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Crab Meat: A New Vehicle for *Escherichia coli* O157 Identified During an Outbreak in UK, 2011

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BACKGROUND: Since 08/05/2011, the Health Protection Unit, South West England, was notified about six cases of infections with Vero cytotoxin-producing *Escherichia coli* (VTEC) O157 phage type (PT) 21/28 verotoxin (VT) 2 linked to Plymouth. From 08/11/2011 onwards we investigated to identify the source of the outbreak and prevent further spread.

METHODS: We defined a case as onset of diarrhea after 07/20/2011 in a person living in or visiting Plymouth 10 days before the onset, and with either laboratory diagnosis of VTEC PT21/28 VT2 or an epidemiological link to a laboratory-confirmed case. We searched for further cases using national surveillance and laboratory data. We compared cases with controls recruited among healthy persons living in Plymouth nominated by case-patients or recruited among Local Authority staff. We interviewed participants using a structured questionnaire. Environmental health officers conducted food and environmental investigations, including microbiological sampling and food supplier tracing.

RESULTS: The nine adult cases identified were laboratory confirmed (n=8) and epidemiological-ly-linked (n=1). Six were from Plymouth and three were visitors. Symptom onset ranged between 07/31 and 09/16/2011. Compared with 28 controls (median age: 54.5 years, 61% female), the eight laboratory-confirmed cases (median age: 60.5 years, 75% female) reported eating crab meat away from home more often (88% versus 11%; OR=58; 95% CI 4-2700). The suspect crab meat was identified and linked to a local, unapproved supplier whose unregulated processing site could not be inspected.

CONCLUSIONS: This outbreak points to crab meat as a new possible vehicle of *E. Coli* O157 infection. By 08/19/2011 we removed all suspect crab meat from food establishments and alerted local outlets about the importance of using only approved suppliers. Since then no further associated cases have been reported.

KEYWORDS: *Escherichia coli* O157, crab, outbreak, vehicle