



Biological Hazards & Animal Health and Welfare Unit

SCIENTIFIC PANEL ON ANIMAL HEALTH AND WELFARE

MINUTES OF THE 11th MEETING OF THE WORKING GROUP ON MONITORING SARS COV-2 IN ANIMALS

Held on 01 Dec 2022, web

(Agreed on 5 Dec 2022)¹

Participants

WG experts: Anette BOKLUND, Paolo CALISTRI, Nora GERHARDS, José GONZALEZ, Karl STAHL (Chair), Paolo PASQUALI

EFSA: Alessandro BROGLIA

ECDC: Cornelia ALDLOCH, Pryanka NANNAPANENI

1. Welcome and apologies for absence

Participants were welcome, apologies from Christian Gortazar.

2. Adoption of agenda

The agenda was adopted with changes

3. Declarations of Interest of Working Groups members

In accordance with EFSA's Policy on Independence² and the Decision of the Executive Director on Competing Interest Management³, EFSA screened the Annual Declarations of Interest filled out by the Working Group members invited to the present meeting. No Conflicts of Interest related to the issues discussed in this meeting have been identified during the screening process, and no interests were declared orally by the members at the beginning of this meeting.

¹ Minutes should be published within 15 working days of the final day of the relevant meeting.

² http://www.efsa.europa.eu/sites/default/files/corporate_publications/files/policy_independence.pdf

³ http://www.efsa.europa.eu/sites/default/files/corporate_publications/files/competing_interest_management_17.pdf

4. Scientific topic(s) for discussion

4.1. Discussion and action points

- The section about sequences was revised with the colleagues from ECDC, comments added to the draft, to be addressed.
- The conclusion points drafted by the WG were discussed, amended and agreed, to be cleaned in view of the AHAW Panel meeting (**Action:** WG members to check). Recommendations should be highlighted.

5. Timeline and tasks

- WG members to check cleaned conclusions and open comments (by 7 Dec)
- Draft to be cleaned and circulated to AHAW Panel on 7 December for full reading (Alessandro)
- Depending on comments received from Panel, a further WG can be set in January, tbc



Biological Hazards & Animal Health and Welfare Unit

SCIENTIFIC PANEL ON ANIMAL HEALTH AND WELFARE

MINUTES OF THE 10th MEETING OF THE WORKING GROUP ON MONITORING SARS COV-2 IN ANIMALS

Held on 7 Nov 2022, web

(Agreed on 8 Nov 2022)¹

Participants

WG experts: Anette BOKLUND, Paolo CALISTRI, Nora GERHARDS, Josè GONZALEZ, Karl STAHL (Chair), Paolo Calistri, Paolo PASQUALI

EFSA: Alessandro BROGLIA

ECDC: Cornelia ALDLOCH, Pryanka NANNAPANENI

1. Welcome and apologies for absence

Participants were welcome, no apologies.

2. Adoption of agenda

The agenda was adopted with changes

3. Declarations of Interest of Working Groups members

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4. Scientific topic(s) for discussion

4.1. Discussion and action points

ECDC

- Colleagues from ECDC presented the genomic analysis performed on animal isolates (microreact project). Different cluster and clades in different animal species were discussed. It was proposed to split the graphs of the sequence according to animal species, and for mink to use a color code for different countries. This analysis can be inserted into the opinion after the section about animal species infected in the field.
- ECDC illustrated how the section about risk for animal health is structured.

Section 3.6 - preventive and control measures

- The draft section about assessment of control and preventive measures was discussed. It was agreed to:
 - make clear what is opinion from MSs and what is assessment done by WG;
 - Measures should be presented according to order of importance or effectiveness;
 - Measures to be applied in humans to contain spread to mink should be merged with what presented by ECDC;
 - It should be explained that measures to be applied in pets are of less relevance for the epidemiology of SARS CoV-2;
 - [Karl and Anette](#) to revise the part about control measures in mink and add discussion, where needed;
 - [Paolo P.](#) to reshuffle the section about vaccine in mink;
 - Check with EMA status of application about mink vaccine ([Alessandro](#))

Section 3.1 animal susceptibility

This section was revised and the following was agreed:

- [Alessandro](#) to address the open comments and clean text and comments;
- [Nora](#) to add marmosets and baboons in the figure;
- To draft/revise bullet points for conclusions and recommendations ([Nora](#), [Josè](#))

Section 3.2 field infection

This section was revised and the following was agreed:

- [Alessandro](#) to address the open comments and clean text and comments;
- [Josè](#) to address comments and clean section 3.2.2. on Companion animals detected as infected with SARS CoV-2 under field conditions
- To draft bullet points for conclusions and recommendations ([Josè](#), [Paolo P.](#), [Anette](#))

Section 3.3 probability of transmission between animals

This section was revised and the following was agreed:

- [Karl and Josè](#) to revise the phrasing of the questions for uncertainty in the tables (especially for pets);
- [Josè](#) to add the diagram about zoo animals
- [Alessandro](#) to clean text and address comments by Anette in the tables, to cross check with [Anette](#);

- For conclusions and recommendations it was agreed to draft conclusion for each system and some overall conclusions (to draft proposal of C&R by [Karl](#), [Josè](#), [Anette](#), [Paolo P.](#)).

Section 3.5 monitoring options

This section was revised and the following was agreed:

- [Alessandro](#) to address the open comments and clean the text
- [Paolo C.](#) to revise and draft conclusions and recommendations

5. Timeline and tasks

- **By 13 November:** to revise, add what still missing, update and clean the text and figures as from the action points listed above ([see in blue](#) who is in charge for what) so that the draft opinion can be circulated to AHAW Panel on 15 November;
- **by 27 November** To draft bullet points for conclusions and recommendations;
- WG meeting on 1st December;
- Draft to be circulated to AHAW Panel on 6 December for full reading on 23 Nov (draft opinion should be completed in all its parts of the body text, draft of conclusions and recommendations should be in
- Draft to be circulated to AHAW Panel on 9 January to be adopted on 14th Jan 2023



Biological Hazards & Animal Health and Welfare Unit

SCIENTIFIC PANEL ON ANIMAL HEALTH AND WELFARE

MINUTES OF THE 9th MEETING OF THE WORKING GROUP ON MONITORING SARS COV-2 IN ANIMALS

Held on 9 Sept 2022, web

(Agreed on 12 Sept 2022)¹

Participants

WG experts:	Anette BOKLUND, Paolo CALISTRI, Nora GERHARDS, Josè GONZALEZ, Karl STAHL (Chair), Paolo Calistri, Paolo PASQUALI
EFSA:	Alessandro BROGLIA, Francesca BALDINELLI
ECDC	Cornelia ALDLOCH
EC:	Francesco BERLINGIERI

1. Welcome and apologies for absence

Participants were welcome, apologies by Paolo Pasquali for absence.

2. Adoption of agenda

The agenda was adopted with changes

3. Declarations of Interest of Working Groups members

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4. Scientific topic(s) for discussion

4.1. Discussion points and tasks

- Update from WG for EC about the work done so far
- EC updated the WG about the future position of EC towards monitoring of SARS-CoV-2 in EU

Risk for animal health section 3.3

- The subsection on mink has been revised. Comments are inserted in the draft opinion
- It has been agreed that the P of transmission should include also the P of contact (and not assuming that contact occurs)

Actions:

- To revise (lower) % for pathways for pets if possible by 12th Sept, to allow WG to check (Josè, Nora)
- To add level of quality of evidence in the table for cats and hamsters (Josè, Nora)
- To ask Christian to check % for wild and zoo according to the comments by Karl by 13th Sept (Ale)
- To add diagram of transmission for zoo animals

Review monitoring options – section 3.5

- The draft has been presented and discussed. Comments have been added in the draft (see draft)

Actions:

- WG to check text and comments left by next Tue 13th

Preventive and control options for different scenarios- section 3.6

Actions:

- To arrange structure of the section, by 25 Sept (Ale)
- Karl to check information on vaccines from SLR, by 30 Sept (Ale)
- To check new information on Finnish vaccine by 25 Sept (Ale)

Susceptibility of animals – section 3.1 and 3.2

Actions:

- To revise comments and to circulate questions/points to solve (if any) by email (Nora) by 30 Sept
- To contact MS to check their text and confirm outbreaks (Ale), by 30th Sept



Biological Hazards & Animal Health and Welfare Unit

SCIENTIFIC PANEL ON ANIMAL HEALTH AND WELFARE

MINUTES OF THE 8th MEETING OF THE WORKING GROUP ON MONITORING SARS COV-2 IN ANIMALS

Held on 5 July 2022, web

(Agreed on 7 July 2022)¹

Participants

- WG experts: Paolo CALISTRI, Nora GERHARDS, José GONZALEZ ROJAS, Karl STAHL, Paolo PASQUALI (Chair), Christian GORTAZAR
- EFSA: Alessandro BROGLIA
- ECDC: Cornelia ADLHOCH, Eleonora CHINCHIO

1. Welcome and apologies for absence

Participants were welcome, no apologies for absence.

2. Adoption of agenda

The agenda was adopted with changes

3. Declarations of Interest of Working Groups members

In accordance with EFSA's Policy on Independence² and the Decision of the Executive Director on Competing Interest Management³, EFSA screened the Annual Declarations of Interest filled out by the Working Group members invited to the present meeting. No Conflicts of Interest related to the issues discussed in this meeting have been identified during the screening process, and no interests were declared orally by the members at the beginning of this meeting.

4. Scientific topic(s) for discussion

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4.1. Discussion points and tasks

Tor 1. Susceptibility of animals – section 3.1 and 3.2

Experimental infection

- In the figures and in the text should be specified the timeline of SLR
- how to deal with species not included in the SLR: To mention in the methods:
 - "additional papers were added, known by authors, knowledge added, broad questions with a case by case approach
 - those additional refs about new species identified to be added in the text

Natural infection

- Figure about species: To remove *Transmission* from the figure and mention in the text in a dedicated section "transmission animal-to animal and animal to human" (task: Nora, Josè, Paolo P)
- To add text about rabbit and ferrets (task: Paolo P)
- in the explanatory text: To add case of cat to human transmission > Thai report
- considerations about epidemiological situation in mink from MS:
 - factors that trigger detection of outbreaks , difficult to disentangle the variables
 - -no seasonality
 - -some countries did not check infection until pelting
 - implemented monitoring is not enough to detect all outbreaks, but no spillback
 - To check details of monitoring plans proposed by EC, which approach each MS take (tasks: Ale)
 - To check outbreak peak in Dec for Poland (task: Ale)
- about wastewater: not directly in the remit of the report. However, important to link with JRC and WHO document about wastewater to be published next week. This as monitoring samples. (task: Cornelia to share the link, when published)
- how to structure conclusions: these should be drafted considering both experimental and natural infection (see notes about considerations done about outbreak trends in the section on conclusions in the draft)

Tor 2. Risk for animal health section 3.3

- diagram about mink to be amended as indicated in the draft (task: Karl)
- The filled tables about scenarios on wildlife have been discussed
- Tables about cats and hamsters to be filled (task: Josè , Paolo P)
- The aspect about how to address uncertainty was discussed
 - It was pointed out that specific questions should be defined including precise quantities in order to address uncertainty in the most possible objective way;
 - It was agreed to change "uncertainty" into "amount and quality of evidence"
 - Clear and specific questions for mink and cats will be defined by 16 July, then subgroup to agree on that
 - Then the ranges of probability should be filled (or checked if already filled) in by end of August

Tor 3. Review monitoring options – section 3.5

- What has been done so far will be the topic for next meeting.

Tor 4 Preventive and control options for different scenarios- section 3.6

- It was discussed to request MSs to provide feedback about feasibility and compliance about control measures applied

Tasks indicated above should be completed by end of August.



Biological Hazards & Animal Health and Welfare Unit

SCIENTIFIC PANEL ON ANIMAL HEALTH AND WELFARE

MINUTES OF THE 7th MEETING OF THE WORKING GROUP ON MONITORING SARS COV-2 IN ANIMALS

Held on 31 May 2022, web

(Agreed on 3 June 2022)¹

Participants

- WG experts: Paolo CALISTRI, Nora GERHARDS, José GONZALEZ ROJAS, Karl STAHL, Paolo PASQUALI (Chair),
- EFSA: Alessandro BROGLIA, Francesca BALDINELLI
- ECDC: Cornelia ADLHOCH, Eleonora CHINCHIO

1. Welcome and apologies for absence

Participants were welcome, no apologies for absence.

2. Adoption of agenda

The agenda was adopted with changes

3. Declarations of Interest of Working Groups members

In accordance with EFSA's Policy on Independence² and the Decision of the Executive Director on Competing Interest Management³, EFSA screened the Annual Declarations of Interest filled out by the Working Group members invited to the present meeting. No Conflicts of Interest related to the issues discussed in this meeting have been identified during the screening process, and no interests were declared orally by the members at the beginning of this meeting.

4. Scientific topic(s) for discussion

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4.1. Discussion points

Tor 1. Susceptibility of animals – section 3.1 and 3.2

Experimental infection

- Nora presented the table about experimental infection, comments were raised, the table to be amended accordingly, see draft. Table 1 and 2 to be moved to an annex, mention in body text where needed (e.g. incubation period)
- Missing species from SLR: Mink, hamsters, NHP, ferrets, wild type mouse. We should ask the contractor to run again search by including the missing species, if this is not feasible then the references selected by COVRIN should be considered+ papers found by Nora, provided to the contractor for data extraction.
- The conclusions should be drawn considering the “transmission” pattern, then they should be crossed checked with those from section about natural infection

Natural infection

- Table 3 by Paolo P.: discussed to be amended by mentioning No. refs, Total no. animals, % Positive as median + bounds (25%-75%) intra study (to exclude when 1 animal only tested), as in the draft
- The list of negative species should be put in a table.
- **Fur animals:** Section about fur animals were discussed, to be amended as indicated in the draft
- **Pet:** the graph about cat should be amended as indicated in the draft
- **Wild and zoo animals:** these section should be finalised, with special focus on white tailed deer and zoo felines/primates.

Tor 2. Risk for animal health section 3.3

- The diagram of the transmission for mink farm, cat, hamster, white tailed deer were supplied during the meeting. It is not clear if and how the probability of transmission between the different compartments should be assessed.
- As from ToR 2 ,“... ***the risk for human and animal health posed by SARS-CoV-2 infection in animals species of concern***” these diagram highlight the species of concern and the transmission systems, thus the risk from each of those species towards other animal species and for humans should be assessed.
- It was proposed to compile tables next to each diagram where , for each transmission compartments, the related risk factors should be highlighted, and the related risk mitigation measures and possible monitoring strategies. A descriptive text should be developed to accompany each table.

Tor 3. Review monitoring options – section 3.5

- Approach and structure to be still discussed (monitoring options for each systems to be derived from tables next to diagrams from section 3.3?)

Tor 4 Preventive and control options for different scenarios- section 3.6

- Approach and structure to be still discussed (Scenarios to be taken from the tables next to the diagrams from section 3.3?)

5. Task distribution

The task distribution is proposed as follows:

What		Who	By when
Section 3.2	To finalise the table on susceptibility in experimental infections according to the comments raised (see draft)	Nora	15 June
	Add missing species from SLR	Nora	30 June
	To finalise the section about pet animals on susceptibility in natural infections and formulate conclusions points (should be supported by the text)	Paolo P	15 June
	To finalise the section about wild, and zoo animals on susceptibility in natural infections and formulate conclusions points (should be supported by the text)	Anette	15 June
	To address comments in the section about epidemiological situation in MSs	Ale , Francesca	15 June
Section 3.3	<ul style="list-style-type: none"> To prepare scenario diagram for zoo animals To prepare / amend the diagram for dogs and hamsters 	Josè	15 June
	to compile tables next to each scenario diagram and develop related explanatory text	<ul style="list-style-type: none"> Karl, Anette: mink Ale (to check with Christian): wild Josè, Paolo P: pets Zoo: Ale 	15 June
Section 3.5	<p>“TOR3. In each epidemiological scenario, recommend options for reviewing the monitoring strategies”:</p> <p>To check the proposed structure in the draft and propose a possible approach in details</p>	Karl, Paolo C.	30 June

6. Next WG meeting

Next WG meeting is foreseen on 5th July, according to the advancement of the document.



Biological Hazards & Animal Health and Welfare Unit

SCIENTIFIC PANEL ON ANIMAL HEALTH AND WELFARE

MINUTES OF THE 6th MEETING OF THE WORKING GROUP ON MONITORING SARS COV-2 IN ANIMALS

Held on 16 May 2022, web

(Agreed on 18 May 2022)¹

Participants

- WG experts: Paolo CALISTRI, Nora GERHARDS, José GONZALEZ ROJAS, Karl STAHL, Paolo PASQUALI (Chair),
- EFSA: Alessandro BROGLIA, Francesca BALDINELLI
- ECDC: Cornelia ADLHOCH, Eleonora CHINCHIO

1. Welcome and apologies for absence

Participants were welcome, no apologies for absence.

2. Adoption of agenda

The agenda was adopted with changes

3. Declarations of Interest of Working Groups members

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4. Scientific topic(s) for discussion

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4.1. Discussion points

It was reminded about EC vision, i.e. how to deal with sporadic SARS CoV-2 findings in wild animals, make sure that these are framed in the correct way, and that this is understood correctly by MSs. There are also some recommendations by OIE/FAO that cannot be ignored about new animal species to be considered as potential human source for SARS CoV-2. This is exactly the balance between RA and RM, in any case apparently there are no emerging risk about new species.

The logical way of development of RA from TOR 1, 2 and 3:

- a) how to select the species to be considered for the animal health RA: to combine the characteristics of different species from experimental studies and observations in the field. The characteristics to be considered are susceptibility (species that can be infected and be detected as PCR positive), ability for host – to host further transmission and if they are able to become reservoir (establishment of the infection in the animal population).
- b) Scenario tree for each species/group of species to conduct the animal health RA:
 - Pets: similar scenario tree for cat and dog that include stray cats and dogs too;) and a similar scenario tree for hamster and ferrets that includes pet shop and breeding centres)
 - Farmed animals: mink and raccoon dogs
 - Wild animals: wild mustelids/ wild deer
 - Zoo animals: large felines, primates
- c) Once the scenario trees are drawn >> to fill in the probability between each compartment (P of exposure + P of transmission), identify level of establishment and chance of becoming a reservoir. How to fill in the P could be expert driven and derived from the literature.
- d) Based on the scenario trees, most relevant connections between compartments and outcome of the RA>>> to propose what kind of monitoring for the system at risk

It was discussed about how to present the data from the SLR on natural infection in animals and how to highlight the differences between cats and dogs: in the table it should be highlighted that most cats in each single study got infected, while dogs have lower incidence. Also, in case of household infections the median infection rate should be estimate at household level and considering the overall number of animals in the household (e.g. for cats).

It was agreed that the SLR outputs produced by the contractor are suitable for the work to be done in this mandate and can be considered as approved by the WG.

5. Task distribution

The task distribution is as follows:

What	Who	By when
To finalise the table on susceptibility in experimental infections	Nora	31 May
To finalise the table on susceptibility in natural infections	Paolo P, Anette	31 May
To finalise the section about epidemiological situation in MSs	Ale , Francesca	31 May

To draw scenario trees for each of the group of species (pets, farmed, wild, zoo)	Josè, Karl	31 May
To check Promedmail about other species not considered in the SLR (e.g. lynx) and solidity of the source	Paolo C.	31 May

6. Next WG meeting

Next WG meeting is foreseen on 31 May (14.00-18.00)



Biological Hazards & Animal Health and Welfare Unit

SCIENTIFIC PANEL ON ANIMAL HEALTH AND WELFARE

MINUTES OF THE 5th MEETING OF THE WORKING GROUP ON MONITORING SARS COV-2 IN ANIMALS

Held on 28 April 2022, web

(Agreed on 3 May 2022)¹

Participants

- WG experts: Anette BOKLUND, Nora GERHARDS, José GONZALEZ ROJAS, Karl STAHL, Paolo PASQUALI (Chair),
- Hearing expert: Fernanda DOREA
- EFSA: Alessandro BROGLIA, Francesca BALDINELLI
- ECDC: Cornelia ADLHOCH

1. Welcome and apologies for absence

Participants were welcome, no apologies for absence.

2. Adoption of agenda

The agenda was adopted with changes

3. Declarations of Interest of Working Groups members

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4. Scientific topic(s) for discussion

4.1. Discussion points

4.1.1. TOR1, literature review on susceptible animal species to SARS-CoV-2

The EFSA contractor presented the results (summary word document) and these were discussed with the WG.

Questions and comments raised and issues to be fixed are about (besides side comments in the document presented by Fernanda):

- exclusion criterion: non mammals are excluded, but in table 4 chicken and turkey are mentioned.
- Sufficient to report up to species level, no need of indicating sub-species
- ferret and hamsters to be included: ferret is included as human model, but hamsters are excluded as animal model (e.g. HongKong) >> Action: hamster data to be made available by Josè.
- Table 4: it is important to have this table as a guidance for the WG but if there are '0' reactors, then this specific result may be excluded by the WG to make own conclusions as there is need to distinguish between the animal species that are really positive from those and only possibly 'contaminated' (e.g. only one sample positive).
- Table 11 on protective immunity: there are no studies about challenge. It was proposed to look for re-challenging studies as indicator of possible protective immunity; It was observed that in humans and worldwide there has been no report of protective immunity >> that would be important to be considered to set control measures and monitoring. Action: table to be amended indicating the test used (e.g. virus neutralisation and peak).
- Genetic variants: several data are available for mink but currently not for other species. It is fine to report data available on natural infections; also a table for rats and hamsters should be added.
- Vaccine studies: the 4 papers retrieved should be checked in details. Action: a volunteer is needed to do this.
- The excel tables with the data extracted from the papers can be uploaded to Zenodo, whereas the summary word document is for the moment only a guidance for internal use of the WG.
- It was agreed that Fernanda will address the comments and send back an updated version of the summary document.

4.1.2. TOR1, susceptible animal species to SARS-CoV-2

- Nora presented how data for experimental infection could be illustrated, there was a discussion about how the summary table and further aspects on susceptibility should be presented (notes were added to the draft opinion).

4.1.3. TOR2, epidemiological situation in the EU

- Francesca and Alessandro showed the results of the descriptive analysis of the outbreaks in mink and raccoon dogs in the EU
- It was agreed to consider the reporting period as from February 2021 (i.e. the end of the reporting period of the previous published EFSA report) onwards and, for the second plot that was presented, to indicate when the EC decision for monitoring was introduced.
- The paragraph on the description of the SARS CoV-2 situation and the measures taken by MS where mink are still raised, was presented. Action: the one about Spain has to be still drafted (Alessandro).
- Paolo and Anette presented how to report in the Opinion the data on SARS CoV-2 infections under field condition in other animal species: the role of dog was deemed not significant, and it was discussed how to report the data (indicating the positivity as number of positive out of tested. The target should be reactive or random surveillance).

4.1.4. TOR 2: Risk for human and animal health posed by SARS-CoV-2 infection in animal species of concern with a view to review the design of the existing monitoring performed by the Member States for mink, other animals of the family Mustelidae and raccoon dogs

The WG discussed how to approach this part of the ToR: the top ranked species from the SLR will be considered and also how these are bred may represent different level of risk. The following items should be defined:

- which animals towards which animals or breeding systems should be part of the assessment
- possible scenarios to be considered
- which species may be object of the monitoring in the future

4.1.5. Further ToRs

- To address ToR 3 it was agreed to have first ToR 1 and 2 developed.
- ToR 4 still have to be addressed, a proposal for approach is indicated in the draft opinion (section 1.2).

5. Task distribution

The task distribution was indicated in the draft opinion

What	Who	By when
To update the summary document of SLR	Fernanda	done
To finalise table about susceptibility of animals	Nora	18 May
To finalise section about epidemiological situation in animals (mink and other species)	Francesca, Alessandro, Paolo, Anette	18 May
To propose a structure for the assessment of the second part of TOR 2, i.e. <i>risk for animal health posed by SARS-CoV-2 infection in animal species of concern with a view to review the design of the existing monitoring performed by the Member States for mink, other animals of the family Mustelidae and raccoon dogs</i>	Josè, Karl	18 May



BIOHAW UNIT

SCIENTIFIC PANEL ON ANIMAL HEALTH AND WELFARE

MINUTES OF THE MEETING OF THE WORKING GROUP ON MONITORING SARS COV-2 IN ANIMALS

TELE-conference, 14 March 2022

(Agreed on 17 March 2022)¹

Participants

- WG experts: Karl STAHL, Paolo PASQUALI (Chair), Anette BOKLUND, Nora Gerhards
- Hearing expert: Fernanda Dorea, José Gonzalez
- EFSA: Alessandro BROGLIA
- ECDC: Edoardo Colzani

1. Welcome and apologies for absence

Participants were welcome, no apologies for absence.

2. Adoption of agenda

The agenda was adopted with changes

3. Declarations of Interest of Working Groups members

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4. Scientific topic(s) for discussion

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4.1. Discussion points

4.1.1. TOR1, literature review on susceptible animal species to SARS-CoV-2:

The contractor presented the review protocol prepared by the Covetlab consortium to address the review questions. the main discussion points and their decisions as follows:

- Inclusion of mammals only: The review questions provided to the Covetlab team already restricted the target species to mammals only. Any information from reviews regarding other species – including the absence of evidence for those – will be included in the narrative summaries. In the opinion to provide reason why non mammals are excluded
- Animal models used for studies on human vaccines will be excluded, the focus is on veterinary vaccinology. The list of papers and the species targeted will be delivered to EFSA.
- *Invitro/in silico* studies, e.g. on predicted molecular susceptibility: those will not be included in the data collection, but they will be summarized in an annotated bibliography pointing out the relevant references and what information they contribute to the review questions (for example studies of molecular susceptibility in specific species).
- Data collection: the following adjustments were made to the dataset for collection of data from natural infections, as a results of the discussions:
 - Add “trigger” – what triggered detection of the infection
 - Add information about exposure – any information known about when the animal could have been exposed to the virus
 - Add the number of animals purposefully killed (as this means that these animals were no longer followed for development of clinical signs or eventual death)
 - Record whether virus shedding in the absence of clinical signs was observed.
- Literature reviews will be listed in an annotated bibliography if time allows. In this case, reviews published in 2021 and 2022 will be prioritized.
- The Covetlab team will not perform any data analyses or draw any conclusions from the data collected. The consortium will deliver all data as collected, along with descriptive summaries of the data for easier review (narrative summaries). The goal is to provide the working group with the available evidence for them to conduct their own assessments and evaluations in relation to the review questions listed above.
- The agreed deliverables are detailed in the review protocol attached to this document. The SLR team will prioritize infection studies (experimental infections and natural infections) and deliver those data as soon as available, but no later than April 15th. The consortium will strive to deliver all other agreed outputs by April 22nd.

4.1.2. TORs 2, 3, 4: presentation and discussion

The ToRs 2, 3, 4 were presented by EFSA staff and discussed, propose approach is reported in the ppt shared with experts.

- TOR2. *Assess the current epidemiological situation in the EU and elsewhere as regards the risk for human and animal health posed by SARS-CoV-2 infection in animals species of concern with a view to review the design of the existing monitoring performed by the Member States for minks, other animals of the family Mustelidae and raccoon dogs:*
 - The approach should be to consider all species of animals
 - It was agreed that ECDC colleagues can develop the section according to the human health remit, mainly for TOR 2 (risk for human health) and have checks along the year to guarantee harmonisation. Cornelia ADLHOCH will be reference partner at ECDC in charge of this work.
 - Monitoring aspect also in humans may be also considered by ECDC, especially in mink farms. As well as some control options to be applied (see ToR 4)
 - The outputs from ToR 1 is needed to proceed with ToR 2, key questions to be answered would be:
 - Need of keeping monitoring in mink?
 - Need of extending monitoring to other species?
 - Possibly a decision tree can be used: 1. Susceptible Y/N >> 2. Risk for animal Y/N > 3. Which category of animals to be targeted.

- Surveillance data from MS (activity performed and results) would be also needed. To be asked for.
- TOR 3. *In different epidemiological scenarios, recommend options for reviewing the monitoring strategies indicating possible objectives and suitable methodologies, in particular as regards scope, sampling, frequencies and testing methods taking into account existing risk mitigating measures.*
 - Needed inputs to address ToR3 would be:
 - Outputs of ToR2
 - Surveillance results, in particular: detections, possible origin of the virus, presence of farms around affected one, type of surveillance in place, dataset about all samples processed.
 - For each MS a short summary can be presented about detections, performance of monitoring, whether detections come from passive or active sampling, measures in place.
 - The ultimate outcome would be:
 - To assess if the monitoring as in place/ foreseen by the legislation is proportionate and/or still needed
 - What is the basis to setup the monitoring
 - The level of risk of exposure to humans
 - What other species may become target of monitoring and control (rats? pest control? etc)
- TOR4. *Explore the main possible options for disease prevention and control measures suitable to address the risks under different plausible scenarios indicating the strengths and drawbacks of each set of measures.*
 - It is needed to check what preventive measures are in place in MS
 - The Finnish report provided by Finnish Fur Association about vaccines in mink will be checked and discussed.
 - Medical treatments for certain category of animals (pets, endangered species, etc): it is not the main focus of this opinion, but will be mentioned as possible control options.

5. Task distribution

What	Who	By when
to screen Finnish report on vaccine used under provisional authorisation	Paolo	4th April
To screen outbreak forms and extract data into excel form	Karl, Josè, Anette	15 th April
Screen output from SLR	Nora, Karl, Josè, Anette, Paolo	After receipt of results from SLR, from 15 th April onwards
to contact MS about monitoring plan, sample results including negatives	Ale	asap



UNIT Animal Health and Plant Health

SCIENTIFIC PANEL ON ANIMAL HEALTH AND ANIMAL WELFARE

MINUTES OF THE 3rd MEETING OF THE WORKING GROUP ON COVID-19 in mustelids

Held on 28th Jan 2021, web

(Agreed on 28 Jan 2021)¹

Participants

- Working Group Members:² Soeren SAXMOSE NIELSEN, Karl STAHL, Paolo PASQUALI
- EFSA: Alessandro BROGLIA

1. Welcome and apologies for absence

The participants are welcomed.

2. Adoption of agenda

The agenda was adopted without changes.

3. Declarations of Interest of Working Groups members

In accordance with EFSA's Policy on Independence³ and the Decision of the Executive Director on Competing Interest Management⁴, EFSA screened the Annual Declarations of Interest filled out by the Working Group members invited to the present meeting. No Conflicts of Interest related to the issues discussed in this meeting have been identified during the screening process, and no interests were declared orally by the members at the beginning of this meeting.

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4. Scientific topic(s) for discussion

4.1. Item discussed⁵:

The draft report was reviewed, The abstract of the report was discussed and agreed, pending point discussed and finalised.

5. Timeline:

- Approval of report is by 29th Jan 2021

⁵ Please add the following link to the EFSA's register of questions and substitute YYYY and NNNNN accordingly
<http://registerofquestions.efsa.europa.eu/roqFrontend/questionLoader?question=EFSA-Q-YYYY-NNNNN>



UNIT Animal Health and Plant Health

SCIENTIFIC PANEL ON ANIMAL HEALTH AND ANIMAL WELFARE

MINUTES OF THE 2nd MEETING OF THE WORKING GROUP ON COVID-19 in mustelids

Held on 15th Jan 2021, web

(Agreed on 18 Jan 2021)¹

Participants

- Working Group Members:² Soeren SAXMOSE NIELSEN, Karl STAHL, Paolo PASQUALI, Anette BOKLUND, Arjan STEGEMAN, Christian GORTAZAR, Helen ROBERTS
- EFSA: Alessandro BROGLIA, Francesca BALDINELLI, Yves, VAN DER STEDE

1. Welcome and apologies for absence

The participants are welcomed.

2. Adoption of agenda

The agenda was adopted without changes.

3. Declarations of Interest of Working Groups members

In accordance with EFSA's Policy on Independence³ and the Decision of the Executive Director on Competing Interest Management⁴, EFSA screened the Annual Declarations of Interest filled out by the Working Group members invited to the present meeting. No Conflicts of Interest related to the issues discussed in this meeting have been identified during the screening process, and no interests were declared orally by the members at the beginning of this meeting.

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4. Scientific topic(s) for discussion

4.1. Item discussed⁵:

The draft report was reviewed, the following points discussed:

- the key messages in each section were checked and agreed. The conclusions will be drafted based on the key messages
- the section on monitoring was reviewed and discussed
- scenarios for early detection and freedom from disease were revised, the design prevalence and sampling frequency for early detection should be agreed
- design prevalence for confirmation of suspected cases was agreed to be 50% based on observations from the Netherlands
- monitoring approach on wild mustelids was discussed, should be focused on testing animals trapped around mink farms.
- Section on monitoring policy in place in each MSs was reviewed.

5. Timeline:

- Report will be tabled for discussion at AHAW Plenary
- Approval of report is by 29th Jan 2021

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<http://registerofquestions.efsa.europa.eu/roqFrontend/questionLoader?question=EFSA-Q-YYYY-NNNNN>



UNIT Animal Health and Plant Health

SCIENTIFIC PANEL ON ANIMAL HEALTH AND ANIMAL WELFARE

MINUTES OF THE 1st MEETING OF THE WORKING GROUP ON COVID-19 in mustelids

Held on 6th Jan 2021, web

(Agreed on 11 Jan 2021)¹

Participants

- Working Group Members:² Soeren SAXMOSE NIELSEN, Karl STAHL, Paolo PASQUALI, Anette BOKLUND, Arjan STEGEMAN, Christian GORTAZAR
- EFSA: Alessandro BROGLIA, Francesca BALDINELLI, Yves, VAN DER STEDE

1. Welcome and apologies for absence

The participants are welcomed.

2. Adoption of agenda

The agenda was adopted without changes.

3. Declarations of Interest of Working Groups members

In accordance with EFSA's Policy on Independence³ and the Decision of the Executive Director on Competing Interest Management⁴, EFSA screened the Annual Declarations of Interest filled out by the Working Group members invited to the present meeting. No Conflicts of Interest related to the issues discussed in this meeting have been identified during the screening process, and no interests were declared orally by the members at the beginning of this meeting.

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4. Scientific topic(s) for discussion

4.1. Item discussed⁵:

The draft report was reviewed and tasks allocated as below:

Report section	task	who
4.1. wild mustelids	to insert reference for polecat increase in UK	Christian
4.1. kept mustelids:	to provide reference for number of ferrets in UK	Helen
4.2.3 Genetic analysis of SARS-CoV-2	to add more if relevant to mink/mustelids and PH/AH issues	Paolo
4.2.5 pathogenesis	Cleaned, check please key messages again	Paolo, all
4.2.6 Infection routes	please check	Karl, all
4.3.2	Add intro	Ale
4.3.2 In vitro studies	A ref added, to be checked	Paolo
4.3.2. susceptibility	Ref for mention of investigation for cats in NL	Arjan
4.3.2. susceptibility	to be add about ferrets	Christian
4.3.2	Revise key messages	all

5. Next WG meetings and timeline:

Next WG meeting is on 15 Jan 2021

Approval of report is by 29 Jan 2021

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