Health Protection Agency

Health Protection Report

weekly report

Current Issue: Volume 1 Number 18 **Published on:** 4 May 2007

Current News

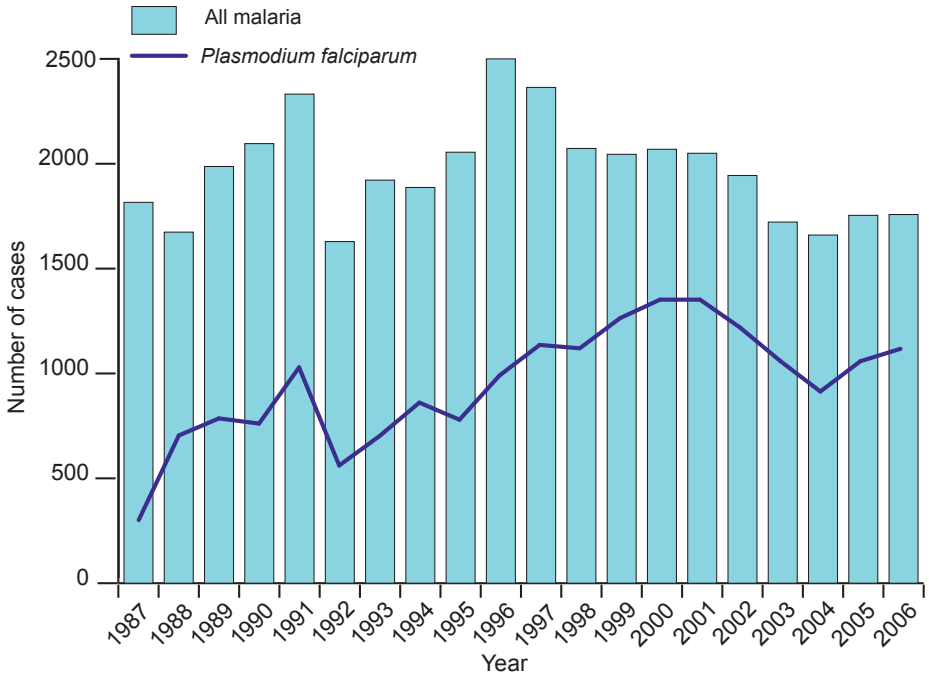
Infection reports

Respiratory

Malaria imported into the United Kingdom in 2006: Implications for those advising travellers

This article presents the data on malaria imported into the United Kingdom (UK) in 2006, based on figures reported to the Health Protection Agency (HPA) Malaria Reference Laboratory. A more detailed report will be provided later in the year. For details on methods of data collection for malaria see *Illness in England, Wales, and Northern Ireland associated with foreign travel – baseline report to 2002* [1].

Figure Imported malaria cases (with *P. falciparum* cases), United Kingdom: 1987 to 2006



There were 1758 cases of malaria reported in 2006, which is almost the same as the 1754 cases of malaria reported by this stage in 2005 (tt is possible that a few cases have still to be reported). There was a dip in the number of cases reported in 2004, but the increase since then is considered to be a return to the trend seen since 2000 rather than an unexpected increase against a steady background. Over 70% of malaria cases are caused by (the potentially fatal) *Plasmodium falciparum* and the steady increase in the proportion of falciparum malaria has been sustained over many years. Over twice as many cases of falciparum malaria, in absolute numbers, are now seen in the UK compared to 20 years ago. Hopes that improvements in prophylaxis would reduce the rate of malaria have been offset by a steady increase in travel over this period. The breakdown of malaria cases reported by region of travel and parasite species is shown in table 1.

Table 1 Cases of malaria by species of parasite and primary region of travel, United Kingdom: 2006

Geographic Area	P.f.	P.v.	P.m.	P.o.	Pf/Pv	Pf/Pm	Pf/Po	Pk	Total
North Africa	–	–	–	–	–	–	–	–	–
Central Africa	38	–	–	3	–	–	–	–	**41**
East Africa	116	19	6	17	1	1	1	–	**161**
Southern Africa	55	1	1	5	–	–	–	–	**62**
West Africa	849	4	14	53	–	5	4	–	**929**
Africa - unspecified	32	–	2	3	–	–	–	–	**37**
Middle East	2	–	–	–	–	–	–	–	**2**
Asia	12	140	–	1	2	–	–	–	**155**
Asia -unspecified	–	–	–	–	–	–	–	–	–
Far East/South East.Asia	–	8	–	–	1	–	–	1	**10**
Far East – unspecified	–	–	–	–	–	–	–	–	–
Central/ South America	2	12	–	–	1	–	–	–	**15**
Oceania	2	5	–	1	–	–	–	–	**8**
Not given	278	30	3	23	2	1	1	–	**338**
Total	**1386**	**219**	**26**	**106**	**7**	**7**	**6**	**1**	**1758**

Eight deaths from malaria in 2006 have been reported, all from falciparum malaria acquired in Africa. Vivax malaria deaths are rare, and are often associated with co-morbidity. There is a small variation in the number of deaths from malaria in the UK every year, but the number for 2006 is similar to the annual average since 2000.

Among patients with malaria where the history of prophylaxis was obtained, 740/917 (81%) had not taken prophylaxis, and a high proportion of the remainder took prophylaxis not recommended for their travel destination by the HPA Advisory Committee on Malaria Prevention in UK Travellers (ACMP). This high proportion is similar to recent years. It is clear that some groups are at particular risk of acquiring malaria and are not being reached by health messages about the importance of antimalarial prophylaxis. The burden of falciparum malaria falls heavily on those of African and south Asian ethnicity [2]. Of those who had malaria diagnosed in the UK, where ethnicity was known, 146 were reported as white British, compared with 1160 who were reported as African or of African descent, and 182 reported as south Asian or of south Asian decent. The overall trend has been for the proportion of malaria both in those of South Asian descent and travelling to South Asia to decrease, while the proportion in those of African descent has increased.

Among those who were travellers from the UK (rather than normally resident in an endemic area) where reason for travel is known, 589/764 (77%) were visiting friends and relatives (table 2). The ratio of malaria in UK residents visiting friends and relatives compared with malaria cases acquired in holiday travellers is 5.5:1. As with all routinely collected data, exact figures should be treated with caution. It seems likely that those travelling to visit friends and relatives are either not seeking or able to access medical advice on malaria prevention before they travel, are not being given appropriate advice, or are not adhering to it as they do not perceive the risk to be as great to them as to the holidaying public; all these may contribute. Targeting these groups, and their healthcare providers, should be considered a priority for health promotion and education.

Table 2 Cases of malaria by stated reason for travel, United Kingdom: 2006

Population group	P.f.	P.v.	P.m.	P.o.	Pf/Pv	Pf/Pm	Pf/Po	P.k	Total
New entrant	52	12	2	4	–	1	–	–	**71**
Visiting family in country of origin	497	54	7	28	1	–	2	–	**589**
U.K. citizen living abroad	24	3	–	–	–	–	–	–	**27**
Civilian sea/air crew	2	–	–	1	–	–	–	–	**3**
British armed services	6	–	–	4	–	–	–	1	**11**
Business/professional travel	35	8	3	6	–	1	–	–	**53**
Foreign student studying in the UK	23	6	–	4	–	–	–	–	**33**
Holiday travel	70	28	1	6	2	–	1	–	**108**
Foreign visitor ill while in UK	96	34	1	4	1	–	2	–	**138**
Children visiting parents living abroad	–	–	–	–	–	–	–	–	–
Not stated	581	74	12	49	3	5	1	–	**725**
Total	**1386**	**219**	**26**	**106**	**7**	**7**	**6**	**1**	**1758**

Malaria, an almost completely preventable disease, remains a significant problem in UK travellers. Failure to take prophylaxis is associated with most of cases of malaria in UK residents travelling to malarial areas. There is evidence that those of African or Asian ethnicity going to visit friends and relatives are at increased risk, and those providing advice should pay particular attention to these travellers. Recently updated guidelines [3] should assist clinicians in helping travellers to make informed decisions about protection against malaria.

References

1. Health Protection Agency (HPA). *Illness in England, Wales, and Northern Ireland associated with foreign travel – a baseline report to 2002*. London: HPA; 2004. Available at <http://www.hpa.org.uk/infections/topics_az/travel/publications.htm>.
2. Health Protection Agency. Migrant Health: Infectious diseases in non-UK born populations in England, Wales and Northern Ireland. A baseline report 2006. London: Health Protection Agency Centre for Infections. 2006.
3. Chiodini P, Hill D, Lalloo D, Lea G, Walker E, Whitty C, *et al*. Guidelines for malaria prevention in travellers from the United Kingdom. London, Health Protection Agency, January 2007.

Erratum: Laboratory reports of hepatitis A and hepatitis C infection in England and Wales, October to December 2006 – Revised data tables

In last week's issue of the Health Protection Report, Vol 1 No. 17, 27 April 2007, corrected tables for both hepatitis A and hepatitis C were published online at 16:30 hrs BST. The original tables were published at 10:00 hrs BST.

Corrected tables:

Laboratory reports of hepatitis A infection in England and Wales: October to December 2006*

Age Group (years)	Female	Male	Unknown	Total
<1	–	–	–	**–**
1-4	4	1	–	**5**
5-9	3	6	–	**9**
10-14	1	2	–	**3**
15-24	3	2	–	**5**
25-34	3	1	–	**4**
35-44	8	3	–	**11**
45-54	3	–	–	**3**
55-64	1	–	–	**1**
≥65	1	4	–	**5**
Unknown	–	–	–	**–**
Total	**27**	**19**	**–**	**46**

**Erratum*: table data corrected 16:20, 27 April 2007]

Laboratory reports of hepatitis C infection in England and Wales: October to December 2006*

Age Group (years)	Male	Female	unknown	Total
1-4	3	1	–	**4**
5-9	–	–	–	**–**
10-14	–	–	–	**–**
15-24	48	29	4	**81**
25-34	179	86	6	**271**
35-44	223	64	6	**293**
45-54	123	57	3	**183**
55-64	41	17	–	**58**
≥65	11	26	–	**37**
Unknown	5	1	–	**6**
Total	**633**	**281**	**19**	**933**

**Erratum* : table data corrected 16:20, 27 April 2007]

Respiratory

Last updated: **4 May 2007**, Volume 1, No 18 Next update: **11 June 2007**

Laboratory reports of respiratory infections made to the Health Protection Agency Centre for Infections from HPA and NHS laboratories in England and Wales: weeks 14-17/2007

Table 1 Reports of influenza infection made to HPA Centre for Infections, by week of report: weeks 14-17/2007

Week		Week 14	Week 15	Week 16	Week 17	Total
Week ending		08/04/07	15/04/07	22/04/07	29/03/07	
Influenza A		**10**	**54**	**9**	**18**	**91**
	Isolation	1	1	1	3	**6**
	DIF*	1	2	3	2	**8**
	Four-fold rise in paired sera	–	–	–	–	–
	PCR	1	6	1	3	**11**
	Other†	7	45	4	10	**66**
Influenza B		–	**3**	–	**1**	**4**
	Isolation	–	–	–	–	–
	DIF*	–	–	–	–	–
	Four-fold rise in paired sera	–	–	–	–	–
	PCR	–	3	–	1	**4**
	Other†	–	–	–	–	–
Influenza (untyped)		–	–	–	–	–
	Isolation	–	–	–	–	–
	DIF*	–	–	–	–	–
	Four-fold rise in paired sera	–	–	–	–	–
	PCR	–	–	–	–	–
	Other†	–	–	–	–	–

*DIF = Direct Immunofluorescence.
†'Other' = 'Antibody detection - Single high titre' or 'method not specified'.

Table 2 Respiratory viral detections by any method (culture, direct immunofluorescence, PCR, four-fold rise in paired sera, single high serology titre, genomic, electron microscopy, other method, other method unknown), by week of report: weeks 14-17/2007

Week	Week 14	Week 15	Week 16	Week 17	Total
Week ending	08/04/07	15/04/07	22/04/07	29/03/07	
Adenovirus*	35	76	32	40	**183**
Coronavirus	–	–	–-	–	–
Parainfluenza†	7	24	15	14	**60**
Rhinovirus	4	3	3	1	**11**
Respiratory syncytial virus (RSV)	27	28	19	21	**95**

*Respiratory samples only. Excludes diagnoses made by electron microscopy (EM)
†includes parainfluenza types 1, 2, 3, 4 and untyped

Table 3 Respiratory viral detections by age group: weeks 14-17/2007

Age group (years)	<1 year	1-4 years	5-14 years	15-44 years	45-64 years	≥65 years	Unknown	Total
Adenovirus*	14	26	3	103	31	6	–	**183**
Coronavirus	–	–	–	–	–	–	–	–
Influenza A	1	6	7	32	21	24	–	**91**
Influenza B	–	–	1	–	–	3	–	**4**
Parainfluenza†	40	10	–	3	3	3	1	**60**
Rhinovirus	7	2	1	1	–	–	–	**11**
Respiratory syncytial virus (RSV)	74	7	3	4	5	2	–	**95**

*Respiratory samples only.
†includes parainfluenza types 1, 2, 3, 4, and untyped.

Table 4 Laboratory reports of infections associated with atypical pneumonia, by week of report: weeks 14-17/2007

Week	Week 14	Week 15	Week 16	Week 17	Total
Week ending	08/04/07	15/04/07	22/04/07	29/03/07	
Coxiella burnettii	–	1	–	3	**4**
Respiratory *Chlamydia* sp*	3	4	–	–	**7**
Mycoplasma pneumoniae	9	13	10	2	**34**
Legionella sp	2	4	7	4	**17**

*Includes *Chlamydia psittaci*, *Chlamydia pneumoniae*, and *Chlamydia* sp detected from blood, serum, and respiratory specimens.

Table 5a Reports of legionnaires' disease cases in England and Wales, by week of report: weeks 14-17/2007

Week	Week 14	Week 15	Week 16	Week 17	Total
Week ending	08/04/07	15/04/07	22/04/07	29/03/07	
Nosocomial	–	–	–	–	–
Community	1(1*)	3(1†)(1*)	3(1*)	3	**10**
Travel abroad	–	1	3	1(1†)	**5**
Travel UK	1	–	1	–	**2**
Total	**2**	**4**	**7**	**4**	**17**
Male	**2**	**4**	**4**	**3**	**13**
Female	**–**	**–**	**3**	**1**	**4**

*2006 case(s).
† Non-pneumonic case(s).

Fifteen cases of legionnaires' disease were reported with pneumonia and a further two non-pneumonic cases; 13 males aged between 44 and 78 years and four females aged between 43 and 70 years. Nine cases had community-acquired infection. M 61y died.

Seven cases were travel-associated: United Kingdom (2), and one from each of India, Italy, Mexico, Poland and Uzbekistan, and Turkey.

Table 5b Reports of legionnaires' disease cases by region of report in England and Wales: weeks 14-17/2007

Region	Nosocomial	Community	Travel (Abroad)	Travel (UK)	Total
North East	–	–	–	1	**1**
Yorkshire & Humber	–	1	2(1†)	–	**3**
East Midlands	–	3(1*)	–	–	**3**
East of England	–	–	–	–	–
London	–	3(1*)	–	–	**3**
South East	–	–	1	1	**2**
South West	–	–	1(1†)	–	**1**
West Midlands	–	3(1*)	–	–	**3**
North West	–	–	–	–	–
Wales	–	–	1	–	**1**
Total	–	**10**	**5**	**2**	**17**

*2006 cases.
† Non-pneumonic case(s).