

What to do about the flu

By JAMIE GILARDI

There are a lot of confusing and frightening reports floating around about avian flu or bird flu, and some are more reliable and useful than others. As people who are around captive and sometimes wild birds, and as people generally concerned about various aspects of bird-human relations, we thought it might be useful to discuss the current state of affairs, what our members and readers might want to be concerned about, how you might want to manage any birds in your care, and how you might provide guidance to your friends and families on this important and rapidly emerging issue.

Perhaps most importantly, the outbreaks of avian flu in Asia are a potentially very serious issue for everyone in the world, so while we do not want to alarm anyone unnecessarily, we do think it is important for the public to be well and clearly informed on a few of the key details. Ideally, having good information will help us all plan accordingly, reduce unnecessary fears, and at the same time, prompt the kinds of preparatory actions we need to take at appropriate times.

One could well write books on the influenza virus and it's relation to humans, livestock, and wild animals, as well as the histories of the major outbreaks in the past, and indeed people do. In this context and at this time in the current outbreak in Asia, we can say that there are two distinct stages of the outbreak, which are important to understand. I'll briefly review these two phases, then discuss the range of reasonable precautions one might consider as the disease continues to evolve and spread over the next months and years.

The first phase is when the flu virus is found in birds and may be passed from bird-to-humans through some kind of direct contact. The exact mode of transmission is not well defined, as the contacts are not made under experimental conditions. But clearly physical proximity to the birds and their faeces as well as handling or eating poultry meat for human or animal consumption are the primary means of contracting the disease. The strain of flu that is circulating now in Asia (H5N1) is extremely lethal to humans, with 50-70% of infected individuals not surviving the infection. So, in this phase, one must have direct contact with infected birds. There are a few cases where people appear to have contracted this strain of avian flu from family members, but these are very rare and certainly not the norm.

The second phase of the outbreak - the "pandemic" - has not yet happened, but flu experts around the world talk more about when it will happen rather than whether it will happen. In this phase, the flu virus



Photo: Dr Ilaria Capua

mutates slightly through various processes and the virus becomes transmissible from human-to-human. Because the immune systems of most humans around the world are entirely naive to this strain of flu, they have essentially no resistance to the virus. Because it is a flu virus, it is capable of rapid spread through the same means that flu is typically transmitted among humans. The last serious avian flu pandemic of this kind took place in 1918 and eventually killed many tens of millions of people around the world. If the current H5N1 outbreak were to mutate and become pandemic, experts predict a wide range of outcomes, some better and some worse than what happened some 90 years ago. Bare in mind this was before the aeroplane, largely before the automobile, but on the positive side, it was also before antiviral and antibiotic drugs were available.

Again, we are now in the first phase of this particular outbreak and the known areas of infection are currently contained to central and southeastern Asia. In recent weeks and



Although some relatively mild strains are ever present in many waterfowl populations around the world, recent trends indicate that when the virus is able to infect chickens, it can then mutate rapidly into a much more lethal form, both to birds and sometimes to people. Disease can spread rapidly in the cramped conditions of a battery egg farm.

months it appears that either the virus is beginning to spread rapidly or it spread earlier in the year and it is only now being discovered in new and far flung areas. There are confirmed reports of H5N1 in wild birds in south-central Russia, China, and most recently Kazakhstan and Mongolia. The issue of concern here is that H5N1 appears to now be carried by several species of wild ducks and geese. These and other waterfowl are staging now just prior to migrations, which will take them to south Asia, Europe, and Africa. Although we all certainly hope the virus does not make it to Europe in 2005, it is likely that it will arrive in the coming weeks or months.

Assuming that it is prudent to take reasonable precautions now, the following options might be worth considering for anyone in Europe who is in close proximity to wild or captive birds. Please bear in mind that everyone is in a unique situation and will need to make personal decisions on what, if any, actions are appropriate to their needs. First, step up your efforts to protect your birds from disease exposure, also known as your 'biosecurity' measures. These might involve longer quarantines and additional disease testing for new birds coming into your flock. Think twice about moving your birds to another location. Provide disinfectant foot-baths for yourself and all visitors to your facilities or consider closing your aviaries to outsiders for the foreseeable future. Increase protection for your birds minimizing or preventing exposure to wild birds (fine mesh around aviaries, etc.). Have your birds tested for flu (check with your vet, this should only require a faecal sample). Second, although it is always advisable to keep good medical records on your birds, when disease outbreaks are imminent, additional details such as a list of visitors to your house/aviary, listed precautions taken such as those mentioned above, can be very important. It may be best for you to wear specific clothes when working in your aviaries, and showering before returning to the remainder of your home or before going out, and vice versa.

Authorities in different countries will react



differently to the presence of flu in captive and wild birds in your area. In some instances, being able to provide clear and detailed records of all your biosecurity activities has proven helpful in convincing authorities that you are doing everything possible and that a home quarantine may be the best option for your birds.

Living with bird flu: guidelines for the general public

Based upon current trends and seasonal bird migrations, H5N1 avian influenza or "bird flu" will soon arrive in eastern and possibly central Europe. As the virus is not yet known to be contagious from human-to-human, direct contact with infected birds appears to be the primary means of contracting the virus. If you know beforehand that you will come in close contact with birds, their feathers or faeces, wear a disposable paper mask during exposure and immediately shower afterwards and launder exposed clothing. Ideally, use a mask that fits snugly over the nose and mouth. Masks that are rated N95 or better are available through <http://www.seton.co.uk>, <http://www.decoratingdirect.co.uk/Protection/Respirators/> or ask your vet or doctor for a local source for such masks.

To help encourage responsible and preventative actions by the general public once the flu arrives in Europe, we suggest the following steps to minimize the risk of contracting avian flu. These guidelines are meant to be useful in the context of prevention: anyone experiencing flu-like symptoms - fever, cough, sore throat, aching muscles, etc. - should seek medical assistance immediately.

Precautions around wild birds

1 Avoid direct contact and feeding of all wild birds. This includes the use of bird feeders and the feeding of ducks or pigeons in city parks or town squares. If

you choose to feed wild birds, take the precautions described below in item 8 when handling food and water containers, which may come in contact with the birds, their feathers, or their faeces.

- 2 Exercise caution in public places frequented by gulls, pigeons and sparrows, avoiding concentrations of birds and areas where they feed and sleep.
- 3 Avoid bathing and swimming in lakes, rivers, and coastal areas with high concentrations of waterbirds: ducks, geese and gulls in particular.
- 4 Avoid visiting farms or households with poultry, particularly if the birds are housed outside. If you must visit, take the preventative measures described below.
- 5 Avoid direct interactions such as hunting, handling and eating of wild birds, particularly waterfowl.
- 6 If you find a dead bird or one that appears to be sick, do not approach it or touch it.

Poultry and other birds as food

- 7 If you choose to eat turkey, duck, or chicken meat, be sure that it is well cooked prior to eating. Commercially produced eggs should already be disinfected prior to shipment, but take extra precautions after handling and cook thoroughly before eating. If you acquire eggs directly from chickens, from a neighbour, or from free-range sources, take the same precautions you would if handling the birds themselves.
- 8 If you choose to slaughter birds for food, wear protective rubber gloves and glasses, a waterproof apron, and a disposable mask, which fits closely over your nose and mouth (ideally rated N95 or better).
- 9 If preparing poultry or other bird meat for the table, wear gloves and a mask during preparation, and after preparation thoroughly wash and disinfect all knives, containers, cutting surfaces which may have had contact with any uncooked bird meat.

Captive birds in and around the home

- 10 If you have captive birds, bring them inside or otherwise completely isolate them from all wild birds and other captive birds. In addition, have your captive birds tested for avian flu through your local veterinarian and keep detailed records of testing procedures and results.

