



# Health Protection Report

## weekly report

Volume 2 Number 15 Published on: 11 April 2008 (rev.)

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## News

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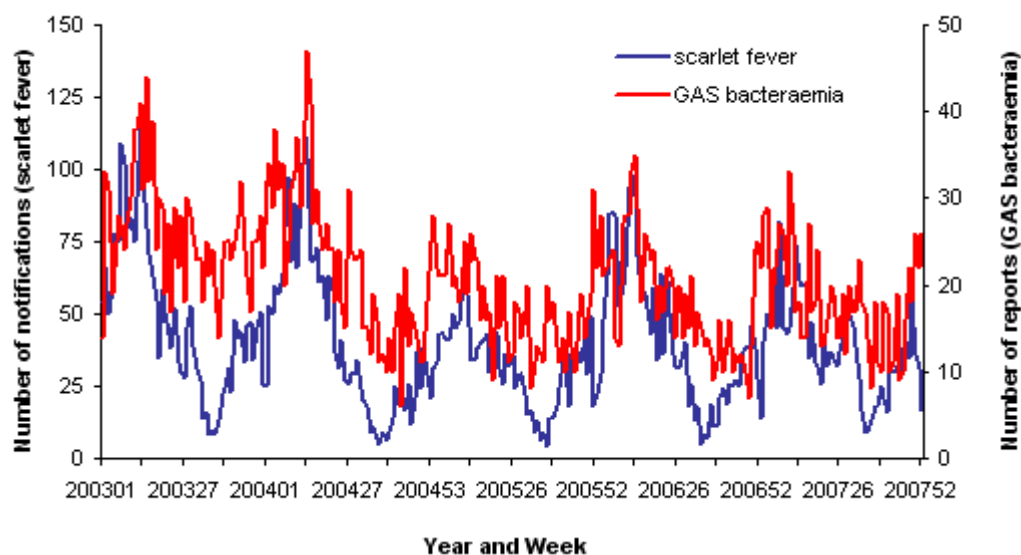
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### Group A streptococcal infections: 2007/08 seasonal update

Notifications of scarlet fever in some regions of England from December 2007 to mid-March 2008 were higher than those seen over the past four years, although notifications for England as a whole from December 2007 onwards were within the expected range. Reports of group A streptococcal (*Streptococcus pyogenes*) bacteraemia received so far for 2008 show no unusual activity. Increased levels of group A streptococcal infections typically occur between December and April, with peak season usually in March /April. Seasonal activity over recent years is shown in figure 1.

**Figure 1 Routine laboratory reporting of group A streptococcal bacteraemia and notifications of scarlet fever by year and week of diagnosis (bacteraemia) or notification (scarlet fever, England 2003-07)**



## **Scarlet fever**

Compared with the past four years, notifications of scarlet fever in England during the December to mid-March period (weeks 49/2007 to 12/2008) were within the expected range (891 compared with a range between 679 and 917 in the past four years) but notifications between weeks 9 to 12 of 2008 were above those seen in the past four years (333 compared with a range between 218 to 319).

Levels of notification in Yorkshire and the Humber for weeks 49/2007 to 12/2008 were above those for the previous four years, while notifications for the South West were higher than in all previous years except 2006, a year of unusually high numbers of notifications for the South West. Notifications made in the South East were above those for the previous four years, but not substantially so. Other regions - the North West, North East, East Midlands, West Midlands, East of England, and London - all had numbers of notification within that expected for the time of year.

## **Group A streptococcal bacteraemia**

Reports of group A streptococcal bacteraemia received to date from laboratories in England, Wales and Northern Ireland show 301 diagnoses between December 2007 and February 2008, compared to an average 316 for the previous four years. Numbers of diagnoses made in December 2007 were above expected (110 against an average 93 reports), although reports received so far for 2008 show no unusual activity. Regional breakdowns also indicate a level of activity within what would be expected for the time of year. Late reporting may, however, cause numbers in recent months to rise.

Invasive disease isolates and those from suspected clusters or outbreaks should be submitted to the Respiratory and Systemic Infection Laboratory at the Health Protection Agency, Centre for Infections, 61 Colindale Avenue, London NW9 5HT.

## **References**

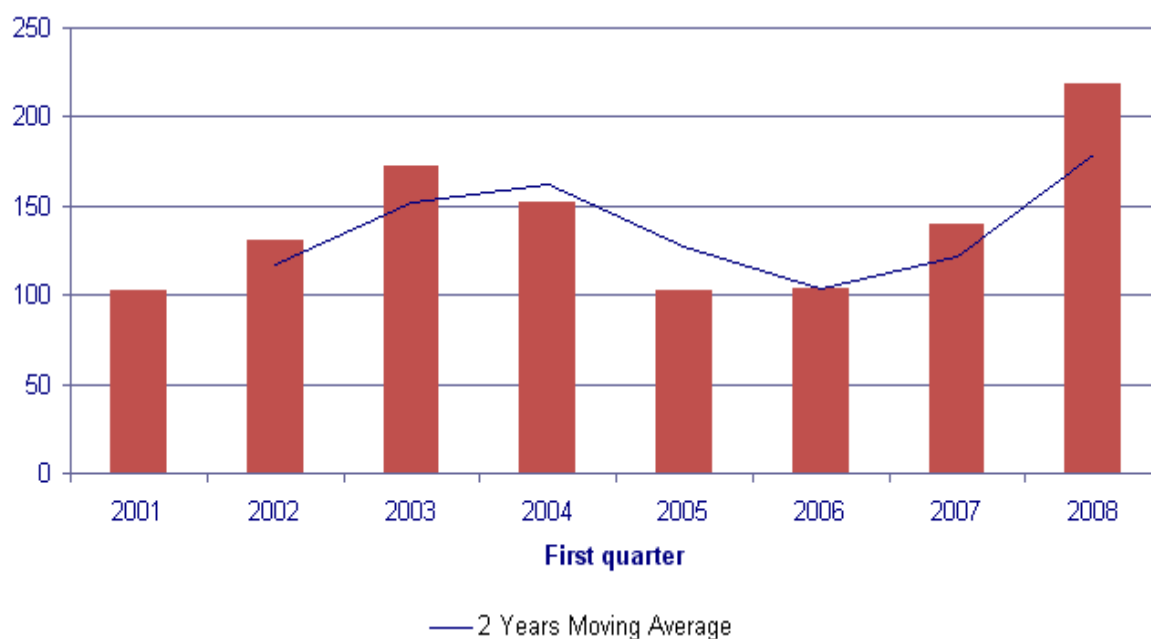
Guidelines for the management of close community contacts of invasive group A streptococcal disease are available on the Agency's website at:  
[http://www.hpa.org.uk/cdph/issues/CDPHvol7/No4/guidelines1\\_4\\_04.pdf](http://www.hpa.org.uk/cdph/issues/CDPHvol7/No4/guidelines1_4_04.pdf).

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## Yorkshire and the Humber scarlet fever update

There has been more than the expected number of scarlet fever notification in the first quarter of 2008 in Yorkshire and the Humber. The total number of notifications in the region was 219, an increase of 155% on the quarterly average of 140 for the same quarter over the last eight years.

**Figure 1. First quarter\* notifications of scarlet fever in Yorkshire and the Humber, 2001-2008**



\* First quarter = week1 – week13

Over 140 of the notified cases (65%) were from West Yorkshire. The numbers of notifications in weeks 11, 12, and 13 were the highest since the beginning of the year, suggesting a continued increase. Further cases awaiting notification raise this number to 192 cases (Leeds PCT 67; Bradford and Airedale PCT 69; Wakefield 30; Calderdale PCT 12; Kirklees PCT 12). This includes 29 confirmed positive for *Streptococcus pyogenes* by throat culture and 22 negative. This may be a reflection of the difficulty in taking swabs adequately from small children, but the possibility of an alternative diagnosis cannot be excluded. Over 87% of the notifications in West Yorkshire were for children aged less than 14 years. No significant outbreaks in nurseries or schools have been noted so far. The disease was generally mild and resulted in hospitalisation in only two cases, now fully recovered. No post streptococcal complications have been identified through tertiary paediatric renal and cardiac units in Leeds. The most common serotypes identified across the region were *emm3*, *emm12* and *emm28*.

Incident control meetings are held regularly for a close follow up of the situation. General practitioners, hospital A&E departments, Local Care Direct, and Paediatric departments have been made aware of the increase. The advice is to encourage testing, prompt treatment and exclusion for 48 hours from school or nursery after starting treatment.

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## Toxigenic *Corynebacterium ulcerans* isolated in Greater Manchester

On 27 March 2008 a potentially toxigenic corynebacterium from the throat swab of a 17 year old female was reported to the Greater Manchester Health Protection Unit (GMHPU). The following day, the HPA's Respiratory and Systemic Infection Laboratory (RSIL) confirmed it to be a toxigenic isolate of *C. ulcerans*.

The case presented to her GP on 18 March 2008 with a five-day history of an erythematous, pruritic rash that started on her hands and spread to her trunk and legs. She also had a mild sore throat. There was no significant past medical history and she was fully immunised against diphtheria, including receipt of school leaving booster immunisation. A throat swab was taken and she was prescribed a 10-day course of Penicillin V.

The case was reassessed by her GP following identification of the toxigenic corynebacterium and she was clinically well. The case was discussed with the infectious diseases consultant and hospitalisation and administration of anti-toxin was not deemed necessary. The course of oral antibiotics was extended to 14 days and a microbiological clearance throat swab was recommended. Her presentation raised the possibility that she was a carrier of *C. ulcerans* and that her symptoms were due to another cause, such as viral infection. To investigate this, serological tests have been requested and results are awaited.

*C. ulcerans* produces a toxin that is identical to the toxin produced by *Corynebacterium diphtheriae* [1] and therefore it is recommended that public health response following isolation of toxigenic *C. ulcerans* is the same as that for toxigenic *C. diphtheriae* [2].

Household contacts were identified and in line with national guidance they were offered nasopharyngeal swabs, prophylactic antibiotics and diphtheria containing vaccine where indicated. The swabs from all human contacts were negative.

The only risk factor for infection was close contact with animals, particularly dogs. The case has a pet dog, from which a nasopharyngeal swab was taken, which tested negative. The case works with animals, but there were no known cases of illness among the animals with which she had contact.

A leaflet has been distributed among staff at her workplace giving information on toxigenic *C. ulcerans* and advice with regards to hygiene and the importance of diphtheria immunisation.

Toxigenic *C. ulcerans* can cause diphtheria and although there is no direct evidence of person-to-person spread, it is considered possible [2]. Known risk factors for infection include contact with farm and companion animals and ingestion of unpasteurised milk. Strains of *C. ulcerans*, which are indistinguishable from those causing human infection, have been isolated from domestic cats [3] and dogs [4].

Of the 33 isolates of toxigenic corynebacteria identified in England and Wales between 2000 and 2007, 22 (66%) were *C. ulcerans*. The majority of these cases (86%) did not present with 'classical diphtheria' but had milder respiratory infections (sore throat or tonsillitis) and were either immunised or partially immunised [5,6], as described for the case above. *C. ulcerans* can, however, be fatal and during the same period three unimmunised individuals with *C. ulcerans* infections developed classical diphtheria, two of whom died [4,7].

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## Revised malaria prevention guidelines for travellers to Goa, India

In early 2007, a cluster of cases of *Plasmodium falciparum* malaria was reported in UK travellers returning from Goa, India. None were known to have taken malaria chemoprophylaxis, which was consistent with the Advisory Committee on Malaria Prevention in UK Travellers (ACMP) guidelines [1] at that time. During the same period, a cluster of cases was also seen in other European travellers [2]. These clusters, together with an increase seen in reported cases in residents of Goa compared to the same period in 2006, resulted in the ACMP guidelines being temporarily revised (subject to review) to consider recommending chemoprophylaxis for all travellers visiting Goa [3].

Since late 2006, when the updated ACMP guidelines [1] were published in full online, the Malaria Reference Laboratory (MRL) has been undertaking enhanced surveillance of malaria cases imported from India to determine the state(s) visited. In 2007, there were nine cases of *P. falciparum* and 24 cases of *P. vivax* malaria diagnosed in travellers returning from Goa, which represents a significant proportion of the 117 malaria cases in those returning from India as a whole that year. In the light of these findings, the ACMP have recently determined that the revised recommendations should therefore remain in place.

The current recommendations for travellers visiting Goa are as follows:

Travel advisers should recommend malaria chemoprophylaxis to those travellers who will be visiting Goa, particularly areas north of Panaji. The recommended chemoprophylaxis is chloroquine plus proguanil. Alternatives are mefloquine, atovaquone plus proguanil (Malarone®), or doxycycline. All travellers to Goa should also be instructed on the use of mosquito bite avoidance measures [4] and be made aware of the risk of malaria.

All travellers should seek medical attention promptly if they become unwell and inform their doctor that they have been in a malarious area. The healthcare worker should consider malaria in every ill patient who has recently returned from the tropics; for those with a fever, the illness should be considered to be malaria until proven otherwise.

## References

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# Infection reports

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## Enteric

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### General outbreaks of foodborne illness in humans, England and Wales: weeks 10-13/2008

Preliminary information has been received about the following outbreaks.

Health Protection Unit	Organism	Location of food prepared	Month of outbreak	Number ill	Cases positive	Suspect vehicle	Evidence
SE London	Campylobacter	Function	March	>1	>1	Chicken livers	D

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### Salmonella infections (faecal specimens), England and Wales: reports to the HPA (Salmonella data set), February 2008

Details of serotypes of 504 Salmonella infections recorded in February 2008 are given in the table below. In March 2008, 440 Salmonella infections were recorded.

Organism	Cases February 2008
S. Enteritidis PT4	43
S. Enteritidis (other PTs)	102
S. Typhimurium	115
S. Virchow	14
Others (typed)	230
Total Salmonella (provisional data)	504

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**Common gastrointestinal infections, England and Wales, laboratory reports:  
weeks 09-13/08**

*This table is an updated and corrected version (published 18 April 2008 with data extracted on 14 April 2008) of that originally published; it includes laboratory reports for week 09/08 omitted from the original.*

Laboratory reports	Number of reports received					Total reports 09-13/08	Cumulative total	
	09/08	10/08	11/08	12/08	13/08		01-13/08	01-13/07
<i>Campylobacter</i>	696	671	652	470	507	2141	7382	8426
<i>Escherichia coli</i> O157*	12	8	10	5	7	42	94	68
<i>Salmonella</i> †	180	132	151	99	75	403	1550	2307
<i>Shigella sonnei</i>	10	5	4	2	5	13	79	182
<i>Rotavirus</i>	754	927	975	848	715	3290	6085	6193
<i>Norovirus</i>	184	174	165	161	135	584	2390	2368
<i>Cryptosporidium</i>	35	35	39	34	17	120	383	449
<i>Giardia</i>	68	59	46	35	30	158	609	615

\* Vero cytotoxin-producing isolates (data from HPA's Laboratory of Enteric Pathogens).

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

**Less common gastrointestinal infections, England and Wales: laboratory reports  
weeks 01-13/08**

Laboratory reports	Total reports 01-13/2008	Cumulative total to 13/2008	Cumulative total to 13/2007
<i>Adenovirus</i> *	19	19	13
<i>Astrovirus</i>	13	13	8
<i>Sapovirus</i>	2	2	1
<i>Shigella boydii</i>	27	27	27
<i>Shigella dysenteriae</i>	12	12	5
<i>Shigella flexneri</i>	77	77	77
<i>Plesiomonas</i>	7	7	8
<i>Vibrio</i> spp.	22	22	12
<i>Yersinia</i> spp	3	3	14
<i>Entamoeba histolytica</i>	17	17	22
<i>Blastocystis hominis</i>	105	105	159
<i>Dientamoeba fragilis</i>	11	11	39

\* Includes Adenovirus EM faeces and Adenovirus group.