

Evidence, Epidemiology and Companion Animal Practice: How fun is that?

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Purpose

- Think about where information, data, statistics come from
 - Examples of odd things that still relate to clinical practice
 - Evidence-based medicine...
 - epidemiology is the underpinning
 - No relative risks or p-values!
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Topics

- How I got interested
 - Osteochondritis dissecans in dogs
 - Avian influenza
 - Arthritis in cats
 - Hurricanes
 - Companion animal population medicine
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My Interest

- Eyes in vet school
 - Occurrence of glaucoma in second eye
 - Did as a student research project
 - Options for treatment with limited funds in practice
 - Parvo, femoral fractures in kittens
 - Questions about prognosis
 - Bilateral fho, kidney stones, glaucoma
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Risk Factors for OCD in Dogs

- Joint disease of young growing dogs
 - Clinical impression that premium foods increased risk of disease
 - Designed a matched case-control study to evaluate diet and exercise as potential risk factors
 - Created a diet and exercise questionnaire for dog owners about usual diet
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Diet Assessment

- Similar to our ability to remember our own diets!
 - Regularly fed, routine foods good
 - Occasional, treats bad
 - Some things embarrassed to admit
 - Bad on portion size
 - So be cautious about data on feeding
 - How question is asked is crucial
 - Studies on diet need to be carefully done
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Avian Influenza

- How does this relate to companion animal practice in the US?

 - Have your friends and relatives already asked you about this?
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Avian Influenza

- Some strains already common in US
 - H5N1 is the one all are worried about
 - Potential zoonosis so will get questions
 - Can be transmitted to cats who eat ill or dead infected birds
 - Probably dogs too
 - Rare spread between cats
 - Where do you find data?
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Avian Influenza

- In Europe cats are being abandoned!
 - Need to provide guidance to prevent
 - Keep indoors, feed commercial food
 - Need to know how about spread and risks
 - Ongoing monitoring of AI in US for more pathogenic versions
 - Need to talk to pet bird owners too!
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Arthritis in Cats

- How many of you have older cats?
- Do you know if they have arthritis?
- What would we do if they did?

- Pure epidemiology! ☺

Questions...

- So how common is this disease?
 - What ages are most commonly affected?
 - What are the causes?
 - How do we diagnose/assess it?
 - How do we treat it?
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- We are working on 1, 2, and 4
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Project

- Find cats of all ages
 - Orthopedic examination
 - Take radiographs of all joints
 - Ask owners about cat activity, pain
 - How do we do this?
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Arthritis in Cats

- Quality of life assessment by owner
 - 5 areas/activities that are important
 - Score, weight and add for global measure
- Validating an approach used in human medicine to apply to pets
- Has been used for caretakers of ill humans
- Also questions about usual activities
- May help id as part of history



Hurricanes

- Any of you involved in Katrina/Rita?
 - I know animals came as far as CA
 - So how might veterinarians in private practice be involved in disasters?
 - Where would you find information on disasters and companion animals?
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Disasters

- On site care for animals
 - Guidelines from AVMA
 - Data sheets from UC Davis Shelter Medicine Program, also research
 - Triage
 - History
 - Identification
 - Handling and record keeping
 - As well as actual health care
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Disasters...

- Shelter veterinarian for animals
 - Common health problems
 - Dehydration, starvation, skin, infection
 - Zoonoses and behavioral issues
 - Reunite with owners
 - Private practice for newly adopted/relocated animals
 - Need to be aware of issues, health
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Disasters and Veterinary Medicine

- Evacuation of animals as part of local plans-veterinarians involved
 - We've known for decades this is an issue
 - Obvious in the media coverage of the hurricanes
 - Legislation currently in the works to require some plan for animals in government plans
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Population Medicine

- So when might a companion animal practitioner be dealing with "herds" of small animals?
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Small Animal "Herds"

- Multiple pet households
 - Foster homes
 - Breeders
 - Animal shelters/rescue organizations
 - Boarding facilities
 - Their own clinic!
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Special Concerns

- Cost issues
 - Purpose of group of animals
 - Disease transmission
 - Disease control in groups
 - Sanitation
 - Interplay of stress, nutrition, housing, immune response, etc.
 - Need to take a global, ecological view
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A Unique "Herd": Feral Cats

- 2/3 of veterinarians in private practice saw ferals in TN and TX
 - What should you do?
 - How do you feel about dealing with feral cats?
 - Local organizations and government will likely get you involved!
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Definitions

- Free-roaming cats
 - Any cat not confined to an owner's property
 - Indoor/outdoor cats
 - Stray (lost) or abandoned cats
 - Feral cats (unsocialized)
 - Different groups need different solutions
 - What are your experiences?
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Veterinarians and Feral Cats

- As practitioners you will be involved
 - In prevention
 - Responsible pet ownership
 - Keeping pets in homes
 - In control
 - Pros and cons of different options
 - Numbers and types of options
 - Practicality and variability in different spots
 - Numbers of birds/prey killed arguments
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Guidelines for Cat Groups

- What services to offer?
 - FeLV, FIV testing policy?
 - What sort of follow-up is needed?
 - What is the financial structure (standard discounts, special pricing)?
 - How many cats can be seen?
 - What are the practice logistics for scheduling and handling cats?
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What Do We Know about TNR?

- Check the literature (books and journals)
 - Check the web
 - Talk to the group and visit colonies and foster homes
 - Check CE opportunities
 - Find your comfort level (and your boss'?)
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Conclusions

- Epidemiology tells us about frequency, diagnosis, treatment and prognosis of diseases
 - Need to be able to evaluate how good the data are based on epidemiologic knowledge
 - Need to know where to find data
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Conclusions

- Epidemiology is important for herd health of any herd
 - There are many different types of "herds"
 - Evaluation of data will help with controversial subjects
 - Companion animal veterinarians get pulled into the most unlikely situations!
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