

the form of poultry or prize fighting cocks. Maintenance of the virus in chicken production systems seems to overlap areas where rice production and duck husbandry coincide. Early in February 2004 FAO offered a series of technical projects to assist countries and regions establish networks of epidemiology units and veterinary diagnostic laboratories, and feed information into the WHO/Ministry of Health systems. The success was further emulated in Eastern Europe, Middle East, Africa and the Americas through FAO's own funds and attracting vast support from multiple donors. The success of an intervention measure is taken at the local level to curb a poultry disease that affects people's livelihoods and avoid a single human fatality from H5N1; but success also extends to the recognition of the veterinary services as a Public Good and requires the political and financial resources for its rational development and ever-increasing professionalism.

doi:10.1016/j.ijid.2008.05.044

## 2.002

### Present Situation and Clinical Features of A/H5N1 Human Infection

S. Giriputro

*Sulianti Saroso Hospital for Infectious Diseases, Jakarta, Indonesia*

Human infection with Influenza A/H5N1 had been recognized since a decade ago. It can be regarded as one of newly emerging infectious diseases. To date the disease has affected many countries worldwide. Hundreds of cases had been reported to WHO with 50–60% fatalities. In Indonesia as of March 2008, 129 cases had been reported since 2005 with inevitably high fatality rate (81,4%). Some preliminary reports suggested that the high fatality rate may correlate with the virulence of the virus strain circulating in the country, high viral load and the dissemination of the virus into important organs outside the lung such as blood, brain and the gastro-intestinal tract. New cases is still taking place in the country due to many factors: geographic and demographic, poultry farming structure, vaccine availability, poultry movement, geopolitical (decentralization impact) and migratory birds may plays some roles.

The demographic characteristic showed that all age groups may be affected with slight predominance in young adult group. There is no significant different between male and female in term of prevalence. A proportion of the cases (about 50%) had history of direct contact with sick, healthy or died poultry, 30% had history of indirect contact with poultry in the environment either sick or healthy. In about 20% of the cases the history of contact to source of infection could not be concluded.

Fever, cough and breathlessness are the most frequent encountered clinical feature. For the purpose of screening some criterias for suspect are used: ILI, ARI or pneumonia with history of contact with AI source of infection, rapid progressive pneumonia leading to ARDS or fatality, unresponsive pneumonia treated adequately with antibiotics, clustering, or when viral infection is likely (leucopenia, lymphopenia).

Antiviral treatment with oseltamivir has limited clinical benefit especially when given earlier.

doi:10.1016/j.ijid.2008.05.045

## 2.003

### Progress on Global Preparedness for Influenza Pandemic, WHO

N. Shindo

*WHO, Geneva, Switzerland*

WHO and international experts believe that the world is now closer to another influenza pandemic than at any time since 1968. Since the re-emergence of the highly pathogenic H5N1 avian influenza virus in Southeast Asia in 2003, the virus has rapidly spread to parts of Eurasia, Middle-East and Africa and entrenched in some countries. Consequently, sporadic or clusters of human infection with the virus has been continuously reported with high case fatality proportion. WHO has published various technical guidelines and planning guidance for Member States to better respond to outbreaks and better prepared. The areas of work include global surveillance, outbreak investigation, diagnosis, vaccine development, infection control, pharmacological and clinical management of patients, stockpile development and research coordination. There is an ongoing process to revise and update the WHO influenza pandemic preparedness plan based on increased scientific knowledge and consensus reached during the series of international consultations.

The other major activity is to develop a protocol on the rapid operations to contain the initial emergence of pandemic influenza. The attempt is to stop the emergence of an influenza pandemic at its source which is an extraordinary operation that requires international support that is unprecedented in history.

Now more than 100 Member States have developed national influenza preparedness plans and it is now the time for testing the plans. WHO is working closely with partners and conducted some pilot excersised in high-risk countries. The experienced gained through these exercises, statistical analysis of past pandemics and modelling studies have identified some key public health actions.

Influenza vaccine development evolved rapidly than ever before, shedding lights on better preparedness. The use of inter-pandemic vaccines and the global stockpile strategies are being discussed among technical experts and representatives of national health authorities worldwide. The first recommendations were made by the Strategic Advisory Group of Experts in November 2007.

doi:10.1016/j.ijid.2008.05.046