Current Situation on Avian Influenza and the pandemic threat

IVth Joint EC/ECDC/WHO Workshop on Pandemic Influenza Preparedness
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Current Situation on Avian Influenza and the pandemic threat

1. Situation in poultry
2. Situation in humans
3. Global surveillance, benefits and virus sharing: an update
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1. Situation in poultry
Situation in poultry

- Since 2004, 58 countries reported poultry or wild bird outbreaks (20 countries affected in 2007)

- >240 Mio poultry died or have been culled worldwide since the start of the panzootic in late 2003

- Internal movement of poultry, particularly through live bird markets and illegal movement across international borders are major contributors to the spread of the disease.

- Wild birds play minor role though implicated in transmission of H5N1 over long distances
Situation in poultry

● Success in 2006
  – Disease eliminated from newly-infected countries
  – Substantial fall in HPAI incidence in most previously affected countries

● Limitations
  – H5N1 still circulating in some parts of Asia and Africa
  – Permanent risk of infection/re-infection of new countries

● Ongoing need for improvement & vigilance
  – Public awareness, surveillance, family flocks, compensation
  – Recurrent outbreaks in countries with high biosecurity
Asia

- In terms of achieving sustainable control and eradication of H5N1, Asia is still the region of greatest concern.
- During the last three years significant progress has been made.
- Of 4 countries with widespread disease in poultry, 3 have achieved success:
  - PR China has controlled the disease in many provinces
  - Thailand and Vietnam have had long periods without reports of outbreaks
- Indonesia still has widespread disease.
- Other Asian countries eg. India, Myanmar, may have eliminated disease although virus may still be circulating.
Europe

- Several countries with well-developed, commercial, poultry sectors eradicated the disease

- Other countries suffered outbreaks that were difficult to control although all ultimately eliminated the disease.
  - Turkey: in 2006, 53 of 81 provinces had outbreaks in backyard flocks; in 2007, outbreaks in backyard flocks were detected early and controlled.

- Some countries experienced re-introduction (eg. Hungary, Russia)

- Several countries identified H5N1 in wild birds without disease in poultry
## Latest reported H5N1 in poultry or wild birds in the European Region

Source: OIE

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Africa

- Egypt and West Africa are the main areas outside Asia with a serious and protracted problem for H5N1 control.

- In Nigeria, deficiencies in disease reporting in smallholder production and village poultry. Control efforts should be sustained and surveillance capacity enhanced.

- In Egypt, the virus has become endemic despite mass culling, restrictions on breeding and vaccination in 2006.

- H5N1 disease status of several countries difficult to determine due to lack of adequate surveillance data.
Main Measures on Animal Side depending on status

- Country is disease free:
  - Contingency plan development and testing
  - Strengthen surveillance

- Small number of outbreaks:
  - Enhance surveillance
  - Stamping out the foci
  - Ring vaccination
  - Culling should be accompanied by compensation

- More extensive dissemination
  - Wide area vaccination

Source: The global strategy for prevention and control of H5N1 HPAI, OIE/FAO
Forward look
(by implementation of OIE/FAO Global Strategy)

- Countries with widespread outbreaks:
  - Reduced disease incidence in medium term
  - Eradication or in confined areas in the long term

- Countries with sporadic outbreaks:
  - Disease eradicated or limited to occasional outbreaks in short to medium term

- All countries at high risk of H5N1 incursion:
  - Strong surveillance systems in short term
  - Capacity in early detection and response
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2. Situation in humans

Epidemiology and virology update on global H5N1 cases. 19 September 2007
H5N1 Risk Factors for People

- Most common: direct exposure to sick and dying poultry
- Uncommon: close contact with an infected person
  - But so far no sustained community outbreaks
- Uncertain: Exposure to contaminated environmental surfaces
- Few cases: No known exposure
Confirmed Human H5N1 Cases Reported to WHO

As of 19 Sept 2007

- Since November 2003, cases in 12 countries.
- 328 confirmed cases
  - Age range 3 mo-81 yrs (median 19 yrs)
  - 25% in under 10’s
  - 52.5% female
- In 2007, most cases in
  - Indonesia (47.7%)
  - Egypt (30.8%)
Confirmed Human H5N1 Cases Reported to WHO

As of 19 Sept 2007

- 200 deaths (61% CFR)
  - 50% in under 20’s
  - In countries with >10 cases, Indonesia has the highest CFR (80.1%)

- Days from onset to hospital admission 0-20 (median 4.0, n=227)

- Days from onset of symptoms to death 1-30 (median 9.0, n=175)
Situation Analysis (19 September 2007) Unchanged

- Phase 3 (pandemic alert)

- Person to person transmission through close contact indicated in some cases

- No indication of increased transmissibility from person-to-person
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3. Global surveillance, benefits and virus sharing: an update
Resolution WHA60.28: *Pandemic influenza preparedness: sharing of influenza viruses and access to vaccines and other benefits*

- Steps by WHO to ensure sharing of viruses for assessment of the pandemic risk, development of pandemic vaccines AND equitable sharing of benefits.
  - Establish international stockpile of H5N1 vaccine
  - Establish mechanism for equitable distribution of pandemic vaccines
  - Revision of the Global Influenza Surveillance Network (GISN)
Preparation for an Intergovernmental Meeting (IGM), November 2007

- Interdisciplinary working group (IDWG):
  - Reviewed TOR for NIC, H5 Ref Labs and WHO CC
  - Proposed standard terms and conditions for sharing viruses between originating countries and WHO CC
  - Proposed oversight mechanism

- Next steps:
  - Documents will be published on WHO website

- This meeting: technical briefing
  - Briefing note and WHA60.28 provided as hand-outs
  - *Briefing tomorrow from 13.30-14.15 in M6*
Guidance (1). WHO web site:

http://www.who.int/csr/disease/avian_influenza/guidelinestopics/

Surveillance

- WHO guidelines for investigation of human cases of avian influenza A(H5N1)
  January 2007

Diagnosis and virology

- Collecting, preserving and shipping specimens for the diagnosis of avian influenza A(H5N1) virus infection. Guide for field operations
  October 2006

- Recommendations and laboratory procedures for detection of avian influenza A(H5N1) virus in specimens from suspected human cases

- WHO criteria for accepting positive PCR test results of H5 infection in humans from national reference laboratories

- Towards a unified nomenclature system for the highly pathogenic H5N1 avian influenza viruses

- WHO procedures for obtaining release of H5N1 sequences to the public domain
Guidance (2)

Case management

- Avian influenza, including influenza A (H5N1), in humans: WHO interim infection control guideline for health care facilities
  Revised 10 May 2007 WORLD HEALTH ORGANIZATION - WESTERN PACIFIC REGION

- Clinical management of human infection with avian influenza A (H5N1) virus

Pandemic preparedness

- Global pandemic influenza action plan to increase vaccine supply

- WHO strategic action plan for pandemic influenza

- WHO Interim Protocol: Rapid operations to contain the initial emergence of pandemic influenza

- The role of National Influenza Centres (NICs) during interpandemic, pandemic alert and pandemic periods
Thank you for your attention

www.euro.who.int/flu/

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This paper was produced for a meeting organized by Health & Consumer Protection DG and represents the views of its author on the subject. These views have not been adopted or in any way approved by the Commission and should not be relied upon as a statement of the Commission’s or Health & Consumer Protection DG’s views. The European Commission does not guarantee the accuracy of the data included in this paper, nor does it accept responsibility for any use made thereof.