

Zoonoses and you

By Peter Fernandes, DVM

Unfortunately, most human physicians are deficient in their knowledge about zoonotic diseases. In light of this, most of them over react and go to the extreme when faced with a possible zoonotic. They recommend that the human caregiver surrender their pet. This advice runs counter to the directions of the Center for Disease Control and Prevention.

In many cases, especially with H.I.V. patients, their little companion is the only one who does not treat them differently – they still give all their attention and love. The sad part about this situation is that, with the exception of cat scratch fever and ringworm, zoonotic infections are usually acquired from non-animal sources such as food and the environment. (See Table I)

Notwithstanding this fact, it is our duty as veterinarians to inform our immune-compromised clients about the potential danger of zoonoses.

You will observe from Table I that no species is excused from the threat of Zoonoses; dogs, cats, birds,

reptiles, and even fish can pose a serious threat to the health of this special group of clients.

If there is one aspect of prevention which should be stressed, it is GOOD HYGIENE. The animal should be kept healthy and clean and the environment should be kept free of feces, urine, and parasites. The healthier the pets, the less likely they are to transmit disease.

We, as veterinarian, should stress the importance of wellness programs including vaccination, parasite control, and fecal checks. Pets should have frequent baths, be kept indoors, and walked on leashes. If a new pet is acquired, it should be checked thoroughly by a veterinarian before introduction into the household.

In the case of cats, cat scratch fever can be almost eliminated by declawing the front feet only. CDC has come up with a list of recommendations for reducing exposure to zoonotic diseases. (See Table II)

Keep copies of these tables handy for dispensing to clients.

TABLE I – Potential zoonotic infections among HIV patients.

Infectious Agent	Frequency in HIV Patients	Common Clinical Manifestations	Domestic Animal Sources of Infection	Likelihood of Domestic Animals as Direct Source of Infection	Other Potential Sources of Infection
Toxoplasma gondii	common	CNS encephalitis	cats	low	undercooked meat, unwashed produce, soil when gardening
Mycobacterium avium	common	pulmonary/GI lesions	pet birds	very low	water, soil
Cryptosporidium spp.	moderate	profuse diarrhea	domestic pets incl. farm animals	probably low	water, people, fomites
Giardia spp.	moderate	diarrhea	dogs, cats farm animals	low	people, water
Cryptococcus neoformans	moderate	chronic meningitis	pet birds	very low	bird droppings (esp. pigeons)
Salmonella spp.	low	diarrhea, septicemia	dogs, cats, reptiles farm animals	probably low	undercooked meat/eggs, unpasteurized milk
Campylobacter spp.	low	diarrhea	domestic animals	probably low	food of animal origin, water
Bartonella henselae	low	skin lesions, septicemia, bacillary angiomatosis	cats	high	unknown
Rhodococcus equi	rare	pneumonia	farm animals	low	soil/horse manure
Mycobacterium marinum	rare	cutaneous granuloma	fish	high	swimming pool, salt/fresh water aquariums

TABLE II – CDC recommendations for HIV-positive clients

- Use caution when acquiring an animal from a breeder, pet store, or animal shelter. Hygiene in these operations is variable.
- Avoid adopting pets < 6 months old, strays, or animals that have diarrhea.
- If adopting a puppy or kitten < 6 months old, especially one that has diarrhea, take it to the veterinarian to have it checked for cryptosporidium, salmonella, campylobacter and giardia.
- Keep cats inside, do not feed them undercooked meat, and prevent them from hunting rodents.
- Practice parasite control.
- Have litter boxes changed daily, preferably by an HIV-negative, non-pregnant person.
- Avoid cat scratches and bites.
- Use gloves when cleaning fish aquariums.
- Avoid contact with reptiles and other exotic animals.