Overseas briefs

World Health Organization

This material has been summarised from information on the World Health Organization Internet site (www.who.int).

Avian influenza – situation in Viet Nam and Cambodia

29 March 2005

Viet Nam

The Ministry of Health in Viet Nam has confirmed three additional cases of human infection with H5N1 avian influenza. The cases concern a 5-year-old boy from the central province of Quang Binh, a 17-year-old girl from the northern province of Nam Dinh, and a 40-year-old woman from the northern province of Quang Ninh. The 17-year-old girl has died.

An earlier case has also been confirmed. These recently confirmed cases bring the total in Viet Nam since mid-December to 28 cases.

The current outbreak of human cases in Viet Nam has included several clusters, mostly in family members, of cases closely related in time and place. Thorough investigation of all such clusters is essential to determine possible changes in the behaviour of the virus and thus support assessment of the risk of an influenza pandemic.

There is currently no evidence that the H5N1 virus is spreading easily from person to person. Rapid sharing of information with the World Health Organization (WHO) on viruses from recent clusters of cases has become increasingly important. Analysis can determine whether any significant changes in the virus have taken place and provide further support for risk assessment.

Cambodia

The Ministry of Health in Cambodia has confirmed the country's second human case of avian influenza.

The 28-year-old man, developed symptoms on 17 March and was hospitalised in Phnom Penh on 21 March. He died on 22 March. The same day, laboratory tests confirmed that the man was infected with H5 avian influenza virus. The Cambodian government immediately launched an investigation to search for possible additional cases and identify possible sources of exposure to the virus. Numerous deaths among chickens in the area have been reported and samples taken from sick chickens have tested positive for avian influenza. The results from the investigation indicate the deceased man had contact with sick poultry.

An 18-year-old boy initially identified as an additional suspected case has tested negative for the avian influenza virus. Samples taken from 27 other people, including family contacts of the confirmed case and Phnom Penh medical staff involved in his care, have all tested negative for H5 avian influenza infection. Results from a further six people from Kampot Province have also tested negative for H5 influenza virus.

Cambodia's previous case, a 25-year-old woman who died in late January, was also from Kampot Province but lived in another district.

The majority of poultry in Cambodia are raised in small backyard flocks in rural areas, making surveillance for outbreaks especially challenging. A campaign to educate rural populations about the dangers of contact with dead or diseased poultry is being undertaken by the government, with support from WHO.

Marburg haemorrhagic fever in Angola

31 March 2005

As of 30 March 2005, 132 cases of Marburg haemorrhagic fever have been reported. These cases include 12 health care workers. Of the 132 cases, 127 have been fatal. This is the largest number of fatalities ever recorded during an outbreak of this rare, but extremely severe disease.

Mobile surveillance teams have been established and are investigating rumours of additional cases in Uige Province, which remains the epicentre of the outbreak.

WHO has despatched a further 500 kg of personal protective equipment and other supplies to assist in the immediate improvement of infection control in hospitals and the protection of front-line staff. To facilitate real-time coordination of response operations, WHO has despatched mobile communication field kits, which should greatly expedite the flow of information.

Dengue haemorrhagic fever in Timor-Leste

1 March 2005

As of 28 February, WHO has received reports of 336 hospitalised cases of dengue infection and 22 deaths. Two hundred and sixty-three of the 336 cases had clinical features compatible with dengue haemorrhagic fever (DHF) and the remaining 73 cases were diagnosed as suspected dengue fever (DF) using WHO standard case definitions.

Preliminary laboratory results have identified dengue 3 as the main circulating strain in this outbreak.

The Ministry of Health, with support from WHO, NIID, and USAID are carrying out vector control activities. Insecticide spraying has covered more than 2,000 households in high-risk areas, and additional spraying and larval control are underway in Dili and Baucau.

Health education activities are also being carried out to raise awareness of the disease and the need for appropriate prevention and control measures.

ProMED-mail

This material has been summarised from information provided by ProMED-mail (http://www.promedmail.org). A link to this site can be found under 'Other Australian and international communicable diseases sites' on the Communicable Diseases Australia homepage.

Haemolytic uremic syndrome, petting zoo – USA – Florida

Source: WPTV 31 March 2005 (edited)

Five new cases of bacterial illness have been confirmed in children, who visited central Florida petting zoos, bringing the total number to 22 with 24 other infections suspected.

Some cases have tested positive for the *Escherichia coli* O157:H7 bacterium and others have developed a related kidney disease, haemolytic uremic syndrome. A suspected link between the outbreak and the death of a 12-year-old Pasco County girl has been ruled out. Tests came back negative for the *E. coli* strain.

Investigators suspect petting zoo animals rather than food vendors as the source of the problem. All of the victims visited the Central Florida Fair in Orange County or the Florida Strawberry Festival in Plant City earlier in March 2005.

HIV, multi-drug resistant – USA, New York City

Source: BMJ 2005;330:691 (edited)

Researchers have published clinical and sequencing details of a unique variant of human immunodeficiency virus (HIV) in a patient who is resistant to several classes of antiretroviral drugs and who rapidly developed AIDS, after media reports of a possible new 'super-strain' of the virus.

The patient, a man in his 40s from New York, was given a diagnosis of HIV-1 infection in December 2004 after he had exhibited fever, pharyngitis, weakness, and fatigue the previous month. Earlier he had tested negative for HIV-1 antibodies on several occasions between September 2000 and May 2003.

His illness progressed to AIDS within 20 months—and perhaps as little as 4 months—of infection. The case was first publicised at a press conference in New York in February 2005 because of the possible public health implications of a rapidly progressing strain of HIV with multiple drug resistance.

Detailed analysis of the virus showed that it was resistant to three of the four major classes of antiretroviral drugs: nucleoside reverse transcriptase inhibitors, non-nucleoside reverse transcriptase inhibitors, and protease inhibitors. Viruses usually become less virulent when they acquire drug resistance. However, the replication capacity of the patient's HIV-1 was 136 per cent in comparison with a median of 100 per cent derived from a large number of wild-type viruses. This indicated that, despite its multi-drug resistance, the virus replicated as well as most wild-type, drug-susceptible viruses.

Rapid progression to AIDS after acute HIV-1 infection has been described previously, as has the transmission of multi-drug-resistant viruses. However, one of the authors of the case report, said: 'The unique feature in this case is the convergence of two uncommon factors: the transmission of a multi-drug resistant HIV-1 variant and the extremely rapid clinical course to AIDS.'

Viral sequence analysis indicated that the patient's virus was subtype B, and the relative homogeneity of the viral population was consistent with early HIV-1 infection. Phylogenetic analysis of a nucleotide sequence from the viral *pol* gene and from 30 newly infected individuals and five reference HIV-1 strains showed that the viral sequence of the new case was unique. No match was found in the centre's sequence database.

Because of its unique features, this *pol* sequence is now being compared with those in other databases with the hope of finding a closely related HIV-1 that might provide an epidemiological link to this case. The rapid clinical course of the patient's illness could be explained by the properties of his unique HIV-1 variant.

Aedes aegypti*, other mosquitoes: name changes*

Source: ProMED-mail, 17 March 2005 (edited)

The so-called yellow fever mosquito, until recently known as *Aedes aegypti*, has recently been placed in the subgenus *Stegomyia*; and its name changed to *Aedes (Stegomyia) aegypti*.

Last year a detailed study on the phylogeny of the genus *Aedes* and another 45 aedine genera resulted in a reclassification of these mosquitoes. One of the more important changes is that the subgenus *Stegomyia* has been elevated to generic status, and so *Aedes aegypti* become *Stegomyia aegypti* (which can be abbreviated to *St. aegypti*) and *Ae. albopictus* becomes *Stegomyia albopicta.* Here the masculine name *albopictus* has to be feminised to agree with the genus name *Stegomyia*.

Many other former *Aedes* species, including vectors such as *africanus* (now *africana*), *bromeliae*, *polynesiensis* and *scutellaris*, are now in the genus *Stegomyia*.

References

The reference for these changes is:

Reinert JF, Harbach RE, Kitching IJ. Phylogeny and classification of *Aedini* (*Diptera: Culicidae*), based on morphological characters of all life stages. *Zoological J Linnean Society* 2004;142:289–368.

For those interested in Australasian mosquitoes a key reference is:

Reinert JF, Harbach RE. Generic and subgeneric status of aedine mosquito species (*Diptera: Culicidae: Aedini*) occurring in the Australasian Region. *Zootaxa* 2005;887:1–10.

Creutzfeldt-Jakob disease (new var.), United Kingdom update

Source: UK Department of Health, Monthly Creutzfeldt-Jakob Disease Statistics, Press release no. 2005/0161, 4 April 2005 [edited]

Definite and probable CJD cases in the UK

Deaths from definite vCJD (confirmed): 107

Deaths from probable vCJD (without neuropathological confirmation): 42

Deaths from probable vCJD (neuropathological confirmation pending): 0

Number of deaths from definite or probable vCJD (as above): 149

Number of probable vCJD cases still alive: 6

Number of definite or probable vCJD (dead and alive): 155

Influenza update – Northern Hemisphere

Source: World Health Organization (WHO), 10 February 2005 (edited)

Each year, the World Health Organization Global Influenza Program convenes meetings to analyse the global data on circulating influenza virus strains and make recommendations for the vaccine to be used for the coming influenza season. WHO also provides the vaccine manufacturing industry with prototype strains for the seasonal vaccine as well as materials to ensure and validate that global vaccine standards are met.

This year [2005], more than 10,000 influenza viruses from all continents were isolated and characterised by the WHO/National Influenza Centres. These laboratories, which are located in more than 80 countries, form the backbone of the global influenza surveillance program. Based on that assembled information, WHO has published its recommendations on the formulation of the influenza vaccine for the Northern Hemisphere.

WHO has recommended that vaccines to be used in the 2005–2006 season (Northern Hemisphere) should contain the following:

1. an A/New Caledonia/20/99(H1N1)-like virus;
2. an A/California/7/2004(H3N2)-like virus (candidate vaccine viruses are being developed);
3. a B/Shanghai/361/2002-like virus (the currently used vaccine viruses are B/Shanghai/361/2002, B/Jiangsu/10/2003 and B/Jilin/20/2003).

These recommendations are used by pharmaceutical manufacturers to update the composition of the influenza vaccines they produce. This annual adjustment is necessary to match the vaccine with the changing viruses expected to be circulating during the coming influenza season.

Recommendations for the composition of the vaccine to be used in the Southern Hemisphere for the 2006 season, will be made at a meeting in September 2005.

While influenza vaccine coverage has improved significantly in the last 10 years, the vaccine is not reaching everyone in the high risk categories. These categories, defined by WHO, include the elderly, those who are at increased risk because they have other respiratory or cardiovascular disease, and health care workers. However, influenza vaccine use in developing countries remains minimal to nonexistent.

Last year [2004], WHO's Member States set a goal of 60 per cent coverage for those in these high risk groups and 75 per cent coverage by 2010.

Since young children can develop severe disease, some countries have also started including vaccination of children as part of their national influenza policy. Vaccinating children may not only reduce their disease burden, but it may also reduce transmission to the elderly and others at increased risk.

Since the March 2005, the number of deaths from definite vCJD has increased by one, but the total number of deaths from definite or probable vCJD remains at 149 deaths. The number of probable vCJD cases still alive has increased from five to six. Therefore the overall total number of definite or probable vCJD cases (dead and alive) has increased from 154 to 155 cases.

Malaria, resistant – India

Source: Health India [edited] 7 January 2005

The malaria parasite is increasingly becoming resistant to chloroquine, and incidence of falciparum malaria is on the rise in India, suggesting a reappraisal of the treatment approach, so that a combination of drugs is used rather than only chloroquine.

A study at the Indian Institute of Science showed that 95 per cent of malaria cases were resistant to Chloroquine. Similar results were obtained from another study at the All India Institute of Medical Sciences, in which 90 per cent of malaria cases were found to be infected by the chloroquine-resistant parasite.

In India the share of deadly 'falciparum' malaria, which infects the brain and causes high mortality, is growing. While the ratio of 'vivax' malaria, which is usually easily treated with drugs, and 'falciparum' malaria used to be 85/15, the share of 'falciparum' malaria has now gone up to almost to half. In some tribal areas in Madhya Pradesh, falciparum malaria is contributing 75–90 per cent of malaria cases