

ACUTE AND CHRONIC HEPATITIS C 2002-2003

No. 8, 2004

ACUTE HEPATITIS C

The Department of Epidemiology received two and six notifications respectively, of patients diagnosed with acute hepatitis C virus infection (HCV) in 2002 and 2003. Of these eight patients, five were males and three females. The median age was 25 years (1-45 years). Six patients were Danish-born, one was from Russia and one from Africa. For the six patients with known mode of transmission, IV drug use was specified for three. For one, transmission from mother to child was specified, for one heterosexual contact and for one blood transfusion abroad. For two of the patients, the mode of transmission was unknown.

CHRONIC HEPATITIS C

In 2002 and 2003, 267 and 202 cases of chronic hepatitis C virus infection, were notified. In both years, 68% of the patients were males, [table 1](#).

Table 1. Number of notified cases diagnosed with chronic HCV 2002-2003, by gender and age

Age (yrs)	2002		2003	
	M	F	M	F
15-19	2	1	0	1
20-24	10	6	2	2
25-29	25	15	13	4
30-34	43	11	20	12
35-39	35	10	28	11
40-44	24	18	26	8
45-49	23	12	17	14
50+	19	13	31	13
Total	181	86	137	65

The median age for males was 36 years (17-69) in 2002 and 40 years (23-75) in 2003. For females, the median age was 40 years (19-73) in 2002 and 42 years (19-81) in 2003. Distribution by county of residence is shown in [table 2](#). During the two years, 10 cases were notified with both chronic HCV and acute or chronic hepatitis B virus infection. Nine of these were infected through IV drug use, and one through heterosexual contact.

Nationality

A total of 410 (87%) patients were Danish-born. Among these, 283 (69%) were males and 127 (31%) females. Among 59 immigrants, 35 (59%) were males and 24 (41%) females. A total of 16 (27%) immigrants came from Europe, 11 (19%) from the Middle East incl. Turkey, 16 (27%) came from Asia, 11 (19%) from Africa, one from the United

Table 2. Number of notified patients diagnosed with chronic HCV, and incidence per 10⁵ 2002-2003, by county of residence

County	No.		Per 10 ⁵ p.a.	
	2002	2003	2002	2003
	27	35	5.4	6.9
Frb. Municip.	13	3	14.2	3.3
Copenhagen	7	13	1.1	2.1
Frederiksborg	15	22	4.0	5.9
Roskilde	2	5	0.9	2.1
West Zealand	12	1	4.0	0.3
Storstrøm	4	28	1.5	10.7
Bornholm	0	1	0.0	2.2
Funen	25	21	5.3	4.4
South Jutland	2	1	0.8	0.4
Ribe	21	7	9.3	3.1
Vejle	21	16	5.9	4.5
Ringkøbing	14	3	5.1	1.1
Aarhus	40	21	6.2	3.2
Viborg	6	12	2.5	5.1
North Jutland	8	5	1.6	1.0
Unknown/other	50	8	-	-
Total	267	202	5.0	3.8

States, one from South America and two from Greenland. For one patient, country of origin was not stated.

Transmission

For 91% of the patients with known mode of transmission, IV drug use was stated as mode of transmission, [table 3](#).

Table 3. Number of notified cases diagnosed with chronic HCV 2002-2003, by mode of transmission

Mode of transmission	2002	2003
IV drug use	204	141
Nosocomial	6	12
Heterosexual contact	5	2
Tattooing/piercing	2	3
Needle-stick/ cut injury	0	1
Mother/neonate	0	1
Close social contact	0	0
Other	4	0
Unknown	46	42
Total	267	202

For two of the patients, heterosexual contact was also stated as possible mode of transmission. Among the seven who were thought to have been infected through heterosexual contact, three had had sexual contact with a person with known risk of HCV.

A total of 18 patients were thought to have been infected nosocomially, 11

of these abroad. Of these, three were Danish-born; two were thought to have been infected by blood transfusion and one after dental treatment. The eight immigrants were thought to have been infected either by blood transfusion or through non-sterile injections. Seven patients were infected nosocomially in Denmark by blood transfusion, all Danish-born and all infected before 1991. For one patient, mode of transmission was stated as non-occupational needle-stick injury. For 19% of the patients, the mode of transmission was unknown.

A total of 18 (4%) Danish-born patients were thought to have been infected abroad. Four immigrants were infected in Denmark, three of these through IV drug use.

Comments

HCV is a blood-borne virus, which may be transmitted with blood and body fluids. Unlike hepatitis B virus, mother-to-child infection is rare, and sexual transmission is extremely rare. IV drug use is by far the most common mode of transmission, but infection also occurs after piercing and tattooing because of poor hygienic conditions at certain piercing and tattooing parlours, please refer to the National Board of Health's pamphlets about piercing. A few patients were infected with HCV by mode of blood transfusion in Denmark, before donor blood screening for anti-HCV was introduced in 1991. Acute infection with HCV usually has a subclinical course and is thus difficult to diagnose. Around 70% of those infected with HCV develop chronic infection which, if left untreated, can lead to cirrhosis and liver cancer. Dependent on virus genotype, current treatment options have between 40% and 80% effect. There is still no vaccine against HCV. Chronic HCV infection has been notifiable since May 2000. In 2000 there were 229 notified cases, and in 2001 the figure was 240, EPI-NEWS 43/02. Geographic differences in occurrence presumably reflect differences in both number of IV drug users and frequency of testing and practice for notification in the individual counties. Moreover, in some places, the national clinical hepatitis database, DANHEP, contributes to the fact that more cases are notified.

(S. Cowan, Dept. of Epidemiology)

Patients with laboratory-diagnosed gonorrhoea, by county and gender

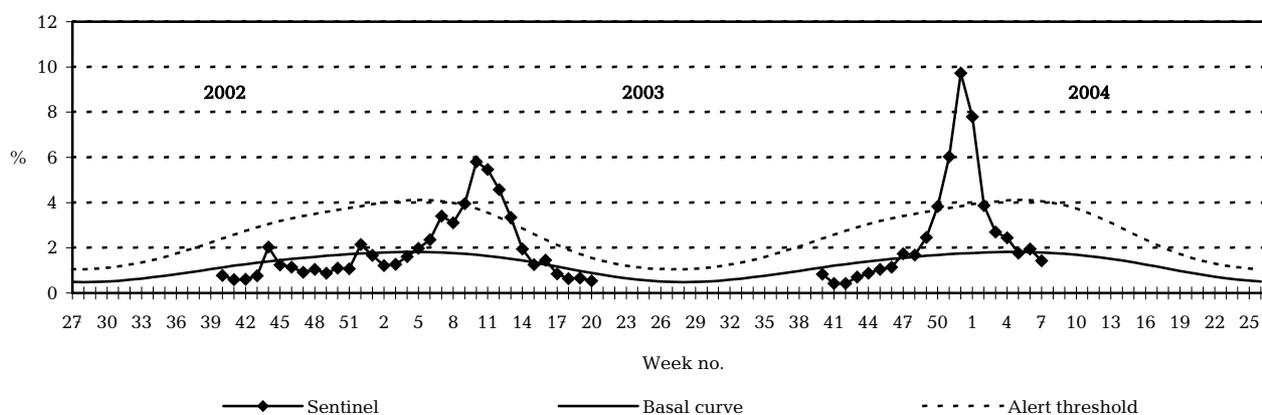
4th quarter of 2003 compared with the corresponding period of 2002

County	4th quarter 2003			4th quarter 2002		
	M	F	Total	M	F	Total
Cph. & Frb. Municipalities	39	4	43	36	6	42
Copenhagen County	8	3	11	5	1	6
Frederiksborg	2	-	2	4	-	4
Roskilde	3	1	4	3	1	4
West Zealand	-	-	-	2	1	3
Storstrøm	-	-	-	1	-	1
Bornholm	1	-	1	-	-	-
Funen	2	-	2	19	7	26
South Jutland	2	-	2	2	-	2
Ribe	3	-	3	1	1	2
Vejle	2	-	2	-	2	2
Ringkøbing	-	-	-	-	-	-
Aarhus	6	-	6	6	1	7
Viborg	-	-	-	-	-	-
North Jutland	2	-	2	1	2	3
Total	70	8	78	80	22	102

(DBMP)

Sentinel surveillance of the influenza activity

Weekly percentage of consultations, 2002/2003/2004



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

(Dept. of Epidemiology)

Secretion specimens received from the sentinel surveillance system

Week no.	2003										2004																		
	44	45	46	47	48	49	50	51	52	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
No. received	0	5	6	12	9	10	23	28	15	10	19	9	8	5	0	11													
Influenza A												2	2																
A/H3				3	1	6	7	12	4	3	3	2	1																
A/H1																													
Influenza B																													

(Depts. of Epidemiology & Virology)