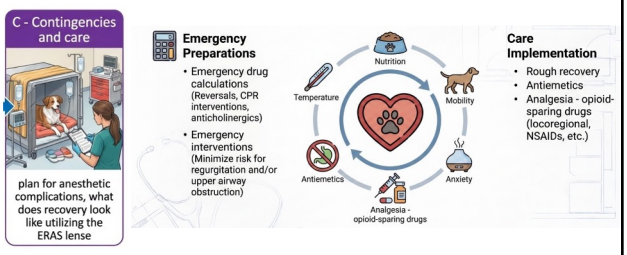
Contingencies and Care plan



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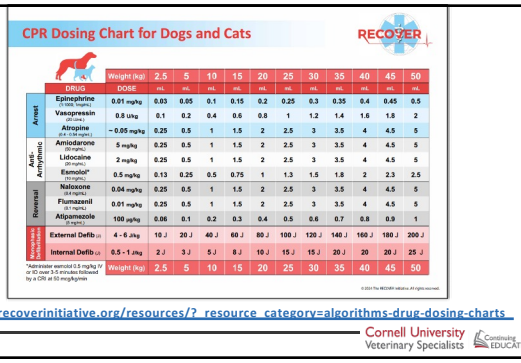

https://recoverinitiative.org/resources/?_resource_category=algorithms-drug-dosing-charts

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GEORGIA

I

- **PREMEDICATION:**
  - Trazodone 200 mg PO 2 hrs prior to visit
  - Consider gabapentin 10-20 mg/kg PO
  - +/- IM sedation for pt handling/IVC placement
    - *Methadone 0.3-0.5 mg/kg IM*
    - ***Reopromazine vs dexmed?***
    - *Alfaxalone 1-2 mg/kg IM*
  - Maropitant 1 mg/kg IV vs SQ
- **INDUCTION:**
  - *Provide preoxygenation via facemask x3-5 mins*
  - *Baseline NIBP/ECG*
  - Alfaxalone 1 mg/kg vs Propofol 2 mg/kg IV
  - Ketamine 2 mg/kg IV +/- Midazolam 0.2 mg/kg IV
- **MAINTENANCE:**
  - Isoflurane vs sevoflurane
  - IVF (balanced crystalloid) 5-10 mL/kg/hr IV
  - +/- CRIs, antibiotics, Nocita?
  - Artificial tears OU
- **RECOVERY:**
  - Methadone 0.1-0.2 mg/kg IV q4-6hr

C

- **Anticipated Complications:**
  - Low BG
    - Check BG's q30 mins
      - Dextrose bolus 0.5-1 mL/kg IV diluted 1:1 vs fluid additive 2.5-5% (3 mL/kg/hr)
  - Pain on hip extension for positioning
    - Ketamine - NMDA antagonist
    - Opioids
  - Hypothermia - convective and radiation account for 80% heat loss
    - Provide convective warming options
  - Dehydration
    - DM (PU/PD) + losses from panting
    - IVF bolus PRN - *watch SPO2 waveform during IPPV*
- **Rough Recovery Plan:**
  - +/- Flumazenil 0.01 mg/kg IV
  - Acepromazine 0.005-0.01 mg/kg IV
  - Continue trazodone/gabapentin
- **Feed + Walk**

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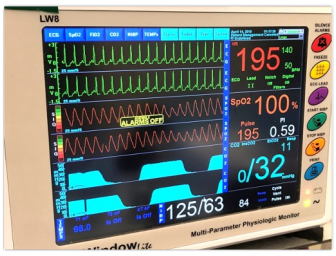
What Is PVi?

- PVi is a dynamic index ranging from 0 to 100 that measures the relative variability of the pleth waveform noninvasively using a single pulse oximetry sensor.
- By analyzing detected pleth amplitudes, PVi automatically calculates the dynamic changes that occur throughout the respiratory cycle.
- Increased variability in the pleth waveform has been associated with preload dependence and fluid responsiveness, making it a valuable parameter to monitor during acute care.

Note: PVi's ability to predict fluid responsiveness may vary due to patient, procedural, and device-related factors, and fluid management decisions should be guided by a comprehensive assessment of the patient's overall condition.

The Importance of Balanced Fluid Administration



https://www.masimo.com/technology/pulse-oximetry/pvi/

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FREDERICK

"Old, cranky, and here for a deep cleaning—touch me and find out."

The Stats: 12yr DMH | 4.5 kg | BCS 4/9 (Lean & Mean)
Here For: COHAT (Comprehensive Oral Health Assessment & Treatment) at Amazing Vet Hospital

ABOUT ME:
I've reached the age where I no longer have to pretend to like you. I'm a "high-risk, high-reward" bachelor with a delicate internal balance.

- **I'm Not Just Salty, I'm Spicy: Fear-Based Aggression.**
  - **Date Night Rule:** I am a strict "don't touch the box" candidate. Hands off until the pre-meds kick in. Less is more—less talking, less touching, more sedation.
- **My Engines Run Hot: Hyperthyroidism** (Controlled on Methimazole 2.5 mg BID).
  - **Date Night Rule:** My heart rate can be a bit "thumpy." Keep an eye on my BP and rhythm while I'm under. I had my morning dose, so I'm as stable as I'm gonna get.
- **Handle With Care: CKD IRIS Stage II.**
  - **Date Night Rule:** My kidneys are VIPs (Very Irritable Parenchyma). I need IV fluids started *yesterday*, a dedicated MAP goal of >70-80 mmHg, and please, go easy on the NSAIDs.

TURN ONS:
Gabapentin-laced snacks, warm IV fluids, and being left completely alone in a quiet, dark ward.

TURN OFFS:
Scruffing, low blood pressure, and anyone who forgets that "Stage II" means "I need extra hydration."

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FREDERICK

L

- **12yr DMH | 4.5 kg | BCS 4/9**
- **Problem List:**
  - Periodontal disease, hyperthyroidism, CKD IRIS Stage II, aggression
- **Physical exam:**
  - T 101.8 F
  - HR 220 bpm, pulses SS, no murmur
  - RR panting, bilateral lung auscultation normal
  - MM pink, CRT 1-2 sec
- **Diagnostics**
  - CBC - NSF, Chem - BUN 30 mg/dL, creat 1.7 mg/dL, SDMA 19, rest NSF
  - PCV/TS - 37%/8.0 g/dL
- **Current Medications**
  - Methimazole 2.5 mg PO BID
  - Gabapentin 100 mg prior to vet visits
- **ASA III**

O

- **General Anesthesia**
- **COHAT**
  - Dental imaging
  - Oral exam
  - Scaling/polishing
  - +/- extractions
- **Patient positioning**
  - Dorsal vs lateral recumbency
- **Vascular access**
  - Peripheral IVC x2
- **Patient Monitoring**
  - Multiparameter monitoring
    - ECG, SPO2, NIBP, ETCO2, Temp
  - Physiologic monitoring
    - Jaw tone, eye position, palpebral reflexes, MM/CRT
- **Surgery huddle at start of procedure**

G

- **Chronic pain**
  - Mild-moderate; periodontal disease
- **Surgical pain**
  - Mild-high; pending extractions
- **Stress/anxiety**
  - High; fearful
  - FAS score: 3

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		Stage 1 No azotemia (Normal creatinine)	Stage 2 Mild azotemia (Normal or mildly elevated creatinine)	Stage 3 Moderate azotemia	Stage 4 Severe azotemia
Creatinine in mg/dL Stage based on stable creatinine	Canine	Less than 1.4 (<124 µmol/L)	1.4–2.8 (125–250 µmol/L)	2.9–5.0 (251–440 µmol/L)	Greater than 5.0 (>440 µmol/L)
	Feline	Less than 1.6 (<140 µmol/L)	1.6–2.8 (140–250 µmol/L)	2.9–5.0 (251–440 µmol/L)	Greater than 5.0 (>440 µmol/L)
SDMA* in µg/dL Stage based on stable SDMA	Canine	Less than 18	18–35	36–54	Greater than 54
	Feline	Less than 18	18–25	26–38	Greater than 38
UPC ratio Substage based on proteinuria	Canine	Nonproteinuric **<0.2**	Borderline proteinuric **0.2–0.5**	Proteinuric **>0.5**	
	Feline	Nonproteinuric **<0.2**	Borderline proteinuric **0.2–0.4**	Proteinuric **>0.4**	
Systolic blood pressure in mm Hg Substage based on blood pressure		Normotensive **<140**	Prehypertensive **140–159**	Severely hypertensive **≥180**	
			Hypertensive **160–179**		

Note: In the case of staging discrepancy between creatinine and SDMA, consider patient muscle mass and retesting both in 2–4 weeks. If values are persistently discordant, consider assigning the patient to the higher stage.

*SDMA = IDEXX SDMA® Test

See www.ira-kid-key.com for more detailed staging, therapeutic, and management guidelines.

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FREDERICK

I

- **PREMEDICATION:**
  - Gabapentin 100 mg PO 2 hrs prior to visit
  - Consider trazodone 5 mg/kg PO
  - +/- IM sedation for pt handling/IVC placement
    - *Methadone 0.3-0.5 mg/kg IM*
    - *Acepromazine 0.01 mg/kg IM ~~vs-dexmed?~~*
    - *Alfaxalone 1-2 mg/kg IM*
  - Maropitant 1 mg/kg IV vs SQ
  - Pre-operative IVF 3 mL/kg/hr
- **INDUCTION:**
  - *Provide preoxygenation via facemask x3-5 mins*
  - *Baseline NIBP/ECG*
  - Alfaxalone 1 mg/kg vs Propofol 2 mg/kg IV
  - Ketamine 2 mg/kg IV +/- Midazolam 0.2 mg/kg IV
- **MAINTENANCE:**
  - Isoflurane vs sevoflurane
  - IVF (balanced crystalloid) 3-5 mL/kg/hr IV
  - +/- CRIs, antibiotics?, Nocita?
  - Artificial tears OU
- **RECOVERY:**
  - Methadone 0.1-0.2 mg/kg IV q4-6hr - *pending extractions/ongoing surgical pain*
  - Continue methimazole

C

- **Anticipated Complications:**
  - Hypotension
    - Keep MAP **>70-80 mmHg**
    - Inhalant-induced - dopamine CRI (3-10 mcg/kg/min)
    - Hypovolemia-induced - IVF bolus (3-5 mL/kg over 15-20 mins)
  - Pain during dental extractions
    - Dental blocks
      - Buprenorphine 0.06 mg + bupivacaine 5%
  - Hypothermia
    - Provide convective warming options
  - Aspirating pneumonia
    - Appropriately sealed ETT cuff
    - Gauze in throat?
- **Rough Recovery Plan:**
  - +/- Flumazenil 0.01 mg/kg IV
  - Acepromazine 0.005-0.01 mg/kg IV
  - Continue trazodone/gabapentin
- **Feed + Allow room to get up in cage**

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ANGEL

"I'm only an Angel when I'm asleep. Otherwise, I'm an acute hazard."

The Stats: 7yr DSH Calico | 6 kg | BCS 6/9 | Attitude: 10/10
Here For: Right Hindlimb Radiographs (The "Leg Selfie") at Amazing Vet Hospital

ABOUT ME:
I'm a spicy creative with a flair for drama. I am beautiful, but if you touch me without asking, I will make you bleed.

- **Heartbreaker:** I have **HCM (Hypertrophic Cardiomyopathy)**.
  - ***Date Night Rule:*** My heart is literally too big for my chest. **Stress is my enemy.** If I get too worked up, I could go into heart failure, so let's keep the vibes (and the restraint) low-stress and chill.
- **Take Your Breath Away:** I have **Feline Asthma**.
  - ***Date Night Rule:*** I'm prone to bronchoconstriction if things get dusty or stressful. Keep an eye on my respiratory rate and maybe have an inhaler (or oxygen) nearby if I start wheezing.
- **A Little Unsteady:** Presenting for **Right Hindlimb Lameness**.
  - ***Date Night Rule:*** I need X-rays, but I'm not going to sit still for them. I need a "chemical cocktail" (Sedation) that is heart-safe but strong enough to keep me from eating the radiology tech.

TURN ONS:
Gabapentin showers, flow-by oxygen, and people who admire me from a safe distance.

TURN OFFS:
Tachycardia, forceful restraint, and being told to "take a deep breath" when my bronchioles are spasming.

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ANGEL

L

- **7yr DMH | 6 kg | BCS 6/9**
- **Problem List:**
  - HCM (stage B1), asthma, RPL lameness
- **Physical exam:**
  - T 101.8 F
  - HR 240 bpm, pulses SS, grade III/VI murmur
  - RR 45 brpm, mild wheeze on bilateral lung auscultation
  - MM pink, CRT 1-2 sec
- **Diagnostics**
  - CBC - NSF, Chem - NSF
  - PCV/TS - 42%/7.2 g/dL
- **Current Medications**
  - Albuterol 1 puff (90 mcg) PRN
  - Gabapentin 150 mg prior to vet visits
- **ASA III**

O

- **Sedation**
- **Radiographs**
  - Bilateral 2-view RPL & LPL
  - Hands-free imaging
- **Patient positioning**
  - Dorsal & lateral recumbency
  - Some pelvic limb manipulation
- **Vascular access**
  - Peripheral IVC?
- **Patient Monitoring**
  - Multiparameter monitoring
    - ~~ECG, SP~~O2, NIBP, ETCO2, Temp
  - Physiologic monitoring
    - Jaw tone, eye position, palpebral reflexes, MM/CRT
- **Surgery huddle at start of procedure**

G

- **Chronic pain**
  - Mild-moderate; LPL lameness
- **Surgical/procedural pain**
  - Mild; pending manipulation of stifles
- **Stress/anxiety**
  - High; fearful
  - FAS score: 5

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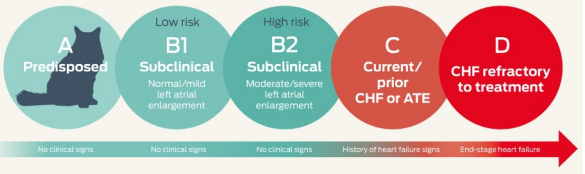
ACVIM stages of feline cardiomyopathy



Journal of Veterinary Internal Medicine

CONSENSUS STATEMENT | Open Access

ACVIM consensus statement guidelines for the classification, diagnosis, and management of cardiomyopathies in cats

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33

ANGEL

I

- **PREMEDICATION:**
  - Gabapentin 150 mg PO 2 hrs prior to visit
  - Consider trazodone 5 mg/kg PO?
  - IM sedation for pt handling/IVC placement/rads?
    - ***Methadone 0.3-0.5 mg/kg IM vs butorphanol 0.2-0.3 mg/kg IM***
    - ***Acepromazine 0.01 mg/kg IM vs dexmed?***
    - ***Alfaxalone 1-2 mg/kg IM***
  - Maropitant 1 mg/kg IV vs SQ
  - ***Baseline NIBP/ECG***
- **INDUCTION:**
  - N/A - have flow-by/mask oxygen available
  - Albuterol 1 puff?
- **MAINTENANCE:**
  - Propofol (0.5-1 mg/kg) vs alfaxalone (0.1-0.5 mg/kg) IV micro boluses PRN
    - ***Goal: minimize respiratory depression***
  - Artificial tears OU
- **RECOVERY:**
  - Monitor SPO2, NIBP until sedatives wear off/alert mentation

C

- **Anticipated Complications:**
  - Hypotension
    - Propofol/alfaxalone-induced w/ associated bradycardia
      - Glycopyrrolate 0.005 mg/kg IV?
    - Hypovolemia-induced
      - IVF bolus (3-5 mL/kg over 15-20 mins)
  - Pain during limb manipulation
    - Add micro dose propofol vs alfaxalone
  - Hypothermia
    - Provide convective warming options
  - Respiratory depression/apnea
    - Induction supplies on on stand-by
- **Rough Recovery Plan:**
  - Micro dose propofol vs alfaxalone
  - Continue trazodone/gabapentin
- **Feed + allow room to get up in cage**

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34

ZEUS

"I've got a big heart and a literal lump in my throat—well, my gut."

The Stats: 5yr NM Chihuahua | 3.2 kg | BCS 5/9 (Perfectly Portable)
Here For: Abdominal Exploratory / FB Removal at Amazing Vet Hospital

ABOUT ME:
I'm usually the life of the party, but lately, I've been feeling a bit... full. I'm a "love at first sight" kind of guy, even if my stomach is currently a disaster zone.

- **I've Got a Secret Inside: Small Intestinal Foreign Body.**
  - **Date Night Rule:** My belly is a "No-Fly Zone." I'm painful on palpation and my stomach is a ticking time bomb of fluid. Please keep the suction handy and be ready for a rapid induction to prevent aspiration.
- **I'm Feeling Drained: 2-3 Days of Anorexia & Vomiting.**
  - **Date Night Rule:** I'm running on empty. Check my electrolytes and keep an eye on my glucose—I'm small, and I've been fasting longer than I intended.
- **Thick-Skinned (Literally): Hemoconcentration (PCV 62% / TS 8.2).**
  - **Date Night Rule:** My blood is like molasses right now. I need aggressive "pre-gaming" with IV fluids to bring that PCV down and my perfusion up before we start the show.

TURN ONS:
Belly rubs (post-op only!), warm blankets, and a really good fluid bolus.

TURN OFFS:
Squeaky toys (I probably ate one), nausea, and being called "too small" for a big surgery.

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ZEUS

L

- **5yr MN Chihuahua | 3.2 kg | BCS 5/9**
- **Problem List:**
  - SIFB, anorexia/vomiting, dehydrated
- **Physical exam:**
  - T 99.8 F
  - HR 140 bpm, weak pulses, no murmur
  - RR panting, bilateral lung auscultation normal
  - MM pink/tacky, CRT 2-3 sec
- **Diagnostics**
  - CBC - Hgb 21 g/dL, Chem - BUN 38 mg/dL, creat 1.4 mg/dL, alb 4.5 g/dL, rest NSF
  - PCV/TS - 62%/8.0 g/dL
  - Fluid-filled gastric distension
- **Current Medications**
  - Maropitant 1 mg/kg IV q24hr
- **ASA III E**

O

- **General Anesthesia**
- **Laparotomy**
  - Gastrotomy vs enterotomy for FB retrieval
- **Patient positioning**
  - Dorsal recumbency
- **Vascular access**
  - Peripheral IVC x2
  - Arterial line?
- **Patient Monitoring**
  - Multiparameter monitoring
    - ECG, SPO2, NIBP, ETCO2, Temp
  - Physiologic monitoring
    - Jaw tone, eye position, palpebral reflexes, MM/CRT
- **Surgery huddle at start of procedure**

G

- **Chronic pain**
  - Mild-moderate; minimum 3 days GI pain (visceral)
- **Acute pain**
  - CSU Pain score: 2-3
- **Surgical pain**
  - Moderate-high
- **Stress/anxiety**
  - Physical stress from foreign body
  - FAS score: n/a

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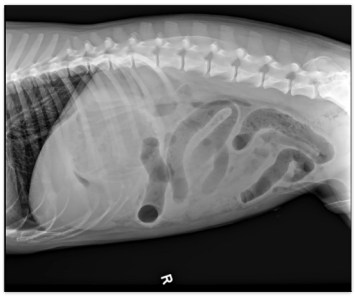

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ZEUS

I

- **PREMEDICATION:**
  - +/- IM sedation for pt handling/IVC
    - *Methadone 0.3-0.5 mg/kg*
    - *Acepromazine 0.01 mg/kg vs dexmedetomidine 1-3 mcg/kg vs ketamine 1-2 mg/kg*
    - *Alfaxalone 1-2 mg/kg?*
  - Pre-operative IVF bolus 10-20 mL/kg IV, then 3-5 mL/kg/hr*
- **INDUCTION:**
  - *Prexoygenate, obtain baseline NIBP/ECG*
  - Lidocaine 2 mg/kg IV (slowly over 2 mins, on ECG)
  - Alfaxalone 1 mg/kg vs Propofol 2 mg/kg IV
  - Ketamine 2 mg/kg IV +/- Midazolam 0.2 mg/kg IV?
- **MAINTENANCE:**
  - Isoflurane vs sevoflurane
  - IVF (balanced crystalloid) 5-10 mL/kg/hr IV
  - +/- CRIs (ketamine, lidocaine, fentanyl), antibiotics, Nocita?
- **RECOVERY:**
  - Methadone 0.1-0.2 mg/kg IV q4-6hr

*Per ACVAA - stabilize first!

C

- **Anticipated Complications:**
  - Regurgitation
    - Sedation-induced
      - Have suction on standby
    - Place NG tube and empty stomach prior to induction
    - Plan for rapid induction
  - Hypotension
    - IVF bolus, MAC-sparing agents, Vasopressors
  - Hypothermia
    - Provide convective warming options
  - Aspiration pneumonia
    - Appropriately sealed ETT cuff
    - Empty stomach prior to extubation
- **Rough Recovery Plan:**
  - +/- Flumazenil 0.01 mg/kg IV
  - Acepromazine 0.005-0.01 mg/kg IV
  - Consider trazodone/gabapentin
- **Antiemetics** - metoclopramide 1-2 mg/kg/day CRI?
- **Feed + walk**

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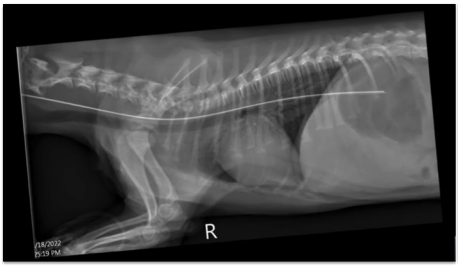

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JACQUES

"High-fashion, low-airflow, and strictly 'no-touch' without drugs."

The Stats: 3yr MI Frenchie | 12 kg | BCS 4/9 | BAS & Spicy
Here For: Sedated Nail Trim & RPL X-rays at Amazing Vet Hospital

ABOUT ME:
I'm a dramatic king who lives for the spotlight—as long as it's from a safe distance.

- **Loud & Proud: BAS (Heavy Stertor/Snoring).**
  - **Date Night Rule:** I'm an airway risk. Keep the O2 handy, the head elevated, and don't pull the tube until I'm fully awake and complaining.
- **Spice Specialist: Fear-Based Aggression.**
  - **Date Night Rule:** "Drugs before hugs." I need chemical restraint before you touch my paws or my ego.
- **Fragile Features: History of Right Corneal Ulcer.**
  - **Date Night Rule:** My eyes are expensive. Lube them early and often while I'm snoozing.
- **The Limp: Acute RH Lameness.**
  - **Date Night Rule:** Gentle positioning for the X-rays, please. I'm sensitive.

TURN ONS:
Air conditioning, heavy sedation, and being the center of attention.

TURN OFFS:
Humidity, paw physicals, and anyone who forgets I'm a "brachy" breathing hazard.

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JACQUES

L

- **3yr MI Frenchie | 12 kg | BCS 4/9**
- **Problem List:**
  - RPL lameness, BAS, aggression, Hx corneal ulcer OD, bilious vomit when fasted
- **Physical exam:**
  - T 103.2 F
  - HR 120 bpm, pulses SS, no murmur
  - RR panting, bilateral lung auscultation normal
  - MM pink, CRT 1-2 sec
- **Diagnostics**
  - CBC - NSF, Chem - NSF
- **Current Medications**
  - Trazodone 75 mg PO prior to veterinary visits
  - Omeprazole 10 mg PO SID-BID PRN
- **ASA III**

O

- **Sedation**
- **Radiographs/nail trim**
  - Bilateral 2-view RPL & LPL
  - Bilateral 2-view pelvis
  - Hands-free imaging
- **Patient positioning**
  - Dorsal & lateral recumbency
  - Some pelvic limb manipulation
- **Vascular access**
  - Peripheral IVC?
- **Patient Monitoring**
  - Multiparameter monitoring
    - ~~ECG, SP~~O2, NIBP, ETCO2, Temp
  - Physiologic monitoring
    - Jaw tone, eye position, palpebral reflexes, MM/CRT
- **Surgery huddle at start of procedure**

G

- **Chronic pain**
  - Mild-moderate; RPL lameness/inflammation
- **Surgical/procedure pain**
  - Mild; pending manipulation of stifles
- **Stress/anxiety**
  - High; fearful
  - FAS score: 4

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BSAVA | JOURNAL OF SMALL ANIMAL PRACTICE

ORIGINAL ARTICLE

Evaluating the impact of a standardised pre-operative patient management protocol on major post-operative complications in dogs undergoing BOAS surgery

C. D. L. Webb*, N. Gall*, L. B. Meakin* and E. J. Friend*,1
*Small Animal Referral Hospital, Langford Vets, University of Bristol, Bristol, UK
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Objectives: Obstructive sleep apnoea syndrome is a common human upper respiratory tract disease that resembles Brachycephalic Obstructive Airway Syndrome in dogs, and pre-operative lifestyle changes are often recommended to minimise perioperative risk. To assess the effect of a standardised pre-operative protocol and early discharge on major post-operative complications in dogs undergoing Brachycephalic Obstructive Airway Syndrome surgery.
Materials and Methods: Medical records of Brachycephalic Obstructive Airway Syndrome surgery from February 2018 to May 2022 were evaluated. Exclusions comprised breeds other than the pug, French bulldog and English bulldog, patients undergoing concurrent procedures or those receiving partial pre-operative management, resulting in 45 pre-operative protocol cases and 45 controls. Post-operative regurgitation and major complications (defined as a requirement for >48 hours of hospitalisation, requirement for rehospitalisation within 48 hours, post-operative temporary/permanent tracheostomy or death) were recorded for each group.
Results: Median age and body condition were not different between groups. Pre-operative protocol patients had more severe respiratory and gastrointestinal clinical signs, were more likely to be affected by pre-operative regurgitation and had a higher grade of laryngeal collapse compared to controls. Median hospitalization time from surgery to discharge was shorter for the pre-operative protocol group (4.5 hours) compared to controls (29 hours). Major complications occurred in 5/45 (11.1%) pre-operative protocol cases and 4/45 (8.9%) control cases, with no significant difference. Post-operative regurgitation was noted in 14/45 (31.1%) pre-operative protocol cases and 19/45 (42.2%) control cases within 24 hours of surgery.
Clinical Significance: Although introducing a pre-operative protocol for patients undergoing Brachycephalic Obstructive Airway Syndrome corrective surgery cannot currently be recommended, no detriment was observed in patients being managed in this fashion.

Journal of Small Animal Practice (2025); 66, 725–731
DOI: 10.1111/jsap.13881
Accepted: 5 April 2025; Published online: 17 June 2025

Table 2. Clinical signs and grade of laryngeal collapse

Pre-operative findings	Severity[†]	POP	Control	P-value
Respiratory clinical signs[‡]	Mild	9	25	
	Moderate	20	17	<0.001*
	Severe	16	3	
Gastrointestinal clinical signs[§]	Mild	18	37	
	Moderate	17	7	<0.001*
	Severe	10	1	
	History of regurgitation	44	24	<0.001*
Laryngeal collapse	None	0	3	
	Mild	12	21	
	Moderate	28	13	
	Severe	3	3	0.006*
	Not recorded	2	5	

POP Pre-operative protocol
†Severity based on frequency of different clinical signs (Poncet et al., 2005)
‡Respiratory clinical signs defined as snoring, inspiratory efforts, stress or exercise intolerance or syncope (Poncet et al., 2005)
§Gastrointestinal clinical signs defined as ptyalism, regurgitation or vomiting (Poncet et al., 2005)
*Statistically significant

AVMA Publications

< Previous Article Next Article >

Risk of anesthesia-related complications in brachycephalic dogs

Gruenheid, M., Aarnes, T. K., McLoughlin, M. A., Simpson, E. M., Mathys, D. A., Mollenkopf, D. F., and Wittum, T. E. (2018). Risk of anesthesia-related complications in brachycephalic dogs. ***Journal of the American Veterinary Medical Association*** **253, 3, 301-306,**

Outcomes

Perianesthetic (intra- and postanesthetic) complications were recorded for 49.1% (n = 219) of all 446 dogs, intra-anesthetic complications for 40.4% (180), and postanesthetic complications for 8.7% (39). These complications were recorded for 49.8% (n = 111), 49.3% (110), and 13.9% (31) of the 223 brachycephalic dogs, respectively, and 48.4% (108), 48.9% (109), and 3.6% (8) of the 223 nonbrachycephalic dogs, respectively.

The most common postanesthetic complication was aspiration pneumonia, which was recorded for 9 (4.0%) brachycephalic dogs and no nonbrachycephalic dogs. Other complications included regurgitation (7 [3.1%] brachycephalic dogs); dysphoria (1 [0.4%] brachycephalic and 4 [1.8%] nonbrachycephalic dogs); prolonged recovery (3 [1.3%] brachycephalic and 3 [1.3%] nonbrachycephalic dogs); stertorous breathing (3 [1.8%] brachycephalic and 1 [0.4%] nonbrachycephalic dogs); death (2 [0.9%] brachycephalic dogs); vomiting, anemia requiring blood transfusion, cranial or facial edema, hematuria or urinary tract infection, or inappetence (1 [0.4%] brachycephalic dog each); and VPCs (1 [0.4%] nonbrachycephalic dog). Of the 9 dogs with aspiration pneumonia, 4 had thoracic radiography performed prior to anesthesia with no radiographic or clinical signs of aspiration pneumonia detected. Four dogs had radiography performed only after the anesthetic event. One dog had aspiration pneumonia diagnosed on the basis of thoracic radiographic findings before the anesthetic event. Postoperative thoracic radiographs were obtained for this dog 24 hours after surgery, revealing worsening of the aspiration pneumonia.

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JACQUES

I

- **PREMEDICATION:**
  - Trazodone 75 mg + gabapentin 150 mg PO 2 hrs prior to visit
  - IM sedation for pt handling/IVC placement/rads?
    - *Butorphanol 0.2-0.3 mg/kg*
    - *Acepromazine 0.01 mg/kg vs dexmedetomidine 1-5 mcg/kg?*
    - *Alfaxalone 1-2 mg/kg*
  - Maropitant 1 mg/kg IV/SQ, consider pantoprazole 1 mg/kg IV, ondansetron 0.5-1 mg/kg IV, metoclopramide 1 mg/kg* IV (slow push)
  - *Baseline NIBP/ECG*
- **INDUCTION:**
  - N/A - have flow-by/mask oxygen available
- **MAINTENANCE:**
  - Propofol (0.5-1 mg/kg) vs alfaxalone (0.1-0.5 mg/kg) IV micro boluses PRN vs repeat dexmedetomidine 0.5-2 mcg/kg IV
  - **Administer high doses metoclop when sedate*
  - Artificial tears OU
- **RECOVERY:**
  - Monitor SPO2 until alert mentation

C

- **Anticipated Complications:**
  - Upper airway obstruction
    - Position head so that audible breathing is always achieved
    - Induction supplies on stand-by
    - Brachy block (small wedge to keep mouth partially open/move tongue out of the way)
  - Regurgitation
    - Suction supplies on stand by
  - Pain during limb manipulation
    - Add micro dose prop vs alfax vs dexmed
  - Hypothermia
    - Provide convective warming options
  - Corneal ulcer
    - Apply liberal artificial tears OU
- **Rough Recovery Plan:**
  - Micro dose propofol vs alfaxalone
  - Continue trazodone/gabapentin
- **Feed + walk**

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BEATRICE

"I'm a toxic relationship waiting to end. Also, I need sugar. Now."

The Stats: 12yr Bichon Frise | 6 kg | BCS 5/9 | Status: Critical Cougar
Here For: Emergency Ovariohysterectomy (The "My Uterus is Trying to Kill Me" Special) at Amazing Vet Hospital.

ABOUT ME:
I'm an older gal who tried to handle things with medication, but now I'm ready to commit to surgery.

- **I'm a Sugar Baby: Hypoglycemia (BG 55 mg/dL)**
  - *Date Night Rule:* I'm crashing. I need a Dextrose bolus and CRI immediately. If you leave me alone, I will faint.
- **My Heart Will Go On (With Help): Stage B2 MMVD/MTVD.**
  - *The Deets:* LA:Ao 1.6, FS 30% (contractility is "meh"), currently on **Pimobendan** 2.5mg.
  - *Date Night Rule:* It's a balancing act! I'm dehydrated from vomiting, so I need fluids... BUT if you flood me, I'll go into congestive heart failure. **Fluid therapy challenge level: Expert.**
- **A Pain in the Neck: Cervical IVDD.**
  - *Date Night Rule:* Do not crank my neck for intubation! Keep my head neutral. I prefer a gentle touch, not a wrestling match.
- **Rotten to the Core: Open Pyometra & Periodontal Disease.**
  - *Date Night Rule:* My mouth is gross and my uterus is worse. Antibiotics on board ASAP, please.

TURN ONS:
Dextrose 50%, beta-agonist agents, conservative fluid rates with strict monitoring, and a warm lap.

TURN OFFS:
Volume overload (my mitral valve can't handle it), hypothermia, extending my neck, and waiting around I'm septic, let's go!).

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BEATRICE

L

- **12yr Bichon Frise | 6 kg | BCS 5/9**
- **Problem List:**
  - Pyometra, hypoglycemia, fever, cardiac dz (Stage B2 - MMVD/MTVD), Hx cervical IVDD, periodontal dz
- **Physical exam:**
  - T 103.8 F
  - HR 180 bpm, pulses weak, heart murmur IV/VI
  - RR panting, bilateral lung auscultation normal
  - MM injected, CRT 2-3 sec
- **Diagnostics**
  - CBC - incr WBC, Chem - gluc 55 mg/dL, rest NSF
  - PCV/TS - 40%/6.7 g/dL
- **Current Medications**
  - Pimobendan 2.5 mg PO BID
  - Clavamox 125 mg PO BID, baytril 68 mg PO SID
  - Maropitant 8 mg PO SID
- **ASA IV**

O

- **General Anesthesia**
- **Laparotomy**
  - Ovariohysterectomy
- **Patient positioning**
  - Dorsal recumbency
- **Vascular access**
  - Peripheral IVC x2
  - Arterial line?
- **Patient Monitoring**
  - Multiparameter monitoring
    - ECG, SPO2, NIBP, ETCO2, Temp
  - Physiologic monitoring
    - Jaw tone, eye position, palpebral reflexes, MM/CRT
  - BG checks
- **Surgery huddle at start of procedure**

G

- **Chronic pain**
  - Mild-moderate; visceral pain +/- periodontal dz
- **Acute pain**
  - CSU Pain score: 2-3
- **Surgical pain**
  - Moderate-high
- **Stress/anxiety**
  - Physical stress from foreign body
  - FAS score: n/a

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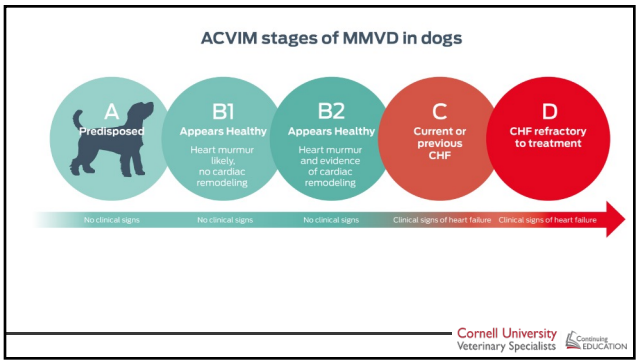
ACVIM stages of MMVD in dogs
A
Predisposed
B1
Appears Healthy
Heart murmur likely, no cardiac remodeling
B2
Appears Healthy
Heart murmur and evidence of cardiac remodeling
C
Current or previous CHF
D
CHF refractory to treatment
No clinical signs
No clinical signs
No clinical signs
Clinical signs of heart failure
Clinical signs of heart failure
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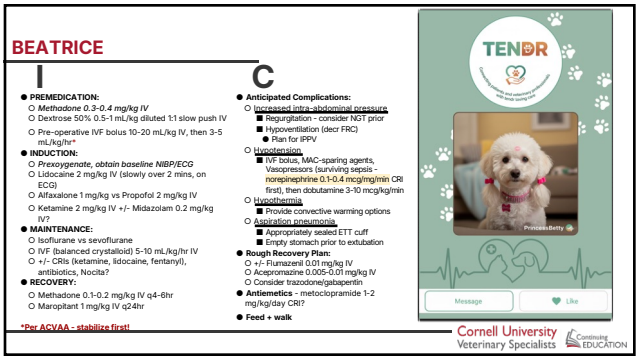
BEATRICE
I
PREMEDICATION:
Methadone 0.3-0.4 mg/kg IV
Dextrose 50% 0.5-1 mL/kg diluted 1:1 slow push IV
Pre-operative IVF bolus 10-20 mL/kg IV, then 3-5 mL/kg/hr*
INDUCTION:
Prexoygenate, obtain baseline NIBP/ECG
Lidocaine 2 mg/kg IV (slowly over 2 mins, on ECG)
Alfaxalone 1 mg/kg vs Propofol 2 mg/kg IV
Ketamine 2 mg/kg IV +/- Midazolam 0.2 mg/kg IV?
MAINTENANCE:
Isoflurane vs sevoflurane
IVF (balanced crystalloid) 5-10 mL/kg/hr IV
+/- CRIs (ketamine, lidocaine, fentanyl), antibiotics, Nocita?
RECOVERY:
Methadone 0.1-0.2 mg/kg IV q4-6hr
Maropitant 1 mg/kg IV q24hr
*Per ACVAA - stabilize first!
C
Anticipated Complications:
Increased intra-abdominal pressure
Regurgitation - consider NGT prior
Hypoventilation (decr FRC)
Plan for IPPV
Hypotension
IVF bolus, MAC-sparing agents, Vasopressors (surviving sepsis - norepinephrine 0.1-0.4 mcg/mg/min CRI first), then dobutamine 3-10 mcg/kg/min
Hypothermia
Provide convective warming options
Aspiration pneumonia
Appropriately sealed ETT cuff
Empty stomach prior to extubation
Rough Recovery Plan:
+/- Flumazenil 0.01 mg/kg IV
Acepromazine 0.005-0.01 mg/kg IV
Consider trazodone/gabapentin
Antiemetics - metoclopramide 1-2 mg/kg/day CRI?
Feed + walk
TENDR
Princess Betty
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CARL
"I'm big, I'm beautiful, and I'm currently tied up in knots."
The Stats: 5yr MN Maine Coon | 9 kg (Absolute Unit) | BCS 5/9 | Attitude: Spicy Giant
Here For: Abdominal Explore (The "String Theory" Investigation) at Amazing Vet Hospital
ABOUT ME:
I'm a large-format gentleman who loves the finer things in life: sewing kits, ribbon, and unprovoked violence.
I'm All Bound Up: Linear Foreign Body with Proximal Small Intestinal Plication.
The Deets: My intestines look like an accordion right now.
Date Night Rule: My stomach is fluid-filled, which means I'm a high risk for regurgitation/aspiration. Rapid induction is a must—don't dilly-dally getting that tube in!
Wheezy Rider: Asthma.
Date Night Rule: My airways are sensitive divas. Avoid drugs that cause bronchoconstriction. If I start coughing on induction, we're gonna have a bad time.
Vintage Filter: Mild CKD (Chronic Kidney Disease) changes on ultrasound.
Date Night Rule: I'm only 5, but my kidneys are aging hipsters. Keep my Mean Arterial Pressure (MAP) > 60 mmHg (preferably > 70-80). Hypotension is not my vibe.
Left Side, Strong Side: Prior Left FHO.
Date Night Rule: Please be careful positioning my hind legs; I have limited range of motion and I get cranky if you pull too hard.
Stranger Danger: Fear-Based Aggression.
Date Night Rule: I have giant murder mittens. If I'm awake, I'm dangerous. Keep the Gabapentin coming...
TURN ONS:
Suction (for my stomach fluid), gentle handling of my left leg, and pre-oxygenation via mask (if I tolerate it... which I won't), #inhalerb4inhalants.
TURN OFFS:
Aspiration pneumonia, low blood pressure, bronchospasm, and anyone trying to take the string away from me while I'm awake.
TENDR
Furrocious Lion
Message
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CARL

L

- **5yr MN Maine Coon | 9 kg | BCS 5/9**
- **Problem List:**
  - Linear FB, asthma, mild CKD, aggression, Hx L FHO
- **Physical exam:**
  - T 100.8 F
  - HR 240 bpm, pulses SS, no murmur
  - RR 50 brpm, bilateral lung auscultation normal
  - MM pink, CRT 1-2 sec
- **Diagnostics**
  - CBC/Chem - NSF
  - PCV/TS - 39%/6.8 g/dL
- **Current Medications**
  - Gabapentin 200 mg prior to vet visits
  - Albuterol 1 puff (90 mcg) PRN
- **ASA III**

O

- **General Anesthesia**
- **Laparotomy**
  - Gastrotomy vs enterotomy for FB retrieval
- **Patient positioning**
  - Dorsal recumbency
- **Vascular access**
  - Peripheral IVC x2
  - Arterial line? Location?
- **Patient Monitoring**
  - Multiparameter monitoring
    - ECG, SPO2, NIBP, ETCO2, Temp
  - Physiologic monitoring
    - Jaw tone, eye position, palpebral reflexes, MM/CRT
- **Surgery huddle at start of procedure**

G

- **Chronic vs acute pain**
  - Mild-moderate; visceral
  - CSU Acute Pain Score: 2-3
- **Surgical pain**
  - Moderate-high
- **Stress/anxiety**
  - Physical stress from foreign body
  - FAS score: 4

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CARL

I

- **PREMEDICATION:**
  - IM sedation for pt handling/IVC
    - *Methadone 0.3-0.5 mg/kg +/- ketamine 2 mg/kg*
    - *Acepromazine 0.01 mg/kg IM vs dexmed?*
    - *Alfaxalone 1-2 mg/kg IM*
  - Maropitant 1 mg/kg IV vs SQ
  - Pre-operative IVF 3 mL/kg/hr +/- IVF bolus
- **INDUCTION:**
  - *Preoxygenate, obtain baseline NIBP/ECG*
  - Albuterol 1 puff (90 mcg) immediately prior to induction
  - Alfaxalone 1 mg/kg vs Propofol 2 mg/kg IV
  - Ketamine 2 mg/kg IV (+/- Midazolam 0.2 mg/kg IV)
  - *Lidocaine 2% (0.1-0.2 mL splashed on larynx)*
- **MAINTENANCE:**
  - Isoflurane vs sevoflurane
  - IVF (balanced crystalloid) 5-10 mL/kg/hr IV
  - +/- CRIs (ketamine vs dopamine), antibiotics, Nocita?
- **RECOVERY:**
  - Methadone 0.1-0.2 mg/kg IV q4-6hr vs buprenorphine 0.01-0.02 mg/kg IV q 6-8hrs
  - Maropitant 1 mg/kg IV q 24hr
  - Gabapentin 20 mg/kg +/- trazodone 5 mg/kg PO q8hr to minimize stress in hospital

C

- **Anticipated Complications:**
  - Hypotension
    - Keep MAP **>70-80 mmHg**
    - Inhalant-induced - dopamine CRI (3-10 mcg/kg/min)
    - Hypovolemia-induced - IVF bolus (3-5 mL/kg over 15-20 mins)
  - Hypothermia
    - Provide convective warming options
  - Aspiration pneumonia
    - Appropriately sealed ETT cuff
    - Empty stomach prior to extubation
- **Rough Recovery Plan:**
  - +/- Flumazenil 0.01 mg/kg IV
  - Acepromazine 0.005-0.01 mg/kg IV
  - Consider trazodone/gabapentin
- **Antiemetics**
  - Continue maropitant, consider ondansetron +/- pantoprazole
- **Feed + allow room to get up in cage**

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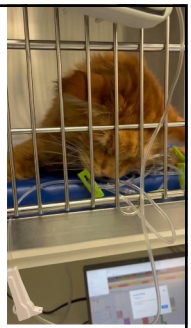
SUMMARY

- → **Increase technician utilization** in entire anesthetic process
  - ◆ Patient assessment/interpretation
  - ◆ Protocol planning/rounds
  - ◆ Case management/collaboration
- → **Dedicated anesthetist** for every case (avoid multitasking)
- → Use **capnography**
- → Implement a **Surgical Safety Checklist**
- → **Enhanced Recovery After Surgery** approach
- → **Support** one another
- → **Practice** makes perfect - *this is a journey*
- → **Stay curious** - ask questions



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Questions??

Tracey's Rule of Digit #1:

"Treat every case as if the animal were your own pet; this commitment will ensure uncompromising patient care."

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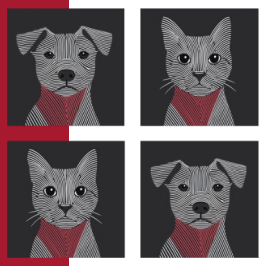
Thank You!!

E: tracey@caresvetmed.com



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