



VACCINATION OF DANISH EXCHANGE STUDENTS TO THE US No. 20/21, 2005

Danish exchange students going to the United States may encounter demand for vaccination in excess of the Danish childhood vaccination programme. The authority to make vaccination requirements in the United States rests with the individual state. At national level, the American Centers for Disease Control and Prevention (CDC) publishes vaccination recommendations which are available on www.cdc.gov. In the following discussion, the CDC recommendations for vaccinations against the individual diseases are compared with the Danish childhood vaccination programme. Also, suggestions are made for the practical handling of any discrepancy which may arise. As a basic principle, young people who are missing one or more of the childhood vaccinations in the Danish programme should complete the programme.

Diphtheria and tetanus

CDC recommends that children who have received primary immunisation against diphtheria and tetanus receive a booster at the age of 5 and 11-12 years. Subsequently, a booster is recommended every tenth year. In Denmark in January 1996, a diphtheria-tetanus booster vaccination at the age of 5 was introduced. Subsequent protection will last at least 10 years, EPI-NEWS 7/04. If a person has not received boosters according to the Danish recommendations and documentation for diphtheria-tetanus booster vaccination is required, a DT booster may be given.

Pertussis

CDC recommends five doses of acellular pertussis vaccine. If the fourth dose is given at ≥ 4 years of age, the fifth dose may be omitted. The Danish childhood vaccination programme has included three pertussis vaccinations since 1961. From September 2003, a booster dose was introduced at the age of 5. If requirements are in excess of the Danish childhood vaccination programme, the physician may issue a declaration stating that the person has been vaccinated according to the Danish guidelines, and that pertussis vaccine is not available as a mono-component vaccine in Denmark, EPI-NEWS 26-33/03.

Polio

CDC recommends a total of four vaccinations against polio. Both inactivated (IPV) and oral polio vaccine

(OPV) may be included in the programme. If only IPV or OPV is given, the fourth dose may be omitted if the third dose is given at ≥ 4 years of age.

The Danish childhood vaccination programme has contained at least four polio vaccinations since 1968, which is in accordance with the CDC recommendations, EPI-NEWS 23/01.

Haemophilus influenzae type b (Hib)

CDC does not recommend Hib vaccination for children ≥ 5 years of age. According to CDC, the vaccination is not required on commencement at school, but is a requirement for attendance in day care facilities in 49 states.

In Denmark, three doses of Hib vaccine have been included in the childhood vaccination programme since 1993; however, not for children ≥ 6 years, as these are considered to have natural immunity, EPI-NEWS 50/01. If requirements are in excess of the Danish programme, the physician may issue a declaration referring to the CDC recommendation not to vaccinate after the age of 5.

MMR

CDC recommends MMR vaccination at the age of 12-15 months and at the age of 4-6 years. An interval of at least four weeks should pass between the two vaccinations. In Denmark, two MMR vaccinations are recommended for everybody born after 1984, EPI-NEWS 7/00. If there is a requirement for two MMR vaccinations, the vaccine may be given with a minimum interval as stated above.

Chickenpox

CDC recommends vaccination against chickenpox for children ≥ 12 months who have not had clinical chickenpox, and it is recommended to give two doses to persons ≥ 13 years. Vaccination against chickenpox is not part of the Danish childhood vaccination programme, but the vaccine is registered in Denmark. If documentation is missing, e.g. a physician's declaration of clinical chickenpox, vaccination may be performed without measurement of antibodies, EPI-NEWS 5/05.

Hepatitis A

CDC recommends vaccination to persons in selected states and regions, and to special risk groups. In Denmark, the vaccine is not in-

cluded in the childhood vaccination programme, and vaccination against hepatitis A may thus be relevant in certain situations, possibly as a combined hepatitis A+B vaccine.

Hepatitis B

CDC recommends immunisation against hepatitis B in the childhood vaccination programme as a requirement before commencing school in 26 states. The vaccine is not recommended in the Danish childhood vaccination programme. If hepatitis B immunisation is required, vaccination day 0, 1 month and 6 months is recommended. In the event of time pressure, an accelerated programme days 0, 7 and 21, and 12 months may be applied, EPI-NEWS 25/02.

Pneumococcus

CDC recommends vaccination against pneumococcus in the childhood vaccination programme, however, not to children ≥ 5 years of age. The vaccine is not included in the Danish childhood vaccination programme. If pneumococcus vaccination is required for children ≥ 5 years who do not belong to the risk groups, EPI-NEWS 46/02, the physician may issue a declaration referring to the CDC recommendations.

Meningococcus

CDC recommends that vaccination with a tetravalent meningococcus vaccine be considered for college students, applying particularly for students living in shared facilities (dormitories). In Denmark, similar recommendations are not made. If required, the meningococcus vaccination may be given.

BCG and Mantoux test

CDC does not recommend vaccination against tuberculosis in the childhood vaccination programme. In Denmark, BCG vaccination was discontinued at the start of the 1980s. If BCG vaccine has been given, documentation may be provided for this. Suggested formulation: "This is to certify that N.N., born (date), was immunised against tuberculosis with BCG vaccine on (date). A positive tuberculin skin test will thus be of no diagnostic value for tuberculosis". (M. Howitz, P.H. Andersen, Department of Epidemiology)

Individually notifiable diseases

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

Table 1	Week 20 2005	Cum. 2005 ¹⁾	Cum. 2004 ¹⁾
AIDS	1	30	13
Anthrax	0	0	0
Botulism	0	0	0
Cholera	0	0	0
Creutzfeldt-Jakob	0	2	4
Diphtheria	0	0	0
Food-borne diseases	5	117	174
of these, infected abroad	2	23	22
Gonorrhoea	3	212	107
Haemorrhagic fever	0	0	0
Hepatitis A	1	36	55
of these, infected abroad	0	9	9
Hepatitis B (acute)	1	20	15
Hepatitis B (chronic)	0	53	67
Hepatitis C (acute)	0	1	1
Hepatitis C (chronic)	8	115	145
HIV	2	126	120
Legionella pneumonia	2	30	29
of these, infected abroad	0	5	4
Leprosy	0	0	0
Leptospirosis	0	9	1
Measles	0	1	0
Meningococcal disease	1	37	41
of these, group B	1	23	25
of these, group C	0	5	5
of these, unspec. + other	0	9	11
Mumps	0	3	1
Neuroborreliosis	1	17	51
Ornithosis	0	7	2
Pertussis (children < 2 years)	2	76	70
Plague	0	0	0
Polio	0	0	0
Purulent meningitis			
Haemophilus influenzae	0	0	1
Listeria monocytogenes	0	1	1
Streptococcus pneumoniae	2	52	52
Other aethiology	0	3	3
Unknown aethiology	0	6	9
Under registration	4	29	-
Rabies	0	0	0
Rubella (congenital)	0	0	0
Rubella (during pregnancy)	0	0	0
Shigellosis	1	37	27
of these, infected abroad	1	33	22
Syphilis	3	42	65
Tetanus	0	2	0
Tuberculosis	10	169	146
Typhoid/paratyphoid fever	0	11	8
of these, infected abroad	0	10	6
VTEC/HUS	3	57	49
of these, infected abroad	0	24	8

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 20 2005	Cum. 2005 ²⁾	Cum. 2004 ²⁾
Bordetella pertussis (all ages)	12	258	285
Gonococci	6	166	127
of these, females	0	24	15
of these, males	6	142	112
Listeria monocytogenes	1	11	13
Mycoplasma pneumoniae			
Resp. specimens ³⁾	1	569	64
Serum specimens ⁴⁾	7	464	174
Streptococci ⁵⁾			
Group A streptococci	6	64	61
Group B streptococci	1	23	30
Group C streptococci	0	8	7
Group G streptococci	1	52	40
S. pneumoniae	33	611	672
Table 3	Week 18 2005	Cum. 2005 ²⁾	Cum. 2004 ²⁾
Pathogenic int. bacteria ⁶⁾			
Campylobacter	35	660	776
S. Enteritidis	0	117	111
S. Typhimurium	7	107	114
Other zoon. salmonella	7	158	151
Yersinia enterocolitica	8	73	55

²⁾ Cumulative number 2005 and in corresponding period 2004

³⁾ Resp. specimens with positive PCR

⁴⁾ Serum specimens with pos. complement fixation test

⁵⁾ Isolated in blood or spinal fluid

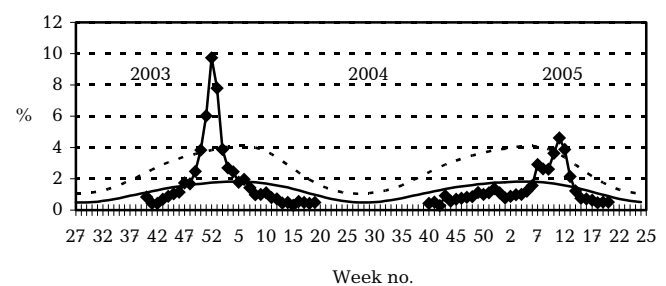
⁶⁾ See also www.germ.dk

Additional comment

In week 19, the first measles case since August 2002 was reported. The case is currently being investigated.

Sentinel surveillance of the influenza activity

Weekly percentage of consultations, 2003/2004/2005



◆ Sentinel — Basal curve - - - Alert threshold

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

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