Prevention of Avian Influenza

Central Health Education Unit

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Avian influenza
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Avian influenza

- It is caused by those influenza viruses that mainly affect birds and poultry, such as chickens or ducks, e.g. H5N1, H5N6, H6N1, H7N4, H7N9, H9N2 and H10N8.

- Since they do not commonly infect humans, there is little or no immune protection against them in the human population.
Clinical features

- Eye infection (conjunctivitis)
- Gastrointestinal symptoms (e.g. nausea, vomiting and diarrhoea)
- Flu-like symptoms (e.g. fever, cough, sore throat, muscle aches)
- Severe respiratory illness (e.g. chest infection)
- The more virulent forms [e.g. avian influenza A (H5N1, H5N6, H7N9 or H10N8) viruses] can result in respiratory failure, multi-organ failure and even death
Mode of transmission

- Mainly through contact with infected birds and poultry (live or dead) or their droppings, or contact with contaminated environments (such as wet markets and live poultry markets)
- Human-to-human transmission is inefficient
High risk groups

- People in close contact with poultry
- Elderly
- Children
- People with chronic illness
Management

- Adequate rest and drink plenty of fluids
- Supportive treatment to relieve symptoms
- Some antiviral drugs (e.g. Tamiflu)
  - Must be prescribed by registered doctors
- Aspirin **should not** be taken by children
Prevention

- Handling poultry
- Personal hygiene
- Environmental hygiene
- Vaccination
- Antiviral drugs
Handling poultry

- When buying live chickens, do not touch them and their droppings
- Do not blow at their bottoms
- Wash eggs with detergent if soiled with faecal matter and cook and consume them immediately
- People handling chilled poultry or poultry carcasses are reminded to observe strict personal and hand hygiene. They should never touch the mouth, nose or eyes when handling any poultry, poultry products or eggs. Afterwards, they must wash hands thoroughly with liquid soap and water
Handling poultry

- Eggs should be **cooked thoroughly** until the white and yolk become firm
- **Do not** eat raw eggs or dip cooked food into any sauce containing raw eggs
- Poultry should be **cooked thoroughly**
Personal hygiene

- Perform hand hygiene frequently. Wash hands with liquid soap and water, rub for at least 20 seconds, then dry with a disposable paper towel or hand dryer, especially:
  - Before touching the mouth, nose or eyes
  - After touching public installations such as handrails or door knobs
  - When hands are contaminated by respiratory secretion after coughing or sneezing
Personal hygiene

- If hand washing facilities are not available, or when hands are not visibly soiled, hand hygiene with 70-80% alcohol-based handrub is an effective alternative.
Personal hygiene

- Cover mouth and nose with tissue paper when coughing or sneezing. Dispose of soiled tissues properly into a lidded rubbish bin, and then wash hands thoroughly.

- When having respiratory symptoms, wear a surgical mask, refrain from work or attending class at school, avoid going to crowded places and seek medical advice promptly.

- Build up good immunity by having a balanced diet, regular exercise and adequate rest, do not smoke and avoid alcohol consumption.
Environmental hygiene

- Regularly clean and disinfect frequently touched surfaces such as furniture, toys and commonly shared items with 1:99 diluted household bleach (mixing 1 part of 5.25% bleach with 99 parts of water), leave for 15 – 30 minutes, and then rinse with water and keep dry. For metallic surface, disinfect with 70% alcohol.

- Use absorbent disposable towels to wipe away obvious contaminants such as respiratory secretions, and then disinfect the surface and neighbouring areas with 1:49 diluted household bleach (mixing 1 part of 5.25% bleach with 49 parts of water), leave for 15 – 30 minutes and then rinse with water and keep dry. For metallic surface, disinfect with 70% alcohol.
Environmental hygiene

- Maintain good indoor ventilation. Avoid going to crowded or poorly ventilated public places. High-risk individuals may consider putting on surgical masks while in such places.
- U-trap should be prevented from drying up and drain outlets should be disinfected regularly about once a week.
- Repair immediately if there is defect in the U-trap or foul odour coming out from drain outlets. Qualified technicians can be hired for inspection and repair.
Vaccination

- At present, only vaccine against H5N1 is available on the market and is only recommended for use by specific laboratory workers at higher risk of exposure to avian influenza A (H5N1) virus. There is no vaccine to prevent other avian influenza in humans.

- Seasonal influenza vaccine cannot prevent avian influenza, however it can help reduce the chance of complications and hospitalisation from seasonal influenza as well as reduce the risk of co-infection with human and avian influenza A viruses.
Antiviral drugs

- Whether a doctor prescribes antiviral drugs (e.g. Tamiflu) to a patient will depend on the circumstances and health needs of the patient. Indiscriminate use of antiviral drugs may give rise to drug resistance.
- People who have had contact with infected birds may be given antiviral drugs preventatively. While antiviral drugs are most often used to treat influenza, they also can be used to prevent infection in someone who has been exposed to influenza viruses.
- Prophylaxis should be prescribed by registered doctors. Self-medication is not encouraged because of the potential side effects and possibility of emergence of antiviral resistance.
Advises to travellers

- Avoid touching birds, poultry or their droppings and visiting wet markets, live poultry markets or farms when travelling to affected areas. Eggs and poultry can be eaten only if thoroughly cooked.

- Travellers if feeling unwell when outside Hong Kong, especially if having a fever or cough, should wear a surgical mask and inform the hotel staff or tour leader and seek medical advice at once.

- Travellers returning from affected areas with avian influenza outbreaks should consult doctors promptly if they have flu-like symptoms, and inform the doctors of the travel history and wear a surgical mask to help prevent spread of the disease.
For more information about Avian Influenza

- Please visit the Centre for Health Protection website
Thank you