# Health Protection Report
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# News

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- **Confirmed measles cases in England and Wales: an update to end-May 2008**
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## Confirmed measles cases in England and Wales: an update to end-May 2008

For the fourth consecutive month, cases of confirmed measles in London have continued to rise, exceeding the peak observed in August 2007 (see figure). In contrast, the number of cases in the rest of England and Wales, which also increased in early 2008, has remained steady during May. The total number of confirmed measles cases in England and Wales to the end of May 2008 is now 461 [1].

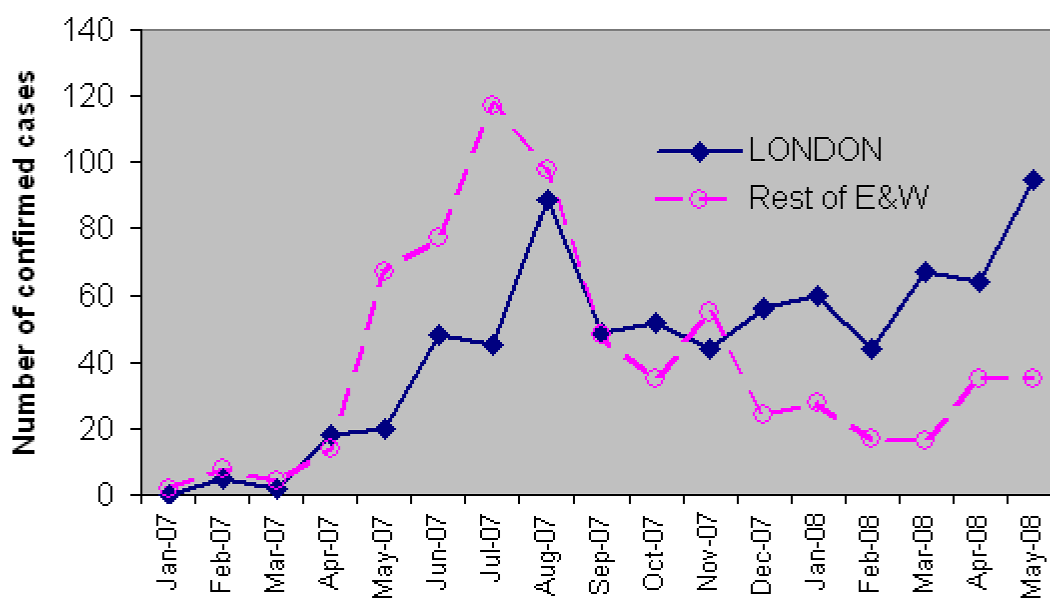
The majority of recent cases in London are linked to an outbreak in a secondary school that has spread to neighbouring schools and nurseries and is the source for clusters in Cornwall and in the South Yorkshire.

The first death from acute measles infection since 2006 has been reported. A 17 year old with underlying congenital immunodeficiency was admitted to hospital with respiratory distress and pneumonia on 20 April following contact with a case of measles. The patient deteriorated and was transferred to ITU a week later with respiratory failure, but subsequently died (five weeks later). Serum samples and nasopharyngeal aspirates taken at various times have confirmed that the patient had infection with a strain identical to the measles strain (MVs/Enfield.GBR/14.07 genotype D4) that has now been circulating in the UK for over a year.

Due to almost 10 years of sub-optimal MMR vaccination coverage across the UK, the number of children susceptible to measles is now sufficient to support the continuous spread of measles. Health services should exploit all possible opportunities to offer MMR vaccine(s) to children of any age who have not received two doses. Greater awareness of the increasing measles incidence by health professionals and the public is essential to control the spread of infection.

During May a case of measles was confirmed in a doctor who worked on an oncology ward in London. Following this, a letter was sent from the Director of Immunisation at the Department of Health to the chief executives of all Strategic Health Authorities and acute and foundation trusts. The letter reinforced the advice in Immunisation Against Infectious Disease, 2006 (the “Green Book”) [2] that trusts should ensure that all staff working with vulnerable patients have documented immunity to measles. Satisfactory evidence of immunity would be: either having received two doses of measles containing vaccines, or a positive antibody test.

**Laboratory confirmed cases of measles by month of onset, England and Wales: accumulative total from 2007 up to 31 May 2008**




## References


1. HPA. Confirmed cases of measles in England and Wales – an update. *Health Protection Report HPR* [serial online] 2008 [cited 20 June 2008]; **2**(21): news. Available at http://www.hpa.org.uk/hpr/archives/2008/news2108.htm#measls

2. Department of Health. *Immunisation against infectious disease*, 2006. Available at http://www.dh.gov.uk/en/Publichealth/Healthprotection/Immunisation/Greenbook/DH_4097254

## Group A streptococcal infections: update on seasonal activity, 2007/08

Notifications of scarlet fever in England have shown an unusual persistence of activity this season, with reports for weeks 13-20 considerably higher than seen over the past four years. Routine laboratory reports of group A (*Streptococcus pyogenes*) streptococcal bacteraemia received so far for 2008 continue to show no unusual activity compared to the last five years, although numbers are increased over reports made for last year. The number of invasive isolate referrals received by the Respiratory and Systemic Infection Laboratory has similarly increased compared to 2007.

### Scarlet fever

The increased notifications of scarlet fever in England previously noted for weeks 9 to 12 of 2008 have continued to remain at a high level [1], with notifications for weeks 13-20 considerably higher than seen in the past four years: 789 compared with a range between 289 and 580 for 2003-07. Aside from the high number of notifications, the seasonal pattern in 2008 has been unusual in persisting beyond the first peak (week 15) to recrudesce in week 20.

Seasonal activity for scarlet fever typically peaks around week 11-13, with a gradual tail off beyond this. Notifications in Yorkshire and the Humber (212), London (135) and the South West (72) for weeks 13-20 were particularly high compared to 2003-07 (45 to 102, 37 to 99 and 21 to 58 for each region, respectively). To a lesser extent, the East of England also had increased scarlet fever notifications over this period (40 compared to 13 to 33 for 2003-07).

### Group A streptococcal bacteraemia

Reports of group A streptococcal (GAS) bacteraemia received to date from laboratories in England, Wales and Northern Ireland for December 2007 to April 2008 (581 reports) show no unusual activity compared to the previous five years (range 476-650), although reports for this season are higher than the previous year (485 reports). Regional breakdowns also indicate a level of activity within an expected range for the time of year.

Invasive isolate referrals received by the Respiratory and Systemic Infection Laboratory at CfI for January to May 2008 (511) have also increased this season from last year (402), although again within the range seen since 2004 (402-655).

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

The HPA GAS Working Group is currently considering the need for national guidance on the management of scarlet fever outbreaks. Guidelines for the management of close community contacts of invasive group A streptococcal disease are available on the Agency's website [2].

### References


1. HPA. Group A streptococcal infections: 2007/2008 seasonal update. *Health Protection Report HPR* [serial online] 2008; **2**(15): news. Available at: http://www.hpa.org.uk/hpr/archives/2008/news1508.htm#gas

2. Health Protection Agency Group A Streptococcus Working Group. Interim UK guidelines for management of close community contacts of invasive group A streptococcal disease. *Commun Dis Public Health* 2004; **7**(4): 354-361. Available at: http://www.hpa.org.uk/cdph/issues/CDPHvol7/No4/guidelines1_4_04.pdf

## HPA reiterates need for vigilance on Community MRSA

Health Protection Scotland recently reported three cases of the so-called pig strain of Community MRSA (ST398) occurring in humans during 2007 [1]. These were the first such cases in the UK and all three individuals were treated successfully.

Increasing colonisation of pig stocks in continental Europe with the ST398 strain of MRSA, albeit without any manifest signs of infection, has been recognized for several years. More recently - after the first human case was reported in 2003 in the Netherlands - routine testing of pigs for the bacterium has been carried out in Belgium, Denmark, Germany, Spain and the Netherlands to monitor its emergence and spread.

The EU Commission has required all member states to monitor MRSA levels in pig stocks since January 2008 and plans to publish EU-wide data in 2009.

Human cases of ST398 remain relatively rare, occurring mainly as a result of contact with farm animals, most commonly pigs, with some being detected in those working with chickens, cattle or horses.

Current evidence suggests the ST398 strain probably originated in animals but, in some instances, it can be transferred to humans in close contact with animals carrying the MRSA strain.

To identify any further human cases of pig-related MRSA (ST398), the HPA reiterates the need for continued vigilance by diagnostic laboratories in England and Wales on Community-associated MRSA [2].

The HPA calls for diagnostic laboratories to raise their level of suspicion in cases where isolates have been obtained from individuals with an association with farming, for example pig farmers, veterinarians and those involved with animal husbandry. In such cases, isolates should be submitted for further testing (with a description of the nature of the infection and farming link included on the referral form), to the Staphylococcus Reference Unit, Centre for Infections, 61 Colindale Avenue, London NW9 5HT.

### References

[1] ST398 MRSA infections in Scotland. *HPS Weekly Report* 2008 [online], **42**(23), 4 June 2008 [cited 19 June 2008]. Available at: http://www.documents.hps.scot.nhs.uk/ewr/pdf2008/0823.pdf

[2] Community MRSA in England and Wales: definition through strain characterization. *Comm Dis Rep Wkly* 2005 [online]; **15**(11), 17 March 2005 [cited 19 June 2008]. Available at: http://www.hpa.org.uk/cdr/archives/2005/cdr1105.pdf

### Further information

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Infection reports

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## Bacteraemia

### Trends in reports of bacteraemias and fungaemias in England, Wales and Northern Ireland: 2003 to 2007

Episodes of polymicrobial bloodstream infections are defined as the isolation of two or more different organisms from the same blood culture. These analyses are for specimens collected in 2007 for England, Wales and Northern Ireland and are based on data extracted from the HPA's voluntary surveillance database (3 June, 2008). The data presented here differ in some instances from data in earlier publications due to the addition of late reports to the database.

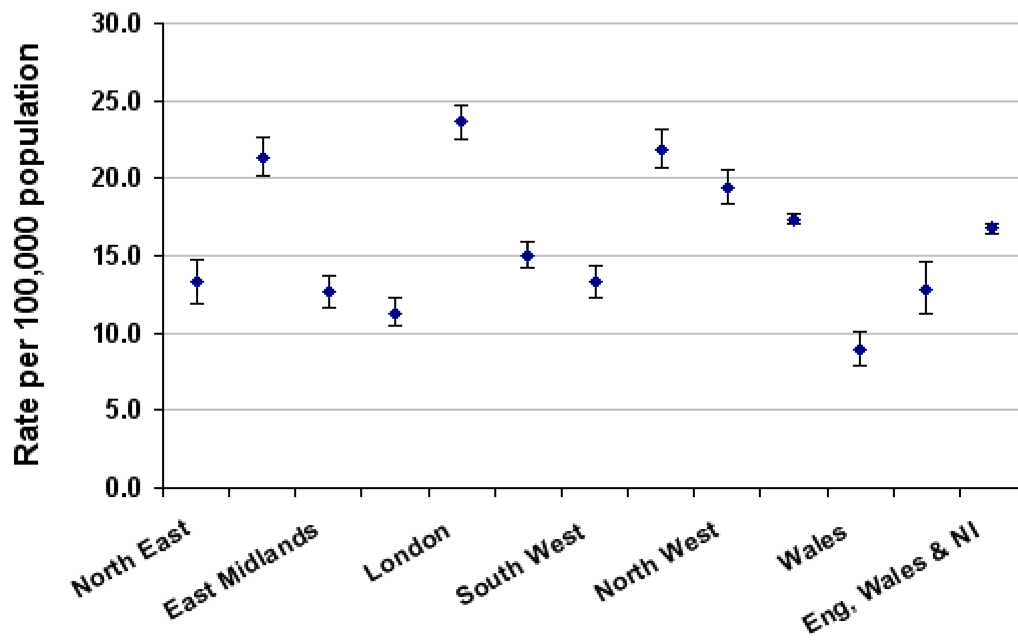
- 99,618 patient episodes involving bacteraemia and/or fungaemia were identified from all reports received from laboratories in England, Wales and Northern Ireland in 2007 (table 1). This represents a 23% increase on the number of patient episodes recorded in 2003 (80,836 episodes). This increase may be real or due to increased ascertainment by reporting laboratories.
- For specimens collected in 2007, 9310 patient episodes (9.3% of all patient episodes) were identified as polymicrobial and 90,308 were identified as monomicrobial.
- Of the 9310 polymicrobial patient episodes, 8090 involved two different organisms, 1039 involved three different organisms and 181 involved four or more organisms.
- There has been a 56% increase in the number of polymicrobial patient episodes from 5972 in 2003 to 9310 in 2007. As a percentage of all reported patient episodes, polymicrobial infections accounted for 9.3% in 2007, which is slightly higher than the 7.4% observed in 2003.
- The 10 most frequently reported organisms involved in polymicrobial bacteraemias/fungaemias were (in descending order): coagulase-negative *Staphylococcus, Enterococcus, Escherichia,* non-pyogenic *Streptococcus, Klebsiella, Staphylococcus aureus, Pseudomonas,* Coliforms, *Enterobacter,* and *Proteus*.
- The overall rate of polymicrobial episodes in England, Wales and Northern Ireland is 16.8 per 100,000 population (figure 1). By country, the reported rates (per 100,000 population) were 17.4, 8.9, and 12.9 in England, Wales and Northern Ireland, respectively.
- Within England, the lowest rate of polymicrobial episodes was recorded for the East England (11.3 per 100,000), while the highest rate was recorded for London (23.6 per 100,000).

**Table 1. Trends in reports of bacteraemias and fungaemias in England, Wales and Northern Ireland: 2003 to 2007***

| Year | 2003 | 2004 | 2005 | 2006 | 2007 |
|---|---|---|---|---|---|
| Total reported bacteraemia | 86,176 | 87,881 | 92,071 | 99,274 | 108,298 |
| Total reported fungaemia | 1,491 | 1,640 | 1,829 | 1,978 | 2,057 |
| Number of patient episodes | 80,836 | 80,836 | 80,836 | 80,836 | 80,836 |
| Number of polymicrobial patient episodes | 5,972 | 6,532 | 6,786 | 7,533 | 9,310 |
| Percentage of patient episodes that are polymicrobial | 7.4% | 8.0% | 7.9% | 8.1% | 9.3% |

* Data extracted 3 June, 2008

**Figure 1. Regional distribution of polymicrobial bacteraemia/fungaemia episodes (per 100,000 population) in England, Wales and Northern Ireland, 2007**




* Data extracted 3 June, 2008.