

JCU COVID-19 WEBINAR SERIES EP 5

Cats, Dogs and COVID-19

Facilitated by Dr Margaret Reilly and
Associate Professor Janice Lloyd

TUESDAY, 5 MAY 2020

7:00PM QLD/NSW/ACT/VIC, 6:30PM SA/NT, 5:00PM WA



Companion Animals and COVID-19



Professor Margaret Reilly
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- Can my pet catch COVID-19 and can I catch it from my pet?
- What are the risks to both humans and animals from SARS CoV2?

What are companion animals?





Common Zoonotic Diseases

A zoonotic disease: ***“a disease which can be transmitted to humans from animals”***.

In companion animal practice there are several of these diseases and parasitic infestations but transmission is relatively uncommon.

Common examples are:

- Viral diseases – Hendra*, Lyssavirus
- Bacterial disease – Brucellosis, Q Fever, Bordatella (rare), Leptospirosis, Pssitacosis
- Protozoal diseases – toxoplasmosis
- Internal parasites – roundworm , hookworm, hydatid tapeworm
- External parasites – mites, fleas, ticks

Several alpha coronaviruses that infect companion animals – none of which appear to be transmissible to humans. For example FIP in cats and coronavirus diarrhoea in puppies.

** Winter 2020 has been identified as increased risk for Hendra virus infection in horses.*



History of SARS CoV1 in 2003

- SARS CoV1 outbreak in Hong Kong in 2003,
- Cluster of human infections in a block of flats.
- Animals, both pets and pests (rats), were sampled at the time but the infection was found to be transmitted through the building's drainage system.
- 8 cats and 1 dog returned positive tests from oropharyngeal swabs.
- None of the positive animals were ill; no transmission to humans.
- Reverse zoonosis from humans to their pets??
- Later in 2003 : cats and ferrets were experimentally infected.
- Both could become experimentally infected as indicated on PCR, virus isolation and serology.
- No cats became ill but some of the ferrets showed clinical signs and one died.



History SARS CoV2 in 2020

- 2003 demonstrated : cats and ferrets could become infected with SARS CoV1.
- Can dogs become infected too?
- Jan 2020 Hong Kong : pets of infected humans were required to undertake a 14 day quarantine period – PCR testing dog and cat, both tested negative.
- Feb 2020 17 year old Pomeranian dog tested positive on PCR on multiple occasions, positive on serology and culture negative; no clinical signs and subsequently died of other causes.
- April 2020 :18 cats, 30 dogs and 2 hamsters had been tested in quarantine and only a further two of these animals (a cat and a dog) have tested positive.

The dog, a German shepherd, tested positive on serology, culture and PCR and exhibited no clinical signs.

- The cat, tested PCR positive while serology and culture are pending, exhibited no clinical signs.
- March 2020 Belgium cat of COVID positive human presented for anorexia, vomiting, diarrhoea and dyspnea. Owner collected samples – PCR +ve, serology pending and culture not performed.
- April 2020 two pets cats, not living together, with mild respiratory illness tested positive.

Big Cats in The Bronx Zoo

- “Nadia”, a Malayan tiger - cough and anorexia; keepers anaesthetized her and took samples which returned a positive result.
- Probably infected by a COVID positive keeper, but this was not proven at the time.
- 7 other large cats had clinical signs, were tested (faeces only), and returned positive test results.
- Nadia made headlines due to the rapid speed at which she was tested when there was a shortage of tests for humans.



Source: https://parody.fandom.com/wiki/Malayan_Tiger



Breaking News....

- US has reported its first positive SARS CoV2 dog.
- Pug call Winston (pictured).
- Winston was living in a household where three humans tested positive, one human tested negative, while the other family dog and cat tested negative.
- He did suffer from mild symptoms, including anorexia.



Source :<https://thenewdaily.com.au/news/world/2020/04/29/us-dog-tests-positive-coronavirus/>

Some Early Assumptions (?)

Based on work already done on SARS CoV2:

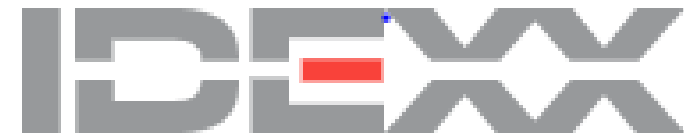
- The virus probably does not 'like' companion animals.
- Those that do become infected only shed for very short time period.
- No evidence to date of transmission from companion animals to humans.
- The virus can be transmitted from animal to animal and human to animal (reverse zoonosis).
- Non-domestic cats have different genetic predispositions so may have a different susceptibility to SARS CoV2 than companion animals?



Source: <https://www.earth.com/news/cats-attachments-humans/>

Diagnostics

- IDEXX tested 5000 dog, cat and equine samples by April 2020 – all negative
- SARS CoV2 PCR test released by IDEXX in the US in April 2020.
- Strict guidelines for use – presence of clinical signs, positive COVID human contact, common diseases ruled out.
- IDEXX do not currently have a test available in Australia.
- Cats need heavy sedation or a general anaesthetic for sampling of nasal passages and oropharynx.
- Epidemiological studies and surveillance may be of more value.



United States Department of Agriculture
Animal and Plant Health Inspection Service

Treatment and Prevention

- Survives for hours/days on surfaces and objects – disinfectants and hand washing important to prevent infection.
- Humans can be infected by close contact and possibly household fomites, eg kitchen surfaces, so could companion animals be fomites?

Recommendations:

- Quarantining cats and dogs in their own home when owner tests positive and away from positive humans if possible – reverse zoonosis.
- Bathing is not required and could cause toxicity, especially in cats.
- Studies with other RNA viruses (feline calicivirus) show negative PCR and culture from hair.
- Ivermectin??





Companion Animals and COVID-19



Dr Janice Lloyd

**A/Prof in Veterinary Behaviour,
Welfare & Ethics,**

James Cook University

- Human-animal relationships during the COVID-19 pandemic
 - The human-animal bond
 - Pet ownership in Australia
 - Threats to animal welfare due to SARS Co-V-2
- Staying home with pets and keeping safe during this time
 - Protecting pets if you are sick
 - Getting your pet to the vet
 - Working from home with pets

The human-animal bond...



Source: www.vet.purdue.edu/chab/



Source: Bored Panda



Tony Woodcock and 'Restless', National Portrait Gallery

"... is a mutually beneficial and dynamic relationship between people and animals that is influenced by behaviours that are essential to the health and well-being of both.

This includes, but is not limited to, emotional, psychological, and physical interactions of people, animals, and the environment." (AVMA)

- People in the presence of animals are perceived to be more happy and healthy, and may experience a decrease in blood pressure, and reduced anxiety.
- The therapeutic value of animals for socially isolated individuals in nursing homes, hospitals, hospices, and prisons has been documented.

Pet ownership in Australia



Source: i.ebayimg.com/images/

- > 29 million pets (One of the highest rates in the world!)
- 61% of households own pets, with dogs being the most common (40%), followed by cats (27%)
- Most seen as a “member of the family”

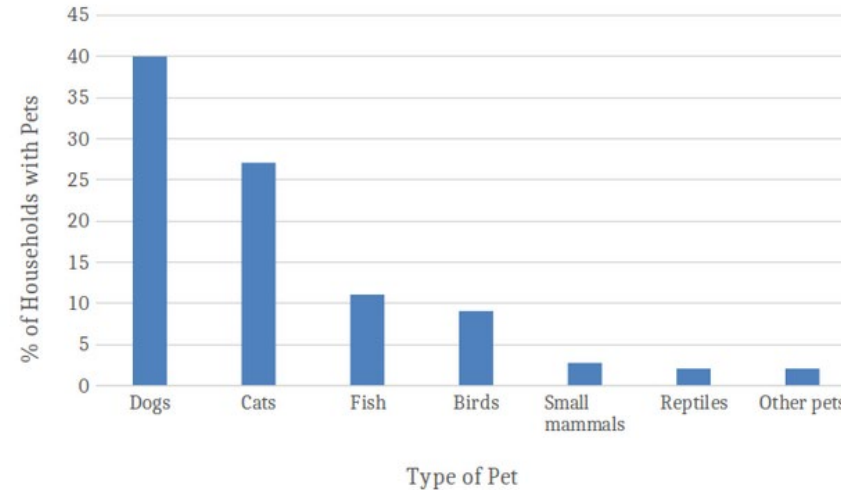


Figure 1. Percentage of households with pets by pet type. Small mammals include rabbits, guinea pigs, ferrets and mice. Reptiles include snakes, turtles, tortoises, lizards, frogs and salamanders [1].



SARS –CoV-2: Threat to pet welfare

- Unfounded fear of zoonoses
- Pets from shelters are safe to adopt, but risk of:
 - Opportunistic adoption (adoption rates doubled in some rescue centres)
 - Abandonment?
 - Abuse?
- What happens when people return to work?
 - Separation distress/anxiety



You don't need to worry about getting coronavirus from your pet. Shutterstock

What to do if you own pets

- Treat pets as you would other family members to protect them from a possible infection
- Do not let pets interact with people or other animals outside the household
- Keep cats indoors when possible to prevent them from interacting with other animals or people
- Walk your dog, but:
 - Walk dogs on a leash, maintaining at least 2 meters from other people and animals
 - Avoid dog parks or public places where a large number of people and dogs gather
 - Do not let other people pet your dog.



A dog wearing a mask in Shanghai REUTERS/ALY SONG



Sharing Resources: Veterinary equipment to save human lives



- Repurposing veterinary ventilators for human patients
- What does this mean for animals?
 - Pets need to be up to date on tick prevention;
 - Have enough prescription meds to manage chronic airway diseases;
 - Extra precautions for brachycephalic breeds.



'Thinking Cat' by Douglas Sacha



Getting your pet to the vet

- Veterinary hospitals are considered 'essential services'
- No-contact vet visits:
 - Client leaves animal and waits outside while animal is examined
 - Contact with patient; minimal contact with human
- Telemedicine: Allows care from home [ΔVCPR]
 -  Bites, scratches, abrasions, hotspots, mild/infrequent vomiting
 -  Difficulty breathing, neurological challenges, exposure to toxins, signs of pain



Protect your pets if you are sick

- People sick with COVID-19 should **avoid contact with pets and other animals**
- When possible, have another member of your household care for your pets while you are sick
- Avoid contact with your pet including, petting, snuggling, being kissed or licked, and sharing food or bedding
- If you must care for your pet or be around animals while you are sick, wear a cloth face covering and wash your hands before and after you interact with them
- What should I do if my pet gets sick and I think it is COVID-19?
- Should pets be tested for COVID-19? Not recommended

Pandemic 'petiquette'

HOW TO SAFELY INTERACT WITH YOUR PET DURING COVID-19



Frequently wash hands, especially after interacting with pet



Do not kiss your pet or allow them to lick your face



Regularly wash their food and water dishes with soap and water



Do not allow other people to touch, kiss or interact with your pet



Wash your hands before and after giving treats



Regularly wash their leashes, collars, and any other accessories your pet wears with soap and water



Currently there is **NO** evidence that your pet can give you COVID-19

COMMON COVID-19 QUESTIONS AND ANSWERS

Can I give my pet COVID-19?



Pigs: safe
Chickens: safe
Ferrets: susceptible
Cats: susceptible, but low rates of illness
Dogs: low susceptibility



Dogs may be a dead-end host, which means they would not be able to pass the virus to others

How can I prevent my pet from getting COVID-19?



Practice social distancing with your pet, like you would with yourself



Keep your pet up-to-date on required vaccinations and preventative care



Keep them in good health, providing regular high quality food, exercise, love, and care

Can leashes and collars carry the virus?



Yes, they should be washed regularly with soap and water

What should I do if my dog seems ill?



Most veterinary hospitals are still open to emergency care and essential services. Call your veterinarian if you think your pet is ill.

Speak with your veterinarian or visit **Veterinary Partner**
powered by **Vet**
for more information on vaccine recommendations

Most hospitals can ship or deliver flea, tick, and heartworm medications, among others. Call your veterinarian to make sure you don't fall behind in these treatments



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WHAT TO KNOW

BEFORE YOU GO TO YOUR VETERINARIAN DURING COVID-19

Most vets are still open for emergencies, but protective protocols are in place:



Please respect all signs at vet hospitals and ERs about distancing, building entry, etc.



Veterinary staff are doing their best under stressful and uncertain conditions, and in some cases risking their lives.



Many hospitals have switched to curbside pick-up and drop-off of pets and medications. Make sure your pet is securely leashed or in a secure carrier.



Many people are spending more time with their pets, and may be noticing more things than under normal conditions: lumps, bumps, skin tags, etc.



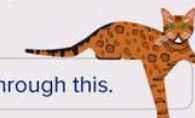
Now is not the time for routine procedures like nail trims, anal glands, etc. if your vet is only seeing emergency cases.



Call your hospital or visit their website before a visit to learn the proper protocol and follow instructions.



Wash your hands and be kind. We'll get through this.



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Working at home with pets

- Structure your day
- Pets need structure too
 - Routine
 - Safe spaces
- Supervise young children around pets
- Environmental enrichment
 - Play; training; puzzle toys
- Impact on the human-pet relationship

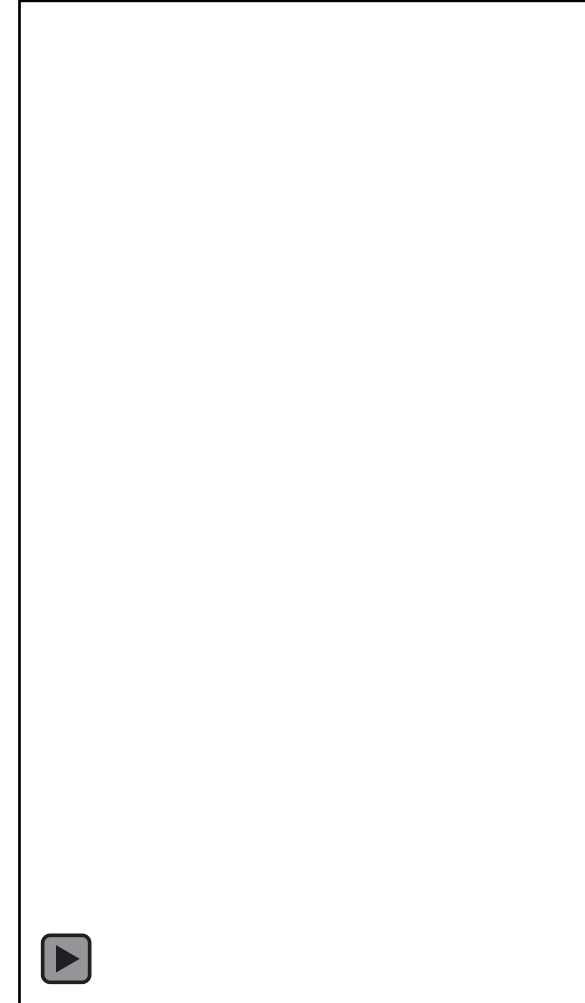
I will make you a mask and I want you out of my house TODAY, Karen!





Summary

- What's the latest evidence on COVID-19 and pets?
 - You won't catch it from your pet
 - But they could catch it from you!
 - Unlikely to get sick
 - No evidence of transmission to humans
 - Pets are vulnerable in other ways too
 - Structure your relationship with your pet when working at home





Acknowledgements

- Centers for Disease Control and Prevention
<https://www.cdc.gov/coronavirus/2019-ncov/faq.html#COVID-19-and-Animals>
- Companion Animal Psychology
<https://www.companionanimalpsychology.com/2020/03/spending-more-time-with-your-pet-due-to.html>
- International Society for Companion Animal Infectious Diseases
<https://iscaid.org/covid-19>
- Small Animal Talk
http://www.smallanimaltalk.com/2020/03/no-contact-vet-visits-telemedicine-and.html?utm_source=feedburner&utm_medium=email&utm_campaign=Feed%3A+SmallAnimalTalk+%28Small+Animal+Talk%29
- The Conversation
<https://theconversation.com/abuse-and-abandonment-why-pets-are-at-risk-during-this-pandemic-134401>
<https://theconversation.com/can-your-pets-get-coronavirus-and-can-you-catch-it-from-them-135611>
- Veterinary Information Network
<https://www.vin.com/covid>
- World Small Animal Veterinary Association
<https://wsava.org/news/highlighted-news/the-new-coronavirus-and-companion-animals-advice-for-wsava-members/>



Thankyou

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