EPI-NEWS **NATIONAL SURVEILLANCE OF COMMUNICABLE DISEASES**
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ISSN: 1396-4798

RABIES PROPHYLAXIS AND ANIMAL EXAMINATIONS, 1999

No. 13, 2000

Prophylaxis after exposure
In 1999 a total of 76 persons were given prophylactic treatment for rabies after being bitten by animals. 60 of these had treatment started or completed after exposure abroad. 43 were given human rabies immunoglobulin in addition to vaccination. Table 1 shows the geographical regions in which the suspected rabies exposures took place. 23 persons were treated after exposure in Thailand, 12 of these having been bitten by dogs, 8 by monkeys and 3 by cats. Thus Thailand remains the part of the world in which most residents of Denmark are exposed.

Table 1. Persons given rabies prophylaxis after exposure, by geographical region, 1999

Country	No.
Denmark	16
Rest of Europe	12
Asia	36
South America	5
Africa	7
Total	76

Table 2 shows the type of animal giving rise to exposure.

Table 2. Persons given rabies prophylaxis after exposure, by type of animal, 1999

Type	Denmark	Abroad
Dog	-	39
Bat	12	-
Monkey	-	11
Fox	2	-
Cat	2	6
Other	-	4
Total	16	60

Dog bites constituted the commonest reason for treatment. Of the 16 persons treated after exposure in Denmark, two had treatment stopped; in one case because the animal was subsequently found negative for rabies virus, in the other after a re-evaluation of the risk of infection.

Human rabies
The WHO World Surveillance of Rabies report estimates that between 35,000 and 50,000 people died of rabies in 1997. 200 deaths from rabies were reported from Africa, and 144 human rabies cases were reported from America in 1997. The highest incidence was seen in Asia, with 33,000 reported deaths, most of these in India. Most Asian and African cases of rabies were diagnosed exclusively from the clinical features. Europe had the lowest incidence with 13 deaths, 10 of these in Russia, with one imported case in France and two in Lithuania. During the first three quarters of 1999, four deaths from rabies were reported in Europe, all from Russia.
(A.H. Christiansen, Dept. of Epid.)

Examination of animals
In 1997 and 1998 a relatively high rate of infection of bats with the European Bat Lyssavirus (EBL) was found in Denmark. EBL was also found in four sheep from three different flocks in Ringkøbing County, EPI-NEWS 35, 41/98. This rabies-like infection has previously given rise to a few isolated fatal cases in humans, but has not hitherto been seen in non-primate mammals. However, the affected sheep were also hosts to a concurrent Listeria infection. It was therefore doubtful whether EBL or Listeria was the primary cause of the neurological signs observed, or whether the two infective agents were possibly potentiating each other. To elucidate the pathogenetic properties of EBL, particularly in sheep, four sheep were experimentally infected with the original EBL-infected brain tissue or with cell culture propagated virus replicated from the same source.
The sheep were after an observation period chemically immune suppressed and two of the sheep were later on also co-infected with a bacterial culture of Listeria. These procedures did not give rise to clinical signs during the succeeding six-month period, despite the fact that EBL infection of the individual animals could be demonstrated serologically. No virus could be demonstrated in the brains of these animals. In order to elucidate the specificity of the currently used, recommended method of verifying rabies infection by means of impressions taken from different brain regions, a new test performance was designed. This test, which uses positive and negative antiserum to EBL from the same donor, was then applied to the suspect material from 1998 and 1999. In addition, several other ruminants were examined as part of an extended surveillance undertaken during 1999. However, using this technique, no EBL infection, except from the four cases in sheep, could be demonstrated in any of the animals with neurological symptoms that were examined, Table 3, whereas one third of these were hosts to Listeria bacteria (16 cattle/10 sheep/4 goats). It is therefore concluded that EBL does not appear to present a potential impending danger to the ruminant population. At the same time, the number of EBL infections in the bat population has also declined considerably during this period. Positive cases are now making up only about 10% of the specimens sent in, as against 35% and 22% in 1997 and 1998, respectively (EPI-NEWS 22/99).
(L. Rønsholt, Danish Veterinary Institute for Viral Research)

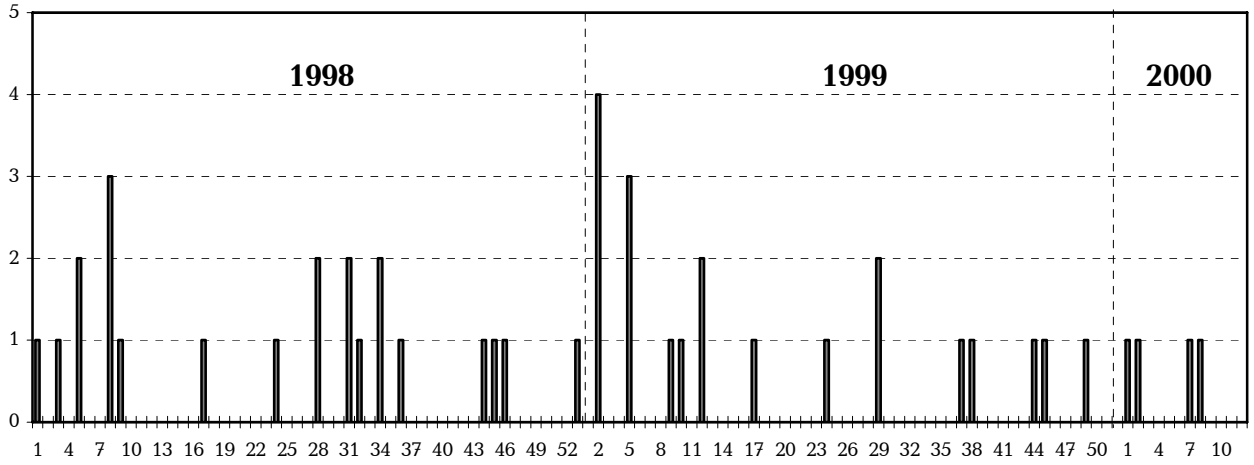
Table 3. Animals examined for rabies during 1999

	Denmark	Greenland
Type	No./pos.	No./pos.
Fox	2/0	10/8
Dog	3/0	22/2 #
Cat	14/0	0/0
Rabbit	2/0	0/0
Cattle	43/0	0/0
Sheep	40/0	3/3
Goat	10/0	-
Bat	88/9 *	-
Bat (in zoo)	21/0	-
Total	223/9	35/13

Of these 14 with particular signs of distemper
* Infected with European Bat Lyssavirus (EBL-1a)

YELLOW FEVER IN BRAZIL
Brazilian authorities have reported via ProMed that a clinically and serologically confirmed case of yellow fever has been found for the first time in nearly 50 years in an unvaccinated person from the northern part of the State of São Paolo, normally regarded by the WHO as a yellow fever-free area. In the previously reported outbreak of yellow fever around the capital city of Brasilia in Goiás State, EPI-NEWS 4/00, there have now been 29 confirmed cases, including eight deaths. A further 57 cases are suspected. All travellers to Brazil are still recommended to be vaccinated against yellow fever.
(P. Andersen, Dept. of Epidemiology)

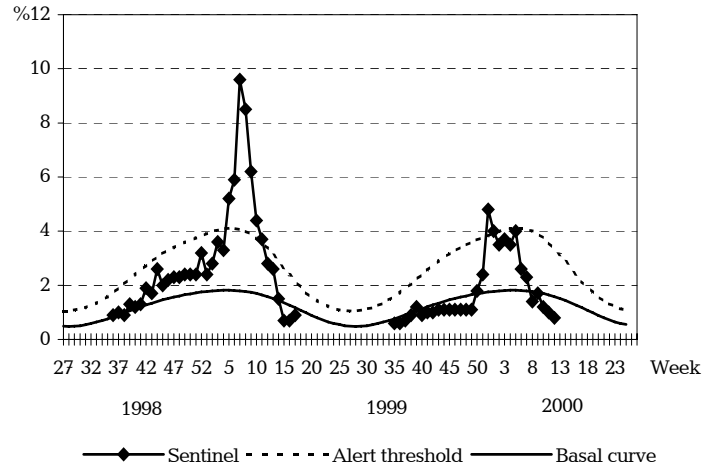
Notified cases of mumps per week, 1998 - 29.03.2000



(Dept. of Epidemiology)

Sentinel surveillance of influenza activity

Weekly percentage of consultations, 1998/1999/2000



Sentinel: Influenza consultations as % of total consultations

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

Alert threshold: Possible incipient epidemic

(Dept. of Epidemiology)