EPI-NEWS

NATIONAL SURVEILLANCE OF COMMUNICABLE DISEASES

Editor: Peter Henrik Andersen
Dept. of Epidemiology
Statens Serum Institut • 5 Artillerivej • DK 2300 Copenhagen S

Tel.: +45 3268 3268 • Fax: +45 3268 3874
www.ssi.dk • epinews@ssi.dk • ISSN: 1396-4798

INFLUENZA VACCINATION 2008/2009

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Free influenza vaccination
Certain population groups residing in Denmark are given a free influenza vaccination offer. The offer comprises persons ≥ 65 years, chronically ill persons < 65 years following medical assessment, and anyone on early retirement.
The scheme comes into force on 1 October and vaccination must be administered by the end of 2008.
The executive order on free influenza vaccination for specific population groups is available at www.sst.dk (Danish language).

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 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. 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.

Campaign
In October and November, the National Board of Health will run a campaign to increase vaccination coverage among risk groups. The campaign will comprise advertisements in the magazines of patient associations and on television.
Further information (In Danish): www.sst.dk/influenza.
This year has also seen production of posters and postcards for use at medical practices etc.

Influenza vaccine 2008/2009
In order to achieve the best possible influenza protection, the vaccine contains the most recent strains of the three influenza viruses currently in global circulation:
1. A/Brisbane/59/2007 (H1N1)-like virus
2. A/Brisbane/10/2007 (H3N2)-like virus
3. B/Florida/4/2006-like virus

The three virus strains are all different from those of the previous season, EPI-NEWS 38/07.
This year, the vaccine complies with the WHO recommendation for the Northern as well as the Southern Hemisphere (May-October 2009).

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.

Degree of protection
Immunity is achieved 2-3 weeks after vaccination, and vaccination is generally effective for a period of 6-12 months. Protection depends heavily on the correlation between the circulating viruses and the vaccine virus strains. In young, healthy persons, vaccination prevents 70-90% of influenza illness cases.
In elderly persons, protection against ordinary influenza illness is somewhat lower. Protection against serious complications, hospital admissions and death in the elderly reaches 50%.

Adverse events & contraindications
The vaccine contains components of inactivated influenza virus (split-virus vaccine) and thus does not cause influenza. Temporary local reactions including 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 will normally recede after 1-2 days.
Persons hypersensitive to chickens' 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 manifest itself as contact dermatitis; in such cases patch tests may be positive. Contact dermatitis is not a contraindication. To avoid such reaction, the vaccine may be administered IM.
The vaccine may be given in conjunction with other vaccines; however, this may aggravate adverse events. If several vaccines are given in conjunction, they should not be administered to the same arm or leg.

Antiviral agents
Neuraminidase inhibitors are effective against both influenza A and B virus, but are not an alternative to prophylaxis by vaccination.
Development of resistance against oseltamivir has given rise to no changes in recommendations, EPI-NEWS 23/08 and 46/05. Neuraminidase inhibitors may be used for influenza treatment and prophylactically in persons who are unvaccinated due to contra indications and in any unvaccinated contact persons.
(S. Glismann, A.H. Christiansen, Department of Epidemiology)

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Individually notifiable diseases

Number of notifications received in the Department of Epidemiology, SSI (2008 figures are preliminary)

Table 1	Week 38 2008	Cum. 2008 [1]	Cum. 2007 [1]
AIDS	1	28	42
Anthrax	0	0	0
Botulism	0	0	0
Cholera	0	1	0
Creutzfeldt-Jakob	0	2	8
Diphtheria	0	0	0
Food-borne diseases	25	606	470
of these, infected abroad	7	104	93
Gonorrhoea	11	289	269
Haemorrhagic fever	0	0	0
Hepatitis A	2	30	19
of these, infected abroad	0	12	9
Hepatitis B (acute)	3	18	22
Hepatitis B (chronic)	3	138	248
Hepatitis C (acute)	0	6	4
Hepatitis C (chronic)	25	320	459
HIV	7	174	211
Legionella pneumonia	5	89	80
of these, infected abroad	1	31	21
Leprosy	0	0	0
Leptospirosis	0	2	9
Measles	0	10	2
Meningococcal disease	0	40	56
of these, group B	0	16	31
of these, group C	0	12	18
of these, unspec. + other	0	12	7
Mumps	0	21	4
Neuroborreliosis	2	39	69
Ornithosis	0	2	7
Pertussis (children < 2 years)	0	80	55
Plague	0	0	0
Polio	0	0	0
Purulent meningitis			
Haemophilus influenzae	0	2	2
Listeria monocytogenes	0	1	8
Streptococcus pneumoniae	1	67	82
Other aethiology	0	17	12
Unknown aethiology	0	16	12
Under registration	1	10	-
Rabies	0	0	0
Rubella (congenital)	0	2	0
Rubella (during pregnancy)	0	0	0
Shigellosis	3	60	145
of these, infected abroad	2	49	32
Syphilis	2	99	70
Tetanus	0	1	2
Tuberculosis	4	296	291
Typhoid/paratyphoid fever	4	27	17
of these, infected abroad	3	21	16
Typhus exanthematicus	0	0	2
VTEC/HUS	9	110	117
of these, infected abroad	1	35	34

[1] *Cumulative number 2008 and in corresponding period 2007*

Selected laboratory diagnosed infections

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

Table 2	Week 38 2008	Cum. 2008 [2]	Cum. 2007 [2]
Bordetella pertussis			
(all ages)	4	148	176
Gonococci	11	270	268
of these, females	2	55	41
of these, males	9	215	227
Listeria monocytogenes	1	36	41
Mycoplasma pneumoniae			
Resp. specimens [3]	2	60	276
Serum specimens [4]	0	65	327
Streptococci [5]			
Group A streptococci	2	112	89
Group B streptococci	2	93	73
Group C streptococci	1	14	16
Group G streptococci	4	100	90
S. pneumoniae	14	682	753
Table 3	**Week 36 2008**	**Cum. 2008 [2]**	**Cum. 2007 [2]**
MRSA	26	476	424
Pathogenic int. bacteria [6]			
Campylobacter	50	2138	2897
S. Enteritidis	26	413	383
S. Typhimurium	51	1400	242
Other zoon. salmonella	8	696	532
Yersinia enterocolitica	3	205	196
Verocytotoxin-producing E. coli	6	106	117
Enteropathogenic E. coli	17	149	133
Enterotoxigenic E. coli	16	246	194

[2] *Cumulative number 2008 and in corresponding period 2007*

[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*