



Health Protection Report

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Q fever in Cheltenham – update

A cluster of five cases of Q fever (*Coxiella burnetii* infection) in Cheltenham, Gloucestershire was reported in Health Protection Report on 20 July [1]. Since then, the Health Protection Agency South West, in collaboration with Gloucestershire NHS Hospitals Foundation Trust, Gloucestershire Primary Care Trust, Cheltenham Borough Council and the Veterinary Laboratory Agency have been working together to determine the extent of the outbreak and identify a possible source and prevent a recurrence.

The ongoing investigations include prospective and retrospective case finding and environmental investigations in collaboration with the Meteorological Office, Animal Health and local veterinary surgeons. To date 28 human cases of Q fever have been identified. The dates of onset of symptoms suggest that the exposure took place at the end of April or beginning of May and that the outbreak is not continuing. None of the cases have any occupational risk factors and although some reported possible environmental risk factors, no common exposures have been identified so far. About two thirds of cases were identified by reviewing cases of unspecified pneumonia admitted to hospital in Cheltenham during the period of April to June 2007. All cases have now recovered or are responding well to treatment.

Most cases of Q fever are asymptomatic or have a mild illness, but it accounts for approximately 1% of community acquired pneumonia in the United Kingdom (UK) each year. Serious complications can, however, occur in those with risk factors such as pregnancy, immunosuppression and those with congenital or acquired heart valve disease or vascular grafts. The main reservoirs are sheep and other animals that can shed large numbers in placental tissues. Transmission of Q fever occurs primarily through inhalation of contaminated aerosols. The organism is robust and can survive in dust and animal litter for many weeks and in dried blood for at least six months at room temperature. Although Q fever is rare in the UK, it is more common in the south west of England and Northern Ireland, probably because of higher exposure to animal sources.

The Health Protection Unit would be grateful for information on any cases of Q fever who have visited Gloucestershire during the incubation period (two to three weeks depending on the infective dose). Please contact the Consultant Regional Epidemiologist, Isabel Oliver email: Isabel.oliver@hpa.org.uk.

References

1. HPA. Q fever cluster in Cheltenham. *Health Protection Report* [serial online] 2007 [accessed 20 September 2007]; **1** (28): news. Available at <<http://www.hpa.org.uk/hpr/archives/2007/hpr2807.pdf>>.

Related Links

Health Protection Agency website – information on Q fever

http://www.hpa.org.uk/infections/topics_az/zoonoses/q_fever/default.htm

Investigation into outbreak of Q fever in Cheltenham (HPA regional press release)

http://www.hpa.org.uk/southwest/press/070920_Q_fever.htm

Children's environment and health action plan

The Health Protection Agency has published a report summarising current initiatives that address children and young people's environment and health issues in the United Kingdom (UK). A range of initiatives have already led to a significant reduction in child death rates and ill health (mortality and morbidity) across the UK. There are, however, a number of issues highlighted in the report which are important to tackle:

New emerging concerns, such as the impact of climate change on children. For example, changes in the UK's climate may lead to increased exposure to UV radiation and therefore an increase in skin cancers.

Changing trends, such as the increasing concerns over obesity. In 2004, approximately one third of children aged between 2 and 15 years old in England, Scotland, and Wales were overweight compared to below one tenth before 1990. Old concerns which continue to have an effect despite improvements and interventions, such as air pollution. Outdoor air legislation focuses on decreasing air pollution as a whole and this has led to a decrease in emissions of particulate matter by 51% between 1990 and 2005. This does not estimate actual exposure to air pollution and hot spots where pollution levels are very high still occur.

Many policies, guidelines, and initiatives are already in place to address these issues. There is still more to be done by building on the work already being carried out. Improving the general environment at specific locations, such as schools and homes, may result in greater improvements in children and young people's health than if the issues are tackled individually.

The report has been produced as part of a larger piece of work being taken forward within the UK on the Children's Environment and Health Action Plan for Europe (CEHAPE). The next step is the development of a strategy outlining how this work will be taken forward. The strategy will go through a wide consultation in the autumn of 2007 before being published in 2008.

CEHAPE was originally developed in 2004 by World Health Organization European Region (WHO Euro). The UK signed up to CEHAPE and is taking the work forward through a Government Interdepartmental Steering Group on Environment and Health. More information on CEHAPE can be found at http://www.euro.who.int/childhealthenv/policy/20020724_2.

References

1. HPA. *Children's Environment and Health Action Plan. A summary of current initiatives that address children's environment and health issues in the UK*. Chilton: Health Protection Agency, 2007. Available at <http://www.hpa.org.uk/cehape/default.htm>.

Bacteraemia

Bacteraemia Routine Data Reports

Staphylococcus aureus bacteraemia: voluntary reporting in England, Wales, and Northern Ireland: January to December 2006

A total of 14,881 *Staphylococcus aureus* bacteraemias was reported in England (13,616), Wales (718), and Northern Ireland (547) through the voluntary reporting scheme in 2006.

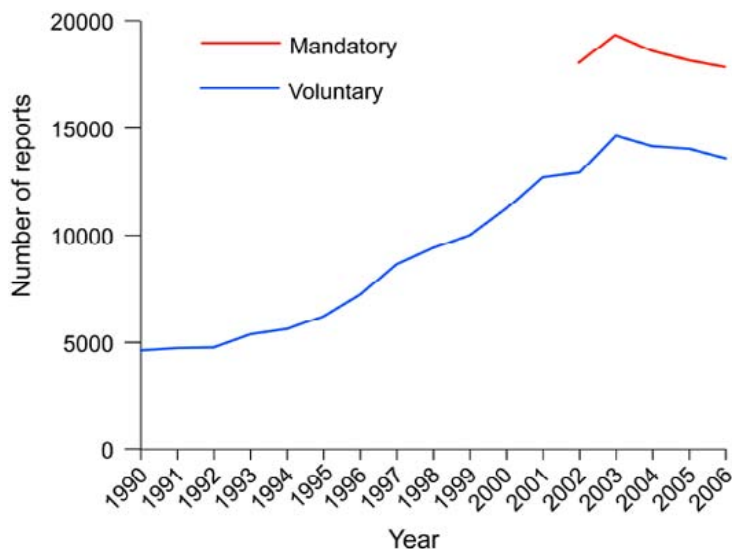
This represents a decrease of 3% compared to voluntary data from 2005. Reports for 2006 are provisional as of 13 September 2007 and are expected to increase due to late reporting.

Thirty-eight per cent of the *S. aureus* isolated from blood cultures, and for which methicillin sensitivity information was provided, were methicillin resistant. This figure has remained at approximately 40% since 1999.

Rates of *S. aureus* bacteraemia were generally higher in males than females. In males, the highest rates for both methicillin-resistant *S. aureus* (MRSA) and methicillin-sensitive *S. aureus* (MSSA) bacteraemia were in the 75 years and over age group. In females, the MRSA bacteraemia rate was also highest in the 75 years and over age group; however, the highest MSSA bacteraemia rate in females occurs in those aged under 1 year.

NHS acute Trusts in England are required to report *S. aureus* bacteraemia via a mandatory surveillance system which runs in parallel to the voluntary system. Considering the data from England only, in the last five years the number of *S. aureus* reports received under the voluntary system has been approximately 70 to 75% of the total received through mandatory surveillance (figure). However, this varies extensively between regions.

Figure. *S. aureus* bacteraemia reports received via the voluntary and mandatory surveillance schemes in England: 1990 to 2006*



*Reports for 2006 are provisional as of 13 September 2006 and are expected to increase due to late reporting.

Further data tables and graphs about *S. aureus* bacteraemia voluntary reports can be viewed at: http://www.hpa.org.uk/infections/topics_az/staphylo/staphylo_voluntary_reports.htm.