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INFLUENZA VACCINATION 1998/99

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The winter season 1997/98 passed without notable influenza activity in Denmark. As in the last 20 years, two subtypes of influenza A virus have been demonstrable in different parts of the world, A(H1N1) and A(H3N2), as well as influenza B virus. In addition, there was the outbreak of avian influenza in Hong Kong in which a new A(H5N1) subtype caused 18 cases of human infection (EPI-NEWS 1-2/98). The majority of these confirmed cases occurred in children and adolescents, in most of whom the infection took an unusually severe course. There were six deaths among the 18 cases. Fortunately, the new A(H5N1) virus did not develop any significant capacity for human-to-human spread and thus did not give rise to the world-wide epidemic that had been feared. The Hong Kong episode has nevertheless served as an important warning that a malignant influenza pandemic may arise at any time.

Influenza vaccine 1998/99

The WHO has recommended that the vaccine for the coming season should be composed of the following three viral strains:

1. A/Beijing/262/95 (H1N1)-like;
2. A/Sydney/5/97 (H3N2)-like;
3. B/Beijing/184/93-like.

The two A strains are new, while the B strain is a repeat from last season's vaccine.

Who should be vaccinated?

The National Board of Health has changed its recommendations on influenza vaccination for the coming season. They now comprise the following risk groups:

1. Persons requiring treatment for chronic respiratory or circulatory disorders.
2. Persons with congenital or acquired immune defects. There is no general indication for influenza vaccination on the sole grounds of a positive finding of HIV antibodies; advice on vaccination of individual patients should be obtained from the infectious diseases department that is following the patient.
3. Persons with other diseases in which influenza is considered by the physician to constitute a serious risk to health.
4. Persons in institutional care,

when the physician must judge from local conditions whether all residents, or only those at special risk should be vaccinated.

5. Persons aged 65 years or more.

The general vaccination recommendation for everyone aged 65 years or more is based on the many serious influenza cases that occur in the elderly. It is known that about 90% of the 1000-2000 influenza-related deaths registered during influenza epidemics in Denmark occur in persons over 65 years of age. However, it is difficult to define clearly which groups of elderly people are at special risk. Patients with known chronic pulmonary or circulatory disorders evidently constitute a high-risk group. Nevertheless, a considerable proportion of the excess mortality during influenza epidemics occurs in elderly people without such known diseases. There are thus good reasons for vaccinating all the elderly as a group. Similar recommendations have also been introduced in other Scandinavian and west European countries. With regard to the vaccination of HIV-positive persons, some studies indicate that HIV replication may increase in connection with the vaccination, or that the vaccination may not produce protective levels of antibody. These findings have not been reproduced in other studies. Vaccination of the listed groups is not subsidized by the National Health Service.

Vaccination

Influenza vaccination should be repeated every year in October-November. Children under 9 years who have not previously been vaccinated against influenza should be given two doses at an interval of at least 4 weeks. A single dose is enough for all other groups.

Degree of protection

There have been several well controlled studies on the protective effect of influenza vaccination. It has been shown, both under experimental and natural conditions, that vaccination gives 60-80% protection against illness due to influenza virus. However, a placebo-controlled study in persons over 60 years showed a somewhat lower degree of protection of about 50%. It is neverthe-

less worth noting that protection is 70-80% with respect to preventing serious complications, hospital admissions and deaths, also in the case of the elderly.

Side-effects

The vaccine may give rise to transient local reactions around the injection site. With the current highly purified split vaccines there are no more cases of febrile or other types of generalized reaction in influenza-vaccinated than in placebo-injected persons. Persons who are hypersensitive to eggs or other vaccine components, and in whom the hypersensitivity is of the anaphylactic type (urticaria, angioneurotic oedema, asthma, allergic rhinitis or anaphylactic shock), should not be vaccinated. Pregnant women should normally only be vaccinated if they belong to the listed risk groups. (Klaus Bro-Jørgensen, Medical Department, Vaccine Division)

PNEUMOCOCCAL VACCINATION

The target groups for pneumococcal vaccination (EPI-NEWS 51/96) and influenza vaccination are largely the same. The pneumococcal vaccine is regarded as giving about 70% protection against serious pneumococcal infection, which frequently occurs in the elderly and certain other risk groups. In many cases there will thus be good reason to recommend both vaccines to persons who have not previously been vaccinated against pneumococci, including the elderly and especially those with a history of pneumonia. In contrast to influenza vaccination, the pneumococcal vaccine is given only once and usually gives prolonged protection, of at least 5 years. Studies now in progress should clarify the indications for any revaccination. Persons who have previously been vaccinated against pneumococci, e.g. splenectomized patients, should not be revaccinated without prior antibody determination (EPI-NEWS 16/96). Pneumococcal and influenza vaccines can be given at the same time, but at different injection sites.

(H. Bossen Konradsen, Strept.unit)

30 September 1998

GASTROENTERITIS OUTBREAK IN TRAVELLERS (OVERLEAF)

Patients with laboratory-diagnosed chlamydia and gonorrhoea by sex and county

2nd quarter, 1998

	Chlamydia, 2nd quarter				Gonorrhoea, 2nd quarter		
	1998		Total	1997	1998		
	M	F			M	F	Total
Copenhagen Municip.	190	445	635	730	25	2	27 **
Frederiksberg Municip.	3	0	3	1	-	-	-
Copenhagen	103	245	348	294	2	2	4
Frederiksborg	30	89	119	141	1	0	1
Roskilde	21	69	90	100	1	0	1
West Zealand	22	83	105	126	0	0	0
Storstrøm	16	84	103	139	0	0	0
Bornholm	3	24	27	28	0	1	1
Funen	70	189	259	319	1	0	1
South Jutland	45	94	139	130	2	0	2
Ribe	28	63	91	83	2	0	2
Vejle	53	158	211	234	1	0	1
Ringkøbing	37	99	137	138	1	1	2
Aarhus	144	362	506	517	2	0	2
Viborg	12	58	70	82	1	0	1
North Jutland	85	211	297	368	3	0	3
Denmark	862	2273	3140	3430	42	6	48

*) Sex was not stated in some cases

***) Includes patients from Frederiksberg Municipality

(Neisseria Dept.)

Gastroenteritis outbreak in Scandinavian tourists in Turkey

Over 100 Danes and a smaller number of Swedes have developed gastroenteritis after travelling to Marmaris in Turkey during week 37 and 38. On 12th September the local veterinary authorities were informed of a possible contamination problem in view of the gastroenteritis affecting a large number of holiday-makers. Water samples showed faecal contamination, and the local authorities became aware that sewage had entered the drinking watersupply to a single hotel. It was further stated that the fault had been rectified. At the end of week 39 all the tourists during the two weeks concerned received written notification from the tour operator that they should seek medical advice if they still had symptoms. It was also stated that there have been no problems with gastroenteritis in newly arrived tourists during week 39. These are being advised on arrival not to drink the water at the hotel.

Culture findings in Denmark:

6 ETEC

9 *Cryptosporidium parvum*

2 *Campylobacter jejuni/coli*

1 *Salmonella* Virchow

Culture findings in Sweden:

2 *Shigella* spp. and 2 *Campylobacter jejuni/coli*

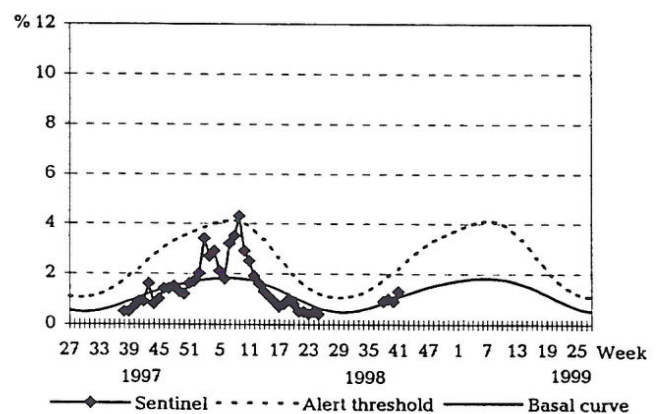
A Swedish citizen took a water sample home and according to the Swedish health authorities, this showed a content of *E. coli*.

Patients with gastroenteritis who have stayed in Marmaris, Turkey, should be examined for the usual pathogenic intestinal bacteria, diarrhoeagenic strains of *E. coli* and parasites.

(Jørgen Engberg, Dept. of Gastrointest. Infections)

Influenza activity in sentinel surveillance

Weekly percentage of consultations, 1997/98/99



Sentinel: Influenza consultations as % total consultations

Basal curve: Expected frequency of influenza consultations under non-epidemic conditions

Alert threshold: Possible incipient epidemic

(Dept. of Epidemiology)