EPI-NEWS

NATIONAL SURVEILLANCE OF COMMUNICABLE DISEASES

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INFLUENZA VACCINATION 2006/2007

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Influenza vaccine 2006/2007
In order to secure the best possible protection against influenza, the vaccine contains the most recent strains of the three influenza viruses currently in global circulation:

1. A/New Caledonia/20/99(H1N1)-like
2. A/Wisconsin/67/2005(H3N2)-like
3. B/Malaysia/2506/2004-like

Two of the three virus strains are different from those of the previous season. The vaccine fulfils the WHO recommendation for the northern hemisphere as well as the EU stipulations for the season.

Delivery
Due to a reduced production output, this year's vaccine delivery will be delayed two weeks. It is expected that the annual influenza vaccination may be initiated by week 42. The delay is not expected to affect prophylaxis, as the influenza season does not start until the end of November at the earliest.
As has been the case in recent years, vaccines from two different producers will be distributed in order to ensure security of supplies. The vaccines are considered equally good for protection against influenza, and they have both been approved for vaccination of children as well as adults. Vaccines from last season should be discarded.

Risk groups
The Danish National Board of Health continues to recommend vaccination of persons belonging to the following risk groups:

- Persons in treatment for, or attending check-ups related to chronic pulmonary or cardiovascular diseases, or diabetes mellitus.
- Persons with congenital or acquired immunodeficiencies; for HIV-infected persons, see below.
- Persons with other diseases which, according to the doctor's assessment, pose a serious health risk in conjunction with influenza.
- Persons aged 65 years and above.

Patients with multiple sclerosis are at risk of new attacks in the event of influenza illness, while no increased risk of new attacks has been observed as a result of vaccination.
Guidance concerning vaccination of HIV-infected patients is available from the infectious diseases department where the patient meets for follow-up.

Children
Children above the age of six months with a risk of running a serious influenza course should be vaccinated. Children at risk include those treated at paediatric wards for diseases affecting the lung function, heart disorders, immunodeficiency, etc. There is no indication for vaccination of children with diabetes mellitus or well-treated asthma.
Detailed guidelines from the Danish Paediatric Society are available (in Danish) at www.paediatri.dk.
Children pertaining to the risk groups are vaccinated at the paediatric wards. Children aged 6 months to 9 years, who have not previously been vaccinated against influenza, should receive two vaccinations at a four-week interval. Children aged 6 to 36 months are vaccinated using only half the vaccine dose. According to current rules, no subsidy is awarded for influenza vaccination of children belonging to risk groups in general practice.
It may be relevant to vaccinate household contacts and other persons who come into close contact with children belonging to risk the groups. Vaccination is performed by the GP.

Pregnancy and lactation
Data from vaccination of pregnant women have not demonstrated harmful effects on either the foetus or the mother. Vaccination may be considered from the second trimester of pregnancy. Pregnant women who belong to one of the risk groups mentioned should be vaccinated irrespective of their pregnancy stage. Influenza vaccines may be given during the breast-feeding period.

Degree of protection
Immunity is achieved 2-3 weeks after vaccination and is generally effective for a period of 6-12 months. Consequently, vaccination should be renewed annually.
Protection depends heavily on the correlation between circulating viruses and vaccine virus strains. In young, healthy persons, vaccination prevents 70-90% of illness cases caused by influenza virus infection. In elderly persons, protection against ordinary influenza illness is somewhat lower. Protection against serious complications, hospital admissions and death in the elderly reaches 60%.

Adverse effects & contraindications
The vaccine contains components of inactivated influenza virus (split-virus vaccine) and thus does not cause influenza. It may cause temporary local reactions with flushing and tenderness around the injection site. There is no difference in the incidence of fever or other general effects between influenza-vaccinated and placebo-vaccinated subjects.
Persons who are hypersensitive to chickens' eggs/chicken protein or other vaccine ingredients (e.g. antibiotic residues or formaldehyde), and persons who have previously experienced a reaction of anaphylactoid character (urticaria, angio-oedema, asthma, allergic rhinitis or anaphylactic shock), should not be vaccinated.
Allergy to the ingredient formaldehyde will usually present as contact dermatitis; in such cases patch tests may be positive. Contact dermatitis is not a contraindication, and in order to avoid reactions, the vaccine may be given IM.

Free influenza vaccination
The free influenza vaccination scheme for persons over 65 years will continue unchanged until the end of 2006.
Vaccination payment constitutes DKK 112 which covers all costs. Further payment may not be charged. If, for reasons of health, the vaccination is performed in the vaccinee's home, payment constitutes DKK 275. This does not apply for retirement homes, protected accommodation, apartments for the elderly and the like.
The executive order on provisional free influenza vaccination for everyone above the age of 65 is available (in Danish) at www.im.dk.

Antiviral agents
Neuraminidase inhibitors are effective against both influenza A and B virus, but are not an alternative to prophylaxis by vaccination. They may be used as a supplement to influenza treatment in patients who become infected despite vaccination, or in patients who have not been vaccinated due to contraindications. In addition, inhibitors may be used for prophylaxis in unvaccinated contact persons.
(S. Glismann, Dept. of Epidemiology)

Individually notifiable diseases

Number of notifications received in the Department of Epidemiology, SSI (2006 figures are preliminary)

Table 1	Week 39 2006	Cum. 2006 [1]	Cum. 2005 [1]
AIDS	0	32	48
Anthrax	0	0	0
Botulism	0	0	0
Cholera	0	0	0
Creutzfeldt-Jakob	1	19	2
Diphtheria	0	0	0
Foodborne diseases	14	410	415
of these, infected abroad	5	101	104
Gonorrhoea	5	330	390
Haemorrhagic fever	0	0	0
Hepatitis A	1	28	49
of these, infected abroad	0	15	17
Hepatitis B (acute)	0	15	29
Hepatitis B (chronic)	0	246	104
Hepatitis C (acute)	0	6	1
Hepatitis C (chronic)	0	375	246
HIV	0	166	202
Legionella pneumonia	5	95	82
of these, infected abroad	0	25	30
Leprosy	0	0	0
Leptospirosis	1	8	10
Measles	0	28	2
Meningococcal disease	0	51	76
of these, group B	0	24	37
of these, group C	0	10	19
of these, unspec. + other	0	17	19
Mumps	2	14	7
Neuroborreliosis	3	55	62
Ornithosis	0	9	17
Pertussis (children < 2 years)	2	37	124
Plague	0	0	0
Polio	0	0	0
Purulent meningitis			
Haemophilus influenzae	0	1	1
Listeria monocytogenes	0	6	2
Streptococcus pneumoniae	0	64	92
Other aethiology	0	6	13
Unknown aethiology	0	16	13
Under registration	6	29	-
Rabies	0	0	0
Rubella (congenital)	0	0	0
Rubella (during pregnancy)	0	0	0
Shigellosis	1	46	85
of these, infected abroad	1	40	68
Syphilis	1	54	102
Tetanus	0	2	2
Tuberculosis	14	304	338
Typhoid/paratyphoid fever	0	24	29
of these, infected abroad	0	21	27
Typhus exanthematicus	0	0	0
VTEC/HUS	4	107	125
of these, infected abroad	1	35	43

[1] *Cumulative number 2006 and in corresponding period 2005*

Selected laboratory diagnosed infections

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

Table 2	Week 39 2006	Cum. 2006 [2]	Cum. 2005 [2]
Bordetella pertussis (all ages)	5	153	398
Gonococci	2	323	344
of these, females	0	57	36
of these, males	2	266	308
Listeria monocytogenes	1	36	29
Mycoplasma pneumoniae			
Resp. specimens [3]	8	307	721
Serum specimens [4]	8	276	596
Streptococci [5]			
Group A streptococci	2	117	88
Group B streptococci	2	73	57
Group C streptococci	1	18	19
Group G streptococci	1	109	94
S. pneumoniae	14	743	854

Table 3	Week 37 2006	Cum. 2006 [2]	Cum. 2005 [2]
Pathogenic int. bacteria [6]			
Campylobacter	62	2257	2693
S. Enteritidis	16	442	463
S. Typhimurium	4	283	399
Other zoon. salmonella	15	491	430
Yersinia enterocolitica	1	126	170
Verocytotoxin-producing E. coli	2	107	117
Enteropathogenic E. coli	3	201	199
Enterotoxigenic E. coli	4	184	272

[2] *Cumulative number 2006 and in corresponding period 2005*

[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*