EPI-NEWS

NATIONAL SURVEILLANCE OF COMMUNICABLE DISEASES

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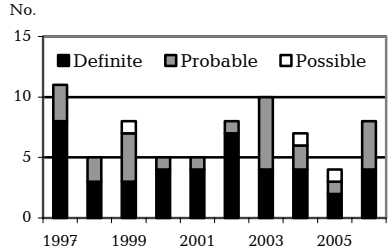
CREUTZFELDT-JAKOB DISEASE (CJD) – 10 YEARS SURVEILLANCE

No. 11, 2007

Mandatory notification of Creutzfeldt-Jakob Disease (CJD) was introduced in Denmark in 1997 following the discovery of a novel CJD variant (vCJD) in Great Britain, EPI-NEWS 10/97. vCJD is thought to be the human form of bovine spongiform encephalopathy (BSE). Concern was raised that other types of prion diseases, e.g. scrapie in sheep, might also be transmissible to humans. Thus, the objective of the surveillance was not simply to monitor the number of CJD cases, but also to trace any modifications in the clinical picture, which could indicate new modes of transmission.
A national expert committee meets annually to review and classify all cases according to the four joint European categories of diagnostic certainty: definite, probable, possible, or not CJD. The category definite CJD requires detection of prion protein at brain autopsy. It is therefore essential to perform autopsies on patients suspected of having CJD. Furthermore, cases are classified on the basis of symptoms at onset.

Notified cases
In 1997-2006, a total of 68 cases of definite or probable CJD were notified. This number is in line with the expected incidence of one case per one million inhabitants per year, Figure 1. The account is based on patients' year of death.
The majority of notified cases were 60 years or older, Table 1.

Figure 1. CJD cases by year of death and diagnosis category, 1997-2006



The most frequent (84%) onset symptom was rapidly progressive dementia. To date, no cases of vCJD, familial or iatrogenic CJD have been notified in Denmark.

Commentary
Any physician treating a patient with suspected CJD must notify the case on form 1515.
On receipt of the form, the Department of Epidemiology sends a special CJD questionnaire to the physician to obtain information about the clinical disease course and results of EEG, MR and specialized biochemical/genetic tests. The questionnaire is equivalent to that used in other European countries.
The questionnaire may also be downloaded from the SSI home page and sent to the Department of Epidemiology along with form 1515. To enhance surveillance, the Department of Epidemiology sends a reminder concerning notification on suspicion of CJD to physicians who have received a positive test result to a protein 14-3-3 test from the SSI marker laboratory.
The Department of Epidemiology welcomes any notifications of previously un-notified cases.
(G. Falkenhorst, S. Cowan, Department of Epidemiology)

Table 1. CJD cases by age and sex, 1997-2006

Age (yrs)	Males	Females	Total
40-49	4	2	6
50-59	5	7	12
60-69	12	13	25
70-79	14	9	23
80+	2	0	2
Total	37	31	68

PNEUMOCOCCAL VACCINATION OF AT-RISK CHILDREN
Until such time at which pneumococcal vaccination is included in the childhood vaccination programme, it is essential that children below the age of 2 years with increased risk of invasive pneumococcal disease (IPD) be offered the 7-valent conjugated pneumococcal vaccine, EPI-NEWS 11/01.
According to the guidelines of the Danish Paediatric Society, the pneumococcal vaccine should always be administered to children with:
- anatomic or functional asplenia.

Following individual assessment, pneumococcal vaccination should furthermore be considered for children with:
- cochlea implants
- cerebrospinal fluid leakage
- history of IPD
- cyanotic heart disease
- manifest or treated cardiac insufficiency
- palliative heart disease surgery even if neither manifest cyanotic nor cardiac insufficient
- haemodynamically significant residua following heart disease surgery
- chronic lung disease such as cystic fibrosis, cilial dysfunction and bronchiectasias
- hypodynamic respiratory insufficiency
- nephrotic syndrome
- immunodeficiencies, excluding agammaglobulinaemia and SCID
- severe immunosuppression
- organ transplant, including cases where such surgery is planned
- HIV-infected children.

Vaccination schedule
The conjugated pneumococcal vaccine Prevenar® is currently registered as a 4-dose vaccination schedule. However, recent studies have demonstrated that the protection after three doses is sufficient. Norway, along with other countries, has introduced the vaccine into their childhood vaccination programme as a 3-dose schedule. In Denmark, the National Board of Health's vaccination committee has recommended that the vaccination be given as a 3-dose schedule concurrently with the other vaccines (DTaP-IPV/Act-Hib) at the age of 3, 5 and 12 months, but with separate injection sites. The conjugated pneumococcal vaccine may also be given concurrently with the MMR vaccine, but with separate injection sites.

At-risk children under two years:
Age < 1 year: Three doses are given at the age of 3, 5 and 12 months. If the child does not follow these vaccination times, the initial dose may be given at the age of two months, at the earliest. The minimum interval between the first and second dose is one month. The third dose is given when the child is at least 12 months old; the minimum interval between the second and third dose is two months.
Age 12-23 months: Two doses are given at a minimum interval of two months.

At-risk children above two years:
As recommended previously, this group should also be given the 23-valent polysaccharide vaccine.
At-risk children are eligible for subsidies for the out-patient pneumococcal vaccine expenses by application for ad-hoc subsidy.
The expenses derived from vaccination of non-risk children must presently be covered by the parents.
(P.H. Andersen, Dept. of Epidemiology, B. Høgh, Hvidovre Hospital)

14 March 2007

Individually notifiable diseases

Number of notifications received in the Department of Epidemiology, SSI (2007 figures are preliminary)

Table 1	Week 10 2007	Cum. 2007 [1]	Cum. 2006 [1]
AIDS	0	8	10
Anthrax	0	0	0
Botulism	0	0	0
Cholera	0	0	0
Creutzfeldt-Jakob	0	7	4
Diphtheria	0	0	0
Food-borne diseases	9	114	80
of these, infected abroad	4	16	19
Gonorrhoea	5	78	82
Haemorrhagic fever	0	0	0
Hepatitis A	0	9	3
of these, infected abroad	0	3	0
Hepatitis B (acute)	0	5	4
Hepatitis B (chronic)	4	48	92
Hepatitis C (acute)	0	1	1
Hepatitis C (chronic)	3	65	123
HIV	7	55	41
Legionella pneumonia	4	23	15
of these, infected abroad	0	1	2
Leprosy	0	0	0
Leptospirosis	0	4	3
Measles	0	0	7
Meningococcal disease	0	5	22
of these, group B	0	0	12
of these, group C	0	4	2
of these, unspec. + other	0	1	8
Mumps	1	4	8
Neuroborreliosis	0	20	11
Ornithosis	1	1	4
Pertussis (children < 2 years)	1	18	15
Plague	0	0	0
Polio	0	0	0
Purulent meningitis			
Haemophilus influenzae	0	0	1
Listeria monocytogenes	0	2	3
Streptococcus pneumoniae	0	13	17
Other aethiology	0	1	1
Unknown aethiology	0	0	5
Under registration	5	19	-
Rabies	0	0	0
Rubella (congenital)	0	0	0
Rubella (during pregnancy)	0	0	0
Shigellosis	3	11	17
of these, infected abroad	0	5	15
Syphilis	2	22	16
Tetanus	0	0	0
Tuberculosis	5	73	67
Typhoid/paratyphoid fever	0	1	7
of these, infected abroad	0	1	7
Typhus exanthematicus	0	0	0
VTEC/HUS	10	29	21
of these, infected abroad	0	6	7

[1] *Cumulative number 2007 and in corresponding period 2006*

Selected laboratory diagnosed infections

Number of specimens, isolates, and/or notifications received in SSI laboratories

Table 2	Week 10 2007	Cum. 2007 [2]	Cum. 2006 [2]
Bordetella pertussis (all ages)	2	32	57
Gonococci	1	68	79
of these, females	0	10	15
of these, males	1	58	64
Listeria monocytogenes	1	13	5
Mycoplasma pneumoniae			
Resp. specimens [3]	5	183	179
Serum specimens [4]	18	183	127
Streptococci [5]			
Group A streptococci	4	31	34
Group B streptococci	3	18	21
Group C streptococci	1	2	6
Group G streptococci	1	24	24
S. pneumoniae	33	286	294
Table 3	**Week 8 2007**	**Cum. 2007 [2]**	**Cum. 2006 [2]**
Pathogenic int. bacteria [6]			
Campylobacter	35	354	275
S. Enteritidis	1	31	47
S. Typhimurium	11	35	48
Other zoon. salmonella	13	87	76
Yersinia enterocolitica	4	41	25
Verocytotoxin-producing E. coli	11	29	12
Enteropathogenic E. coli	3	35	39
Enterotoxigenic E. coli	1	19	28

[2] *Cumulative number 2006 and in corresponding period 2005*

[3] *Resp. specimens with positive PCR*

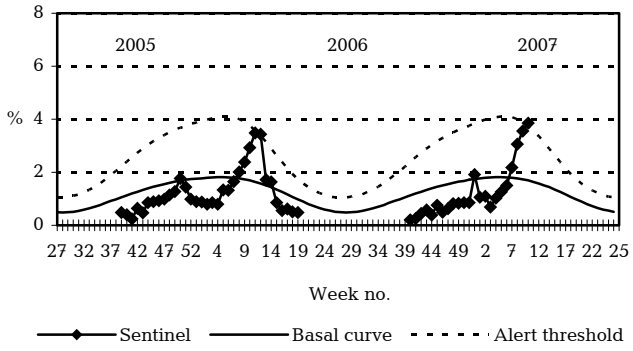
[4] *Serum specimens with pos. complement fixation test*

[5] *Isolated in blood or spinal fluid*

[6] *See also www.germ.dk*

Sentinel surveillance of the influenza activity

Weekly percentage of consultations, 2005/2006/2007



Sentinel:	Influenza consultations (as percentage of total consultations)
Basal curve:	Expected frequency of consultations under non-epidemic conditions
Alert threshold:	Possible incipient epidemic

14 March 2007