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DIRECTORATE-GENERAL FOR HEALTH AND FOOD SAFETY

Crisis management in food, animals and plants

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# **COVID-19 and farmed and domestic animals**

## **Questions and Answers**

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## 1. COVID-19 AND SARS-CoV-2

Severe Acute Respiratory Syndrome Coronavirus-2 (SARS-CoV-2) is the name given to the 2019 novel coronavirus.

COVID-19 is the name given to the disease in humans associated with the virus SARS-CoV-2.

## 2. RISK OF HUMAN INFECTION FROM ANIMALS

### 2.1. Is there a risk of COVID-19 infection from animals?

The main transmission route for SARS-CoV-2 is from person to person, mainly via respiratory droplets that infected people may emit via sneeze, cough, or exhale.

While available data, in particular genetic sequences, suggest that the SARS-CoV-2 virus emerged from an animal source, there is currently not enough evidence to identify precisely either the source or the route of transmission from the original animal reservoir to a putative intermediate host and then to humans. Studies are underway to better understand the susceptibility of different animal species to SARS-CoV-2 and to assess infection dynamics in susceptible animal species.

### 2.2. Is there a risk of transmission of the SARS-CoV-2 virus from humans to animals or between animals?

The environment of infected humans is likely to be contaminated with SARS-CoV-2 so animals that live in close contact with infected people are exposed to SARS-CoV-2.

The risk of exposure to SARS-CoV-2 and infection in COVID-19 for pets living in affected households cannot be excluded. The preliminary assessment of this risk of exposure and subsequent infection in households is considered low for cats, ferrets and hamsters, very low for dogs and negligible for birds and reptiles (Shi et al., 2020<sup>1</sup>).

There is no current evidence of dogs or cats playing a role in the spread of SARS-CoV-2 towards humans. In addition, despite isolated cases of infection reported in dogs and cats, currently there is no evidence to suggest that animals infected by humans are playing a significant role in the epidemiology of the current COVID-19 pandemic. Outbreaks of COVID-19 in humans are driven by person-to-person transmission. In previous episodes of SARS outbreaks, pets have not acted as animal reservoir or played a role in transmitting the virus through zoonotic transmission.

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<sup>1</sup> Susceptibility of ferrets, cats, dogs, and other domesticated animals to SARS–coronavirus 2

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Minks have shown to be susceptible to SARS-CoV-2 and infection in farmed minks has been reported<sup>2</sup>.

### **2.3. What are the clinical signs of the pets that were infected with SARS-CoV-2 in COVID-19 affected households?**

Despite the fact that COVID-19 has recently emerged, there is already some scientific data indicating that SARS-CoV-2 has been detected in asymptomatic dogs owned by COVID-19 patients, that pet cats of COVID-19 patients tested positive for SARS-CoV-2 and experimental infection of cats and ferrets with SARS-COV-2 resulted in replication, shedding of the virus and spread to susceptible in-contact cats and ferrets.

The few reports available indicate that dogs from which the virus was detected had no clinical signs and infected cats suffered from transient respiratory and digestive disorders. Respiratory and digestive clinical signs and fever were also observed during experimental infections in ferrets and golden hamsters.

### **2.4. Should I take any special precaution with my pet?**

First and foremost there is no justification for any measures to be taken which may in any way compromise the welfare of the animals in your care.

Despite there is no current evidence of dogs or cats or any other pet species playing a role in the spread of SARS-CoV-2 and that animals infected by humans are not playing a role in the epidemiology of COVID-19, a precautionary attitude and behaviour is recommended whenever possible. There are certain protective steps that can be taken:

- As a precaution, people infected with SARS-CoV-2 virus or suspected of being infected should avoid as much as possible close contact with their pet animals and should maintain good hygiene practices (e.g. isolating from pets, washing hands frequently, avoiding close face contact, wearing a facemask).
- Under the same precautionary approach, animals belonging to owners suspected of being infected with SARS-CoV-2 should minimise their contact with people or other animals and be kept confined indoors in their households or designated animal isolation places or shelters as much as practical, not jeopardising under any circumstances their welfare and for a duration equal to the lockdown recommendations for humans applicable in the same geographical area.
- Pet owners should keep their pets on a leash when walking outside to be able to keep the “social distance” with other people.

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<sup>2</sup> <https://www.eurosurveillance.org/content/10.2807/1560-7917.ES.2020.25.23.2001005>

**2.5. Is there a risk of infection with SARS-CoV-2 via pet food or animal feed? What about the packaging?**

As for human food<sup>3</sup>, there has been no report of transmission of SARS-CoV-2 virus to animals via consumption of pet food. The European Food Safety Authority concluded that “there is no evidence that food is a likely source or route of transmission of the virus”<sup>4</sup>. Indeed, as for food for human consumption, there is no evidence and it appears very unlikely that you can become infected from handling pet food. The recommendations regarding the handling of pet food packages are the same as for the handling of any other package (for more details see Q&A on COVID-19 and Food Safety: hat is the risk of getting COVID-19 from food packaging?)<sup>5</sup>. This assessment is also valid for feed for farmed animals.

**2.6. Is there any specific risk of infection with SARS-CoV-2 from food producing farm animals?**

There is no evidence indicating that livestock can be infected with SARS-CoV-2. Furthermore, preliminary findings from studies suggest that poultry and pigs are not susceptible to SARS-CoV-2.

EU livestock production has the highest standards of food safety, animal health and welfare and environment protection, which hugely reduce the risk of transmission of pathogens. Indeed, high levels of biosecurity in farms limit considerably the potential exposure of farm animals to any zoonotic agent.

**2.7. Is there any specific risk in fur animal farms or zoos?**

Farmed mink have shown clinical signs and have been tested positive for SARS-CoV-2 in the Netherlands and Denmark. Most likely those animals have contracted the infection from their caretakers or farmers.. Further research is ongoing to get more insight in the epidemiology and further spread of SARS-CoV-2 in mink farms. Preliminary information from the Netherlands, based on the genomic sequencing of the virus, indicates that two employees in infected highly stocked mink farms have contracted SARS-CoV-2 from minks.

Data coming from laboratory experiments and from the field indicate that a number of animal species (cats, tigers, lions, ferrets, minks and to a much lesser extent dogs), are susceptible to infection with SARS-CoV-2. Data from

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<sup>3</sup> [https://ec.europa.eu/food/sites/food/files/safety/docs/biosafety\\_crisis\\_covid19\\_qandas\\_en.pdf](https://ec.europa.eu/food/sites/food/files/safety/docs/biosafety_crisis_covid19_qandas_en.pdf)

<sup>4</sup> <https://www.efsa.europa.eu/en/news/coronavirus-no-evidence-food-source-or-transmission-route>

<sup>5</sup> [https://ec.europa.eu/food/sites/food/files/safety/docs/biosafety\\_crisis\\_covid19\\_qandas\\_en.pdf](https://ec.europa.eu/food/sites/food/files/safety/docs/biosafety_crisis_covid19_qandas_en.pdf)

field infections in animals shows that animals were infected by humans infected with the SARS-CoV-2 or suspected of having contracted COVID-19.

Currently, there is no evidence to suggest that animals infected by humans (like cats in several countries, minks or tigers in zoos in the USA) are playing any significant role in the spread of the virus. The main reason for outbreaks of COVID-19 in humans are driven by person-to-person transmission..

Based on the available information, there is no scientific evidence to justify the introduction of SARS-CoV-2 specific sanitary measures for animals..

However, as a precautionary measure, wearing appropriate personal protection equipment is recommended for fur animal farms and zoo employees who are considered to be in higher risk/vulnerable groups.

Further precautionary measures such as testing on mink farms, increased protection of workers in mink farms, prohibition of transit around the farms, restrictions of movements of minks, as well as culling of minks in infected premises should be rapidly implemented under specific local circumstances<sup>6</sup>.

### **3. ROLE OF THE EUROPEAN COMMISSION AND VETERINARY SERVICES**

#### **3.1. What can the European Commission and national veterinary services do with regards to the health of animals and the current COVID-19 pandemic?**

Public health and veterinary services, including veterinary practitioners, work together in a One Health approach to share information, in particular about suspect or confirmation of infection in animals in order to conduct a risk assessment when a person with COVID-19 reports being or having been in contact with pets or other animals.

The EU supports a network of EU Reference Laboratories (EURLs) with the aim to ensure high-quality laboratory analysis and harmonised testing in the EU. That network supports the European Commission activities on risk assessment and risk management in several areas of laboratory analysis, including animal diseases.

In some countries, veterinary services and laboratories, as well as the aforementioned EURLs, are actively supporting core functions of the public health response, through effective contribution to the screening and testing of surveillance and diagnostic samples from humans.

The European Commission bases its actions and communications on the latest available scientific information and encourages promoting authoritative information sources, demoting content that is fact-checked as false or

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<sup>6</sup> [https://www.oie.int/fileadmin/Home/eng/Our\\_scientific\\_expertise/docs/pdf/COVID-19/Bruschke\\_update\\_SARS\\_CoV\\_3\\_infections\\_in\\_mink\\_Netherlands\\_9June2020.pdf](https://www.oie.int/fileadmin/Home/eng/Our_scientific_expertise/docs/pdf/COVID-19/Bruschke_update_SARS_CoV_3_infections_in_mink_Netherlands_9June2020.pdf)

misleading, and taking down illegal content or content that could cause physical harm.<sup>7</sup>

### **3.2. What are the international responsibilities of the veterinary authorities in this event?**

Veterinary authorities maintain close liaison with the European Commission and with the World Organisation for Animal Health (OIE), as well as the Food and Agriculture Organization of the United Nations (FAO). They ensure coherent and appropriate risk communication and risk management.

Appropriate data exchange systems are operational at the EU and international levels in order to inform rapidly the relevant competent veterinary authorities of the occurrence and evolution of animal diseases. These systems are important to monitor and update the situation and in case of need, to coordinate actions. Information emanating from these systems is also being shared with the public on the websites of the European Commission and the OIE<sup>8</sup>.

It is important that COVID-19 does not lead to the application of inappropriate control measures being taken against domestic or wild animals, which might unnecessarily compromise their welfare and health or have a negative impact on biodiversity and farm sustainability.

Veterinarians play a key role in risk communication, in particular in explaining the justification for risk management measures.

### **3.3. What is the EU approach to testing animals for SARS-CoV-2 infection?**

Currently, there is no reason to justify any laboratory testing of pets or other domestic species for infection with SARS-CoV-2 therefore, no laboratory testing should be done outside appropriate scientific studies or surveys under the required controlled conditions.

Scientific studies intended to understand the potential reservoir and intermediate host animal species including pets, wildlife or farmed animal or the dynamics of COVID-19 as a possible zoonotic disease (human to animal and vice versa) are valuable. Testing on animals should be limited to scientific studies on SARS-CoV-2. Testing of sick animals could be exceptionally indicated if there is a COVID-19 confirmed patient or vulnerable people in the household, all other differential diagnosis having been exhausted with the Authorities finding reasons to initiate an investigation in those animals.

The EU encourages well-planned and thorough scientific investigations which will assist in gaining a better insight into the epidemiology of COVID-19. Veterinary services, private and official veterinarians, are encouraged to play an active role in the technical planning and coordination of the above

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<sup>7</sup> [https://ec.europa.eu/info/live-work-travel-eu/health/coronavirus-response/fighting-disinformation\\_en](https://ec.europa.eu/info/live-work-travel-eu/health/coronavirus-response/fighting-disinformation_en)

<sup>8</sup> <https://www.oie.int/scientific-expertise/specific-information-and-recommendations/questions-and-answers-on-2019novel-coronavirus>

described SARS-CoV-2 studies avoiding as much as possible duplication and the distraction of scarce resources towards less meaningful testing activities outside the research context.

#### **4. MAIN INFORMATION SOURCES**

Animal Health European Commission web page:

[https://ec.europa.eu/food/animals/health\\_en](https://ec.europa.eu/food/animals/health_en)

World Organisation for Animal Health – Questions and answers on the 2019 Coronavirus Disease (COVID-19)

<https://www.oie.int/scientific-expertise/specific-information-and-recommendations/questions-and-answers-on-2019novel-coronavirus/>

FAO web page – Should we worry about animals?

<http://www.fao.org/2019-ncov/en/>

European Food Safety Authority

<https://www.efsa.europa.eu/en/news/coronavirus-no-evidence-food-source-or-transmission-route>

French Agency for Food, Environmental and Occupational Health & Safety

<https://www.anses.fr/en/content/covid-19-domestic-animals-play-no-part-transmission-virus-humans>

The Friedrich-Loeffler-Institut

<https://www.fli.de/en/press/press-releases/press-singleview/novel-coronavirus-sars-cov-2-fruit-bats-and-ferrets-are-susceptible-pigs-and-chickens-are-not/>

Sciensano

<https://www.sciensano.be/fr/sujets-sante/coronavirus>