Scientific Panel on Animal Health and Welfare

Minutes of the 96th Plenary meeting

Held on 09-10 March 2016, Brussels, (Belgium)

(Agreed on 23 March 2016)

Participants

- Panel Members

  Dominique Bicout, Anette Botner, Paolo Calistri, Klaus Depner, Sandra Edwards, Bruno Garin-Bastuji, Margaret Good, Christian Gortazar Schmidt, Virginie Michel, Miguel Angel Miranda, Simon John More, Søren Saxmose Nielsen, Liisa Sihvonen, Hans Spoolder, Jan Arend Stegeman, Hans-Hermann Thulke, Antonio Velarde Calvo, Preben Willeberg, Christoph Winckler

- EFSA

  ALPHA UNIT: Francesca Baldinelli, Alessandro Broglia, Denise Candiani, Sofie Dhollander, Andrea Gervelmeyer, Frank Verdonck, Gabriele Zancanaro, Giuseppe Stancanelli

  AMU UNIT: Laura Martino

  CORSER UNIT: Vanessa Descy

  Scientific advisor: Hubert Deluyker

  Communications and external relations department: Stephen Pagani

- EUROPEAN COMMISSION

  Marina Marini, Dimitrios Dilaveris, Andrea Gavinelli, Francisco Reviriego Gordejo

- Observers

  Kirstine Lindstrøm Nielsen (University of Copenhagen), Ditte Boisen Andersen (University of Copenhagen), Ian Alexander (Canadian Food Inspection Agency), Frank Koenen (CODA-CERVA), Alessandra Pautasso (Istituto Zooprofilattico del Piemonte Liguria Valle d'Aosta), Francesca Porta (Eurogroup for Animals), Tomislav Treer (University of Zagreb, Faculty of Agriculture, Department of Fisheries), Peter Oostenbach (IFAH-Europe)

1. Welcome and apologies for absence

The chair welcomed the meeting participants. Apologies were received by Mohan Raj and Andy Butterworth.

2. Brief introduction of Scientific Panel and AHAW Team members and observers

The meeting participants briefly introduced themselves to each other.

3. Adoption of the agenda

The agenda was adopted without changes

4. Declarations of Interest of Scientific Panel Members

In accordance with EFSA's Policy on Declarations of Interests (DoI), EFSA screened the Annual (ADoI) and Specific Declaration of Interest (SDoI) provided by the Panel Members for the present meeting. The Panel members were asked to confirm that no further interests had to be declared in the context of the agenda of the meeting. No conflict of interest has been identified.

5. Presentation of the work of EFSA and AHAW and the Guidelines for Observers

Andrea Gervelmeyer gave a presentation on the work of EFSA and the AHAW panel and team, and explained the guidelines for observers.

6. Presentation of the Commission

Andrea Gavinelli presented the new structure of DG SANTE, with a particular focus on the units G2 (Animal health and welfare) and G3 (Official controls and eradication of diseases in animals).

7. Agreement of the minutes of the 95th Plenary meeting held on 19 and 20 January 2016, Parma (Italy)

The minutes of the previous plenary meeting have been adopted by written procedure.

8. New Mandates

- **Request for a scientific opinion on Bluetongue**

The Commission presented the background of the mandate, explaining the need for scientific evidence on which bilateral safe trade agreements can be based. The opinion should also assess if and in how many years vaccination programmes are able to achieve freedom of BTV, which design prevalence and confidence level need to be defined, and to which extent the current surveillance tools are able to provide this confidence.

It was agreed that for ToR 1 and 5 the complete epidemiological cycle of BTV infections, including the role of wildlife and insect vectors, needs to be considered. For ToR 2, the individual animal is the unit of concern. ToR 3 requires an assessment of insecticides and repellents as compared to vector-proof establishments. This assessment should focus on all susceptible livestock species and does not need to include an environmental assessment of the side-effects of insecticides used. The opinion should include a clear

definition of what is intended by the terms "vector-free period" and "vector competence". For ToR 5 the methodological framework being developed for mandate EFSA-Q-2015-00713 will be applied at the serotype level, which will inform the assessment needed for ToR 4.

- **Request for a scientific opinion on Low Atmosphere Pressure Stunning**

The Commission indicated that a new mandate on Low Atmosphere Pressure Stunning (LAPS) will be submitted to EFSA in March 2016. It was agreed that EFSA will provide an overview of previous Panel work relevant to the new mandate at the April plenary meeting.

9. Scientific outputs submitted for possible adoption

None

10. Scientific outputs submitted for discussion

None

11. Feedback from the ad-hoc Working Groups of the AHAW Panel

- **Scientific opinion on avian influenza (HPAI) (EFSA-Q-2015-00214)**

Feedback on the workshop on the role of HPAI introduction via wild birds was provided to the Panel. The objective of the workshop was to inform parameters required for the quantitative assessment of the wild bird pathway of HPAI introduction into the EU and subsequently into a poultry holding. The Sheffield method of Expert Knowledge Elicitation (EKE) was performed by two groups of experts: a group composed of ornithologists and another group composed of epidemiologists, poultry experts and virologists. The experts discussed and edited the questions, reviewed the available scientific evidence, provided individual estimates and achieved to agree on overall estimates for all parameters. Main topics discussed by the experts that need follow up were the mapping of wetlands (in the broader sense of water bodies), the effect of wetland and/or poultry density on wild bird behaviour and their capacity to spread HPAI, and the assumptions made by the model. The workshop focused on the scenario of migratory wild birds entering the EU via the north-eastern entry route during fall/winter migration for viruses of clade 2.3.4.4. It was highlighted that other scenarios (e.g. the east entry route bringing H5N1 into the EU) will be covered by the WG at a later stage, mainly via a qualitative description due to the absence of data on one or more parameters of the model (e.g. number of birds entering via this route).

12. Other scientific topics for information and/or discussion

- **Guidance on Uncertainty in risk assessment**

To meet the general requirement for transparency, all EFSA scientific assessments must include considerations of uncertainties. Assessments must clearly and unambiguously state what uncertainties have been identified and what their impact on the overall assessment outcome is. Therefore an EFSA Guidance on uncertainty in EFSA Scientific Assessment has been developed which is applicable to all areas of EFSA and all types of scientific assessments[1]. It provides a harmonised and flexible framework from which different methods may be selected, according to the needs of each assessment. Two mandates of the AHAW Panel have been identified under which the Guidance principles are being piloted (Scientific opinion on avian influenza (HPAI), Scientific opinion on animal welfare aspects in respect of the slaughter or killing of pregnant livestock animals

[1] http://www.efsa.europa.eu/sites/default/files/consultation/150618.pdf

(cattle, pigs, sheep, goats, horses)). First experiences with applying the guidance to the pilot projects have been presented and discussed at the plenary meeting.

13. Feedback from the ad-hoc Working Groups of the AHAW Panel

- **Scientific opinion on entry routes into the EU of vector borne diseases (EFSA-Q-2014-00187)**

The draft sections concerning the methodology for the assessment of the probability of entry, the probability for transmission, the probability of establishment, the annual extent of spread, the probability of persistence and the impact assessment of the 39 vector-borne diseases (VBD) have been reviewed by the Panel prior to the meeting. Panel members' comments were dealt with by the VBD working group, and a revised version with track changes was sent to the Panel the evening before the plenary meeting. The Panel agreed with the changes that were made to the draft methodology section. During the plenary meeting some critical issues were discussed, namely:

- The probability of entry through movement of vectors: active movement of infected vectors was considered to be only important for local spread of VBDs, but less relevant for entry of the VBD over larger distances. Possible entry of vector-borne disease agents through passive movement of vectors is possible under the form of hard tick attached to hosts, by wind-borne entry of infected biting midges or mosquitoes, or through introduction of desiccated eggs in soil (only *Aedes* species for RVF). However, a quantification of the numbers of vectors that enter through these routes is not possible based on the currently available knowledge, and it was agreed that this entry route would be dealt with in a narrative chapter and that it would not be attempted to assess the risk of entry quantitatively using the MINTRISK model. It was also suggested to do a sensitivity analysis, proposing scenarios where the total risk of entry would be increased with 'n %' due to the passive movement of vectors, to evaluate what effect this would have on the overall risk of establishment.
- Regarding the probability of entry through infected humans, the definition of a "dead-end host" was discussed. It was suggested that a VBD-infected human with a viraemia high enough to infect a competent vector would not be considered a dead-end host if direct transmission of the agent by the vector to another host is possible. Due to the fact that the information about these aspects for most of the 39 VBDs is scarce, it was suggested to ask advice from ECDC for which of the 39 diseases the infected human would be considered a possible entry route.
- The definition of the probability of establishment was agreed upon as: *"the probability that the pathogen can spread from vector to host and vice versa given the conditions of introduction and transmission".*
- Regarding the impact on animal health and welfare, the disability-adjusted life years (DALYs) will be calculated to estimate the burden of the VBD on animals, by adding years of life lost (YLLs) and years lived with disability (YLDs). YLLs represent the life years lost due to death and are calculated by multiplying the number of deaths by a standardized expectation of remaining life years at the age of death due to the VBD. YLDs represent the life years lost due to disability, adjusted for the severity of the disability. YLDs are computed for a given health outcome by multiplying the prevalence of that outcome by a disability weight that has a value between 0 (equivalent to full health) and 1 (equivalent to death) (Mangen et al, 2013). The prevalence of infected animals with a particular health state will be estimated from experimental infection studies by calculating the proportion of the number of experimentally infected animals with a particular health status. Existing weighing

factors for particular health states developed for humans will be used.

- The assessment of economic impact will be a simple scoring of the impact of a VBD on case-farm production, impact on secondary industry (e.g. meat processing industry), impact on trade due to trade bans and the impact of prevention and control measures. Due to the fact that the underlying information has to be collected in the next 2 months, it was agreed that this assessment will be based on expert opinion, and a narrative review of literature will be carried out to inform the expert opinion.
- The assessment of environmental impact of the use of chemical biocides will be a combination of the place of impact due to the place of application, the specificity of the product and the toxicity of the product. These assessments are carried out by other agencies, and therefore this chapter should refer to existing assessments (e.g. refer to existing levels of toxicity).

- **Scientific Opinion on Aujeszky's disease, Enzootic bovine leukosis, bovine viral diarrhoea, infections bovine rhinotracheitis, porcine reproductive and respiratory syndrome, paratuberculosis and Koi herpes virus disease for the listing and categorisation of animal diseases in the framework of the Animal Health Law (EFSA-Q-2015-00713)**

The Panel agreed on the parameters proposed by the WG to address criteria of Art. 7. The potential approaches of listing and categorisation of diseases based on the information collected for Art. 7 criteria were discussed. It was agreed that all Art. 7 criteria should have an equal weight (= same weight between criteria), that for a given criterion different weights for different classes of risk could be sought, and that no comparison between diseases is intended. The WG will develop a proposal for the methodology for assessment Art. 5 and Art. 9 criteria at the next WG meeting, to be presented at the April plenary meeting. Regarding the collection of evidence on the parameters linked to the criteria of Art. 7, the Panel suggested performing systematic literature reviews (SLR) for those parameters of Art. 7 for which a sufficient quantity and quality is expected to allow a meta-analysis, which would be carried out where relevant.

- **Scientific opinion on health of honey bee colonies (EFSA-Q-2015-00047)**

The Panel was informed about the outcomes of the PLH Panel discussion on the draft text covering ToR 1-3. It was also explained how the main comments from the January AHAW Panel discussion were taken into account in the new version of the text. The Panel appreciated how the WG has further developed the draft text, which is now circulated to the participants of the upcoming event in Brussels (mid-April). Prior to the event, comments will be collected and a selection of those will be discussed with a broad group of experts during the event. The Panel was fine with the proposed outline of the event, allowing detailed discussions in the breakout sessions and giving the opportunity to all participants to comment on all parts of the document during the morning session of day 2. The Panel was also updated on the WG discussions regarding ToR 4. The structure of this chapter of the opinion and the topics that the WG proposes to cover therein was presented. It was agreed that this ToR will be limited to a theoretical description of how data from bee health field studies could be analysed. The actual data analysis and the generation of a model will be done by the MUST-B WG. The Panel agreed on the presented structure of ToR 4 and indicated that the information provided will be very useful for the MUST-B WG when generating a model for pest risk assessment and when designing a field study to collect data to validate this model.

- **Scientific opinion on animal welfare aspects in respect of the slaughter or killing of pregnant livestock animals (cattle, pigs, sheep, goats, horses) (EFSA-Q-2015-00477)**

The Panel was given an update on the state of art of the scientific opinion. Regarding ToR 3, a comprehensive analysis of literature on animal consciousness is being carried out in the context of an outsourced project to INRA (deadline June 2016). The pre-requisite for fetuses to experience pain is that they are conscious; however, very few information on fetal consciousness is being found. An Expert Knowledge Elicitation (EKE) exercise will be carried out as part of the uncertainty assessment as this opinion is the welfare pilot project of the AHAW Panel for the uncertainty guidance.

Meanwhile, for ToR 1, contracts to several EU MS for developing surveys in 10 slaughterhouses each have been outsourced. The survey will require slaughterhouse operators with practical experience (preferably the persons who eviscerate the animals) to answer a survey about possible average numbers of animals found pregnant during 2015. The data will be then utilised in an EKE exercise where conclusions about the overall prevalence of the phenomenon occurring in Europe could be derived.

- **Request for a joint EFSA and EMA scientific opinion on measures to reduce the need to use antimicrobial agents in animal husbandry in the European Union and the resulting impacts on food safety (EFSA-Q-2015-00216)**

The Panel was updated on the state of art of the scientific opinion. The main AHAW contribution is in chapter 1.8 on "Circumstances and diseases where antimicrobial agents (AM) are mostly used", chapter 3.2.2. on "Animal health and welfare activities for reducing the need for AM" and chapter 3.3. on "Recommendations for options for a reduced usage of AM". The chapters produced by AHAW were acknowledged by the RONAFA WG to fit well into the opinion.

For chapter 1.8 on "Circumstances and diseases where AM are mostly used" there is a need to also include information on dairy cattle, rabbits, horses and fish. Denise Candiani will prepare a draft based on the outcomes of a questionnaire produced by RONAFA addressed to FVE.

Chapter 3.2.2. on "Animal health and welfare activities for reducing the need for AM" was examined and it was agreed that the paragraph on "Eradication of diseases" should be kept separate from Prevention. A comment was raised that the chapter itself is very much pathogen-centred and focuses on biosecurity and not enough on the effects of the production system including housing conditions, nutrition and other welfare-relevant aspects. It was agreed that the paragraphs need to be revised as follows: i) vaccination: needs to focus mainly on those diseases that cause most of the AM usage, e.g. respiratory diseases and circovirus in pigs, and it needs to be linked to chapter 1.8, in addition, a section on fish vaccination needs to be produced, which will be drafted by Christian Ducrot; ii) animal genetics: needs to include the concept of selection for both specific disease resistance and resilience (e.g. PRRS in pigs, foot rot in sheep), and to introduce the number of different approaches that are currently being used (to evaluate disease resistance and resilience) and more generic resistance and resilience when challenged (e.g. considering work carried out in dairy cattle); iii) level of stress: needs to be revised by starting with a general overview on stress (HPA axis etc.) and then describing factors influencing stress response, e.g. housing, density etc., the intestinal microbiome section should be moved into the section on nutrition; iv) nutrition: needs to focus on dietary causes of diseases such as post-weaning diarrhoea; v) housing: needs to split across the 3 areas of primary, secondary and tertiary prevention describing measures pertaining to each of the three, and needs to include more focus on air quality; vi) rethinking of the farming system: this section needs to be substantially rewritten for focusing more on current factors that could be changed, e.g space

allowance – what if we carry on with current space allowances, needs to include a section on organic farming (in this respect the AHAW Panel is expected to express its view on the findings of 2 papers[2,3]); vi) raising awareness: it currently focuses on resistance issues while it needs to be broadened to consider education on causes of diseases and on factors influencing diseases occurrence; vii) examples of success: it is currently much focused on modifications. It should consider success in modifying modifications attitudes towards AM usage; viii) section on probiotics/prebiotics (produced by RONAFA): need to ask BIOHAZ if prebiotics can be moved into the nutrition section as part of an overall discussion on basic dietary formulation.

Chapter 3.3. on the "Recommendations for options for a reduced usage of AM" needs to be focused mainly on measures and options suggested in chapter 3.2.2., and since these would be quite many, there is a need to focus on the main measures that can be applied. The questionnaire to FVE also includes outcomes on measures successfully reducing AM usage divided by species and it will be distributed to the AHAW WG. The mandate requests to analyse advantages and disadvantages of recommended options and it was clarified with the RONAFA WG that this will not be possible for all options. However, the AHAW Panel agreed that for some options, e.g. related to herd health plans, this is possible: recommendation of restricting the use only to those AM that are allowed describing health and welfare implications. Also, potential welfare disadvantages of some recommendations should be discussed, e.g. the impacts of restricted access to outdoor areas in free-range production (in order to prevent contact with wildlife) on the opportunities for performing normal behaviour patterns. During the April Plenary meeting a joint session of the AHAW and the BIOHAZ Panels will be held for discussing the AMR opinion and the next steps.

14. Any other business

- **Cooperation on African Swine Fever (ASF) with Baltic countries and Poland**

The mandate for scientific and technical assistance was presented. To cover the ToR, several activities, such as the collection of data from laboratory monitoring using the standardised EFSA Data Collection Framework (DCF) model, collection of epidemiological data, workshops on descriptive and analytical epidemiological analysis (2016) and on epidemiological modelling (2017) with the MS representatives, are foreseen. Support from 1-2 Panel members in terms of peer-reviewing methodologies and outcomes was requested.

15. Answers to questions from Observers (in application of the EFSA Guidelines for Observers)

The observers were given the opportunity to raise questions and comments after each agenda point discussion. In addition, at the end of the meeting, a further opportunity for queries and comments was provided.

[2] Alban, Lis, et al. "Possible impact of the "yellow card" antimicrobial scheme on meat inspection lesions in Danish finisher pigs." Preventive veterinary medicine 108.4 (2013): 334-341:

[3] Alban, Lis, Jesper Valentin Petersen, and Marie Erika Busch. "A comparison between lesions found during meat inspection of finishing pigs raised under organic/free-range conditions and conventional, indoor conditions." Porcine Health Management 1.1 (2015):1).