EPI-NEWS
NATIONAL SURVEILLANCE OF COMMUNICABLE DISEASES

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SEASONAL INFLUENZA VACCINATION 2010/2011

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Free influenza vaccination
Certain population groups residing in Denmark are offered free influenza vaccination from 1 October until the end of 2010.
This year, risk groups have been widened or more explicitly defined in comparison to those of previous years. In accordance with Executive Order no. 766 of 25 June 2010, the following groups are entitled to free influenza vaccination:
1) Persons who at the time of the vaccination have reached a minimum age of 65 years
2) Early retirement pensioners
3) Chronically ill persons who suffer from the following conditions are included upon medical assessment:
- Chronic pulmonary conditions
- Cardiovascular diseases (barring high blood pressure with no concurrent conditions)
- Diabetes 1 or 2
- Congenital or acquired immunodeficiencies
- Severe obesity (e.g. BMI > 40)
- Patients whose respiration is affected due to muscular weakness
- Chronic liver or kidney failure
- Persons with other chronic diseases which, according to the physician's assessment, pose a serious health risk in conjunction with influenza
4) All pregnant women in their 2nd or 3rd trimesters
5) Household contacts to severely immunosuppressed patients may be offered vaccination in special situations. Household contacts are members of the household and persons with close contact comparable to that of household members.

Information
The National Board of Health has distributed posters and flyers about the risk groups to GPs, municipalities, pharmacies and maternity wards.
Furthermore, adds targeting persons over 65 years of age will be run during the vaccination period, and film clips encouraging citizens to accept the vaccination invitation will be shown at pharmacies and in the information slot OBS! provided by national Danish television (DR-TV).

Children
Children > six months with a risk of running a serious influenza course should be vaccinated. In the majority of cases, such children are monitored by a paediatric clinic, but they may also receive free vaccination at a specialist or at a vaccination clinic.
Children aged from six months to eight years who have not previously been vaccinated against influenza should receive two vaccinations at a minimum interval of four weeks.
Children aged from six to 35 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 breast-feeding
Pregnant women who have influenza illness after their first trimester have a slightly increased risk of complications such as pneumonia, abortion and pre-term labour.
The risk of complications is higher in pregnant women who suffer from chronic conditions during pregnancy.
Experience with the vaccination of pregnant women shows that there is no increased risk of congenital abnormalities or other pregnancy-associated secondary effects.
Pregnant women who belong to one of the risk groups of chronically ill patients mentioned above may be vaccinated irrespective of pregnancy stage. Pregnant women in their first trimester may be vaccinated upon medical assessment.
The influenza vaccines may be given during the breastfeeding 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.
The risk of new attacks as a result of vaccination has not been observed.
Guidance concerning vaccination of HIV-infected patients is available from the Department of Infectious Diseases at which the patient attends follow-up.

The influenza vaccine in the 2010/2011 season
The vaccine contains the primary strains of the three seasonal influenza viruses currently in global circulation:
- A/California/7/2009 (H1N1)-like virus (2009 pandemic virus)
- A/Perth/16/2009 (H3N2)-like virus
- B/Brisbane/60/2008-like virus.
The vaccine contains components of inactivated influenza virus (split-virus vaccine), but no adjuvant or thiomersal.
The vaccine also protects against the 2009 pandemic virus and complies with the WHO 2010/2011 recommendation for the Northern Hemisphere.

Supply
To ensure an adequate supply, stocks of vaccine will be distributed from three producers.
The vaccines are considered equally good for protection against influenza, and they were approved for vaccination of children as well as adults.
Vaccines from the previous season should be discarded.

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

Adverse events & contraindications
Fever, malaise, rigours and tiredness are common reactions which normally recede after 1-2 days. The vaccine does not cause influenza illness.
Previous reactions including fever, swelling or soreness in association with pandemic vaccination (Pandemrix®) do not constitute an absolute contraindication against the seasonal influenza vaccine, which does not contain adjuvant or thiomersal.
Persons who are hypersensitive to chicken eggs/chicken protein or other vaccine ingredients and who previously experienced an anaphylactic reaction should not be vaccinated.
Allergy to formaldehyde will most frequently manifest itself as contact dermatitis in connection with which patch tests may be positive. This does not comprise a contraindication.
To avoid such reaction, the vaccine may be administered intramuscularly.
Neuroaminidase inhibitors may be used prophylactically in persons who are unvaccinated due to contraindications and in any unvaccinated contact persons.
(S. Glismann, L.K. Knudsen, Department of Epidemiology)

Individually notifiable diseases

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

Table 1	Week 38 2010	Cum. 2010 [1]	Cum. 2009 [1]
AIDS	4	37	29
Anthrax	0	0	0
Botulism	0	1	0
Cholera	0	0	0
Creutzfeldt-Jakob	0	14	7
Diphtheria	0	0	0
Food-borne diseases	11	303	406
of these, infected abroad	3	70	73
Gonorrhoea	17	361	416
Haemorrhagic fever	0	0	0
Hepatitis A	0	44	29
of these, infected abroad	0	24	22
Hepatitis B (acute)	1	19	20
Hepatitis B (chronic)	8	145	124
Hepatitis C (acute)	0	2	4
Hepatitis C (chronic)	18	306	224
HIV	3	199	189
Legionella pneumonia	5	93	94
of these, infected abroad	1	21	19
Leprosy	0	0	0
Leptospirosis	1	4	0
Measles	0	4	9
Meningococcal disease	3	52	61
of these, group B	0	22	35
of these, group C	0	15	21
of these, unspec. + other	3	15	5
Mumps	2	27	10
Neuroborreliosis	2	27	29
Ornithosis	2	12	10
Pertussis (children < 2 years)	3	70	86
Plague	0	0	0
Polio	0	0	0
Purulent meningitis			
Haemophilus influenzae	0	1	5
Listeria monocytogenes	0	5	4
Streptococcus pneumoniae	0	55	65
Other aethiology	0	14	10
Unknown aethiology	0	17	20
Under registration	3	7	0
Rabies	0	0	0
Rubella (congenital)	0	0	0
Rubella (during pregnancy)	0	0	0
Shigellosis	1	68	82
of these, infected abroad	1	52	66
Syphilis	4	297	185
Tetanus	0	0	0
Tuberculosis	10	291	263
Typhoid/paratyphoid fever	1	30	20
of these, infected abroad	1	28	18
Typhus exanthematicus	0	0	0
VTEC/HUS	4	115	110
of these, infected abroad	1	29	23

[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 38 2010	Cum. 2010 [3]	Cum. 2009 [3]
Bordetella pertussis (all ages)	4	157	165
Gonococci	11	302	319
of these, females	3	76	87
of these, males	8	226	232
Listeria monocytogenes	0	37	55
Mycoplasma pneumoniae			
Resp. specimens [3]	15	137	47
Serum specimens [4]	9	164	83
Streptococci [5]			
Group A streptococci	4	126	113
Group B streptococci	2	80	88
Group C streptococci	2	47	29
Group G streptococci	9	132	126
S. pneumoniae	17	750	773
Table 3	**Week 36 2010**	**Cum. 2010 [2]**	**Cum. 2009 [2]**
MRSA	27	636	516
Pathogenic int. bacteria [6]			
Campylobacter	125	2668	2329
S. Enteritidis	13	256	422
S. Typhimurium	11	426	640
Other zoon. salmonella	9	481	513
Yersinia enterocolitica	1	141	169
Verocytotoxin-producing E. coli	6	138	112
Enteropathogenic E. coli	10	142	147
Enterotoxigenic E. coli	8	320	233

[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

The sentinel surveillance ended in week 20, 2010