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A series of six falciparum malaria cases have occurred in travellers recently returned from The Gambia. Two cases are known to have died, and a further two are seriously ill. The cases, aged between 31 and 61 years, all returned to the United Kingdom (UK) and became ill in the second half of November 2005. Five had been on holidays of one to two weeks, all in resorts within 20km of the Atlantic coast, with some cases having been on fishing or bird-watching excursions. The sixth case had visited the Gambia several times on business and had travelled a little further inland than the other cases. All of the cases had taken either no or inadequate chemoprophylaxis.

The Gambia is a popular 'winter sun' destination for UK travellers, who account for nearly half of all tourist visits (1) (around 30,000 last year). It is also a country where malaria is highly endemic, with year-round transmission and over 100,000 cases reported annually in residents (2).

Plasmodium falciparum is the commonest type of malaria seen in The Gambia, and accounts for over 90% of cases in returning travellers. Falciparum malaria is the most severe form of the disease, and can rapidly progress to serious illness and death. Nearly 4/100 cases of falciparum malaria in travellers returning from the Gambia (between 2000 and 2004) were fatal (*HPA Malaria Reference Laboratory, unpublished data*).

Over the last six years, the annual number of cases in travellers returning from The Gambia has decreased, but the case fatality rate has increased. Table 1 shows the total numbers of cases of malaria from The Gambia reported to the Malaria Reference Laboratory, in relation to cases from other areas.

Table 1 Cases of *Plasmodium falciparum* malaria reported to the Malaria Reference Laboratory, 2000 to 2005* (these figures do not include the current case series)

Year	Cases from all countries	Cases returning from The Gambia			
		Number of cases (% of all cases)	Number of deaths	Case fatality rate	Percentage known to have taken prophylaxis†
2000	1576	121 (7.7)	4	3.3%	38.0%
2001	1576	74 (4.7)	1	1.4%	25.7%
2002	1469	46 (3.1)	2	4.3%	32.6%
2003	1339	48 (3.6)	3	6.3%	6.3%
2004	1221	31 (2.5)	2	6.5%	19.4%
2005‡	855	8 (0.9)	1	12.5%	30.0%

* Unpublished data supplied by the HPA Malaria Reference Laboratory, December 2005.

† The denominator is all falciparum case reports from The Gambia, including those where prophylaxis status was unknown.

‡ To end August 2005; note that the main holiday season to the Gambia from the UK is over the UK Winter.

Most cases of *P. falciparum* malaria did not take chemoprophylaxis. The overall percentage of travellers who take adequate chemoprophylaxis is not known.

Travellers to The Gambia and other malarious countries should seek medical advice on appropriate measures before travelling. The risk of malaria can be reduced by taking appropriate

chemoprophylaxis, and by bite avoidance through suitable clothing, insect repellents and bed-nets (3).

There is significant resistance to chloroquine in The Gambia, so this treatment, available over the counter in some pharmacies, is not recommended as chemoprophylaxis (4). Instead, travellers should use either atovaquone/proguanil (Malarone), doxycycline or mefloquine (Lariam). These regimes are only available on prescription, and the latter two need to be started at least one week before travelling. Full details are available in the 2003 UK malaria guidelines (5), and the National Travel Health Network and Centre (www.nathnac.org) can provide up-to-date advice to clinicians on travellers with complex medical needs or travel itineraries.

Organising preventive measures, medical advice and prescriptions may be difficult where holidays are booked at short notice; a cluster of cases were reported in December 2003 associated with late bookings to The Gambia (6). Late booking holidays are increasingly available through travel companies via the Internet.

The Federation of Tour Operators and Association of British Travel Agents have been informed about these cases. They are taking steps to alert their members about this issue, and the need to remind travellers to malarious areas to seek medical advice prior to departure.

This series of cases in people returning from The Gambia is associated predominantly with tourism. Most malaria cases in the UK however occur in former residents of malaria-endemic countries, mainly in west Africa, who return home to visit friends or family (7). Most have not taken appropriate chemoprophylaxis. All travellers to such areas, irrespective of where they were born, should take medical advice and appropriate preventive measures to reduce their risk of malaria.

Travellers who fall ill following a visit to a malarious area should seek prompt medical attention, and be aware that malaria can present up to a year or more after return (7). Healthcare professionals should always take a travel history from anyone with a fever/flu-like illness, and be aware that absence of fever in an ill patient does not exclude the diagnosis of malaria. If the travel history includes travel to a malarious area in the past year, blood film examination should be performed without delay.

Malaria is a notifiable disease. All malaria cases should also be reported to the HPA Malaria Reference Laboratory, with reporting forms available by downloading from the MRL website <http://www.malaria-reference.co.uk>, or from Marie Blaze at Marie.Blaze@lshtm.ac.uk.

References

1. World Tourism Organization (WTO). *Yearbook of tourism statistics. 2002*. Madrid: WTO; 2002.
2. *Malaria country profiles: The Gambia*. In: World Health Organization Regional Office for Africa website [online] 2004 [cited 8 December 2005] Available at <<http://www.afro.who.int/malaria/country-profile/gambia.pdf>>.
3. National Travel Health Network and Centre. *Travel Health information sheets: Insect bite avoidance*. In: Nathnac website [online] [cited 8 December 2005]. Available at <<http://www.nathnac.org/pro/factsheets/iba.htm>>
4. Moore DAJ, Grant AD, Armstrong M, Stümpfle R, Behrens R. Risk factors for malaria in UK travellers. *Trans R Soc Trop Med Hyg* 2004; **98**: 55-63.
5. Bradley DJ, Bannister B, on behalf of the Health Protection Agency Advisory Committee on Malaria Prevention for UK Travellers. Guidelines for malaria prevention in travellers from the United Kingdom for 2003. *Commun Dis Public Health* 2003; **6**(3): 180-99. Available at <[http://www.hpa.org.uk/cdph/issues/CDPHvol6/No3/6\(3\)p180-99.pdf](http://www.hpa.org.uk/cdph/issues/CDPHvol6/No3/6(3)p180-99.pdf)> .
6. Health Protection Agency. Consequences of failure to use malaria prophylaxis in The Gambia. *Commun Dis Rep CDR Wkly* [serial online] 2003 [cited 8 December 2005]; **13** (49): news. Available at <<http://www.hpa.org.uk/cdr/archives/2003/cdr4903.pdf>>.
7. Health Protection Agency. *Foreign travel-associated illness. England, Wales, and Northern Ireland – Annual Report 2005*. London: Health Protection Agency Centre for Infections; 2005. Available at <http://www.hpa.org.uk/hpa/publications/travel_2005/default.htm>

An outbreak of cryptosporidiosis in north west Wales

In early November 2005, the Health Protection Team in north Wales noted an increase in cases of cryptosporidiosis in Gwynedd and Anglesey. Initial investigations indicated that cases were concentrated on either side of the Menai Straits and were mostly in young adults, with a predominance of women. Several cases reported drinking a lot of tap water. The UK Cryptosporidium Reference Unit confirmed that all isolates were *Cryptosporidium hominis*, indicating a human origin.

The affected area is supplied with drinking water from several sources. Lake Cwellyn is an upland reservoir (Cwellyn) serviced by a water treatment works that provides microstraining, pressurized sand filtration, and chlorination. A resident population of 70,000 people (approximately one third of the population of the two counties) receives water from Lake Cwellyn, either exclusively or blended 80:20 with water from source B, a blend of water derived from two high upland lakes. Cumulative attack rates from 1 September were 90 per 100,000 population supplied from lake Cwellyn compared to 13 case per 100,000 supplied from other sources in North West Wales.

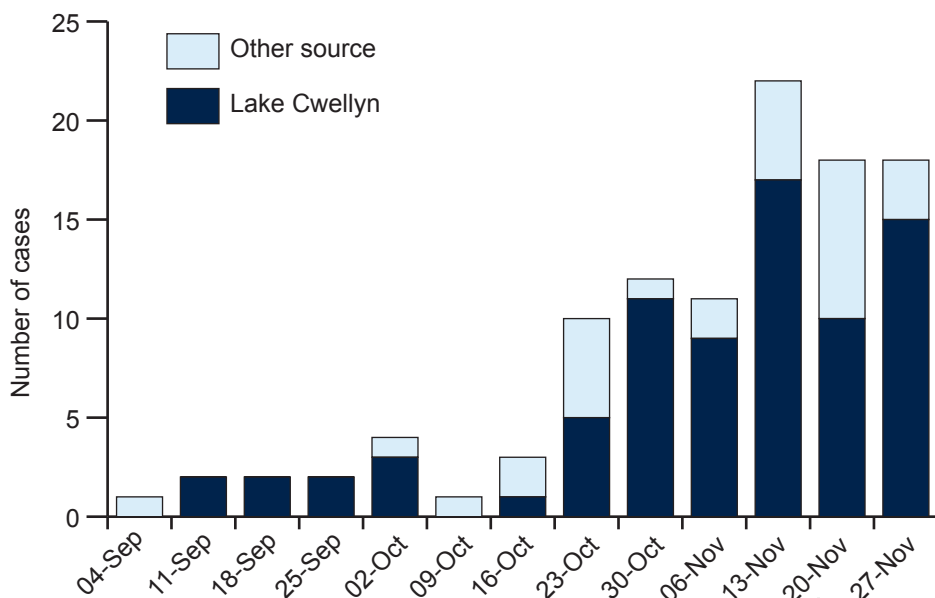
The initial incident management team instituted further investigations including a case-control study, and testing of raw and treated water samples for cryptosporidium oocysts. The water company had been undertaking continuous monitoring at Cwellyn since 2 November. General practitioners and consultants in northwest Wales were asked to issue advice on boiling water to patients with impaired T cell immunity.

Cases were defined as people living in Gwynedd or Anglesey with onset of diarrhoea after 1 September 2005 and the presence of *C. hominis* oocysts in a faecal sample. Travel related cases and secondary cases were excluded. Telephone interviews were conducted with 45 cases and 37 unmatched controls. Cases had an odds ratio of 9.5 (95%CI 2.1 to 41.0) for drinking unboiled tap water, together with a dose response.

Monitoring by the water company has shown oocysts in both raw and treated water. Levels in treated water were, however, always below the treatment standard of one oocyst per 10 litres of water.

By 27 November there were 100 cases that met the case definition (figure 1). A boil water notice was issued on the 29 of November to all residents of the area supplied by Lake Cwellyn.

Figure1 Cryptosporidiosis cases by date of onset and source of water supply: 1 September to 27 November 2005



Investigations are continuing into the source of cryptosporidium oocysts in the water from Source A. The reservoir catchment includes a small village with a sewage treatment facility, and several properties with septic tanks. There was very heavy rainfall in northwest Wales during the two weeks preceding the outbreak. The hypothesis that the reservoir may have been contaminated by oocysts in sewage run-off is therefore being explored.

Outbreak of *Salmonella* Goldcoast infection in tourists returning from Mallorca – final summary

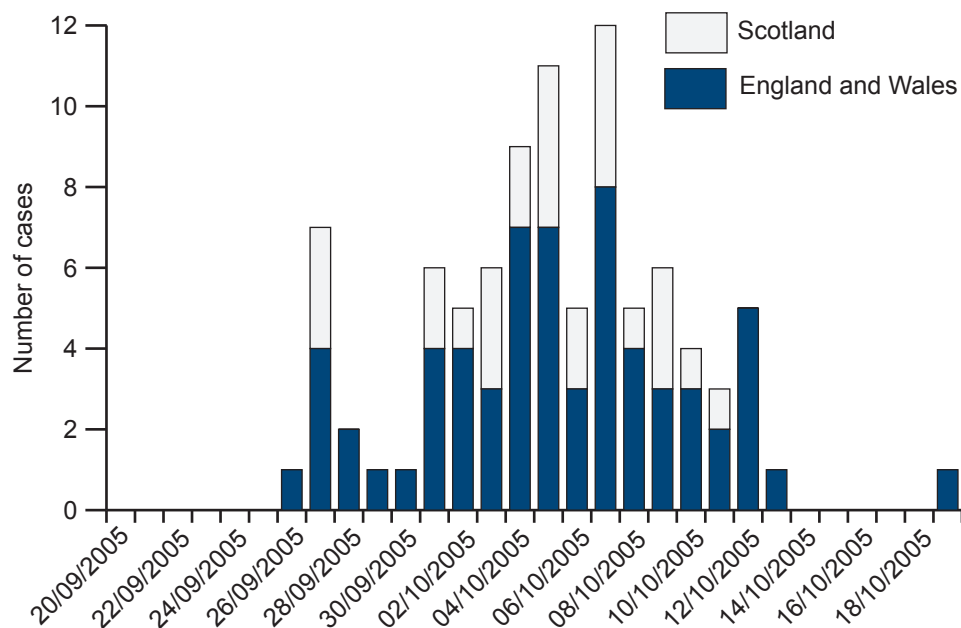
An international Outbreak Control Team (OCT) led by Health Protection Scotland has investigated an outbreak of *Salmonella* Goldcoast infections in tourists returning from Mallorca (1,2). The case definition was agreed as 'a case of gastroenteritis caused by *Salmonella* Goldcoast visiting Mallorca one week prior to the onset of symptoms, onset being between 20 September and 19 October'. One hundred and forty-eight cases of *S.* Goldcoast meeting the outbreak case definition were reported from around Europe between 1 October and 1 December 2005: England and Wales (66), Scotland (28), Germany (17), Sweden (12), Norway (8), Ireland (6), Denmark (4), Finland (4), and Mallorca (3). The last onset date reported was 19 October 2005.

United Kingdom

The Health Protection Agency Centre for Infections reported 116 confirmed cases of *S.* Goldcoast in England and Wales between 1 October and 1 December 2005, compared to four in the same time period in 2004.

Follow-up information was available for 112 cases (97%). Eighty-three cases (74%) reported recent foreign travel and of these, 73 (88%) reported Mallorca as their destination. One case reported visiting Mallorca as part of a cruise. During investigations five cases were deemed to be secondary cases and were excluded leaving sixty-six primary cases which met the case definition. Of the sixty-six primary cases, all age groups were affected although almost half (33/66) of cases were aged under 5 years (age range: 0 to 76 years). Males were over-represented (55%) compared to females (45%). Onset dates ranging between 26 September and 19 October 2005 were available for 64 cases (figure 1). Five cases were admitted to hospital.

Figure 1 Epidemic curve by country: UK cases of *S.* Goldcoast with history of travel to Mallorca: 20 September to 19 October 2005 (n=91)



The Scottish Salmonella Reference Laboratory (SSRL) has reported 40 isolates of *S.* Goldcoast between 1 October and 1 December 2005 of which 28 fitted the outbreak case definition. One case reported visiting Mallorca as part of a cruise. Cases ranged in age from 0 to 80 years. Sixty-one per cent of the cases were aged 5 years or under. Onset dates ranging between 27 September and the 11 October 2005 were available for 27 cases (figure 1).

All United Kingdom isolates tested were fully sensitive to antibiotics and all have the same Pulsed Field Gel Electrophoresis (PFGE) profile GIdX2 (SSRL designation).

To generate hypotheses for disease transmission, seventeen cases resident in various parts of England, Wales, and Scotland were interviewed at length using a detailed standardised trawling questionnaire. Analysis of data from the trawling questionnaires did not generate a testable hypothesis about foods, outlets, or other potential sources of infection. The international outbreak control team was reconvened on 1 December 2005 and the outbreak was declared over. Members agreed that no further environmental or epidemiological investigations were warranted.

References

1. Outbreak of *Salmonella* Goldcoast infections in tourists returning from Mallorca
Commun Dis Rep CDR Weekly [serial online] 2005 [cited 3 November 2005]; **15**(44): News.
Available at <<http://www.hpa.org.uk/cdr/archives/2005/cdr4405.pdf>>.
2. Update: outbreak of *Salmonella* Goldcoast infection in tourists returning from Mallorca – United Kingdom update. *Commun Dis Rep CDR Weekly* [serial online] 2005 [cited 10 November 2005]; **15**(45): News. Available at <<http://www.hpa.org.uk/cdr/archives/2005/cdr4505.pdf>>.

Enteric

▾ [General outbreaks of foodborne illness in humans, England and Wales: weeks 45-48/05](#)

▾ [Salmonella infections, \(faecal specimens\) England and Wales, reports to the HPA \(salmonella data set\): October 2005](#)

▾ [Common gastrointestinal infections, England and Wales, laboratory reports: weeks 45-48/05](#)

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▾ [Salmonella serotypes recorded in the Health Protection Agency salmonella data set: July to September 2005 \(provisional\)](#)

▾ [General outbreaks of foodborne illness in humans, England and Wales: weeks 45-48/05](#)

Preliminary information has been received about the following outbreaks.

Health Protection Unit	Organism	Location of food prepared or served	Month of outbreak	Number ill	Cases positive	Suspect vehicle	Evidence
Manchester	<i>Salmonella</i> Agbeni	Residential Institution	November	6	6	None	–
Leeds	Campylobacter	Restaurant	October	8	2	None	–
Leeds	<i>Clostridium Perfringens</i>	Residential Institution	October	13	8	None	–

M (microbiological): identification of an organism of the same type from cases and in the suspect vehicle, or vehicle ingredient(s), or detection of toxin in faeces or food; D (descriptive): other evidence, usually descriptive, reported by local investigators as indicating the suspect vehicle or food; S (statistical): a significant statistical association between consumption of the suspect vehicle(s) and being a case.

▾ [Salmonella infections \(faecal specimens\), England and Wales, reports to the HPA \(salmonella data set\): October 2005](#)

Details of serotypes of 1417 Salmonella infections recorded in October are given in the table below. In November 2005, 1025 salmonella infections were recorded and preliminary information was received about one outbreak (see table above).

	October 2005
S. Enteritidis (PT4)	260
S. Enteritidis (other PTs)	710
S. Typhimurium	166
S. Virchow	45
Others (typed)	236
Total <i>Salmonella</i> (provisional data)*	1417

*Figures quoted from the Health Protection Agency salmonella data set are for isolates confirmed and typed by Laboratory of Enteric Pathogens (LEP).

Common gastrointestinal infections, England and Wales, laboratory reports: weeks 45-48/05

Laboratory reports	Number of reports received				Total reports 45-48/05	Cumulative total to	
	45/05	46/05	47/05	48/05		48/05	48/04
<i>Campylobacter</i>	751	589	376	23	1739	39,594	41,916
<i>Escherichia coli</i> O157*	29	42	31	28	130	955	668
<i>Salmonella</i> †	220	233	206	165	824	10,588	12,437
<i>Shigella sonnei</i>	5	6	5	–	16	792	762
Rotavirus	19	22	20	2	63	13,075	14,094
Norovirus	5	23	11	3	42	2420	2394
Cryptosporidium	153	119	48	10	330	3552	3434
Giardia	48	56	27	7	138	2438	2983

*Vero cytotoxin-producing isolates (data from Health Protection Agency's Laboratory of Enteric Pathogens (LEP).

† Data from Health Protection Agency's Laboratory of Enteric Pathogens.

NA= Not available at time of publication.

General outbreaks of foodborne illness in humans, England and Wales: April to June 2005

Preliminary information has been received about the following outbreaks.

Health Protection Unit	Organism	Location of food prepared or served	Number ill	Cases positive	Suspect vehicle	Evidence
Leeds	<i>Campylobacter</i>	Restaurant	4	3	Chicken liver tikka	D
Wales	<i>Campylobacter</i>	Prison	13	4	None	–
Tees	<i>Clostridium perfringens</i>	Caterer	36	4	Chicken curry	M,S
Kent	<i>C. perfringens</i>	Private House	43	12	Fillet beef	S,D
Manchester	<i>Salmonella</i> Agbeni	Residential Institution	14	5	None	–
Sunderland	<i>S. Enteritidis</i> PT6	Restaurant	18	15	Egg fried rice	D
Newcastle	<i>S. Enteritidis</i> PT6	Restaurant	10	8	None	–
Newcastle	<i>S. Typhimurium</i> U288	Retailer	9	5	None	–
Oxford	<i>S. Virchow</i>	Restaurant	9	6	None	–

M (microbiological): identification of an organism of the same type from cases and in the suspect vehicle, or vehicle ingredient(s), or detection of toxin in faeces or food; D (descriptive): other evidence, usually descriptive, reported by local investigators as indicating the suspect vehicle or food; S (statistical): a significant statistical association between consumption of the suspect vehicle(s) and being a case.

 **Salmonella serotypes recorded in the Health Protection Agency salmonella data set: July to September 2005 (provisional)**

All serotypes recorded in the HPA salmonella data set in the third quarter of 2005 are listed below. There were more than ten reports of 24 serotypes, two to ten reports of 59 serotypes, and one report of 63 serotypes.

More than ten reports of the following serotypes were received:

Serotype	July to September 2005		
S. Agona	21	S. Bareilly	11
S. Blockley	14	S. Bovis-Morbificans	11
S. Braenderup	30	S. Corvallis	24
S. Derby	12	S. Enteritidis	2960
S. Hadar	78	S. Heidelberg	10
S. Infantis	40	S. Java	15
S. Kentucky	37	S. Kottbus	12
S. Mbandaka	21	S. Montevideo	10
S. Newport	47	S. Oranienburg	14
S. Senftenberg	11	S. Stanley	50
S. Typhimurium	474	S. Thompson	20
S. Virchow	99	S. Unnamed	47

Between two and ten reports of each of the following serotypes:

S. Abony	3	S. Agama	4
S. Agbeni	6	S. Alachua	2
S. Albany	3	S. Altona	3
S. Anatum	9	S. Apapa	2
S. Arizonae	8	S. Brandenburg	6
S. Bredeney	6	S. Chailey	2
S. Chester	9	S. Colindale	2
S. Durham	9	S. Eastbourne	3
S. Eboko	2	S. Galiema	3
S. Give	6	S. Gold-Coast	8
S. Havana	3	S. Hvittingfoss	2
S. Ibadan	2	S. Indiana	5
S. Isangi	3	S. Kedougou	5
S. Kiambu	2	S. Kingabwa	2
S. Livingstone	3	S. London	4
S. Mikawasima	6	S. Minneapolis	2
S. Minnesota	4	S. Mississippi	9
S. Muenchen	7	S. Muenster	4
S. Napoli	2	S. Newington	2
S. Ohio	5	S. Onireke	2
S. Oslo	3	S. Panama	7
S. Pomona	3	S. Poona	8


S. Potsdam	2	S. Reading	2
S. Richmond	5	S. Rissen	4
S. Rubislaw	3	S. Saint-Paul	9
S. Schwarzengrund	5	S. Stanleyville	2
S. Stourbridge	7	S. Tel-El-Kebir	2
S. Tennessee	3	S. Thomasville	2
S. Uganda	2	S. Weltevreden	4
S. Zanzibar	2		

Between one report of each of the following serotypes:

S. Aberdeen	1	S. Adelaide	1
S. Agoueve	1	S. Ahuza	1
S. Ajjobo	1	S. Amersfoort	1
S. Amsterdam	1	S. Arkansas	1
S. Augustenborg	1	S. Bochum	1
S. Bonariensis	1	S. Brunei	1
S. Bukavu	1	S. Buzu	1
S. Canada	1	S. Cannstatt	1
S. Cerro	1	S. Cholerae-Suis	1
S. Coeln	1	S. Cubana	1
S. Djakarta	1	S. Drypool	1
S. Dublin	1	S. Duisburg	1
S. Essen	1	S. Fairfield	1
S. Gaminara	1	S. Goerlitz	1
S. Haifa	1	S. Hartford	1
S. Herston	1	S. Irumu	1
S. Ituri	1	S. Javiana	1
S. Kenya	1	S. Lanka	1
S. Larochelle	1	S. Leith	1
S. Litchfield	1	S. Liverpool	1
S. Louga	1	S. Manhattan	1
S. Meleagridis	1	S. Menden	1
S. Menston	1	S. Miami	1
S. Nagoya	1	S. Nchanga	1
S. Ngozi	1	S. Nima	1
S. Okatie	1	S. Othmarschen	1
S. Plymouth	1	S. Portsmouth	1
S. Quiniela	1	S. San-Diego	1
S. Sangera	1	S. Singapore	1
S. Tarshyne	1	S. Tranaroa	1
S. Umbilo	1	S. Vejle	1
S. Wandsworth	1		

Diary

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 [22nd West Midlands Communicable Disease Control Course– April 2006 Emergency communicable disease control and other on-call duties](#)

22nd West Midlands Communicable Disease Control Course- April 2006 Emergency communicable disease control and other on-call duties

The Department of Public Health and Epidemiology and the HPA are holding three day course on Monday 3 to Wednesday 5 April 2006, for people carrying out on-call CCDC duties or may have to cover the CCDC in his/her absence. The course will be held at Hornton Grange, University of Birmingham.

This course should be of interest to:

- Consultant Public Health Physicians who cover out of hours rotas
- Consultants who undertake CCDC duties and wish to update or revise basic skills and knowledge in an interactive way
- Trainees in Public Health Medicine who cover out of hours rotas or who wish to specialise in communicable disease control
- Health Protection Nurses
- Medical Microbiologists or Infectious Disease Physicians who may wish to apply for jobs with CCDC responsibilities
- Others who undertake on-call duties, CCDC duties or similar work

The course is fairly intensive in order to limit the amount of study leave needed, but is largely interactive in style and held in high quality facilities in order to maximise learning and interest. Previous courses have been highly evaluated by previous attendees. The course is recognised for CPD, and a certificate of attendance will be issued.

The course fee is £675 (residential) and £575 non-residential and includes a copy of the second edition of *The Communicable Disease Control Handbook* by Jeremy Hawker et al.

For further details on the course content and a booking form please go to:
<<http://pcpoh.bham.ac.uk/publichealth/programmes/cdsc/index.htm>>.

Or contact Mr Sajad Rahman, Health Protection Research and Development Unit, Department of Public Health & Epidemiology, The University of Birmingham, Edgbaston, Birmingham B15 2TT. Tel: 0121 415 8183 OR Fax: 0121 415 818, or email: <PCR-Warmstudy@adf.bham.ac.uk>.