# EPI-NEWS

NATIONAL SURVEILLANCE OF COMMUNICABLE DISEASES



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## NEUROBORRELIOSIS 2005-2006


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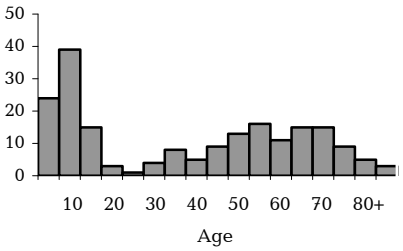
2005-2006 saw a total of 195 neuroborreliosis notifications, including 89 in 2005 and 106 in 2006. In 146 (75%) cases, the diagnosis was confirmed by intrathecal antibody synthesis. A total of 77 (39%) were children below 15 years. The second most frequent age group was adults aged 60-69 years; this group comprised 30 (15%) cases, Figure 1.

**Figure 1: Notified cases of neuroborreliosis by age, 2005-2006**




Information about symptoms was available in 153 (78%) cases: 72 (37%) had facial nerve palsy, 24 (12%) developed pain in the musculoskeletal system, 23 (12%) headache and three aseptic meningitis. The remaining cases stated that they had experienced other neurological or unspecific symptoms. The majority, 174, were infected in Denmark, while six were infected in Sweden, ten in other European countries and one in the USA. In four cases, several possible countries of infection were stated.

**Prophylaxis**

To prevent infection with Borrelia, it is important to search the body and remove any ticks. When walking in densely infested areas, it is also advisable to reduce the risk of tick bites by wearing clothes and footwear that cover the body.

**Commentary**

Borreliosis is the most common vector-borne disease in Denmark. The number of notified cases in 2005-6 equalled the 2003-4 level, see EPI-NEWS 33/05 for details and a short description of epidemiology and symptoms.

A single individual, positive serological test result has limited predictive value and should be interpreted with reference to the clinical picture, etc. The following case description outlines a classical case of neuroborreliosis in an adult patient. The description demonstrates that a negative Borrelia burgdorferi titre in serum from patients with relevant symptomatology does not exclude neuroborreliosis.

(C. Kjelsø, K. Mølbak, Department of Epidemiology)

**NEUROBORRELIOSIS CASE STORY**

In August 2007, a 54-year-old formerly healthy male was bitten by a tick in the left thigh. Due to erythema migrans, the patient saw a doctor who found no indication for antibiotic treatment. In the first part of September, he experienced radicular pain and visited his GP again. On suspicion of borreliosis, oral penicillin treatment was initiated. Serum Borrelia burgdorferi antibodies were taken with the aim to determine if further assessment was indicated. His condition deteriorated and he was admitted two days after initiation of the penicillin treatment. Upon admission, the patient had endured radicular pain for a period of two to three weeks. The pain started in his left leg, subsequently became more intense, accentuated axially between the shoulder blades and became considerably worse at night. The patient had only limited benefit from paracetamol and non-steroid anti-inflammatory drugs.

Paraclinically, WBC count and CRP were determined within the normal range upon admission. On suspicion of neuroborreliosis, the patient underwent lumbal puncture, which showed an increased WBC count (100% mononuclear) and protein in the cerebrospinal fluid. Culture did not result in growth and IV treatment with ceftriaxone 2 g x 1 was initiated to make ambulatory treatment possible. Four days after initiation of IV antibiotics, the patient's pain receded considerably, and medication was changed to doxycycline (200 mg x 2), which was upheld until the total treatment period had reached two weeks. During this final part of the period, the patient's condition improved further.

Serum Borrelia burgdorferi IgG and IgM tested negative. The Borrelia burgdorferi intrathecal antibody synthesis was positive with intrathecal IgG and IgM indexes of 16 and 5, respectively.

**Commentary**

A negative Borrelia burgdorferi titre in serum from patients who have had neurological symptoms for less than three months does not exclude neuroborreliosis.

On suspicion of neuroborreliosis, tick bite cases with radicular pain and erythema migrans should be admitted for lumbal puncture.

(A-M. Lebech, L.R. Mathiesen, Department of Infectious Diseases, Hvidovre Hospital)

**NEW VERSION OF "TRAVELLING AND INFECTIOUS DISEASES"**

The SSI website "Rejser og smitsomme sygdomme" (In English: "Travelling and Infectious Diseases") at www.ssi.dk/rejser has been improved.

In future, the maps on the site will be displayed with topographic information. Major cities will be displayed at certain zoom levels. When zooming in on the maps, users will also see regional borders and names within the country in question.

A new addition is the option to display current outbreaks and present the occurrence of a number of infectious diseases within each country. When the user has selected e.g. malaria, a description of risk areas and seasons will be displayed whenever the user places the pointer above a region/country. The website will be updated regularly and the date of the latest update of any outbreak information is displayed in a text box by the outbreak icon on the global map as well as on all country pages.

The search facility has been improved and now comprises the names of the cities shown on the map. When searching for the name of a city and clicking the search result, users are sent directly to the page displaying the country, and the map is centred on the city in question. The website is in Danish language.

(P.H. Andersen, Department of Epidemiology)

**MANDATORY YELLOW FEVER VACCINATION FOR ALL TRAVELLERS TO BOLIVIA**

The Ministry of Foreign Affairs advises that the Bolivian authorities have made yellow fever vaccination mandatory for all travellers entering Bolivia as from 1 December 2007, regardless of the duration of the stay. Vaccination should be given no later than ten days before departure and then remains effective for a period of ten years, see www.ssi.dk/rejser (in Danish language).

(Department of Epidemiology)


21 November 2007

## Individually notifiable diseases

Number of notifications received in the Department of Epidemiology, SSI (2007 figures are preliminary)

| Table 1 | Week 46 2007 | Cum. 2007 [1] | Cum. 2006 [1] |
|---|---|---|---|
| AIDS | 0 | 44 | 39 |
| Anthrax | 0 | 0 | 0 |
| Botulism | 0 | 0 | 0 |
| Cholera | 0 | 0 | 0 |
| Creutzfeldt-Jakob | 0 | 7 | 18 |
| Diphtheria | 0 | 0 | 0 |
| Food-borne diseases | 10 | 570 | 515 |
| of these, infected abroad | 1 | 106 | 129 |
| Gonorrhoea | 0 | 314 | 382 |
| Haemorrhagic fever | 0 | 0 | 0 |
| Hepatitis A | 0 | 21 | 37 |
| of these, infected abroad | 0 | 10 | 19 |
| Hepatitis B (acute) | 0 | 25 | 18 |
| Hepatitis B (chronic) | 4 | 288 | 282 |
| Hepatitis C (acute) | 0 | 6 | 7 |
| Hepatitis C (chronic) | 5 | 538 | 424 |
| HIV | 6 | 280 | 209 |
| Legionella pneumonia | 4 | 111 | 105 |
| of these, infected abroad | 0 | 31 | 28 |
| Leprosy | 0 | 0 | 0 |
| Leptospirosis | 0 | 13 | 8 |
| Measles | 0 | 2 | 27 |
| Meningococcal disease | 0 | 62 | 73 |
| of these, group B | 0 | 35 | 37 |
| of these, group C | 0 | 19 | 16 |
| of these, unspec. + other | 0 | 8 | 20 |
| Mumps | 3 | 11 | 16 |
| Neuroborreliosis | 2 | 92 | 76 |
| Ornithosis | 0 | 8 | 11 |
| Pertussis (children < 2 years) | 3 | 74 | 44 |
| Plague | 0 | 0 | 0 |
| Polio | 0 | 0 | 0 |
| Purulent meningitis | | | |
| Haemophilus influenzae | 0 | 2 | 4 |
| Listeria monocytogenes | 0 | 10 | 7 |
| Streptococcus pneumoniae | 0 | 90 | 78 |
| Other aethiology | 0 | 12 | 11 |
| Unknown aethiology | 0 | 13 | 17 |
| Under registration | 3 | 5 | - |
| Rabies | 0 | 0 | 0 |
| Rubella (congenital) | 0 | 0 | 0 |
| Rubella (during pregnancy) | 0 | 0 | 0 |
| Shigellosis | 1 | 205 | 58 |
| of these, infected abroad | 1 | 45 | 48 |
| Syphilis | 0 | 87 | 62 |
| Tetanus | 0 | 2 | 2 |
| Tuberculosis | 11 | 356 | 336 |
| Typhoid/paratyphoid fever | 1 | 22 | 26 |
| of these, infected abroad | 1 | 21 | 24 |
| Typhus exanthematicus | 0 | 2 | 0 |
| VTEC/HUS | 2 | 143 | 127 |
| of these, infected abroad | 0 | 48 | 44 |

[1] *Cumulative number 2007 and in corresponding period 2006*

## Selected laboratory diagnosed infections

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

| Table 2 | Week 46 2007 | Cum. 2007 [2] | Cum. 2006 [2] |
|---|---|---|---|
| Bordetella pertussis (all ages) | 6 | 192 | 193 |
| Gonococci | 4 | 310 | 373 |
| of these, females | 3 | 50 | 65 |
| of these, males | 1 | 260 | 308 |
| Listeria monocytogenes | 1 | 51 | 49 |
| Mycoplasma pneumoniae | | | |
| Resp. specimens [3] | 8 | 331 | 416 |
| Serum specimens [4] | 6 | 379 | 342 |
| Streptococci [5] | | | |
| Group A streptococci | 2 | 101 | 124 |
| Group B streptococci | 0 | 86 | 85 |
| Group C streptococci | 0 | 20 | 20 |
| Group G streptococci | 3 | 111 | 130 |
| S. pneumoniae | 18 | 906 | 837 |
| **Table 3** | **Week 44 2007** | **Cum. 2007 [2]** | **Cum. 2006 [2]** |
| MRSA | 19 | 546 | - |
| Pathogenic int. bacteria [6] | | | |
| Campylobacter | 57 | 3572 | 2768 |
| S. Enteritidis | 7 | 499 | 518 |
| S. Typhimurium | 6 | 319 | 361 |
| Other zoon. salmonella | 5 | 620 | 624 |
| Yersinia enterocolitica | 8 | 239 | 168 |
| Verocytotoxin-producing E. coli | 3 | 140 | 131 |
| Enteropathogenic E. coli | 3 | 167 | 237 |
| Enterotoxigenic E. coli | 5 | 268 | 209 |

[2] *Cumulative number 2007 and in corresponding period 2006*

[3] *Resp. specimens with positive PCR*

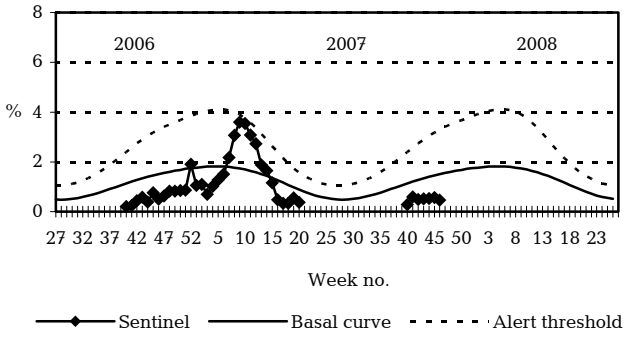
[4] *Serum specimens with pos. complement fixation test*

[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 |

21 November 2007