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▾ [New case of transfusion-associated variant-CJD](#)

A new case of probable variant Creutzfeldt-Jakob Disease (vCJD) has recently been diagnosed in a patient who received a blood transfusion from a donor who later developed vCJD (1). This is the third case of probable transfusion transmission of vCJD infection in the UK.

The first case of vCJD disease associated with blood transfusion was identified in December 2003. This individual developed vCJD six and a half years after transfusion of red cells donated by an individual who developed symptoms of vCJD three and a half years after donation (2). A case of vCJD 'infection' was identified a few months later in a recipient of red cells from a donor who developed symptoms of vCJD 18 months after donation. This second case died from causes unrelated to vCJD five years after transfusion. Post-mortem investigations found abnormal prion protein in the spleen and a cervical lymph node, but not in the brain, and no pathological features of vCJD were found (3). The new case developed vCJD nearly eight years after receiving a transfusion of red blood cells from a donor who developed vCJD about 20 months after donating this blood (1). Each of the three infected recipients received blood from different donors.

To date, 160 cases of vCJD have been identified in the United Kingdom. A collaborative study between the National Blood Services, the National CJD Surveillance Unit, and the Office for National Statistics has been underway since 1997 to collect evidence about transmission of CJD or vCJD via the blood supply (4). Review of data at blood centres has found records for 23 of the 160 vCJD cases (prior to their vCJD diagnosis). For 18 of these 23 cases, blood components were issued to hospitals for transfusion, and 66 recipients of these vCJD-implicated blood components have been identified. Forty of these 66 recipients have died, including the two known to have evidence of vCJD infection (2,3). The small group of living recipients of vCJD-implicated blood transfusion have been informed of their potential exposure to vCJD by blood transfusion. Some were contacted in late 2003/early 2004, and some in 2005. They were asked to take certain precautions to reduce the risk of onward person-to-person transmission of vCJD during healthcare.

All three infected recipients identified to date received non-leucodepleted red blood cells. Since October 1999, leucocytes have been removed from all blood used for transfusion in the UK. The effect of leucodepletion on the reduction of the risk of transmission of vCJD from an infected donor is uncertain.

The risk of vCJD infectivity in blood has also resulted in other groups being identified as 'at risk of vCJD for public health purposes' increased risk of vCJD, and being informed and asked to take public health precautions. These include certain recipients of plasma-products (5), individuals who have donated blood to vCJD cases (6), and certain recipients of blood from donors to vCJD cases (7). To date, there have been no vCJD cases associated with receipt of plasma-products, or among these other groups that have been categorised as 'at risk'.

This third case of vCJD infection associated with blood transfusion provides further evidence that vCJD can be transmitted between humans by blood transfusion, although much remains unknown. This reinforces the importance of the existing precautions that have been introduced to reduce the risk of transmission of vCJD infection by blood and blood products (8).

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Use of antiviral drugs (Oseltamivir) for influenza

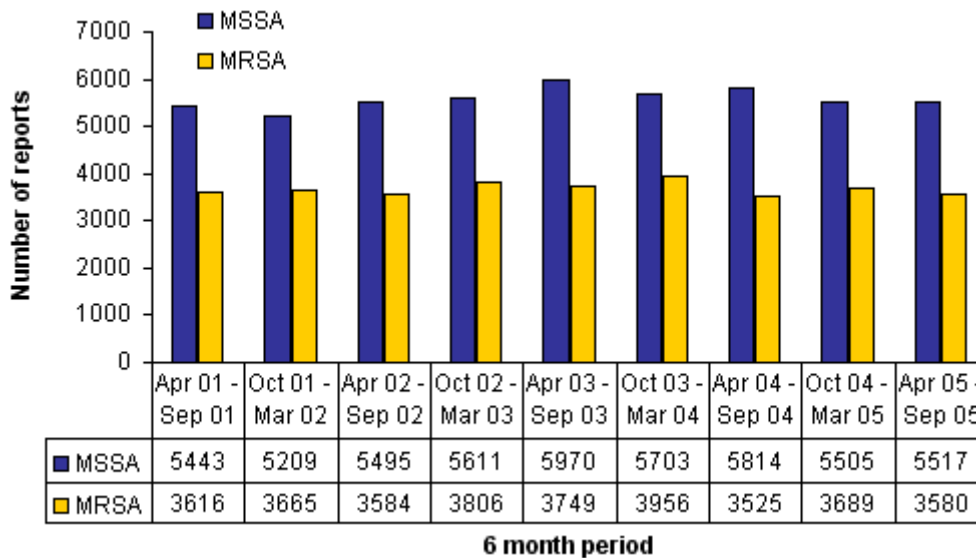
On 9 February 2006 the UK Department of Health issued a letter to all general practitioners in England to inform them that the use of antiviral drugs for the treatment or prophylaxis of influenza was now recommended, in line with the NICE guidance (<http://www.nice.org.uk>). The most recent influenza surveillance data for England shows that the overall rate for influenza has exceeded the threshold at which the use of antivirals is triggered. The overall GP consultation rate for influenza-like illness in England and Wales, based on RCGP data, has increased from 17.9 per 100,000 in week 04/2006 to 38.2 per 100,000 in week 05/2006. The rise in the consultation rate is most evident in children aged 5 to 14 years, where influenza B has been confirmed as the cause of many outbreaks among this age group.

Regional and national analyses of the Department of Health's mandatory *Staphylococcus aureus* surveillance scheme in England: April 2001 to September 2005

Results of the Department of Health's mandatory methicillin resistant *Staphylococcus aureus* (MRSA) surveillance system in acute Trusts in England have been published for the period April to September 2005. Results for the first four years of the mandatory surveillance system (April 2001 to March 2005) are also included.

- Between April 2001 and September 2005 all acute NHS trusts in England participated in the Department of Health's mandatory surveillance scheme for *Staphylococcus aureus*.
- In the last six months of the reporting period (April 2005 to September 2005) *S. aureus* bacteraemia reports totalled 9097, 3580 of which were MRSA and 5517 MSSA.
- The percentage of bacteraemia reports for *S. aureus* that are methicillin resistant has remained similar over the four and a half year period, fluctuating between 37.7% and 41.3%.
- Figure 1 shows numbers of MSSA and MRSA bacteraemia reports for each six month period. The numbers of MRSA bacteraemia reports are at similar levels to at the start of the scheme, with 3580 reports in the latest six month period, 55 reports higher than in the same period in 2004.

Figure 1 Number of MSSA and MRSA bacteraemia reports in England between April 2001 and September 2005



- Over the first three years, both the number of MRSA and of MSSA bacteraemia reports increased by six per cent. However, the number of MRSA bacteraemia reports during the last six months is one percent lower than in the first six month period of reporting. The increase in MSSA has also reduced from a six percent increase after the first three years to a 1.4% rise since the start of the scheme.
- Since the last publication of data from the mandatory *S. aureus* surveillance scheme some trusts have corrected their data submissions, hence the figures published at this point in some cases differ from previous figures for the same period(s).
- Data for individual trusts is published on the Department of Health website at http://www.dh.gov.uk/SearchLink?url=http%3A/www.dh.gov.uk/PublicationsAndStatistics/Publications/PublicationsStatistics/PublicationsStatisticsArticle/fs/en%3FCONTENT_ID%3D4085951%26chk%3DHBt2QD&qid=mrsa+%&coll=sponsoredLinks&Z=1
- Further graphs and tables can be found on the *S. aureus* page of the HPA website at http://www.hpa.org.uk/infections/topics_az/staphylo/data.htm.

Introduction of pneumococcal vaccine into the childhood immunisation schedule, and changes to the meningitis C and Hib schedules

The Department of Health has announced changes to the childhood immunisation schedule (ref). Pneumococcal vaccine is being added to the schedule at 2, 4, and 13 months. There are around 5000 cases of invasive pneumococcal disease in England and Wales each year, around 530 of these in children under two years. Since the introduction of a similar programme in the United States, cases in young children caused by the strains in the vaccine have fallen by 94%, and cases in the over 65s have dropped by two thirds.

Two other changes will maximise protection against meningitis C and Hib disease. Firstly, MenC vaccine will be given at three and four months and a booster will be given at 12 months, instead of the current schedule of 2, 3 and 4 months of age. The latest evidence shows that the protection offered wanes one year after vaccination, and the change will maximise the protection in the first two years of life when the risk of infection is high. Secondly, a booster dose of Hib vaccine will be given at 12 months. Hib vaccine was introduced in 1992 and is currently given to children at 2, 3, and 4 months of age. Since 1999, there has been a small but gradual increase in the number of cases in older children being reported. Again, this is due to the protection offered by the vaccine waning over time. In 2003, there was a Hib booster campaign when a booster dose was given to older children to

boost their immunity and reverse the increase. A booster dose of Hib vaccine is now being added to the childhood immunisation programme at 12 months to extend protection against Hib disease.

The new routine vaccination schedule will therefore be:

- 2 months DTaP/IPV/Hib + pneumococcal vaccine
- 3 months DTaP/IPV/Hib + MenC vaccine
- 4 months DTaP/IPV/Hib + MenC + pneumococcal vaccine

- 12 months Hib/Men C
- 13 months MMR + pneumococcal vaccine

Information about the changes to the routine programme can be found on the immunisation website at <http://www.immunisation.nhs.uk>.

Reference

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Chikungunya virus in the Indian Ocean

Since the beginning of 2005, large numbers of cases of Chikungunya virus have been seen throughout the islands of the Indian Ocean. The first outbreak was noted in the Comoros Islands in early 2005, where over 5000 cases were reported between January and March (1). In March 2005, outbreaks began in the islands of Réunion, Mayotte, and Mauritius and have been ongoing; since November 2005, cases have also been reported in the Seychelles.

Réunion

Between 28 March 2005 and 8 January 2006, 7438 confirmed and suspected cases have been reported in Réunion. The outbreak appears to have spread to all areas of the island (excluding higher altitude areas where vector transmission is low) from the north to the south according to cluster analysis (1). The number of cases reported is thought to be underestimated and mathematical models have estimated the number of cases to be nearer 50,000. The rapid increase in cases in 2006 has coincided with the onset of the southern hemisphere summer, providing ideal conditions for the mosquito vector to proliferate. One death has occurred in a ten year-old boy, which has been attributed to chikungunya virus based on clinical examination, as a post mortem was not performed (2).

Mayotte

Since the beginning of 2006, tens of cases have been reported, three of which have been laboratory confirmed (3). Reports in the media suggest over 50 cases have been seen (4).

Mauritius

In January 2006, 15 cases of chikungunya infection were reported in Mauritius. The majority of these cases have been associated with travel to Reunion, although since 23 January some cases have been reported with no relevant travel history. This suggests that secondary transmission is now occurring (5).

Seychelles

Cases were first reported in November 2005, and up to the end of January 2006, over 2000 cases were reported (6).

Chikungunya virus is an alphavirus of the *Togaviridae* family; it is principally transmitted by the *Aedes aegypti* mosquito. The symptoms of the virus are similar to dengue fever, with rapid onset of fever, headache, rigors, photophobia, sore throat, and conjunctivitis. After initial symptoms severe pains occurs in the joints, especially at sites of previous injury (7). Illness may last between one week and several months but is usually self-limiting. Death associated with Chikungunya had never been documented until this current outbreak.


The Seychelles and Mauritius are popular holiday destinations with British travellers and during the northern hemisphere winter about 1,200 British tourists visit the Seychelles and 6,000 visit Mauritius every month [Federation of Tour Operators, personal communication, 7 February 2006]. Réunion and Mayotte are more popular with French travellers as they are French dependencies.

There is no vaccine for chikungunya virus, therefore prevention relies on mosquito bite avoidance (<http://www.nathnac.org/pro/factsheets/iba.htm>) particularly during daylight hours when *Aedes aegypti* mosquitoes are active (8).

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Enteric

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Enteric Routine Data Reports

-  [General outbreaks of foodborne illness in humans, England and Wales: weeks 01-05/06](#)
-  [Salmonella infections, \(faecal specimens\) England and Wales, reports to the HPA \(salmonella data set\): December 2005](#)
-  [Common gastrointestinal infections, England and Wales, laboratory reports: weeks 01-05/06](#)
-  [Typhoid and paratyphoid, England and Wales, laboratory reports: October to December 2005](#)
-  [Laboratory reports of cases of typhoid and paratyphoid, England and Wales: 1990 to 2005](#)

[General outbreaks of foodborne illness in humans, England and Wales: weeks 01-05/06](#)

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
South Yorkshire	<i>Clostridium perfringens</i>	Private House	January	24	18	Meat and potato pie	D
West Yorkshire	<i>C. perfringens</i>	Residential institution	January	20	1	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 \(salmonella data set\): December 2005](#)

Details of serotypes of 631 salmonella infections recorded in December 2005 are given in the table below. In January 2006, 464 salmonella infections were recorded.

	December 2005
S. Enteritidis (PT4)	75
S. Enteritidis (other PTs)	227
S. Typhimurium	93
S. Virchow	25
Others (typed)	211
Total <i>Salmonella</i> (provisional data)*	631

*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 01-05/06

Laboratory reports	Number of reports received					Total reports	Cumulative total to	
	01/06	02/06	03/06	04/06	05/06		01-05/06	05/06
<i>Campylobacter</i>	444	503	384	347	41	1719	1719	2556
<i>Escherichia coli</i> O157*	4	2	9	3	2	20	20	15
<i>Salmonella</i> †	105	134	102	88	94	523	523	679
<i>Shigella sonnei</i>	7	9	2	6	–	24	24	76
Rotavirus	94	153	162	147	49	605	605	1464
Norovirus	123	108	34	42	13	320	320	810
Cryptosporidium	30	46	31	11	4	122	122	157
Giardia	44	43	38	12	10	147	147	262

*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.

Typhoid and paratyphoid, England and Wales, laboratory reports: October to December 2005

Organism and phage type	Number of cases	Infection acquired abroad			Excretors and carriers
		Yes	No	Not reported	
S. Typhi					
E1	5	2	–	3	–
E2	1	–	–	1	–
E9	1	–	–	1	–
Untypable	1	1	–	–	–
Untypable Vi-strain 1	1	1	–	–	–
Untypable Vi-strain 2	1	–	–	1	–
Untypable Vi-strain 7	1	1	–	–	–
Degraded	2	2	–	–	–
S. Paratyphi A					
1	8	4	–	4	–
1A	8	3	–	5	–
2	8	5	–	3	–
3	2	1	–	1	–
4	9	8	–	1	–
6A	1	1	–	–	–
12	1	–	–	1	–
13	11	3	–	8	–
Untypable	3	1	–	2	–
S. Paratyphi B					
Taunton	2	1	–	1	–
3B	2	–	–	2	–
S. Paratyphi C					
	1	1	–	–	–

Thirteen cases of *Salmonella* Typhi infection were reported in the fourth quarter of 2005. Seven cases were infected abroad (Indian subcontinent 7). In six cases the country of infection was not stated.

Fifty-one cases of *S. Paratyphi* A infection were reported. Twenty-six cases were infected abroad (Indian subcontinent 22, Abroad country unspecified 1, Far East 1, South Africa 1, and west Africa 1). In 25 cases the country of infection was not stated.

Four cases of *S. Paratyphi* B were reported. One case acquired their infection abroad (South America). In three cases the country of infection was not stated.

One case of *S. Paratyphi* C was reported, who acquired their infection abroad (Middle East).

 **Laboratory reports of cases of typhoid and paratyphoid, England and Wales: 1990 to 2005**

Year	S. Typhi	S. Paratyphi A	S. Paratyphi B
1990	267 (188)	114 (80)	46 (12)
1991	238 (154)	139 (81)	28 (6)
1992	206 (174)	95 (89)	20 (14)
1993*	197 (146)	124 (110)	19 (12)
1994	239 (196)	186 (164)	39 (25)
1995	268 (194)	159 (117)	18 (12)
1996	178 (114)	112 (84)	34 (18)
1997	145 (99)	137 (95)	35 (15)
1998	133 (82)	160 (111)	29 (12)
1999	155 (94)	146 (105)	43 (32)
2000	172 (109)	141 (97)	17 (8)
2001	180 (97)	232 (154)	21 (13)
2002	147 (101)	151 (96)	10 (5)
2003	203 (118)	182 (99)	22 (8)
2004	205 (121)	207 (134)	10 (5)
2005†	231 (113)	210 (113)	18 (11)

*Active ascertainment of travel details ceased in 1993.

†Provisional.

Infections acquired abroad are shown in brackets and are included in the total

Emerging infections/CJD Reports

Emerging infections update: July to December 2005

Monthly summaries of notable events and developments of potential public health importance are shown in table 1 below. Important events are identified through horizon scanning activities using multiple sources including: ProMED online <<http://www.promedmail.org>>; World Health Organization sources (Disease Outbreak News <<http://www.who.int/csr/don/en/>>, Weekly Epidemiological Record <<http://www.who.int/wer/en/>>, Outbreak Verification List); Eurosurveillance Weekly <<http://www.eurosurveillance.org/index-02.asp>>; the Global Public Health Intelligence Network (GPHIN) early warning system; CIDRAP online <<http://www.cidrap.umn.edu/index.html>>; CDC Morbidity and Mortality Weekly Report <<http://www.cdc.gov/mmwr/>>; Emerging Infectious Diseases journal <<http://www.cdc.gov/ncidod/EID/index.htm>>; and the wider scientific literature.

Further details on a selection of the notifiable events/incidents are given below table 1, with relevant links and references where appropriate.

Table 1 Summary of notable events/incidents of potential public health significance

Month reported	Incident	Location
Jul 05	Avian influenza http://www.hpa.org.uk/infections/topics_az/influenza/avian/default.htm	Vietnam, Indonesia, Thailand, China
	Bile fluke <i>Pseudamphistomum truncatum</i>	England
	Outbreaks of potential bio-terrorist agents in endemic countries (Anthrax, Plague, Tularaemia)	United States (US), Canada
	Encephalitis viruses (Eastern Equine Encephalitis, West Nile Virus)	US
	Hantavirus	Belgium, France, Germany
	Poliomyelitis	Angola, Indonesia, Yemen, Madagascar
	Simian foamy virus, primate-to-human transmission	Bali
	Suspected systemic bacterial infection	China (Sichuan)
	vCJD blood donor notification	United Kingdom
Aug 05	Avian influenza	Vietnam, China, Kazakhstan, Mongolia, Russia
	Human bocavirus	Sweden
	BSE, vertical transmission, sheep	UK (England)
	Flood related illness (Leptospirosis, acute neurological syndrome)	India
	Poliomyelitis	Angola, Indonesia, Yemen
	Suspected systemic bacterial infection	China
	Undiagnosed illness	Democratic Republic of Congo
	West Nile Virus	USA
Sep 05	Anthrax	Central Asia
	Avian influenza	Indonesia, Vietnam
	Chytrid fungus, bullfrogs	UK (England)
	Vero-toxin producing <i>Escherichia coli</i> 0157	Wales
	Hurricane related illness (<i>Vibrio</i> illness, gastrointestinal)	US

	infections, vector-borne disease)		
	Japanese encephalitis	India, Nepal	
	Poliomyelitis	Indonesia, Yemen, Ethiopia, Eritrea, Somalia	
	SARS-like coronavirus, horseshoe bats	China	
	Streptococcus suis	China	
	Tick borne disease (Lyme disease, tick-borne encephalitis)	UK, Russia	
Oct 05	Avian influenza	UK, Turkey, Romania, Croatia, Indonesia, Thailand	
	Ebola Zaire virus, new research	Africa	
	Encephalitis viruses	Japanese encephalitis	Uttar Pradesh
		Coxsackie virus	Nepal
	Invertebrates and emerging human pathogens	US and Australia, (1)	
	Nipah virus characterisation	Bangladesh 2004	
	Poliomyelitis, wild type and vaccine-derived	Indonesia, Ethiopia, Nepal, Somalia, US	
		(Minnesota)	
Rabies, human, vampire bats	Northeast Brazil		
Tick-borne encephalitis	Switzerland		
West Nile Virus	Russia		
Nov 05	Avian influenza	China, Indonesia, Vietnam, Thailand	
	Climate change - the 'Atlantic heat conveyor'	Global	
	Hepatitis E	UK, Japan	
	Transmissible Spongiform Encephalopathy (TSE) update	Atypical scrapie	Falkland Islands
		Chronic Wasting Disease	Experimental transmission to squirrel monkeys
	Unexplained illness	India	
	Viral haemorrhagic fever update	Ebola virus	New research - potential reservoir in fruit bats
		Crimean-Congo haemorrhagic fever (CCHF)	Pakistan
		Angola	
Dec 05	Avian influenza	China, Indonesia, Thailand, Turkey	
	Bovine tuberculosis	US, UK (Amendment of Tuberculosis (England) Order)	
	Environmental change and infectious disease	Global	
	Clostridium difficile associated disease (CDAD)	US, UK	

Avian influenza H5N1, Asia

The Health Protection Agency Emerging Infections/ Zoonoses Department continues to monitor the avian influenza situation, however this is reported separately by the Respiratory Department and will not be included here.

<http://www.hpa.org.uk/infections/topics_az/influenza/avian/default.htm>.

Bile fluke *Pseudamphistomum truncatum*, UK

A parasitic flatworm known to occur in Europe, Russia and India has been recorded for the first time in the United Kingdom, in otters and mink with abnormal gall bladders. The animals were found in Somerset during a survey of otters killed in road traffic accidents. *Pseudamphistomum truncatum*

infects various hosts including aquatic snails and fish, and it is believed to have been introduced to the UK recently, possibly in imported fish (2).

Following these reports the Human Animal Infections and Risk Surveillance Group (HAIRS) convened a multidisciplinary expert group to carry out a risk assessment. The group concluded that human exposure to *P. truncatum* metacercariae in the UK is likely to be rare, and confined to groups handling or consuming the parasite in raw fish. The host fish species in the UK has not yet been identified, but fish likely to be caught in the wild and consumed by humans in the UK, such as salmonids, have not been reported as hosts for *P. truncatum*. Cyprinid species are recorded hosts of the parasite in endemic countries, and cyprinids such as carp, roach, and bream are present in the UK. These species, however, are unlikely to be consumed by humans. There is no record of *P. truncatum* in any fish species in the UK, despite regular ongoing parasite surveys of wild fish populations including the newly introduced ornamental cyprinid species, the sunbleak and topmouth gudgeon.

Hurricane Katrina - related illnesses, US

The most severe hurricane to hit the US in decades led to a number of infectious disease reports, but did not produce the dramatic outbreaks and increases in vector borne disease that were predicted during the immediate aftermath. Several clusters of diarrhoeal disease were observed among people in evacuation centres, due to sporadic nontyphoidal salmonella, nontoxigenic *Vibrio cholerae* O1 and norovirus, among other pathogens. Two cases of toxigenic *V. cholerae* O1 infection were also reported. A cluster of methicillin-resistant *Staphylococcus aureus* (MRSA) was reported in evacuees in Texas, and a total of 24 cases of *V. vulnificus* and *V. parahaemolyticus* wound-associated infections were reported, 6 fatal.

Cases of upper respiratory infections and pneumonias were also noted, although infection reports were relatively minor and no significant unusual outbreaks were reported (3).

Japanese Encephalitis (JE) activity, India and Nepal

India: The longest and most severe outbreak of Japanese Encephalitis in decades occurred in India in 2005. The majority of cases occurred in Uttar Pradesh province, with 5737 cases reported including 1334 deaths, mostly among children aged under 15 years. An additional 360 cases and 64 deaths (CFR 17.8%) have been reported from the adjoining state of Bihar (4). The average number of cases reported annually from India has previously not exceeded 3000, with less than 500 deaths, however the early and persistent monsoon rains this year produced favourable breeding conditions for the mosquito vector species, *Culex tritaeniorhynchus* (5).

Nepal: Seasonal activity of JE has been high in Nepal this year, with a total of 2824 suspect cases including 316 deaths reported as of 2 January 2006, mostly in the western regions of the country, bordering India (10).

Poliomyelitis – current situation

Commitment to polio eradication was high during 2005, and the number of countries reporting indigenous transmission of poliovirus has fallen for the first time in three years, to an all-time low of four. Indigenous poliovirus has now not circulated in Egypt and Niger for over 12 months, and only Nigeria, Pakistan, India and Afghanistan continue to report endemic poliovirus (6). In 2006, the global polio eradication effort is expected to enter a new phase, with the introduction of monovalent vaccines targeted at the two surviving strains of virus. Mass immunisation campaigns are planned for the four remaining endemic countries, alongside large-scale programmes in countries with imported poliovirus transmission (7).

The number of cases in re-infected countries is now higher than in endemic countries, for the first time ever. This reflects both progress in vaccination in endemic countries, and the great vulnerability of countries where low routine immunisation coverage puts children at risk. Imported poliovirus circulation has been reported from Angola, Chad, Ethiopia, Nepal, Niger, Somalia and Yemen in the past six months.

Indonesia: A total of 302 cases have now been reported since April 2005, from 10 provinces. The outbreak began following the importation of a type-1 wild poliovirus, which originated in west Africa. Over 24 million children aged under 5 years have been targeted in three rounds of National Immunisation Days (NIDs) held from August-November 2005 (8). Forty-five cases of vaccine-derived type-1 poliovirus (VDPV) have been reported from Madura Island in East Java province, these cases are currently under investigation.

Somalia: An outbreak of polio which began in Mogadishu in July 2005 has resulted in 153 cases so far. The outbreak was initially confined to the capital, Mogadishu, however cases have now been reported from the north of the country, making Somalia the only country in the world with a geographically expanding polio outbreak (9).

Yemen: A total of 478 laboratory-confirmed cases of poliovirus were reported during 2005. The outbreak began in February 2005, following importation of poliovirus from Nigeria. The epidemic was brought under control rapidly following widespread immunisation campaigns, although the onset

date of the most recently reported case was on 17 November, indicating that the transmission may have occurred after the last NID in September 2005.

Angola: A total of 10 cases of poliomyelitis were confirmed in Angola in 2005, following the detection of an imported case of type-1 poliovirus infection in Luanda in June, and local transmission of the virus. Genetic sequencing of the virus indicated that it probably originated in India.

US (Minnesota): Four cases, none with paralysis, of VDPV infection were reported in an Amish community with very low vaccine uptake. The index case was an unvaccinated immunocompromised girl aged 7 months. Viral genomic data suggest the virus was transmitted to the index patient from another immunocompromised person, and investigations are underway to identify the source. The extent of circulation within the community is not yet known. No cases of VDPV have been identified in the US since oral polio vaccine was discontinued in 2000, the last known VDPV excreter was detected in 1995 (10).

SARS-like coronavirus, horseshoe bats, China

A SARS-like coronavirus was isolated from three species of horseshoe bats found across mainland China. The virus isolated is 92% similar to the SARS virus, but lacks the receptor binding sites required to infect humans. No obvious symptoms were observed in the bats and the authors suggest that bats may act as a natural reservoir of coronaviruses, from which the human and civet SARS viruses likely emerged (11).

Viral haemorrhagic fevers

Marburg haemorrhagic fever, Angola

On 7 November 2005, the Angolan health authorities announced that the outbreak in northern Angola had been officially declared over. The epidemic peaked between 28 March and 3 April 2005, and no laboratory confirmed cases have been reported since 27 July 2005. Transmission was associated with home-based care, traditional burial procedures, and unsafe injection practices. The final case count was 252, of whom 227 died, a case fatality rate of 90%. Twenty-three health workers died including 16 nurses, two doctors, and five traditional healers. This is the largest outbreak of Marburg haemorrhagic fever reported to date. Despite investigations, the animal reservoir of the virus remains unknown (12).

Ebola virus, fruit bats

A recent study suggests that fruit bats may be a reservoir for Ebola virus. Bat, bird, and vertebrate species were collected during Ebola outbreaks in Gabon and Congo, from areas close to infected gorilla and chimpanzee carcasses. IgG specific for Ebola virus was detected in serum from 16 bats of three different species. In addition, viral RNA was detected in 13 bats, seven different fragments were identified, all of which clustered within the Ebola Zaire clade. The viral load in tissues was extremely low. Ebola virus was not detected in any other animal species tested. These bats may be butchered and consumed by local populations in outbreak regions, indicating a possible route of human infection (13).

West Nile virus: US cases in 2005 and update on UK surveillance

In 2004 there was a substantial decrease in the number of human cases of West Nile virus. The total number of human cases and deaths for 2005 were similar to 2004, suggesting that West Nile virus is now endemic in the US.

Since 2002, the annual totals of infected non-human species have changed as shown in table 2. Although bird and horse infections appear to be declining somewhat, the number of positive mosquito pools remains high and appears to be increasing.

Table 2 West Nile Virus Activity in the US 2002 to 2005

	2002	2003	2004	2005*
Avians	~14,000	11,350	7074	5266
Equines	>15,000	5181	1341	1143
Mosquito pools	4943	7725	8263	11386
Human cases	4156	9862	2470	2819
Fatal human cases	284	264	88	105*

(Data source: CDC West Nile virus website: <http://www.cdc.gov/ncidod/dvbid/westnile/surv&control.htm>)

* (figures reported as of 10/01/2006)

Enhanced surveillance studies in 2005 did not find any cases of West Nile virus in the UK .

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Diary

Recognition, investigation and management of major infectious disease incidents, including deliberate release of biological agents

The HPA Centre for Emergency Preparedness and Response is organising a two day course on 28 and 29 March to be held in Durham, on the recognition, investigation and management of major infectious disease incidents, including deliberate release of biological agents designed for consultant microbiologists, bio-medical scientists, infectious disease consultants and infection control nurses. The course will address incident management at local, regional and national level, patient management, and diagnostic services and the syndromes caused by a range of agents.

By the end of the course the delegates will be able to:

- Recognise the features of deliberate release agents and list three possible methods of dissemination.
- Describe clinical symptoms of diseases caused by *Bacillus anthracis*, *Yersinia pestis*, *Francisella tularensis* and smallpox.
- Describe the procedures in place to deal with samples from an overt or covert incident.
- Demonstrate an understanding of the methods of decontamination of casualties.
- Demonstrate an understanding of patient management.
- Explain the difference between syndromes caused by a range of agents and management of the disease.
- Demonstrate an understanding of the procedures in place to respond to a deliberate release incident on a local, national and regional level.
- Demonstrate a wider appreciation of CBRN incidents.
- Successfully manage a theoretical incident, demonstrating knowledge

Delegates receive a certificate of attendance. Appropriate CPD credits will be awarded on completion of the course.

This course is free to delegates. For further information please contact: tel: 01980 612898; fax: 01980 612841; email: src.training@hpa.org.uk.