



CHILDHOOD VACCINATION PRIOR TO STAYS IN DEVELOPING COUNTRIES No. 6, 2011

Stays in developing countries with smaller children, particularly infants, should always be carefully considered. Below you will find information on the earliest vaccination age and minimum number of vaccinations prior to stays that are necessary.

In connection with prolonged stays, e.g. stationing abroad, it is usually advisable to follow the local child vaccination programme.

The suggested vaccinations for each country are shown in the annually updated "Suggested vaccinations for foreign travel", most recently published in EPI-NEWS 26a+b/10 and at the SSI's website: www.ssi.dk/rejser.

DTaP/IPV/Hib

Where possible, the child should have received the two first vaccinations prior to departure. Vaccination may be administered from the age of two months. The interval between the two first vaccinations should preferably be eight weeks, with a minimum of four weeks. A two-month old child who was vaccinated at an interval of less than six weeks will need a further vaccination after a minimum interval of one month. If an infant is visiting areas with endemic occurrence of or outbreaks of polio, the infant should have received a minimum of two polio vaccines - three if the first is administered already at the age of two months.

Pneumococci

In the standard three-dose programme, the initial dose of conjugated pneumococcal vaccine may be given from the age of two months. In such cases prior to departure, the child should receive the two initial vaccinations at a minimum interval of two months if possible. The vaccine may be administered as an accelerated four-dose programme when the child is 6, 10, 14 weeks and 11-15 months old, respectively.

Measles, mumps and rubella

MMR vaccination can be given down to the age of nine months, but the vaccination should be repeated if given to a child under one year.

Hepatitis A

Children may be vaccinated from the age of one year. Children aged 1-15 years are given two paediatric doses at a 6-12-month interval. A single dose gives immunity for one year, but two separate doses protect for at least 25 years. In children below one year, immunoglobulin may be used.

Hepatitis B and hepatitis A+B

In addition to the potential risk of infection in connection with medical treatment, horizontal infection between children is also well-described. Vaccination is therefore particularly relevant for children who are expected to come into contact with local children.

Hepatitis B vaccination may be administered from birth. A total of three vaccinations (paediatric doses) are given: day 0, one month and six months.

If protection against hepatitis A and B is needed, the combined hepatitis A+B vaccine may be given. Children aged 1-15 years are given three vaccinations (paediatric doses): day 0, one month and six months. Alternatively, the child may be given two adult doses, equivalent to Twinrix® adult at a 6-12-month interval, EPI-NEWS 25/10.

Meningococcal disease

Vaccination with the four-valent meningococcal vaccine (Menveo®), EPI-NEWS 37/10, is recommended for stays in African countries in which meningococcal disease at times occur endemically (the Meningitis Belt).

Children aged from two months to one year should be pre-vaccinated with two doses at a minimum interval of one month. Children aged one year or more should receive a single dose.

Yellow fever

Vaccination may be officially required for entry into certain countries, see overview at www.ssi.dk/rejser. Children can be vaccinated from the age of nine months. In the face of overriding indications, e.g. endemically occurring yellow fever, the vaccine can be given from the age of six months in exceptional cases.

Small children should be protected as much as possible from mosquito bites.

Japanese encephalitis

Vaccination is recommended for prolonged stays in Asia where Japanese encephalitis occurs, especially in rural areas, EPI-NEWS 25/10.

The vaccine may be administered from the age of one year as two doses given at a one-month interval, EPI-NEWS 37/09. Children aged 1-3 years are given half the standard dose.

Typhoid fever

Vaccination is recommended in connection with stays under poor hygi-

enic conditions in typhoid-endemic countries. Immigrant children visiting their home countries should be vaccinated regardless of the duration of stay.

In children above two years, typhoid vaccine may be given as an injection. A single vaccination is given, providing protection for three years. In children aged five years or above, oral typhoid vaccine may be considered an alternative.

Three capsules are administered at a two-day interval providing immunity for at least one year.

Rotavirus

Rotavirus infection may cause severe dehydration and vaccination may be considered in infants.

Two vaccines are currently marketed:

Rotarix®: Administered orally and given as two doses at 6 and 10 months of age.

RotaTeq®: Also administered orally and given as three doses at 6, 10 and 14 weeks of age.

RABIES

Vaccination is suggested for children from the age of one year who are due for a long stay or journey to remote areas where access to treatment is complicated.

Three doses are given on days 0, 7 and 28. On any subsequent exposure to rabies, the child should receive two further doses, EPI-NEWS 37/10.

Tuberculosis

BCG vaccination is suggested in smaller children who will be tended by local employees in connection with prolonged stays in highly endemic countries.

BCG vaccination may be administered from birth. Vaccination will not be effective until after 6-8 weeks. Revaccination has no documented effect.

BCG vaccination primarily protects against TB meningitis and miliary TB which principally occurs in smaller children.

Cholera

Cholera vaccination is only rarely indicated, but should be considered in connection with travels to cholera outbreak areas. The (oral) vaccine can be given to children from the age of two years. Children aged 2-6 years are primarily immunized with three doses, given at intervals of 1-6 weeks. A booster dose is given after six months.

(Vaccination Team, Department of Epidemiology)

Individually notifiable diseases

Number of notifications received in the Department of Epidemiology, SSI (2011 figures are preliminary)

Table 1	Week 5 2011	Cum. 2011 ¹⁾	Cum. 2010 ¹⁾
AIDS	1	6	10
Anthrax	0	0	0
Botulism	0	0	0
Cholera	0	0	0
Creutzfeldt-Jakob	0	0	0
Diphtheria	0	0	0
Food-borne diseases	3	12	22
of these, infected abroad	0	0	6
Gonorrhoea	3	19	83
Haemorrhagic fever	0	0	0
Hepatitis A	0	3	7
of these, infected abroad	0	1	1
Hepatitis B (acute)	0	1	4
Hepatitis B (chronic)	9	18	17
Hepatitis C (acute)	0	0	0
Hepatitis C (chronic)	0	21	46
HIV	6	58	56
Legionella pneumonia	0	5	11
of these, infected abroad	0	1	2
Leprosy	0	1	0
Leptospirosis	0	0	0
Measles	0	2	0
Meningococcal disease	0	12	7
of these, group B	0	1	5
of these, group C	0	5	2
of these, unspec. + other	0	6	0
Mumps	0	1	1
Neuroborreliosis	0	0	3
Ornithosis	0	0	0
Pertussis (children < 2 years)	0	4	7
Plague	0	0	0
Polio	0	0	0
Purulent meningitis			
Haemophilus influenzae	0	0	0
Listeria monocytogenes	0	0	2
Streptococcus pneumoniae	0	9	13
Other aethiology	0	2	2
Unknown aethiology	0	0	2
Under registration	0	2	0
Rabies	0	0	0
Rubella (congenital)	0	0	0
Rubella (during pregnancy)	0	0	0
Shigellosis	0	5	13
of these, infected abroad	0	3	10
Syphilis	9	52	32
Tetanus	0	0	0
Tuberculosis	0	26	31
Typhoid/paratyphoid fever	0	1	7
of these, infected abroad	0	1	5
Typhus exanthematicus	0	0	0
VTEC/HUS	0	6	16
of these, infected abroad	0	1	2

¹⁾ Cumulative number 2011 and in corresponding period 2010

Selected laboratory diagnosed infections

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

Table 2	Week 5 2011	Cum. 2011 ³⁾	Cum. 2010 ³⁾
Bordetella pertussis (all ages)	2	13	19
Gonococci	4	14	69
of these, females	1	5	16
of these, males	3	9	53
Listeria monocytogenes	0	1	6
Mycoplasma pneumoniae			
Resp. specimens ³⁾	25	121	15
Serum specimens ⁴⁾	17	74	36
Streptococci ⁵⁾			
Group A streptococci	6	33	19
Group B streptococci	4	20	11
Group C streptococci	0	7	3
Group G streptococci	2	17	21
S. pneumoniae	18	130	143
Table 3	Week 3 2011	Cum. 2011 ²⁾	Cum. 2010 ²⁾
MRSA	33	70	69
Pathogenic int. bacteria ⁶⁾			
Campylobacter	33	112	130
S. Enteritidis	3	21	16
S. Typhimurium	0	6	16
Other zoon. salmonella	7	29	28
Yersinia enterocolitica	1	10	8
Verocytotoxin- producing E. coli	4	9	6
Enteropathogenic E. coli	7	12	11
Enterotoxigenic E. coli	6	26	20

²⁾ Cumulative number 2010 and in corresponding period 2009

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

Measles outbreak on Zealand

Over the latest approx. two weeks, Eastern Zealand has seen a total of seven laboratory-confirmed and one probable case of measles.

The cases primarily occurred among younger unvaccinated adults and infection has spread from the initial cases.

Physicians are now encouraged to pay particular attention to the diagnosis in children and younger adults who present with measles symptoms.

Vaccination against measles is covered by the MMR vaccine which is offered to all children via the childhood vaccination programme. The vaccine may also be given to adults who have not previously been vaccinated.

Adults, however, are required to pay for the vaccine.

Where non-immune persons are exposed to infection, MMR vaccination given within three days or immunoglobulin injection within six days of infection will prevent or mitigate the effects of the disease.

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