

Epidemiology of Reported Foodborne Escherichia Coli O157:h7 Outbreaks in the United States, 2010-2015

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PRESENTATION FORMAT: 15 minute oral presentation

TOPIC/TARGET AUDIENCE: Foodborne disease epidemiologist

ABSTRACT: Background: Escherichia coli (E.Coli) O157:H7 is a known cause of enteric illness in the United States. Foodborne vehicles have been a common source of outbreaks. However, no recent review articles are available to examine the epidemiological patterns of foodborne associated E.coli O157:H7 outbreaks after 2002. Objective: To analyze published foodborne E.Coli O157:H7 outbreaks in the United States from 2010 to 2015. Design: Systematic Review Methods: The PubMed database was reviewed from 2010-2015 for foodborne associated E.Coli O157:H7 outbreaks in the United States.

Results: Fifty-nine articles were initially identified and, after applying inclusion criteria, six articles were included in the review. Produce (n=3, 50%) was the most common vehicle responsible for the identified outbreaks. Five outbreaks (83%) were multi-state in nature. Conclusion: The majority of outbreaks were identified in leafy green vegetables or strawberries. Ready to bake cookie dough and raw-milk Gouda cheese have not been previously associated with E.Coli O157:H7 in published outbreaks. The identification of specific strains of E.Coli O157:H7 through PulseNet allows for early detection of multi-state outbreaks. Finally, early initiation of trace back investigations is critical in identifying the source of outbreaks due to the short shelf life and high turnover rates of fresh food.

Word Count: 199

OBJECTIVE(S): Analyze foodborne E.Coli O157:H7 outbreaks in the United States in the last five years. Describe the impact of each outbreak. Identify common outbreaks patterns. Compare investigative techniques in each outbreak investigation

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