



ACUTE AND CHRONIC HEPATITIS C 2010

No. 9, 2011

ACUTE HEPATITIS C

In 2010, five cases of acute hepatitis C virus (HCV) infection were notified, including four males aged 27-58 years. The last case was a 22-year-old female.

Three were infected via homosexual contact and two were infected via intravenous (IV) drug abuse.

CHRONIC HEPATITIS C

In 2010, a total of 265 cases of chronic HCV infection were notified, including 182 (69%) males, [Table 1](#).

Table 1. Notified persons diagnosed with chronic HCV infection, by age and gender, 2010

Age (yrs)	M	F	Total
0-9	0	0	0
10-19	1	1	2
20-29	14	14	28
30-39	54	21	75
40-49	60	17	77
50-59	44	26	70
60 +	9	4	13
Total	182	83	265

The median age was 42 years for females (range: 19-79 years) and 43 years for males (range 19-84 years). Distribution by region, area and incidence per 100,000 is presented in [Table 2](#).

Table 2. Notified persons diagnosed with chronic HCV infection, by region, area and incidence per 100,000, 2010.

Region & area	No.	Incidence
Capital		
Copenhagen city	84	12,6
Copenhagen subs	13	2,6
North Zealand	2	0,5
Bornholm	2	4,7
Zealand		
W & S Zealand	24	4,1
East Zealand	1	0,4
North Jutland		
North Jutland	10	1,7
Central Jutland		
West Jutland	22	5,2
East Jutland	13	1,6
South Denmark		
Funen	32	6,6
South Jutland	60	8,4
Other/not stated	2	-
Total	265	4,8

Transmission

A total of 208 (79%) were of Danish origin and 57 (21%) were of foreign origin. Foreigners were distributed on 30 nationalities.

Modes of infection are presented in [Table 3](#).

Three were infected in Denmark by blood products made prior to the introduction of HCV donor blood screening in 1991. Six were infected nosocomially abroad.

Table 3. Notified persons diagnosed with chronic HCV infection, by mode of infection, 2010

Mode of infection	M	F	Total
IV drug use	151	48	199
Nosocomial	3	6	9
Heterosexual	4	4	8
Homosexual	2	0	2
Mother/neonate	0	1	1
Tattooing/piercing	3	2	5
Unknown	19	22	41
Total	182	83	265

Commentary

HCV infection rarely presents as an acute illness. It is generally only diagnosed once the chronic stage has been reached. Consequently, the notified cases mainly represent chronic HCV cases that occurred many years ago.

In Denmark, HCV infection is primarily acquired via IV drug abuse. The frequency of HCV infection among males, who have sex with males (MSM), particularly among HIV positives, is reported to follow an increasing trend abroad. In Denmark this mode of infection was stated in three of the five acute cases notified in 2010. It is unknown if the increased risk of HCV infection among HIV positive MSMs is caused by an increased susceptibility in HIV positives, by increased infectiousness among HIV positive partners or by an increased occurrence of blood infection via sexual practices involving mucosal damage.

The treatment options for HCV infection are improved continually and it is therefore essential that HCV infected patients be referred to a specialised department.

(B. Søborg, S. Cowan, Department of Epidemiology)

MEASLES OUTBREAK

Since mid January 2011, East Zealand has seen a measles outbreak, EPI-NEWS 6/11.

Currently, a total of 17 cases have been detected, including 12 laboratory-confirmed cases and five cases which have been epidemiologically linked to a confirmed case.

The 17 cases include three unvaccinated children < 2 years of age. The remaining 14 cases are 5-59 years old (ten are 16-30 years old), of these, 11 unvaccinated and two with only one MMR vaccination. In one case, the vaccination status is uncertain. For a description of measles, please see [www.ssi.dk](#).

Sampling

On suspicion of measles, the following samples should be taken:

1. A blood sample for IgM/IgG antibody determination. IgM antibodies may be confirmed by rash.

2. Pharyngeal swab and urine for virus detection (PCR). The possibility of detecting measles virus is greatest in the early phases of the disease course, but virus is frequently detectable for several weeks after the acute disease occurs. A negative finding does not exclude measles.

For further details, please see [www.ssi.dk](#).

Immunization

The primary form of prevention is MMR vaccination. MMR vaccination is normally offered to all children at 15 months and 4 years of age. Vaccination may be administered from the age of 12 months.

MMR vaccination has no upper age limit, but is only free of charge for persons below 18 years of age.

Post-exposure prophylaxis

With a view to preventing or mitigating disease, non-immune contacts may be given an MMR vaccination within three days and they may be given normal human immunoglobulin within six days in those cases where exposure is certain. A certain exposure is defined as contact with a laboratory-confirmed or epidemiologically linked MMR case. Expenses are covered by the regional authorities. Immunoglobulin may be ordered at pharmacies or from the SSI. When acute dispatch from the SSI is needed, the transportation costs are covered by regional authorities.

Commentary

Physicians are still encouraged to pay particular attention to the diagnosis in children and younger adults who present with measles symptoms. It is important that persons who are suspected of having measles avoid being in waiting rooms with other patients, as measles are extremely infectious.

Measles cases complying with the disease definition, i.e. are laboratory-confirmed or epidemiologically linked to such a case, are notifiable to the Department of Epidemiology at SSI and the local Medical Officer of Health (MOH).

(A.M. Plesner, MOH Copenhagen, E. Lund, MOH Zealand, B. Böttiger, Department of Virology, L.K. Knudsen, P.H. Andersen, Department of Epidemiology)

Individually notifiable diseases

Number of notifications received in the Department of Epidemiology, SSI (2011 figures are preliminary)

Table 1	Week 8 2011	Cum. 2011 ¹⁾	Cum. 2010 ¹⁾
AIDS	1	7	13
Anthrax	0	0	0
Botulism	0	0	0
Cholera	0	0	0
Creutzfeldt-Jakob	0	2	24
Diphtheria	0	0	0
Food-borne diseases	5	22	41
of these, infected abroad	0	1	13
Gonorrhoea	10	52	106
Haemorrhagic fever	0	0	0
Hepatitis A	0	3	8
of these, infected abroad	0	1	1
Hepatitis B (acute)	0	1	7
Hepatitis B (chronic)	3	25	24
Hepatitis C (acute)	0	1	0
Hepatitis C (chronic)	3	50	60
HIV	8	46	38
Legionella pneumonia	0	17	17
of these, infected abroad	0	1	3
Leprosy	0	1	0
Leptospirosis	0	0	0
Measles	2	8	0
Meningococcal disease	3	21	14
of these, group B	2	5	11
of these, group C	1	10	2
of these, unspec. + other	0	6	1
Mumps	0	1	2
Neuroborreliosis	0	2	4
Ornithosis	0	1	0
Pertussis (children < 2 years)	1	7	13
Plague	0	0	0
Polio	0	0	0
Purulent meningitis			
Haemophilus influenzae	0	1	0
Listeria monocytogenes	0	0	2
Streptococcus pneumoniae	1	31	29
Other aethiology	0	2	3
Unknown aethiology	0	0	4
Under registration	0	2	-
Rabies	0	0	0
Rubella (congenital)	0	0	0
Rubella (during pregnancy)	0	0	0
Shigellosis	1	12	16
of these, infected abroad	0	8	13
Syphilis	5	84	50
Tetanus	0	0	0
Tuberculosis	4	55	49
Typhoid/paratyphoid fever	1	2	7
of these, infected abroad	1	2	5
Typhus exanthematicus	0	0	0
VTEC/HUS	0	15	23
of these, infected abroad	0	7	4

¹⁾ Cumulative number 2011 and in corresponding period 2010

Selected laboratory diagnosed infections

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

Table 2	Week 8 2011	Cum. 2011 ³⁾	Cum. 2010 ³⁾
Bordetella pertussis (all ages)	1	16	29
Gonococci	9	36	87
of these, females	3	11	23
of these, males	6	25	64
Listeria monocytogenes	3	5	12
Mycoplasma pneumoniae			
Resp. specimens ³⁾	8	148	20
Serum specimens ⁴⁾	7	108	55
Streptococci ⁵⁾			
Group A streptococci	4	43	36
Group B streptococci	3	29	19
Group C streptococci	0	8	5
Group G streptococci	2	22	26
S. pneumoniae	29	214	228
Table 3	Week 6 2011	Cum. 2011 ²⁾	Cum. 2010 ²⁾
MRSA	29	135	96
Pathogenic int. bacteria ⁶⁾			
Campylobacter	32	218	256
S. Enteritidis	8	35	32
S. Typhimurium	3	18	37
Other zoon. salmonella	5	57	68
Yersinia enterocolitica	5	22	17
Verocytotoxin- producing E. coli	2	16	17
Enteropathogenic E. coli	3	20	18
Enterotoxigenic E. coli	6	38	67

²⁾ Cumulative number 2010 and in corresponding period 2009

³⁾ Resp. specimens with positive PCR

⁴⁾ Serum specimens with pos. complement fixation test

⁵⁾ Isolated in blood or spinal fluid

⁶⁾ See also www.germ.dk