EPI-NEWS

NATIONAL SURVEILLANCE OF COMMUNICABLE DISEASES

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CHICKENPOX PROPHYLAXIS IN RISK GROUPS

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About 98% of women born and raised in Denmark have had chickenpox. Only about 50% of women born and raised in tropical countries have antibodies against varicella zoster virus. The infection may have a more serious course in adults than in children. Pregnant women have a greater risk of developing viral pneumonia in connection with chickenpox, EPI-NEWS 18/95, and prophylactic treatment with specific immunoglobulin (VZIG) is given, primarily in order to prevent this complication. In addition, there is a slight risk (2%) of foetus damage in the event of chickenpox in the first half of pregnancy: congenital varicella zoster syndrome. Whenever VZIG is indicated, the Department of Epidemiology should be contacted. Treatment with VZIG was most recently discussed in EPI-NEWS 04/00. Revised guidelines are discussed below.

Exposure in pregnancy

1) Pregnant women who are not known to have had the disease and who are massively exposed to chickenpox, e.g. if a family member develops chickenpox, should have a blood test taken to establish their serological status. Most adults who do not think they have had chickenpox have antibodies and are immune. If the pregnant woman is seronegative, she should receive protection with VZIG. The woman should be offered vaccination after she has given birth. No data are available regarding the use of the vaccine while breastfeeding. At least five months should pass between administration of VZIG and vaccination. As immunoglobulin has been given and the vaccine is live attenuated, antibodies should be checked at the time of vaccination and again three months later.

2) Often, the exposure is more uncertain, e.g. if the pregnant woman has a non-immune child who has been exposed to chickenpox. In these cases, if the child is more than a year old, it should be offered vaccination against chickenpox, and the mother should be tested for antibodies. If the mother is seronegative and the child develops chickenpox despite vaccination, this constitutes massive exposure.

3) If a pregnant woman develops clinical symptoms, she should be treated with acyclovir as appropriate and be followed up by an obstetrician after treatment is completed. Data from pregnant women who have been treated with acyclovir in pregnancy have not shown an increased incidence of damage to the foetus.

4) A woman with no history of chickenpox, who has given birth and is to be discharged home where an older sibling has chickenpox, should be tested for antibodies before being discharged.

5) In the event of an outbreak of chickenpox at a refugee centre or the like, all women of child-bearing age should undergo serological testing. Seronegative women should be offered vaccination. However, vaccination of pregnant women should be postponed until after delivery.

Other indications for VZIG

1) New-born babies whose mothers develop chickenpox in the last week before or up to four weeks after delivery.

2) New-born babies of seronegative mothers who are exposed to chickenpox or herpes zoster up to four weeks after delivery.

3) Premature babies with a birth weight of 1 kg or less or children born before the 28th week of pregnancy, who are exposed to chickenpox or herpes zoster, are given VZIG regardless of the mother's varicella antibody status.

4) Seronegative children with malignant diseases who are exposed to chickenpox or herpes zoster.

5) Immunosuppressed patients, after concrete assessment.

Herpes zoster in the mother constitutes no risk to the foetus/child, as it will have maternal antibodies.

Effect of VZIG

VZIG has certain effect if given within 96 hours of exposure. However, some effect can be expected up to ten days after exposure. After disease onset, there is no therapeutic effect of VZIG.

Vaccination of exposed persons

In non-pregnant adults and children > 1 year, chickenpox can be prevented by vaccination no later than three days after exposure, EPI-NEWS 05/05.

(K. Qureshi, S. Cowan, Department of Epidemiology, B. F. Vestergård, Department of Virology)

ASCARIASIS - A ZOONOSIS IN DENMARK

In first quarter of 2005, seven cases of ascariasis (roundworms) were diagnosed in a village kindergarten in Jutland. Probable infection from the kindergarten's kitchen garden was established when ascaris eggs were found in the soil, which had been fertilised 15 months previously with pig manure. The children passed one or a few worms, and had few symptoms. In Viborg County, in an earlier practice-based study, an incidence of 4 per thousand children under the age of 5 living in the rural area was found, about 10 times higher than in urban children of the same age. Over half of the 33 confirmed cases were in children under the age of 5, of whom 80% passed a single worm; one child had more than 30 worms. Many of the children had non-specific abdominal pains. More than 80% had had contact with pig manure from the kitchen garden, playing in deep litter from herds of pigs and the like. None had visited countries outside Europe. After a television broadcast in which patients who thought that they had been suffering from roundworms were encouraged to telephone Viborg Hospital, more than 100 calls were received. These confirmed that ascariasis occurs all over the country, particularly in rural infants touching fresh or several years' standing pig manure. The human roundworm cannot be differentiated morphologically from the roundworm found in pigs, but they are designated Ascaris lumbricoides and Ascaris suum, respectively. Previous studies at abbatoirs have shown that 20% of swine for slaughter had ascariasis. Ascaris eggs can survive in soil for more than five years. After ingestion of soil mixed with pig manure, the larvae hatch in the intestine. From here, they are carried in the circulation to the lungs, coughed up and swallowed, and carried via the oesophagus back to the intestine, where the worm becomes sexually mature. The female can lay more than 200,000 eggs per day. The eggs must lie for some weeks before they are infectious. Treatment is normally with mebendazole.

Commentary

If the infection is to be minimised, it is necessary to refrain from using pig manure in kitchen gardens and nurseries, and to ensure that doctors are aware that ascariasis occurs as a zoonosis in Denmark. It is suggested that the risk of infection with roundworms be included in official information material to relevant persons, including parents and child-care workers.

(J. Prag, Viborg Hospital)

9 November 2005

Individually notifiable diseases

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

Table 1	Week 44 2005	Cum. 2005 [1]	Cum. 2004 [1]
AIDS	1	50	38
Anthrax	0	0	0
Botulism	0	0	0
Cholera	0	0	1
Creutzfeldt-Jakob	0	2	7
Diphtheria	0	0	0
Food-borne diseases	18	481	547
of these, infected abroad	5	119	94
Gonorrhoea	11	426	295
Haemorrhagic fever	0	0	0
Hepatitis A	6	61	206
of these, infected abroad	0	18	58
Hepatitis B (acute)	0	31	35
Hepatitis B (chronic)	8	124	117
Hepatitis C (acute)	0	1	3
Hepatitis C (chronic)	5	266	265
HIV	9	231	253
Legionella pneumonia	1	104	90
of these, infected abroad	0	39	28
Leprosy	0	0	0
Leptospirosis	0	9	7
Measles	0	2	0
Meningococcal disease	0	77	82
of these, group B	0	38	46
of these, group C	0	20	11
of these, unspec. + other	0	19	25
Mumps	0	7	1
Neuroborreliosis	3	75	109
Ornithosis	0	18	5
Pertussis (children < 2 years)	3	135	194
Plague	0	0	0
Polio	0	0	0
Purulent meningitis			
Haemophilus influenzae	1	2	4
Listeria monocytogenes	0	2	2
Streptococcus pneumoniae	0	92	84
Other aethiology	0	14	7
Unknown aethiology	0	12	12
Under registration	4	25	-
Rabies	0	0	0
Rubella (congenital)	0	0	0
Rubella (during pregnancy)	0	0	0
Shigellosis	1	91	75
of these, infected abroad	1	73	64
Syphilis	2	110	110
Tetanus	0	2	0
Tuberculosis	6	378	356
Typhoid/paratyphoid fever	0	31	21
of these, infected abroad	0	29	19
Typhus exanthematicus	0	0	0
VTEC/HUS	1	132	133
of these, infected abroad	0	46	28

[1] *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 44 2005	Cum. 2005 [2]	Cum. 2004 [2]
Bordetella pertussis			
(all ages)	6	432	835
Gonococci	5	380	346
of these, females	0	39	43
of these, males	5	341	303
Listeria monocytogenes	0	32	31
Mycoplasma pneumoniae			
Resp. specimens [3]	19	824	277
Serum specimens [4]	21	668	344
Streptococci [5]			
Group A streptococci	1	90	106
Group B streptococci	3	70	71
Group C streptococci	1	22	19
Group G streptococci	3	102	92
S. pneumoniae	16	930	1019
Table 3	**Week 42 2005**	**Cum. 2005 [2]**	**Cum. 2004 [2]**
Pathogenic int. bacteria [6]			
Campylobacter	87	3136	3191
S. Enteritidis	17	553	442
S. Typhimurium	12	459	396
Other zoon. salmonella	7	479	430
Yersinia enterocolitica	7	202	187

[2] *Cumulative number 2005 and in corresponding period 2004*

[3] *Resp. specimens with positive PCR*

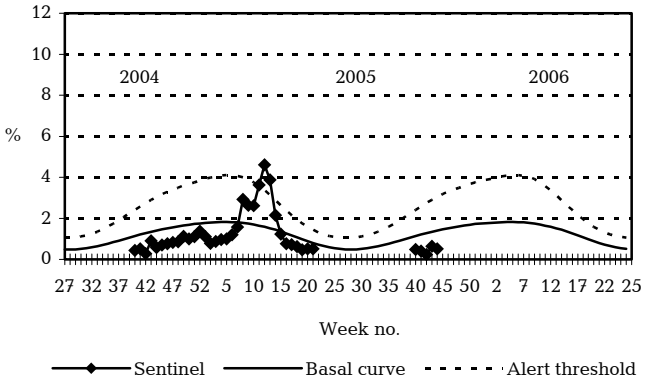
[4] *Serum specimens with pos. complement fixation test*

[5] *Isolated in blood or spinal fluid*

[6] *See also www.germ.dk*

Sentinel surveillance of the influenza activity

Weekly percentage of consultations, 2004/2005/2006



Sentinel:	Influenza consultations (as percentage of total consultations)
Basal curve:	Expected frequency of consultations under non-epidemic conditions
Alert threshold:	Possible incipient epidemic

9 November 2005