



ACUTE AND CHRONIC HEPATITIS C 2004

No. 7, 2005

ACUTE HEPATITIS C

A total of seven cases of acute hepatitis C virus (HCV) infection were notified in 2002, all were Danish. Five of these were males. Three were infected via IV drug use, four via sexual contact, including one male via homosexual contact, and one male via heterosexual contact with a person with known risk. Two females were infected via heterosexual contact. Median age was 37 years (18-42 years).

CHRONIC HEPATITIS C

In 2004, a total of 232 cases of chronic HCV infection were notified, 170 (73%) males and 62 (27%) females, [table 1](#).

Table 1. Patients notified with chronic HCV infection in 2004, by age and sex

Age (yrs)	2004		
	M	F	Total
0-14	2	0	2
15-19	1	0	1
20-24	5	2	7
25-29	15	7	22
30-34	24	7	31
35-39	29	11	40
40-44	33	8	41
45-49	26	11	37
50+	35	16	51
Total	170	62	232

Median age was 42 years for both males (8-69 years) and females (21-80 years). Two notified cases of chronic HCV infection were diagnosed in children. One child was infected at birth by its HCV-positive mother. The other child was adopted from abroad. Distribution by county of residence is shown in [table 2](#), which also shows incidence per. 10⁵ for 2003 and 2004.

Nationality and sex distribution

A total of 205 (88%) of the notified persons were born in Denmark, of these, 147 (72%) males and 58 (28%) females. Distribution by sex among the 27 immigrants was: 23 (85%) males and 4 (15%) females. Eleven (41%) of the immigrants were from Europe, nine (33%) from North Africa, Near and Middle East including Turkey, and seven (26%) from Asia.

Mode of transmission

Among persons with known route of infection, 90% were infected via IV drug use. In this group, 73% were males, [table 3](#). There were six notified cases of nosocomial infection, all born

Table 2. Patients notified with chronic HCV infection in 2004, and incidence per 10⁵ 2003-2004, by county

County	No. 2004		Per 10 ⁵ p.a.	
	M	F	2003	2004
Cph. Mun.	37	17	10.4	10.8
Frb. Mun.	2	0	5.5	2.2
Copenhagen	12	3	2.8	2.4
Frederiksborg	18	6	6.7	6.4
Roskilde	11	4	2.1	6.3
West Zealand	5	1	0.7	2.0
Storstrøm	8	4	10.7	4.6
Bornholm	0	2	2.3	4.6
Funen	12	5	4.4	3.6
South Jutland	1	0	0.4	0.4
Ribe	4	0	3.6	1.8
Vejle	14	0	4.5	3.9
Ringkøbing	2	0	1.5	0.7
Aarhus	23	10	4.6	5.0
Viborg	5	5	5.1	4.3
North Jutland	7	3	1.1	2.0
Other/unkn.	9	2	-	-
Total	170	62	4.5	4.3

Table 3. Patients notified with chronic HCV infection in 2004, by mode of infection

Mode of infection	M	F	Total
IV drug use	130	47	177
Nosocomial	3	3	6
Tattooing/piercing	6	0	6
Heterosexually	2	2	4
Homosexually	1	0	1
Mother-to-newborn	2	0	2
Unknown	26	10	36
Total	170	62	232

in Denmark. Five of these were thought to have been infected in Denmark with blood/factor products received before the introduction of screening of donor blood for HCV in 1991.

One person was thought to have been infected by a contaminated needle when vaccinated in the Philippines in the 1970s.

Six persons were thought to have been infected via tattooing or piercing. In five cases, sexual contact was stated as mode of infection, including one via homosexual contact and four via heterosexual contact with a person with known risk of hepatitis C. In 36 (16%) cases, mode of infection was unknown.

Among the persons born in Denmark, 165 (80%) were infected via IV drug use. In 23 (11%) cases, mode of infection was unknown. Among immigrants, IV drug use was stated as

the mode of infection in 12 (44%) cases. In 12 (44%) cases, mode of infection was unknown.

Comments

Chronic HCV infection occurs in Denmark primarily among current or former IV drug users (IDUs). A study among IDUs has shown that transmission of HCV does not only occur by sharing contaminated needles, but that there is also an increased risk from sharing cotton wool when the bleeding is to be stopped after the injection.

Since IV drug users are often infected very early in the abuse career, there is still a need for information about hepatitis aimed at young and new IDUs. Information about the importance of using clean needles and cotton wool may also bring about a reduced risk of infection with other blood-borne infections.

Between 70 and 80% of those infected with HCV develop a chronic, life-long infection which, if left untreated, may lead to hepatic cirrhosis and hepatic cancer.

At the moment, there is no vaccine against hepatitis C, but medical treatment options have improved. Dependent on virus genotype, between 40% and 80% of the patients will become free of HCV after medical treatment. It is thus important to refer anti-HCV and/or HCV-RNA-positive persons to a specialist department. (K. Qureshi, S. Cowan, Department of Epidemiology)

LYMPHOGRANULOMA VENEREUM

In the course of 2004, there have been reports of cases of lymphogranuloma venereum (LGV) among men who have sex with men (MSM) in several European cities, including Stockholm, London and Rotterdam. Most of the patients were HIV-positive.

There have not yet been reports of cases in Denmark.

The infection, which is transmitted via sexual contact, occurs as lesions on the external genitalia, pain and rectal discharge or as lymphadenopathy in the groin (bubo formation).

LGV, which is endemic in the Tropics, has been extremely rare in Europe. It is caused by three serotypes (L1, L2 or L3) of *Chlamydia trachomatis*.

Physicians are advised to pay attention to this differential diagnosis. (S. Cowan, Department of Epidemiology)

Individually notifiable diseases

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

Table 1	Week 6 2005	Cum. 2005 ¹⁾	Cum. 2004 ¹⁾
AIDS	3	14	4
Anthrax	0	0	0
Botulism	0	0	0
Cholera	0	0	0
Creutzfeldt-Jakob	0	0	1
Diphtheria	0	0	0
Food-borne diseases	9	38	46
of these, infected abroad	1	8	7
Gonorrhoea	9	112	44
Haemorrhagic fever	0	0	0
Hepatitis A	1	14	12
of these, infected abroad	0	2	3
Hepatitis B (acute)	2	9	4
Hepatitis B (chronic)	5	17	28
Hepatitis C (acute)	0	1	0
Hepatitis C (chronic)	15	39	47
HIV	0	18	34
Legionella pneumonia	0	12	12
of these, infected abroad	0	2	1
Leprosy	0	0	0
Leptospirosis	0	3	1
Measles	0	0	0
Meningococcal disease	0	9	11
of these, group B	0	7	8
of these, group C	0	1	1
of these, unspec. + other	0	1	2
Mumps	1	1	0
Neuroborreliosis	1	11	40
Ornithosis	0	2	1
Pertussis (children < 2 years)	7	41	29
Plague	0	0	0
Polio	0	0	0
Purulent meningitis			
Haemophilus influenzae	0	0	0
Listeria monocytogenes	0	0	0
Streptococcus pneumoniae	0	6	15
Other aethiology	0	0	0
Unknown aethiology	0	0	3
Under registration	6	24	-
Rabies	0	0	0
Rubella (congenital)	0	0	0
Rubella (during pregnancy)	0	0	0
Shigellosis	5	16	9
of these, infected abroad	5	14	8
Syphilis	0	13	23
Tetanus	0	2	0
Tuberculosis	9	45	34
Typhoid/paratyphoid fever	0	3	3
of these, infected abroad	0	2	2
Typhus	0	0	0
VTEC/HUS	0	15	16
of these, infected abroad	0	8	4

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 6 2005	Cum. 2005 ²⁾	Cum. 2004 ²⁾
Bordetella pertussis (all ages)	14	116	109
Gonococci	12	55	35
of these, females	3	7	9
of these, males	9	48	26
Listeria monocytogenes	1	6	2
Mycoplasma pneumoniae			
Resp. specimens ³⁾	32	393	24
Serum specimens ⁴⁾	46	235	65
Streptococci ⁵⁾			
Group A streptococci	3	19	21
Group C streptococci	0	3	3
Group G streptococci	1	18	5
S. pneumoniae	29	176	213
Table 3	Week 4 2005	Cum. 2005 ²⁾	Cum. 2004 ²⁾
Pathogenic int. bacteria ⁶⁾			
Campylobacter	31	192	158
S. Enteritidis	5	22	21
S. Typhimurium	8	35	29
Other zoon. salmonella	4	27	31
Yersinia enterocolitica	1	19	13

²⁾ Cumulative number 2005 and corresponding period 2004

³⁾ Resp. specimens with positive PCR

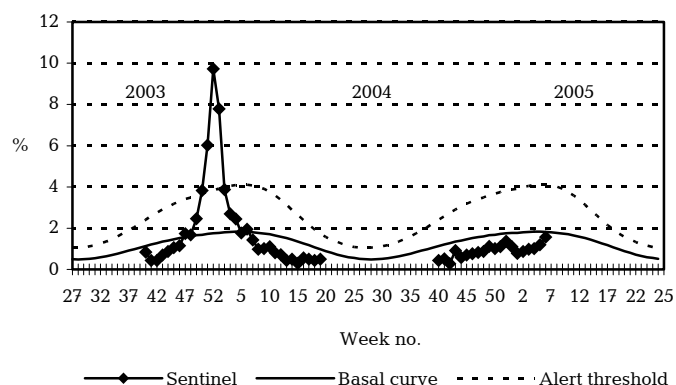
⁴⁾ Serum specimens with pos. complement fixation test, MPT

⁵⁾ Isolated in blood or spinal fluid

⁶⁾ See also www.germ.dk

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