



## INFLUENZA VACCINATION 2003/2004

No. 39, 2003

### Influenza vaccine 2003/2004

To ensure optimal protection against influenza, the vaccine should contain the most current strains of the three influenza viruses that are still circulating globally. These are:

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

All three virus strains are unchanged since last influenza season. Vaccination should nevertheless, be repeated, as protection from last year's vaccination will be reduced. Vaccines from last season cannot be used due to inadequate shelf life.

### Risk groups

The National Board of Health recommendations remain unchanged with vaccination of persons in the risk groups below:

- Persons with chronic pulmonary diseases, cardiovascular diseases or diabetes mellitus.
- Persons with congenital or acquired immunodeficiencies; For HIV-infected persons see below.
- Persons with other diseases in whom influenza constitutes a serious health risk as deemed by a doctor.
- Residents of nursing homes or the like, after risk assessment by a doctor.
- Persons aged 65 years or over.

Children over the age of 6 months who belong to one of these risk groups should also be vaccinated. Influenza may cause children with asthma or cystic fibrosis to develop exacerbated pulmonary symptoms requiring admission to hospital. Patients with 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 treating the patient.

### Vaccination

Influenza epidemics in this country occur in the period December-April. The vaccination should therefore be renewed every year in October/November. Protection commences approximately one week after vaccination. Children aged 6 months to 9 years, who have not previously been vaccinated against influenza, should receive two vaccinations at an inter-

val of four weeks. All others should have only one vaccination. Children aged 6 to 36 months should receive half dose.

### Degree of protection

Protection depends particularly on the correlation between the type of circulating viruses and virus strains in the vaccine. In young, healthy people, vaccination 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 itself cause influenza. It may cause temporary local reactions with flushing and tenderness around the site of injection. There is no difference in incidence of fever or other general effect between influenza-vaccinated and placebo-vaccinated subjects.

Persons who are hypersensitive to chicken eggs or other ingredients (e.g. antibiotic residues, formalin or thiomersal), and where previous reactions are of an anaphylactoid character (urticaria, angioedema, asthma, allergic rhinitis or anaphylactic shock) should not be vaccinated.

Allergy to the ingredients formaldehyde and thiomersal will usually manifest itself as contact dermatitis, where patch tests may be positive.

Contact dermatitis is not a contraindication and to avoid reactions, the vaccine may be given IM.

Pregnant women should normally only be vaccinated if they belong to one of the aforementioned risk groups.

### Thiomersal

Thiomersal is used as a preservative or exists as a residue from the manufacturing process in certain inactivated vaccines, including influenza vaccines. Thiomersal has not been used in children's vaccines in Denmark since 1992.

WHO issued "Statement on thiomersal" in vaccines in August 2003. On the basis of several large studies of well-nourished children born at term, WHO concludes that the mercury content in vaccines is not associated with any health risk. The half-life of ethyl mercury, which is present in thiomersal, is much shorter (less than 1 week) than for methyl-

mercury, which is found in fish, etc. (1½ months). In addition, ethyl mercury is actively excreted via the intestine, while methyl mercury accumulates in the body.

Infants and pregnant women are vulnerable groups, who will traditionally receive special protection. Vaccine without thiomersal can be used for these groups. SSI has purchased stocks of two influenza vaccines, one of which is without thiomersal. Both vaccines have been approved by the Danish Medicines Agency for vaccination of both children and adults.

### Antiviral agents

Neuraminidase inhibitors work against both influenza A and B virus, but are not an alternative to prevention by vaccination. They can be used as a supplement for treatment and prevention of influenza in patients who get influenza despite vaccination, or for patients who are not vaccinated because of contraindications.

### Free influenza vaccination

Last season, free influenza vaccination was offered to the public over the age of 65 for the first time. Thirty percent of persons over 65, more than 238,000 people, accepted this offer.

There were however, huge differences in coverage. In the Copenhagen municipality, where free vaccination has been available for seven years, the degree of coverage was 60%, followed by the Frederiksberg municipality with 44%, and Frederiksborg County with 40%. The lowest coverage was in Viborg County with 17%. Five percent of vaccinations were carried out in the vaccinated person's own home for health reasons. In the Copenhagen municipality, 18% were vaccinated in their own homes.

The scheme continues, and payment for vaccination administered before the end of 2003 is DKK 110. The payment covers all expenses, and further payment must not be charged. If for health reasons the vaccination is performed in the vaccinated person's own home, apart from nursing homes and other residences for the sick or elderly, the payment is DKK 275. The executive order can be read on [www.im.dk](http://www.im.dk). (S. Samuelsson, Dept. of Epidemiology, M. Stellfeld, Dept. of Medicine)

## Patients with confirmed *Listeria monocytogenes* infection

2nd quarter of 2003 compared with the corresponding period in 2002, and 2002, whole year

---

	2nd quarter 2003	2nd quarter 2002	Total 2002
Mother/child infection	-	-	2
Septicaemia	5	4	19
Meningitis	-	1	5
Other	-	1	3
<b>Total</b>	<b>5</b>	<b>6</b>	<b>29</b>

---

(Dept. of G-I Infections)

---