Cases of *Salmonella* Stourbridge infection in France, April-June 2005

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Following the Enter-net request for information on recent cases of *Salmonella* Stourbridge infection reported in Europe [1], the national reference centre (CNR) for Salmonella at the Institut Pasteur in Paris has so far identified 18 cases, and 16 of the patients have been interviewed. This number is far higher than that usually observed in France (10 cases per year). These 18 patients are resident in 13 different administrative departments, with clusters in Ile de France (6 cases), Brittany (5 cases) and Midi-Pyrénées (3 cases) (Figure 1).

The 16 patients interviewed had symptom onset between 18 April and 22 June 2005 (Figure 2). Three of the 6 cases detected since 30 May live in three contiguous administrative departments in the Midi-Pyrénées in southern France (Figure 1). A fourth case living in Haute-Vienne had spent the 5 days before symptom onset on holiday in Ariège (Midi-Pyrénées).

**Figure 1.** Geographical distribution of cases of *S*. Stourbridge infection, according to administrative department of residence. April-June 2005, France

**Figure 2.** Weekly distribution of cases of *S*. Stourbridge infection by date of symptom onset. April-June 2005, France
**Case characteristics**
Both sexes (6 males and 12 females) and all age groups (5 children aged <5 years, 2 children 5-14 years, 9 adults 15-64 years and 2 adults >65 years) were affected. The age range varied from 1 to 79 years (median age: 55 years). Patients presented with diarrhoea (16 cases, 100%, of whom 3 had bloody diarrhoea), abdominal pain (12 cases, 75%), and fever (10 cases, 62%). Two cases were admitted to hospital. One patient died from causes unrelated to salmonella infection; all other cases have recovered.

**Food investigation**
The food consumption histories for 16 cases did not reveal any common food item. The raw milk goat’s cheese *Le petit fiancé des Pyrénées* which was incriminated in Sweden was consumed by one case living in Ariège. She ate this cheese every day in the week preceding symptom onset on 22 June. Three of four other household members who also ate this cheese every day presented with gastroenteritis at the same time, but did not provide stool samples, and therefore cannot be confirmed to have had *S. Stourbridge* infection.

In the days before symptom onset (9 June), another case ate a generic type of cheese known as a ‘tomme’, made from goat’s milk, that had been bought while on holiday in Ariège, but of unknown provenance. The producer who made the *Le petit fiancé des Pyrénées* brand cheese (incriminated in Sweden) and *Cabri ariègeois* (incriminated in Switzerland) also made goat’s milk ‘tomme’ cheese.

The questionnaires completed by the other two recent cases living in Midi-Pyrénées did not show consumption of *Le petit fiancé des Pyrénées* or *Cabri ariègeois* or goat’s milk ‘tomme’ cheese. One case reported eating cheese from the Pyrénées, but did not give more details; another case reported eating goat’s cheese every day, but could not remember having eaten cheese from Ariège.

The local veterinary services have isolated Salmonella from all 7 batches of goat’s cheese tested. The samples included *Le petit fiancé des Pyrénées* and *Cabri ariègeois* cheese, and a ‘tomme’ cheese from the same producer, and the goat’s milk used to make these cheese. *S. Stourbridge* has so far been confirmed in 4 of the contaminated batches and serotyping results are awaited for the other three batches. All these cheeses were made from the unpasteurised milk of a single herd of 260 goats.

**Control measures**
In France, all batches of goat’s cheese sold under the names *Cabri ariègeois*, *Le petit fiancé des Pyrénées* and goat’s milk ‘tomme’ cheese produced the manufacturer of *Cabri ariègeois* and *Le petit fiancé des Pyrénées* have been withdrawn. A warning for the public was disseminated by the national press on 13 July and notices were posted at points of purchase.

**Conclusion**

*date of isolation
**case living in Haute-Vienne who had been on holiday in Ariège (Midi-Pyrénées) during the 5 days before symptom onset.
Based on the information available so far, the excess of S. Stourbridge infections observed by CNR in France since April 2005 was in two episodes. An episode of cases in April and May occurred mainly in Brittany and Ile de France, and investigation has not found a common source; in particular, the cheeses *Cabri ariègeois* and *Le petit fiancé des Pyrénées* which caused cases in Sweden and Switzerland [1] were not eaten by these French cases. The second episode of four cases involved patients living in or having spent time in Midi-Pyrénées; he consumption of *Le petit fiancé des Pyrénées* was found for one case and the consumption of goat’s milk ‘tomme’ cheese that may have been produced by the same producer was probable for another case.

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