

Overseas briefs

Pacific Public Health Surveillance Network

The Pacific Public Health Surveillance Network serves to disseminate information about communicable diseases in the Pacific region through Pacnet. Pacnet may be accessed, on registration, through the South Pacific Commission Website (<http://www.spc.org.nc>).

Cholera, Marshall Islands

Contributed by Tin Soe, Medical Director, Ministry of Health, Ebeye (edited)

Between 1 and 23 December 2000, in Ebeye Island, Kwajalein Atoll, 49 patients have been admitted, 64 patients seen at ER, and 30 patients treated in OPD. There were (5) deaths as of 24 December. Cholera diagnosis was confirmed by the Guam Laboratory.

Laboratories in Honolulu confirm that the specimen sent from Lae Atoll contains *Vibrio cholerae*. This is the first time cholera has been laboratory-confirmed outside of Ebeye Island. The Ministry strongly recommends that travel to and from Lae Atoll be restricted.

The cholera isolated from Ebeye patients is type Ogawa. This is the same type as in the FSM outbreak. Total mortality is now six.

Dengue in Palau, Caroline Islands, Micronesia

Source: Palau Ministry of Health News Release, 8 December 2000 (edited)

More than 350 cases of febrile illness have occurred in Palau since the beginning of September. Blood samples were sent to the World Health Organization (WHO) reference laboratory in Australia, and dengue fever has been confirmed as the cause of illness in a number of cases.

There are 4 viruses that can cause dengue. Infection with one virus type confers long-term immunity against the same virus type, but only temporary or partial immunity against other virus types. A subsequent infection with another dengue virus type may carry a higher risk of dengue haemorrhagic fever.

In the current outbreak, dengue type 1 has been identified in several cases. Initial interpretations of antibody levels (ie. haemagglutination inhibition antibody titres) suggested that dengue types 3 and 4 were causing the current outbreak. Since then, however, more sensitive tests (nucleic acid amplification and virus isolation) have identified only type 1 dengue in the samples, although not all confirmed cases have been analysed for virus type. Identification of the infecting dengue virus from antibody titres may be complicated by the occurrence of cross-reactive antibodies to antigenic determinants shared by all 4 dengue viruses.

Although no tourists have yet been identified among the suspected cases, travellers should be mindful of the outbreak. Visitors to Palau can reduce their own risk of infection through the use of DEET-based insect repellents,

and are strongly encouraged to seek medical care if symptoms occur while in Palau or after they have returned to their home countries.

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.

E. coli O157:H7 outbreak, Spain

Contributed by Ana Martinez, Josep Maria Oliva, Gloria Hernandez-Pezzi, Pilar Soler. Source: Eurosurveillance Weekly Issue 1, 4 January 2001 (edited)

So far, a total of 181 cases have been reported in the largest outbreak of *Escherichia coli* O157:H7 infection yet identified in Spain. The cases are 150 schoolchildren at 4 schools in Barcelona and 31 household contacts. Cases became ill between 19 September and 5 November 2000.

Though 6 children developed haemolytic uraemic syndrome (HUS), all recovered.

The attack rates in the 4 affected schools ranged from 4 to 56 per cent.

Preliminary enquiries suggested that the vehicle of infection was sausage served by a catering company on 18 September 2000. The catering company supplied 10 schools, one factory, and a home for elderly people.

Cases arose at schools where the sausages were not heated. Inspection of the catering company identified irregularities and the company was closed down. No food samples were investigated. *E. coli* O157:H7 was isolated from 27 cases, and 8 isolates were shown to be phage type 2.

Hand, foot and mouth disease, SE Asia: enterovirus 71 identified

Contributed by Muruga Vadivale 5 January 2001. Source: Joint Press Release by Ministries of The Environment, Health, Community Development and Sports, and Education (Singapore) (edited)

The Department of Pathology, Singapore General Hospital, has identified enterovirus 71, one of the several viruses associated with Hand, Foot and Mouth Disease (HFMD), in postmortem samples taken from the 4-year-old boy from Pontian (Malaysia) who died on 3 Jan 2001.

Altogether, 8 children ranging from 3 months to 7 years old were admitted to the KK Women's and Children's Hospital on 3 January 2001. Of these, 2 were residents of Pontian who sought medical treatment here after attending the funeral of the deceased child.

Over the last 8 weeks, there was an average of 50 cases a week. In the last 2 weeks of December 2000, there were 45 and 29 cases respectively. In the first 3 days of this year, there was an average of 10 cases a day.

Multi-State outbreak of listeriosis, United States

Source: *MMWR*, 21 December 2000 (edited)

Since May 2000, 29 illnesses caused by a strain of *Listeria monocytogenes* (LM) have been identified in 10 States: New York (15 cases); Georgia (3); Connecticut, Ohio, and Michigan (2 each); and California, Pennsylvania, Tennessee, Utah, and Wisconsin (one each). Dates of LM isolation ranged from 17 May through 26 November with 26 (90%) infections occurring since 15 July.

When subtyped, the LM isolates from these cases were indistinguishable by pulsed-field gel electrophoresis.

Included in the report were 8 perinatal cases and 21 non-perinatal cases. Among the 21 non-perinatal cases, the median age was 65 years (range: 29-92 years); 13 (62%) were female. The 29 cases have been associated with 4 deaths and 3 miscarriages/stillbirths.

A case-control study conducted by 5 state and 2 local health departments and CDC implicated eating deli turkey meat as the probable source of infection.

On 8 December, investigators from the Food Safety and Inspection Service, USA Department of Agriculture (USDA) began investigating the implicated establishments. On 12 December, Cargill Turkey Products, Inc. (Waco, Texas) stopped shipping ready-to-eat foods and, on 14 December, voluntarily recalled processed turkey and chicken deli meat that might have been contaminated.

Africa, precautions against malaria

Source: *Xinhua News Agency*, 22 December 2000 (edited)

The World Health Organization (WHO) has warned holiday travellers to Africa to take all possible precautions in order to prevent malaria.

WHO has received numerous reports in recent weeks from Spain and Germany of travellers falling ill after returning from last-minute package holidays to destinations such as Senegal and Gambia. Similar reports have come from the United Kingdom, Sweden and Denmark.

In Southern Africa, WHO said, there is a special need for vigilance over the coming months as above-normal rainfall is forecast from December 2000 to March 2001, with a corresponding increase in malaria transmission over most of the region up to May 2001.

WHO has recommended weekly mefloquine prophylaxis for most African countries. Mefloquine prophylaxis should be started 2 to 3 weeks before travel. (One week before entry is usually sufficient). For travellers who failed to start prophylaxis in time, daily doxycycline offers an alternative, as it can be started the day before travel.

To cover the incubation period of the disease, both drugs should be continued during the stay and for 4 weeks after leaving the endemic area.

Moderator's comment. Whether the increased number of reports also represent an increased number of cases is not known, except that the previous dispatch from the UK indicated that the MRC in The Gambia had experienced an increased number of expatriates with malaria which was

more often resistant to chloroquine than expected. There is also no doubt that malaria in South Africa towards the border with Mozambique is on the increase, but there are few actual numbers from the South African authorities. Some travellers from the Kruger National Park have reported that the border area between South Africa and Mozambique was previously sprayed with insecticides regularly, but that this activity ceased completely a few years ago.

The WHO message mentions that larium (mefloquine) should be started 2 to 3 weeks before entry into the malaria endemic area. The standard recommendation is one week before, but it is common practice to start larium 3 weeks before if the traveller is concerned about possible side effects. The WHO message does not mention malarone (atovaquone/proguanil) as an alternative although it is registered in the USA and Denmark. Malarone is highly efficient without the occasional neuropsychiatric adverse reactions seen under larium use. Malarone is especially efficient against the liver stage and can therefore be used from the day before entry and for only 7 days after departure from the malarious area.

Editorial note: Malarone (atovaquone plus proguanil) is registered in Australia for treatment of *P. falciparum* malaria in those aged 3 years or older. According to reports in the Brisbane Courier Mail (28 December 2000) a novel antimalarial developed by the US military (tafenoquine) has been trialled by Australian troops serving in East Timor.

Legionnaire's disease, Paris

Source: *AP Online* 30 December, 2000 11 (edited)

A Paris hospital has banned showers and ordered water pipes disinfected after 4 people were diagnosed with Legionnaire's disease; all 4 caught the disease in the past month.

The ultramodern 750-bed hospital in south-western Paris has had a series of setbacks since opening its doors in July. Officials suspect that *Legionella* developed in unused sections of water pipes in the hospital, which is only partially occupied by about 250 patients. The stagnation of hot water could explain the epidemic they said.

Hepatitis C, nosocomial transmission

Source: *New York Times*, *Associated Press Report*, 20 December 2000 (edited)

A medical technician with a cut on his finger accidentally infected 5 hospital patients with hepatitis C virus in the first documented case of its kind, German researchers say. The researchers would not identify the hospital nor where it was located.

The case involving the technician is the first documented instance of hepatitis C virus being transmitted to patients by medical personnel who are not physicians [surgeons or anaesthetists] said Dr R Stefan Ross of the University of Essen. He and colleagues reported the case in Ross RS et al. *New England Journal of Medicine*, vol 343(25): 1851-1854. The researchers blamed a technician, whose job was to assist the anaesthetist. They said he probably passed the virus from a cut on his finger. He normally did not wear gloves, saying that they diminished the sense of touch he needed for his work.

In the German case, the technician himself apparently contracted the virus from a patient during surgery in 1998. Within 6 weeks, he helped administer anaesthesia to 5 other patients, all of whom developed hepatitis C. Genotypic analysis confirmed that the technician was the source of the virus. Ross estimated the chances of such infection at 140 for every 1 million invasive procedures. He said that patients should not be concerned about having any medical treatments because such events are very rare.

Meningitis, Angola

Contributed by M Cosgriff, 14 December 2000. Source: Panafrican News Agency (edited)

Meningitis has killed at least 70 people in Angola's central Huambo province, since January 2000; the main victims were people under age 45 years. Over the same period, several medical centres in the province treated 376 cases of the epidemic. Caala municipality, some 23 km from Huambo, the province's chief town, is the worst affected, recording about 75 per cent of the afflictions.

Moderator's comment: Angola is outside the 'meningitis belt' of sub-Saharan Africa. Further information about the laboratory characterisation of the etiological agent of this outbreak would be helpful.

Ebola suspects in fourth Ugandan town

Contributed by Monte Bawden 9 December 2000. Source: United Press International (edited)

Three people suffering from Ebola haemorrhagic fever-like symptoms have been found in Uganda's second-largest town, Jinja, for the first time, raising new fears on 8 December 2000 that the lethal disease is spreading. Tests were under way to determine whether the patients were suffering from Ebola haemorrhagic fever.

To date, the Ebola outbreak has been confined to Gulu town, 360 km north of Kampala, Masindi town 300 km north-west of Kampala, and Mbarara town, 280 km south-west of Kampala. Ebola fever has killed 156 people, including 14 health workers, in Uganda since September.

In Rwanda, Uganda's neighbour to the south-west, a 16-year-old boy died on 4 December 2000 of symptoms similar to those of Ebola fever. Blood samples from the boy would be taken to the World Health Organization laboratory in Gulu to test for Ebola virus. Uganda's neighbours Kenya and Tanzania have taken strict precautions against the Ebola outbreak, and there has been no report so far of any Ebola virus infection within their territories. The strain of Ebola virus in Uganda is similar to the one first identified in Sudan in the late 1970s.

Avian influenza virus, diagnostic kits

Contributed by M Cosgriff, 8 January 2001. Source: South China Morning Post (edited).

Following the discovery that the lethal H5N1 avian influenza virus of 1997 was the product of genome sub-unit reassortment between 3 avian influenza viruses found in quail and geese, the World Health Organization (WHO) has developed additional diagnostic kits for 3 influenza virus hemagglutinin genes (H5, H9, and H6); these are now being used internationally to monitor new isolates. Hong Kong virologists found that an early form of H5N1 influenza virus from geese exchanged genes with H9N2 and H6N1 viruses

in quail and poultry fowls to create a H5N1 influenza virus more pathogenic for chickens, spreading throughout their organs. Contact with contaminated chicken wastes, or organs sold in the markets, subsequently passed the virus to humans.

Moderator's comment: In 1997, 18 cases of influenza (bird flu) in the Hong Kong Special Administrative Region (SAR) caused by a novel H5N1 (chicken) virus resulted in the deaths of 6 individuals and raised the spectre of a potentially devastating influenza pandemic. Previously it had been believed that the introduction of novel avian influenza virus genes into human influenza viruses (and the generation of new pandemic strains by sub-unit reassortment) required co-infection of an intermediate host (the pig). Slaughter of the poultry in the live bird markets of the Hong Kong SAR removed the source of infection and no further human cases of H5N1 infection have occurred.

In March 1999, however, a new pandemic threat appeared when influenza A H9N2 viruses infected 2 children in Hong Kong. These 2 virus isolates are similar to an H9N2 virus isolated from a quail in Hong Kong in late 1997. Although differing in their surface hemagglutinin and neuraminidase components, a notable feature of these H9N2 viruses is that the 6 genes encoding the internal components of the virus are similar to those of the 1997 H5N1 human and avian isolates.

This common feature emphasises the apparent propensity of avian viruses with this genetic complement to infect humans and highlights the potential for the emergence of a novel human pathogen. This is illustrated through the H9N2 virus, which appears to have provided the 'replicating' genes for the H5N1 virus and which has since been isolated in the SAR from poultry, pigs and humans, highlighting its propensity for inter-species transmission.

These events in the Hong Kong SAR have confirmed the role of avian hosts as a source of pandemic human influenza viruses and offer the prospect of improved forecasting of human pandemics in the future. These new reagents will facilitate surveillance.

West Nile fever - New York

Contributed by Marjorie P. Pollack, 11 January 2001. Source: AP Online (edited)

An 87-year-old woman who died in December was the second person in the United States last year to die after contracting West Nile virus infection. She had been hospitalised in a coma since August and died in December. An 82-year-old New Jersey man died from the virus in September 2000. A total of 14 New York and 5 New Jersey residents tested positive for the virus in 2000.

In 1999, 7 people died and 55 others were infected in the New York area during the first known appearance of the virus in the Western Hemisphere. The latest death serves as a reminder that potentially West Nile virus can cause serious illness, particularly in the elderly.

Moderator's comment: The number of human cases recorded during the year 2000 West Nile virus outbreak in the USA is now 20 with 2 deaths. However, one of the 20 cases is a woman resident in Connecticut who experienced headache only and does not meet the full clinical case definition established by the Centers for Disease Control and Prevention.