Bird Flu Clusters May Signal Virus Change: WHO

14 March (Reuters Health)—A cluster of human bird flu cases among relatives and possibly health workers in Vietnam may show the virus is changing into a form that can be passed on by humans, the World Health Organization (WHO) said.

The WHO is worried that bird flu, which has killed 47 people in Asia, could mutate into an easily spread form that sparks the next influenza pandemic, killing millions.

“Such cases can provide the first signal that the virus is altering its behavior in human populations and thus alert authorities to the need to intervene quickly,” the WHO said.

The main concern of the WHO is a series of cases of the deadly H5N1 bird flu virus in a family in the northern Vietnam province of Thai Binh and the possible infection of 2 nurses who cared for one of the patients.

It also said it had received confirmation of an additional 10 cases of human infections from Vietnam’s Health Ministry.

The new cases were detected in early March or through reexamination of older cases, some of which dated back to late January, and 3 of which had been fatal, the WHO said.

Since the H5N1 virus, which spread across much of Asia in late 2003, erupted again in Vietnam in December, 24 cases have been confirmed, and 13 people have died.

Earlier, there was only 1 probable case of human-to-human transmission of the virus, that of a Thai woman who cradled her infected and dying daughter in her arms for hours.

Now, medical experts are investigating whether 2 nurses who treated a bird flu victim in Thai Binh caught it from their patient.

In the Thai Binh cases, one male nurse tested positive for bird flu after tending a patient who drank raw duck blood.

At the weekend, Thai Binh health officials said a second nurse who tended the patient was in hospital with symptoms of the disease, and they were awaiting the results of tests being conducted in Hanoi.

The patient, whose 14-year-old sister and grandfather were also infected, remained in a critical condition, but his sister was recovering, and his grandfather had shown no signs of illness despite testing positive.

The H5N1 virus has killed 34 Vietnamese, 12 Thais, and a Cambodian and has recurred several times despite the slaughter of millions of poultry.

Editor’s comment. The second nurse referred to in the above article has tested negative for avian influenza. Nonetheless, as outlined above, the danger of a major human outbreak seems to be increasing.

An interesting side issue is the way that different countries are responding to the threat. Medical experts in Britain suggest that ~1 in 4 people in Britain could be affected by an influenza pandemic. Without countermeasures, these experts estimate it could kill ~50,000 people.

There is no reason to think that the United States would not be affected in a similar fashion, but with much higher numbers of deaths because of the larger population.

In addition to the worldwide effort to develop a vaccine, Britain has ordered enough doses of drugs active against avian influenza (presumably oseltamivir) to treat about one quarter of the population; these drugs will be delivered over the next 2 years. I know of no such massive effort to stockpile drugs in the United States.

Hospitals Get Guidelines on Reporting Infections

1 March (Reuters Health [Paul Simao])—The US Centers for Disease Control and Prevention (CDC) released guidelines designed to help states track and alert the public to serious nosocomial infections.

Nearly 2 million people contract pneumonia, bacterial sepsis, and other infections following surgery, insertion of catheters, or other medical procedures in US hospitals each year. About 90,000 die as a result.

Bowing to consumer pressure, Illinois, Pennsylvania, Missouri, and Florida have passed laws forcing hospitals to publicly report infections related to health care. Another 30 states are moving to mandatory release of such information.

While acknowledging it was unsure whether these measures would lower infection rates, the CDC said it decided to issue voluntary recommendations after lawmakers and others sought its advice on how to set up mandatory reporting systems.

The CDC guidelines urge states that do so to consult with disease experts, adhere to established infection surveillance methods, and provide regular and confidential feedback to health care providers.

“The goal of mandatory reporting is to provide consumers with information they can use to make health-care choices,” said Dr. Denise Cardo, director of the CDC’s division of health care quality promotion.

“We don’t know yet if public reporting will reduce the number of infections, but we do support collecting information that can lead to improvements in patient safety,” Dr. Cardo said.

Although some consumer advocacy groups have lobbied for mandatory state reporting of infections in health care settings, hospitals have balked at the idea, fearing that it would add another costly layer of bureaucracy to their businesses while providing little or no valuable information to consumers.

Editor’s comment. The CDC recommendations (Healthcare Infection Control Practices Advisory Committee. Guid-
New Virus May Have Come from Monkeys, Experts Say

28 February (Reuters Health [Maggie Fox])—Two new retroviruses never before seen in humans have turned up among people who regularly hunt monkeys in Cameroon, researchers reported.

Like the AIDS virus, these viruses insert their genetic material directly into cells and perhaps even into a person’s or animal’s chromosomes. Closely related versions of the viruses cause leukemia, inflammatory, and neurological diseases.

The 2 new viruses are called human T-lymphotropic virus types 3 and 4 or HTLV-3 and HTLV-4. They are closely related to 2 known viruses called HTLV-1 and HTLV-2, which experts believe were transmitted to people, like HIV, from monkeys and apes.

Blood samples were examined from 930 Cameroonians who had handled or eaten bush meat—monkeys or apes hunted for food.

Antibody screening and genetic analysis were used to find at least 6 different simian retroviruses had infected 13 of the people.

“Two hunters were infected with 2 previously unknown HTLV viruses. One person was infected with HTLV-3, which is genetically similar to a simian virus, STLV-3, and represents the first documented human infection with this virus,” the researchers told the 12th Annual Retrovirus Conference being held in Boston.

“The second hunter was infected with HTLV-4, a virus distinct from all previously known human or simian T-lymphotropic viruses.”

“It’s totally new, so we don’t know any other simian virus that is related to it,” Hemeine said in a telephone interview.

Now the team, which includes researchers at Johns Hopkins University in Baltimore, plans to look more extensively in Central Africa for the virus.

Up to 25 million people globally are infected with HTLV-1 and -2.

After infecting one person, simian viruses often spread from person to person through sex, mother-to-child transmission, and other exchanges of blood and body fluids.

Like HIV, the incubation period for HTLV viruses to cause disease can last decades, the CDC said.

USDA Finds Less E. coli Tainted Meat in 2004

28 February (Reuters Health [Randy Fabi])—US food safety inspectors last year found 43% less ground beef tainted with a potentially fatal strain of Escherichia coli bacteria than in 2003, the Agriculture Department (USDA) said.

A consumer group praised the 2004 testing results, but said the USDA sharply cut its E. coli testing at grocery stores last year and should increase its checks at retailers.

The 2004 results showed 0.17% of samples tested positive for E. coli 0157:H7, down from 0.3% in 2003, the USDA said.

The government collected 8010 samples for testing in 2004 from 2000 beef plants and retail outlets.

The USDA’s Food Safety and Inspection Service (FSIS) said the results showed more US meat companies were complying with federal food safety standards.

E. coli 0157:H7 causes an estimated 73,000 illnesses and 61 deaths in the United States each year, according to the Centers for Disease Control and Prevention (CDC). Last year, the CDC said E. coli illnesses in 2003 fell by 36% compared to the previous year.

“The good news is USDA seems to be running more E. coli tests in federal plants and finding fewer positives,” said Caroline Smith DeWaal, food safety director for the Center for Science in the Public Interest.

“Unfortunately, they have significantly reduced their testing in retail stores and for state plants and imported beef,” she said.

The USDA tested about 300 beef samples from US grocery stores last year, down from 1200 in 2002.

FSIS spokesman Steve Cohen said the decline in testing was because inspectors do not test case-ready products, which have become increasingly popular at retail stores. The majority of E. coli contamination is found at federal beef plants, not retail stores, he said.

Since 1994, the USDA has conducted random testing at beef plants and grocery stores to review industry compliance. Between 2000 and 2004, the USDA said the percentage of positive E. coli samples declined by >80%.

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