

LegCo Panel on Health Services

Preventive and Contingency Measures to Combat Avian Influenza in Hong Kong

Purpose

This paper sets out the preventive and contingency measures implemented/devised by the Administration and the Hospital Authority to handle a possible outbreak of avian influenza (AI) in Hong Kong.

Summary of Recent AI Cases Outside Hong Kong

2. Since early December 2003, a total of ten countries or places in Asia have reported outbreaks of AI. These countries and places include South Korea, Japan, Vietnam, Thailand, Taiwan, Cambodia, the Mainland, Laos, Indonesia and Pakistan. We have taken immediate steps to suspend temporarily the processing of applications for importation of live birds and poultry meat from the infected places. Such suspension is in line with the recommendations of the Office International des Epizooties (OIE), which is the international authority on animal health and disease, in dealing with an outbreak situation and also has taken into consideration the evolving situation in the region.

3. On 7 February 2004, there were media reports of an outbreak of AI in a poultry farm in the State of Delaware in the United States. According to the available information, the farm was infected by H7 AI virus, which was thought to be a low pathogenic AI. As a precautionary measure, we temporarily suspended the processing of applications for importation of live birds and poultry meat from the State of Delaware, pending further confirmation from the relevant authorities on the pathogenicity of the AI virus.

4. As of 10 February 2004, a total of 23 cases of H5N1 human infections have been confirmed in Thailand and Vietnam, of whom 18 have died.

Measures to Prevent the Recurrence of AI Outbreaks in Hong Kong

5. Hong Kong has experienced four H5N1 AI outbreaks in poultry since 1997. Throughout the years, we have put in place a series of preventive measures to guard against possible outbreaks targeting in particular the sources of the virus and potential carriers, i.e. live poultry and wild birds. These measures include:

- **Vaccination** – Following a trial scheme launched from late 2002 to early 2003, we have introduced a vaccination programme in June 2003 to cover all chicken

farms. An agreement has also been reached with the Mainland to vaccinate all chickens for export to Hong Kong. From 15 January 2004, all imported and local chickens in the market have to be vaccinated to ensure their immunity status is maintained at a satisfactory level.

- **Regulation of local farms including tightened biosecurity measures** – In view of possible transmission from wild birds and migratory birds, the installation of bird-proof facilities is required. To detect if local farms are infected, sentinel chickens (i.e. unvaccinated chickens) are placed in each batch of vaccinated chickens. Through monitoring the health conditions of the sentinels together with testing on antibody level of vaccinated chickens, the effectiveness of the vaccine in protecting the chickens can be constantly checked.
- **Import control** – All imported chickens from the Mainland must come from registered farms recognised by the Mainland authority. A health certificate must accompany each consignment of imported chickens. Other import control measures include inspection of every consignment of imported chickens, testing of antibody level of imported chickens, dead and sick bird monitoring and random screening tests of infection as appropriate.
- **Segregation policy** – As waterfowls are natural carriers of AI viruses, all waterfowls in Hong Kong must be centrally slaughtered and no live waterfowls are allowed to be sold in retail outlets. In addition, we require that waterfowl's offal be separately and individually packed to prevent cross-contamination. To prevent the mixing of different types of AI viruses that may result in reassortment into deadly viruses, a segregation policy based on risk assessment has been implemented. All live quails must be segregated from live chickens from farms to retail outlets. No live quails are sold in our retail outlets.
- **Market rest days** – At the wholesale and retail levels, we have market rest days to break the virus cycle and reduce the viral load there, if any. There are four rest days for the wholesalers and two matching rest days for the retailers. Trading activities must cease on the rest days and all live poultry in the retail outlet must be slaughtered. The premises must be thoroughly cleansed and disinfected.
- **Hygiene requirements on wholesale market and retail outlets** – We have imposed stringent hygiene requirements on these premises. In addition, poultry retailers are required to surrender all live poultry for disposal on detection of even one dead bird with H5 virus isolated. The concerned outlets should then be thoroughly cleansed and disinfected.
- **Surveillance** – A comprehensive surveillance programme on both human influenza and avian influenza have been put in place to monitor human influenza activity and detect the presence of all types of avian influenza viruses in the environment. The human surveillance programme covers a network of clinics, hospitals and laboratories in the public and private sectors. Since 1998, an avian

influenza surveillance programme, targeting at poultry at all levels from farms, imports, wholesale to retail outlets, has been implemented for early detection of abnormalities. This programme has been extended in 2003 to cover wild birds, waterfowls in recreational parks and pet birds available for sale in the market.

Contingency Measures Implemented in Response to Recent AI Outbreaks

6. In the light of the recent AI outbreaks in Asia, we have stepped up our monitoring and surveillance efforts to minimize the risk of avian influenza infections in Hong Kong. The major contingency measures implemented by the Food and Environmental Hygiene Department (FEHD) and Agriculture, Fisheries and Conservation Department (AFCD) include:-

- temporary suspension of all imports of live birds, including pet birds and poultry, and poultry meat from AI-infected places;
- enhanced surveillance of wild birds and birds at recreational parks, including increased collection of faeces from wild birds for laboratory testing and stepped-up inspections of pet bird shops;
- establishment of a formal liaison mechanism with the Mainland for exchange of information on animal diseases;
- enhanced inspection of farms, wholesale market and retail outlets selling poultry by AFCD/FEHD staff;
- enhanced laboratory surveillance by increasing the number of swab tests on chickens; and
- door-to-door collection of dead chickens from local farms to better monitor the dead chicken situation.

7. To minimize contacts between humans and poultry/wild birds, we have closed the Mai Po Nature Reserve and walk-in aviaries in recreational parks and made it mandatory for all workers in poultry/pet bird trades to wear protective clothing through licensing and administrative arrangements.

8. Public health measures have been geared up on two fronts to prevent human infections. On disease surveillance, we have made AI (H5) a statutorily notifiable disease since 30 January 2004. The Department of Health (DH) has stepped up health check measures at border control points, enhanced monitoring of the influenza situation locally through sentinel surveillance, laboratory surveillance, and investigation of influenza-like-illness outbreaks, and maintained close contacts with relevant health authorities in the Mainland, the World Health Organization and overseas health authorities for latest information on human infections.

9. On public education, DH has launched a dedicated website (<http://www.info.gov.hk/info/flu>) to provide updated information on the global situation of AI and to advise on preventive measures for the community. Educational leaflets and posters have been produced for wide distribution and display in Hong Kong. Health advice and information (including guidelines, updates and educational materials) have already been issued to healthcare professionals, schools, child care centres, elderly homes and other service agencies for vulnerable groups. Announcements in the public interests are being broadcast on radio and television channels in Hong Kong at regular intervals. Health messages are being disseminated at Hong Kong's land and sea control points, and on vessels and trains to and from infected places.

10. As far as the Hospital Authority (HA) is concerned, the Central Committee on Infectious Disease has assessed the risks faced by public hospitals and incorporated its recommendations in a set of guidelines on management of influenza and a checklist of contingent measures to combat influenza epidemic. The Authority has enhanced its mechanism for monitoring and reporting influenza A (H5) to DH since the disease was made a statutorily notifiable disease. To ensure the effective use of isolation facilities in public hospitals, the HA has issued clinical protocol/guidelines for influenza-like-illnesses taking into account the relevant risk factors. A review of the availability of equipment, drugs and personal protective equipment has been conducted to ensure an adequate supply of these items in case of a human outbreak in Hong Kong.

Contingency Measures to Arrest Possible Local Avian/Human Infections

11. We are mindful that even with the best precautionary measures, the risk of occurrence of human/avian H5 infections in Hong Kong cannot be completely ruled out. To enhance government and community preparedness to cope with various AI emergencies, we have identified the following circumstances/situations and drawn up contingency measures correspondingly:

- a) confirmation of case of H5N1 virus being found in a dead chicken in Hong Kong
- b) detection of one or more laboratory-confirmed local case of H5N1 human infection in Hong Kong
- c) emergence of signs of human-to-human spread

Mass Culling of Live Poultry

12. In the event of a case of H5N1 virus being found in a dead chicken or detection of a local H5N1 human infection in Hong Kong [i.e. scenarios in para. 11(a)-(b)], we will cull all live poultry to prevent the spread of AI and to minimize the risk of human infections. Live poultry farmers, wholesalers and retailers for the poultry slaughtered may be compensated on the same terms as in the early 2002

outbreak.

13. When a territory-wide culling operation is to be conducted, AFCD will first declare all local poultry farms, wholesale market and retail outlets to be infected places under the Public Health (Animals and Birds) Ordinance (Cap 139). AFCD will immediately place the farms under quarantine to restrict the movement of live poultry out of the farms and any unauthorized entry to the farms.

14. The culling activities at local farms will be more extensive than those at the wholesale market and retail outlets because of a much larger poultry population at farms. As of 5 February 2004, there were a total of 151 licensed chicken farms involving a chicken population of nearly 2.7 million and a total of 48 licensed pigeon farms involving a pigeon population of 180,000. The farms will be depopulated in an orderly manner, with priority accorded to the farm(s) affected by or associated with the case of infection. In parallel, the wholesale market and retail outlets will be depopulated.

15. The Health, Welfare and Food Bureau (HWFB) will be responsible for policy formulation and overall coordination of the exercise. AFCD will take charge of the culling operation at farms and the wholesale market, whereas FEHD will oversee the culling operation at retail outlets. Other government departments (e.g. Hong Kong Police Force, Civil Aid Service, DH, Environmental Protection Department, Government Logistics Department) will help out in the operation or provide professional advice, support services and/or facilities.

HWFB's Roles in Contingency Situations

16. HWFB's major roles in handling the contingency situations in paragraphs 11(a)-(c) are to coordinate inter-departmental responses; monitor implementation of the various contingency actions; evaluate the Government's overall resource requirement and coordinate acquisition of resources where necessary; re-assess government preparedness to cope with a deterioration of the situation and to take actions to augment identified inadequacies; and formulate communication plans in collaboration with HA and DH.

DH's Contingency Actions

17. In the event of confirmed poultry or human H5 cases [scenarios in para. 11(a)-(b)], DH will intensify the efforts as set out in paragraphs 8-9 and implement the following additional measures:-

- conduct epidemiological investigation to identify the source(s) of infection and ascertain the mode of spread;
- conduct contact tracing and medical surveillance of contacts;

- enhance laboratory surveillance and testing for early diagnosis;
- disseminate information obtained from reliable sources to key partners including the HA, private hospitals, registered health care professionals, Chinese Medicine practitioners, tourists agencies, etc;
- maintain close communications with international and regional health authorities and keep Consulate Generals and the media informed of developments; and
- if the case is imported, obtain information from the country/place of origin.

18. Where there are signs of human-to-human spread [i.e. scenario in para. 11(c)], DH will continue with the measures as laid down in paragraph 17 and, where appropriate:-

- mobilize DH's health centres and staff to provide medical services for flu patients;
- rally support and cooperation from the private medical sector to run clinic services;
- rally support from the community and voluntary services in support of outbreak control measures;
- work closely with HWFB, HA and Information Services Department to communicate risks and government actions to members of the public; and
- review public health need to curtail non-essential activities and services.

HA's Contingency Actions

19. In both scenarios of H5N1 human infections [i.e. scenarios in para. 11(b)-(c)], the HA will, inter alia, activate the following responses as appropriate.

- form a central commanding committee to set policy and coordinate actions;
- implement staged mobilization plan for hospitalization of patients with confirmed infections;
- provide support to DH on public health measures including enhanced surveillance of suspected cases and contact tracing;
- isolate suspected cases and arrange treatment in designated hospitals;
- reduce non-urgent and non-emergency services in collaboration with the private medical sector;

- set up designated clinics for triaging patients with influenza-like-illnesses and protocols for management at primary care level;
- review and promulgate treatment guidelines;
- provide training to all staff on updated knowledge and infection control of highly pathogenic AI and organize intensive care unit refresher courses to health care workers;
- implement no visiting policy in all HA acute hospitals;
- stockpile appropriate medications and personal protective equipment for public hospitals;
- enhance infection control measures according to the latest knowledge on the transmission route of highly pathogenic AI; and
- increase the laboratory capacity for rapid testing to help diagnosis.

20. We will keep the above contingency arrangements under review and make necessary adjustments as events on the prevailing outbreaks unfold and as we gain more knowledge and experience with the disease.

Health, Welfare and Food Bureau
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