



MMR 2 VACCINATION ADVANCED TO 4 YEARS

No. 9, 2008

As from 1 April 2008, the MMR 2 vaccination will be administered at the 4-year examination. MMR 1 vaccination will still be administered at the age of 15 months.

Transition period 2008-2016

Children who are four years or above by 1 April 2008 should still receive the MMR 2 vaccination at 12 years of age. Consequently, the MMR 2 vaccination will be administered to two birth years during an 8-year transition period.

Service code

Service code 8612 should be used as previously in connection with MMR 2 vaccination, regardless of the child's vaccination age.

Objective of the change

Along with the remaining European countries, Denmark has joined the WHO 2010 objective of eliminating measles and rubella in Europe. To achieve this, it is essential to obtain a sufficiently high degree of herd immunity. By lowering the MMR 2 vaccination age in Denmark, the susceptible proportion of the population decreases and herd immunity increases when the immunity in age groups < 12 years rises.

MMR vaccination background

Prior to the introduction of MMR vaccination in Denmark, measles caused approx. 25 annual cases of encephalitis, of whom approx. 1/3 suffered permanent sequelae. Every year saw a few fatalities and epidemics brought 5-7 annual measles-related child deaths. Mumps caused 200 children to be hospitalised with serous meningitis annually and rarely also associated loss of hearing. Approx. 1/3 of mumps cases in adolescent boys and adult males caused orchitis which in rare cases led to sterility. Rubella during pregnancy was estimated to cause approx. 20 annual cases of congenital rubella syndrome, entailing serious foetal abnormalities and, in some cases, foetal death.

At the 1987 introduction of MMR vaccination in Denmark, long-term rubella coverage was uncertain. Consequently, vaccination at 12 years was chosen to ensure rubella immunity in women of childbearing age, keeping in mind the increased risk of adverse effects associated with the rubella component of the vaccine in post-pubescent females,

EPI-NEWS 47/86.

It is now known that MMR vaccination does provide long-term immunity, also against rubella. At its introduction, the MMR vaccine was offered to all children and adolescents born after 1974, but in the early years in particular, coverage was insufficient. The objective of achieving 95% coverage has still to be reached for an entire birth cohort, EPI-NEWS 25/06.

Comment

After more than 40 years of measles vaccination globally, and in excess of 20 years in the Danish childhood vaccination programme, the MMR vaccine has proven to comprise efficient and safe prevention against measles, mumps and rubella, all of which are now rarely occurring diseases in Denmark.

Advancing MMR 2 vaccination to the age of four is an important step towards impeding free circulation of measles, mumps and rubella virus in Denmark.

In the majority of European vaccination programmes, MMR 2 is given to pre-school children. Please find a list of European childhood vaccination programmes at www.euvac.net.

As detailed in the below descriptions of measles and mumps cases in 2007-2008, imported virus still comprises an outbreak risk in Denmark. Denmark, as well as other countries, currently sees a trend towards an increased number of infections in young adults who have an increased risk of serious disease in connection with measles and mumps. Furthermore, it is a well-established fact that the mumps component has a somewhat limited efficacy, why vaccine failure may occur; but in particular for measles, which is an extremely infectious virus, it is essential that persons who have not had the disease are vaccinated. MMR vaccination should be considered in unvaccinated children ≥ 9 months before travelling to areas where measles occur, EPI-NEWS 25/06.

The Danish National Board of Health recommends that adults born after 1974, who have not had measles or mumps and who have not already been vaccinated, receive MMR vaccination, see www.sst.dk. The MMR vaccination is free of charge for persons under 18 years. There is, in principle, no upper age limit for MMR vaccination.

(S. Glismann, A. H. Christiansen, Department of Epidemiology)

MEASLES 2007-FEBRUARY 2008

2007 saw two measles notifications: A 24-year-old and a 20-year-old unvaccinated female who had been infected during vacation journey to Thailand and Switzerland, respectively.

In 2008, five related measles cases have presently been registered. The index case, a 23-year-old unvaccinated male, was admitted after being infected during a vacation journey to Nepal and India. The secondary cases were a 24-year-old female with close contact to the index case, a 10-month-old girl and a 26-year-old female who had both coincided briefly with the index case in the shared waiting room of two physicians, and one 39-year-old male who attended outpatient treatment in the department at which the index case was admitted.

Genotyping demonstrated identical measles virus of type 4D in all five patients; an identical genotype has been found in India.

(A.-M. Plesner, MOH Copenhagen, B. Böttiger, Dept. of Virology, A.H. Christiansen, Dept. of Epidemiology)

MUMPS 2007 - FEBRUARY 2008

2007 saw 11 notified mumps cases: two children aged 5 and 6 years, four adolescents aged 13-19 years and five adults aged 23-55 years. Five of these patients were presumably infected abroad: three in Europe, one in Asia and one in the Middle East. Six were unvaccinated; three had received one MMR vaccination. Two patients had symptoms of orchitis, and three were admitted to hospital. 2008 has presently recorded 12 laboratory confirmed cases and one clinical case: Three females and 10 males, two were 4-9 years, ten 19-26 years and one 39-year-old. All fell ill in January and February. Nine of the cases were from the Viborg area. Six had received one MMR vaccination and one had received two.

(B. Fredsted, MOH Central Jutland, A.-M. Plesner, MOH Copenhagen, A.H. Christiansen, Department of Epidemiology)

DIAGNOSIS

Statens Serum Institut now has the capacity to demonstrate measles, mumps and rubella directly by PCR on throat swabs and urine, EPI-NEWS 8/06. Test results are available the first working day after reception of the sample material. (B. Böttiger, L.P. Nielsen, Department of Virology)

27 February 2008

Individually notifiable diseases

Number of notifications received in the Department of Epidemiology, SSI (2008 figures are preliminary)

Table 1	Week 8 2008	Cum. 2008 ¹⁾	Cum. 2007 ¹⁾
AIDS	0	7	8
Anthrax	0	0	0
Botulism	0	0	0
Cholera	0	0	0
Creutzfeldt-Jakob	0	4	2
Diphtheria	0	0	0
Food-borne diseases	5	37	99
of these, infected abroad	0	4	12
Gonorrhoea	8	49	68
Haemorrhagic fever	0	0	0
Hepatitis A	1	11	9
of these, infected abroad	1	4	3
Hepatitis B (acute)	0	1	4
Hepatitis B (chronic)	2	27	39
Hepatitis C (acute)	1	2	1
Hepatitis C (chronic)	5	44	58
HIV	6	32	42
Legionella pneumonia	2	19	17
of these, infected abroad	0	9	2
Leprosy	0	0	0
Leptospirosis	0	0	4
Measles	0	2	0
Meningococcal disease	2	11	6
of these, group B	2	5	1
of these, group C	0	1	4
of these, unsp. + other	0	5	1
Mumps	6	9	2
Neuroborreliosis	1	12	18
Ornithosis	0	1	0
Pertussis (children < 2 years)	2	13	17
Plague	0	0	0
Polio	0	0	0
Purulent meningitis			
Haemophilus influenzae	0	0	0
Listeria monocytogenes	0	0	5
Streptococcus pneumoniae	1	15	17
Other aethiology	1	9	2
Unknown aethiology	0	4	0
Under registration	1	10	-
Rabies	0	0	0
Rubella (congenital)	0	0	0
Rubella (during pregnancy)	0	0	0
Shigellosis	3	12	8
of these, infected abroad	0	7	5
Syphilis	2	21	14
Tetanus	0	0	0
Tuberculosis	14	59	59
Typhoid/paratyphoid fever	0	4	1
of these, infected abroad	0	4	1
Typhus exanthematicus	0	0	0
VTEC/HUS	2	19	16
of these, infected abroad	0	1	6

¹⁾ Cumulative number 2008 and in corresponding period 2007

Selected laboratory diagnosed infections

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

Table 2	Week 8 2008	Cum. 2008 ²⁾	Cum. 2007 ²⁾
Bordetella pertussis (all ages)	1	19	25
Gonococci	9	55	58
of these, females	2	9	9
of these, males	7	46	49
Listeria monocytogenes	1	2	12
Mycoplasma pneumoniae			
Resp. specimens ³⁾	2	28	169
Serum specimens ⁴⁾	7	29	144
Streptococci ⁵⁾			
Group A streptococci	2	24	25
Group B streptococci	0	18	12
Group C streptococci	0	3	1
Group G streptococci	2	23	22
S. pneumoniae	25	236	212
Table 3	Week 6 2008	Cum. 2008 ²⁾	Cum. 2007 ²⁾
MRSA	11	59	-
Pathogenic int. bacteria ⁶⁾			
Campylobacter	30	155	294
S. Enteritidis	5	27	24
S. Typhimurium	3	34	18
Other zoon. salmonella	9	77	61
Yersinia enterocolitica	4	24	30
Verocytotoxin-producing E. coli	3	12	15
Enteropathogenic E. coli	3	9	28
Enterotoxigenic E. coli	12	37	18

²⁾ Cumulative number 2008 and in corresponding period 2007

³⁾ Resp. specimens with positive PCR

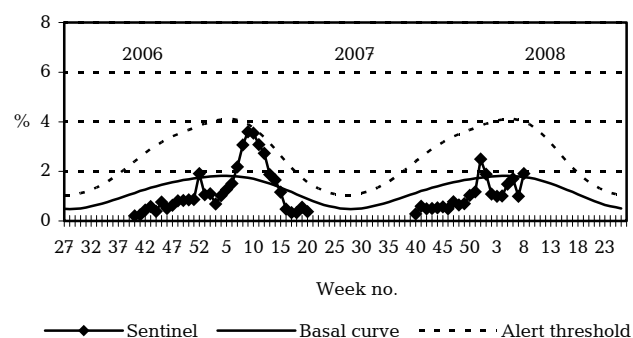
⁴⁾ Serum specimens with pos. complement fixation test

⁵⁾ Isolated in blood or spinal fluid

⁶⁾ See also www.germ.dk

Sentinel surveillance of the influenza activity

Weekly percentage of consultations, 2006/2007/2008



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

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