Surveillance, prevention and disease management of Avian Influenza in the EU

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The pillars of the EU animal health response to avian influenza H5N1

- Animal health and food safety harmonised legislation
  - on disease prevention, surveillance, reporting and control
  - on trade in live birds and their products
  - for compensation of farmers in case of disease outbreaks
- Laboratory network co-ordinated by the Community Reference Laboratory
- Rapid communication and decision-making bodies
  - Network of Commission + Chief Veterinary Officers
  - Standing Committee on the Food Chain and Animal Health (SCOFCAH), supported by expert working groups

The scientific bases for the EU measures

- Opinions of the Scientific Committee of 2000 and 2003
- Opinion of the European Food Safety Authority (EFSA) of September 2005
- Opinion of EFSA on the role of wild birds of May 2006
- “ad hoc” expert groups, also including EFSA and ECDC
- Results of ongoing research programmes DG RTD
- Two important disease control experts meeting in summer 2005:
  - to assess the situation in Asia (including Siberia) and establish new disease prevention and surveillance measures
- Two important laboratory experts meetings in autumn 2005:
  - to ensure improved co-ordination between labs within the EU and also with third countries of the OIE European region
- Three further working groups on AI vaccination in early 2006:
  - debate on vaccination is still ongoing
- Two working group meetings on surveillance:
  - revised guidelines and reporting system for 2007
EU Control Measures

- Investigation of suspected cases
- Network of laboratories
- “Stamping out”
- Zones with movement restrictions for live poultry
- Restrictions for the use of fresh poultry meat
- Emergency vaccination possible
- Cleaning and disinfection
- National contingency plans


- Scope of Community measures on AI is extended also to Low Pathogenic Avian Influenza (LPAI)
- Routine surveillance in poultry and wild birds
- Measures against HPAI outbreaks largely confirmed
- Possibility to derogate from stamping out in special cases (endangered species, zoo birds, etc.)
- New and more flexible provisions on vaccination of poultry and other birds (DIVA strategy) - legal power to establish an AI vaccine bank
- New provisions to ensure enhanced co-operation between veterinary and public health authorities

Additional measures
Surveillance, early detection, reporting

- Surveillance programmes in poultry and wild birds in accordance to harmonised guidelines co-financed by the Commission (~ 2.9 M€ for July 2005-Dec 2006)
- Notification to national competent authorities of any abnormal mortality or significant disease occurring in wild birds
- Notification to the Commission of HPAI H5N1 positive findings in wild birds via ADNS (Animal Disease Notification System)

Surveillance for AI in wild birds
July 2005 - January 2006

- 17 wild bird orders with over 150 species were tested for virus detection/isolation for any type of low pathogenic avian influenza
- No highly pathogenic avian influenza was detected
- 319 LPAI cases in 12 Member States in 6 wild bird orders with 23 species (96% cases reported in Anatinae and Anserinae orders)
- 0.81 % of tested wild birds were positive for LPAI
- 48 353 samples from 39 143 wild birds investigated (72% of all tests were performed in Anatinae and Anserinae orders)
Additional measures

Biosecurity in poultry farms

- Identification of HPAI “high risk areas” in each Member State
- Prevention of contact between wild and domestic birds
  - restrictions on keeping poultry outdoors, protection by coverings/netting
  - no use of surface water, avoid contamination of poultry feed/water etc.
- Early detection systems & prompt reporting
  - of AI suspicion in all poultry farms (decrease in water/feed intake and production data, egg drop, increased morbidity/mortality)
- Continuous review
  - of high risk areas by the Member States (migratory flows, season, lessons learned)
**Further disease management measures - wild birds**

- 3 km protection & 10 km surveillance zones around places where HPAI H5N1 suspected or infected wild birds are found
- In these zones biosecurity and surveillance measures in poultry farms must be strengthened
- Ban on hunting, gatherings of birds at markets, shows and cultural events
- Restrictions on movements of live poultry and hatching eggs
- Slaughtering of poultry is allowed, under certain conditions
- Measures under review

**Additional measures**

**Further disease control measures - poultry**

- "Stamping out" of poultry on infected farms and if necessary in the surrounding farms
- Fresh poultry meat and eggs traced back and destroyed
- 3 km protection & a 10 km surveillance zone around the places where HPAI H5N1 in poultry suspected or confirmed
- Area A (higher risk) and Area B (lower risk) also established
- Movements of live poultry and hatching eggs restricted
- Requirements for dispatch of fresh poultry meat from zones
- Measures just revised

**Protection and surveillance zones in force (red) and lifted (grey) in Austria (11/05/06)**

**Zoning - Area restrictions**

Control by measures defined in the basic legislation

- Census-identification of holdings
- Veterinary inspections
- Clinical and laboratory investigations
- Biosecurity
- Movement controls
Continuous review of the disease situation at the Standing Committee on the Food Chain and Animal Health and further appropriate measures adopted as necessary.

- Preventive vaccination programmes for zoo birds: 16 Member States
- Italy: ongoing in certain areas of Northern Italy - laying hens and meat turkeys are vaccinated
- France: vaccination of ducks and geese in one department at high risk
- Netherlands: hobby poultry and organic laying hens may be vaccinated
- DIVA strategy
- Pilot projects: still less than 0.1% of the EU poultry are vaccinated

Further actions
- Joint meetings of Chief Veterinary Officers and Chief Medical Officers/co-ordination with EFSA and ECDC
- Technical support missions and training in several countries in Europe, Asia and Africa - in close contact with FAO and OIE
- Laboratory support by the Community Reference Laboratory to many Member States and third countries
- Special call for proposal for research on Avian and Human Pandemic Influenza (20 Million€)
- Support to third countries (80 Million€) - in close contact with the World Bank

The current HPAI H5N1 situation in the EU
- Major HPAI H5N1 epidemic in wild birds since early February - more than 700 wild birds found infected in 13 Member States, mainly Anseriformes (and in particular Cygnus olor)
- In at least some cases occurrence of disease was clearly related to "cold winter" migration from eastern Europe – no evidence of disease introduction from Africa
- Confirmation of the capability of wild birds to disseminate the virus over long distances
- Only four outbreaks in poultry farms – swiftly eradicated
- A few findings in cats, a stone marten and a mink; no indication of mammal-to-mammal transmission
- No human cases
HPAI cases in wild birds in the MSs - total 741 infected birds
Cases notified to ADNS from 1 February to 21 May 2006

- Swans (62.8%)
- Ducks (16.3%)
- Geese (4.5%)
- Birds of Prey (5.3%)
- Others (13%)
Lessons learnt for HPAI H5N1 detection:

- Dead bird surveillance provided early warning
- Live bird sampling requires very high sampling sizes
- More detailed reporting needed for surveillance data and AI findings (exact species, location…)

Objectives & Priorities for wild bird surveillance

- Assess the risk for poultry!!!!!
- to be better informed on ecology of HPAI H5N1 in wild birds
- Close co-operation with epidemiologists, ornithologists, limnologists, ecologists, hunters, bird watchers....

Surveillance guidelines I

Focus on dead bird surveillance

Intensify surveillance in areas where H5N1 HPAI has been found to identify transmission to resident birds and "bridge species" that possibly transmit infection to poultry or humans

Improve targeting of specific wild bird species – in collaboration with EFSA and DG ENVIRONMENT originating from areas where AI outbreaks in poultry and wild birds

Continue surveillance for LPAI H5 and H7 subtypes

Optimise sampling and laboratory techniques

Steady review

Surveillance guidelines II

HPAI H5N1 - Outbreaks in poultry

- France: (23 February) 1 turkey farm in area under restrictions for WB
- Sweden: (17 March): 1 game bird farm in area under restrictions for WB
- Germany (5 April): 1 mixed farm (chicken breeders, turkeys and geese with partial free range)
- Denmark (18 May): 1 backyard farm with mixed population (chicken, ducks, geese)
- Swift control - no further spread
- Restrictions only in place for Denmark

CONCLUSIONS

- Major efforts have been made to prevent, early detect and contain HPAI H5N1 in the EU
- The measures taken have so far successfully reduced to a minimum the impact of the disease on animal (and public) health
- The system in place in the EU has been able to effectively coordinate Member States animal health measures and to adapt them to the evolving situation
- It is still difficult to foresee the evolution of the disease
- Are the measures in place sustainable in the long term?