

**INFLUENZA VACCINATION 2001/2002**

No. 39, 2001

Minor influenza epidemics occurred during the first months of 2001 in many European countries, including Denmark. Initial isolates of influenza virus were almost exclusively of the A (H1N1) subtype, whereas type B predominated later. In Denmark type A (H1N1) was demonstrated in February and type B from the beginning of March, EPI-NEWS 23/01. Epidemics of influenza A (H1N1) and B are usually less serious than those of A (H3N2), and A (H1N1) affects older age groups less. This year's epidemic was not associated with demonstrable excess mortality in the Danish population.

**The influenza vaccine 2001/2002**

To provide optimal protection against influenza, the current season's vaccine contains selected strains of three influenza viruses that are still in world-wide circulation. The two influenza A strains are the same as last season's, while the B strain is new, because of viral changes due to "drift". The chosen strains are:

1. An A/New Caledonia/20/99 (H1N1)-like strain;
2. An A/Moscow/10/99 (H3N2)-like strain;
3. A B/Sichuan/379/99-like strain.

To ensure adequate supply, this year Statens Serum Institut (SSI) is issuing vaccines from two different manufacturers. SSI considers the two vaccines to be equivalent, and they will be issued in the order in which they arrive at the Institute.

**Risk groups**

The National Board of Health recommends vaccination of the following risk groups (unchanged):

- Persons under treatment or follow-up for chronic pulmonary or cardiovascular disorders or diabetes mellitus.
- Persons with congenital or acquired immune defects; see below for HIV-infected persons.
- Persons with other diseases in which influenza is considered by the physician to constitute a serious risk to health.
- Persons in institutional care, when the physician must judge from local conditions whether all resi-

dents, or only those at special risk, should be vaccinated.

- Persons aged 65 years or more.

Several questions related to influenza vaccination of HIV-infected persons have not been definitely settled, and advice on vaccination should be obtained from the infectious diseases department that is following the patient. Vaccination is recommended for children over 6 months of age who belong to the above risk groups. For example, children with asthma or cystic fibrosis could get exacerbated pulmonary symptoms and require hospital admission if they get influenza. Patients with multiple sclerosis have been shown to be at increased risk of new attacks if they get influenza. It has not hitherto been determined whether vaccination against influenza also carries a risk. Recent placebo-controlled studies suggest that there is no increased risk of new attacks following vaccination.

**Vaccination**

Influenza epidemics occur during the December-April period in Denmark. Vaccination should therefore be renewed in October/November of each year. Protection starts about one week after vaccination. Children aged 6 months to 9 years who have not previously been vaccinated against influenza should be given two vaccinations at an interval of four weeks. Children aged 6 to 36 months should only be given half doses. A single vaccination is sufficient for all other categories.

**Degree of protection**

Protection depends on the correspondence of the viral strains in the vaccine with those in circulation. Vaccination usually prevents 70-90% of influenza cases. In the elderly, protection against clinical influenza is somewhat lower, at 60%, whereas protection against serious complications, hospital admission and death is around 70%.

**Side-effects and contraindications**

The vaccine contains killed virus and therefore does not cause influenza. The vaccine may produce transient local reactions with redness and soreness around the injection site. Febrile or other general reactions are not more frequent in influenza-vacci-

nated persons than in placebo-vaccinated controls. Persons who are hypersensitive to eggs or other vaccine components, e.g. traces of antibiotics, formalin or thiomersal, and who have anaphylactic-type reactions (urticaria, angioneurotic oedema, asthma, allergic rhinitis or anaphylactic shock), should not be vaccinated. Allergy to formaldehyde and thimerosal will usually take the form of contact dermatitis, when patch tests may be positive. This is not a contraindication for vaccination. In such cases the vaccination can be given intramuscularly as a precaution against reactions.

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

**Antiviral agents**

The recently introduced antiviral agents, the neuraminidase inhibitors, are active against both influenza A and B viruses. These agents are not a substitute for prevention by vaccination, but are used to treat clinical influenza. For example, they can be used as a supplement in patients who get influenza despite vaccination, and in patients who have not been vaccinated, e.g. because of the above-mentioned contraindications.

**Pneumococcal vaccination**

If pneumococcal vaccination is indicated for children over 2 years of age or adults in the risk groups, this should be given at a separate injection site. The 23-valent polysaccharide vaccine is recommended in these cases, EPI-NEWS 11/01. The physician should make sure that the vaccination has not been given previously, as pneumococcal vaccination should only be repeated in special risk groups, EPI-NEWS 44/99 & 16/96, and then only after prior antibody determination. Severe and prolonged local reactions may occur if a person who has been vaccinated a few years earlier and has high antibody levels is revaccinated.

The 7-valent conjugated pneumococcal vaccine is recommended for children under 2 years of age, EPI-NEWS 11/01.

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## Patients with laboratory-diagnosed gonorrhoea, by sex and county

4th quarter 2000

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County	Gonorrhoea, 4th quarter			1999
	2000			
	M	F	Total	
Cph. + Frb. Municip.	33	3	36	56
Copenhagen County	5	-	5	9
Frederiksborg	5	-	5	5
Roskilde	2	-	2	5
West Zealand	3	-	3	1
Storstrøm	1	-	1	3
Bornholm	1	-	1	-
Funen	8	5	13	2
South Jutland	4	2	6	3
Ribe	-	-	-	2
Vejle	1	-	1	-
Ringkøbing	-	-	-	3
Aarhus	2	-	2	7
Viborg	-	-	-	1
North Jutland	6	2	8	2
Denmark	71	12	83	99

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(Dept. of Respiratory Infections, Meningitis and STIs)

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