



# CDR WEEKLY

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## News

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**Enhanced surveillance of MRSA bacteraemia in children to commence in June 2005**

A 13-month study of bacteraemia in children, caused by methicillin-resistant *Staphylococcus aureus* (MRSA) will start on 1 June 2005. The study is being undertaken across the United Kingdom and the Republic of Ireland by the Health Protection Agency in collaboration with the British Paediatric Surveillance Unit, St George's Hospital, London, Health Protection Scotland, and the National Disease Surveillance Centre, Dublin.

Analysis of reports routinely submitted to LabBase\* has indicated that although the numbers of cases of MRSA bacteraemia in children remain low, there has been, nonetheless, an upward trend, rising from 4 in 1990 to 76 in 2004, although the latter figure is still provisional (1). The number of reports has remained constant in the last few years with around 70 to 75 cases reported each year.

As the above data were derived from voluntary reporting of cases they probably under-estimate the true incidence of infection. The main aim of the study is to obtain a robust estimate of the incidence of MRSA bacteraemia in children. In addition, the study aims to define the demographic and descriptive epidemiological features of the patient population, in particular the proportion of cases that are either healthcare-associated or community-acquired. Infections due to MRSA have historically been primarily acquired in hospitals, however, in the last few years, there have been reports from other countries, particularly the United States, of infections in children that have been acquired in the community and which have no demonstrable links to the hospital environment (2-4). The consolidation of microbiological, epidemiological, and clinical information will allow us to determine if community-acquired MRSA bacteraemia has also emerged in the United Kingdom. These findings will have implication for the management of severe paediatric infections due to *S. aureus* in the community.

Healthcare workers are encouraged to report cases of MRSA bacteraemia in children aged under 16 years and to ensure that isolates are sent to the *Staphylococcus* Reference Laboratory, HPA Centre for Infections, 61 Colindale Avenue, London NW9 5HT.

For further information, or to provide details of cases please contact Alan Johnson ([alan.johnson@hpa.org.uk](mailto:alan.johnson@hpa.org.uk)) or Catherine Goodall ([catherine.goodall@hpa.org.uk](mailto:catherine.goodall@hpa.org.uk)) at the Department of Healthcare Associated Infection and Antimicrobial Resistance, Health Protection Agency Centre for Infections, London.

\*LabBase is the database that collects laboratory reports of all microorganisms isolated at nearly 400 NHS and other laboratories throughout England and Wales. The database is managed by the Health Protection Agency.

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## World Health Assembly approves new International Health Regulations

On 25 May 2005 a new set of International Health Regulations (IHR) was approved by the World Health Assembly (1,2). The IHR are a legally binding code of practices and procedures designed to prevent the international spread of infectious diseases, while minimising interference with world travel and trade (3). The current regulations were agreed by the member states of the World Health Organization (WHO) in 1969 and currently include procedures for notification of certain diseases, health related rules for international travel and trade, procedures and practices at ports and borders, and documentation requirements (4). For some time however the regulations have been recognised to be inadequate for the challenges posed by the 21st Century global village, and for example have contributed little in the face of newly emerging infections such as SARS and avian influenza (5). They set out roles and responsibilities for the WHO and its member states, but only in relation to three diseases: infectious cholera, plague, and yellow fever.

The revision of the Regulations has been underway for several years with participation by all 192 Member States of the WHO. During this process, the Health Protection Agency (HPA), in consultation with counterparts in the devolved administrations, has advised the Department of Health and others in preparing a position on the proposals for the United Kingdom (6). Over the last year this work culminated in several sessions of an Intergovernmental Working Group before final approval at the World Health Assembly.

The new regulations are based largely on the experience gained and lessons learnt by the WHO and the global community over the past 30 years. To a large extent, they reflect internationally accepted good practice, and set out rules and operational mechanisms for a more coordinated international response to the spread of disease. The new rules extend beyond infectious diseases to rare instances of chemicals or even radiation posing an international threat. Countries will have much broader obligations to build national capacity for surveillance and response, as well as routine preventative measures (such as public health actions at ports and for means of transport). A particular emphasis is on developing the ability as to detect and respond to public health emergencies of international concern and share information about them, with a code of conduct for notification and response. Specific attention is placed on detecting the emergence of new diseases or novel variants of new diseases. There is also provision for detecting deliberately released agents, although terms like bioterrorism are avoided. The regulations include a list of diseases such as smallpox, polio, and SARS, whose occurrence must be notified to WHO, but also include a matrix to help national authorities to decide whether other incidents constitute public health events of international concern. Consideration is made of whether an outbreak is serious, unusual or unexpected, whether there is a significant risk of international spread and whether there is a significant risk of international travel or trade restrictions.

After being adopted by the World Health Assembly, the regulations will formally come into force in two years time. WHO member states will now have to assess their capacities to identify and verify events, as well as to control them. The regulations identify specific capacity requirements that must be in place in each country within a fixed timeframe.

The World Health Assembly resolution containing the revised IHR is available at [http://www.who.int/gb/ebwha/pdf\\_files/WHA58/A58\\_55-en.pdf](http://www.who.int/gb/ebwha/pdf_files/WHA58/A58_55-en.pdf).

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## **National Study of HIV in Pregnancy and Childhood – slideset**

The National Study of HIV in Pregnancy and Childhood (NSHPC) contributes paediatric data to the national quarterly surveillance tables for the United Kingdom (UK). More detailed information on paediatric infections and HIV in pregnancy is now available online as a set of slides

<[http://www.hpa.org.uk/infections/topics\\_az/hiv\\_and\\_sti/hiv/epidemiology/introduction.htm](http://www.hpa.org.uk/infections/topics_az/hiv_and_sti/hiv/epidemiology/introduction.htm)>.

The NSHPC is the surveillance system for obstetric and paediatric HIV in the UK and Ireland. Data on pregnancies in HIV infected women booking for maternity care in the British Isles are collected through a voluntary confidential reporting scheme run under the auspices of the Royal College of Obstetricians and Gynaecologists. Data on infants born to diagnosed HIV infected women, and HIV infected children, are collected through the Royal College of Paediatrics and Child Health's British Paediatric Surveillance Unit.

Additional paediatric data are available from laboratory reports to the HPA. Data from all sources are combined at the Institute of Child Health where the NSHPC is based. In addition to demographic data, information is collected on timing of maternal diagnosis and the management and outcome of pregnancy. Obstetric and paediatric reports are linked and follow-up information is sought for infants born to infected women in order to establish infection status. Summary data on clinical status and treatment is collected annually for all infected children.

Almost all HIV infected children living in the UK today were infected through mother-to-child transmission. Since the late 1990s there has been a year-on-year increase in the number of infants born in the UK/Ireland to HIV infected women, with over 1000 such births in 2003. Since 2002, however, over 80% of HIV infected pregnant women have been diagnosed prior to delivery and the majority of these have taken advantage of interventions to reduce the risk of mother-to-child transmission of the virus. Consequently the proportion of infants who are themselves infected has been significantly reduced.

## Immunisation

 Enhanced surveillance of meningococcal disease: January to March 2005

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**Enhanced surveillance of meningococcal disease: January to March 2005**

In the first quarter of 2005, enhanced surveillance of meningococcal disease\* (ESMD) identified 854 cases of invasive meningococcal disease in the nine English regions, Wales and Northern Ireland. This is an increase of 41% on the total of 505 in the previous quarter and an increase of 13% on the total of 745 in the equivalent quarter of 2004. The North West region reported the highest number of cases this quarter (136), although the highest rate was seen in Yorkshire and the Humber (table 1).

**Table 1 Meningococcal disease by region: January to March 2005**

Region	B	C	Other	Infection not confirmed	Total	Rate per 100,000
North East	30	1	1	20	52	2.0
Yorkshire & the Humber	67	2	10	39	118	2.4
East Midlands	30	–	1	48	79	1.9
East of England	26	–	6	12	44	0.8
London	36	1	7	52	96	1.3
South East	24	2	2	61	89	1.1
South West	39	3	5	28	75	1.5
West Midlands	43	–	3	40	86	1.6
North West	75	1	7	53	136	2.0
Wales	28	–	2	20	50	1.7
Northern Ireland	17	–	1	11	29	1.7
<b>Total</b>	415	10	45	384	854	

In England and Wales, a clinical diagnosis of invasive meningococcal disease was reported for 802 cases compared to 465 cases of meningitis and septicaemia officially notified to the Health Protection Agency's Centre for Infections during the same period. This implies that approximately 58% of clinically diagnosed meningococcal disease is formally

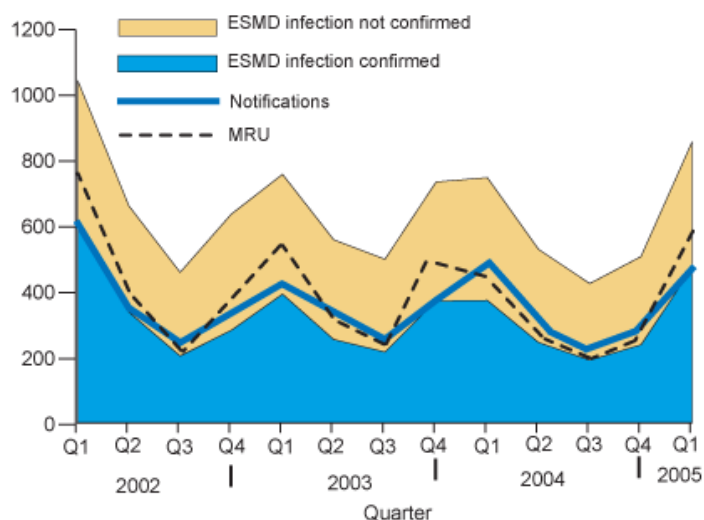
notified although crosschecking to compare the identity of those notified to those reported in ESMD has not been carried out. Thus, under-notification may be even higher. The overall case fatality ratio in cases identified in ESMD (in England, Wales and Northern Ireland) with a clinical diagnosis of meningitis alone was 4 per 100 cases, whereas the case fatality ratio for cases with septicaemia alone was 6 per 100 cases (table 2).

**Table 2 Clinically diagnosed cases (deaths) of meningococcal disease, England, Wales, and Northern Ireland: January to March 2005**

Region	Meningitis	Septicaemia	Meningitis and Septicaemia	Not meningitis or septicaemia	Total
North East	16	19(1)	12	1	<b>48(1)</b>
Yorkshire & the Humber	36(3)	42(2)	38(2)	2(1)	<b>118(8)</b>
East Midlands	40(3)	19(1)	20	–	<b>79(4)</b>
East of England	16	16(2)	5	1	<b>38(2)</b>
London	45(1)	31(2)	8	2(1)	<b>86(4)</b>
South East	37(2)	27(1)	24(1)	2	<b>90(4)</b>
South West	30	33(4)	12		<b>75(4)</b>
West Midlands	23(1)	49(4)	13	1	<b>86(5)</b>
North West	46(1)	44(1)	42(4)	2	<b>134(6)</b>
Wales	10(1)	38(2)	–	–	<b>48(3)</b>
Northern Ireland	8	18	2(1)	1	<b>29(1)</b>
<b>Total</b>	<b>307(12)</b>	<b>336(20)</b>	<b>176(8)</b>	<b>12(2)</b>	<b>831(42)</b>

Four hundred and seventy of the 854 cases (55%) identified in ESMD were confirmed as *Neisseria meningitidis* infection, compared to 547 reports of laboratory confirmed meningococcal disease made to Meningococcal Reference Unit (MRU) in the same period (figure 1). Matching has not yet been carried out between these two data sets.

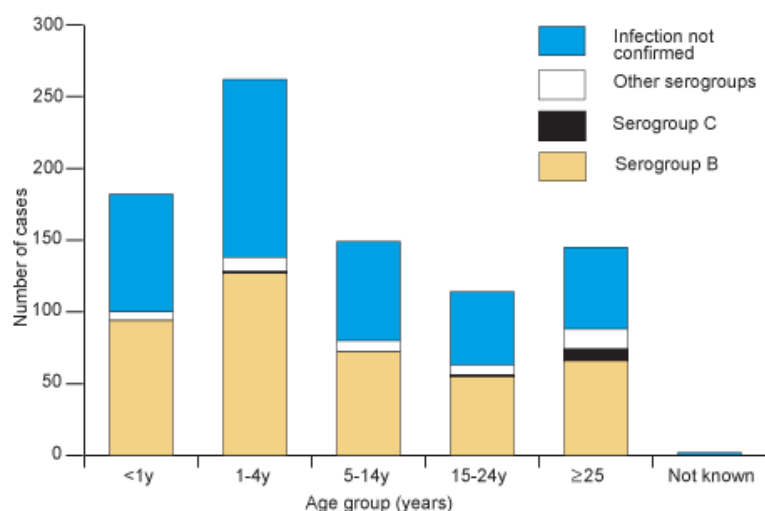
**Figure 1 Number of confirmed and unconfirmed reports made to ESMD compared to notifications and MRU: Jan 2002 to Mar 2005**



Serogroup B *N.meningitidis* was detected in 88% (415/470) of confirmed cases identified in ESMD, serogroup C in 2% (10/470), and the remaining 10% included other serogroups (45/470). The latter consisted predominantly of serogroup Y (13/45), followed by ungrouped (11/45), serogroup W135 (10/45), non-groupable (9/45), serogroup Z (1/45), and serogroup A (1/45).

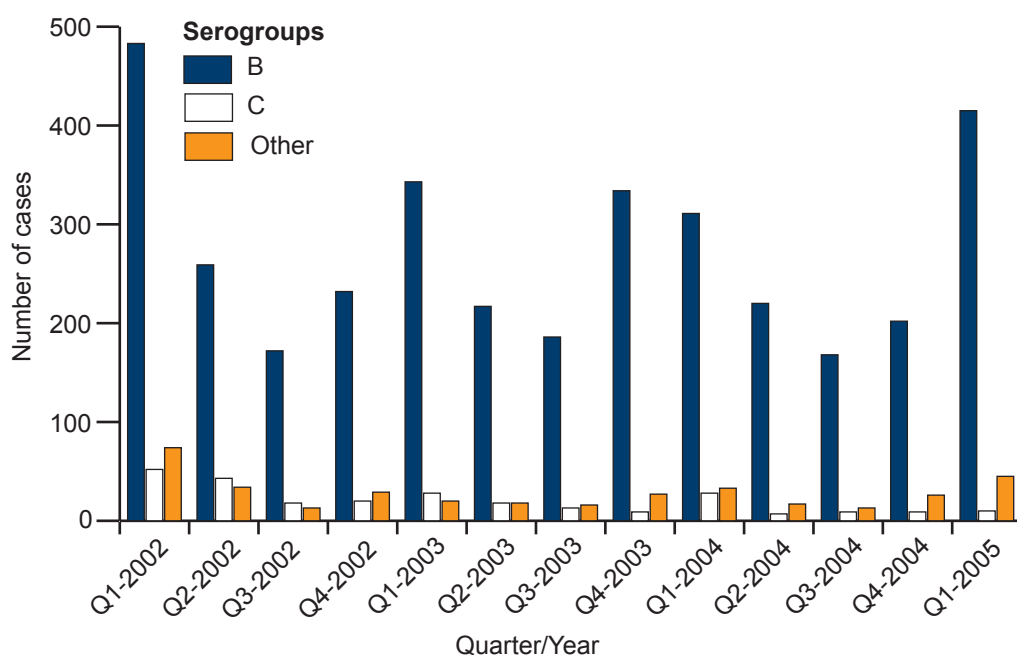
Over half (51%) of all confirmed cases were in children aged under 5 years. Serogroup B accounted for 93% of these infections, serogroup C accounted for less than 1% and other serogroups for 7%. One serogroup C infection occurred in this age group of children (figure 2). This was a documented vaccine failure.

**Figure 2 Serogroups of *N. meningitidis* identified in cases in England, Wales, Northern Ireland by age: January to March 2005**



Unlike last quarter, meningococcal disease attributed to serogroup B has increased by 25% (415 cases compared to 311 in 2004) this quarter compared to the equivalent period in the previous year (figure 3). Similarly, other serogroups and unconfirmed cases of meningococcal disease have also increased by 27% (45 cases compared to 33 in 2004) and 3% (384 cases compared to 373 in 2004), respectively. The number of cases of serogroup C meningococcal disease decreased by 64% (10 cases compared to 28 cases in 2004) this quarter compared to the equivalent period in 2004.

**Figure 3 Number of cases of meningococcal disease due to serogroups B, C and other serogroups: January 2002 to March 2005**



Routine surveillance data have also shown an increase; clinical notifications increased by 1% (465 compared to 460 in 2004) and laboratory reports by 22% (547 compared to 429 in 2004) this quarter compared to the equivalent quarter last year. This suggests a real rise in the number of cases of meningococcal disease.

\*Regional enhanced surveillance of meningococcal disease (ESMD) began on 1 January 1998 in five regions of England and was extended to include all English regions, Wales, and Northern Ireland from 1 January 1999. The national enhanced surveillance system relies upon consultants in communicable disease control (CCDC) reporting confirmed and probable cases of meningococcal disease occurring in their district each week. Each month, data are collated at regional level and sent on to the Health Protection Agency's Immunisation Department at the Centre for Infections. These data are subsequently published quarterly in *CDR Weekly*. Additionally, CCDCs are asked to report details of any clusters of meningococcal disease occurring in educational establishments.

## HIV/Sexually Transmitted Infections (STIs)

### 📄 HIV and AIDS in the United Kingdom quarterly update: date to the end of March 2005

### 📄 HIV-2 infections identified in the UK

## HIV and AIDS in the United Kingdom quarterly update: date to the end of March 2005

*HIV and AIDS in the United Kingdom quarterly update: date to the end of March 2005 United Kingdom (UK) data from the Health Protection Agency Centre for Infections, Health Protection Scotland, and the Institute of Child Health (London).*

In the first three months of 2005, 2230 new diagnoses of HIV infection were reported, 551 of which were diagnosed and reported in the quarter bringing the cumulative total of HIV diagnoses in the United Kingdom (UK) to 70,783 since surveillance began in 1982. To date, 21,280 individuals have been diagnosed with AIDS, of whom 13,145 (62%) have died with a further 3121 individuals having died without being reported with AIDS.

**Table 1 New diagnoses of HIV in the UK by infection route, sex and year of diagnosis: data to end of March 2005\***

How infection was probably acquired	Sex	1995 and earlier	1996	1997	1998	1999	2000	2001	2002	2003†	2004†	Jan-Mar 2005	Total
Sex between men	M	18,924	1556	1413	1371	1374	1518	1771	1867	1908	1810	157	33,669
Sex between men and women	M	2526	358	452	523	600	759	1069	1344	1526	1325	62	10,544
	F	2936	479	562	644	838	1252	1818	2358	2777	2302	143	16,109
Injecting drug use	M	2088	119	123	96	79	73	98	87	84	82	11	2940
	F	963	54	48	36	34	41	36	27	42	24	1	1306
Blood transfusion or blood factor products	M	1440	10	16	4	10	9	14	15	17	7	–	1542
	F	134	11	13	6	11	15	11	20	19	8	2	250
Mother to infant	M	182	29	50	47	35	55	54	55	76	48	5	636
	F	185	33	33	52	42	47	44	61	67	63	1	628
Other	M	13	2	1	2	6	3	7	2	2	–	1	39
	F	15	1	–	2	2	3	1	4	2	2	–	32
Undetermined	M	489	27	23	22	22	22	23	21	17	7	–	673
	F	56	6	6	9	4	4	3	5	2	–	–	95
Follow-up ongoing	M	115	16	15	21	28	43	72	184	350	402	88	1334
	F	31	3	7	8	12	28	46	161	247	322	80	945
<b>Total‡</b>		<b>30,132</b>	<b>2704</b>	<b>2763</b>	<b>2844</b>	<b>3099</b>	<b>3872</b>	<b>5068</b>	<b>6211</b>	<b>7136</b>	<b>6403</b>	<b>551</b>	<b>70,783</b>

\*Individuals where sex was not reported, are not included.

†Numbers will rise as further reports are received.

‡Forty-three people whose sex was not reported are not included in this total: seven infected through sex between men and women, three blood/blood product recipients, four infected through mother to infant transmission, and 29 for whom the likely route of infection is not known.



<b>partner(s) presumed infected</b>												
Outside Europe	209	45	78	85	95	138	179	209	254	217	4	<b>1513</b>
Within Europe	281	35	51	48	55	56	67	50	70	65	2	<b>780</b>
Country(ies) not known	48	7	4	6	9	8	20	51	59	95	10	<b>317</b>
<b>Partner(s) exposure category undetermined:</b>												
Investigation continuing	2	–	4	7	16	18	56	148	269	475	61	<b>1056</b>
Investigation closed	32	4	8	4	5	4	–	2	–	1	–	<b>60</b>
<b>Total</b>	<b>5467</b>	<b>837</b>	<b>1014</b>	<b>1168</b>	<b>1439</b>	<b>2011</b>	<b>2887</b>	<b>3702</b>	<b>4303</b>	<b>3627</b>	<b>205</b>	<b>26,660</b>

\*Numbers will rise as further reports are received.

The HIV epidemic in the UK continues to be focused in London with 2611 (44%) of new diagnoses in 2004 being made there (table 3). Gradual increases in new diagnoses have been seen in all regions since 1999, including areas that previously saw relatively few HIV cases such as the North East, Yorkshire and Humberside, East of England, and Wales. These regions have seen up to five times increases in new diagnoses between 1999 and 2004.

**Table 3 HIV infected individuals by country, region and year of HIV diagnosis, UK data to end of March 2005**

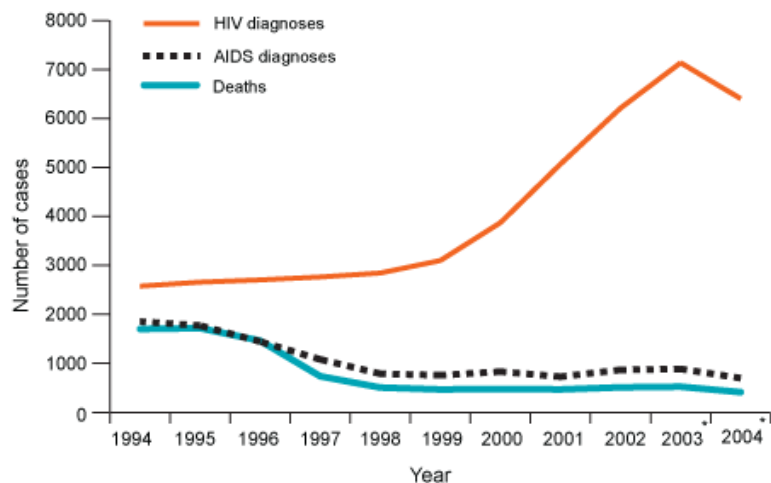
Country and region of diagnosis	1995 or earlier	1996	1997	1998	1999	2000	2001	2002	2003*	2004*	2005*	Total
<b>England</b>												
North East	441	24	35	22	29	37	56	98	147	132	4	<b>1025</b>
Yorkshire & the Humber	948	90	83	85	91	104	181	305	432	346	27	<b>2692</b>
East Midlands	600	48	45	62	91	103	198	258	327	326	27	<b>2085</b>
East of England	769	58	75	88	96	186	315	486	541	526	17	<b>3157</b>
London	18,323	1706	1737	1766	1957	2338	2791	2987	3195	2611	299	<b>39,710</b>
South East	2425	227	213	207	219	362	500	711	865	772	53	<b>6554</b>
South West	988	78	92	104	103	104	136	180	206	209	31	<b>2231</b>
West Midlands	952	63	101	113	104	178	215	423	482	440	28	<b>3099</b>
North West	1759	188	150	191	210	240	422	433	538	551	5	<b>4687</b>
<b>England (total)</b>	<b>27,205</b>	<b>2482</b>	<b>2531</b>	<b>2638</b>	<b>2900</b>	<b>3652</b>	<b>4814</b>	<b>5881</b>	<b>6733</b>	<b>5913</b>	<b>491</b>	<b>65,240</b>
<b>Wales</b>	<b>458</b>	<b>36</b>	<b>46</b>	<b>30</b>	<b>34</b>	<b>46</b>	<b>63</b>	<b>77</b>	<b>108</b>	<b>99</b>	<b>2</b>	<b>999</b>
<b>Northern Ireland</b>	<b>146</b>	<b>16</b>	<b>9</b>	<b>9</b>	<b>15</b>	<b>19</b>	<b>20</b>	<b>27</b>	<b>33</b>	<b>53</b>	<b>–</b>	<b>347</b>
<b>Scotland</b>	<b>2283</b>	<b>164</b>	<b>169</b>	<b>161</b>	<b>149</b>	<b>154</b>	<b>166</b>	<b>219</b>	<b>258</b>	<b>334</b>	<b>58</b>	<b>4115</b>
<b>UK Total</b>	<b>2887</b>	<b>216</b>	<b>224</b>	<b>200</b>	<b>198</b>	<b>219</b>	<b>249</b>	<b>323</b>	<b>399</b>	<b>486</b>	<b>60</b>	<b>5461</b>
<b>Channel Isles / Isle of Man</b>	<b>40</b>	<b>6</b>	<b>8</b>	<b>6</b>	<b>1</b>	<b>1</b>	<b>5</b>	<b>7</b>	<b>4</b>	<b>4</b>	<b>–</b>	<b>82</b>
<b>UK total HIV diagnoses</b>	<b>30,132</b>	<b>2704</b>	<b>2763</b>	<b>2844</b>	<b>3099</b>	<b>3872</b>	<b>5068</b>	<b>6211</b>	<b>7136</b>	<b>6403</b>	<b>551</b>	<b>70,783</b>
<b>UK total AIDS diagnoses</b>	<b>13,177</b>	<b>1444</b>	<b>1080</b>	<b>788</b>	<b>756</b>	<b>831</b>	<b>727</b>	<b>867</b>	<b>886</b>	<b>698</b>	<b>26</b>	<b>21,280</b>
<b>UK total deaths†</b>	<b>10,423</b>	<b>1462</b>	<b>736</b>	<b>506</b>	<b>467</b>	<b>478</b>	<b>468</b>	<b>510</b>	<b>523</b>	<b>411</b>	<b>39</b>	<b>16,023</b>

\*Numbers will rise as further reports are received.

†Total includes 243 deaths where year of death is not known (including all deaths in children).

Numbers of AIDS cases and HIV related deaths declined after the introduction of HAART (highly active antiretroviral therapy) in the mid 1990s, remaining relatively constant at around 500 deaths per year since 1997 (table 3, figure). There has also been a reduction in AIDS reporting since the advent of HAART, and AIDS defining illnesses are more likely to be reported if the HIV and AIDS diagnosis are simultaneous. In 2004, of the 698 AIDS diagnoses, so far, reported, 88% (612) were made at the same time as the HIV diagnosis†. In addition to reporting of deaths from clinicians, mortality data are obtained from the Office for National Statistics in England and Wales and the General Register Office in Scotland. So far in 2004, 411 deaths have been reported, of which 191 (46%) had been previously reported with AIDS. Reporting of deaths is subject to reporting delay. In 2003, reports of deaths occurring in HIV infected individuals rose from 462 at the end of March 2004 to 523 at the end of March 2005. On the basis of previous patterns of reporting delay, the figure for 2004 is expected to exceed 500.

**Figure HIV diagnoses and deaths in HIV infected individuals, UK reports to end of 2004**



\*Numbers, particularly for recent years, will rise as further reports are received.

†Simultaneous HIV and AIDS diagnoses are calculated as an individual who was diagnosed with AIDS within three months of their HIV diagnosis.

## HIV-2 infections diagnosed in the UK

*There are two types of HIV virus: HIV-1 and HIV-2. HIV-1 is the type most commonly found in the UK. HIV-2 remains mainly confined to west Africa. HIV-2 is usually less severe than HIV-1 and is naturally resistant to one class of antiretroviral drugs, with implications for clinical management.*

By the end of March 2005, a total of 107 adults have been diagnosed and reported with HIV-2 in the United Kingdom (UK), 90 with HIV-2 infection only, and 17 with HIV-1 and HIV-2 co-infection.

Of the 90 adults with HIV-2 infection only (43 males and 47 females), 15 (17%) have had a report of AIDS and 14 have died. For 76 (84%), infection was probably acquired through heterosexual sex, six through blood transfusions abroad, three through sex between men, one through injecting drug use, and one nosocomially in a high prevalence country; the remaining three are undetermined as yet. Eighty-four of the 90 cases reported the probable country or continent where their infection was acquired. Sixty-nine out of 84 (82%) individuals probably acquired infection in Africa, of whom 56 (81%) were probably infected in west Africa. Four individuals were probably infected in Asia (three in India), six in Portugal, three in the UK, one in Italy, and one in France.

Of the 17 individuals co-infected with HIV-1 and HIV-2 (13 males and four females), four had been reported to have AIDS, of whom two have died. Nine individuals were probably exposed through heterosexual sex, six through sex between men, and two through injecting drug use. Where reported (14), nine individuals were probably infected in Africa, three in the UK, and two in Asia.

Three of the five surveys in the Unlinked Anonymous Serosurveillance Programme identify HIV-2 positivity (1) . From 1990 to 2003, of 1,851,196 specimens tested, 42 were identified as HIV-2 positive, and a further 28 dually HIV-1 and HIV-2 positive. There were 19,948 specimens positive for HIV-1 infection only. These figures may include specimens from the same individual. It is clear, however, that HIV-2 is making only a very small contribution to the numbers of HIV-infected individuals in the UK: the ratio of HIV-1 infections to HIV-2 is 285:1.

## References

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## Emerging Infections/ CJD

### West Nile virus surveillance plans for 2005, and update on the 2004 season

## West Nile virus surveillance plans for 2005, and update on the 2004 season

### Surveillance of UK-acquired WNV 2005

Enhanced surveillance for human West Nile virus (WNV) infection acquired in the United Kingdom (UK) will start on 1 June 2005 and will operate until the end of October 2005. Enhanced surveillance has been undertaken during summer months since 2001, however this year the case definitions have been revised in line with the European Union (EU) case definitions (1). Details, including the surveillance protocol and report form, can be found on the Health Protection Agency (HPA) website at: <[http://www.hpa.org.uk/infections/topics\\_az/west\\_nile/menu.htm](http://www.hpa.org.uk/infections/topics_az/west_nile/menu.htm)>.

Regional epidemiologists are requested to contact clinicians in their regions to raise awareness of the possibility of WNV infection, particularly in those aged 50 years and over. Microbiologists may wish to consider WNV in patients with otherwise unexplained neurological or other compatible symptoms (table 1). Suspect adult cases with no travel history should be reported on the surveillance report form to Bengü Said, email <[bengu.said@hpa.org.uk](mailto:bengu.said@hpa.org.uk)>, at the HPA's Centre for Infections (Cfi), Colindale, and appropriate samples (serum and/or cerebrospinal fluid) should be sent to Graham Lloyd, email <[graham.lloyd@hpa.org.uk](mailto:graham.lloyd@hpa.org.uk)>, at the Special Pathogens Reference Unit, HPA Centre for Emergency Preparedness and Response (CEPR), Porton Down, Salisbury SP4 0JG as outlined in the surveillance protocol. Cases not fulfilling the case definition or those returning from travel outside the UK in the three weeks before onset should be sent directly to CEPR.

**Table 1 Prospective surveillance: definition for suspected cases of UK-acquired WNV infection in humans\***

<b>WNV Neurological Syndrome: an adult (particularly aged 50 years and over) case of encephalitis or meningoencephalitis or aseptic meningitis or acute flaccid paralysis, defined by the specific criteria below, presenting from 1 June to 30 October and with no travel history outside the UK</b>	
<b>1. Encephalitis or Meningoencephalitis</b>	
Any person with suspected viral encephalitis with <b>all the following criteria:</b>	1. Fever >38° <b>and</b>
	2. Altered mental state (altered level of consciousness, agitation, lethargy) and/or other evidence of cortical involvement (eg. focal neurological findings, seizures) <b>and</b>
	3. Cerebrospinal fluid (CSF) pleocytosis with predominant lymphocytes and/or elevated protein with a negative Gram stain and culture <b>and</b>
	4. No alternative microbiological cause identified
<b>2. Meningitis</b>	
Any person with suspected viral (aseptic) meningitis with <b>all the following criteria:</b>	1. Fever >38° <b>and</b>
	2. Headache, stiff neck and/or other

	meningeal signs <b>and</b>
	3. CSF pleocytosis with predominant lymphocytes and/or elevated protein with a negative Gram stain and culture <b>and</b>
	4. No alternative microbiological cause identified
<b>3. Acute Flaccid Paralysis (AFP)</b>	
Any person with suspected AFP (most cases are polio-like) with <b>all the following criteria:</b>	1. Fever >38° <b>and</b>
	2. Asymmetric limb weakness without sensory loss with diminished deep tendon reflexes <b>and</b>
	3. Anterior horn cell disease <b>and</b>
	4. May have facial nerve palsy <b>and</b>
	5. No alternative microbiological cause identified

\*Indications for considering the diagnosis of WNV infection and requesting a WNV test (adapted from the EU case definition).

#### WNV Season 2004

Since 1999, the United States has reported annual increases in West Nile Virus (WNV) activity. Although geographical spread continued in 2004 there was a substantial decrease in the number of reported human cases with only 2470 cases in 2004 compared to 9858 cases in 2003 (2).

Transmission has also fallen substantially in Canada ; 1335 human cases were reported in 2003, but only 25 human cases were reported in 2004 from Quebec , Ontario , Manitoba , Saskatchewan , and Alberta (3).

There continue to be sporadic cases and outbreaks of WNV in mainland Europe . In 2004 a cluster of equine cases was identified in the Camargue area of France (4) and two human cases, thought to have been acquired in Portugal, were reported from the Republic of Ireland (5). To date, no human cases have been reported in the UK.

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