



# Health Protection Report

weekly report

Volume 4 Number 11 Published on: 19 March 2010

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- ▶ Trends in mandatory surveillance data for MRSA bacteraemia and *C. difficile* infection (data for England, October 2007 to December 2009)
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## News

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### World TB day and UK surveillance update

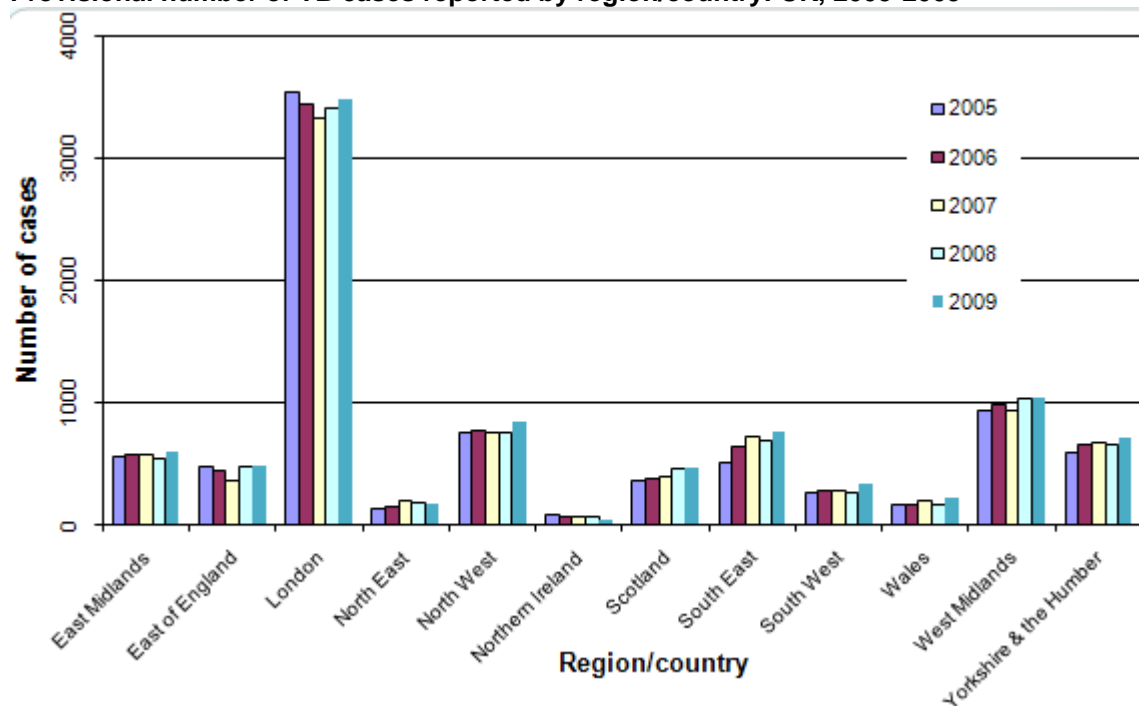
World TB day on 24 March marks the anniversary of the day, in 1882, that Dr Robert Koch identified the tuberculosis (TB) bacillus as the causative agent of tuberculosis. This year the theme is “on the move against tuberculosis” which focuses on innovative and novel strategies to stop TB.

The year 2010 marks the halfway point of the Global Plan to Stop TB (2006-2015) [1]. Estimates of the World Health Organization (WHO) published in March 2009 indicate that, in 2008, there were 9.4 million new cases worldwide (139 per 100,000) and 1.3 million deaths due to TB [2]. Seven out of nine WHO-defined epidemiological sub-regions have achieved the goal to reverse the trend of increasing incidence ahead of the target year 2015, and in four regions prevalence and mortality have also halved since 1990. However, it is unlikely that the target level for prevalence and mortality will be achieved on a global scale. In particular, drug resistant tuberculosis strains present a major challenge to the global effort to control TB, as outlined in a recent WHO report [3]. In 2008, it was estimated that 440 000 people had multi-drug resistant (MDR) TB, with 50% of cases thought to occur in China and India. In the 46 countries that test for resistance to second line drugs, extensively drug resistant TB (XDR TB) was found in 5.4% of MDR TB cases.

The HPA has released a newsletter to coincide with world TB day [4] which provides a UK TB surveillance update and outlines fresh approaches to control TB in the UK. New initiatives include the launch of the National Strain Typing Service, the trialling of an opt-out system for HIV testing in TB clinics in London and new methods for raising awareness and for TB case management.

Provisional data on the number of TB cases in the UK shows that 9153 cases were reported to enhanced national surveillance in 2009; a rate of 14.9 per 100,000 and a 5.5% increase compared to the provisional figures from 2008. This is mainly due to increased case numbers reported in eight out of nine regions in England (see figure). A consistent rise in incidence has been observed over the last decade and it is now crucial that efforts are consolidated nationally to halt and ultimately reverse this trend. Provisional data are still subject to change due to de-notifications, de-duplication of records and late notifications of TB. Finalised 2009 data will be published by HPA later this year.

## Provisional number of TB cases reported by region/country: UK, 2005-2009



## References

1. The Global Plan to Stop TB 2006-2015: progress report 2006-2008. World Health Organization: Geneva. 2009.
2. Global tuberculosis control: a short update to the 2009 report. World Health Organization: Geneva. 2009.
3. *Multidrug and extensively drug-resistant tuberculosis: 2010 Global Report on Surveillance and Response*, World Health Organization: Geneva. March 2010 [PDF 852 KB].
4. HPA Centre for Infections. Tuberculosis update. London: HPA, March 2010.

## Acknowledgement

The HPA would like to acknowledge the contribution of colleagues in the Local and Regional Services network, Health Protection Scotland, the National Public Service for Wales and the Communicable Disease Surveillance Centre Northern Ireland in providing the data for this report.

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## Trends in mandatory surveillance data for MRSA bacteraemia and C. difficile infection (data for England, October 2007 to December 2009)

The HPA has published its second quarterly epidemiological commentary reporting analyses of data generated by the mandatory surveillance of meticillin-resistant *Staphylococcus aureus* (MRSA) bacteraemia and *Clostridium difficile* infections (CDI) occurring in NHS acute trust hospitals in England [1,2].

The commentary – of which this article is a summary – describes trends in the mandatory reports of these infections over a period of nine quarters – from October 2007 to December 2009 – aggregated over all English NHS acute trusts. The full epidemiological commentary is available on the HPA website [3] and provides further information about the age and sex profiles of patients with these infections and the patterns in patient provenance. The commentary also includes two special feature

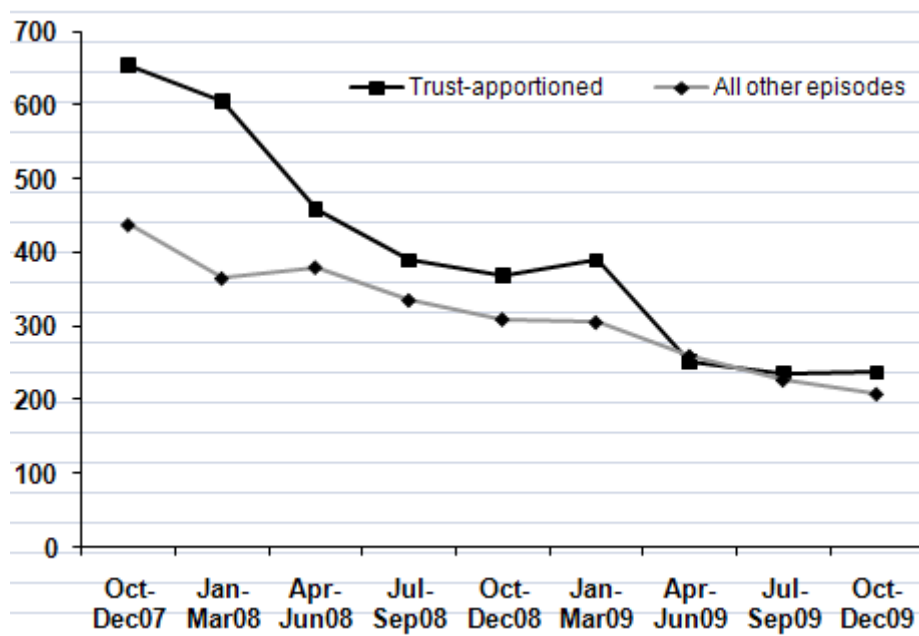
articles: the first introduces preliminary trend analyses from 2006 to 2009 in the presumed cause of MRSA bacteraemia, based on voluntarily reported data; the second is a preliminary analysis of the subset of patients who have had more than one episode of *C. difficile* in 180 day follow up period.

### MRSA bacteraemia

Total counts of MRSA bacteraemia during the previous nine quarters are shown in figure 1, divided into two categories: trust-apportioned episodes (this category includes patients presumed to have been infected while admitted to the trust\*), and non trust-apportioned episodes ('all other episodes').

The purpose of apportioning episodes either to acute trust or all other sources is to explore the changing epidemiology of the infection in the healthcare setting. By distinguishing between trust apportioned and all other episodes, we can conduct a more refined analysis of the disease in the relevant settings.

**Figure 1. Counts of trust-apportioned and all other episodes of MRSA bacteraemia (October – December 2007 to October – December 2009)**



Overall, there has been a 59% decrease in the number of episodes reported during this surveillance period in England, from 1,092 cases in October-December 2007 to 444 cases in October-December 2009. Among trust-apportioned episodes, there has been a 64% decrease during this surveillance period, from 654 episodes to 237 episodes. In comparison with the previous quarter (July-September 2009) there has been no significant change (236 episodes in July-September 2009 vs. 237 episodes in October-December 2009). The number of all other episodes has decreased 53% from 438 episodes in October-December 2007 to 207 episodes in October-December 2009. There has also been an 8% decrease since the previous quarter (July-September 2009), when 226 episodes were reported as compared with the 207 episodes reported for October-December 2009.

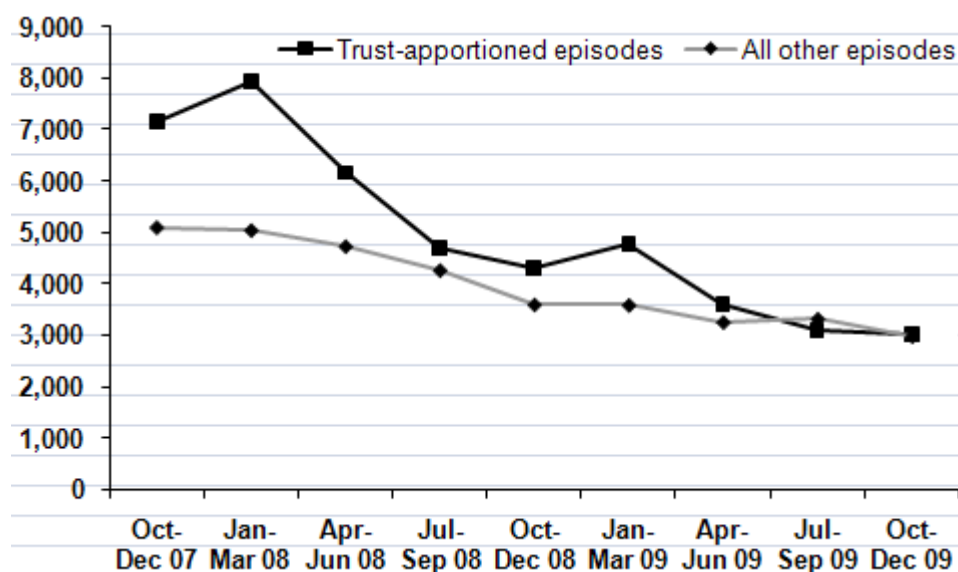
### *Clostridium difficile* infection

In the most recent quarter, October-December 2009, the total number of reports of CDI was 6,009. After apportioning cases†, the counts were similar for the categories of trust apportioned (3,027; 50.4%) and all other episodes (2,982; 49.6%). Between October-December 2007 and October-December 2009 there has been a 58% decrease in the counts of trust-apportioned episodes from 7,157 to 3,027 and a 41% decrease in the number apportioned as all other episodes from 5,091 to 2,982 (Figure 2).

The rate of decline in trust apportioned counts has slowed between October-December 2008 and October-December 2009, compared with the decline between the same quarters in the previous year. Between October-December 2008 and October-December 2009 the number of cases fell by 30% (4,310 to 3,027) compared to 40% (7,157 to 4,310) between October-December 2007 and October-December 2008. The difference between the two years could be due to the immediate impact of interventions on reducing the numbers of infections, but with the rate of decline slowing it may be that with the continued use of those infection control protocols, the more 'easily' preventable infections occur less frequently. Comparing between the last and current quarters, between July-September 2009 and October-December 2009 the number of cases decreased by 2% (3,098 to 3,027); over the same period in 2008 they decreased by 8% (4,687 to 4,310).

The number of cases apportioned as 'all other episodes' reduced by 29% (5,091 to 3,597) between October-December 2007 and October-December 2008; between October-December 2008 and October-December 2009 the rate of decline was 17% (3,597 to 2,982). Between July-September 2008 and October-December 2008 there was a 16% reduction (4,261 to 3,597) in the number of cases. By comparison there has been a 10% reduction (3,320 to 2,982) over the same quarters in 2009. The convergence of the lines of counts of trust apportioned and all other episodes is curious. It will be interesting to see over the next few quarters whether the rate of decline between quarters is similar in the two arms of the apportioning process.

**Figure 2. Counts of trust-apportioned and all other episodes of CDI, October – December 2007 to October – December 2009**



#### Notes

\* **MRSA bacteraemia trust-apportioned episodes:** The analysis of trust apportioned and all other reports is based on the model outlined by the National Quality Board. This includes patients who are (i) in-patients, day-patients, emergency assessment patients; AND (ii) have had a specimen taken at an acute trust; AND (iii) specimen is **2 or more days** after date of admission (admission date is considered day '0').

† **CDI trust-apportioned episodes:** include patients who are (i) in-patients, day-patients, emergency assessment patients; AND (ii) have had a specimen taken at an acute trust; AND (iii) specimen is **3 or more days** after date of admission (admission date is considered day '0').

The next quarterly commentary (covering January 2008 to March 2010) will be published on 18 June 2010.

## References

1. [Mandatory \*Clostridium difficile\* infection surveillance scheme](#). HPA website: Infectiousdiseases › Infections A-Z › *Clostridium difficile* › Epidemiological data › *Clostridium difficile* Mandatory Surveillance.
2. [Mandatory \*Staphylococcus aureus\* bacteraemia surveillance scheme](#). HPA website: Infectiousdiseases › Infections A-Z › *Staphylococcus aureus* › Epidemiological Data › Mandatory *Staphylococcus aureus* bacteraemia surveillance scheme.
3. ["Quarterly epidemiological commentary: trends in MRSA bacteraemia and \*C. difficile\* infection from October 2007 to December 2009"](#), March 2010 (PDF, 890 KB). HPA website: Infections A-Z › *Staphylococcus aureus* › Epidemiological Data › Mandatory *Staphylococcus aureus* bacteraemia surveillance scheme › Quarterly Epidemiological Commentaries.

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## Further rise in HIV diagnoses of infections acquired heterosexually within the UK: 2009 data

In 2009, an estimated 6,900 persons were newly diagnosed with HIV in the United Kingdom after adjusting the observed number of 5,963 diagnoses for reporting delay. Following a steep increase in the annual number of diagnoses between 1999 (3,249) and 2005 (7,988), the 2009 data shows an overall year on year decrease since 2005. Having adjusted for undetermined risk, over a half of the people newly diagnosed in 2009 (55%; 3780) probably acquired their infection through heterosexual contact and 41% (2800) through sex between men.

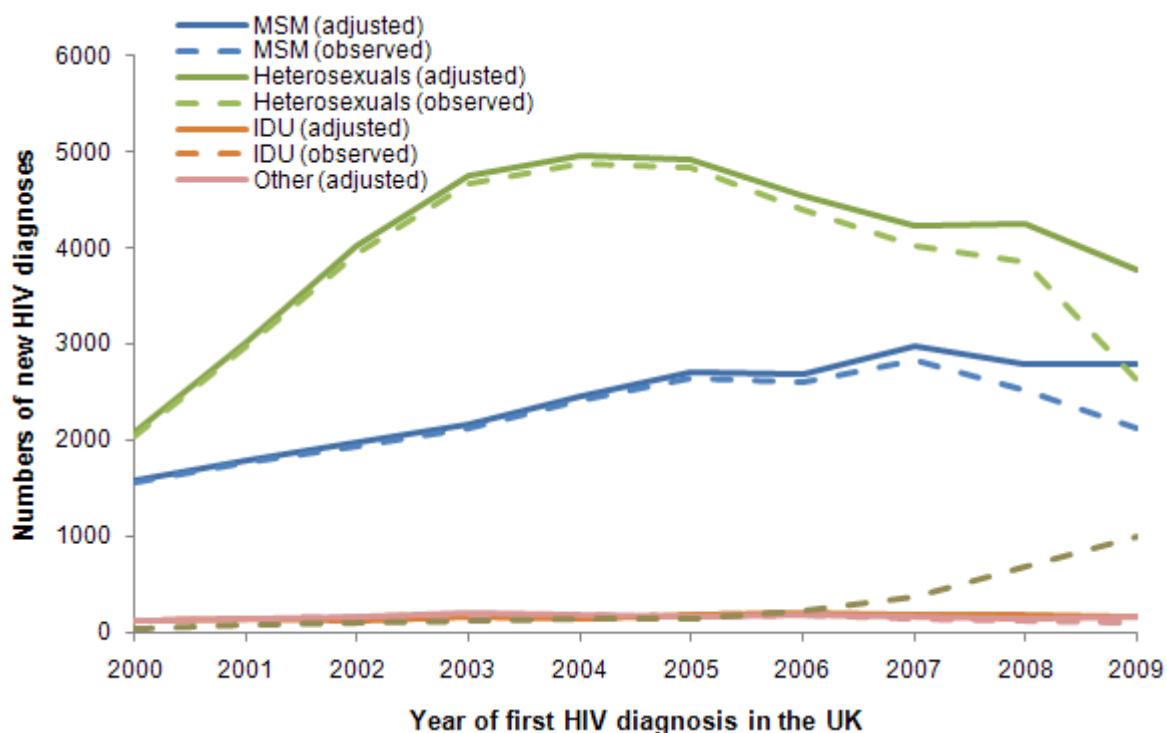
The overall decline in annual diagnoses masks the further rise in number of new diagnoses among those probably infected heterosexually within the UK with an estimated 1,220 new diagnoses in 2009, up from 1,080 the previous year. Of the estimated 1,220 persons infected heterosexually in the UK, 45% were of white ethnicity and 39% of black African ethnicity.

The number of new diagnoses among persons probably infected heterosexually abroad has fallen from an estimated peak of 4,260 in 2004 to 2,560 in 2009 (see figure). While the majority of persons infected heterosexually continue to acquire their infection abroad, mostly in sub-Saharan Africa, the proportion that do so has declined from 88% in 2003 to 68% in 2009.

Although numbers remain high, the trend in new diagnoses in men who have sex with men (MSM) is flat (figure), with the estimated 2,800 new diagnoses in 2009 being similar to annual numbers since 2005. Among HIV-infected MSM newly diagnosed in 2009, 83% probably acquired their infection within the UK and 85% were of white ethnicity. Sex between men remains the main route of HIV transmission within the UK.

Low numbers of estimated new diagnoses were made in 2009 in injecting drug users (160) and other exposure categories (160) such as mother to child transmission and recipients of blood and blood products.

## Annual trend in HIV diagnoses by exposure category for the UK



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## Pandemic (H1N1) 2009 influenza vaccine for travel use

The Chief Medical Officer for England has written to all general practitioners to confirm that pandemic H1N1 (2009) influenza vaccine can be provided for the protection of travellers to southern hemisphere countries during their forthcoming influenza season [1,2].

## References

1. Department of Health Central Alerting System. Pandemic H1N1 (2009) swine flu vaccine for travel use, 18 March 2010.
2. "Swine 'Flu vaccine available for the protection of travellers", Department of Health press release, 19 March.

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## Chemicals and Poisons

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### Combustion products toxicology review

Dr James Wakefield, research scientist/manager CBRN R&D, HPA Chemical Hazards and Poisons Division.

*A comprehensive review of scientific literature covering the toxicology of combustion products was conducted to support the Health Protection Agency's (HPA) strategic goals [1]. The resulting report (entitled 'A Toxicological Review of the Products of Combustion'), summarised in this article, is the fourth in a series from the HPA's Chemical Hazards and Poisons Division [2].*

The Chemical Hazards and Poisons Division frequently has to advise on the health effects arising from incidents due to fires. The purpose of this review is to consider the toxicity of combustion products. Following smoke inhalation, toxicity may result either from thermal injury, or from the toxic effects of substances present. This review is primarily concerned with the effects arising from toxic combustion products, and not thermal injury.

The pyrolysis and combustion of materials can result in the generation of many toxic smoke products which cause irritation, incapacitation, systemic toxicity, asphyxiation and may be lethal following acute exposures. Some of the common toxic chemicals which may be present in a fire effluent include asphyxiant gases, such as carbon monoxide (CO) and hydrogen cyanide (HCN), irritant gases such as hydrogen chloride (HCl) oxides of nitrogen (NO<sub>x</sub>), acrolein and phosgene, and complex molecules such as polycyclic aromatic hydrocarbons (PAHs). The amounts of toxic products evolved during combustion vary with the type of combustion, the availability of oxygen, the temperature and the materials involved. Therefore, the conditions of combustion will affect the severity of the adverse health effects in those exposed to the products of combustion.

This is a complex area and there is the potential for generation of a huge range of pyrolysis products depending on the nature of the fire and the conditions of burning. Although each fire will have individual characteristics and need to be considered on a case by case basis there are commonalities, particularly with regard to the most important components relating to toxicity. The review aims to identify generalisations which may be made regarding the toxicity of common products present in fire smoke, with respect to the combustion conditions (temperature, oxygen availability, etc.) and materials involved, focusing largely on the adverse health effects to humans following acute exposure to these chemicals in smoke.

The document is intended as a scientific review of the toxicology of combustion products and does not cover the detailed precautions that may be appropriate in specific circumstances. However, most of the key chemicals involved, are covered in the CHaPD Compendium of Chemical Hazards [3] which contains a section on incident management. This section of the Compendium provides information that may be needed by health professionals during a chemical incident, including information on hazards and precautions that may be appropriate (eg, CHIP classification, risk phrases and safety phrases).

The generalisations identified during the course of this review enabled some estimates and conclusions to be made about the likely products formed during fires of specific types. Although the actual products generated during a fire will vary in each individual situation, knowing which products are likely to be formed under certain conditions, may help to assess which products are most likely to be of concern when faced with assessing the hazard of a fire.

The hazards associated with exposure to combustion products fall broadly into the categories of; asphyxiation, irritation, mutagenicity, carcinogenicity and reproductive toxicity. The first two groups, asphyxiation and irritation, often become evident during exposure and are likely to improve reasonably rapidly following removal from the exposure. It is these components of smoke which are likely to cause immediate adverse health effects.

Asphyxiant gases produced during combustion can give rise to narcosis due to depression of the central nervous system. Chemical asphyxiants prevent the normal uptake of oxygen by tissues by interfering with specific elements in oxygen delivery and metabolic processes. Thus carbon monoxide and hydrogen cyanide are chemical asphyxiants. Simple asphyxiants are physiologically inert gases that, if inhaled, displace oxygen from the alveoli and lead to hypoxia. Carbon dioxide, nitrogen and methane are considered to be simple asphyxiants. Breathing a reduced concentration of oxygen also has this effect, but is not considered as a simple asphyxiant. Exposure to these combustion products at sufficient concentration or duration of exposure can lead to unconsciousness and eventually death, due to tissue hypoxia.

The injury following exposure to an irritant gas depends upon the chemical involved, its concentration, the exposure duration and its solubility. However, the initial effect of exposure to these irritant gases is likely to be sensory irritation. Irritation of the eyes will cause pain and stinging of the eyes, initiation of a blinking reflex and lachrimation. The severity of sensory irritation is dependent upon the concentration of the irritant present, and is independent of the exposure duration. An individual exposed to irritant gases in a combustion atmosphere with the effect of stinging or burning of the eyes and throat may shut their eyes and hold their breath to alleviate the irritation, hindering their ability to escape from the hazard. An additional characteristic sign of exposure to irritant gases is a burning sensation of the mucous membranes of the upper respiratory tract, including the nose, mouth and throat. Pulmonary irritation will commonly occur following sensory irritation, due to inhalation of the irritant gas into the lungs. This irritation of the lungs gives rise to bronchoconstriction, coughing and breathing difficulties. Unlike sensory irritation, the severity of pulmonary irritation is dependent upon both the concentration and the duration of exposure to the irritant gas. Exposure to high concentrations of irritant gases can cause inflammation of the lung tissues, pulmonary oedema and could potentially be fatal in a period of between 6 and 48 hours after removal from the exposure.

The combustion of organic materials, particularly if it is incomplete, may also give rise to more complex molecules in the smoke plume which may typically include longer carbon chains and multiple carbon-rings. The acute toxicity of these compounds is generally low and may not pose a direct health hazard during exposure. However, some of these compounds, in particular those from the polycyclic aromatic hydrocarbon groups, are recognised mutagens and carcinogens, although the risks from single (acute) exposure are very small (and unquantifiable). Other complex molecules such as dioxins give rise to concern because of possible effect in the reproductive system.

## References

1. Strategic Programme 2. "To protect against the adverse health effects of acute and chronic exposure to chemicals, poisons and other environmental hazards".
2. HPA. *A Toxicological Review of the Products of Combustion* (CHaPD-004, PDF 159 KB). February 2010. Downloadable from the Agency website via: [Publications](#) > [Chemicals and poisons](#) > [Chemical Research Reports](#).
3. Compendium of Chemical Hazards. HPA website: [Topics](#) > [Chemicals & Poisons](#) > [Compendium of Chemical Hazards](#).

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## Infection reports

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### Enteric

- ▶ Common gastrointestinal infection laboratory reports (England and Wales, weeks 05-08/2010)
- ▶ Salmonella infection laboratory reports (faecal specimens, England and Wales, January 2010)

### Zoonoses

- ▶ Common animal associated infections, England and Wales: weeks 40-52/09
- 

**Enteric** (These two reports, omitted from the enteric infections section of *HPR* of 12 March, have been inserted into the PDF archive version of that issue; see: <http://www.hpa.org.uk/hpr/archives/2010/hpr1010.pdf>)

#### Common gastrointestinal infection laboratory reports (England and Wales, weeks 05-08/2010)

Laboratory reports	Number of reports received				Total reports 05-08/10	Cumulative total	
	05/10	06/10	07/10	08/10		01-08/10	01-08/09
<i>Campylobacter</i>	935	992	785	827	3539	6774	5315
<i>Escherichia coli</i> O157 *	–	16	8	3	27	33	52
Salmonella †	97	95	85	69	346	748	690
<i>Shigella sonnei</i>	7	9	6	16	38	68	133
Rotavirus	438	622	731	823	2614	3426	3396
Norovirus	539	587	511	635	2272	4672	2597
<i>Cryptosporidium</i>	36	34	31	31	132	299	261
<i>Giardia</i>	63	70	48	47	228	494	368

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

† Data from LEP.

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#### Salmonella infection laboratory reports (faecal specimens, England and Wales, January 2010)

The breakdown of serotypes of the 428 salmonella infections (provisional data) reported to the Health Protection Agency Laboratory of Enteric Pathogens (LEP) in January 2010 (reports from the HPA salmonella data set) was as follows:

Organism	Cases (January 2010)
S. Enteritidis PT4	255
S. Enteritidis (other PTs)	852
S. Typhimurium	193
S. Virchow	38
Total salmonella (provisional data)	1667

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## Zoonoses

### Common animal associated infections, England and Wales: weeks 40-52/09

Laboratory reports of animal-associated infections (a summary table and supplementary tables for particular infections) for this period are presented on the following pages.

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## Common animal associated infections, England and Wales: laboratory reports, weeks 40 - 52/09

### Summary table of laboratory reports of animal-associated infections

Organism	Total reports for weeks 40 – 52		Cumulative totals for weeks 01 –52	
	2009*	2008	2009*	2008
<i>Borrelia burgdorferi</i> *,#	202	187	867	813
<i>Leptospira hardjo</i> ** ,##	0	1	0	2
<i>Leptospira icterohaemorrhagiae</i> ** ,##	1	5	1	19
<i>Leptospira</i> other** ,##	6	14	15	61
<i>Pasteurella haemolytica</i>	1	0	4	4
<i>Pasteurella multocida</i>	77	63	336	325
<i>Pasteurella pneumotropica</i>	2	2	11	10
<i>Pasteurella</i> other/spp	32	21	107	91
<i>Toxocara canis</i>	1	0	1	2
<i>Toxocara</i> other/spp	0	0	0	0
<i>Toxoplasma gondii</i> \$	27	13	100	73
<i>Coxiella burnetii</i>	3	1	20	35
<i>Chlamydia (Chlamydophila) psittaci</i>	11	14	58	61
<i>Capnocytophaga</i> spp	1	2	14	22
<i>Mycobacterium marinum</i>	4	0	20	9
Orf virus	0	1	0	4
<i>Echinococcus granulosus</i>	3	1	9	18
<i>Brucella melitensis</i>	1	0	8	5
<i>Brucella</i> spp	0	0	4	0

\* provisional data; \*\* by specimen date; # Lyme Diagnostic Unit and CDSC;

## *Leptospira* Reference Unit and CDSC (indigenous and overseas acquired infections);

\$ *Toxoplasma* reports to LabBase only

## Supplementary analyses

### ***Borrelia burgdorferi*** (Lyme borreliosis): (191)

Age group	Female	Male	Unknown	Total : weeks 40-52/2009	Cumulative total : weeks 01-52/2009
<10	6	2	-	8	53
10-14	-	4	-	4	28
15-24	6	3	1	10	62
25-49	32	58	1	91	321
50-64	35	22	1	58	261
>65	14	15	2	31	142
Not stated	-	-	-	-	-
<b>Total : weeks 40-52/2009</b>	<b>93</b>	<b>104</b>	<b>5</b>	<b>202</b>	
<b>Total : weeks 01-52/2009</b>	<b>453</b>	<b>409</b>	<b>5</b>		<b>867</b>

Country visited (4 <sup>th</sup> Quarter reports)	Number of cases
France	2
Germany	1
Sweden	2
Czech Republic	1
USA (Eastern seaboard)	1
Finland	-
Poland	1
Slovenia	1
Slovakia	-
Austria	1

NB. These data remain provisional until all reports for 2009 have been processed; a further, detailed analysis will be reported in the *HPR*.

### **Leptospirosis:** (8)

#### **(a) Indigenous infections:** (8)

Age group	Female	Male	Unknown	Total : weeks 40-52/2009	Cumulative total : weeks 01-52/2009
<10	-	-	-	-	-
10-14	-	-	-	-	1
15-24	-	1	-	1	4
25-44	-	3	-	3	4
45-64	-	3	-	3	12
>65	-	1	-	1	4
Not stated	-	-	-	-	-
<b>Total : weeks 40-52/2009</b>	<b>0</b>	<b>8</b>	<b>0</b>	<b>8</b>	
<b>Total : weeks 01-52/2009</b>	<b>5</b>	<b>20</b>	<b>0</b>		<b>25</b>

**Region of report**

.Region	Reports (weeks 40-52/2009)	Reports (weeks 1-52/2009)
East Midlands	-	3
East	1	2
London	-	2
North East	-	1
North West	1	4
South East	3	4
South West	2	5
West Midlands	1	2
Wales	-	2
Yorks & Humber	-	-
<b>Total</b>	<b>8</b>	<b>25</b>

**Reported serovars:**

Serovars	Weeks 40-52/2009	Weeks 01-52/2009
Not determined	7	18
Icterohaemorrhagiae	1	6
Saxkoebing	-	1

**(b) Overseas-acquired infections: (0)**

Age group	Female	Male	Unknown	Total : weeks 40-52/2009	Cumulative total : weeks 01-52/2009
<10	-	-	-	-	-
10-14	-	-	-	-	-
15-24	-	-	-	-	-
25-44	-	-	-	-	-
45-64	-	-	-	-	-
>65	-	-	-	-	-
Not stated	-	-	-	-	-
<b>Total : weeks 40-52/2009</b>	-	-	-		
<b>Total : weeks 01-52/2009</b>	-	-	-	-	-

*The following table lists countries visited during 2009 by patients diagnosed with overseas-acquired leptospirosis.*

Country visited	Number of cases**
Antigua	1
Grenada	1
Samoa	1
Borneo	1
Costa Rica	1
Thailand/SE Asia	2
Columbia	1

\*\*Some patients may report visiting more than one country

**Pasteurella** : (112)

*Pasteurella haemolytica* : (1)

*Pasteurella multocida* : (77)

*Pasteurella pneumotropica* : (2)

*Pasteurella aerogenes* : (0)

*Pasteurella* spp : (32)

Age group	Female	Male	Unknown	Total : weeks 40-52/2009	Cumulative total : weeks 01-52/2009
<10	4	1	-	5	22
10-14	1		-	1	4
15-24	2		-	2	23
25-44	16	12	-	28	98
45-64	24	16	-	40	151
>65	22	14	-	36	116
Not stated	-	-	-	-	1
<b>Total : weeks 40-52/2009</b>	<b>69</b>	<b>43</b>	<b>-</b>	<b>112</b>	
<b>Total : weeks 01-52/2009</b>	<b>254</b>	<b>202</b>	<b>2</b>	<b>458</b>	<b>458</b>

Four patients reported infected dog bites and 8 patients reported cat bites and/or scratches, one patient reported an unspecified infected bite and one a leg lesion. One patient was infected with both *P. pneumotropica* and *P. multocida*.

**Region of report**

Region	Reports (weeks 40-52/2009)	Reports (weeks 1-52/2009)
East Midlands	5	44
East	6	48
London	7	41
North East	3	13
North West	19	77
South East	8	32
South West	18	55
West Midlands	21	67
Wales	14	33
Yorks & Humber	10	48
<b>Total</b>	<b>112</b>	<b>458</b>

**Toxocara** : (1)

Age group	Female	Male	Unknown	Total : weeks 40-52/2009	Cumulative total : weeks 01-52/2009
<10	-	-	-	-	-
10-14	-	-	-	-	-
15-24	-	-	-	-	-
25-44	-	-	-	-	-
45-64	-	1	-	1	1
>65	-	-	-	-	-
Not stated	-	-	-	-	-
<b>Total : wks 40-52/2009</b>	<b>-</b>	<b>1</b>	<b>-</b>	<b>1</b>	<b>-</b>
<b>Total : wks 01-52/2009</b>	<b>0</b>	<b>1</b>	<b>0</b>		<b>1</b>

**Toxoplasmosis:**

See report in *HPR* 4(6), 12 February 2010  
 (<http://www.hpa.org.uk/hpr/archives/2010/hpr0610.pdf>)

**Coxiella burnetii** : (3)

Age group	Female	Male	Unknown	Total : weeks 40-52/2009	Cumulative total : weeks 01-52/2009
<10	-	-	-	-	-
10-14	-	-	-	-	-
15-24	-	-	-	-	-
25-44	-	2	-	2	3
45-64	1	-	-	1	11
>65	-	-	-	-	6
Not stated	-	-	-	-	-
<b>Total : weeks 40-52/2009</b>	<b>1</b>	<b>2</b>	<b>-</b>	<b>3</b>	
<b>Total : weeks 01-52/2009</b>	<b>5</b>	<b>15</b>	<b>-</b>		<b>20</b>

**Region of report**

Region	Reports (weeks 40-52/2009)	Reports (weeks 1-52/2009)
East	-	1
London	-	1
North West	-	1
South West	3	15
West Midlands	-	1
Wales	-	1
<b>Total</b>	<b>3</b>	<b>20</b>

**Chlamydia (Chlamydophila) psittaci** : (11)

Age group	Female	Male	Unknown	Total : weeks 40-52/2009	Cumulative total : weeks 01-52/2009
<10	-	-	-	-	3
10-14	-	-	-	-	-
15-24	-	1	-	1	5
25-44	-	1	-	1	16
45-64	1	6	1	7	27
>65	-	2	-	2	7
Not stated	-	-	-	-	-
<b>Total : weeks 40-52/2009</b>	<b>1</b>	<b>10</b>	<b>-</b>	<b>11</b>	
<b>Total : weeks 01-52/2009</b>	<b>20</b>	<b>37</b>	<b>1</b>		<b>58</b>

Region of report

.Region	Reports (weeks 40-52/2009)	Reports (weeks 1-52/2009)
East Midlands	-	1
East	-	2
London	-	4
North West	2	3
South East	-	5
South West	5	24
West Midlands	1	10
Wales	-	3
Yorks & Humber	3	6
<b>Total</b>	<b>11</b>	<b>58</b>

One patient was identified with the ovine strain (*Chlamydophila abortus*) and one patient kept birds.

**Capnocytophaga spp** : (1)

Age group	Female	Male	Unknown	Total : weeks 40-52/2009	Cumulative total : weeks 01-52/2009
<10	-	-	-	-	-
10-14	-	-	-	-	1
15-24	-	-	-	-	2
25-44	-	-	-	-	2
45-64	1	-	-	1	8
>65	-	-	-	-	1
Not stated	-	-	-	-	-
<b>Total : weeks 40-52/2009</b>	<b>1</b>	<b>-</b>	<b>-</b>	<b>1</b>	
<b>Total : weeks 01-52/2009</b>	<b>6</b>	<b>8</b>	<b>-</b>		<b>14</b>

No clinical or epidemiological details were reported.

Region of report

.Region	Reports (weeks 40-52/2009)	Reports (weeks 1-52/2009)
East Midlands	-	1
East	-	-
London	-	4
North West	1	1
South East	-	2
South West	-	1
West Midlands	-	1
Wales	-	1
Yorks & Humber	-	-
<b>Total</b>	<b>1</b>	<b>13</b>

**Mycobacterium marinum** : (4)

Age group	Female	Male	Unknown	Total : weeks 40-52/2009	Cumulative total : weeks 01-52/2009
<10	-	-	-	-	-
10-14	-	-	-	-	-
15-24	-	-	-	-	-
25-44	-	-	-	-	4
45-64	-	3	-	3	12
>65	1	-	-	1	4
Not stated	-	-	-	-	-
<b>Total : weeks 40-52/2009</b>	<b>1</b>	<b>3</b>	<b>-</b>	<b>4</b>	
<b>Total : weeks 01-52/2009</b>	<b>7</b>	<b>13</b>	<b>-</b>		<b>20</b>

**Region of report**

.Region	Reports (weeks 40-52/2009)	Reports (weeks 1-52/2009)
East Midlands	1	5
East	-	-
London	2	6
North East	-	1
North West	-	3
South East	-	2
South West	-	3
West Midlands	1	-
Wales	-	-
Yorks & Humber	-	-
<b>Total</b>	<b>4</b>	<b>20</b>

**Orf** : Nil report

Age group	Female	Male	Unknown	Total : weeks 40-52/2009	Cumulative total : weeks 01-52/2009
<10	-	-	-	-	-
10-14	-	-	-	-	-
15-24	-	-	-	-	-
25-44	-	-	-	-	-
45-64	-	-	-	-	-
>65	-	-	-	-	-
Not stated	-	-	-	-	-
<b>Total : weeks 40-52/2009</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>0</b>	<b>-</b>
<b>Total : weeks 01-52/2009</b>	<b>0</b>	<b>0</b>	<b>0</b>		<b>0</b>

**Echinococcus granulosus** : (3)

Age group	Female	Male	Unknown	Total : weeks 40-52/2009	Cumulative total : weeks 01-52/2009
<10	-	-	-	-	-
10-14	-	-	-	-	-
15-24	-	-	-	-	1
25-44	1	-	-	1	4
45-64	-	1	1	2	3
>65	-	-	-	-	-
Not stated	-	-	-	-	1
<b>Total : weeks 40-52/2009</b>	<b>1</b>	<b>1</b>	<b>1</b>	<b>3</b>	<b>-</b>
<b>Total : weeks 01-52/2009</b>	<b>1</b>	<b>3</b>	<b>5</b>		<b>9</b>

**Region of report**

.Region	Reports (weeks 40-52/2009)	Reports (weeks 1-52/2009)
East Midlands	1	1
East	-	-
London	2	5
North West	-	-
North East	-	1
South East	-	-
South West	-	1
West Midlands	-	1
Wales	-	-
Yorks & Humber	-	-
<b>Total</b>	<b>3</b>	<b>9</b>

**Brucellosis** : (1)

Age group	Female	Male	Unknown	Total : weeks 40-52/2009	Cumulative total : weeks 01-52/2009
<10	-	-	-	-	1
10-14	-	-	-	-	-
15-24	-	-	-	-	2
25-44	-	1	-	1	5
45-64	-	-	-	-	2
>65	-	-	-	-	1
Not stated	-	-	-	-	1
<b>Total : weeks 40-52/2009</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>1</b>	<b>-</b>
<b>Total : weeks 01-52/2009</b>	<b>0</b>	<b>1</b>	<b>0</b>		<b>12</b>