



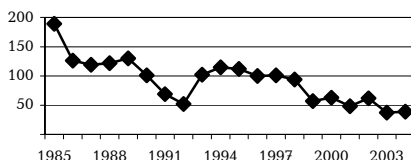
ACUTE AND CHRONIC HEPATITIS B 1985-2004

No. 4, 2005

ACUTE HEPATITIS B INFECTION

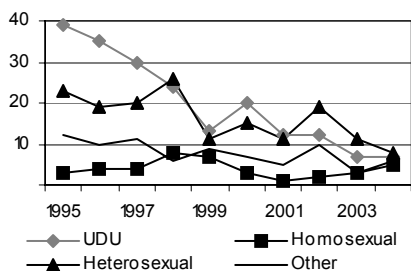
In the past 20 years, a total of 1,838 cases of acute hepatitis B virus (HBV) infection have been notified, including 1,700 (92%) cases in persons born in Denmark, [figure 1](#).

Figure 1. Notified cases of acute HBV infection, 1985-2004



In the period 1985-1989, there was an annual average of 137 notified cases, as against 50 cases in the past five years. For 1,069 notifications (58%) with stated mode of infection, IDU and sexual transmission were the most commonly stated in the last 10 years, [figure 2](#).

Figure 2. Acute HBV infection, by stated mode of infection, 1995-2004



The group with unknown mode of transmission did not differ from those with known mode of transmission as regards sex, age distribution and immigrant status.

Intravenous drug use (IDU)

Among the notified cases, 98% of the IDUs were born in Denmark. The number has been declining for more than 10 years; from 39 in 1995 to 7 in 2004.

Sexual transmission

A total of 94 cases were transmitted by homosexual contact and 281 cases by heterosexual contact. The annual figure has been declining since 1998, when 8 and 26 cases, respectively, were notified. In 2004, five and nine cases, respectively, were notified.

Close social contact

Since 1985, a total of 70 notified cases had social contact as the most likely mode of infection. Of these, 20 were under 15 years of age at the time of notification. Of these, ten were born in Denmark, including six who were presumed infected in institutions. The most recently notified case in a Danish-born child infected by close social contact was in 1999. Among notified cases over the age of

14, 48 were born in Denmark. Of these, ten were presumed infected at work, one was a child-minder and the rest were employed in institutions.

Needle-stick injuries at work

Since 1985, a total of 18 notified cases of acute HBV infection have been ascribed to needle-stick injuries at work. Apart from one case in a waster handler and two cases among staff in restaurants, all were employed in the hospital system. No cases after needle-stick injuries have been notified since 1998.

Mother-to-child transmission

In the period 1985-2004, a total of seven notified cases of acute HBV infection were thought to have been caused by transmission from mother to a newborn child. One of the children was infected in Denmark.

Nosocomial infection

In a total of 25 notified cases, transfusion, operation or other exposure in hospital were presumed modes of transmission. A total of 17 cases were infected in Denmark. The only notifications since 1999 were in connection with an outbreak in a children's ward in 2002, where seven children were infected. All seven were later notified with chronic HBV infection, EPI-NEWS 40/03.

Tattooing, piercing, etc.

A total of 22 cases were notified on this basis; of these, ten infected in Denmark.

Danes infected abroad

Since 1992, when the Department of Epidemiology began to keep records of country of infection, there have been 100 (11%) notified cases of Danes presumed to have been infected abroad. The annual figure has been constant, on average eight cases per year.

CHRONIC HEPATITIS B INFECTION

Chronic HBV infection has been notifiable since 2000. Of the total of 636 notified persons in the period 2000-2004, 115 (18%) were Danish-born, [table 1](#). The range in the annual number of notified cases was 161 (2001) to 91 (2004).

Mode of transmission

A total of 229 (36%) were notified as mother-to-child transmission, including 226 (99%) immigrants. Of these, 154 (68%) were adults who were presumed infected at birth in the home country. The other immigrants and two of the cases born in Denmark were under the age of 15 at the

Table 1. Notified cases of chronic HBV infection, 2000-2004

Mode of infection	Danish-born		Immigrants	
	No.	(%)	No.	%
IDU	42	(37)	3	(<1)
Homosex	5	(4)	3	(<1)
Heterosex	17	(15)	8	(2)
Mother-child	3	(3)	226	(43)
Other	14	(12)	8	(2)
Unknown	34	(29)	273	(53)
Total	112	(100)	521	(100)

time of notification. Two of the cases born in Denmark and 13 of the 72 immigrant children were presumed infected in Denmark. Among IDUs, 93% were born in Denmark; IDU being the most common mode of transmission among cases born in Denmark. Where mode of transmission was stated, sexual transmission constituted 27% in those born in Denmark and 4% in immigrants. A total of seven notified cases were presumed to be caused by close social contact, including two children and four adults infected in institutions in Denmark. Apart from the seven previously described cases of nosocomial infection, five other cases were notified, including one infected in Denmark. The presumed mode of infection was blood transfusion in the 1960s. A total of 16 Danes were presumed to have been infected abroad.

Comments

The incidence of acute HBV infection in Denmark is declining and low. IDU and sexual transmission have been the most commonly stated modes of infection.

The annual number of notified chronic HBV cases has been constant. Most cases with stated mode of infection were due to mother-to-child infection in immigrants. Of these, the majority were notified in adulthood, and they were probably infected at birth in the home country. Many of the cases with unknown mode of transmission are probably due to the same mode of transmission. The incidence of chronic HBV infection in immigrants has not led to an increased number of notifications in persons born in Denmark. Similarly, travel activity among Danes does not seem to have increased the incidence of HBV infection. HBV infection is not always acknowledged, and not all known cases are notified. However, the degree of reporting is hardly likely to be declining, and the recorded decline in acute HBV infection is thought to be real.

(S. Cowan, Dept. of Epidemiology)

26 January 2004

Individually notifiable diseases

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

Table 1	Week 3 2005	Cum. 2005 ¹⁾	Cum. 2004 ¹⁾
AIDS	1	4	3
Anthrax	0	0	0
Botulism	0	0	0
Cholera	0	0	0
Creutzfeldt-Jakob	0	0	0
Diphtheria	0	0	0
Food-borne diseases	4	17	16
of these, infected abroad	0	5	3
Gonorrhoea	5	19	28
Haemorrhagic fever	0	0	0
Hepatitis A	2	8	2
of these, infected abroad	0	1	0
Hepatitis B (acute)	1	3	2
Hepatitis B (chronic)	2	5	14
Hepatitis C (acute)	0	1	0
Hepatitis C (chronic)	1	8	20
HIV	5	17	15
Legionella pneumonia	3	8	12
of these, infected abroad	1	2	1
Leprosy	0	0	0
Leptospirosis	0	1	1
Measles	0	0	0
Meningococcal disease	1	2	9
of these, group B	1	2	7
of these, group C	0	0	0
of these, unspec. + other	0	0	2
Mumps	0	0	0
Neuroborreliosis	1	8	9
Ornithosis	0	1	1
Pertussis (children < 2 years)	7	18	18
Plague	0	0	0
Polio	0	0	0
Purulent meningitis			
Haemophilus influenzae	0	0	0
Listeria monocytogenes	0	0	0
Streptococcus pneumoniae	1	2	9
Other aethiology	0	0	0
Unknown aethiology	0	0	1
Under registration	8	16	-
Rabies	0	0	0
Rubella (congenital)	0	0	0
Rubella (during pregnancy)	0	0	0
Shigellosis	1	4	6
of these, infected abroad	1	3	6
Syphilis	0	3	15
Tetanus	0	0	0
Tuberculosis	5	20	18
Typhoid/paratyphoid fever	0	3	2
of these, infected abroad	0	2	1
Typhus	0	0	0
VTEC/HUS	3	9	9
of these, infected abroad	1	3	2

¹⁾ Cumulative number 2005 and in corresponding period 2004

Selected laboratory diagnosed infections

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

Table 2	Week 3 2005	Cum. 2005 ²⁾	Cum. 2004 ²⁾
Bordetella pertussis (all ages)	32	64	57
Gonococci	10	29	6
of these, females	0	1	2
of these, males	10	28	4
Listeria monocytogenes	0	3	1
Mycoplasma pneumoniae			
Resp. specimens ³⁾	70	239	11
Serum specimens ⁴⁾	47	109	25
Streptococci ⁵⁾			
Group A streptococci	1	7	13
Group C streptococci	0	0	1
Group G streptococci	1	9	3
S. pneumoniae	28	108	131

Table 3	Week 1 2005	Cum. 2005 ²⁾	Cum. 2004 ²⁾
Pathogenic int. bacteria ⁶⁾			
Campylobacter	54	54	14
S. Enteritidis	7	7	5
S. Typhimurium	9	9	7
Other zoon. salmonella	9	9	7
Yersinia enterocolitica	6	6	1

²⁾ Cumulative number 2005 and corresponding period 2004

³⁾ Resp. specimens with positive PCR

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

⁵⁾ Isolated in blood or spinal fluid

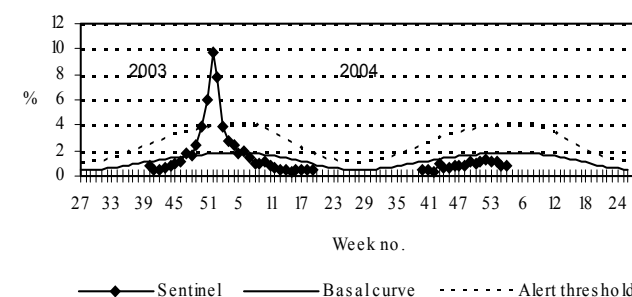
⁶⁾ See also www.germ.dk

Additional comment:

From this issue and onwards, the weekly numbers for pathogenic intestinal bacteria will be based on the date of sample receipt in the respective laboratories. The report will thus be more accurate, and comparison with previous years will be made possible.

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

26 January 2005