



MEASLES OUTBREAK - STATUS

Since January 2011, Denmark has seen a measles outbreak primarily in Greater Copenhagen and the Zealand Region, but single cases were also seen in the remaining parts of Denmark.

The epi curve and tables showing the distribution by region, age groups, vaccination status and admission (if any) are available at the measles theme page at www.ssi.dk (Danish language). Data will be updated every Thursday during the outbreak.

On 15 June, a total of 83 cases had been detected, including 57 from the Capital Region and 22 from Region Zealand. In Region Zealand, the majority of the cases were detected in the area around the town of Næstved and on the island of Møn.

Among these 83 cases, 76 were laboratory-confirmed and seven were clinically diagnosed cases with contact to a verified case. Cases ranged from four months to 59 years and 28 (33%) were ≥ 18 years old.

All cases except for one are believed to have been infected in Denmark. Genotyping of virus seems to indicate that the outbreak was caused by a single virus introduction. All typed viruses barring one are type D4, which currently circulates in Europe; one case was type D8, which normally circulates in India and Nepal, but which has recently been detected in several European countries. A total of 42 (51%) cases were admitted to hospital. In the group of cases above 18 years, 71% were admitted to hospital.

Among 73 notified cases, information was available on complications in the form of pneumonia (3) and otitis media (2); one patient was meningial during admission. Ten cases have not yet been notified on form 1515.

Commentary

The current outbreak is the most comprehensive in the last 15 years. On the basis of the epi curve, it is estimated that the outbreak is not receding (www.ssi.dk – Danish language).

The high 2010 incidence in Europe continued in 2011 with major outbreaks in France, Spain, Germany, Great Britain and Switzerland and more than 10,000 cases reported from 24 of the 31 EU and EEA/EFTA countries, including four deaths. In view of the epidemiological situation in Denmark/Europe and the upcoming vacation period, parents of unvaccinated children are encouraged

to have their children vaccinated before any vacation travels, including travels within Europe. This encouragement also covers any unvaccinated adults who may be exposed to infection in connection with social events such as festivals, etc.

Measles is effectively and safely prevented via MMR vaccination which is offered at 15 months and four years of age (previously at 12 years, EPI-NEWS 9/08). Persons who were not vaccinated according to the mentioned plan may subsequently receive vaccination.

The MMR vaccination is provided free of charge to persons below 18 years of age, but there is, in principle, no upper age limit for MMR vaccination.

In connection with the current outbreak or with foreign travel, vaccination may be considered from the age of 12 months.

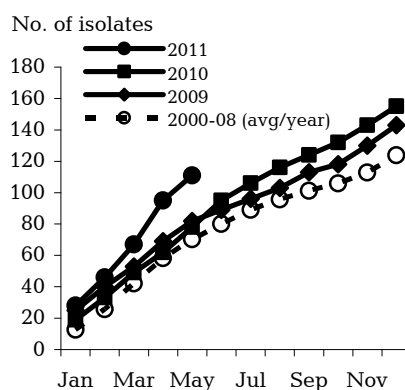
On suspicion of measles, precautions should be taken as described in EPI-NEWS 16-17/11.

Measles is a notifiable disease. When the diagnosis is made, this should be notified immediately using form 1515. This is important due to prevention and counselling efforts. Furthermore, it is essential to state any complications on the notification. (L.K. Knudsen, P.H. Andersen, Dept. of Epidemiology, B. Böttiger, Dept. of Virology)

INCREASED OCCURRENCE OF INVASIVE INFECTIONS CAUSED BY GROUP A STREPTOCOCCI

In the first five months of 2011, the SSI Neisseria and Streptococcus Reference Lab. received from Danish departments of clinical microbiology a higher number ($n=111$) of group A streptococci (GAS) from invasive infections than in the same period of previous years (mean, $n=70$), [Fig. 1](#).

Figure 1. Cumulated number of invasive GAS isolates (blood and spinal fluids, one isolate per case), per month and year, as per 30 May 2011



Already from mid 2010, the number exceeded that observed in previous years. The increase in the number of invasive GAS infections seems to comprise all of Denmark, and typing indicates that the increase is not caused by an outbreak confined to a single strain.

GAS is divided into T and emm types. The types which have so far dominated in 2011 are 1-1.0 (T type 1 - emm type 1.0) (17%), 12-12.0 (10%), 28-28.0 (7%), 3-3.1 (9%) and NT-3.1 (10%). With the exception of NT-3.1, these are the types which also dominated in 2010.

In 2010 GAS were resistant to penicillin in 0% of cases, to erythromycin in 1.3%, to clindamycin in 0.7% and to tetracycline in 5.2% of cases versus 0%, 0.9%, 0% and 0.9%, respectively, in 2011. This indicates that the increased number of cases was not caused by an increased occurrence of resistant GAS. In 2011 approx. 65% of GAS isolates were from persons above 60 years of age. In previous years, 50-65% of the isolates were from this age group. This seems to indicate that the age group that gets infected has not changed.

Commentary

It cannot be determined on the basis of the current data whether the clinical symptoms or mortality have changed in 2011 with respect to previous years. Furthermore, it is not possible to assess if occurrence has increased in individual areas, as numbers are limited, several DCMs have changed catchment area and as submission of invasive GAS isolates is not mandatory. However, it is estimated that the DCMs have not changed their submission criteria. Consequently, the cause of the current increase in GAS infection occurrence remains unknown, and developments are followed closely. (L. Lambertsen, S. Hoffmann, DBMP)

NEW SSI ADDRESS

The Municipality of Copenhagen has rerouted Artillerivej and changed its name to "Ørestads Boulevard".

The resulting new SSI address is:
Statens Serum Institut

*5 Orestads Boulevard
DK 2300 Copenhagen S*

The address on existing printed material will be changed gradually. Clients and business partners may thus receive printed SSI materials carrying the old address.

(Statens Serum Institut)

Individually notifiable diseases

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

Table 1	Week 23 2011	Cum. 2011 ¹⁾	Cum. 2010 ¹⁾
AIDS	0	24	24
Anthrax	0	0	0
Botulism	0	0	0
Cholera	0	0	0
Creutzfeldt-Jakob	0	2	4
Diphtheria	0	0	0
Food-borne diseases	8	74	122
of these, infected abroad	2	18	32
Gonorrhoea	27	168	246
Haemorrhagic fever	0	0	0
Hepatitis A	1	8	16
of these, infected abroad	0	0	0
Hepatitis B (acute)	0	6	14
Hepatitis B (chronic)	9	109	92
Hepatitis C (acute)	0	4	1
Hepatitis C (chronic)	12	111	192
HIV	4	120	116
Legionella pneumonia	6	37	42
of these, infected abroad	2	9	10
Leprosy	0	1	0
Leptospirosis	0	1	0
Measles	4	73	2
Meningococcal disease	0	60	30
of these, group B	0	13	15
of these, group C	0	31	10
of these, unspec. + other	0	16	5
Mumps	0	3	5
Neuroborreliosis	3	8	9
Ornithosis	1	4	7
Pertussis (children < 2 years)	0	22	36
Plague	0	0	0
Polio	0	0	0
Purulent meningitis			
Haemophilus influenzae	1	3	1
Listeria monocytogenes	0	2	5
Streptococcus pneumoniae	1	53	46
Other aethiology	0	8	13
Unknown aethiology	0	3	13
Under registration	0	6	0
Rabies	0	0	0
Rubella (congenital)	0	0	0
Rubella (during pregnancy)	0	0	0
Shigellosis	1	34	42
of these, infected abroad	0	23	30
Syphilis	18	215	174
Tetanus	0	0	0
Tuberculosis	13	191	163
Typhoid/paratyphoid fever	0	9	19
of these, infected abroad	0	9	17
Typhus exanthematicus	0	0	0
VTEC/HUS	6	55	63
of these, infected abroad	3	21	17

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 23 2011	Cum. 2011 ³⁾	Cum. 2010 ³⁾
Bordetella pertussis (all ages)	2	42	63
Gonococci	8	113	205
of these, females	2	23	56
of these, males	6	90	149
Listeria monocytogenes	0	14	34
Mycoplasma pneumoniae			
Resp. specimens ³⁾	2	213	48
Serum specimens ⁴⁾	3	183	94
Streptococci ⁵⁾			
Group A streptococci	3	119	86
Group B streptococci	6	66	55
Group C streptococci	2	30	30
Group G streptococci	7	70	80
S. pneumoniae	21	527	589
Table 3	Week 21 2011	Cum. 2011 ²⁾	Cum. 2010 ²⁾
MRSA	6	414	271
Pathogenic int. bacteria ⁶⁾			
Campylobacter	67	822	942
S. Enteritidis	3	76	100
S. Typhimurium	2	76	194
Other zoon. salmonella	10	218	254
Yersinia enterocolitica	8	109	85
Verocytotoxin- producing E. coli	16	61	61
Enteropathogenic E. coli	7	52	56
Enterotoxigenic E. coli	4	103	171

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