



## OIE/FAO International Scientific Conference on Avian Influenza OIE Paris, France, 7–8 April 2005

### RECOMMENDATIONS

#### CONSIDERING THAT:

1. Preventing the spread of pathogens through international trade in animals and animal products is one of the primary missions of the World Organisation for Animal Health (OIE). This is accomplished by establishing and updating international standards and guidelines that prevent spread of pathogens while avoiding unjustified sanitary barriers,
2. The OIE works in close association with FAO in helping countries implement such standards and guidelines,
3. The FAO has as its foremost mission to alleviate poverty through the promotion of sustainable agricultural production, food security and safe and wholesome food products on the market places, and response to crises caused by animal diseases including zoonoses. This is particularly relevant to the FAO priority programme EMPRES (Emergency Prevention System for the Prevention of Plant and Animal Pests and Diseases), and specifically to the Emergency Centre for Transboundary Animal Diseases (ECTAD),
4. The OIE standards for terrestrial animals are contained in the *Terrestrial Animal Health Code* (the *Terrestrial Code*) and the *Manual of Diagnostic Tests and Vaccines for Terrestrial Animals* (the *Terrestrial Manual*),
5. The collection, analysis and dissemination of veterinary scientific information is also one of the main missions of the OIE. Comprehensive analysis of agro-ecological factors, production parameters, and demographics, including animal census, as done at FAO provides additional understanding in disease occurrences and offers opportunities to develop strategic intervention measures,
6. The standards developed by the OIE are recognised as international standards for animal health and zoonoses by the Agreement on the Application of Sanitary and Phytosanitary Measures (SPS Agreement) of the World Trade Organization (WTO); the OIE also serving as a partner with the FAO/WHO Codex Alimentarius on animal production food safety. Implementation of these standards by Member Countries also has benefits for public health (including food safety) and improvement of animal production,
7. Infectious animal diseases and zoonoses such as highly pathogenic avian influenza (HPAI) represent a major constraint to efficient poultry production and regional and international exchanges, present a threat to the livelihood of farmers especially in developing countries, to public health, and to national economies,

8. During the past few years, the world has witnessed the emergence of a severe avian influenza epidemic that has had a major impact on animal health and the potential for serious human health outcomes. This has severely affected the economies of developed as well as developing countries,
9. FAO emergency implementation of some 19 projects at national, regional, and supra-regional level for HPAI prevention, control, and eradication is recognised and has improved the current outlook, with the publication of Guiding Principles for Surveillance and Recommendations taking into account OIE standards, supported by WHO and the donor community,
10. Recent research has confirmed that certain aquatic birds (particularly domestic ducks) can act as reservoirs of infection for HPAI H5N1 with or without clinical signs and are capable of excreting viruses in the environment,
11. Many of the countries infected or threatened by AI are under-resourced and lack the capacity of Veterinary Services for an effective early detection and response to the epidemic in poultry,
12. New scientific and technological knowledge for the prevention and control of AI will contribute to the development of safer and more efficacious measures for the final control and eradication of the disease,
13. For ethical, ecological and economic reasons, it is no longer considered acceptable to control and eradicate diseases mainly by applying mass killing of animals,
14. Safe and effective vaccines if used appropriately can help improve animal health, public health, animal welfare, and agricultural sustainability; to protect the environment, maintain biodiversity, and protect consumers of animal products,
15. The OIE, has incorporated wherever possible into its standards and guidelines the most up-to-date scientific knowledge on the use of appropriate diagnostic tests, and disease prevention and control methods including vaccination, and has reviewed, commented, and endorsed the FAO Recommendations for the Control of HPAI in Asia,
16. Recent scientific advances in the diagnostic field, in particular the possibility to differentiate vaccinated animals from infected animals, have been recently incorporated into the *Terrestrial Manual*. Their implications have already been reflected in the review of the *Terrestrial Code* for disease control using appropriate vaccination and for recovery of disease free status after occurrence of a disease,
17. The Conference has provided an opportunity for the exchange of the latest scientific information at the global level that will also assist in the evaluation and improvement of the current OIE standards and FAO guidelines for better control of avian influenza and safety of regional and international trade of poultry and poultry products, implementation of strategies, and requirements for effective disease management,
18. For this event, the OIE/FAO have acted in collaboration with WHO, with which a long and valuable tradition for confronting zoonotic diseases exists,
19. There is a need to harmonise communication on risk assessment and risk management,
20. FAO has underlined the links and risks between farming systems, market chains, socio-economic status, and epidemiology of HPAI in Asia, indicating that multidisciplinary approaches are required to adequately tackle the epidemic in poultry and prevent infection spread to humans,

21. It is necessary to protect human health by controlling the disease as a matter of priority at source, i.e. on farms and markets. It is essential to provide national and international support for the improvement of the efficiency of Veterinary Services for that purpose,
22. Long-term prevention and control of AI need to be compatible with social, economic and as technical considerations,
23. Effective AI prevention and control require actions from local, national, regional, and international levels,
24. The recently renewed agreement between OIE and FAO has led to synergistic approaches to fight transboundary animal diseases, particularly through the joint initiative GF-TADs,
25. Research into better tools (diagnostics, vaccines, anti-virals, adjuvants, disinfectants, for instance) and virus dynamics (excretion, pathogenesis, virulence genes) that will assist in developing control strategies and prevention measures and better epidemiological studies in the country where the disease prevails is needed.
26. The role of wild birds in spread of HPAI H5N1 viruses remains unresolved. Circumstantial evidence suggests limited local infection of resident wild birds, but transfer of H5N1 HPAI viruses outside the outbreak zones by migratory birds has not been substantiated.

**CONFERENCE ATTENDEES OF THE OIE/FAO INTERNATIONAL SCIENTIFIC CONFERENCE ON AVIAN INFLUENZA RECOMMEND THE FOLLOWING:**

**Session 1: Ecology and Epidemiology**

1. To prevent the spread of AI viruses to unaffected areas/countries.
2. Country/regional specific studies should be conducted to establish the ecology and epidemiology of the AI virus in reservoir and spill-over species of poultry for the purpose of developing control programmes to stop virus cycling and re-infection.
3. Surveillance and epidemiological studies in migratory and resident wild birds should be conducted to assess the role of wild birds in the maintenance and dissemination of HPAI viruses.
4. Develop sustainable risk-based surveillance programmes for poultry for early identification of AI virus transfer from reservoir species to agricultural systems in order to know if and which AI viruses are present in poultry and develop rapid mitigation and elimination strategies, if required.
5. Encourage national laboratories to join multi-national and international laboratory networks to share AI virus isolates, data and expertise in order to understand AI virus ecology and develop effective control strategies.
6. Support pathogenesis studies in alternatively farmed birds (e.g. ostriches, waterfowl, pheasants, etc.), including an assessment of their role as intermediate hosts for transfer of AI viruses from wild birds to traditionally farmed poultry species, and their potential role for supporting mutation of H5 and H7 LPAI to HPAI viruses.

### **Session 2: Pathogenesis**

1. Country authorities should be made aware of different clinical syndromes in different hosts caused by infection by AI viruses as typical disease signs have been seen in infections with recent isolates.
2. Specific genes from virus isolates should be monitored for evidence of reassortments and drift that may contribute to changes in virulence.
3. Surveillance of birds for the presence of H9N2 viruses with the potential to infect mammals should be done.
4. Consideration should be given to conduct monitoring of pigs at risk from infections with AI viruses with the potential to transmit to humans.
5. Investigate the pathogenesis and epidemiology of avian influenza viruses in different species of birds and mammals under the coordination of the joint OIE/FAO network with the support of the OIE/FAO Reference Laboratories for AI.
6. Specific research be conducted on AI surveillance and vaccination in farmed ducks.

### **Session 3: Human health implications**

- 1 Further epidemiological studies at the human-animal interface as well as applied and basic research on H5N1 and other AI viruses with potential human health implication should be conducted urgently and by collaboration between the animal OIE/FAO network and the human WHO network.
- 2 Coordinated research programs must involve veterinary, public health and industry sectors. Safe and efficacious human and avian vaccines should be developed as a priority.
- 3 Veterinary and Public health services should work together to improve national, regional and global health security. Public health services should support the agriculture sector/veterinary services in order to control and eliminate the disease at source and to protect farmers and workers from animal infection in the most efficient and efficacious manner.
- 4 Veterinary and Public health services should strengthen joint activities for surveillance of AI at the human/animal interface. Animal virus isolates and sequence information should be swiftly exchanged between the international reference laboratories of OIE-FAO and those of WHO.
- 5 FAO, OIE and WHO should collaborate with their Member Countries in the development of appropriate strategies for effective inter-sectoral collaboration during and between crises associated with emergence of zoonoses.

### **Session 4: Diagnostics**

1. OIE/FAO assist countries in enhancing their veterinary infrastructures to meet the current and future needs for early detection, surveillance and control programmes for avian influenza.
2. OIE/FAO encourage countries/regions to develop a laboratory network that would facilitate the local testing of specimens to decrease turn-around time for diagnostic test results while increasing overall testing capacity. This network should be coordinated through the newly established OIE/FAO network (OFFLU) that could recommend appropriate testing methods,

provide training to laboratory personnel, supply quality reagents, and collaborate with OIE/FAO Reference Laboratories.

3. OIE/FAO encourage development of training programmes for laboratory personnel to ensure that appropriate diagnostic tests are used, that test results are interpreted correctly, and that appropriate quality assurance programmes are being used.
4. OIE/FAO encourage development of rapid, sensitive, and cost-effective diagnostic tests that have been properly field validated according to OIE guidelines and appropriate for use in local laboratories involved in the diagnosis of avian influenza.
5. OIE/FAO develop a prototype Material Transfer Agreement (MTA) that could be used by laboratories to facilitate the transfer of viruses to reference laboratories for epidemiologic/research purposes.

#### **Session 5: Control of AI (with focus on vaccination)**

1. Infections with HPAI viruses be controlled at source, through implementation of risk reduction interventions, including improved biosecurity, stamping out, vaccination, and education awareness programmes.
2. Donors should give priority to reinforce Veterinary Services and animal health infrastructures in countries infected or threatened by AI.
3. Vaccination should only be used in conjunction with monitoring of vaccinated flocks to ensure efficacy, proper use of the vaccine and absence of virus circulation.
4. Vaccines should comply with OIE standards and vaccination strategies should be consistent with guidelines developed by FAO, and of proven efficacy under experimental and local field conditions.
5. Vaccine delivery systems and vaccination campaigns should be carefully organised and monitored by Veterinary Services.
6. That, wherever appropriate, a surveillance system capable of differentiating infected from vaccinated birds (e.g DIVA) be applied (including use of sentinel birds when possible).
7. That surveillance programmes be defined before vaccination is introduced. Likewise, an exit strategy has to be identified.
8. That strategies be developed and evaluated in statistically based field trials for the appropriate use of vaccination in different epidemiological scenarios which may occur worldwide.

#### **Session 6: Improvement of Management Tools**

1. A master plan be prepared for the control and prevention of HPAI in Asia and in other threatened regions, with regional and international coordination;
2. Adequate financial resources be invested to the control of AI in Asia, which is currently estimated between 100 and 120 million USD over a 3–5 year period

3. The meeting strongly recommends that OIE and FAO implement activities of the joint global OIE/FAO network of expertise for avian influenza as soon as possible.
4. The existing FAO regional networks for surveillance and diagnosis be sustained in the long term run.
5. The FAO/OIE Global Framework for the Progressive Control of Transboundary Animal Diseases (GF-TADs) initiatives be used as a foundation for the regional approach to the control and eradication of AI. The mandates and missions of international and regional organizations be harmonized to avoid gaps and overlapping.
6. Strategies are needed for financing sustainable, concrete action at local level. This is likely to include support for restocking or compensation for losses and should also encompass education on safe poultry keeping and development of appropriate infrastructure and services.
7. National and regional strategies for AI prevention and control should include a careful assessment of the social and economic impact of proposed measures, including the impact on the wider rural economy of changes in the poultry sector. Options for long-term strategies for restructuring of the sectors be previously considered and the possible negative socio-economic impacts on small and medium holders be evaluated as well as the options and cost for mitigation strategies.
8. That, when a decision is made to kill infected or at-risk birds, birds should be humanely destroyed and disposed of along with dead poultry in line with OIE standards. In the case of HP infections, the birds should not be allowed to enter the human food chain or be fed directly or indirectly to other animals including zoo animals.
9. That the OIE International Committee adopts the proposed new surveillance guidelines on AI during the 73<sup>rd</sup> General Session.
10. That the efficacy of risk reduction and prevention procedures be monitored through targeted surveillance activities, including:
  - post-vaccination surveillance to measure efficacy of vaccination,
  - early identification of virus circulation,
  - monitoring of genetic drift and emergence of new strains
  - monitoring of reservoirs.
11. That the concept of compartmentalisation be recognised as an additional tool in the control of AI and in the facilitation of safe international trade, subject to the effective implementation of the relevant control measures.
12. That the OIE International Committee adopt the proposed revised *Terrestrial Code* chapter on AI that incorporates the concept of compartmentalisation and that provides risk-based recommendations for trade in live poultry, genetic material and products for human consumption. It also encourages transparency in disease reporting, by limiting trade consequences to situations of significant risk.
13. That the OIE and FAO continue to provide practical advice to Member Countries on the establishment and monitoring of compartments, through additional guidelines.
14. That OIE Member Countries use the new *Terrestrial Code* chapter and the surveillance appendix as a guide for their national activities and as standards for international trade.

15. That the FAO, World Bank and other multilateral and bilateral donors should continue to provide assistance to further strengthen countries' compliance with international standards, including on quality of Veterinary Services.
16. That the OIE develop guidelines for AI virus inactivation in processed products.
17. That strategies be developed for financing sustainable, concrete action at local level, to include support for restocking or compensation for losses, to encompass education on safe poultry keeping and the development of appropriate infrastructure and services.
18. That the OIE designate prescribed tests for international trade where testing is required by the *Terrestrial Code*.
19. That OIE/FAO Reference Laboratories collaborate to exchange virus isolates and develop internationally agreed standards for diagnostic testing. The exchange of virus isolates and other information such as sequence data between the OIE/FAO network and the WHO laboratory network is urged.
20. Decision making in animal disease control and prevention be based on scientific evidence arising from valid epidemiological data analysis generated from reliable information systems. All efforts should be made to develop such systems even in developing countries.

(Adopted by the OIE/FAO International Scientific Conference on Avian Influenza  
Paris (France), 7–8 April 2005)

#### **General Recommendation for the 73rd OIE General Session:**

The OIE refer the scientific information generated and discussed at this international conference, as well as this Recommendation to the OIE Regional and relevant Specialist Commissions and request the endorsement by the OIE International Committee during the 73 General Session in May 2005.