



CDR WEEKLY

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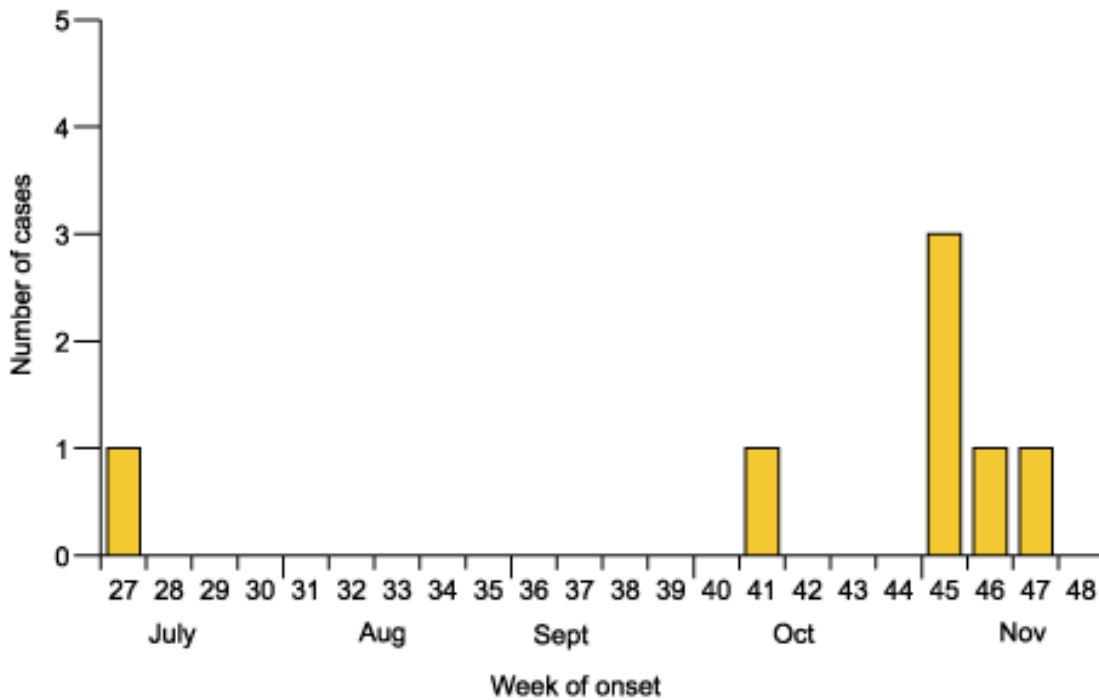
Cluster of cases of tetanus in injecting drug users in England: update ▾

Seven cases of clinical tetanus, including one death, have now been reported in injecting drug users (IDUs) in the west of England since July 2003, six of which occurred since October (1) (figure 1). The cases, four females and three males, are aged between 20 and 47 years and the latest reported onset date was 17 November (figure 2). Two of the cases are known to be unimmunised and one case is known to have received a dose of tetanus toxoid nine years ago.

Figure 1 Geographical distribution of cases of tetanus in injecting drug users, England and Wales: 1/7/03 -27/11/03



Figure 2 Number of cases of tetanus in injecting drug users by week of onset, England and Wales: 1/7/03 -27/11/03



The presentation of these cases so far has ranged from mild trismus to full-blown tetanus and respiratory arrest in A&E. Tetanus can present with local fixed muscle rigidity and painful spasms confined to the area close to the site of injury or injection. Although localised tetanus can last weeks or months, it is more commonly a prodrome of generalised tetanus. Patients with generalised tetanus can present with symptoms ranging from mild trismus ('lockjaw'), neck stiffness and/or abdominal rigidity to full blown tetanus, including general spasticity, severe dysphagia, respiratory difficulties, severe and painful spasms, opisthotonus and autonomic dysfunction. Clinicians in A&E, microbiologists, general physicians and intensive care workers should have a low threshold for considering a diagnosis of tetanus. IDUs and drug workers are advised to look out for any of the above symptoms, and seek advice from a clinician in case there is a suspicion of tetanus.

Potential sources for tetanus infection in IDUs are contaminated drugs, paraphernalia, and contaminated skin. The source of infection in this incident is not known. The close clustering of recent cases suggests contamination of drugs, either the drug itself or an adulterant. If this incident has been caused by a single contaminated batch of drugs, then the outbreak could be almost over as the incubation period for tetanus is between 4 to 14 days. Further cases are, however, expected if there is a continuing source of contamination. Increased awareness of tetanus in IDUs is therefore extremely important. Advice to injecting drug users on tetanus has already been cascaded to Consultants in Communicable Disease Control (CCDCs), drug action teams, accident and emergency units, infectious diseases and intensive care specialists, and an updated version is available on the HPA website at http://www.hpa.org.uk/infections/topics_az/tetanus/menu.htm. Detailed information for health professionals is also being prepared and will be available shortly at the same location.

Tetanus immunoglobulin for treatment of tetanus is available from Bio Products Laboratory, tel: 020 8258 2200 (with an out-of-hours service).

Most diagnoses of tetanus are made on clinical grounds only. There are three diagnostic laboratory tests for tetanus available, of which the first two may provide laboratory confirmation, whereas the third can only support the diagnosis.

Tetanus toxin in a serum sample

The detection of tetanus toxin in a serum sample provides laboratory confirmation of a clinical diagnosis of tetanus. However, failure to detect toxin in serum does not negate a clinical diagnosis. Samples for testing for the presence of tetanus toxin should be collected before any immunoglobulin treatment, and referred to:

**Food Safety Microbiology Laboratory (FSML)
Health Protection Agency,
Specialist and Reference Microbiology Division CPHL
HPA Colindale,
61 Colindale Avenue
London NW9 5EQ**

For further information on this, please contact Moira Brett, FSML, tel: 020 8200 4400 ext. 4933.

Isolation of tetanus bacillus from infection site

C. tetani is only very rarely recovered from the infection site. Suspect clinical isolates should be referred to:

**Anaerobe Reference Laboratory
National Public Health Service Wales
Microbiology Cardiff
University Hospital of Wales Heath Park
Cardiff CF14 4XW**

For further information on this, please contact Jon Brazier, ARL, tel: 029 2074 2378

Tetanus toxin antibodies in serum

Demonstrating low levels or absent antibody to tetanus toxin may provide laboratory evidence in support of a clinical diagnosis. Samples must be collected before any immunoglobulin treatment. Tests for tetanus antibodies may be undertaken locally, according to availability, or referred to:

**Respiratory and Systemic Infection Laboratory
Health Protection Agency,
Specialist and Reference Microbiology Division CPHL
HPA Colindale,
61 Colindale Avenue
London NW9 5EQ**

For further information on this, please contact Robert George, RSIL, tel: 020 8200 4400 ext 4222.


All suspected cases of tetanus should be notified to the proper officer, normally the local CCDC. CCDC are also requested to inform Joanne White (tel 020 8200 6868 ext 4446, HPA Communicable Disease Surveillance Centre Immunisation Department, email: <joanne.white@hpa.org.uk> using the enhanced surveillance questionnaire *available at* <http://www.hpa.org.uk/infections/topics_az/tetanus/tetanus_idu_quest_251103.pdf>.

Case definition for current cluster

A case is defined as a person with clinical evidence of tetanus infection who has injected drugs in the month before onset of symptoms, and whose onset of symptoms was after 1 July 2003. Clinical evidence of tetanus infection is defined as mild to moderate trismus and one or more of the following: spasticity, dysphagia, respiratory embarrassment, spasms, and autonomic dysfunction.

All adults presenting to health services should be considered for opportunistic immunisation with tetanus-low dose diphtheria (Td) vaccine if they have not received the recommended five doses of tetanus-containing vaccine or are unsure about their vaccination status.

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Cutaneous leishmaniasis in travellers returning from the Middle East

Cases of cutaneous leishmaniasis are currently being reported in travellers (in particular, military personnel) returning from the Middle East. Travellers to this region need to be aware of the risk. Insect bite avoidance in these areas is the most important means of prevention; there is no vaccine or chemoprophylaxis. Returning travellers should contact their general practitioner if they develop unusual chronic skin condition that becomes ulcerative. Clinicians need to consider a diagnosis of cutaneous leishmaniasis in anyone with a non-healing sore or chronic skin condition who has been in an endemic area in 2003.

Cutaneous leishmaniasis is a protozoan parasitic infection caused by various species of *Leishmania* and is transmitted by infected sand flies, most commonly of the genus *Phlebotomus*. It is a zoonotic disease and the natural reservoirs are typically canines or rodents. Humans are usually the accidental host, but may maintain the transmission cycle depending on the parasite or during an epidemic (1).

Cutaneous leishmaniasis is characterised by skin ulcers, usually on exposed parts of the body and depending on the organism, can take a long time to heal. It is endemic in localised foci in parts of South America, but is widespread throughout the Middle East, North Africa, the Mediterranean basin, sub-Saharan Africa, and countries of the former Soviet Union. The World Health Organization estimates that 1.5 million cases occur each year worldwide (2). Transmission occurs in both rural and urban/peri-urban settings and there have recently been large numbers of cases reported in cities of the Middle East (3,4)

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HIV / STIs

Last updated: 27 November 2003

Next update due: 29 January 2004

- [World AIDS Day 2003 – Live and let live: help us fight fear, shame, ignorance, and injustice worldwide](#)
[Renewing the focus: the 2002 annual report on HIV and STIs in the UK](#)

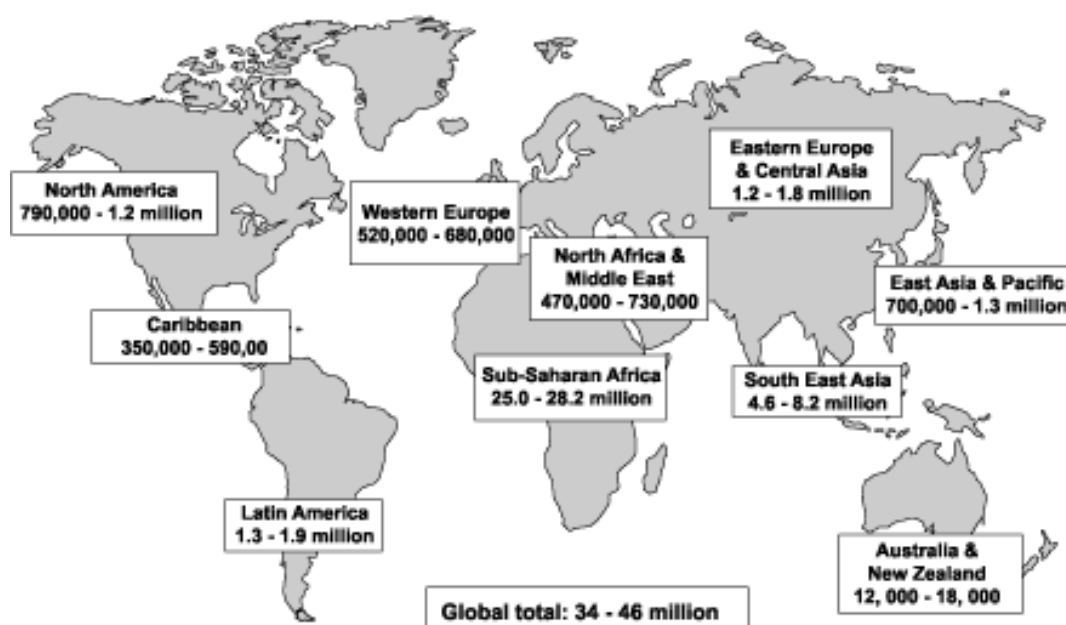


World AIDS Day 2003 – Live and let live: help us fight fear, shame, ignorance, and injustice worldwide

Stigma and discrimination around HIV and AIDS continue to fuel the global HIV epidemic. HIV-related stigma has been described as a 'process of devaluation' of people living with, or associated with HIV/AIDS. Discrimination follows stigma and is the unfair and unjust treatment of an individual based on his or her real or perceived HIV status. Stigma and discrimination breach fundamental human rights and are major obstacles to effective HIV/AIDS prevention and care, ultimately fuelling an epidemic that has already devastated the lives of millions of people worldwide, and will destroy many more.

World AIDS Day is commemorated annually on 1 December. The theme for this year is 'Live and let live', a campaign to focus attention on the need to eliminate stigma and discrimination. Throughout the world people will be celebrating the progress made in the battle against the epidemic, while focusing on the remaining challenges. These are not easy challenges. An estimated 40 million people were living with HIV/AIDS in 2003 (figure), with only a fraction able to access essential treatment and care. Global efforts, so far, have failed to meet many of the specific time-bound targets for fighting the epidemic set down by the World Health Organization's (WHO) general assembly special session on HIV/AIDS in 2001 as part of the Declaration of Commitment. Neither are they on track to begin reducing the scale and impact of the epidemic by the target year of 2005.

Figure Adults and children estimated to be living with HIV/AIDS by the end of 2003



HIV/AIDS is well entrenched in Latin America and the Caribbean, with more than two million people living with HIV in 2003, including an estimated 200,000 who were newly infected. National HIV prevalence in this region has reached at least 1% in 12 countries, all of them in the Caribbean basin, while in most other countries in the region there are highly concentrated epidemics, with HIV transmitted chiefly through injecting drug use and sex between men). National adult HIV prevalence in the majority of countries in Asia and the Pacific remains less than 1%, however the size of some countries, notably India and China, obscures the fact that serious, concentrated epidemics have been in progress for many years in certain regions. There are increasing warning signals that serious HIV outbreaks threaten in several countries, with the potential for low infection levels to surge suddenly, as a result of widespread injecting drug use and sex work. An estimated 55,000 people acquired HIV infection in 2003 in the Middle East and North Africa, bringing the regional total of people living with HIV to 600,000. There is potential for a considerable rise in the number of HIV infections in this region, with the potential for transmission through injecting drug use, sex between men, and blood transfusions and collection. Currently, Sudan is the most seriously affected country in the region.

Sub-Saharan Africa remains by far the region worst-affected by the HIV/AIDS epidemic. In 2003, an estimated 26.6 million people in this region were living with HIV, including the 3.2 million who became infected in 2003. Approximately 2.3 million people died of AIDS in the same year. Women have been disproportionately affected: young women are 2.5 times more likely to be infected compared to young men. HIV prevalence varies considerably across the continent: more than one in five pregnant women are HIV-infected in most countries in southern Africa, while in many west African countries prevalence remains relatively low, between one and two per cent. Prevalence may have remained almost unchanged among pregnant women in these countries over the past few years – but this is not an achievement. Behind a stable prevalence there are persistently high numbers of new infections and equally high numbers of AIDS deaths, year-on-year.

The unabated rise of HIV/AIDS in eastern Europe and central Asia is being driven by widespread risky behaviours, with extraordinarily large numbers of young people engaging in injecting drug use and low condom use. Worst-affected are the Russian Federation, Ukraine, and the Baltic states, although HIV continues to spread in Belarus, Moldova, and Kazakhstan, with more recent epidemics now evident in other central Asian countries. Newly reported HIV infections have remained stable in Poland, the Czech Republic, Hungary, and Slovenia, while in parts of south eastern Europe injecting drug use and risky sexual behaviours are on the increase.

The total number of people living with HIV continues to rise in high-income countries, largely due to widespread access to antiretroviral treatment, and reached an estimated 1.6 million in 2003. Mounting evidence suggests that prevention activities in several high-income countries are not keeping pace with the changes occurring in the spread of HIV, particularly where HIV is found among marginalised sections of populations, including immigrants and refugees. Sex between men remains an important aspect of the epidemic in many countries, and there has been a resurgence of other sexually transmitted infections among gay men and young people, pointing to a revival of high-risk sexual behaviours. More detailed information on the situation in the United Kingdom (UK) can be found in *Renewing the focus*, a report published by the Health Protection Agency for World AIDS Day (1), available at: http://www.hpa.org.uk/infections/topics_az/hiv_and_sti/publications/annual2003/annual2003.pdf.

The global threat of HIV/AIDS requires global action. Action that still falls far short of what is needed to meet the targets of the 'Declaration of Commitment' and the new WHO '3 by 5 initiative': 3 million people on antiretroviral therapy by 2005. HIV/AIDS must be at the top of political and practical agendas. Sufficient funding must be available in those countries and

communities most in need. On World AIDS Day 2003, the UN Secretary General, Kofi Annan, has requested that others around the world join him in speaking up about HIV/AIDS and in tearing down the walls of silence, stigma, and discrimination that surround the epidemic – things that are clearly visible throughout societies, including our own within the UK.

Information used to compile this report is from a number of UNAIDS fact sheets produced for World AIDS Day and from the UN Secretary General's message on the occasion of World AIDS Day. These can be found at www.unaids.org.

HIV and other Sexually Transmitted Infections in the United Kingdom in 2002

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Renewing the focus: the 2002 annual report on HIV and STIs in the UK

The problem of HIV infection in the United Kingdom (UK) intensified during 2002. The estimated prevalence of HIV infection in adults increased by 20% during 2002. By the end of 2002 there were an estimated 49,500 people living with HIV in the UK. The key factors driving this increase were a possible expansion of HIV transmission in homo/bisexual men and continued migration of HIV-infected heterosexual men and women from sub-Saharan Africa.

Despite the large increase in the use of combination anti-retroviral therapy (ARV) in individuals with diagnosed HIV infection, and the various targeted health promotion campaigns, the surveillance data suggest that HIV transmission may be increasing in homo/bisexual men. In 2002, 5.4% of homo/bisexual men in London, attending seven genitourinary medicine (GUM) clinics, were infected with HIV and were unaware of their infection, as were 4% of those aged under 25 years – a clear indication of continuing HIV transmission at relatively high levels.

Monitoring recent HIV seroconversions, using a serological test algorithm, has shown that the incidence of HIV infection in homo/bisexual men attending 15 GUM clinics throughout England, Wales, and Northern Ireland has risen in 2002 to over 3% per annum. Against the background of a sustained increase in homosexually acquired gonorrhoea over three years, 12% of homosexual and bisexual men who were aware of their HIV infection prior to their GUM clinic attendance and 38% of those who were previously unaware of their HIV infection, were also infected with an acute sexually transmitted infection (STI). Although the uptake of voluntary confidential testing (VCT) for HIV in homo/bisexual men increased from 45% in 1997 to 62% in 2002, of those who could potentially have had their HIV infection diagnosed, 59% remained undiagnosed after leaving the clinic.

The HIV situation in heterosexual men and women born in sub-Saharan Africa deteriorated in 2002. The annual number of newly diagnosed HIV infections increased still further to over 2300; the prevalence of previously undiagnosed infection in heterosexual GUM clinic attendees increased to 4.9%, and HIV prevalence in pregnant sub-Saharan African women increased to 2.5%. The large majority of heterosexuals born in sub-Saharan Africa, however, are not infected with HIV – 90% of GUM clinic attendees and 98% of pregnant women surveyed in 2002.

Over the past five years there has been a steady increase in the number of diagnoses of HIV infection in people who are thought to have acquired their infection heterosexually within the UK, from 147 in 1998 to 275 reported, to date, in 2002. In heterosexual GUM clinic attendees born in the UK, prevalence of previously undiagnosed HIV infection increased three fold in men since 1997 to 0.3% in 2002, while in women there has been no change.

HIV prevalence in injecting drug users (IDUs) attending specialist agencies remained low, at less than 1%. Equipment sharing rates continued to be high. In those who had begun injecting in the previous three years, the prevalence of hepatitis C antibody was 14%.

In 2002, increases in the major acute bacterial and viral STIs continued unabated. In England, Wales, and Northern Ireland 82,206 new diagnoses of genital *Chlamydia trachomatis* infections were reported, representing a 141% increase since 1996 and a 14% increase over the previous year. Increases of a similar magnitude were observed for gonorrhoea with 24,958 infections being diagnosed in 2002, a 9% increase over the previous year. In Scotland, laboratory reports of chlamydial

infection rose by 290% between 1996 and 2002. The most marked increases in the UK were, however, seen in new reports of infectious syphilis. In England, Wales, and Northern Ireland, the 1232 reported cases in 2002 represented a 902% increase since 1996 and a 68% rise over the previous year. Rises in viral STIs such as genital warts and genital herpes infections were also seen, however, these have continued to increase at a much lower rate than the bacterial STIs.

The available surveillance data confirm the substantial variations in the distribution of HIV and STIs in the general population. High infection rates continue to be found among those with high rates of sexual partner change, in particular homo/bisexual men and young heterosexuals. As the likelihood of STI transmission is dependent on the average duration of infectiousness, disease rates are also high among those with poor access to curative health services. This is particularly relevant in a context of recent increases in waiting times for GUM clinic appointments (1). It is also highly relevant to population sub-groups for whom stigma or discrimination prevent access to and uptake of treatment and care services (2). Marked geographic variations in disease occurrence exist, with a concentration of the HIV and STI epidemics in greater London. Other parts of the UK, however, are not exempt from the burden of sexual ill health as demonstrated by the recent outbreaks of infectious syphilis (3) and ciprofloxacin resistant gonorrhoea (4). In this year's report we, therefore, draw specific attention to those population subgroups that we believe deserve special attention and effort in our prevention activities.

Based on the evolving HIV and STI epidemics, policy makers and others should give urgent consideration to:

- Reviewing and strengthening primary prevention efforts directed at homo/bisexual men.
- Offering and recommending annual HIV testing to homo/bisexual men attending GUM clinics
- Promoting further voluntary confidential HIV testing of migrants from sub-Saharan Africa, presenting at GUM clinics.
- Developing further studies of the sexual behaviour within the UK of migrants from sub-Saharan Africa and HIV positive individuals in order to better inform primary and secondary prevention efforts.
- Devoting more surveillance resources to risk factor follow-up of newly diagnosed HIV-infected heterosexuals to ensure there is no loss of timeliness in monitoring the numbers of HIV infections due to heterosexual transmission within the UK, a trend that is continuing to rise.
- Reducing the current lengthy waiting times to GUM clinics.
- Stepping up the national implementation of the National Chlamydia Screening Programme (by increasing the number of locally funded programmes) to reduce the prevalence of genital chlamydial infection and its sequelae.
- Extending routine screening for infectious syphilis to sexually active HIV positive men, who have sex with men, attending all centres providing treatment and care. Research is also needed to determine the impact of syphilis outbreaks on HIV transmission among homo/bisexual men.
- Reviewing and disseminating updated national guidelines for the treatment of gonococcal infections to encourage regular local audit of therapeutic efficacy, in view of increases in gonococcal antimicrobial resistance.

As the public debate continues over the proposed Human Tissue Act (5,6) , continued emphasis of the public health value of large scale unlinked anonymous testing of clinical specimens that would otherwise be discarded is required.

Full text of the report can be found at:

<http://www.hpa.org.uk/infections/topics_az/hiv_and_sti/publications/annual2003/annual2003.pdf>.





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Immunisation

Last updated: 27 November 2003

Next update due: 22 January 2004

-  [Laboratory confirmed cases of measles, mumps, and rubella England and Wales: July to September 2003](#)
-  [Enhanced surveillance of meningococcal disease: weeks 27-39/03](#)
-  [Laboratory confirmed cases of pertussis infection England and Wales by age group: January to September 2003](#)
-  [Laboratory reports of invasive meningococcal infections, England and Wales: weeks 29-32/03](#)

Laboratory confirmed cases of measles, mumps, and rubella England and Wales: July to September 2003

The four-weekly reporting of laboratory confirmed cases of measles, mumps, and rubella (MMR) previously published in the *CDR Weekly* have been replaced by quarterly reporting. Cases include those confirmed by oral fluid IgM antibody tests and routine laboratory reports (table 1). Analyses are by date of onset. Regional breakdown figures relate to Government Office Regions rather than regional health authorities (pre-April 2002 definitions) as used previously in this section. Quarterly figures for cases confirmed by oral fluid antibody detection only from 1995 are available from:

- http://www.hpa.org.uk/infections/topics_az/measles/data_not_confirmed.htm
- http://www.hpa.org.uk/infections/topics_az/mumps/data_quarter.htm
- http://www.hpa.org.uk/infections/topics_az/rubella/data_rub_not.htm

and annual total numbers of confirmed cases by health region and age from:

- http://www.hpa.org.uk/infections/topics_az/measles/data_reg_age.htm
- http://www.hpa.org.uk/infections/topics_az/mumps/data_reg_age.htm
- http://www.hpa.org.uk/infections/topics_az/rubella/data_reg_age.htm

Table 1 Total confirmed cases of measles, mumps, and rubella, and oral fluid IgM antibody tests in cases notified to ONS, weeks 27-39/03

	Cases			Oral fluid*	IgM antibody	Results		
	Notified	Tested	(%)	Total positive	Recently vaccinated	Confirmed	Other lab confirmed	Total confirmed cases
Measles	575	555	(97)	55	3	52	26	78
Mumps	962	552	(57)	197	2	195	106	301
Rubella	306	227	(74)	2	1	1	2	3

*some oral fluid tests were submitted early for detection of measles IgM antibody for suspected cases, and may not have been subsequently notified, thus the proportion tested is probably artificially high for this quarter.

Measles

Seventy-eight cases of confirmed measles with onset dates in the third quarter of 2003 were reported, compared to 145 cases in the April to June and 151 cases in the January to March quarters (1). Sixty-three were aged under 15 years (nine aged under one year, 23 aged between 1 and 4 years, 15 aged between 5 and 9 years, 16 aged between 10 and 14 years), five were aged between 15 and 19 years, and nine were adults aged between 20 and 52 years; the age was not known for one case. Only three cases had a history of vaccination, including M13y renal transplant patient, mentioned in the previous quarter (1,2), who had received one dose of MMR before his transplant when aged 2 years, but due to immuno-suppression was unable to have the second dose.

The regions reporting the majority of cases this quarter were East of England (19), South East (17), North West (13), London (11), and South West (10). Cases occurring in unvaccinated children and young adults belonging to, or associated with travelling communities account for more than half of all the cases, and have been reported from all English regions apart from the North East and the West Midlands. Vaccine coverage, particularly MMR, is known to be low in these communities. Local health protection units have offered MMR vaccine to unvaccinated individuals when cases have occurred in travellers in their areas; in some communities this has been well accepted, but in others uptake has been poor.

Genotyping information was available for 21 of the cases. Two genotypes, D4 and D8, are associated with clusters in travelling communities: eight of 11 D4 genotypes identified were associated with travellers from the North West and the East of England, and five of six D8 genotypes were associated with similar communities in the East of England and Yorkshire and Humberside. Two other genotypes were identified in this quarter. One D7 genotype was associated with two members of the same family who had recently visited Germany, and a D2 was identified from a case in London.

Mumps

Three hundred and one cases of mumps with onset dates in the third quarter of 2003 were confirmed, compared to 467 in the April to June and 414 cases in the January to March quarters (1). This reduction in cases is probably due to reduced transmission in secondary schools, universities, and military establishments during the summer holidays. Nearly 50% of the cases were reported from the North East (148). There were no cases of meningitis or encephalitis, F19y was hospitalised with pancreatitis; she made a full recovery. Three cases were related to travel to Cyprus (1), Greece (1), and Tenerife (1).

The cohort at particularly high risk of mumps are those currently aged between 13 and 21 years (born between 1982 and 1990), because they have either received no MMR vaccine, or only one dose (1). More than 85% of cases in this quarter were born in this period. Outbreaks have moved from being predominantly in secondary schools to being in universities and military establishments (1,4,5), and a third of cases this quarter were aged over 19 years (table 2).

The 'Green Book' *Immunisation against Infection Diseases* (6) advises that students who have not received measles and rubella (MR) or MMR vaccine should be offered MMR immunisation. This advice was updated in March 2001 when the Department of Health recommended that teenagers who had not received MMR or had only had one dose should be offered MMR (7). It is unclear how many teenagers are not properly protected, but current outbreaks of mumps indicate that susceptibility remains high. Some universities and military establishments have offered MMR to first year students and others are considering taking similar action. Adequate stocks of MMR-II, which is licensed for use in adults, are available.

Table 2 Laboratory confirmed cases of mumps by age group and region, England and Wales: weeks 40-53/02

Region	Age group						NK*	Total
	<1y	1-4y	5-9y	10-14y	15-19y	≥ 20y		
North East	1	1	1	10	85	46	4	148
North West	–	1	2	1	11	15	2	32
Yorkshire and Humberside	–	–	–	–	3	3	–	6
East Midlands	–	–	–	–	1	1	–	2
West Midlands	–	–	–	1	1	2	–	4
East of England	–	–	1	1	3	3	1	9
London	–	–	–	5	6	5	–	16
South East	–	–	1	1	5	7	1	15
South West	–	–	–	–	6	4	–	10
Wales	–	–	–	9	19	8	–	36

Not Known	–	–	1	2	11	8	1	23
Total	1	2	6	30	151	102	9	301

*NK = Not known

Rubella

M26y, F32y, and F33y were confirmed with rubella with onset dates in the third quarter of 2003.

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Enhanced surveillance of meningococcal disease: weeks 27-39/03

In the third quarter (weeks 27-39) of 2003, enhanced surveillance of meningococcal disease (ESMD)* identified 497 cases of invasive meningococcal disease in the nine English regions, Wales, and Northern Ireland. This is a decrease of 11% on the total of 556 in the previous quarter, but an increase of 8% on the total of 457 in the equivalent quarter of 2002. North West region reported the highest number of cases this quarter (81), although the highest rate was reported in Northern Ireland (table 1).

Table 1 Meningococcal disease by region: weeks 27-39, 2003

Region	B	C	Other	Infection not confirmed	Rate per 100,000	Total
North East	9	1	–	13	0.92	23
Yorkshire & Humberside	21	1	3	36	1.22	61
East Midlands	8	2	1	34	1.07	45
East of England	18	1	1	14	0.63	34
London	11	2	–	29	0.57	42
South East	15	1	1	28	0.56	45
South West	19	1	2	14	0.73	36
West Midlands	27	1	–	31	1.11	59
North West	40	3	3	35	1.20	81
Wales	1	–	1	41	1.47	43
Northern Ireland	17	–	4	7	1.65	28
Total	186	13	16	282		497

In England and Wales, a clinical diagnosis of invasive meningococcal disease was reported for 437 cases compared to 250 cases of meningitis and septicaemia officially notified to the Communicable Disease Surveillance Centre (CDSC) during the same period. This implies that approximately 57% 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. The overall case fatality ratio in cases identified in ESMD with a clinical diagnosis (in England, Wales, and Northern Ireland) was 5 per 100 cases, whereas the case fatality ratio for cases with septicaemia alone was 8 per 100 cases (table 2).

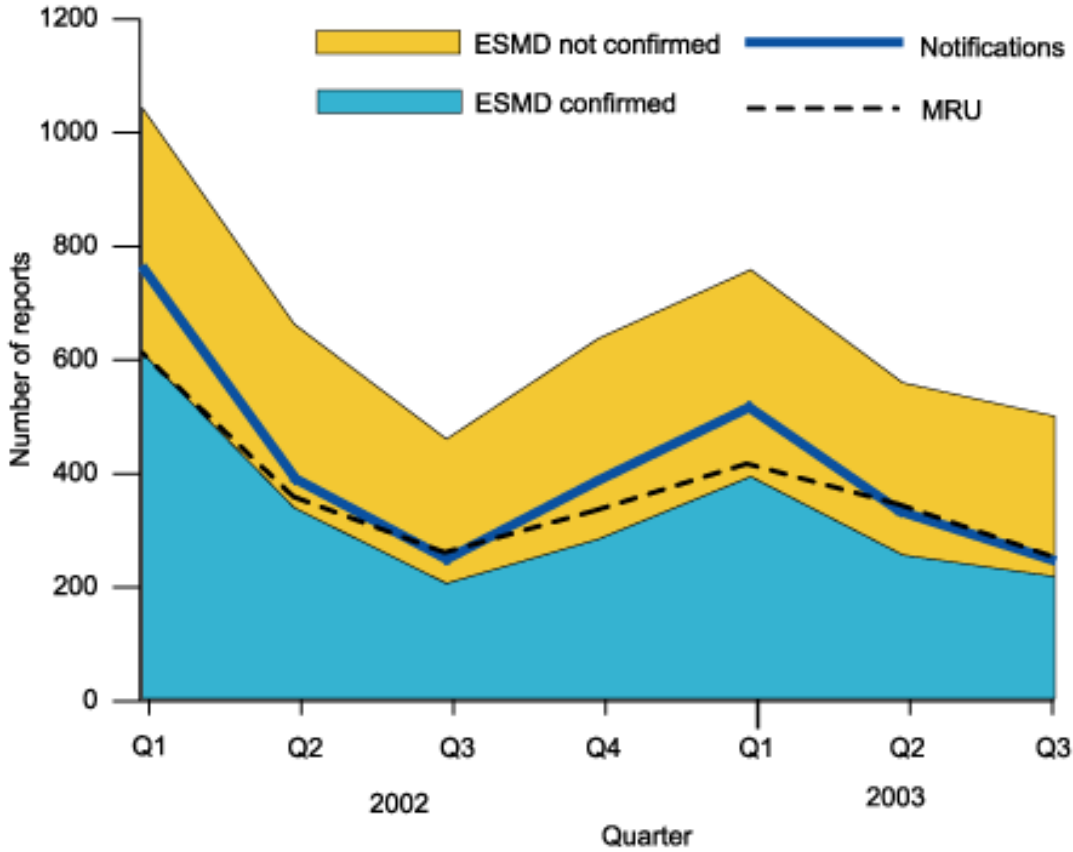
Table 2 Clinically diagnosed cases (deaths) of meningococcal disease, England, Wales, and Northern Ireland: weeks 27-39/03

Region	Meningitis	Septicaemia	Meningitis and Septicaemia	Not meningitis or septicaemia	Total
North East	5	14 (1)	3	–	22 (1)
Yorkshire & Humberside	17	25 (2)	13	4	59 (2)
East Midlands	29 (1)	5 (2)	9	2	45 (3)
Eastern	15 (1)	13	4	–	32 (1)
London	12	19 (2)	7	3	41 (2)
South East	17 (2)	23 (2)	5	–	45 (4)
South West	15	11 (1)	8	–	34 (1)
West Midlands	13	33 (2)	7 (1)	1	54 (3)
North West	29	41 (4)	8	1	79 (4)
Wales	2	24	–	–	26

Northern Ireland	9	15 (1)	3	1	28 (1)
Total	163 (4)	223 (17)	67 (1)	11	465 (22)

Two hundred and fifteen of the 497 cases (43%) identified in ESMD were confirmed as *Neisseria meningitidis* infection, compared to 243 reports of laboratory confirmed meningococcal disease made to Meningococcal Reference Unit (MRU) in the same period (figure 1).

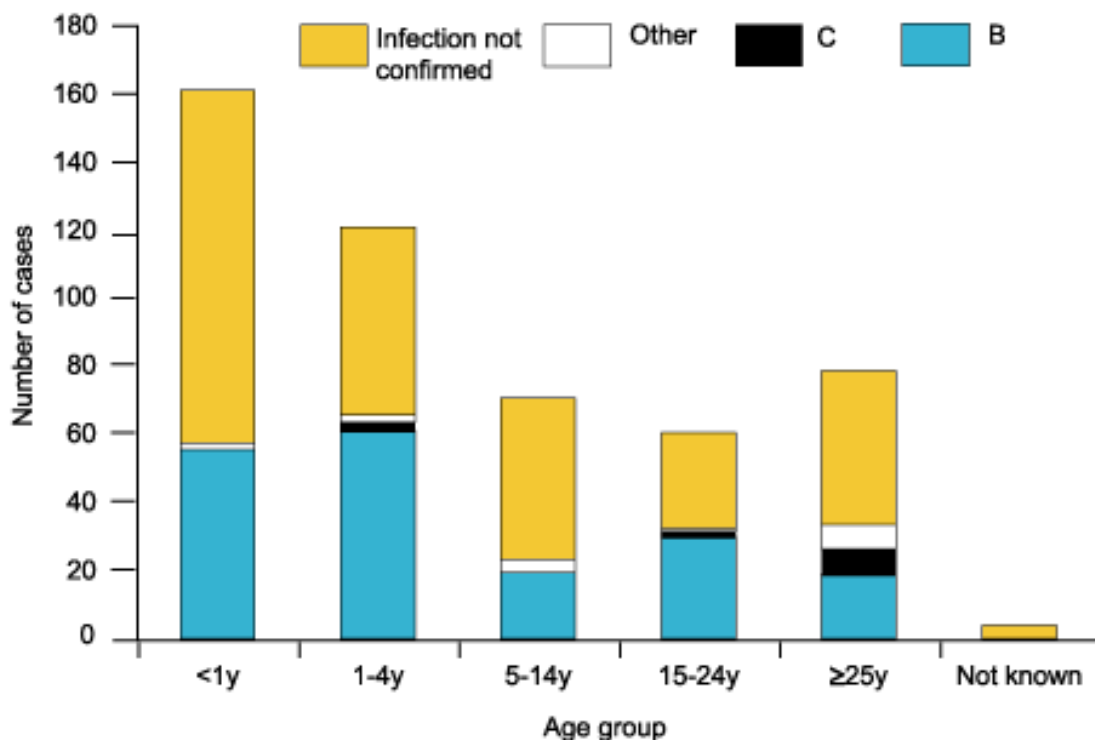
Figure 1 Number of confirmed and unconfirmed ESMD reports compared to notifications and MRU: Jan 2002 to Sep 2003.'



Serogroup B *N. meningitidis* was detected in 87% (186/215) of confirmed cases identified in ESMD, serogroup C in 6% (13/215), and the remaining 7% included other serogroups (16/215). The latter consisted predominantly of ungrouped (6/16).

Over half (58%) of all confirmed cases were in children aged under 5 years. Serogroup B accounted for 95% of these infections, serogroup C accounted for 2%, and other serogroups for 3%. Three serogroup C infections occurred in this age group of children (figure 2). One child was known not to have received the MenC vaccine, and the vaccination status of the other two was unknown.

Figure 2 Serogroups of *N. meningitidis* identified in cases in England, Wales, Northern Ireland by age: weeks 27-39, 2003



Meningococcal disease attributed to serogroup B and other serogroups and unconfirmed cases have all increased this quarter compared to the equivalent period in the previous year. Serogroup B increased by 7% (186 cases compared to 172 in 2002), other serogroups increased from 13 to 16, and unconfirmed cases increased by 10% (282 compared to 254 in 2002). There has, however, continued to be a reduction in the observed number of cases of meningococcal disease due to serogroup C. The latter serogroup decreased from 18 to 13 compared to the equivalent period in 2002, suggesting the positive impact of the MenC vaccination programme in reducing meningococcal disease caused by serogroup C.

In contrast, routine surveillance data appeared to remain quite stable between the two periods; clinical notifications fell by 2% (250 compared to 255 in 2002), and laboratory reports by 0.4% (243 compared to 244 in 2002).

*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. Data are collated at regional level and sent on to the Health Protection Agency's Immunisation Department at the national Communicable Disease Surveillance Centre (CDSC) each month. 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.



Laboratory confirmed cases of pertussis infection England and Wales by age group: January to September 2003*

Table 1 Laboratory confirmed cases of pertussis infection in England and Wales by age group: January to September 2003

Age group (years)	PCR and or serology	Culture	Total	Percentage (%) increase in case ascertainment through PCR and/or Serology
<3 months	6	23	29	(26)
3-5 months	3	6	9	(50)
6-11 months	—	2	2	(—)
1-4 years	5	4	9	(125)
5-9 years	6	3	9	(200)

10-14 years	4	1	5	(400)
≥15 years	13	1	14	(1300)
NK†	1	2	3	(-)
Grand Total	38	42	80	(90)

* All data are provisional

Since January 2002, infants aged less than 6 months with suspected pertussis have been offered PCR testing through the Health Protection Agency's Respiratory and Systemic Infection Laboratory (RSIL). Adults with a cough persisting for more than 21 days and children with a cough persisting for less than 14 days, have been offered serology testing through RSIL. These cases are likely to have been culture negative, and testing with PCR and/or serology have increased case ascertainment.

†NK = not known

Table 2 Laboratory confirmed cases of pertussis infection England and Wales: January to September 2003 by Age Group*

Quarter	Method of Diagnosis			Total
	PCR and/or Serology only	Culture	Percentage (%) of PCR/serology reports	
Q1	8	26	24	34
Q2	19	35	35	54
Q3	38	42	48	80
Total	65	103	39	168

* All data are provisional

The apparent increase particularly in adult cases is explained by the availability of enhanced diagnostic methods which have been increasingly used during the three quarters, as illustrated by the increasing proportion of reports diagnosed by PCR and or serology.

Laboratory reports of invasive meningococcal infections, England and Wales laboratory reports: weeks 29-32/03

	Method of diagnosis			Total reports 29-32/03	Cumulative* total to week 32/2003
	CSF and blood culture	Non-culture	Other sites culture		
Group A	–	–	–	–	1
B	36	28	2	66	816
C	2	1	–	3	75
W135	2	–	–	2	21
X	–	–	–	–	2
Y	2	–	–	2	10
Z	–	–	–	–	–
29E	–	–	–	–	–

Ungroupable	-	-	-	-	2
Ungrouped	-	2	-	2	53
Total	42	31	2	75	980

* Combined CDSC data and Meningococcal Reference Unit data latex antigen, microscopy, polymerase chain reaction.

Diary

Last updated: **27 November 2003**

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[Emerging infections: what have we learnt from SARS?](#)

Emerging infections: what have we learnt from SARS?



The Royal Society is hosting a meeting concerned with our level of preparedness for future outbreaks of new infectious agents – *Emerging infections: what have we learnt from SARS?* The meeting takes place on **Tuesday 13 January 2004** at the Royal Society, and is an all day meeting.

The outbreak of severe acute respiratory syndrome (SARS) last winter is just one of the latest examples of newly emerging infectious diseases. The numbers of these epidemics are rising due to reasons such as increased travel, growing populations, and improved methods of detection. With specific reference to the lessons learned from the recent SARS epidemic, this meeting will also address our general preparedness for future outbreaks of new infectious agents.

This meeting is **FREE** to attend but pre-registration is essential.

A full programme and registration form can be found at < <http://www.royalsoc.ac.uk/events>>, tel: 020 7451 2575, or email: < hannah.jemmett@royalsoc.ac.uk> for more information.