DISEASE PREVENTION AND TREATMENT IN THE SHELTER

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COMMON DISEASES

QUICK REVIEW OF:
COMMON CAT GI DISEASES

Viruses
- Panleukopenia (parvo) – long lived
- Corona (becomes FIP) – short lived

Parasites
- Rounds, hooks – long lived
- Coccidia – long lived
- Giardia – variable life span
- Tritrichomonas – very short lived
COMMON CAT RESPIRATORY DISEASE

Upper Respiratory Infections

- Calici virus – long lived
- Herpes virus – shorter lived
- Mycoplasma
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<th>Weeks after admission</th>
<th>Herpes</th>
<th>Calici</th>
<th>Corona</th>
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<td>7/162</td>
<td>17/162</td>
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<td>11%</td>
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<td>15%</td>
<td>60%</td>
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COMMON CAT SKIN INFECTIONS

Ringworm
- Face
- Ears
- feet

Fleas
OTHER CAT DISEASES

FIV (Feline Immunodeficiency Virus)
- Saliva and genital transmission
- Usually bites and mating
- Kittens may have antibodies from mom and test positive. Retest after 6 months old.

FeLV (Feline Leukemia Virus)
- Primarily saliva, also in milk, blood, urine
- Spread by close contact, shared bowls, etc
- Retest in 6 wks
COMMON DOG GI DISEASES

Viruses
- Parvo – long lived
- Corona – short lived
- Distemper – short lived

Bacteria
- Salmonella
- Campylobacter

Parasites
- Rounds, hooks, whips – long lived
- Giardia – long lived
- Coccidia – long lived
COMMON DOG RESPIRATORY DISEASE

Kennel Cough
- Bordetella bronchiseptica, canine adenovirus 2, canine parainfluenza, herpes virus, respiratory corona virus

Distemper

Influenza
COMMON DOG SKIN DISEASES

Bacteria and Yeast

Ringworm

Mites
- Scabies
- Demodex
LESS COMMON DOG DISEASES

**Leptospirosis**
- Shed in *urine*
- Kidney and liver failure
- Contagious to humans!

**Brucellosis**
- Shed in urine and after birth
- Enlarged lymph nodes, testicular inflammation, abortion
- Contagious to humans!
REASONS FOR DISEASE IN SHELTERS
RISK FACTORS IN THE SHELTER

STRESS!
Dense population
Animal movement
Animal handling
Human movement
Inadequate cleaning
STRESS

Change of environment, food, temperature
Emotional, physical, mental
Lowers immune system
Increases disease shedding
ANIMAL MOVEMENT

New animals coming in
ACO trucks
Cleaning procedures
Movement through rooms
Behavior testing
Medical testing
MINIMIZE STRESS

Keep housemates together
Stimulation
  ▪ Cats in colonies
Adequate room
Decrease hold times
POPULATION DENSITY

Dictated by space and holding times
Air system
Know your limits
- Making kennel space is not the answer
ANIMAL MOVEMENT

Systematic and routine
Admission dirty room clean room
“Clean” rooms
- Animals passed medical
- No animals from public

Transporting around the shelter
- Carriers/ pillow cases, walking areas

Visitation rooms
ANIMAL HANDLING

At cleaning, medications, testing
Jumping dogs and puppies
Carrying and cuddling cats
ANIMAL HANDLING

Medical
- Exams
- Protocols
- Keep records

Cleaning
- Number of people
- Cats – spot clean
- Guillotine runs
- Change clothing

Leashes
HUMAN MOVEMENT

Public walk throughs
ACO unloading animals
Volunteers
Staff
- Contaminants from room to room
- Germs from our homes/ surroundings
HUMAN MOVEMENT

Carried on our feet, clothes, hands
Limit ACO movement
“Dirty” staff

www.glogerm.com
INADEQUATE CLEANING

Remove all organic material
- Feces, litter, dirt

Degreaser

Disinfectant
- Type
- Time of action

Clean ALL surfaces

Animal containment while cleaning
- Carrier, shift runs, etc
DISINFECTANTS

Against Giardia
- Quats (quaternary ammonium) Roccal, Kennesol

Against Parvo
- Sodium hypochlorite 1:30 (Bleach)
- Calcium hypochlorite (Wysiwash, Pool Shock)
- Sodium dichloroisocyanurate (Bruclean)
- Potassium peroxymonosulfate (Virkon, Trifectant)
- Accelerated hydrogen peroxide (AccelTB)

NEWER WITH SHELTERS: POOL SHOCK

Pool shock, Turbo Shock
78% Calcium Hypochlorite
powder form
Mix 1/16 tsp powder to 1 gal water
costs approximately 2 cents per gallon
effective against parvo/panleuk, distemper, calici, etc.
MEDICAL DISEASE PREVENTION
PREVENTIVES

Vaccines
Dewormer
Topicals
VACCINES

Feline
- FVRCP
  - Feline Viral Rhinotracheitis (herpes)
  - Calici virus
  - Panleukopenia virus

Canine
- Da2pp
  - Distemper virus
  - Adenovirus 2
  - Parvo virus
  - Parainfluenza virus
  - Bordetella bronchiseptica

Rabies
VACCINE ADMINISTRATION

Give on intake!

Booster
- Dogs: in 2 weeks
- Puppies: every 2 wks until 16 wks old (or until adult K9 teeth come in)
- Cats: in 2 wks
- Kittens: every 2 wks until 16 wks old

No vaccine is perfect
DEWORMING

**Pyrantel**
- Roundworms, hookworms
- Give at intake
- Repeat in 2 weeks

**Panacur**
- Whipworms, giardia, maybe coccidia
- Give for at least 3 days

**Marquis Paste**
- Coccidia
- Dilute – 1 tube w/ 200cc water
- Give on day 1, repeat on day 5
- [http://sheltermedicine.com/node/394](http://sheltermedicine.com/node/394)
TOPICALS

Many for fleas or ticks

Revolution

- Ear mites
- Heartworm prevention
- Scabies (apply once monthly)
PREVENTION = HEALTH

“Bugs” in GI or on Skin = stress
Stress = disease
Decreased vaccine efficacy
Increased susceptibility
MEDICAL TREATMENT OF SELECTED DISEASES
FELINE UPPER RESPIRATORY INFECTION

FeLV/FIV test

Doxycycline
- 10mg/kg once daily for 10 days
- Must be liquid!!
- Ora-Sweet + Ora-Plus compounding
- Light sensitive, good for 7 days, refrigerate!

Nebulize
- Donations or on-line
- Solution
  - 3cc Gentamicin injectable
  - 3cc (1 ampule) Albuterol
  - 3cc Acetylcysteine 3%
  - 141cc Saline
CAT GI DISEASE TREATMENTS

**Diarrhea with negative fecal float**
- FortiFlora (Purina), probiotic

**Giardia SNAP test (Idexx) – positive**
- Panacur 50 mg/kg for 5-10 days
- Metronidazole 15mg/kg BID for 14 days
- Clean with quats, dry equipment well!
CAT GI TREATMENTS...

**Trichomonas** – special culture
- Ronidazole (special order) x 14 days

**Panleukopenia** – canine Parvo test
- Isolation & supportive care
- SQ fluids, metronidazole, cerenia
CAT RINGWORM TREATMENT

Ringworm
- Itraconazole, fluconazole, terbinafine
- Lime sulfur dips:
  - Use 8% concentration
  - Apply twice weekly throughout treatment
  - Apply to dry coat
  - Okay in pregnant and nursing cats, kittens > 2-3 weeks old
  - Wipe nursing moms, keep kittens warm
  - Sponge dip on face, nose and ears
  - Keep eye flush handy, flush generously if dip gets into cat's eye
- Cure = 2 or 3 weekly cultures are negative
- Dane County HS [http://www.giveshelter.org/ringworm-treatment-program.html](http://www.giveshelter.org/ringworm-treatment-program.html)
OTHER CAT SKIN TREATMENTS

Fleas

- Many topicals available
- Capstar – ¼ of large dog tablet (can give rectally)
TREATMENT OF OTHER CAT DISEASES

FeLV
- Single cat household
- No screen contact
- Suppressed immune system for life
- Cancer later
- Remove from shelter

FIV
- Single cat household
- No time outside
- Susceptible to diseases for life
- Remove from shelter***
DOG GI DISEASE TREATMENTS

Diarrhea and negative fecal
- FortiFlora (Purina), Propectalin (VetSolutions) or metronidazole

Giardia SNAP test (Idexx) – positive
- Bathe, isolate
- Panacur 50mg/kg daily for 5-10d
- Metronidazole 15-25mg/kg twice daily x 10d
- Drontal Plus
- Dry equipment well!
- SNAP is positive for 2 more weeks
DOG GI TREATMENTS CONTINUED

**Campylobacter**
- Baytril 5mg/kg BID for 7-14d
- Erythromycin 5–25 mg/kg BID for 7–10 days
- Tylosan 20 mg/kg BID for 5-7

**Distemper**
- Euthanasia

**Coronavirus**
- Self limiting
- Supportive care
PARVOVIRUS TREATMENT

Fluids (SQ or IV)
Anti-vomiting
- Cerenia injectable or tablets – once daily
- Ondansetron 0.1-0.2 mg/kg slowly IV every 6-12hr

Broad spectrum antibiotics
- Naxcel (ceftiofur) 0.1cc/5lbs once daily
- Refrigerate for 7 days
- Divide and freeze for 1-2 months

Metronidazole 15mg/kg IV BID SLOWLY
- Decrease bacteria that moves across gut
- Anti-inflammatory effects

Nutritional especially in puppies – sugar

Blood products or transfusions
NOT RECOMMENDED/AVAILABLE

**Interferon omega**
- Decrease mortality
- Not available in the U.S.

**Tamiflu is specific for influenza**
DOG RESPIRATORY TREATMENTS

Kennel Cough
- Bordetella bronchiseptica,
  canine parainfluenza, canine adenovirus 2
- Doxycycline 10mg/kg once daily for 10+ days
- Ciprofloxacin 15-30mg/kg twice daily for 10+ days
- Isolation
DOG SKIN INFECTION

Yeast infections
- Topical treatments – medicated bath frequently (2 times/wk)
  - Lime sulfur dip
  - Malaseb
  - Ketoconazole (oral) if severe
**DOG SKIN INFECTION**

**Bacterial infections (pyoderma)**
- Cephalexin 30mg/kg BID for 21 days
- Simplicef (cefpodoxime) 10mg/kg SID for 21 days
- NO Baytril or ciprofloxacin
- Medicated baths
- Often look round – like ringworm
DOG SKIN TREATMENTS - MITES

Demodex
- Easy to diagnose
- Would cure on own, not in shelter
- Treat with dips (toxic) or daily ivermectin 0.6mg/kg
- No ivermectin in herding breeds (Collies)
- Secondary bacterial infection common

Scabies
- Contagious – animals and people
- Very itchy – often the ear
- Difficult to diagnose
- Revolution monthly for 2 months (itching persists)
- Ivermectin weekly 0.3mg/kg
CLEAN WELL, STAY WELL!
RESOURCES

UC Davis - Koret Shelter Medicine Program
www.sheltermedicine.com
http://virtualconsultant.sheltermedicine.com - FUN!
Univ Florida – Maddie's Fund Shelter Medicine Program
www.ufsheltermedicine.com
ASPCA
www.aspca.org
HSUS
www.animalsheltering.org
Guidelines for Standards of Care in Animal Shelters
www.sheltervet.org

GO TO THE MEDICINE TRACKS AT SHELTER CONFERENCES! WE CAN'T FIX SHELTER PROBLEMS WITH MEDICINE, THE FOCUS IS ON THE POPULATION.
BOOKS

Infectious Disease Management in Animal Shelters
- By L. Miller, K. Hurley

Shelter Medicine for Veterinarians and Staff
- By L. Miller, S. Zawistowski
ANTIBODY

Antibody: a blood protein produced in response to and counteracting a specific antigen/ “disease”

Antibodies combine chemically with substances that the body recognizes as alien, such as bacteria, viruses, and foreign substances in the blood.
ANTIBODY TITERS

Antibody titer is a laboratory test that measures the level of antibodies in a blood sample.

The antibody level in the blood tells your doctor whether or not you have been exposed to an antigen or something that the body thinks is foreign. The body uses antibodies to attack and remove foreign substances.
ANTIBODIES AGAINST DISEASE

Never “seen” the disease or been vaccinated = 0 or neg titer

Vaccinated or exposed to disease at some point => some antibodies in the blood

The animal encounters the disease again => body increases those antibodies to attack the disease
TITERS IN FACE OF DISEASE

1) if animal has symptoms -> test for disease NOT antibodies

2) If animal has no symptoms and never near the disease -> don’t titer

3) If no symptoms AND exposed to disease -> check titer

4) If high titer = has some protection
IN HOUSE TEST

Synbiotics

http://vaccicheck.com
The developing plate has multiple compartments, which contain the necessary reagents for comb developments.
**WINDOW OF SUSCEPTIBILITY**

Window when they are completely vulnerable to disease

You vaccinate → maternal antibodies neutralize it

But the maternal antibodies are waning so if...

expose to natural disease → not enough antibodies to protect kitten/puppy → it gets sick

This is why you must re-vaccinate young animals!!!
THE PROBLEM...