

CHRONIC HEPATITIS B 2002

No. 41, 2003

In 2002, 120 cases were notified with chronic hepatitis B virus (HBV) infection, 50 (42%) males and 70 (58%) females. The median age for males was 32 years (1-75 years) and for females 24 years (0-87 years), [table 1](#).

Table 1. Notified cases of chronic HBV 2002, by age and gender

Age (yrs)	M	F	Total
0-9	9	5	14
10-19	5	10	15
20-29	7	24	31
30-39	11	24	35
40-49	11	2	13
50-59	5	3	8
60+	2	2	4
Total	50	70	120

Of the 120 cases, three had been diagnosed with both chronic hepatitis B and C, and all three were or had been IV drug users.

The number of notified cases per 10⁵ population varied from county to county and from year to year, [table 2](#).

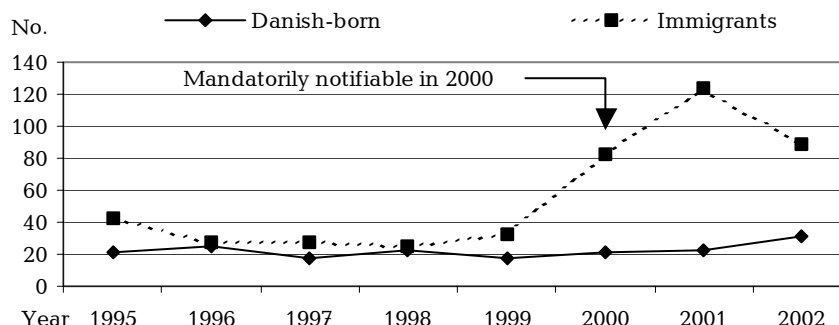
Table 2. Notified cases of chronic HBV 2002 and incidence per 10⁵ 2001 and 2002, by county

County	No. 2002	Per 10 ⁵ p.a.	
		2002	2001
Cph. Mun.	16	3.2	5.0
Frb. Mun.	4	4.4	4.4
Copenhagen	21	3.4	3.1
Frederiksborg	17	4.6	2.2
Roskilde	3	1.3	2.1
West Zealand	2	0.7	1.3
Storstrøm	5	1.9	1.9
Bornholm	2	4.5	2.3
Funen	9	1.9	3.4
South Jutland	2	0.8	2.4
Ribe	2	0.9	4.5
Vejle	2	0.6	3.2
Ringkøbing	10	3.6	0.7
Aarhus	17	2.6	1.1
Viborg	1	0.4	2.1
North Jutland	4	0.8	3.2
Unknown	3	-	-
Total	120	2.2	2.7

Origin

Thirty-one (26%) cases were Danish-born, and 89 (74%) were immigrants, [table 3](#). Among the Danish-born cases, 19 (61%) were males and 12 (39%) females. These proportions among immigrants were 35% and 65%, respectively. Among Danish-born patients, 25 (81%) were infected with HBV in Denmark. One was infected in Africa, one in Asia, and in four cases, country of infection was unknown. Among immigrants, seven (8%) were infected in

Fig. 1. Notified cases of chronic HBV 1995-2002, Danish-born and immigrants



Denmark, country of infection was unknown in eight cases, and the rest were infected in the country of origin. Most of the immigrants (34%) came from the Middle East including Turkey, while 29% came from the rest of Asia, 25% from Africa, and 9% from Europe. In three cases, country of origin was not stated.

Transmission

In more than half of the notified cases among immigrants and a third among Danish-born patients, the route of infection was unknown. IV drug use was the most commonly stated mode of infection among Danish-born patients, whereas mother-to-child transmission was the most commonly stated mode of infection among immigrants, [table 3](#). Since 1 May 2000, when chronic HBV infection became notifiable, regardless of whether the person was diagnosed years earlier, the number of notified cases of chronic HBV infection among immigrants has been increasing. The number of Danish-born cases has not shown a corresponding increase, [figure 1](#).

Infection of children

Twenty-one (18%) of the notified cases were children between 1 and 15 years of age. Seven children (six Danish-born and one immigrant) were infected nosocomially during an outbreak on a children's ward. All seven were primarily notified with acute hepatitis B. They later became chronic carriers. Eleven children (ten immigrants and one Danish-born) were infected through mother-child contact. For three children (all immigrants), the route of infection was unknown. Seven of the 14 children of immigrants were from the Middle East including Turkey, three were from the rest of Asia, two from Eastern Europe and two from Africa.

Table 3. Notified cases of chronic HBV, Danish-born and immigrants, 2002, by mode of infection

Mode of infection	Danish-born	Immigrants	Total
Mother-child	1	37	38
IV drug use	8	1	9
Heterosexual	4	1	5
Nosocomial	6	1	7
Close social contact	2	0	2
Unknown	10	49	59
Total	31	89	120

Comments

HBV is transmitted primarily from mother to child during pregnancy and delivery, through unprotected sex or through the use of contaminated syringes and/or needles. Globally, by far the greatest number of persons with chronic HBV are infected perinatally and come from countries where the prevalence of HBsAg is high (> 8%). The most important preventive measure is thus to identify the pregnant woman's HBV status before delivery, so that the child can be vaccinated immediately after birth. In this way the child's risk of chronic illness is reduced from about 90% to a few per cent. In November 2001, free HBV vaccination was introduced to children under 2 years born to mothers with chronic HBV. The authorities are currently considering whether general screening of pregnant women for HBV infection should be introduced in stead of the selective screening currently in place. A few cases of chronic hepatitis B among Danish-born persons are still being notified and many of these are IV drug users. (S. Cowan, E. Smith, Department of Epidemiology)

Patients with selected individually notifiable diseases

Notifications received during the 3rd quarter of 2003, compared with the corresponding period in 2002

County	Tuberculosis		Meningococcal disease		Pertussis < 2 yrs		Chronic Hepatitis B		Hepatitis A		AIDS	
	2003	2002	2003	2002	2003	2002	2003	2002	2003	2002	2003	2002
Cph. Municipality	23	33	3	1	1	9	4	2	17	3	3	1
Frb. Municipality	2	-	-	-	-	1	1	1	-	-	-	-
Cph. County	24	12	1	2	2	8	1	3	3	4	-	1
Frederiksborg	2	5	1	1	1	7	7	2	-	3	-	-
Roskilde	2	1	-	-	1	6	1	-	1	-	-	1
West Zealand	4	7	2	1	2	7	-	1	-	-	-	-
Storstrøm	4	7	-	1	-	5	-	1	1	-	-	-
Bornholm	-	1	-	-	-	1	3	-	-	-	-	-
Funen	8	9	2	3	1	11	3	-	2	-	-	-
South Jutland	-	2	1	1	-	1	-	-	2	1	-	-
Ribe	1	8	-	-	-	3	1	-	-	-	-	-
Vejle	4	3	-	-	2	7	3	1	1	-	-	-
Ringkøbing	6	1	1	1	-	13	1	2	-	6	1	-
Aarhus	10	16	4	5	5	13	2	5	-	5	2	2
Viborg	5	3	1	-	-	8	2	-	-	-	-	-
North Jutland	5	6	-	1	1	4	-	-	-	-	1	-
Other	4	3	-	1	1	-	1	1	-	-	1	1
Total	104	117	16	18	17	104	30	19	27	22	8	6

Patients with other individually notifiable diseases

Notifications received during the 3rd quarter of 2003 compared with the corresponding period in 2002, DK

	3rd quarter	
	2003	2002
Creutzfeldt-Jakob disease	-	3
Foodborne diseases	241	284
Hepatitis B - acute	5	17
Hepatitis C - acute	2	1
Hepatitis C - chronic	76	50
Hib-meningitis	-	1
Legionella pneumonia	17	29
Measles	-	7
Mumps	-	-
Neuroborreliosis	28	11
Paratyphoid fever	7	10
Pneumococcal meningitis	12	8
Psittacosis (ornithosis)	4	1
Shigellosis	33	31
Typhoid fever	5	4
VTEC/HUS	61	53

(Dept. of Epidemiology)