OUTBREAK OF VEROTOXIN PRODUCING *E. COLI* O157 INFECTIONS INVOLVING OVER FORTY SCHOOLS IN SOUTH WALES, SEPTEMBER 2005

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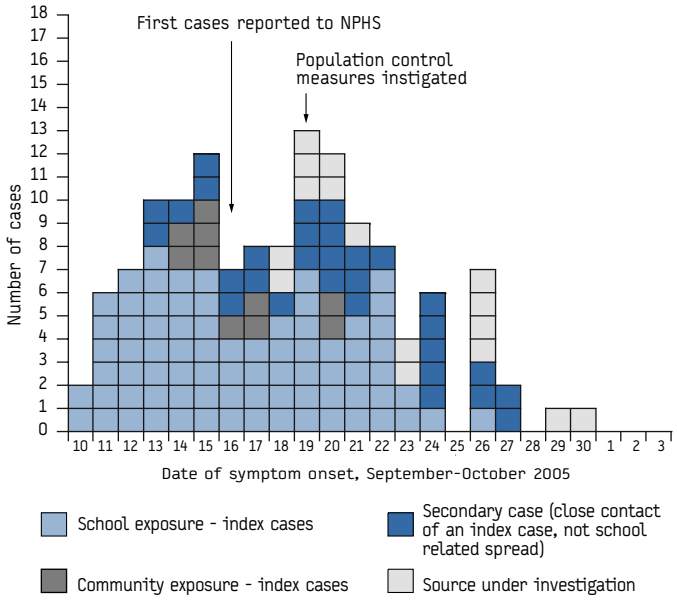
By 3 October 2005, 157 cases of infection had been reported in an outbreak of verotoxin producing *Escherichia coli* (VTEC) O157 in south Wales in the United Kingdom [1,2]. A case was defined as any person living in south Wales who presented with bloody diarrhoea or had a faecal isolate of presumptive VTEC O157 in September. Ninety seven of the cases have been microbiologically confirmed as VTEC O157, and all are phage type (PT) 21/28 and produce verotoxin (VT) 2, with the exception of one case that is PT32 VT2. Four other microbiologically confirmed cases of *E. coli* O157 infection have phage types not associated with the outbreak (three VT-negative strains of PT1, and one isolate of PT8, VT1+2), and have been excluded from the outbreak case list because the patients have plausible alternative histories to explain their infection.

Sixty seven males and 90 females are affected, and 65% of cases (102/157) are in children of school age. Dates of symptom onset range from 10 to 30 September (Figure), and over forty schools have recorded cases. There has been one death, in a 5 year old boy.

FIGURE

Cases of VTEC O157 infection with known date of onset, outbreak in south Wales, September 2005 (n=133). Source: National Public Health Service for Wales, 4 October 2005



Evidence suggests a link between the outbreak and a supplier of cooked meats to the school meals services. The distribution of cases is small numbers of cases in a large number of schools, and suggests a centrally distributed product with low levels of contamination rather than a problem in individual schools. This was followed by secondary person-to-person spread.

Ten of the first 18 primary cases in infected schoolchildren with early symptom onset dates before 17 September were contacted between 16 and 20 September. All reported having eaten lunch in the school canteen, compared with 8 out of 13 controls who were selected at random from the school register ($p<0.05$). Overall, approximately 60% of children in the affected areas eat lunch in their school canteens each day.

A single main supplier distributes cooked meats to the affected schools. Local authorities took action on 19 September, after identifying practices that could result in contamination of cooked meat at the supplier's premises, and the Food Standards Agency Wales issued a food alert on 21 September [3].

E. coli O157 has been isolated from three samples of sliced cooked meat obtained by environmental health staff. Isolates have been confirmed as PT21/28, VT2 and examined by pulsed field gel electrophoresis (PFGE). Results on cultures from two samples have so far shown that PFGE profiles of strains from the food samples are indistinguishable from those found in people with the infection. PFGE typing is continuing on the third strain. Contaminated cooked meats have been associated with previous outbreaks of VTEC O157 infection in the United Kingdom [4,5].

Control measures to remove ready-to-eat foods (that is, foods not cooked on the premises) from schools, and to cancel educational activities that facilitate person-to-person spread, have been in place since the week beginning 19 September and are under constant review by the outbreak control team.

This article has been adapted from reference 2.

References

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CHOLERA IN BELGIAN TOURISTS AFTER TRAVEL TO TURKEY

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Two confirmed and four probable cases of cholera have been reported in Belgian tourists returning from travel to Turkey. On 22 September 2005, the Gezondheidsinspectie (Health Inspectorate) in Antwerp was notified of the isolation of *Vibrio cholerae* in stool sample from a 62 year old woman. She was admitted to hospital in Antwerp on 17 September immediately after returning from a trip to Turkey, with watery diarrhoea, dehydration and renal failure. The clinical picture was initially unclear because she had undergone stomach surgery to treat cancer not long before the tour. The patient was admitted to hospital for four days and was treated with quinolones. Further testing confirmed infection with *V. cholerae* O1 biotype El Tor, serotype Inaba.

After notification of this case, an investigation was begun to collect epidemiological information, ascertain any other potential cases, identify the source and coordinate control measures. All tour group members were interviewed about potential exposures during the trip.

A second female patient had contracted severe gastrointestinal symptoms on 18 September. She was treated as an outpatient. A stool culture was also positive for *V. cholerae* O1. She was treated with quinolones and recovered. Four other patients, two men and one woman, contracted severe gastroenteritis shortly after their return. They were seen by their general practitioners and were treated with symptomatic therapy. Stool cultures were performed after these patients