

# **Protecting Poultry workers from the risk of Highly Pathogenic Avian Influenza (HPAI)**

## **What is Avian Influenza?**

Avian Influenza is primarily a disease of birds, not humans. It belongs to a group of diseases called zoonoses which can be transmitted from animals, both wild and domestic, to humans. The transmission of avian influenza viruses to humans remains relatively rare and is associated with direct contact with infected birds or bird products (principally faeces and respiratory secretions).

## **Who is at risk from contracting HPAI?**

As already mentioned, the transmission of avian influenza virus to humans is relatively rare, however certain groups of workers may be at potentially higher risk than others, these include:

### **1 Workers employed at or regularly visiting registered poultry units who fall into one or more of the following categories:**

- routinely access enclosed poultry rearing or egg production areas;
- perform initial sorting of poultry eggs if the sorting area is an integral part of the production unit;
- catch or cull poultry within enclosed poultry or egg production areas;
- perform final clean down of poultry sheds following depopulation of a poultry house.

### **2 Workers who collect and remove poultry manure or litter from within enclosed poultry rearing or egg production areas of registered poultry units**

### **3 Workers in poultry processing units that:**

- catch and handle live birds;
- kill and eviscerate birds
- cleanse and disinfect areas and equipment contaminated by poultry faeces.

## **What are the symptoms in humans?**

People infected with the H5N1 strain of HPAI will experience a fever of 38°C or above and flu like symptoms i.e. a cough, runny nose, sore throat and eyes, muscle ache and shortness of breath. Diarrhoea may be present early on in the illness but can also start up to one week before the flu-like symptoms. Stomach pains, vomiting or headaches may also be experienced with symptoms getting progressively worse, requiring hospitalisation after a matter of days.

## How do I avoid infection?

As with other diseases acquired from animals, human infection with HPAI most commonly occurs as a result of hand to mouth contact with contaminated objects, inhaling or swallowing minute infective particles and in some cases via cuts or by absorbing them through the lining of the nose and the covering of the eye.

Good occupational hygiene precautions that should routinely be used when working with poultry to avoid other zoonotic diseases will also control the risk of exposure to HPAI. These include;

- Washing hands before eating, drinking, smoking, using the telephone, taking medication, applying make-up, inserting contact lenses.
- Avoiding hand-mouth or hand-eye contact e.g. don't put pens/pencils in mouth or wipe eyes with your hand.
- Covering all new and existing cuts and grazes with waterproof dressings and/or gloves before starting work. If cuts and grazes occur, wash immediately with soap and running water and apply a waterproof dressing.
- Taking rest and meal breaks away from the main work area.
- Wearing appropriate protective clothing e.g. Tyvek type disposable or polycotton overalls (with, as appropriate, disposal or thorough cleaning after use). Disposable gloves of lightweight nitrile or vinyl or heavy duty rubber gloves that can be disinfected; rubber or polyurethane boots that can be cleaned and disinfected or disposable shoe covers.
- Where there are **higher risk activities**, that cause high levels of airborne dust containing faecal material, you should wear disposable masks of class P3 (together with suitable eye protection where there is a risk from body fluids / blood). P3 masks offer a very high degree of protection against both dust and infectious particles. Masks that are used just to control exposure to a dusty environment (often class P2) provide less protection, but may be suitable if indicated by risk assessment. All respiratory protective equipment should be fit tested. Training on the correct procedure for removal and disposal of PPE will be required to prevent self contamination. The following is a summary of the recommended order of removal of protective equipment:
  1. Remove gloves
  2. Remove gown/coveralls
  3. Wash/decontaminate hands
  4. Remove eye protection
  5. Remove mask/respirator
  6. Wash/decontaminate hands again

## **What actions should I take if I suspect my flock has HPAI?**

Symptoms of HPAI in your flock depend upon the strain of virus and the type of bird infected. Indicators may include increased mortality, falling egg production, loss of appetite, swollen heads and respiratory distress. If you suspect disease in your flock you must;

- Inform the Divisional Veterinary Manager (DVM) at the local Animal Health Divisional Office immediately; Avian Influenza is a notifiable disease.
- Minimise the number of people potentially exposed to the virus by avoiding contact with potentially infected poultry;
- Do not move poultry, poultry products or other livestock from the premises;
- A vet from the State Veterinary Service (SVS) will visit the premises and provide advice on the measures required. If there is suspicion of disease, the premises will be placed under restriction and samples will be taken for analysis;
- If access to the potentially infected poultry is required, the Personal Protective Equipment (PPE) described above for avoiding infection during higher risk activities must be worn with a minimum of a P3 respirator with exhalation valve. The same standard of PPE would also be worn on confirmation of HPAI on a holding.

## **What happens if HPAI is confirmed in my flock?**

On confirmation of HPAI infection, the Scottish Executive and the SVS will arrange for all poultry and any birds they have had direct contact with to be humanely culled and transported to specialist incineration or rendering facilities for disposal.

The poultry keeper will then arrange for the premises to be thoroughly cleansed and disinfected under the supervision of a SVS vet.

Health advice and antiviral therapy such as Oseltamivir (Tamiflu®) will be offered to all poultry workers, vets and contractors engaged in disease control activities on the infected premises within 24 to 48 hours of disease confirmation. This will be coordinated by the local NHS Board's Public Health Department, with the support of Health Protection Scotland.

In addition, seasonal influenza vaccine will be offered to the same group. Although seasonal influenza vaccine will not offer protection against HPAI, it will guard against the possibility of re-assortment of the virus into a new strain which could be transmitted directly from human to human, potentially leading to a flu pandemic.