



INFLUENZA VACCINATION 2002/2003

No. 39, 2002

Influenza vaccine 2002/2003

To ensure optimal protection against influenza, this season's vaccine contains the three most prevalent strains of influenza viruses that are still circulating world-wide:

1. an A/New Caledonia/20/99 (H1N1)-like strain
2. an A/Moscow/10/99 (H3N2)-like strain
3. a B/Hong Kong/330/2001-like strain.

The two influenza A virus strains are unchanged since last season, while the B strain is new due to antigenic drift.

To ensure an adequate supply, SSI has purchased stocks of vaccines from two different manufacturers. The two vaccines are considered equally effective.

Risk groups

The Danish National Board of Health recommends vaccination of persons belonging to risk groups as below:

- Persons with chronic pulmonary or cardiovascular diseases, or diabetes mellitus.
- Persons with congenital or acquired immunodeficiencies. For HIV-infected persons, see below.
- Persons suffering from other diseases, and in whom influenza constitutes a serious health risk.
- Persons living in institutional care centres, after risk assessment by a doctor.
- Persons aged 65 years and over.

Vaccination is recommended for children over 6 months who also belong to these risk groups. Children with asthma and cystic fibrosis may suffer deteriorating pulmonary symptoms and illness requiring admission to hospital, if complicated by influenza.

Patients suffering from disseminated sclerosis may risk having new attacks if complicated by influenza.

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 infectious diseases department responsible for the patient.

Vaccination

Influenza epidemics usually occur in Denmark in the period December-April. Vaccination should therefore

be repeated annually in October/November. Protection comes into effect approximately one week after vaccination. Children aged 6 months to 9 years, who have not previously been vaccinated against influenza, should have two vaccinations at an interval of four weeks. Dosage should be halved for children aged 6 to 36 months. All other persons should receive only one vaccination.

Degree of protection

The degree of protection is particularly dependent on the correlation between the type of viruses in circulation and the virus strains in the vaccine. Vaccination in young healthy adults prevents 70-90% of cases of illness. In elderly people, the protection against ordinary influenza illness is somewhat lower reaching approximately 60%. However, protection against serious complications, hospital admissions and deaths in the elderly is up to 70%.

Side-effects and contraindications

The vaccine contains killed virus and therefore does not in itself cause influenza. The most commonly reported side effect is temporary local reaction, with flushing and tenderness around the injection site. No difference in the incidence of fever or other general effects between influenza-vaccinated and placebo-vaccinated subjects has been demonstrated.

Persons with a history of hypersensitivity to eggs or other vaccine constituents (e.g., antibiotic residues, formalin or thiomersal), and anaphylactic-type reactions (urticaria, angioedema, asthma, allergic rhinitis or anaphylactic shock), should not be vaccinated. Allergy towards the constituents formaldehyde and thiomersal will usually be manifest as contact dermatitis, where patch tests may be positive. Contact dermatitis does not constitute a contraindication. To avoid reactions the vaccine can be given intramuscularly. Pregnant women should normally be vaccinated only if they belong to one of the risk groups mentioned.

Thiomersal

Thiomersal is an organic, mercury-containing compound that is used as a preservative or is found as a residue from the manufacturing process in certain inactivated vaccines, including influenza vaccines. Vaccine

manufacturers are working on eliminating the substance. Thiomersal has not been used in children's vaccines in Denmark since 1992.

Mercury has been found to be neurotoxic during the development of the central nervous system, but no evidence has been found to suggest that thiomersal in the doses used in vaccination programmes can cause neurotoxic injuries, including autism. Interestingly, the mercury content of certain common edible fish may be significantly greater than that found in vaccines.

Of the two influenza vaccines recommended by SSI, one contains thiomersal. Both vaccines have been approved by the Danish Medicines Agency for vaccination of both children and adults. The vaccine without thiomersal should be used for vaccination of children in risk groups mentioned above, or in rare cases where vaccination of a pregnant woman is recommended.

Antiviral agents

The newer antiviral agents, neuraminidase inhibitors, are effective against both influenza A and B viruses. The substances are not an alternative to prophylaxis by vaccination, but are used for the treatment of influenza illness. These may be used as a supplement for patients who suffer influenza in spite of vaccination.

New executive order about free influenza vaccination

The Ministry for the Interior and Health has issued the executive order "Temporary free influenza vaccination for everybody over the age of 65 years". This will come into force as from 30 September 2002. The local authorities and the Municipalities of Copenhagen and Frederiksberg refund DKK 100 for influenza vaccination in people over the age of 65 years. This covers the cost of the vaccine and the vaccination service. Further payment must not be charged. If, for health reasons, the vaccination is performed in the patient's home, the charge is DKK 200. This does not apply to residents of nursing homes, protected residences, or homes for the elderly.

The executive order can be read on www.im.dk.

(A.-M. Plesner, Medical Department, S. Samuelsson, Dept. of Epidemiology)

25 September 2002

Streptococci isolated from blood and CSF from infected patients

2nd quarter of 2002 compared with 2nd quarter of 2000 and 2001, respectively

		2nd quarter of 2002				2nd quarter	
		< 2 yrs	2-59 yrs	60 yrs +	Total	2000	2001
April	S. pneumoniae	12	35	72	119	77	121
	Gr. A strep.	1	10	12	23	14	9
	Gr. C strep.	-	1	-	1	1	-
	Gr. G strep.	1	1	9	11	5	5
May	S. pneumoniae	7	31	60	98	65	71
	Gr. A strep.	-	2	7	9	13	8
	Gr. C strep.	-	-	3	3	3	1
	Gr. G strep.	1	3	9	13	7	5
June	S. pneumoniae	2	20	32	54	52	81
	Gr. A strep.	-	1	4	5	9	18
	Gr. C strep.	-	1	1	2	4	2
	Gr. G strep.	-	3	8	11	10	14
2nd quarter	S. pneumoniae	21	86	164	271	194	273
	Gr. A strep.	1	13	23	37	36	35
	Gr. C strep.	-	2	4	6	8	3
	Gr. G strep.	2	7	26	35	22	24

Patients with serum specimens positive for Mycoplasma pneumoniae by complement fixation test

2nd quarter of 2002 compared with 2nd quarter of 2001 and, average for 2nd quarter 1997-2001

	April	May	June
Positive specimens during 2nd quarter of 2002	43	60	40
Positive specimens during 2nd quarter of 2001	31	26	38
Positive specimens, average 2nd quarter, 1997-2001	46	41	39

(Dept. of Respiratory Infections, Meningitis and STIs)