

Foodborne Outbreak Investigation Oman

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Abstract:

On January 7–8, 2024, Muscat's food safety program reported an unexpected number of gastrointestinal illnesses had presented to a specific Hospital. A team from the Saudi Field Epidemiology Training Program was dispatched to confirm the existence of the outbreak, confirm the diagnosis, define and identify the cases, identify the source of the outbreak, determine the causative agent or organism, if possible, and the mode of transmission, and recommend preventive measures to be applied to prevent similar outbreaks in the future. **Methods :** A retrospective cohort study was conducted. A case was defined as any person suffering from symptoms of foodborne illness (e.g. diarrhea and/or abdominal cramps, vomiting, fever) after eating from the plated meal menu served at the specific club restaurant in Muscat on January 7 and 8, 2024. We collected information on demographics, symptoms, and food history using a semistructured questionnaire. Risk ratios (RR) and 95% confidence intervals (CI) were calculated. An environmental risk assessment was conducted to determine the source of the food contamination. Data was analyzed using Microsoft Excel and SPSS. **Results :** A cohort study was conducted. We identified 68 cases with an overall attack rate of 53% (68/128). The minimum incubation period was 10 hours, and the maximum was 72 hours, with a mean of 24 hours. The total number who sought medical advice was 18 (26%). Among those, 15 (22%) were admitted, with no death. Cases ranged in age between 9–69 years (mean=41 SD±10). The most reported symptoms were diarrhea (91%) and abdominal pain (65%). Illness was significantly associated with the consumption of chicken food items (RR=3.9, CI=2.4–6.5, p.