

# E-alert 9 August: Over 2000 cases so far in *Salmonella* Hadar outbreak in Spain associated with consumption of pre-cooked chicken, July-August, 2005 |

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## Full-Text

E-alert 9 August: Over 2000 cases so far in *Salmonella* Hadar outbreak in Spain associated with consumption of pre-cooked chicken, July-August, 2005

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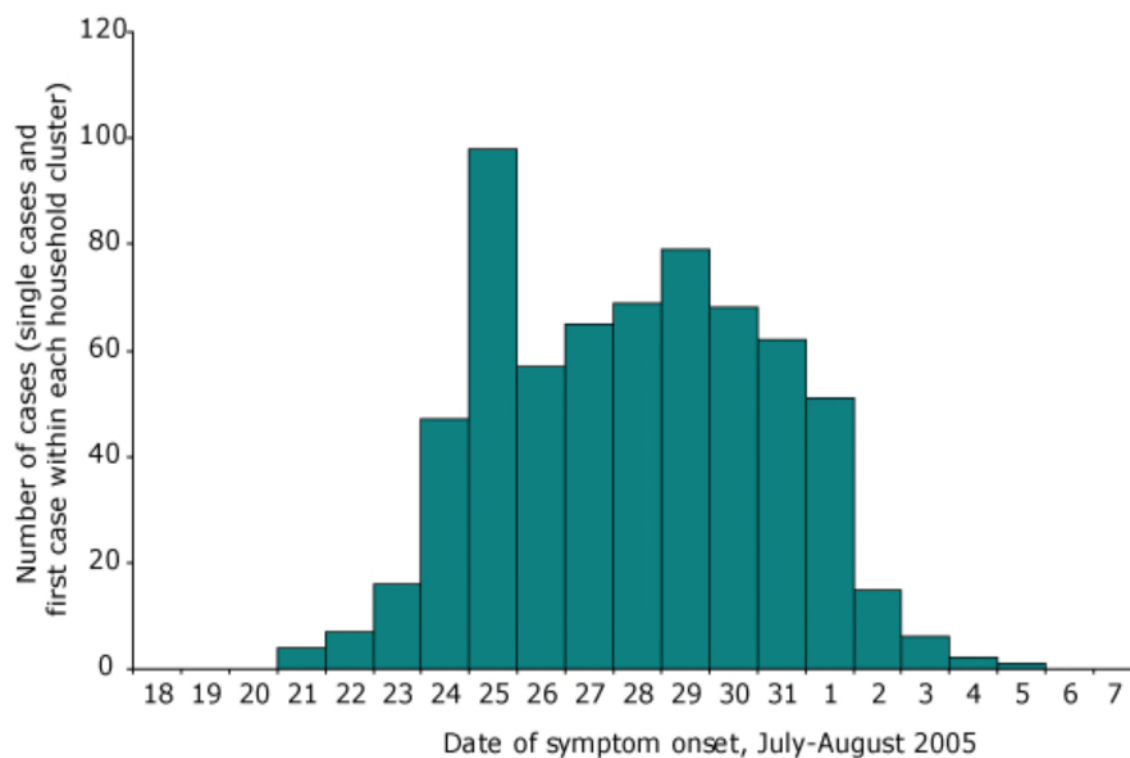
As of 8 August 2005, 2138 cases of salmonella gastroenteritis have been reported to the Centro Nacional de Epidemiología (National Centre for Epidemiology, CNE) in Spain. The reported cases have been epidemiologically and microbiologically linked to a single brand of pre-cooked, vacuum-packed roast chicken (brand A) which was commercially distributed throughout Spain. On 28 July 2005, the Centro Nacional de Epidemiología (National Centre for Epidemiology, CNE) received a report from the autonomous region of Valencia of the detection of eight household clusters of gastroenteritis involving a total of 25 cases, all with clinical presentation of salmonella infection. On the same day, two more autonomous regions reported similar outbreaks and Agencia Española de Seguridad Alimentaria (Spanish Food Safety Agency, <http://www.aesa.msc.es>) started investigating the source. On 29 July, an alert was sent to the health authorities throughout Europe via the Early Warning and Response System (EWRS) and Enter-net ([http://www.hpa.org.uk/hpa/inter/enter-net\\_menu.htm](http://www.hpa.org.uk/hpa/inter/enter-net_menu.htm)).

### Descriptive Epidemiology

A total of 1983 cases were part of household clusters. Of the people at risk, 74% developed symptoms (1011 cases out of 1363 people at risk in 373 clusters and

single cases for which we have this information). Seventeen out of 19 autonomous regions have been affected by this outbreak with Valencia, Murcia, Andalucia and Castilla La Mancha accounting for 60% of all cases. A total of 234 patients have been admitted to hospital and one death has been recorded (in a man aged 90 years). Symptom onset per household cluster or single case ranges from 21 July to 5 August, with peaks on 25 and 29 July (Figure). However, as the implicated brand A chicken product is vacuum-packed and has a shelf-life of at least 3 weeks, it is expected that cases will continue to be reported during August. At present, the CNE has information on age and sex distribution for 253 cases (12% of total). Fifty five per cent of these cases are in men and 45% are in women. The age group most affected is 25-34 years (24% of all cases) followed by 35-44 years (17%) and 45-54 years (13%). In the age group 0-4 years and >74 years, 9 and 6 cases have been recorded respectively. A retrospective case-control study is ongoing.

**Figure.** Date of symptom onset for 651 household clusters and 155 single cases of *Salmonella* Hadar infection in 17 autonomous regions of Spain, 21 July- 8 August 2005\*.



\*For household clusters, only the first case is included. Data updated 8 August 2005.

### Microbiological and environmental investigations

The National Reference Laboratory for Salmonella and Shigella (LNRSSSE) has received 90 salmonella isolates from patients and 6 from chicken samples. Results of the 35 strains studied so far (30 human, 5 chicken) confirm the identification of *Salmonella enterica*, subspecies *enterica*, serotype Hadar, and in 34 strains phage type 2 has been identified. The isolates are resistant to

ampicillin, cefalotine, streptomycin, nalidixic acid and tetracycline. The pulsed field gel electrophoresis (PFGE) profiles of human and chicken samples are indistinguishable.

The day the report was received by the CNE, local health authorities conducted an environmental inspection of the factory producing brand A chicken. Official results from this investigation are still pending.

### Control measures

- On 28 and 29 July, all brand A chicken products were recalled from commercial outlets
- On 28 July, a mass media campaign to ensure people avoided consuming brand A chicken that they have already bought was launched throughout Spain.

There have been daily information updates sent to the Ministry of Health and all local epidemiological services, in order to evaluate the impact of the control measures undertaken.

### Conclusion

In Spain, salmonella infection is the most common cause of bacterial gastroenteritis [1]. The outbreak reported here has been the largest outbreak of salmonella infection in recent Spanish history. The outbreak is attributable to the mass commercial sale of contaminated brand A chicken. Control measures were effective in preventing new infections from appearing, as demonstrated by the rapid decline in cases after the date of recall of brand A chicken.

*This article was first published as an e-alert in Eurosurveillance on 9 August 2005, and was originally available at <http://www.eurosurveillance.org/ew/2005/050804.asp#1>*

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