EPI-NEWS

NATIONAL SURVEILLANCE OF COMMUNICABLE DISEASES

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INFLUENZA VACCINATION 2007/2008

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Influenza vaccine 2007/2008
In order to secure the best possible influenza protection, the vaccine contains the most recent strains of the three influenza viruses currently in global circulation:
1. A/Wisconsin/67/2005(H3N2)-like virus
2. A/Solomon Islands/3/2006(H1N1)-like virus
3. B/Malaysia/2506/2004-like virus

One of the three virus strains is different from those of the previous season, EPI-NEWS 40/06.
The vaccine fulfils the WHO recommendation for the northern hemisphere as well as the EU stipulations for the season.

Delivery
To ensure an adequate supply, stocks of vaccine will be distributed from two producers. The vaccines are considered equally good for influenza protection, and they have both been approved for vaccination of children as well as adults.
Vaccines from last season should be discarded.

Campaign
In October, the National Board of Health will run a campaign to increase vaccination coverage among risk groups.

Free influenza vaccination
The free influenza vaccination scheme has been widened in comparison with the previous season. The scheme now comprises persons $\geq$ 65 years, the chronically ill < 65 years following medical assessment, and anyone on early retirement. Vaccination should take place before the end of 2007.
The executive order on free influenza vaccination for specific population groups takes effect on 24 September.

Chronically ill below 65 years
Following specific medical assessment, the chronically ill include:
- Persons in treatment for, or attending check-ups related to chronic pulmonary disease with permanently reduced lung function.
- Persons diagnosed with ischaemic heart disease – with or without cardiac insufficiency – and cardiac insufficiency caused by other factors.
- Persons being treated for diabetes mellitus who have at least one disease complication.
- Persons with congenital or acquired immunodeficiency.
- Persons with other chronic diseases which, according to the doctor's assessment, pose a serious health risk in conjunction with influenza.

Children
Children above the age of six months with a risk of running a serious influenza course should be vaccinated. In the majority of cases, such children will be monitored by a paediatric clinic, but they may now also receive free vaccination at a specialist or at a vaccination clinic.
Detailed guidelines on influenza vaccination of risk group children have been prepared by the Danish Paediatric Society.
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.
It may be relevant to vaccinate household contacts and other persons who come into close contact with children belonging to the risk groups.

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.

Disseminated sclerosis and HIV
Patients with disseminated sclerosis are at risk of new attacks in the event of influenza illness, but 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 responsible for the patient.

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 the 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 events and contra-indications
The vaccine contains components of inactivated influenza virus (split-virus vaccine) and thus does not cause influenza. Temporary local reactions with flushing and tenderness surrounding the injection site may occur.
There is no difference in the incidence of fever or other general effects between influenza-vaccinated and placebo-vaccinated subjects. Fever, malaise, rigors and tiredness are common reactions which normally recede after 1-2 days.
Persons who are hypersensitive to chicken eggs/chicken protein or other vaccine ingredients (e.g. antibiotics 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 contra-indication. To avoid such reaction, the vaccine may be administered IM.
The vaccine may be administered in conjunction with other vaccines, but adverse events may aggravate. If several vaccines are given in conjunction, they should be administered to separate arms and legs.

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, neuraminidase inhibitors may be used for prophylaxis in unvaccinated contact persons.
(S. Glismann, A. H. Christiansen, Department of Epidemiology)

Individually notifiable diseases

Number of notifications received in the Department of Epidemiology, SSI (2007 figures are preliminary)

Table 1	Week 37 2007	Cum. 2007 [1]	Cum. 2006 [1]
AIDS	2	39	32
Anthrax	0	0	0
Botulism	0	0	0
Cholera	0	0	0
Creutzfeldt-Jakob	0	6	13
Diphtheria	0	0	0
Food-borne diseases	26	447	390
of these, infected abroad	0	80	93
Gonorrhoea	8	268	319
Haemorrhagic fever	0	0	0
Hepatitis A	0	18	26
of these, infected abroad	0	7	14
Hepatitis B (acute)	0	19	15
Hepatitis B (chronic)	6	201	246
Hepatitis C (acute)	0	4	6
Hepatitis C (chronic)	12	273	371
HIV	9	205	163
Legionella pneumonia	4	77	85
of these, infected abroad	0	16	23
Leprosy	0	0	0
Leptospirosis	2	10	7
Measles	0	2	26
Meningococcal disease	1	51	59
of these, group B	0	27	29
of these, group C	1	18	12
of these, unspec. + other	0	6	18
Mumps	0	4	12
Neuroborreliosis	10	64	46
Ornithosis	0	7	9
Pertussis (children < 2 years)	2	54	35
Plague	0	0	0
Polio	0	0	0
Purulent meningitis			
Haemophilus influenzae	0	2	3
Listeria monocytogenes	0	8	7
Streptococcus pneumoniae	0	81	67
Other aethiology	0	11	6
Unknown aethiology	0	11	17
Under registration	0	10	-
Rabies	0	0	0
Rubella (congenital)	0	0	0
Rubella (during pregnancy)	0	0	0
Shigellosis	10	138	43
of these, infected abroad	1	29	37
Syphilis	4	74	52
Tetanus	1	2	2
Tuberculosis	4	293	263
Typhoid/paratyphoid fever	0	16	21
of these, infected abroad	0	15	20
Typhus exanthematicus	0	2	0
VTEC/HUS	1	114	100
of these, infected abroad	0	31	33

[1] *Cumulative number 2007 and in corresponding period 2006*

Selected laboratory diagnosed infections

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

Table 2	Week 37 2007	Cum. 2007 [2]	Cum. 2006 [2]
Bordetella pertussis (all ages)	6	144	143
Gonococci	6	261	314
of these, females	2	41	55
of these, males	4	220	259
Listeria monocytogenes	3	40	35
Mycoplasma pneumoniae			
Resp. specimens [3]	0	267	293
Serum specimens [4]	7	322	263
Streptococci [5]			
Group A streptococci	1	85	111
Group B streptococci	1	71	70
Group C streptococci	0	16	16
Group G streptococci	2	90	107
S. pneumoniae	9	739	719

Table 3	Week 35 2007	Cum. 2007 [2]	Cum. 2006 [2]
MRSA	13	409	-
Pathogenic int. bacteria [6]			
Campylobacter	124	2734	2093
S. Enteritidis	18	354	409
S. Typhimurium	5	235	269
Other zoon. salmonella	8	460	452
Yersinia enterocolitica	5	188	121
Verocytotoxin-producing E. coli	1	113	101
Enteropathogenic E. coli	9	126	187
Enterotoxigenic E. coli	10	177	175

[2] *Cumulative number 2007 and in corresponding period 2006*

[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*

Commentary

In week 37, a tetanus notification was received concerning a 83-year-old unvaccinated female who had acquired a knee lesion.

(Department of Epidemiology)