



## INFLUENZA VACCINATION 2005/2006

No. 39a, 2005

### Influenza vaccine 2005/2006

In order to secure the best possible protection against influenza, the vaccine must contain the most recent strains of the three influenza viruses that are circulating globally:

1. A/New Caledonia/20/99 (H1N1)-like
2. A/California/7/2004(H3N2)-like
3. B/Shanghai/361/2002-like.

One of the three virus strains has changed since last season. The vaccine fulfils the WHO recommendation for the northern hemisphere, as well as the EU stipulations for the season.

Vaccines from last season cannot be used.

### Risk groups

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

- 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 according to the physician constitutes a serious health risk.
- Persons aged 65 years or more.

Patients with disseminated sclerosis have a risk of new attacks in the event of illness with influenza, while no increase in risk has been found as a result of vaccination. Guidelines about vaccination of HIV-positive persons will be available at the infectious diseases department which is monitoring the patient.

### Children

Children aged over 6 months who belong to one of the risk groups above should be vaccinated. Children with cystic fibrosis and other severe chronic pulmonary diseases may develop exacerbated pulmonary symptoms and will need hospital admission if they catch influenza. In contrast, there is no indication to vaccinate children with well-treated asthma.

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 receive half-dose of the vaccine.

### Pregnancy and lactation

Data from vaccination of pregnant women have not shown harmful effects on the foetus or mother. Vaccination can be considered from the second trimester. Pregnant women who belong to one of the risk groups mentioned should be vaccinated irrespective of the stage of pregnancy. The influenza vaccines can be given during the period of breastfeeding.

### Degree of protection

Immunity is achieved 2-3 weeks after vaccination and usually lasts 6-12 months. The vaccination should thus be renewed each year in October-November.

Protection is especially dependent on correlation between circulating virus and virus strains in the vaccine. In young, healthy persons, vaccination prevents 70-90% of cases of illness caused by infection with influenza virus.

In elderly persons, protection against ordinary influenza illness is somewhat lower. Protection against severe complications, hospital admissions and death in the elderly is up to 60%.

### Adverse effects and contraindications

The vaccine contains components of inactivated influenza virus (split-virus vaccine) and thus does not itself cause influenza. It can cause transient local reactions with erythema and tenderness around the injection site. The incidence of fever or other effects on general condition is no greater in persons injected with influenza vaccine than with placebo. Persons who have hypersensitivity to chickens' eggs or other of the ingredients (e.g. antibiotic residues or formaldehyde), and where previous reaction was 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, where patch tests may be positive. Contact dermatitis is not a contraindication, and in order to avoid reactions, the vaccine may be given intramuscularly.

### Vaccines without thiomersal

This year's vaccines do not contain thiomersal. As has been the case in recent years, vaccines from two different producers will be distributed, with view to security of supply. The vaccines are considered to be equally good for protection against influenza, and they have both been approved for vaccination of both children and adults.

### Antiviral agents

Neuraminidase inhibitors are effective against both influenza A and B virus, but are not an alternative to prophylaxis through vaccination. They can be used as a supplement to treatment of influenza in patients who catch influenza despite vaccination, or for patients who have not been vaccinated because of contraindications. In addition, they can be used for prophylaxis in contact persons who have not been vaccinated.

### Free influenza vaccination

The scheme for free influenza vaccination for persons aged over 65 years continues unchanged until the end of 2005.

Payment for vaccination is DKK 110, which covers all expenses. Further payment may not be charged. If, for health reasons, vaccination is performed in the vaccinated person's home, apart from retirement homes, protected accommodation, apartments for the elderly and the like, payment is DKK 275.

The announcement concerning provisional free influenza vaccination for everybody over the age of 65 can be read on [www.im.dk](http://www.im.dk).

In 2004, 414,844 persons, corresponding to almost 52% of the country's citizens over the age of 65, availed of the free offer. This was an increase relative to 2003, when 47% availed of the offer.

As in previous years, there were great differences in uptake in 2004: Aarhus Amt came first with 66% uptake, followed by 60% uptake in Ribe County and the City of Copenhagen. After this came the Regional Municipality of Bornholm, with 55%. In the remaining areas, uptake was 51-53% in six counties and 45-50% in five counties. The lowest uptake was in Frederiksborg County, with 23%.

(S. Glismann, Department of Epidemiology)

28 September 2005

## Individually notifiable diseases

Number of notifications received in the Department of Epidemiology, SSI (2005 figures are preliminary)

| Table 1                        | Week 38<br>2005 | Cum.<br>2005 <sup>1)</sup> | Cum.<br>2004 <sup>1)</sup> |
|--------------------------------|-----------------|----------------------------|----------------------------|
| AIDS                           | 3               | 45                         | 34                         |
| Anthrax                        | 0               | 0                          | 0                          |
| Botulism                       | 0               | 0                          | 0                          |
| Cholera                        | 0               | 0                          | 1                          |
| Creutzfeldt-Jakob              | 0               | 2                          | 7                          |
| Diphtheria                     | 0               | 0                          | 0                          |
| Food-borne diseases            | 21              | 389                        | 464                        |
| of these, infected abroad      | 9               | 97                         | 72                         |
| Gonorrhoea                     | 8               | 377                        | 256                        |
| Haemorrhagic fever             |                 |                            |                            |
| Hepatitis A                    | 2               | 48                         | 170                        |
| of these, infected abroad      | 0               | 14                         | 48                         |
| Hepatitis B (acute)            | 1               | 29                         | 31                         |
| Hepatitis B (chronic)          | 3               | 101                        | 99                         |
| Hepatitis C (acute)            | 0               | 1                          | 2                          |
| Hepatitis C (chronic)          | 7               | 241                        | 237                        |
| HIV                            | 1               | 215                        | 219                        |
| Legionella pneumonia           | 1               | 77                         | 73                         |
| of these, infected abroad      | 1               | 25                         | 21                         |
| Leprosy                        | 0               | 0                          | 0                          |
| Leptospirosis                  | 0               | 9                          | 2                          |
| Measles                        | 0               | 2                          | 0                          |
| Meningococcal disease          | 0               | 70                         | 74                         |
| of these, group B              | 0               | 35                         | 41                         |
| of these, group C              | 0               | 18                         | 10                         |
| of these, unspec. + other      | 0               | 17                         | 23                         |
| Mumps                          | 0               | 6                          | 1                          |
| Neuroborreliosis               | 3               | 56                         | 87                         |
| Ornithosis                     | 2               | 17                         | 5                          |
| Pertussis (children < 2 years) | 3               | 121                        | 158                        |
| Plague                         | 0               | 0                          | 0                          |
| Polio                          | 0               | 0                          | 0                          |
| Purulent meningitis            |                 |                            |                            |
| Haemophilus influenzae         | 0               | 1                          | 3                          |
| Listeria monocytogenes         | 0               | 1                          | 1                          |
| Streptococcus pneumoniae       | 0               | 85                         | 78                         |
| Other aethiology               | 0               | 12                         | 6                          |
| Unknown aethiology             | 0               | 11                         | 12                         |
| Under registration             | 1               | 15                         | -                          |
| Rabies                         | 0               | 0                          | 0                          |
| Rubella (congenital)           | 0               | 0                          | 0                          |
| Rubella (during pregnancy)     | 0               | 0                          | 0                          |
| Shigellosis                    | 0               | 79                         | 59                         |
| of these, infected abroad      | 0               | 63                         | 48                         |
| Syphilis                       | 2               | 97                         | 105                        |
| Tetanus                        | 0               | 2                          | 0                          |
| Tuberculosis                   | 12              | 327                        | 313                        |
| Typhoid/paratyphoid fever      | 1               | 29                         | 19                         |
| of these, infected abroad      | 1               | 26                         | 17                         |
| Typhus exanthematicus          | 0               | 0                          | 0                          |
| VTEC/HUS                       | 4               | 121                        | 109                        |
| of these, infected abroad      | 2               | 41                         | 21                         |

<sup>1)</sup> Cumulative number 2005 and in corresponding period 2004

## Selected laboratory diagnosed infections

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

| Table 2                                | Week 38<br>2005 | Cum.<br>2005 <sup>2)</sup> | Cum.<br>2004 <sup>2)</sup> |
|--|-----------------|----------------------------|----------------------------|
| Bordetella pertussis<br>(all ages)     | 9               | 392                        | 690                        |
| Gonococci                              | 7               | 332                        | 275                        |
| of these, females                      | 1               | 34                         | 35                         |
| of these, males                        | 6               | 298                        | 240                        |
| Listeria monocytogenes                 | 0               | 28                         | 29                         |
| Mycoplasma pneumoniae                  |                 |                            |                            |
| Resp. specimens <sup>3)</sup>          | 23              | 704                        | 129                        |
| Serum specimens <sup>4)</sup>          | 4               | 585                        | 275                        |
| Streptococci <sup>5)</sup>             |                 |                            |                            |
| Group A streptococci                   | 0               | 87                         | 96                         |
| Group B streptococci                   | 0               | 56                         | 59                         |
| Group C streptococci                   | 0               | 19                         | 17                         |
| Group G streptococci                   | 0               | 92                         | 82                         |
| S. pneumoniae                          | 17              | 837                        | 914                        |
| Table 3                                | Week 36<br>2005 | Cum.<br>2005 <sup>2)</sup> | Cum.<br>2004 <sup>2)</sup> |
| Pathogenic int. bacteria <sup>6)</sup> |                 |                            |                            |
| Campylobacter                          | 105             | 2556                       | 2617                       |
| S. Enteritidis                         | 17              | 449                        | 360                        |
| S. Typhimurium                         | 17              | 390                        | 342                        |
| Other zoon. salmonella                 | 22              | 417                        | 350                        |
| Yersinia enterocolitica                | 3               | 159                        | 154                        |

<sup>2)</sup> Cumulative number 2005 and in corresponding period 2004

<sup>3)</sup> Resp. specimens with positive PCR

<sup>4)</sup> Serum specimens with pos. complement fixation test

<sup>5)</sup> Isolated in blood or spinal fluid

<sup>6)</sup> See also [www.germ.dk](http://www.germ.dk)