



AVIAN INFLUENZA - UPDATE

WHO reports on avian influenza virus A (H5N1) and the risk of a pandemic have created much publicity and unfounded fear of infection to humans in Denmark. The outbreak has previously been discussed in EPI-NEWS 6/10/41/04.

Incidence among birds

From November 2003, influenza virus A (H5N1) caused high mortality among poultry in eight countries in Asia. As a result, infected poultry was culled, and by March 2004, more than 100 million birds had either died of the infection or been culled. A few months later, the disease was thought to have been contained. With the exception of Japan and South Korea, in June 2004 there were reports of recurrent outbreaks among poultry in the previously affected countries of Cambodia, Indonesia, China, Thailand and Vietnam, and for the first time also reports from Malaysia. Avian influenza virus A (H5N1) is still circulating among poultry in these countries, but the extent is not known in detail. Information about outbreaks among poultry may be found on www.oie.int.

Occurrence among humans

From December 2003 to March 2004, there were reports of 12 patients in Thailand and 23 patients in Vietnam with severe illness caused by avian influenza virus A (H5N1), including a total of 23 deceased. All had been infected from diseased poultry. The incidence of human cases declined after this, and from March to July 2004, there were no reports of new cases. Since then, there have again been sporadic cases among humans in Thailand and Vietnam. Furthermore, in February 2005, the first patient was reported in Cambodia. Since 2003, WHO has reported a total of 59 patients: 41 in Vietnam, 17 in Thailand and one in Cambodia, including a total of 43 deceased. The extent of undiagnosed infection with avian influenza virus A (H5N1) to humans is not known. It has not been possible to exclude person-to-person transmission through close contact in two cases in Thailand and one case in Vietnam.

Contingency plans

In EU and WHO, work is proceeding to establish a pandemic contingency plan at a national and international level.

In Denmark, the National Board of Health's proposal for a pandemic plan is being implemented, including a stock of antiviral agents and a contingency stock of antibiotics. Proposal and guidelines on prophylactic measures in humans in the event of special kinds of influenza in birds may be found on www.sst.dk.

Comments

Avian influenza A virus (H5N1) has currently not mutated to be capable of causing transmission from person to person to such an extent that it causes a pandemic. In view of the very large number of people who have been exposed to infection from poultry in Asia, only few people have become ill, but mortality has been high among younger patients. The fact that avian influenza virus causes high mortality in poultry does not necessarily mean that the same applies in humans. In addition, a new pandemic influenza virus may just as easily arise from an avian influenza virus with low mortality among poultry (low-pathogenic virus). Finally, experience shows that pandemic influenza virus does not necessarily cause anything near as much morbidity and mortality as the "Spanish flu" of 1918, which would constitute the worst case scenario. In the assessment of the outbreak in Asia and contingency plans for a new pandemic, it is important to include both current risks and risks in the most serious situation. No restrictions have been introduced for persons travelling in Asia. (S. Glismann, Dept. of Epidemiology)

INFECTIOUS DISEASES AFTER THE TIDAL WAVE (TSUNAMI) IN ASIA

The Indian Ocean tsunami of December 2004 resulted in a devastating loss of life, [table 1](#), as well as serious damage to basic infrastructure such as housing, water and sanitation systems, and health facilities. Despite of an increased risk, no major outbreaks of infectious diseases have been reported so far.

Occurrence of disease

- Indonesia: In the Aceh province of Sumatra, an outbreak of gastroenteritis due to food poisoning involving 258 cases has occurred in an internally displaced persons' camp. A few clinical samples have tested positive for *S. aureus*, however, the source of infection could not be identified.

Table 1. Tsunami-related deaths and number of missing persons, as of 22 February 2005 (WHO)

Country	Deaths	Missing
Indonesia	121,911	113,937
Sri Lanka	30,974	4,698
India	10,872	5,766
Thailand	5,395	2,991
Maldives	83	26
Myanmar	61	-
Total	169,296	127,418

An outbreak of tetanus, reportedly involving 94 cases, peaked in the second week of January 2005. It has now resolved.

There have been reports of sporadic cases of dengue fever, dysentery, typhoid fever and infection with rotavirus and hepatitis E virus. In mid-February, there were reports of a total of 29 cases of measles. Meningococcal meningitis has also been diagnosed.

- Sri Lanka: Cases of diarrhoeal disease have been identified in most relief camps.

- India: Diarrhoeal disease and cases of fever have been reported but none at outbreak level.

- Thailand: There have been reports on cases of diarrhoea, respiratory tract infections and dengue fever.

- Maldives: There have been ten cases of mumps in a relief camp.

Current situation

In the Indonesian province of Aceh, there is still a need for disaster relief. In the other disaster-affected areas the health system is being re-established with enhanced infectious diseases surveillance systems.

In India and Sri Lanka, the focus is now on extensive campaigns to improve health and hygiene conditions in relief camps. The latest health situation reports are available on www.whosea.org.

Comments

Hygiene and health systems are being rapidly strengthened across all tsunami-affected countries. However, the threat of water and vector-borne diseases remains a concern in many areas. The Indonesian province of Aceh still poses an increased risk of acquiring infectious diseases. Special recommendations for travellers such as humanitarian aid workers may be found on www.ssi.dk.

(M. Muscat, Dept. of Epidemiology)

9 March 2005

Individually notifiable diseases

Number of notifications received in the Department of Epidemiology, SSI (2005 figures are preliminary)

Table 1	Week 9 2005	Cum. 2005 ¹⁾	Cum. 2004 ¹⁾
AIDS	1	18	6
Creutzfeldt-Jakob	0	1	2
Food-borne diseases	5	55	59
of these, infected abroad	0	11	11
Gonorrhoea	7	126	58
Hepatitis A	4	26	21
of these, infected abroad	3	7	4
Hepatitis B (acute)	1	11	4
Hepatitis B (chronic)	4	23	36
Hepatitis C (acute)	0	1	0
Hepatitis C (chronic)	2	51	79
HIV	7	59	52
Legionella pneumonia	1	15	16
of these, infected abroad	0	2	2
Leptospirosis	0	5	1
Meningococcal disease	0	14	25
of these, group B	0	10	16
of these, group C	0	1	3
of these, unspec. + other	0	3	6
Mumps	1	2	0
Neuroborreliosis	2	14	43
Ornithosis	2	4	2
Pertussis (children < 2 years)	5	54	42
Purulent meningitis			
Haemophilus influenzae	0	0	0
Listeria monocytogenes	0	0	1
Streptococcus pneumoniae	0	13	24
Other aethiology	0	0	1
Unknown aethiology	0	0	3
Under registration	2	25	-
Shigellosis	1	20	15
of these, infected abroad	1	19	13
Syphilis	0	13	29
Tuberculosis	8	77	57
Typhoid/paratyphoid fever	1	4	4
of these, infected abroad	0	2	3
VTEC/HUS	5	23	25
of these, infected abroad	1	12	4

Selected laboratory diagnosed infections

Number of specimens, isolates, and/or notifications received at Statens Serum Institut

Table 2	Week 9 2005	Cum. 2005 ²⁾	Cum. 2004 ²⁾
Bordetella pertussis (all ages)	10	155	149
Gonococci	11	83	49
of these, females	1	10	11
of these, males	10	73	38
Listeria monocytogenes	1	7	5
Mycoplasma pneumoniae			
Resp. specimens 3)	14	472	36
Serum specimens 4)	28	326	90
Streptococci 5)	4	29	28
Group A streptococci	3	9	12
Group C streptococci	1	5	5
Group G streptococci	5	30	11
S. pneumoniae	36	272	333
Table 3	Week 7 2005	Cum. 2005 ²⁾	Cum. 2004 ²⁾
Pathogenic int. bacteria 6)			
Campylobacter	31	319	307
S. Enteritidis	4	36	40
S. Typhimurium	8	54	40
Other zoon. salmonella	7	49	60
Yersinia enterocolitica	2	32	23

Table 1, notes

In 2005, none of the following cases have been reported: Anthrax, botulism, cholera, diphtheria, haemorrhagic fever, leprosy, measles, plague, polio, rabies, rubella, tetanus, typhus.

1) Cumulative no. 2005 and corresponding period 2004

Tables 2 & 3, notes

2) Cumulative no. 2005 and corresponding period 2004

3) Respiratory specimens with positive PCR

4) Serum specimens with pos. complement fixation test, MPT

5) Isolated in blood or spinal fluid

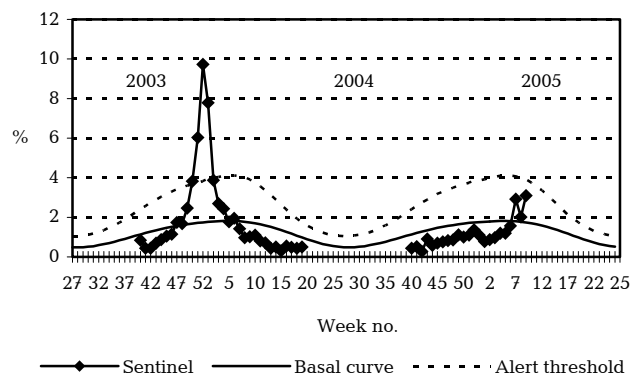
6) See also www.germ.dk

Mycoplasma pneumoniae epidemic to a close

The Mycoplasma pneumoniae epidemic in autumn/winter 2004, EPI-NEWS 51/04, is coming to a close. In the weeks 5-8, the average percentage of positive PCR specimens was <10, and the trend is now distinctly decreasing. There were thus only 4.3% positive PCR specimens in week 9. A corresponding decrease in the percentage of blood specimens positive for M. pneumoniae antibody (MPT) has not yet been demonstrated. (S. Uldum, Dept. of Bacteriology, Mycology and Parasitology)

Sentinel surveillance of the influenza activity

Weekly percentage of consultations, 2003/2004/2005



Sentinel: Influenza consultations (as percentage of total consultations)

Basal curve: Expected frequency of consultations under non-epidemic conditions

Alert threshold: Possible incipient epidemic