

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

Gary Block DVM, MS, DACVIM
Ocean State Veterinary Specialists

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 \neq 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

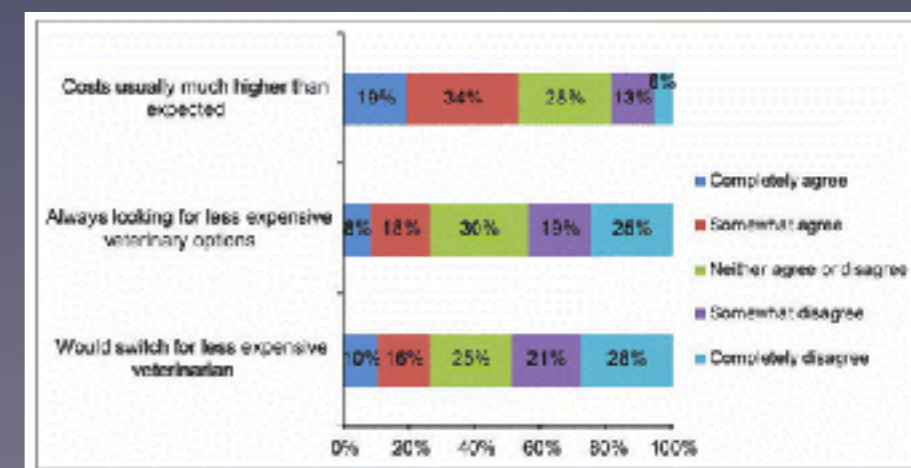
- Approximately 23 million pets live in families at or below the poverty line¹
- Of pet owners who didn't visit a vet in the last year, 29% of dog owners and 21.5% of cat owners said they couldn't afford it²
- 53% of pet owners reported that costs of veterinary care are usually much higher than expected³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



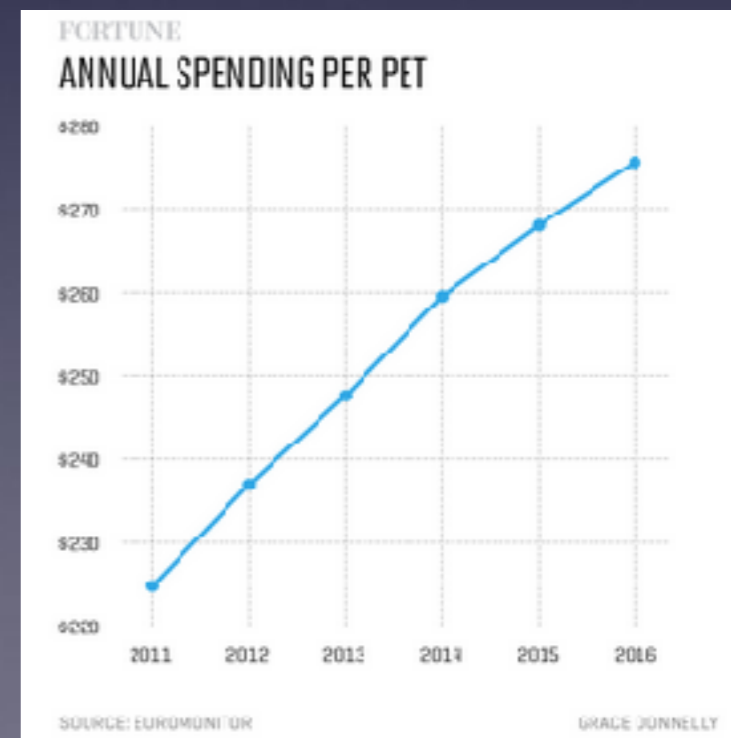
The Cost of Pet Ownership

- 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



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 re

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

oh please,
oh please...

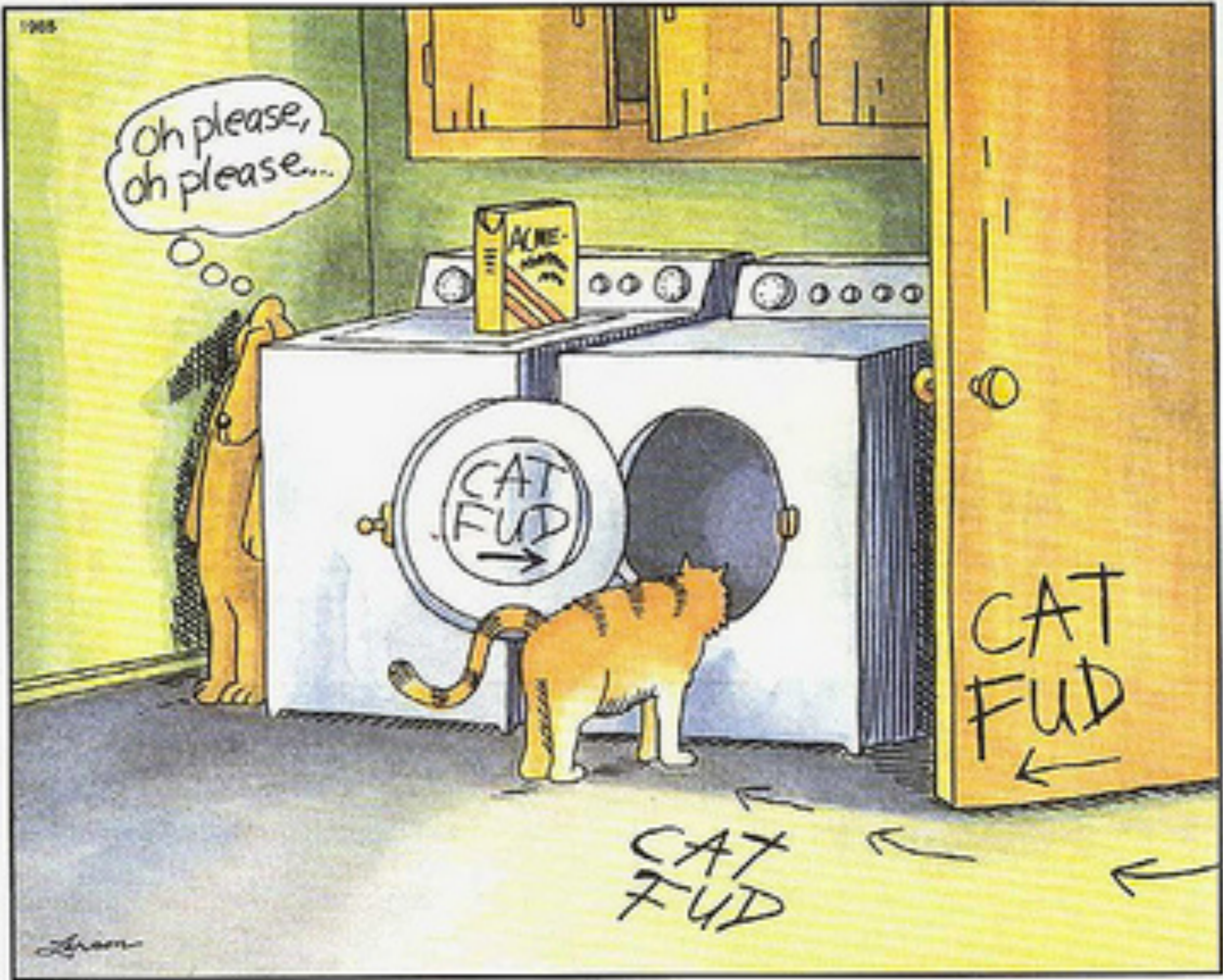
ACME
CAT
FOOD

CAT
FUD
→

CAT
FUD
←

←
CAT
FUD
←

Green



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),

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)



Standard of Care

There is no SOC until you are sitting in front of your State Vet Medical Board defending yourself from a malpractice complaint



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:

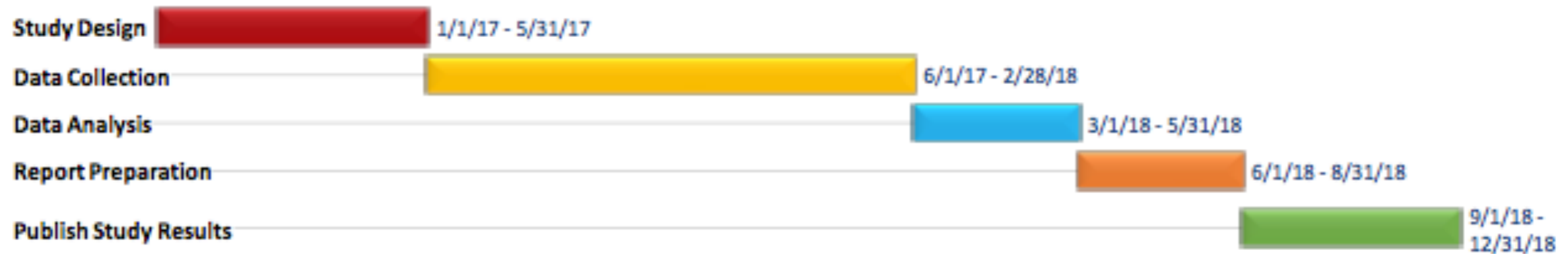
a) Vets should have the flexibility to offer proven, effective tx for their patients, with the understanding that those options may not involve the use of the most expensive, technologically advanced or state-of-the-art equipment or techniques

b) Vets should be able to consider the pets' individual circumstances and their owners' living situations when determining proper course of tx

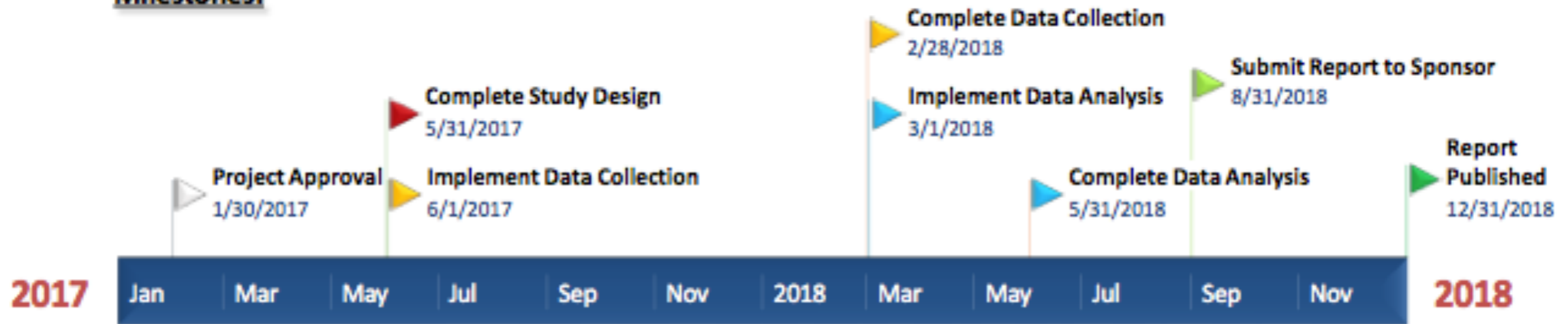
c) Vets should have the legal protection and professional approval to provide appropriate care to underserved animals, whether that is in for-profit or nonprofit settings

Access To Veterinary Care

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



Milestones:



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.

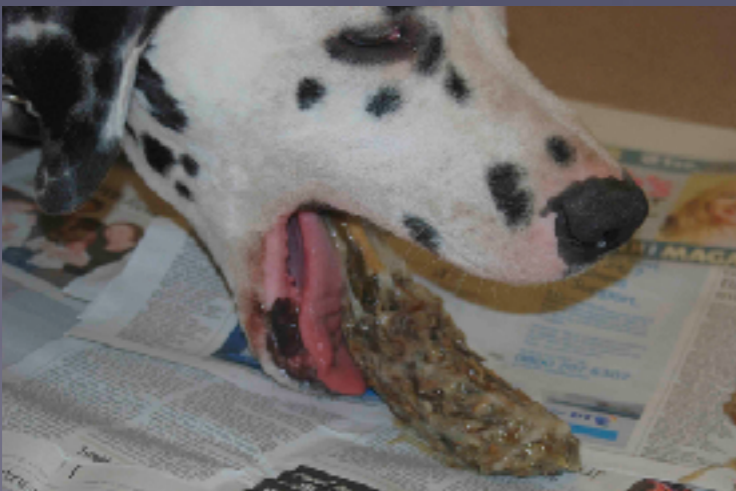
Rat Poison Ingestion

- 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

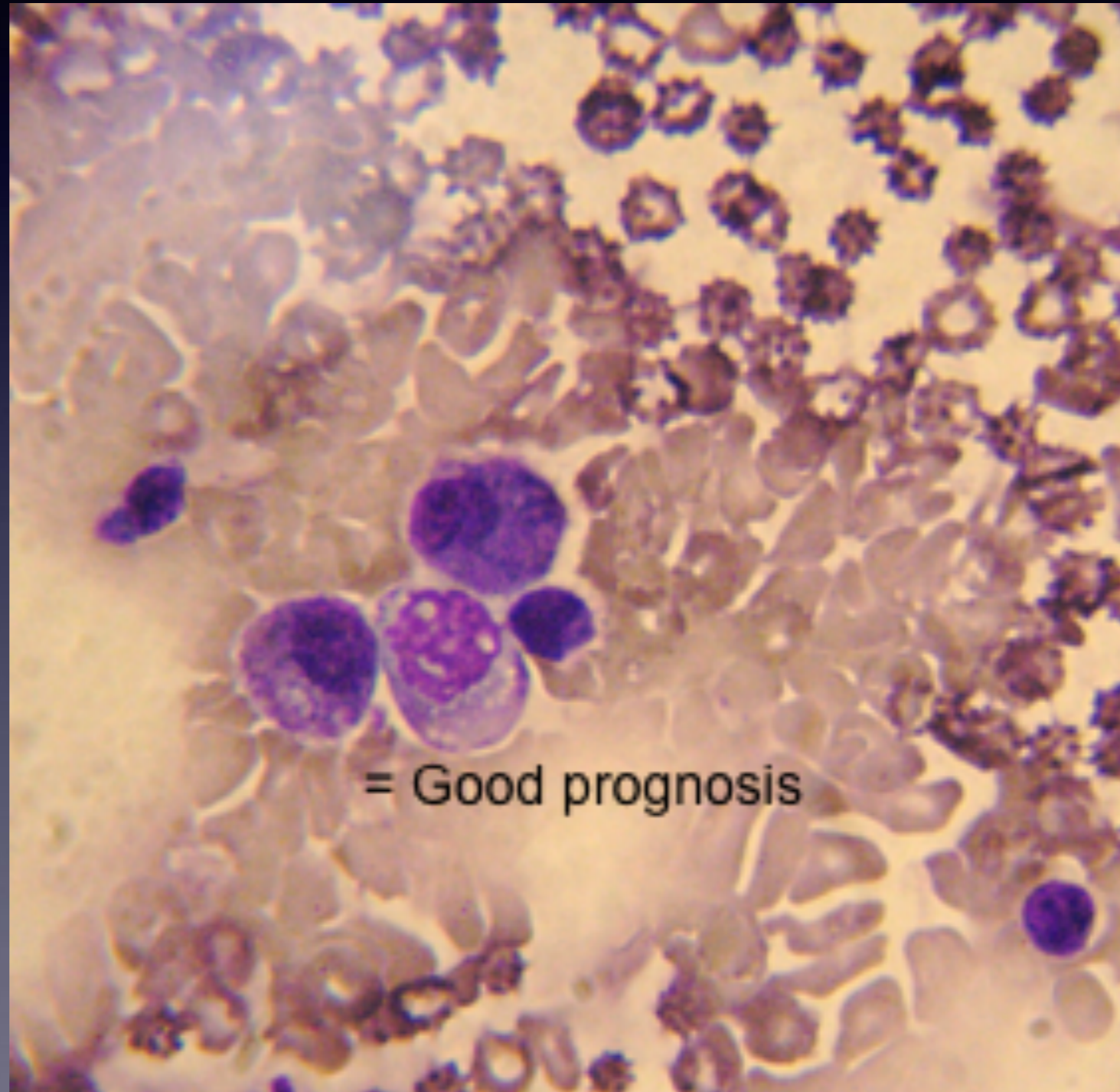


Parvovirus

- 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



How to tell if a Parvo dog is going to live



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

¹JVECC Dec 2015



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 SQ 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

2017 Outpatient Parvo Study¹

- 130 dogs in an uncontrolled private practice study
- 25% mortality rate (failed to survive \geq 3days after Dx)
- Dogs given Nutri-Cal[®] had a 19% mortality rate ($p=0.02$)

¹JAVMA Nov 2017

Outpatient Parvo Therapy

- Know when to admit outpatient failure
 - Worsening hydration
 - Worsening mentation
 - Fever $> 104^{\circ}\text{F}$ (persistent)
 - Other complications: intussusception, sepsis, SIRS, ARDS



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



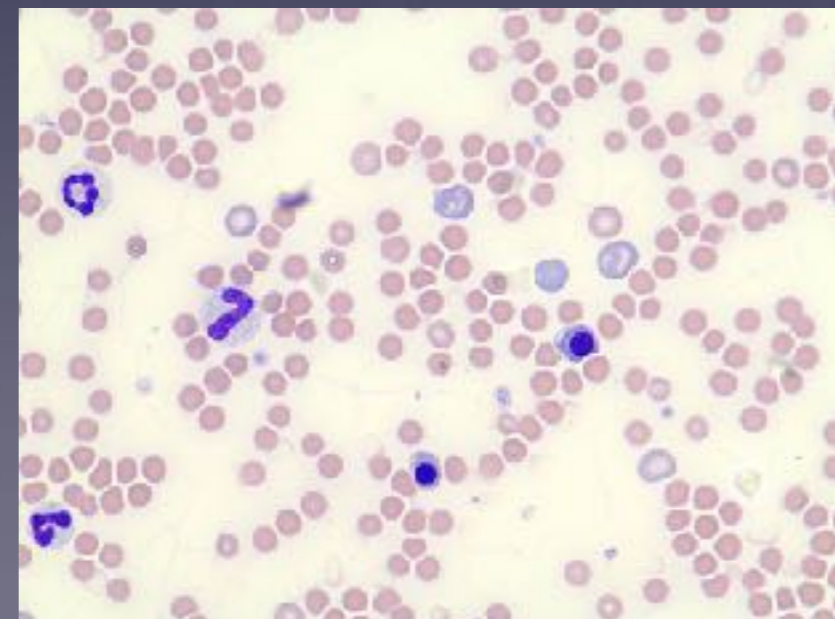
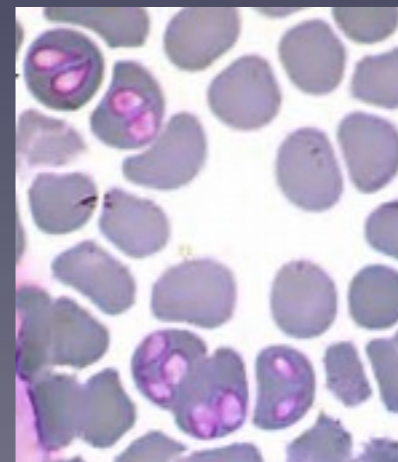
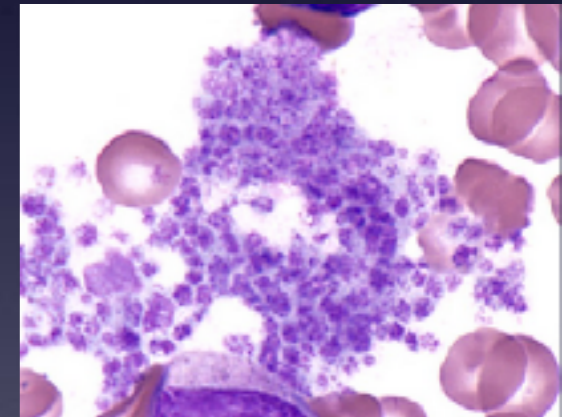
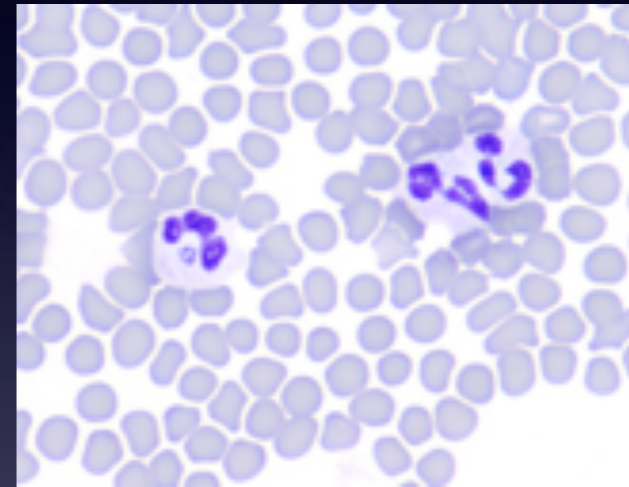
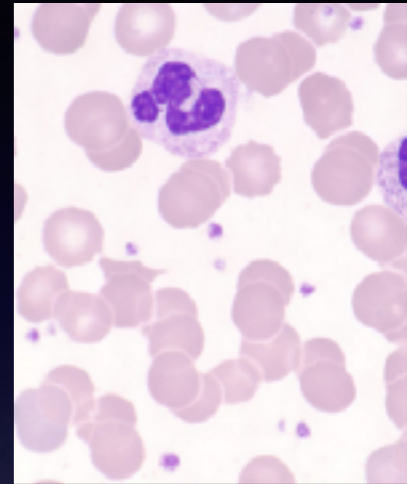
Conservative UO Tx

- 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




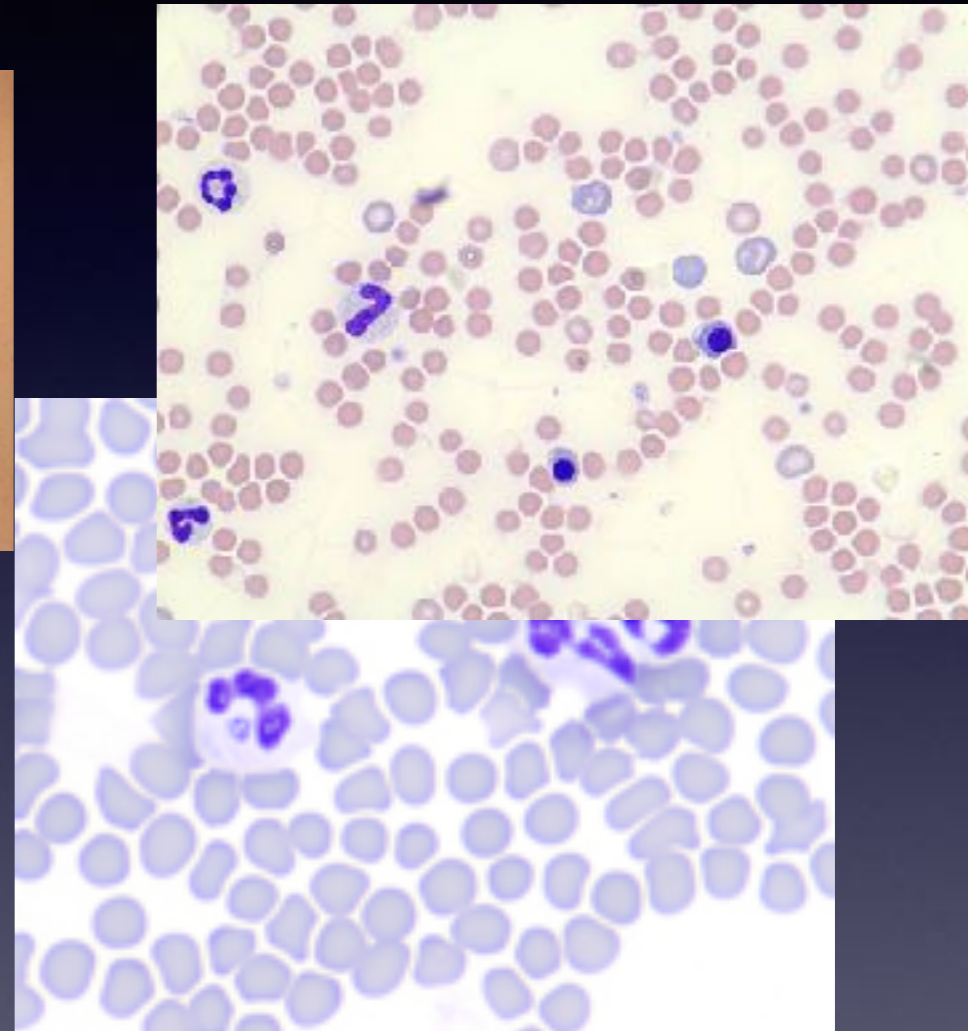
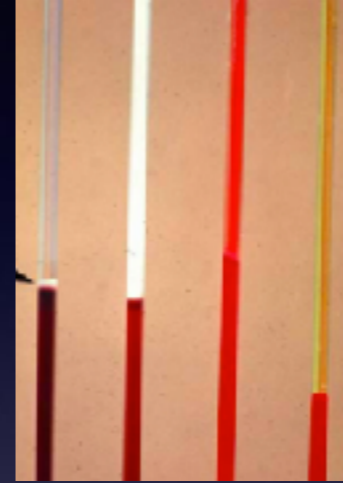
Work Your Blood Smear

- 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
- +/-Clotting times
- 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
- This can be an expensive disease to treat
- DOCP has an FDA-approved alternative available
- Atypical (glucocorticoid only deficient) Addisonian dogs usually *don't* end up needing DOCP; just prednisone

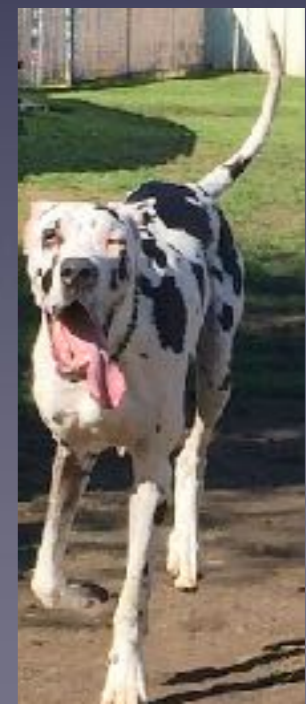


Addison's Disease

- DOCP normally dosed at 2.2mg/kg every 25-30 days
- Dose of DOCP can be (gradually) reduced without loss of electrolyte control¹
 - Doses as low as 1.4mg/kg possible in some dogs (particularly larger dogs)
- Frequency of DOCP inj can be gradually increased up to 12 weeks in some dogs²
 - 53 dogs in study-24 with new dx, and 29 previously diagnosed
 - Mean individual dosing interval(IDI) for both groups approx 60 days
- Adjusting dose based on IDI can reduce drug costs 57%

¹Aus Vet Journal 2013

²JVIM 2017



GI Disease-Vet Hacks

- Antibiotics for a dog/cat with vomiting rarely warranted
- Vomiting vs Regurgitation? Try pH paper
- You don't need to routinely use antacids when using steroids
- 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
Famotidine	Omeprazole ¹
Enrofloxacin	Ciprofloxacin ²
Clavamox	TMS, Chloramphenicol
Doxycycline	Minocycline ³

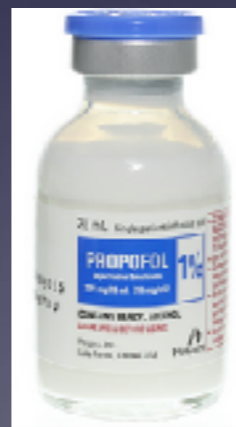
¹JVIM 2011 & 2017; ACVIM 2014

²AJVR 2012

³Plumbs Therapeutic Brief 2017

Miscellaneous Vet Hacks

- Coughing dog with a normal HR → it's probably not heart dz
- Cats with heart disease don't cough → Don't spend money on echocardiogram
- Short course ABs for simple UTIs¹
- Don't forget USG to assess renal function
- Closing the rectus abdominus with simple continuous suture pattern is as safe as simple interrupted suture pattern and saves time and money²
- Fevers > 104: Think viral, paraneoplastic, immune-mediated
- “Old” propofol for euthanasias
- No Nosorb? Try

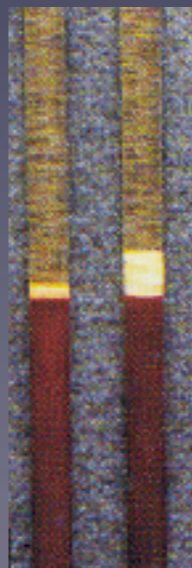
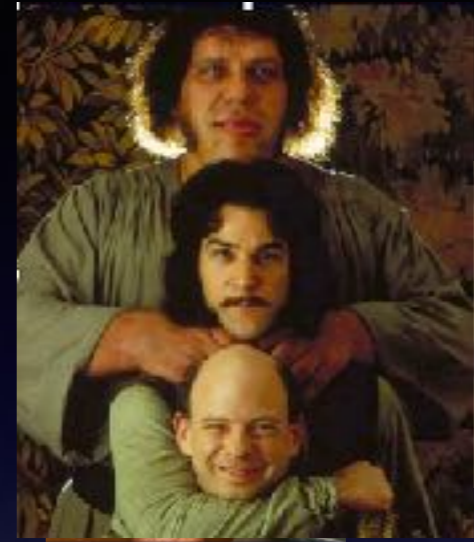


¹JVIM 2014

²Vet.Quart 1998, Vet Surg 1978

Miscellaneous Vet Hacks

- Poor man's/woman's cellphone cytology
- First time sz dog can be treated as an outpatient
- If Lyme isn't better within 48hrs of tx, it ain't the
- Do it yourself Buffy Coat



Cool Hand Luke It



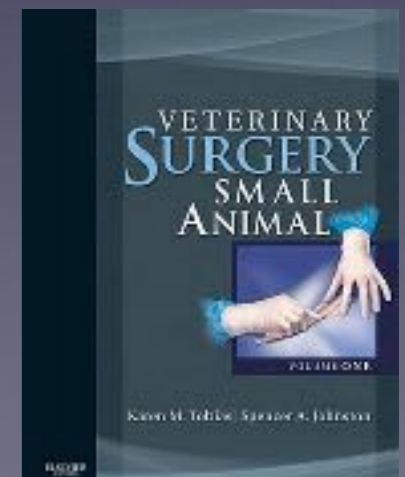
"Sometimes nothing can be a real cool hand"

- Stop using prophylactic antacids in dogs/cats on steroids¹
- Culturing nasal discharge=bad medicine and bad use of \$
- Antibiotics for a dog with vomiting rarely warranted
- Stop treating stress leukograms on your CBCs with antibiotics
- T4 is only test you need to run for dogs on thyroid supplementation
- Don't run fecal if you are going to deworm anyway
- No post-op antibiotics needed after "clean" abdominal surgeries²



¹AJVR 1997, JAAHA 2017

²Veterinary Surgery



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 programs
- Pet insurance (catastrophic, high deductible)
- Pet Savings accounts
- CareCredit
- Payment plans
- Barter
- Waggle-crowd funding for veterinary care
- 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)
- Rose's Fund for Animals (<http://www.rosesfund.org/>)