



MALARIA 2008

No. 24, 2009

In 2008 a total of 91 imported malaria cases were notified by Danish laboratories. Among the cases in which the presumed country of infection was stated, 88% (79/90) were acquired during stays in Sub-Saharan Africa, 10% (9/90) in Asia and 2% (2/90) in Central and South America. Among the cases with a strain-specific diagnosis, 83% were caused by *Plasmodium falciparum*, among which the majority (96%) were acquired in Africa. Conversely, the majority (88%) of the Asian malaria cases were caused by *P. vivax*, except for one case of *P. falciparum* which was imported from Indonesia. The median age was 36 years (range 5 to 71). Males comprised 55%, females 45%.

Towards the end of 2008, a cluster of malaria cases was observed among short-term tourists returning from the coast of Gambia, West Africa, EPI-NEWS 49-08. In Denmark, a total of eight cases of falciparum malaria were detected, several of which had a serious and rapidly progressing course over just a few days; one of the cases had a fatal outcome, while other patients suffered permanent sequelae. Similar clusters of falciparum cases imported from the Gambia were seen concurrently in a series of the other North European countries, including a total of 56 cases, several of which were serious and two of which had a fatal outcome. A shared characteristic of the cases was that the travellers had not received the relevant chemoprophylaxis, either because their GP had not recommended such treatment prior to their journey, because they had disregarded the GP's recommendation or because they had not consulted with their GP before the journey.

Malaria prophylaxis

The recommendations regarding malaria prophylaxis types continues to have four levels, corresponding to the WHO's levels, EPI-NEWS 24/06. The various prophylaxis regimes will be detailed further in a future edition of EPI-NEWS on vaccination recommendations in connection with foreign travel.

It is essential to inform all travellers that mosquito bite prophylaxis is always important, regardless of any concurrent use of pharmacological prophylaxis. For areas outside Africa with a more limited malaria incidence, "stand by" treatment may be considered, i.e. no regular administration of chemoprophylaxis, but handing out a

Table 1. Imported malaria cases in Denmark, 2008

	Central & South				Not stated *)	Total 2008	Total 2007
	Africa	Asia	America	Oceania			
<i>P. falciparum</i>	72	1	1	0	1	75	58
<i>P. vivax</i>	3	7	1	0	0	11	16
<i>P. ovale</i>	2	0	0	0	0	2	2
<i>P. malariae</i>	2	0	0	0	0	2	2
Mixed	0	0	0	0	0	0	2
Not stated	0	1	0	0	0	1	0
Total	79	9	2	0	1	91	80

*) Including travellers to more than one continent

quality assured malaria pharmaceutical which may be used for self-treatment in case the traveller falls ill with malaria during the journey.

Pregnancy and children

Pregnant women are generally advised not to travel to areas with a high incidence of chloroquine-resistant falciparum malaria, and administration of chemoprophylaxis to infants requires careful consideration, EPI-NEWS 19/05.

Comment

Overall, the number of imported malaria cases in 2008 remained approx. at par with the low levels observed during the previous two years, EPI-NEWS 25/08. Correspondingly, over the latest five years, Europe as a whole has seen a halving of the number of imported malaria cases which reflects considerable reductions in the malaria incidence in later years in a series of malaria-endemic countries incl. West, East and South Africa. However, the decreasing trend in global malaria incidence does not change the fact that the local risk may change considerably, which was affirmed by the Gambian outbreak in the autumn of 2008. Similarly, it is estimated that the malaria risk has been rising in Goa, India since the winter 2006-2007, EPI-NEWS 1-2/07. These examples illustrate that all physicians engaged in travel consultation should stay informed on changes in malaria incidence, e.g. by visiting www.ssi.dk/rejser, where updated country-specific malaria risk descriptions are available. Deaths caused by malaria are rare in Denmark, but the Gambian case shows that any suspicion on malaria should be confirmed or disproved by acute blood smear microscopy. (L.S. Vestergaard, H.V. Nielsen, The Malaria Reference Laboratory, DBMP).

UPDATED COUNTRY-SPECIFIC VACCINATION RECOMMENDATIONS

As last year, EPI-NEWS 25a+b/08, a reference group has revised and updated the SSI's vaccination recommendations for foreign travel; the revised recommendations will be published in a future edition of EPI-NEWS.

Revised proposals for malaria prophylaxis

The Bahamas: **v** in group 2-4 (Great Exuma Island)

Cambodia: Tonle Sap, Angkor Vat: **V** in group 2-4

Haiti: **Q** in group 2-4

Cape Verde: **v**⁸₁₁ in group 2-4

Honduras: **q** in group 2-4

Peru: Only Loreto, **X** in group 1-4

Venezuela: Carabobo omitted

In countries marked with a small letter, the malaria risk only applies in part of the territory and a description of the risk areas is available in Danish at www.ssi.dk/rejser: Select "sygdomsforekomst = malaria" and place the text marker above the red area.

Vaccination recommendations: update Yellow fever:

Trinidad and Tobago: **G** in group 1-4 (for Trinidad only)

Argentina, area bordering on Bolivia, Paraguay and Brazil: **G** in group 2-4 (the Iguazu falls, among others)

Panama: **g** in group 2-4

Paraguay: **G** in group 1-4 (M. Buhl, Danish Society (D.S) of Travel Medicine, S. Thybo, D.S for Infectious Disease, J. Kurtzhals, D.S. Society for Clinical Microbiology; N. E. Møller, Danish College of General Practitioners, L. S. Vestergaard, D.S for Tropical Medicine & International Health; K. Gade, Danish Paediatric Society, Steffen Glismann, P. H. Andersen, Dept. of Epidemiology)

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Individually notifiable diseases

Number of notifications received in the Department of Epidemiology, SSI (2009 figures are preliminary)

Table 1	Week 23 2009	Cum. 2009 ¹⁾	Cum. 2008 ¹⁾
AIDS	1	14	15
Anthrax	0	0	0
Botulism	0	0	0
Cholera	0	0	0
Creutzfeldt-Jakob	0	6	1
Diphtheria	0	0	0
Food-borne diseases	7	175	172
of these, infected abroad	0	29	34
Gonorrhoea	7	237	146
Haemorrhagic fever	0	0	0
Hepatitis A	0	11	20
of these, infected abroad	0	6	9
Hepatitis B (acute)	0	13	7
Hepatitis B (chronic)	0	74	74
Hepatitis C (acute)	0	0	6
Hepatitis C (chronic)	0	137	143
HIV	0	86	109
Legionella pneumonia	3	55	46
of these, infected abroad	0	6	17
Leprosy	0	0	0
Leptospirosis	0	0	2
Measles	0	9	6
Meningococcal disease	0	34	33
of these, group B	0	17	16
of these, group C	0	13	7
of these, unspec. + other	0	4	10
Mumps	0	8	19
Neuroborreliosis	0	4	20
Ornithosis	0	2	1
Pertussis (children < 2 years)	1	52	47
Plague	0	0	0
Polio	0	0	0
Purulent meningitis			
Haemophilus influenzae	0	3	2
Listeria monocytogenes	0	3	1
Streptococcus pneumoniae	0	44	53
Other aethiology	0	7	15
Unknown aethiology	0	6	14
Under registration	0	19	-
Rabies	0	0	0
Rubella (congenital)	0	0	1
Rubella (during pregnancy)	0	0	0
Shigellosis	0	43	32
of these, infected abroad	0	31	27
Syphilis	4	118	37
Tetanus	0	0	0
Tuberculosis	9	175	176
Typhoid/paratyphoid fever	0	8	14
of these, infected abroad	0	5	12
Typhus exanthematicus	0	0	0
VTEC/HUS	2	46	54
of these, infected abroad	0	9	18

¹⁾ Cumulative number 2009 and in corresponding period 2008

Selected laboratory diagnosed infections

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

Table 2	Week 23 2009	Cum. 2009 ²⁾	Cum. 2008 ²⁾
Bordetella pertussis (all ages)	3	79	68
Gonococci	8	190	163
of these, females	3	43	31
of these, males	5	147	132
Listeria monocytogenes	2	34	19
Mycoplasma pneumoniae			
Resp. specimens ³⁾	1	31	44
Serum specimens ⁴⁾	0	62	52
Streptococci ⁵⁾			
Group A streptococci	0	86	83
Group B streptococci	0	50	57
Group C streptococci	0	14	6
Group G streptococci	0	74	55
S. pneumoniae	10	641	566
Table 3	Week 21 2009	Cum. 2009 ²⁾	Cum. 2008 ²⁾
MRSA	13	271	211
Pathogenic int. bacteria ⁶⁾			
Campylobacter	45	738	709
S. Enteritidis	14	129	109
S. Typhimurium	17	380	392
Other zoon. salmonella	5	266	340
Yersinia enterocolitica	7	106	140
Verocytotoxin-producing E. coli	2	48	48
Enteropathogenic E. coli	7	65	34
Enterotoxigenic E. coli	5	99	117

²⁾ Cumulative number 2009 and in corresponding period 2008

³⁾ Resp. specimens with positive PCR

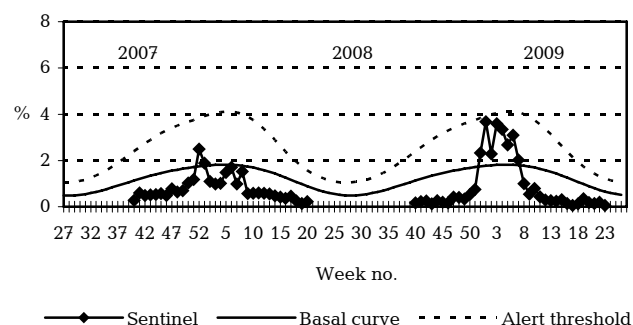
⁴⁾ Serum specimens with pos. complement fixation test

⁵⁾ Isolated in blood or spinal fluid

⁶⁾ See also www.germ.dk

Sentinel surveillance of the influenza activity

Weekly percentage of consultations, 2007/2008/2009



◆ 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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