EPI-NEWS

NATIONAL SURVEILLANCE OF COMMUNICABLE DISEASES

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BLOOD DONOR SCREENING 2008

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In 2008, a total of 356,974 blood units were screened and 28,719 donor candidates were examined. Candidate donors are first-time donors, i.e. donors who have not previously donated blood, and those returning to donate blood after several years of absence. The number of positive donors is presented in Table 1.

Table 1. Number of donors who tested positive for HIV, HBsAg, HCV or HTLV I/II, 2008. First-time donors in ( )

Number of donors:		
positive for HIV	3	(2)
positive for HBsAg	10	(10)
positive for HCV	5	(5)
positive for HTLV I/II	1	(1)

Three donors were HIV-positive: a female and two males. One of these donors had been inactive for more than five years and was therefore considered a candidate donor. At a subsequent look-back, it was assessed that the donor had not been infected at the time of the previous donation. The two other HIV-positive were first-time donors.
For one donor, the mode of infection was unknown, while the two others had known risks; one had bisexual behaviour, the other heterosexual behaviour in highly endemic areas.
A total of ten persons tested positive for hepatitis B: four females and six males. The median age was 25 years (range 19-48 years). All were first-time donors, including eight persons born in countries with endemic hepatitis B. In two cases, the mode of infection was unknown.
A total of four donors tested positive for hepatitis C, three females and one male. The median age was 47 years (range 45-52 years). All four were first-time donors.
In three cases, the possible mode of infection was piercing, acupuncture or tattooing. The fourth case had been involved in IV drug use.
All candidate donors are furthermore screened for HTLV I/II (Human T-lymphocytotropic virus). One donor tested positive for HTLV I, the mode of transmission was unknown.

Infectious donors
During the latest ten years, a total of 15 donors have tested positive for HIV, including three first-time donors. In six cases the patients were females with no known risk.
Among the nine males, six had known risks; four had engaged in homo/bisexual behaviour, one had engaged in sex with a prostitute, and one with a woman from southern Africa.
In the same ten-year-period, 132 donors tested positive for hepatitis B, the majority of whom had grown up in highly endemic areas. In the same period, 85 donors tested positive for hepatitis C. The most frequent risk factors in this group were previous IV drug use, sex with an IV drug user or tattooing/piercing.

Commentary
Infection spreading from Danish donors occurs very rarely. This is, in part, owed to the very strict criteria governing admission as well as every blood drawing.
All donors are asked about and need to sign statements that they have not engaged in any behaviour which may increase their risk of HIV, hepatitis B or C. Consequently, the occurrence – prevalence as well as incidence – of HIV in the donor population is 20-30 times lower than in the general population. The current criteria for donor activity thus assist in reducing the infectious pressure from blood donors.
Nevertheless, every year sees positive donors who have engaged in risk behaviour such as homo- or bisexual behaviour, previous IV drug use, etc. It is particularly striking that 12 of the 15 donors who have tested HIV-positive during the latest ten-year-period were repeat donors. As opposed to candidate donors in whom the initial bag is only used to test for disease markers, repeat donors risk transferring virus to recipients of blood drawn in the "window phase". The window phase is the period in which the newly infected, with e.g. HIV, is infectious, but before the virus may be detected by testing the blood.
As no virus test is 100% sensitive, the level of infectious pressure from the donor population will have a direct effect on transfusion safety. To protect the donor system and maintain a high level of safety for blood recipients, it is essential to stress that receiving blood is a right, but giving blood is not.
(A.H. Christiansen, S. Cowan, Department of Epidemiology)

NEW TEST METHOD FOR BLOOD DONOR SCREENING
As from 1 January and in addition to the previous serology based screening, all Danish donor blood has been tested using nucleic acid amplification technique (NAT) testing. In NAT testing, genetic material in the form of RNA and DNA is amplified for the following three viruses: HIV, HCV and HBV.
The NAT test closes a considerable part of the infectious window which otherwise exists in cases of a recent infection until the serological tests become positive. New research shows that virus is very infectious in the early phases of the three diseases. By performing a sensitive detection of virus in this very infective phase, the NAT test reduces the risk of transferring HIV, HCV and HBV infection by blood.
The report covering the number of positive donors detected by NAT testing will be published along with the annual report covering blood donor screening for 2009.
(H. Ullum, E. Dickmeiss, Department of Clinical Immunology, Copenhagen University Hospital)

EUROPEAN FIELD EPIDEMIOLOGY TRAINING
Once again it is possible to apply for admission to a two-year European training programme for epidemiologists, EPIET (European Programme for Intervention Epidemiology Training). The programme starts in September 2010 and is composed by a two-year placement in another European country. Programme participants will achieve proficiency in performing independent assignments in connection with the surveillance and control of infectious diseases, tracing and management of outbreaks, applied research and communication, etc. Citizens of the EU, Iceland, Lichtenstein, Norway and other EU candidate countries with proficiency in English are eligible applicants. Furthermore, participants are expected to have previous working experience in the field of public health or epidemiology, and an interest in field epidemiology. It is "on-the-job training" and participation in the study programme is remunerated.
Further information is available at www.epiet.org or from Kåre Mølbak, Department of Epidemiology, SSI. Deadline for application is 7 February 2010.
(Department of Epidemiology)

Individually notifiable diseases

Number of notifications received in the Department of Epidemiology, SSI (2010 figures are preliminary)

Table 1	Week 01 2010	Cum. 2010 [1]	Cum. 2009 [1]
AIDS	0	0	0
Anthrax	0	0	0
Botulism	0	0	0
Cholera	0	0	0
Creutzfeldt-Jakob	1	1	0
Diphtheria	0	0	0
Food-borne diseases	5	5	12
of these, infected abroad	1	1	0
Gonorrhoea	0	0	5
Haemorrhagic fever	0	0	0
Hepatitis A	1	1	0
of these, infected abroad	0	0	0
Hepatitis B (acute)	0	0	0
Hepatitis B (chronic)	0	0	0
Hepatitis C (acute)	0	0	0
Hepatitis C (chronic)	0	0	0
HIV	2	2	6
Legionella pneumonia	3	3	3
of these, infected abroad	0	0	0
Leprosy	0	0	0
Leptospirosis	1	0	0
Measles	0	0	1
Meningococcal disease	2	2	4
of these, group B	0	0	1
of these, group C	0	0	0
of these, unspec. + other	0	0	0
Mumps	0	0	0
Neuroborreliosis	0	0	0
Ornithosis	0	0	0
Pertussis (children < 2 years)	0	0	4
Plague	0	0	0
Polio	0	0	0
Purulent meningitis			
Haemophilus influenzae	0	0	1
Listeria monocytogenes	0	0	0
Streptococcus pneumoniae	0	0	5
Other aethiology	0	0	0
Unknown aethiology	0	0	0
Under registration	0	0	-
Rabies	0	0	0
Rubella (congenital)	0	0	0
Rubella (during pregnancy)	0	0	0
Shigellosis	1	1	6
of these, infected abroad	1	1	0
Syphilis	8	8	5
Tetanus	0	0	0
Tuberculosis	4	4	8
Typhoid/paratyphoid fever	0	0	0
of these, infected abroad	0	0	0
Typhus exanthematicus	0	0	0
VTEC/HUS	2	2	1
of these, infected abroad	0	0	0

[1] *Cumulative number 2010 and in corresponding period 2009*

Selected laboratory diagnosed infections

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

Table 2	Week 01 2010	Cum. 2010 [2]	Cum. 2009 [2]
Bordetella pertussis (all ages)	1	1	4
Gonococci	15	15	0
of these, females	3	3	0
of these, males	12	12	0
Listeria monocytogenes	1	1	0
Mycoplasma pneumoniae			
Resp. specimens [3]	3	3	4
Serum specimens [4]	5	5	2
Streptococci [5]			
Group A streptococci	7	7	0
Group B streptococci	2	2	0
Group C streptococci	2	2	0
Group G streptococci	15	15	0
S. pneumoniae	79	79	14
Table 3	**Week 52 2009**	**Cum. 2009 [2]**	**Cum. 2008 [2]**
MRSA	41	790	805
Pathogenic int. bacteria [6]			
Campylobacter	2	3256	3441
S. Enteritidis	4	599	637
S. Typhimurium	7	773	1992
Other zoon. salmonella	4	743	1015
Yersinia enterocolitica	0	225	330
Verocytotoxin-producing E. coli	1	168	158
Enteropathogenic E. coli	1	220	215
Enterotoxigenic E. coli	1	331	417

[2] *Cumulative number 2010 and in corresponding period 2009*

[3] *Resp. specimens with positive PCR*

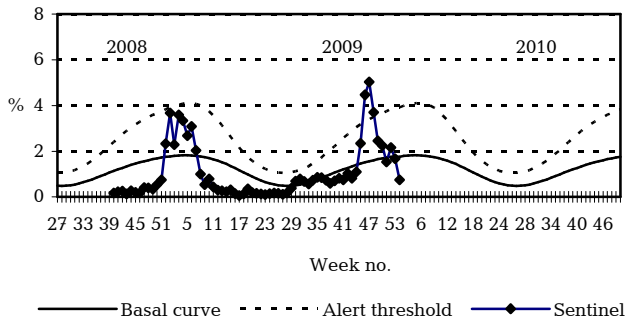
[4] *Serum specimens with pos. complement fixation test*

[5] *Isolated in blood or spinal fluid*

[6] *See also www.germ.dk*

Sentinel surveillance of the influenza activity

Weekly percentage of consultations, 2008/2009/2010



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