

Bird Flu in a Nutshell

A guide for journalists prepared by the AusSMC

This is part of the *Science in a Nutshell* series produced by the AusSMC. This document provides a simple explanation of some of the issues and terms associated with bird flu.

If you would like to know more about bird flu please contact the AusSMC by [email](#) or call us on 08 8207 7415.

What is bird flu?

Avian influenza or 'bird flu' is a disease that primarily affects birds, is highly infectious in some species and on rare occasions causes disease in people. There are several strains of the virus but the current strain causing concern is called H5N1.

How is it spread?

Infected birds pass it to others through faeces, saliva and other secretions. People that handle infected domestic poultry are also vulnerable. It is not possible to become infected with bird flu through eating cooked chickens but it could be passed on from an infected bird while preparing it for cooking. Although limited human-human transmission may have occurred in some countries in situations of close contact (and therefore extreme exposure) there is no evidence that the virus can spread from human to human through normal social contact.

What are the symptoms of bird flu in people?

At first the symptoms are similar to seasonal flu and include: fever, sore throat, cough, headache, aching muscles. However, in bird flu the virus spreads rapidly throughout the respiratory system, the lungs fill with fluid and victims will have difficulty breathing. Some people experience diarrhoea and almost all patients develop pneumonia. The body's vital systems can quickly become overwhelmed leading to death.

What is the treatment for bird flu?

The anti-viral drugs Tamiflu and Relenza are likely to be effective against all influenza viruses, (including seasonal flu) if taken early enough. That is during the first 6-10 hours after symptoms first appear. They work by preventing the virus from spreading in the body therefore stopping it infecting new cells.

Is there a vaccine against bird flu?

There is currently no vaccine to prevent bird flu in humans and the seasonal flu vaccine will not protect against the virus. Scientists in Australia and in other parts of the world are developing a vaccine they hope will work. However to make the most effective vaccine, scientists need a sample of the virus. The virus that may cause a pandemic has not emerged yet and a vaccine to protect against it may not be ready for use until approximately 3 to 6 months after they begin making it.

Is there any bird flu in Australia?

There are no reports of the H5N1 strain in Australia, either among birds or people. There have been several previous bird flu outbreaks in chickens between 1976 and 1997, all of which were contained and eradicated. They were not caused by the H5N1 strain of bird flu.

Why should we be concerned about bird flu?

Once infected, it spreads rapidly within the body and may lead to death. As of May 29 2006, bird flu is known to have killed 127 of the 224 people who have caught it around the world. Apart from the few people who have caught H5N1 and recovered, no one has any immunity to H5.

What are the chances of human to human transmission?

Apart from the limited human to human transmission described earlier, another concern is the virus' ability to mutate and evolve into new strains that may become more easily spread from person to person. Also, if the H5N1 bird flu virus were to mix with a human flu virus, this could create a new human flu virus that could spread between people rapidly.

What is the risk of a flu pandemic?

Some experts believe it is a case of "when" rather than "if" a pandemic will happen, but no one knows if the current strain of concern (H5N1) will be the one to cause a pandemic. Others believe it will not happen because H5N1 has been around for 10 years already. However, should we discover the virus has evolved into a flu that can be passed readily between humans; the problem is it may already have spread widely before we have had a chance to take effective precautions. This is because people travel extensively and the symptoms may not show for up to two days. Therefore there is a potential for a global spread.

Is Australia prepared for a bird flu pandemic?

Australia is well prepared for a bird flu pandemic in birds because it has had previous experience. The policy is to cull and quarantine infected birds. However, much is still unknown about a pandemic amongst humans. Quarantining people may not be so effective because infected people do not show symptoms at first.

The Australian government is also stockpiling considerable resources including infection control equipment and the anti-viral drugs Relenza and Tamiflu as first lines of defence until a vaccine is developed. At present the anti-virals are intended for people exposed or at continuous high risk of exposure to the virus, however some experts believe these limited supplies should be used only for early treatment for those who are already ill.

Some scientists also believe Tamiflu and Relenza should be more widely available and without a prescription so that people who become ill with bird flu can get this treatment as quickly as possible.

Sources:

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