



## CHRONIC HEPATITIS B 2000-2001

No. 34, 2002

Chronic hepatitis B virus (HBV) infection has been notifiable since 1 May 2000. Of notified patients with chronic HBV to date, 230 were diagnosed in the period 1 May 2000 to 31 December 2001. Notified cases diagnosed before 1 May 2000 are not included. A total of 124 (54%) were male and 106 (46%) were female. The median age for males was 30 years (range: 1-74 years), and for females 27 years (range 0-76 years). Among males, 29 (23%) were under the age of 15, while 31 (25%) were aged 25-34 years. Among females, 19 (18%) were under the age of 15, while 44 (42%) were aged 25-34 years, [Table 1](#).

**Table 1. Number of notified cases diagnosed with chronic HBV 2000-2001, by age and gender**

Age (yrs)	2000		2001	
	M	F	M	F
0-14	11	3	18	16
15-19	2	3	4	4
20-24	6	8	9	9
25-29	0	10	11	16
30-34	4	10	16	8
35-39	4	2	8	4
40-44	5	1	9	2
45-49	2	0	5	3
50+	8	4	2	3
Total	42	41	82	65

A total of 29 (13%) patients had been diagnosed with both chronic HBV and HCV, all of them IV drug users. Number of patients diagnosed per 10<sup>5</sup> per annum is shown in [Table 2](#).

**Table 2. Number of notified cases diagnosed with chronic HBV and rate per 10<sup>5</sup> 2000-2001, by county**

County	No.		Per 10 <sup>5</sup> p.a.	
	2000	2001	2000	2001
Cph. Municip.	18	25	5.4	5.0
Frb. Municip.	1	4	1.7	4.4
Copenhagen	14	19	3.4	3.1
Frederiksborg	1	8	0.4	2.2
Roskilde	7	5	4.5	2.1
West Zealand	6	4	3.0	1.3
Storstrøm	3	5	1.7	1.9
Bornholm	0	1	0.0	2.3
Funen	6	16	1.9	3.4
South Jutland	3	6	1.8	2.4
Ribe	1	10	0.7	4.5
Vejle	6	11	2.6	3.2
Ringkøbing	2	2	1.1	0.7
Aarhus	9	7	2.1	1.1
Viborg	2	5	1.3	2.1
North Jutland	2	16	0.6	3.1
Unknown	2	3	-	-
Total	83	147	2.3	2.7

**Table 3. Number of notified cases diagnosed with chronic HBV 2000-2001 in Danish-born and immigrants, by mode of infection. Percentage in ( )**

Mode of infection	Danish-born		Immigrants		Total	
	2000	2001	2000	2001	2000	2001
Mother to new-born	1 (6)	0 (0)	24 (36)	53 (46)	25 (30)	53 (36)
I.v. drug use	8 (47)	24 (77)	0 (0)	2 (2)	8 (10)	26 (18)
Heterosexually	0 (0)	2 (6)	1 (2)	2 (2)	1 (1)	4 (3)
Nosocomially	1 (6)	1 (3)	2 (3)	0 (0)	3 (4)	1 (1)
Homosexually	0 (0)	2 (6)	0 (0)	1 (1)	0 (0)	3 (2)
Close social contact	1 (6)	1 (3)	0 (0)	0 (0)	1 (1)	1 (1)
Tattooing	0 (0)	0 (0)	1 (2)	0 (0)	1 (1)	0 (0)
Unknown	6 (35)	1 (3)	38 (58)	58 (50)	44 (53)	59 (40)
Total	17 (100)	31 (100)	66 (100)	116 (100)	83 (100)	147 (100)

The rate for the eight months in 2000 has been extrapolated to 12 months. For both years, the rate was highest in the Municipality of Copenhagen.

### Nationality

A total of 48 (21%) patients were Danish-born, and 182 (79%) were immigrants, [Table 3](#). Of those born in Denmark, 41 (85%) were male and seven (15%) were women. Among immigrants, 83 (46%) were male and 99 (54%) female. Most, 81 (45%), immigrants came from Asia. A total of 45 (25%) immigrants came from Africa, while 44 (24%) came from Europe. Four came from the Middle East, five from Greenland, and in three cases country of origin was other/not stated.

### Transmission

IV drug use was the most common mode of infection among those born in Denmark, 67%, [Table 3](#), whereas amongst immigrants, mother-to-child transmission predominated, 42%. One immigrant was thought to have been infected by tattooing. Among the nosocomially infected, one Danish patient was thought to having been infected by multiple blood transfusions around 1970, two immigrants by blood transfusion in Kosovo in 1997 and India in 1998, respectively. One more Danish child was infected nosocomially. This child is part of a major outbreak starting in the year 2000. The outbreak is still being investigated and will be described in a later edition. In relation to chronic carriers, several minor clusters of acute HBV have been registered, particularly among immigrant families.

### Infection in children

A total of 48 (21%) patients with chronic HBV were children under the age of 15. Of these, 29 (60%) were boys and 19 (40%) girls. A total of 14 children were aged 0-4 years, 22

were aged 5-9, and 12 were aged 10-14. Two children were Danish-born. The other 46 were immigrants, of whom 11 children came from Europe, 14 from Africa, 20 from Asia and one from the Middle East. In the case of 34 (71%) children, the mode of infection was from mother to new-born, all immigrants, of whom at least four were born in Denmark. Close social contact was stated for one (2%), nosocomial for two (4%) and unknown for a total of 11 (23%) children. Eighteen (38%) children were adopted, while seven adults were stated to have been adopted as children. Asia was the continent of origin for 16, and Eastern Europe for nine of them.

### Comments

HBV infects primarily from mother to child during pregnancy and birth, by unprotected sex and by the use of unclean syringes/needles. By far the highest number of people in the world with chronic HBV are infected perinatally and therefore come from countries where the prevalence of HBsAg is >8%. The most important prophylactic measure is to be aware of the pregnant woman's HBV infection before the birth, so that the child is vaccinated immediately after birth. This reduces the risk of chronic infection from approx. 90% to a few percent. In November 2001, a facility was introduced for free HBV vaccination of children < 2 years born to mothers with chronic HBV. Whether immigration from high-endemic areas has changed the incidence of chronic HBV infection in Denmark, is uncertain. A future Health Technology Assessment report will shed light on the advantages and disadvantages of the introduction of hepatitis B vaccination in the Danish childhood vaccination programme. (A. Lemcke, E. Smith, Department of Epidemiology)

## Patients with positive cultures of pathogenic intestinal bacteria, March-April 2002

County	<u>Campylobacter</u>		<u>Yersinia ent.</u>		<u>S. typhimurium</u>		<u>S. enteritidis</u>		Other zoon. <u>Salmonella spp.</u>	
	March	April	March	April	March	April	March	April	March	April
Copenhagen Municip.	26	34	5	-	2	2	4	6	8	3
Frederiksberg Municip.	3	2	-	-	-	-	-	-	-	-
Copenhagen	30	31	6	6	1	1	7	5	2	4
Frederiksborg	22	22	3	1	-	3	5	6	1	3
Roskilde	12	10	-	1	2	-	6	-	1	2
West Zealand	5	6	2	-	3	-	1	3	2	1
Storstrøm	11	6	-	2	2	2	2	2	4	5
Bornholm	2	1	-	-	-	-	2	2	-	1
Funen	25	14	3	2	7	3	6	4	5	2
South Jutland	9	11	-	1	1	-	3	3	3	1
Ribe	11	9	1	2	1	1	4	1	1	3
Vejle	21	19	1	-	-	-	9	3	2	-
Ringkøbing	11	12	1	1	2	2	3	2	-	3
Aarhus	17	25	1	-	4	-	6	6	5	2
Viborg	12	1	-	-	1	-	8	-	3	-
North Jutland	20	9	1	1	2	3	3	2	3	2
DK March-April 2002	237	212	24	17	28	17	69	45	40	32
DK March-April 2001	211	187	23	12	26	23	71	68	66	74

(Dept. of G-I Infections)

## Patients with confirmed *Listeria monocytogenes* infection

2nd quarter 2002 compared with 2nd quarter 2001 and 2001, whole year

	2nd quarter 2002	2nd quarter 2001	Whole year 2001
Mother/child infection	-	1	3
Septicaemia	4	8	25
Meningitis	1	5	10
Other	1 *	-	-
Total	6	14	38

\* Peritonitis

(Dept. of G-I Infections / Dept. of Clin. Microbiology)