



Doing the Most for Our Patients with the Least Evidence-Based Vet Care on the Cheap

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Webinar Overview

- Disclaimers
- Defining the problem
- Standard of Care
- Access to Care Coalition
- Disease management on the cheap
- Vet Hacks
- Q & A

Disclaimers/Admonitions

- Practicing good medicine is best way to save clients \$
- You miss more things by not looking than by not knowing
- If you cut too many corners, it ends up being “penny wise and dollar foolish”
- Knowing the tricks of the trade ≠ knowing the trade
- You can’t help anyone if you go out of business
- Your bottom line likely won’t improve from this talk
- You might sleep better by following this advice

Facts and Figures

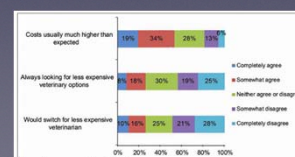
- Approximately 23 million pets live in families at or below the poverty line¹
- Of pet owners who didn’t visit a vet in the last year, 29% of dog owners and 21.5% of cat owners said they couldn’t afford it²
- 53% of pet owners reported that costs of veterinary care are usually much higher than expected³
- Linear relationship between annual income and likelihood of pet relinquishment⁴

¹HSVMA Access To Care Coalition

²AVMA data

³Bayer Veterinary usage study

⁴Journal of Applied Animal Welfare Science



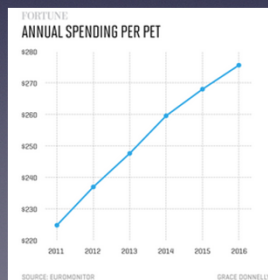
The Cost of Pet Ownership

- 15 billion/year spent on veterinary care¹
- Spending/year on pets: \$785/dog; \$516/cat¹
- Lifetime Spending: \$20,895/dog; \$18,461/cat²
- Only 31% of vets discuss veterinary costs with clients prior to their pet becoming ill³

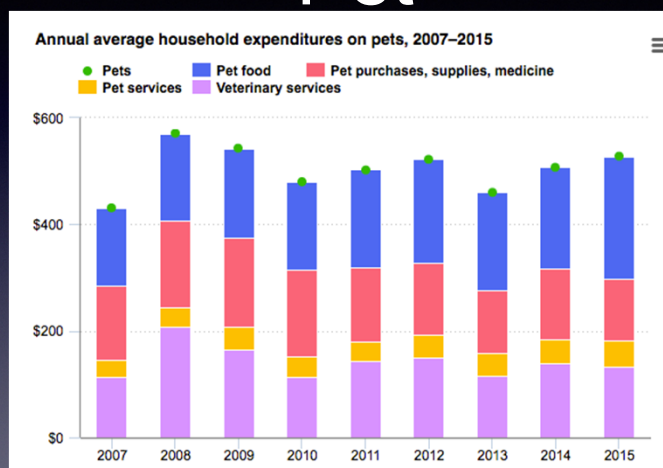
¹American Pet Products Manufacturers Assoc; 2014

²Ontario Vet Medical Association

³JAVMA 2017



The Cost of Owning a Pet



U.S. Bureau of Labor Statistics,
2017

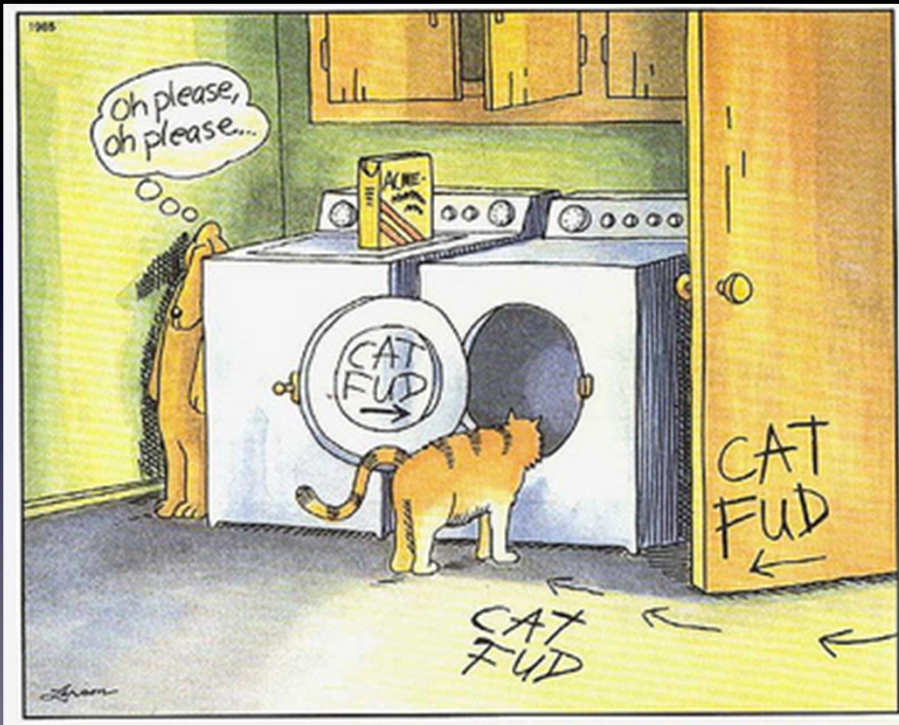
Factors that influence small animal veterinarians' opinions and actions regarding cost of care and effects of economic limitations on patient care and outcome and professional career satisfaction and burnout

Barry S. Kipperman DVM

OBJECTIVE

To determine small animal veterinarians' opinions and actions r

- Job stress/dissatisfaction
- Compassion fatigue
- Burnout
- Suicide



Is this Standard of Care?



Or is this SOC?



Standard of Care(SOC)

- No universally accepted veterinary definition of SOC
- SOC in veterinary tort law: “Care required of and practiced by the average reasonably prudent, competent veterinarian in the community”.¹
- “...nor does the legal standard set the threshold for liability at a particularly high level. The average or normal practitioner sets the standard”²

¹ [Dyess v. Caraway](#), (La. 1966)

² [Turner v. Benhart](#), (Al. 1988),

SOC, continued

- Locality rule-care in relation to “community standards”
- Specialist vs general practitioner
- Special interest/practice limited to
- Requirement to offer referral

The Feline UO Case

Intensive/Expensive Tx Protocol

- Full bloodwork (CBC, Profile)
- Retrovirus testing if indicated
- Urinalysis with sediment
- Urine culture on presentation
- Blood gas
- IVC
- Injectable drugs for hyperkalemia PRN
- EKG
- IVF
- Blood pressure
- Coccygeal epidural nerve block
- Sedation/anesthesia
- Indwelling U-cath using sterile technique
- SPO2 and BP monitoring during procedure
- Placement radiograph for catheter and stones
- Cleaning u-cath multiple times/day to try and prevent ascending infection
- AUS for radiolucent stones, tumors, polyps, kidneys, other
- Bloodwork during hospitalization (lytes, renal values, PCV/TS)
- Drug therapy (prazosin, phenoxybenzamine, antibiotics, pain relievers)
- 48-96 hours hospitalization
- Urine culture after catheter removal for possible nosocomial infection



Inexpensive protocol

- Sedation
- U-cath
- SQ fluids
- Send home with open catheter
- Drug therapy (diazepam, prazosin)



Where Does SOC Come From?

- State Practice Acts
- AVMA Model Practice Act
- PVME
- Tort law
- State Veterinary Medical Boards of Examiners
- Vet school?
- Veterinary experts?
- Veterinary literature?

SOC ≠ Gold Standard

- “Failure to submit a bladder stone for quantitative analysis is not *standard of care*”¹
- “CO2 lasers have become the *standard of care* in general practices and in specialty referral practices”²
- “Endoscopy is becoming the *standard of care* for thoracic surgery”³

None of these statements are true or correct!

¹DVM Magazine 2007

²VPN 2012

³VPN 2011

Clinical Practice Guidelines (CPGs)

- Systematically developed statements to assist practitioners and patient decisions about appropriate health care for specific clinical circumstances
- Based on best available evidence
- Clinically relevant
- Practical, in the trenches, recommendations
- Better approach to standardize care
- Don't exist and not utilized in vet medicine





Clinical Practice Guidelines(CPGs)

- Better research
- White papers
- Consensus statements
- Meta-Analyses/Systematic reviews
- National Guidelines Clearinghouse for veterinary med?



Access to Veterinary Care Coalition

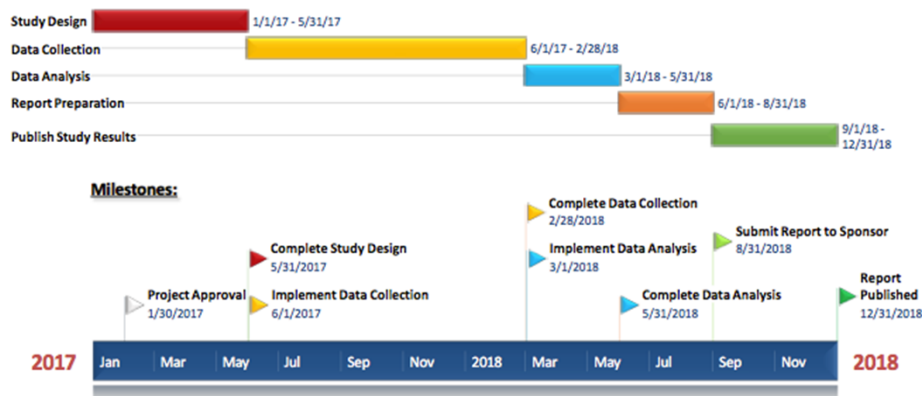
- Founded March 2015
- Initiative of the HSVMA in association with Univ of TN College of Social Work and the Veterinary Social Work program
- Members include vets from private practice, non-profit clinics, academia, social service and animal welfare organizations
- Goal: to research and explore how the veterinary profession can ensure humane care and treatment of all pets

Guiding Principles to Ensure Access to Veterinary Care

- All animals deserve veterinary care
- Many pets in the U.S. are not getting the vet care they need
- Veterinarians should have the freedom to provide a spectrum of care for their patients, meaning:
 - a) Vets should have the flexibility to offer proven, effective tx for their patients, with the understanding that those options may not involve the use of the most expensive, technologically advanced or state-of-the-art equipment or techniques
 - b) Vets should be able to consider the pets' individual circumstances and their owners' living situations when determining proper course of tx
 - c) Vets should have the legal protection and professional approval to provide appropriate care to underserved animals, whether that is in for-profit or nonprofit settings

Access To Veterinary Care

Access to Veterinary Care: Barriers, Best Practices, and Public Policy



Saving Your Clients Money-The Obvious

- Don't do tests if results won't change the way you tx!
- Send out(as opposed to in-house) labwork for stable patients
- OTC meds (anti-histamines, antacids, anti-diarrheals)
- Use Generics- They're FDA-approved bioequivalent drugs
- \$4 & \$5 Scripts at "Big Box" stores-Walmart, Target, Costco
- Ask drug reps for free samples, coupons, etc.

Rat Poison Ingestion

- Confirm poison type-Vit K antagonist, Cholecalciferol, Bromethalin, other
- Confirmed vs suspected ingestion
- Symptomatic vs acute ingestion



Typical Rat Poison Therapy (Vitamin K Dependent)

- Baseline clotting times
- +/-Additional bloodwork
- Induce vomiting
- Give activated charcoal
- Send home with 2-4 weeks of (expensive)Vitamin K



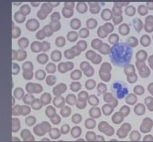
Rodenticide Ingestion Saving Money

- Acute Ingestion
 - Make dog vomit, give charcoal, get baseline PT, recheck PT days 2, 3 & 5; No vitamin K
 - Just give Vitamin K (Why induce vomiting or give charcoal if you're going to send dog home on Vit K anyway?!)
- Suspected/Possible Ingestion
 - Make dog vomit. If no rat poison > consider above options
 - Check PT on day 2, 3 and 5 > Tx only if prolonged PT
- Prior to symptoms, no need for injection of Vit K



Parvovirus

- Fluids, fluids and more fluids. Calculate deficit!
 - Maintenance + %dehydration + ongoing losses
- They all need KCl in their fluids
- No harm adding in dextrose to fluids (2.5%)
- They die from gram- sepsis so pick appropriate antibiotic
- You can (syringe) feed through the vomiting if not severe
- Estimating WBC count
 - Average # of WBC/100x monolayer fields X 2000



Outpatient Parvo Protocol¹

- 40 dog study-20 inpatient tx & 20 outpatient tx; randomized

On Presentation:

- Evaluate hydration, cardiovascular status
- Check electrolytes and BG (if possible)
- Place IVC
- IV fluids @ 20-40ml/kg as boluses to achieve CV stabilization
- Add dextrose (25% Dextrose, 1-2ml/kg) to IVF PRN



Outpatient Parvo Therapy¹

- SQ fluids Normosol-R, LRS, 0.9%NaCL, @120ml/kg/day, divided TID
- Cerenia 1mg/kg SQ SID; Ondansetron (Zofran) 0.5mg/kg TID PRN
- Dextrose PO 1-5ml Karo syrup on mm every 2-6 hours
- KCL as Tumil-K PO 0.5-1 tsp/10lbs every 4-6 hours
- Cefovacin (Convenia) 8mg/kg SQ once
- Analgesia PRN: Buprenorphine 0.02mg/kg SQ TID (or Simbadol SID)
- Enteral nutrition- Hills a/d @ 1ml/kg QID if able/tolerated
- Warm pet to keep temp >99°F
- Survival: 18/20 inpatients, 16/20 outpatients; p=0.66

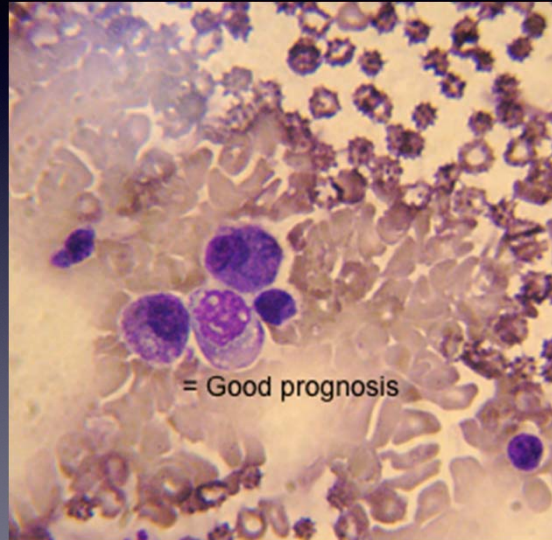
¹JVECC 2015

Outpatient Parvo Therapy

- Know when to admit outpatient failure
 - Worsening hydration
 - Worsening mentation
 - Fever >104°F (persistent)
 - Other complications: intussusception, sepsis, SIRS, ARDS



How to tell if a Parvo dog is going to live



Diabetes-Saving Money

- You can make dx with BG and urine dipstick in most cases
- Stable diabetics don't need to be admitted
- With urine dipsticks and observations of water intake, most dogs can be well regulated at home
- Insulin does *not* need to be discarded after 1 month
- To avoid discarding unused insulin in cats on small doses of insulin consider using vial out of insulin pen
- Insulin costs
 - Dog: Vetsulin<Novolin<Humulin
 - Cat: Glargine<ProZinc



Feline Urethral Obstruction

- Common problem
- Required to provide care per PVME?
 - “In emergencies, veterinarians have an ethical responsibility to provide essential services when necessary to save life or relieve suffering”
- Without tx, prognosis grave
- Usually treated as inpatient with U-cath



Treating UO Without Urethral Catheterization¹

Prospective Study

- 15 male cats with UO
- Cats with severe metabolic derangements or stones excluded

Tx Protocol

- Decompressive cystocentesis (repeated PRN)
- SQ fluids (100-200ml)
- Acepromazine 0.25mg IM or 2.5mg PO TID
- Buprenorphine 0.075mg PO TID
- Medetomidine 0.1mg IM SID
- Quiet, dark environment



¹JAVMA Dec 2010

Conservative UO Tx

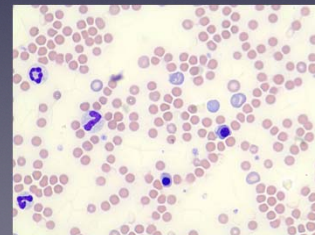
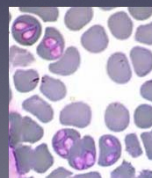
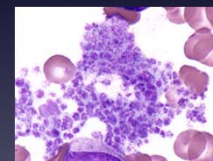
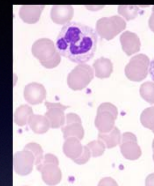
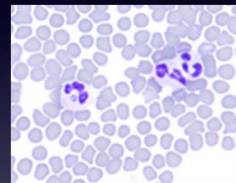
- Cats kept in hospital
- Tx success=spontaneous urination within 72 hours
- 11/15 cats responded to treatment
- 3 cats developed uroabdomen
- 1 cat developed hemoabdomen
- Cats that failed tx had higher Creat levels




¹JAVMA Dec 2010

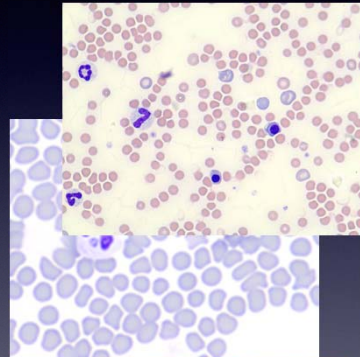
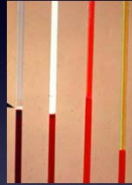
Work Your Blood Smear

- Estimate WBC count
- Platelet count
- WBC morulae
- RBC
 - regenerative vs non-regenerative
 - RBC parasites
 - Other



Thrombocytopenic or Anemic Dog

- PCV/TS and serum color
- Blood smear
- 4DX 
- Treat for the treatable
- Doxycycline 5mg/kg BID
- Prednisone 2mg/kg/day initially



Addison's Disease


- You can rule *out* Addison's with just basal cortisol¹
- DOCP has an FDA-approved generic available
- Frequency of DOCP injections can be increased gradually to up to 6 weeks in some dogs
- Dose of DOCP can be (gradually) reduced without loss of electrolyte control²
- Atypical (glucocorticoid only deficient) Addisonian dogs usually *don't* end up needing DOCP; Just prednisone

¹JVIM 2014, 2016

²Aus Vet Journal 2013



GI Disease-Vet Hacks

- Antibiotics for a dog with vomiting rarely warranted
- Vomiting vs Regurgitation? Try pH paper 
- Ultrasound for chronic vomiting has low diagnostic utility¹
 - US vital to diagnosis in only 20.5% of dogs
 - Diagnosis without US likely in 69% of dogs
 - In older dogs, US more likely to be useful
- HGE dogs without sepsis may not require antibiotics²
 - No difference in mortality, hospital duration, severity of signs in dogs treated with ABs (Clavamox) or without

¹JVIM 2010

²JVIM 2011

Pharmacology Hacks



Instead of	Try
Cerenia	Zofran (Generic)
Humulin Insulin	Novolin Insulin
Pepcid	Prilosec ¹
Enrofloxacin	Ciprofloxacin ²
Clavamox	TMS, Chloramphenicol
Doxycycline	Minocycline ³

¹JVIM 2011& 2017; ACVIM 2014

²AJVR 2012




³Plumbs Therapeutic Brief 2017

Miscellaneous Vet Hacks

- Coughing dog with a normal HR--->it's not heart dz
- Don't forget USG to assess renal function
- Fevers >104: viral, paraneoplastic, immune-mediated
- Short course ABs for simple UTIs¹
- "Old" propofol for euthanasias 
- No Nosorb? Try 

¹JVIM 2014

Miscellaneous Vet Hacks

- Stop using antacids in dogs/cats on steroids¹
- Poor man's/woman's cellphone cytology 
- Don't run fecal if you are going to deworm anyway
- First time sz dog can be treated as an outpatient
- If Lyme isn't better within 48hrs of tx, it ain't the Limes
- Do it yourself Buffy Coat  

¹AJVR 1997, JAAHA 2017

Remember...

- Doing the best you can is always better than doing nothing
- A little bit of something is better than a whole lot of nothing
- Less hand wringing, more doing
- Don't be afraid to try something you haven't done before
- Don't suffer from referofilia-if it's you and a book vs euthanasia, you (nor the pet) don't have much to lose



Helping Clients Afford Care

- In-house financial assistance program
- Pet insurance (catastrophic, high deductible)
- Pet Savings accounts
- CareCredit
- Payment plans
- Barter
- Emergency credit card for pet
- Best Friends Animal Society (bestfriends.org)
- HSUS(humanesociety.org/animals/resources/tips/trouble_affording_pet.html)
- RI Companion Animal Foundation Model

Finding Help

- American Veterinary Medical Foundation Charitable Fund (avmf.org)
- American Humane Association (americanhumane.org)
- ASPCA (aspca.org)
- The Big Hearts Fund (bigheartsfund.org/)
- Brown Dog Foundation (browndogfoundation.org)
- GoFundMe (gofundme.com)
- Canine Cancer Awareness (caninecancerawareness.org)
- Onyx and Breezy Foundation (onyxandbreezy.org)
- The Magic Bullet Fund (themagicbulletfund.org)
- The Mosby Foundation (themosbyfoundation.org)
- Paws4ACure (paws4acure.org)
- Petco Foundation (petcofoundation.org)
- Shakespeare Animal Fund (www.shakespeareanimalfund.org)
- The Pet Fund (thepetfund.com)
- Red Rover (redrover.org/grants)
- The Riedel & Cody Fund (riedelcody.org)

Questions?

