



A total of 424 gonorrhoea cases in 416 persons were notified in 2008. Among these cases, 338 were detected by culture and reported to the Laboratory Notification System (LNS) and to the Notification System for Infectious Diseases (NSID), Department of Epidemiology. Seventeen cases were only reported to the LNS and 69 only to the NSID. Among these 69 cases, 14 of the notifications stated that the diagnosis had been made by DNA detection.

Notified cases

A total of 407 cases were notified, including 323 (79%) males and 84 (19%) females. The median age for females was 23 years (range: 16-47), and for males it was 29 years (range: 16-69).

The geographical distribution is shown in [Table 1](#).

Table 1. Notified gonorrhoea cases in 2008 and incidence pr. 10⁵ by country area

Area	No.	Incidence per 10 ⁵
Copenhagen City	153	23.4
Copenhagen subs	29	6.1
Northern Zealand	13	2.9
Bornholm	0	0
Eastern Zealand	8	3.4
W & S Zealand	20	3.4
Funen	22	4.8
Southern Jutland	18	2.5
Western Jutland	8	1.9
Eastern Jutland	48	5.9
Northern Jutland	58	10
Other/unknown	30	-
Total	407	7.5

A total of 334 (82%) were Danish-born, 49 (12%) were immigrants, 14 (3%) second generation immigrants and seven (2%) were tourists. For the remaining three, the country of origin was not stated.

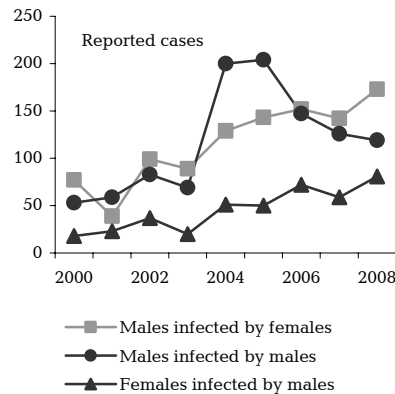
Mode of transmission

Among males, 173 (54%) were infected by a female, 119 (37%) by a male (MSM), and in 31 cases (10%) the mode of infection was unknown, [Figure 1](#).

Among MSM 107 (90%) were infected in Denmark and 5 (4%) abroad, while the country of infection was unknown in 7 (6%) cases. For the heterosexually infected males, the corresponding figures were 111 (64%) infected in Denmark, 49 (28%) abroad, including 22 in Thailand, and in 13 (8%) cases country of infection was not stated.

GONORRHOEA 2009

Figure 1. Gonorrhoea cases by sex and mode of infection, 1994-2008



Among the heterosexually infected males ≥ 40 years, 48% were infected abroad as opposed to 13% among the 16-39-year-olds. Among females, 73 (87%) were infected in Denmark and two abroad. In nine cases, the country of infection was not stated. Females were infected by a regular partner more frequently than males, [Table 2](#).

Table 2. Gonorrhoea cases by contacts and mode of infection, % in ()

Contact	Males inf. by males	Males infected by females	Females infected by males
Steady partner	21 (18)	32 (18)	46 (54)
Casual partners	85 (71)	83 (47)	30 (36)
Sex worker	0	18 (10)	0
Other/unknown	13 (11)	44 (25)	8 (10)
Total	119 (100)	173 (100)	84 (100)

Drug resistance

Reference laboratory tests of the 355 submitted gonococcus isolates showed that 38% were penicillin resistant (52% in 2007); 16% were penicillinase producing (22% in 2007). The frequency of fluoroquinolone resistance was 63% (57% in 2007), and a further 4% of the strains had reduced sensitivity (6% in 2007). A total of 62% were resistant to or had reduced sensitivity to both penicillin and fluoroquinolones (62% in 2007). Reduced sensitivity or resistance to fluoroquinolones was found in gonococcus isolates from 43% of the homosexual males, from 78% of the heterosexual males and from 83% of females. All strains were fully sensitive to ceftriaxon.

Commentary

As from 2000 a gradual increase in the number of notified cases has been observed. The increase, which in 2004-2005 was more distinct among MSM, is now mainly caused

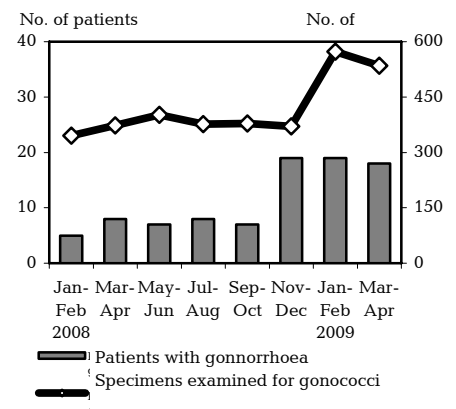
by an increased number of cases, particularly among young heterosexuals, females as well as males. Gonorrhoea acquired abroad, particularly in Thailand, was most frequent in heterosexually infected males above 40 years of age. (G. St-Martin, S. Cowan, Dept. of Epidemiology, S. Hoffmann, DBMP)

RISING OCCURRENCE OF GONORRHOEA IN NORTHERN JUTLAND, 2008-2009

In the North Jutland region (NJR), the gonorrhoea occurrence has remained stable at 7-25 annual cases for a number of years.

However, in 2008, the Aalborg clinical microbiology department observed an increase in the number of gonorrhoea cases, [Figure 2](#).

Figure 2. Gonorrhoea cases and number of specimens tested in Northern Jutland, 2008-2009



The elevated level has continued into 2009. The number of samples has increased by approximately 30%, probably in consequence of increased focus on the condition following information efforts focused at the area's GPs in December 2008. The majority of the patients (83%) were young, aged 16-28 years, and had acquired the infection in Denmark, typically in their community. In a survey covering the period from October 2008 to April 2009, 44% of the cases included symptom information, while 19% were found by contact tracing. For the remaining 37% of the cases this information was not stated. Among those with symptoms, 92% were young males of whom the majority had urethritis and one had epididymitis. Among the young females, cervicitis and abdominal pain were common. All patients found through contact tracing were young females.

(L.Ø. Sørensen, Clinical Microbiology Department, Aalborg Hospital)

Individually notifiable diseases

Number of notifications received in the Department of Epidemiology, SSI (2009 figures are preliminary)

Table 1	Week 21 2009	Cum. 2009 ¹⁾	Cum. 2008 ¹⁾
AIDS	0	11	13
Anthrax	0	0	0
Botulism	0	0	0
Cholera	0	0	0
Creutzfeldt-Jakob	0	6	1
Diphtheria	0	0	0
Food-borne diseases	10	155	146
of these, infected abroad	0	27	30
Gonorrhoea	14	221	136
Haemorrhagic fever	0	0	0
Hepatitis A	0	10	17
of these, infected abroad	0	6	8
Hepatitis B (acute)	0	13	7
Hepatitis B (chronic)	0	74	70
Hepatitis C (acute)	0	0	4
Hepatitis C (chronic)	3	137	140
HIV	0	86	99
Legionella pneumonia	2	48	43
of these, infected abroad	0	6	15
Leprosy	0	0	0
Leptospirosis	0	0	2
Measles	0	9	6
Meningococcal disease	0	31	32
of these, group B	0	16	15
of these, group C	0	11	7
of these, unspec. + other	0	4	10
Mumps	0	8	18
Neuroborreliosis	0	4	20
Ornithosis	1	2	1
Pertussis (children < 2 years)	2	46	45
Plague	0	0	0
Polio	0	0	0
Purulent meningitis			
Haemophilus influenzae	0	3	1
Listeria monocytogenes	0	2	1
Streptococcus pneumoniae	0	37	49
Other aethiology	0	7	15
Unknown aethiology	0	5	12
Under registration	8	25	-
Rabies	0	0	0
Rubella (congenital)	0	0	1
Rubella (during pregnancy)	0	0	0
Shigellosis	5	42	30
of these, infected abroad	0	31	25
Syphilis	8	111	37
Tetanus	0	0	0
Tuberculosis	11	160	161
Typhoid/paratyphoid fever	0	8	14
of these, infected abroad	0	5	12
Typhus exanthematicus	0	0	0
VTEC/HUS	1	43	50
of these, infected abroad	0	9	18

¹⁾ Cumulative number 2009 and in corresponding period 2008

Selected laboratory diagnosed infections

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

Table 2	Week 21 2009	Cum. 2009 ²⁾	Cum. 2008 ²⁾
Bordetella pertussis (all ages)	5	68	54
Gonococci	15	173	147
of these, females	2	38	29
of these, males	13	135	118
Listeria monocytogenes	6	31	17
Mycoplasma pneumoniae			
Resp. specimens ³⁾	0	29	44
Serum specimens ⁴⁾	1	61	52
Streptococci ⁵⁾			
Group A streptococci	4	81	71
Group B streptococci	7	47	52
Group C streptococci	1	14	6
Group G streptococci	2	67	52
S. pneumoniae	21	600	535

Table 3	Week 19 2009	Cum. 2009 ²⁾	Cum. 2008 ²⁾
MRSA	7	247	188
Pathogenic int. bacteria ⁶⁾			
Campylobacter	58	614	647
S. Enteritidis	12	104	99
S. Typhimurium	11	332	279
Other zoon. salmonella	10	245	294
Yersinia enterocolitica	3	89	111
Verocytotoxin-producing E. coli	4	43	45
Enteropathogenic E. coli	4	52	28
Enterotoxigenic E. coli	9	92	105

²⁾ Cumulative number 2009 and in corresponding period 2008

³⁾ Resp. specimens with positive PCR

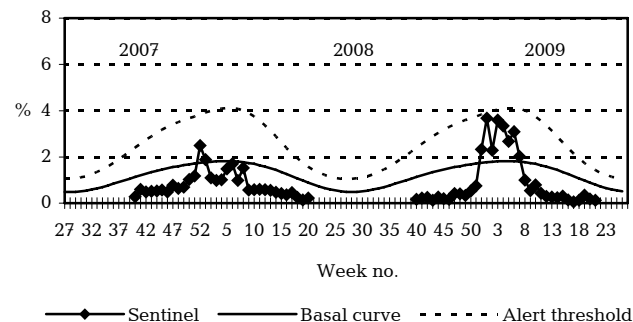
⁴⁾ Serum specimens with pos. complement fixation test

⁵⁾ Isolated in blood or spinal fluid

⁶⁾ See also www.germ.dk

Sentinel surveillance of the influenza activity

Weekly percentage of consultations, 2007/2008/2009



Sentinel: Influenza consultations (as percentage of total consultations)

Basal curve: Expected frequency of consultations under non-epidemic conditions

Alert threshold: Possible incipient epidemic

27 May 2009