

5TH CALL OIE ADVISORY GROUP ON COVID-19 AND THE ANIMAL-HUMAN INTERFACE

7th April 2020

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Agenda

1. Housekeeping considerations
2. Update on COVID-19 virus 'events' and surveillance in animals
3. Update on animal and human-animal interface related research activities
4. Wildlife work and current investigations into the source
5. Discussion on the case definition/reporting criteria of COVID-19 in animals

Meeting notes

1. Housekeeping considerations

Chatham House rules apply to the meeting.

This group has been designated by the OIE Director General as the OIE ad hoc Group on COVID-19 at the human animal interface.

2. Update on COVID-19 virus 'events' and surveillance in animals

USA: a tiger at a zoo in NY, with mild respiratory clinical signs (dry, non-productive cough), was tested for several pathogens and tested positive for SARS-CoV2. This tiger was in contact 7 other big cats, six that also developed a mild respiratory illness (3 tigers and 3 lions), and one tiger that did not exhibit clinical signs. Likely transmitted by pre-symptomatic zookeeper. USA submitted immediate notification to OIE on 06/04/2020. The animals are recovering well. CDC has issued recommendations for pet owners and veterinarians which have been posted on their [website](#).

There were no further developments on the case of the Belgian cat.

3. Update on animal and human-animal interface related research activities

Animal infection studies

A summary of a paper recently published by Harbin Veterinary Research Institute (China) on experimental infection of several domestic animals was provided. Findings showed that cats seem to be the most susceptible species studied so far and virus replicated throughout the upper and low respiratory tract. Inoculated cats were able to transmit infection to other cats. Juvenile cats showed more severe signs of disease, some died, and infection persisted for longer. Older ("subadult") cats were able to clear the infection faster and didn't show severe clinical signs. Ferrets seem to be susceptible to infection and virus replication was evident in the upper respiratory tract. The ferrets didn't show signs of disease and none

died. Ferrets could be a useful animal model. Dogs had low susceptibility to infection, and virus was not isolated from tissues after euthanasia. Pigs, chickens and ducks did not appear to be susceptible to infection with SARS-CoV-2.

Results from animal studies in other countries have not yet been published.

Companion animal testing

Generally, in several countries companion animal is being done on a case-by-case basis.

In some countries routine testing is being discouraged to avoid concerned owners making unnecessary visits to their private veterinarian, which may increase public health risks through person to person contact.

There have also been instances of humans submitting their own samples disguised as their pet's sample to veterinarians in a desperate attempt to be tested. To detect such cases a species probe could be included with the diagnostic testing.

There is a need for guidance on "when to test", "what to report" and "actions to follow-up on positive cases".

4. Wildlife work and current investigations into the source

The information on zoo cases has been posted on the websites of the European, Asian and North America Zoo Veterinarian Bulletin Boards.

A new group is being formed amongst bat researchers to assess the risk for the virus "spilling-back" into bat populations. Methods and conclusions to be shared in the long run.

Interim guidelines for reducing risk to great apes have been issued and posted by both the IUCN SSC Wildlife Health Specialist Group and the IUCN SSC Primate Specialist Group as great apes are susceptible to many human respiratory viruses.

5. Discussion on the case definition/reporting criteria of COVID-19 in animals

An infection of any animal with SARS-CoV-2 is reportable to the OIE as an *emerging disease* but positive results achieved through experimental infection are not reportable.

Reporting to the OIE allows information about SARS-CoV-2 in animals to be centralised on a broad perspective to better understand implications of infections in animals for animal health and public health

It should be highlighted that livestock species relevant for trade have not been proven to be susceptible to infection with SARS-CoV-2.

When developing a case definition for SARS-CoV-2 infection in animals, consideration should be given to evidence of infection (shown by molecular diagnostics), evidence of an immune response (detected by serological methods), the presence of the virus (through viral isolation), or evidence of virus transmission to other individuals.

When describing suspect clinical signs, signs other than respiratory illness should be considered, such as gastrointestinal signs.

Communication is important to avoid alarm or inappropriate actions being taken when animals are found to be positive. Practical guidance on what to do in the event of positive findings in animals could avoid inappropriate actions being taken and unnecessary anxiety.

There is a need to provide guidance to Veterinary Services on the circumstances under which animals could be tested for SARS-CoV-2, the rationale for testing animals under these circumstances, practical guidance on sampling and testing, requirements for reporting, and actions on positive findings.

In parallel to the development of reporting requirements and definitions and of any communication materials, partnering up with animal welfare partner organizations should be considered in order to help with limiting unintended welfare consequences, most particularly with animal abandonment or euthanasia, as it is done in the case of rabies.

Action: sub-group to work on high level guidance for testing, follow-up actions for positive cases and support OIE in the development of a case definition.