International outbreak of *Salmonella* Stourbridge infection in Europe recognised following Enter-net enquiry, June-July 2005

Véronique Vaillant¹, Emmanuelle Espiè¹, Ian Fisher² (ian.fisher@hpa.org.uk), Marika Hjertqvist³, Birgitta de Jong³, Christian Kornschober⁴, Christian Berghold⁴, Iain Gillespie⁵, Katharina Alpers⁶, Hans Schmid⁷ and Herbert Hächler⁸

On 12 June 2005, Swedish participants in Enter-net, the international surveillance network for the enteric infections Salmonella and VTEC 0157 (http://www.hpa.org.uk/hpa/inter/enter-net_menu.htm), initiated an urgent Enter-net enquiry after an excess number of *Salmonella* Stourbridge infections had been observed in Sweden in May. Enter-net asked members to report any increase in reported *S.* Stourbridge infections, and any recent isolation of this serotype from food in their own countries.

Three cases of *S.* Stourbridge in Sweden were reported in May 2005, all in the Stockholm area. Previously, only three cases had been observed in Sweden since the beginning of the 1990s. The May 2005 cases were two females (aged 13 and 50 years) and one man (66 years old). Two of the three cases had septic infections. So far, there is no known connection between the cases.

The Enter-net request of 12 June has so far identified *S.* Stourbridge infections in France, Switzerland, Germany, Austria, and England and Wales. Initial analysis has revealed:

Sweden: investigation

At 21 July, 6 cases had been identified in the Stockholm area since 1 May 2005. The cases are in a girl and three women (aged 13, 34, 50, 62 and 72 years) and one man (aged 66 years). Four patients have been interviewed and no common exposure has yet been identified. One of the cases had eaten an unpasteurised goat's cheese from France with the brand name *Le petit fiancé des Pyrénées*, and *S.* Stourbridge was isolated from the remains of this cheese.

France

The cases and investigation in France are described in a separate report this week [1]

Switzerland: initial report

On 24 June, Switzerland reported that 3 isolates had been identified in June 2005, all near Geneva in the French-speaking western part of the country. Two isolates were from humans (two men aged 46 and 30 years) and one was from unpasteurised goat's cheese. *S.* Stourbridge is extremely rare in Switzerland: only 5 isolates have been identified since January 2002; 2 in 2003 and 3 in June 2005.

Switzerland: investigation

The investigation by the Swiss Federal Office of Public Health is still ongoing, and the patients are being interviewed. The human isolates were from a patient in Geneva, who reported having eaten goat's cheese before symptom onset, but the brand name of the cheese is not known;

¹Institut de Veille sanitaire, Saint-Maurice, France

²Enter-net coordinator, Environmental and Enteric Diseases Department, Health Protection Agency Centre for Infections, London, United Kingdom

³Smittskyddsinstitutet (Swedish Institute for Infectious Disease Control), Solna, Sweden

⁴National Reference Laboratory for Salmonella Austria, Austrian Agency for Health and Food Safety, Graz, Austria

⁵Environmental and Enteric Diseases Department, Health Protection Agency Centre, London, United Kingdom

⁶Department for Infectious Disease Epidemiology, Gastrointestinal Infections, Zoonoses and Tropical Infections, Robert Koch-Institut, Berlin, Germany

⁷Communicable disease department, Swiss Federal Office of Public Health, Bern, Switzerland ⁸Inst. f/ Vet. Bakteriol, Universität Bern, Bern, Switzerland

and from a patient in Lonay. The food isolate was taken from a *Cabri ariègeois* cheese that was sold at a shop in Geneva. PFGE typing is being carried out, and the results will be compared with typing from France and Sweden.

Germany: initial report

On 11 and 12 July, the German national reference laboratory for Salmonella and Other Enteric Pathogens at Wernigerode reported to Enter-net that 2 salmonella strains had been typed as *S.* Stourbridge in June and July 2005, one from Bayern (Bavaria) and one from Nordrhein-Westfalen.

Germany: investigation

By 20 July 2005, 8 infections with *S.* Stourbridge have been reported to the national surveillance system at the Robert Koch-Institut (RKI). One of the cases is asymptomatic and for another case, no information on symptoms are available. In the same period for 2001-2004, between one and four infections with *S.* Stourbridge were reported. By 20 July 2005, only 1 of the 2 cases for which strains had been diagnosed at the national reference laboratory had been reported to the national surveillance system. Therefore, at least 9 people are known to have been infected with *S.* Stourbridge in Germany in 2005. France is mentioned as the probable country of infection for one of the 4 infections that have been reported since mid-May. This case was in a woman who had visited the south of France and eaten goat cheese, although she could not remember the brand of the cheese. The food history of one other recent case revealed that the patient had not eaten any cheese in the days before symptom onset. Investigations are ongoing.

Austria: initial report

On 14 July, Austria reported that 3 cases had been identified since mid-June. The cases were in a 13 month old baby girl, a 32 year old woman and a 51 year old man.

Austria: investigation

Since mid-June, 5 cases of *S.* Stourbridge have been identified in Austria. Investigations are ongoing, and the patients are being interviewed. One of the cases had eaten an unpasteurised goat's cheese from France sold under the brand name Vacherin de chèvre in the days before symptom onset. A second patient also mentioned consumption of French goat's cheese as a possible source of infection, but he was not able to give details about the brand or the supplier.

England and Wales

Three cases of *S.* Stourbridge infection have been reported in England and Wales in 2005 to 20 July. This compares with an average annual incidence of 3 cases based on the preceding four years (range 2 to 4 cases). All 3 cases in 2005 were in women whose infections were confirmed in West Midlands laboratories during June and July. The women were 21, 57 and 62 years old and none had a known history of foreign travel.

Control measures

On 6 July 2005, the Swedish health authorities informed the health authorities in other European countries, via the European Rapid Alert System for Food and Feed (RASFF, http://europa.eu.int/comm/food/food/rapidalert/index_en.htm) of the isolation of *S.* Stourbridge from the remains of a French cheese sold under the name *Le petit fiancé des Pyrénées*. An investigation of the producer of this cheese was carried out by the French veterinary services. It showed that the goat's cheese sold under the brand name *Le petit fiancé des Pyrénées* that has been incriminated in Sweden and the *Cabri ariègeois* incriminated in Switzerland were made by the same producer.

In France, all batches of the goat's cheese brands *Cabri ariègeois* and *Le petit fiancé des Pyrénées* have been withdrawn. The producer of these two cheeses also makes a generic kind of goat's cheese known as a 'tomme', and all 'tomme' cheese from this producer has been withdrawn. The producer had been making all three of these cheeses from the unpasteurised milk of a single herd of 260 goats. A warning for the public was disseminated by the national press on 13 July and notices were posted at points of purchase.

In Switzerland, Cabri ariègeois cheese has been banned from sale. Le petit fiancé des Pyrénées

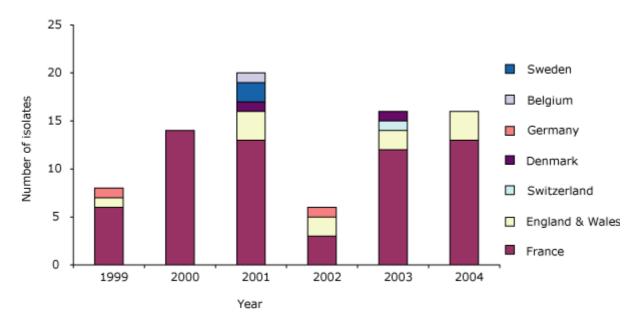
cheese is not imported into Switzerland.

In Sweden, *Le petit fiancé des Pyrénées* goat's cheese has been banned by the environment and health protection administration in Stockolm and Uppsala. The Livsmedelsverket, the Swedish national food administration, has informed the public about the product on its website [2].

Background

S. Stourbridge is a very rare serotype, with a total of 80 cases reported in Europe in the previous six years (Figure). This represents just 0.012% (80/671 777 cases) in the Enter-net salmonella database. The annual number of cases range from 6 (2002) to 20 (2001), with the number of cases reported in 2003 and 2004 stable at 16 per year. The country isolating this serotype most often is France, which has recognised 61 out of the 80 cases (76.25%). In 2003 one case from England and Wales was associated with travel to France, and in 2001 one case from Sweden was associated with travel to Lebanon.

Figure. Cases of *S.* Stourbridge infection in Europe reported to Enter-net, by country, 1999-2004.



Acknowledgements

The authors would like to thank all colleagues across Europe who are working on data collection and investigation. These include: Christina Frank at the Department for Infectious Disease Epidemiology, Robert Koch-Institut, Germany and Wolfgang Rabsch at the National Reference Laboratory for Salmonella and Other Enteric Pathogens, Wernigerode, Robert Koch-Institut, Germany; and the federal and local public health departments in Germany.

Correction: When this report was published on 21 July 2005, it included a superfluous sentence in the section *Germany: initial report* which repeated the information about the two initial cases. This was corrected and removed on 22 July. *Eurosurveillance editorial office, 22 July 2005.*

References:

- 1. Vaillant V, Espie E. Cases of *Salmonella* Stourbridge infection in France, April-June 2005. *Eurosurveillance Weekly* 2005; **10**(7): 21/07/2005. (http://www.eurosurveillance.org/ew/2005/050721.asp#2)
- 2. Livsmedelsverket varnar för opastöriserad fransk getost. Livsmedelsverket, press release 12 July 2005. [in Swedish]. (http://www.slv.se/templates/SLV_NewsPage.aspx?id=11762)