Overseas briefs

World Health Organization

This material has been summarised from information on the World Health Organization Internet site. A link to this site can be found under 'Other Australian and international communicable diseases sites' on the Communicable Diseases Australia homepage.

Cholera in Liberia – update 6

(30 September 2003)

The cholera outbreak in Monrovia remains a public health concern. As of 21 September 2003 the total number of cases since the beginning of the year was 18,038 cases with 17,561 cases occurring since the beginning of the epidemic in June. The case fatality rate is low (below 1%) in the cholera treatment centres run by Médecins sans Frontières France and Belgium and by MERLIN. Many non-governmental organisations have opened oral rehydration corners to increase the coverage of the population. The caseload seems to be decreasing in some areas, probably as the result of the widespread chlorination of wells undertaken during the last four weeks, by the World Health Organization and UNICEF. In Central Monrovia, the low access to safe water and sanitation remains critical and limits the effectiveness of control measures. An additional concern is the increase in bloody diarrhoea cases (141 cases reported between 15–21 September) which might be due to shigellosis. Laboratory tests are currently underway.

ProMED-mail

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

Dengue/dengue haemorrhagic fever update

India (New Delhi)

Source: Times of India, 24 September 2003 (edited)

There are a growing number of dengue cases in New Delhi with about 130 to 24 September 2003. Officials of the Delhi government's health department blame this year's heavy rainfall for the spurt in dengue cases. In 1996, over 10,000 people were affected by dengue and 423 died. This year, only one person has died, but the number of cases so far is almost three times that of 2002.

Creation of breeding conditions for mosquitoes is an offence under municipal laws and is liable to prosecution and fine. Over 590,000 houses have been visited this year and 23,110 houses were found to be harbouring *Aedes* mosquitoes. As many as 17,248 persons have been served legal notices while 6,111 persons have been prosecuted.

Indonesia (North Sumatra)

Source: Antara News Agency, 24 September 2003 (edited)

From January up to September 2003, 14 people have died of dengue fever in North Sumatra, a provincial health official said. The victims were part of a total of 344 people affected by the disease during the period. In Medan city alone, 220 people contracted the disease. However, compared to the situation in other provinces, the number of dengue-fever victims in North Sumatra during the period was low. In North Sumatra, dengue fever tended to spread at the beginning of the rainy season, namely between August and December.

Brazil

Source: National Foundation for Health, Brazil, online, accessed 28 September 2003

As of week 34, 271,161 cases of dengue have been notified, 259,800 of them in the first six months, a reduction of 65 per cent compared with the first six months of 2002. As of 28 September 2003, 7,487 cases have been notified for July and August 2003, but 13 states have only very preliminary figures. The north east region has the most cases notified, 139,529, followed by the south east with 77,281 cases. Currently dengue virus serotypes 1, 2, and 3 are active in 22 states. Five hundred and seventy five cases of dengue haemorrhagic fever (DHF) have been confirmed in 20 states. This represents only 21 per cent of the total DHF cases in 2002. The dengue death rate for the whole country currently stands at about 6.4 per cent.

Colombia

Source: El Tiempo – Oriente, Colombia, 24 September 2003 (edited)

Thirteen confirmed and 52 suspected cases of DHF and 135 cases of classic dengue fever have been reported so far in 2003. During 2002, 82 cases of DHF and 64 cases of classic dengue fever were reported. In September 2002 only three cases of DHF were diagnosed, but so far this month, 10 cases have already been reported.

Bovine spongiform encephalopathy update 2003

Source: BSE in Europe, http://home.hetnet.nl/~mad.cow/, updated 26 September 2003 (edited)

Table 1 shows the number of cases of bovine spongiform encephalopathy reported in the past three years.

Most countries show decreased incidence of recorded bovine spongiform encephalopathy cases, compared to 2002. The exceptions are Portugal, Spain (with a relatively high number of cases), as well as Japan and Poland.

Table 1. Cases of bovine spongiform encephalopathy, 2001 to 26 September 2003, and total since 1987, by country

Country	2001	2002	2003 to date	Total since 1987
UK	1,175	1,104	409	183,510
Austria	1	0	0	1
Belgium	46	38	11	114
Canada	0	0	1	1
Czech Republic	2	2	1	5
Denmark	6	3	2	13
Finland	1	0	0	1
France	274	239	104	852
Germany	125	106	38	281
Greece	1	0	0	1
Ireland	246	333	134	1,310
Israel	0	1	0	1
Italy	50	36	23	111
Japan	3	2	2	7
Liechtenstein	0	0	0	2
Luxembourg	0	1	0	2
Netherlands	20	24	12	64
Portugal	110	86	89	814
Poland	0	4	4	8
Slovakia	5	6	2	13
Slovenia	1	1	1	3
Spain	82	127	113	324
Switzerland	42	24	16	447

Influenza update 2003

Source: MMWR Morb Mortal Wkly Rep 2003;52;911–913, 26 September 2003 (edited)

United States and worldwide: influenza activity update – May to September 2003

During the period May to September 2003, influenza A (H3N2) viruses circulated worldwide and were associated with mild to moderate levels of disease activity. Influenza A(H1)* and B viruses were reported less frequently. The influenza A(H1N2) strain appears to have resulted from the reassortment of the genes of the circulating influenza A(H1N1) and A(H3N2) subtypes.

United States of America

In the United States of America, influenza surveillance is conducted by a network comprising four components, including approximately 900 sentinel health-care providers who regularly report data on patient visits for influenza-like illness (ILI) and approximately 120 US-based World Health Organization (WHO) and National Respiratory and Enteric Virus Surveillance System (NREVSS) collaborating laboratories that report the number of respiratory specimens tested and the number and type of influenza viruses identified during October to mid-May. During the period 18 May to 13 September 2003, the weekly percentage of patient visits to sentinel providers for ILI ranged from 0.5–0.9 per cent, and WHO and NREVSS collaborating laboratories tested 9,145 respiratory specimens, of which 68 (0.7%) were positive. Of the positive results, 31 (45.6%) were influenza A(H3N2) viruses, 25 (36.8%) were influenza type-B viruses, 7 (10.3%) were influenza A(H1) viruses, and 5 (7.0%) were influenza A viruses that were not subtyped. Influenza A viruses were reported each week during mid-May to mid-August. Influenza B viruses were reported for five consecutive weeks during mid-May to mid-June and during the week ending 2 August 2003.

* A(H1) includes both the A(H1N1) and A(H1N2) influenza virus types.

Worldwide

During the period May to July 2003, influenza A(H3N2) viruses predominated in Africa (Madagascar and South Africa). In Asia, influenza A(H3N2) viruses predominated in Hong Kong and Thailand and were reported in Bangladesh, China, Guam, Indonesia, Japan, and Singapore. In Oceania (Australia, New Caledonia, and New Zealand), influenza A(H3N2) viruses predominated and were associated with widespread activity in Australia and New Zealand. In Latin America, influenza A(H3N2) viruses predominated in Brazil, Chile, and Uruguay. Influenza A(H3N2) viruses also circulated widely in Argentina and were isolated in El Salvador, French Guiana, Paraguay, and Peru.

During May to August 2003, sporadic cases of influenza A(H3N2) infection were reported in North America (Canada and Mexico) and Europe (Latvia, Norway, and the United Kingdom). Influenza A(H1) viruses predominated in Argentina and also were reported from Brazil, Chile, French Guiana, Iceland, New Zealand, Peru, South Africa, Trinidad and Tobago, the United Kingdom, and Uruguay. In Africa, influenza B viruses were reported in May (Morocco) and July (South Africa). A small number of influenza B viruses were identified in Asia (Bangladesh, Hong Kong, Japan, and Thailand), South America (Argentina, Brazil, Peru, and Uruguay), and Australia. During May, influenza B viruses were reported in Canada, Latvia, Mexico, and the United Kingdom.

Severe acute respiratory syndrome worldwide: etiology

Confirmation of the identity of the severe acute respiratory syndrome agent

Kuiken T, Fouchier RAM, Schutten M, Rimmelzwaan GF, van Amerongen G, van Riel D, et al. *Newly discovered coronavirus as the primary cause of severe acute respiratory syndrome. http://image.thelancet.com/extras/03art6318web.pdf*

The summary of the paper reads as follows:

'The worldwide outbreak of severe acute respiratory syndrome (SARS) is associated with a newly discovered coronavirus, SARS-associated coronavirus (SARS-CoV). We carried out clinical and experimental studies to assess the role of this virus in the causation of SARS. We tested clinical and postmortem samples from 436 SARS patients in six countries for infection with SARS-CoV, human metapneumovirus, and other respiratory pathogens. We infected four cynomolgus macaques (*Macaca fascicularis*) with SARS-CoV in an attempt to replicate SARS and did necropsies on day six after infection. SARS-CoV infection was diagnosed in 329 (75%) of 436 patients fitting the case definition of SARS; human metapneumovirus was diagnosed in 41 (12%) of 335, and other respiratory pathogens were diagnosed only sporadically. SARS-CoV was, therefore, the most likely causal agent of SARS. The four SARS-CoV-infected macaques excreted SARS-CoV from nose, mouth, and pharynx from two days after infection. Three of four macaques developed diffuse alveolar damage similar to that in SARS patients and characterised by epithelial necrosis, serosanguineous exudate, formation of hyaline membranes, type 2 pneumocyte hyperplasia, and the presence of syncytia.

SARS-CoV was detected in pneumonic areas by virus isolation and RT-PCR, and was localised to alveolar epithelial cells and syncytia by immunohistochemistry and transmission electron microscopy. We conclude that replication in SARS-CoV-infected macaques of pneumonia similar to that in human beings with SARS, combined with the high prevalence of SARS-CoV infection in SARS patients, fulfil the criteria required to prove that SARS-CoV is the primary cause of SARS.'

SARS: Singapore laboratory acquired case

Source: WHO CSR website. http://www.who.int/csr/don/2003_09_10/en/, 10 September 2003 (edited)

Singapore had a laboratory-confirmed case of SARS coronavirus (CoV) infection. This single case was in a 27-year-old postgraduate medical student who worked in a virology laboratory in Singapore. The patient developed fever, was hospitalised and isolated, and his fever has now resolved. Contact tracing is continuing, but it has not identified any secondary cases arising from this infection.

It is well recognised that most viruses can cause a range of illness from mild to severe. The goal of WHO's SARS guidance in the post-outbreak period is to rapidly identify threats to global public health. Consequently, WHO's case definitions are designed to provide early warning and give health officials direction for responding to a new outbreak of SARS. The Singapore case was mild, isolated, and has not produced secondary cases, and therefore is not regarded as a public health concern.

Report of review panel on new SARS case and biosafety

Source: Ministry of Health Singapore, Press Release 23 September 2003

An 11-member Review Panel, comprising local and external experts, was tasked by the Ministry of Health to review (a) epidemiologic data of the recent SARS case and (b) the biosafety requirements and practices at Singapore's BSL3 laboratories. The Panel has completed its investigation and submitted its report to the Ministry.

Epidemiologic investigation

From the results of its investigations, the Panel has concluded that the patient most likely acquired the infection in the Environmental Health Institute laboratory where he had worked. Inappropriate laboratory procedures and a cross-contamination of West Nile virus samples with SARS coronavirus in the laboratory led to the infection of the doctoral student. No evidence could be found of any other source of infection. The Panel's conclusion is further supported by the results of the genome sequencings on the laboratory strain of SARS coronavirus and that of the patient's. Both genome sequences were found to be closely related. The Panel also established that there was no evidence of secondary transmission and this was an isolated case of SARS.

Biosafety standards

The Panel also reviewed the three existing BSL3 laboratories and found a large range of biosafety structures and practices. The Panel recommended that a national legislative framework for ensuring international standards in biosafety in laboratories be established. Where gaps in biosafety standards were identified, the Panel has made specific recommendations to rectify them. The details are in their report.

The full report of the Panel is available at: http://www.moh.gov.sg/sars/pdf/Report_SARS_Biosafety.pdf

Measles – Marshall Islands

Source: Morb Mortal Wkly Rep 2003;52:888–889, 19 September 2003 (edited)

During the period 13 July to 13 September 2003, a total of 647 clinically diagnosed measles cases were reported on Majuro Atoll in the Republic of the Marshall Islands (RMI); this is the first measles outbreak reported in RMI since 1988. An additional 74 suspected measles cases are under investigation. Of the 647 cases, 15 (2%) are laboratory confirmed, either by serology, polymerase chain reaction, or viral culture. The age of patients ranged from two weeks to 43 years (median: 12 years); 479 (74%) patients were aged <20 years. The overall measles incidence on Majuro Atoll (estimated 2003 population: 25,097) was 26 cases per 1,000 population. The incidence was highest among infants aged <1 year (160/1,000 population), followed by children aged one to four years (40/1,000). A total of 58 people with measles were admitted to hospital; three patients died.

To stop measles transmission, the Ministry of Health in RMI recommended measles, mumps, and rubella vaccine (MMR) for all infants aged 6 to 11 months and all people aged 1 to 40 years who did not have documented proof of measles immunity. As of 13 September 2003, 98 per cent of those aged six months to 40 years had documentation of receipt of at least one dose of MMR. Campaign activities that delivered 16,913 doses included; (1) vaccinating health care and public health workers; (2) vaccinating children at nine vaccination posts across the atoll; (3) delaying the start of the school year until school children were vaccinated, and requiring documentation of vaccination for school entry; and (4) conducting neighbourhood and house-to-house vaccination in areas where adequate coverage was not reached.

To prevent spread from Majuro Atoll, vaccination campaigns were conducted in other atolls and islands in RMI. The Ministry of Health suspended travel of sea vessels and airlines from Majuro Atoll until vaccination campaigns had been completed in other atolls and islands, and required proof of MMR vaccination for all travellers leaving Majuro Atoll for other atolls or islands or for international destinations. Spread to other areas in the Pacific and to the United States of America has been limited; five measles cases in Hawaii, three in Guam, one in Palau, and one in California are believed to be linked to this epidemic.

The source of importation of the measles virus to Majuro Atoll has not yet been determined, but the H1 genotype found in this outbreak is common in Asia, and the specific strain has been reported recently in measles cases from Japan and China. The Advisory Committee on Immunisation Practices recommends that all international travellers be immune to measles because it is endemic or epidemic in many parts of the world, including developed countries. People aged <40 years who are travelling to RMI during the next 60 days should be aware that RMI requires documentation of measles immunity for all departing passengers on international flights. The documentation must fulfil the same age-specific requirements used in the vaccination campaign.

Antimicrobial growth promoters, livestock – Denmark

Source: Eurosurveillance Weekly 2003;7, 4 September (edited)

An international review panel has concluded that Denmark's termination of the use of antimicrobial growth promoters seems to have achieved its desired public health goal, and that countries with similar animal production conditions could see similar benefits if they follow suit. The World Health Organization (WHO) convened the independent international panel in November 2002. The panel evaluated the impact that withdrawal of antimicrobial growth promoters in Denmark has made on the efficiency of food animal production, animal health, food safety, and consumer prices. Denmark's termination program is consistent with WHO global principles, which call on governments to adopt a proactive approach to reduce the need for antimicrobials in animals and ensure their prudent use.

Antimicrobial growth promoters were withdrawn both as a public health measure and to ensure consumer confidence in Denmark, in 1999. The concern was that resistance to these antimicrobials in the food animal reservoir would lead to clinical problems in humans. The quantity of antimicrobials used in food animals in Denmark has declined 54 per cent from peak use between 1994 and 2001.

Before the program began, most pigs and broiler chickens in Denmark were given antimicrobials, such as avilamycin, avoparcin, tylosin, and virginiamycin, for most of their lives. After withdrawal, average use declined to 0.4 days in broiler chickens (with life span of around 42 days) and 7.9 days in pigs (with life span of around 170 days). Pork production in Denmark has continued to increase, and effects on poultry production were small.

Data from the Danish Integrated Antimicrobial Resistance Monitoring and Research Programme showed that ending the use of the above antimicrobials has greatly reduced the reservoir of resistant *Enterococcus faecium* in the food animal reservoir, thus reducing the reservoir of resistance genes. For example, resistance to avilamycin, avoparcin, and streptogramins in *Enterococcus faecium* isolates from broiler chickens declined from 60 to 80 per cent before withdrawal of antimicrobials to only 5 to 35 per cent after. The panel considered that the threat of antimicrobial resistance to human health has been reduced.

The panel concluded that use of antimicrobials for the sole purpose of growth promotion can be ended in countries that have similar conditions to Denmark, that is, where animal farming methods are intensive, and animals have a relatively high health status, and where a high level of infrastructure and capacity to monitor antimicrobial use and resistance exist. In July 2003, the European Parliament adopted a regulation on feed additives that completes a ban on antibiotic growth promoters in feed, and the European Union's Scientific Steering Committee has recommended that the use of these antimicrobials be progressively phased out.

CJD (new var.) – United Kingdom: update 2003

Source: UK Department of Health, CJD/BSE monthly statistics, 1 September 2003, (edited)

On 1 September 2003 the Department of Health issued the latest information about the numbers of known cases of Creutzfeldt-Jakob disease. This included cases of variant Creutzfeldt-Jakob disease—the form of the disease thought to be linked to bovine spongiform encephalopathy. Table 2 shows the known cases.

Summary of vCJD cases

Deaths: from definite vCJD (confirmed): 99

from probable vCJD (without neuropathological confirmation): 33

from probable vCJD (neuropathological confirmation pending): 4

from definite or probable vCJD (as above): 136

Probable vCJD cases still alive: 4

Total number of definite or probable vCJD (dead and alive): 140

The death toll continues to rise but overall the data are consistent with the continued decline in vCJD incidence reported during the preceding six months.

Table 2. Cases of Creutzfeldt-Jakob disease reported in the United Kingdom, 1990 to 2003

Year	Referrals	Sporadic	Iatrogenic	Familial	GSS	vCJD	Total
1990	53	28	5	0	0	–	33
1991	75	32	1	3	0	–	36
1992	96	45	2	5	1	–	53
1993	78	37	4	3	2	–	46
1994	118	53	1	4	3	–	61
1995	87	35	4	2	3	3	47
1996	134	40	4	2	4	10	60
1997	161	60	6	4	1	10	81
1998	154	63	3	4	1	18	89
1999	170	62	6	2	0	15	85
2000	178	49	1	2	1	28	81
2001	179	56	3	2	2	20	83
2002	163	72	0	4	1	17	94
2003*	107	35	4	1	0	15	55
Total	1,753	667	44	38	19	136	904