

Catered Lunch Suspected Outbreak in a Garment Factory, Sleman District, Yogyakarta, Indonesia, 2017

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Abstract : On October 19, 2017, Yogyakarta Islamic Hospital reported 38 garment employees with nausea, vomiting, headache, abdominal pain, and diarrhea after they had lunch on October 18, 2017, to Sleman District Health Office. Objectives of this study were to ensure the outbreak and identify source and route of transmission. Case-control study was conducted to analyze food items that caused the outbreak. A case was defined as a person who got symptoms such as abdominal pain, diarrhea, nausea with/without vomiting, fever, and headache after they had lunch on October 18, 2017. Samples included leftover lunch box, vomit, tap water and drinking water had been sent to the laboratory. Data were analyzed descriptively as frequency table and analyzed by using chi-square in bivariate analysis. All of 196 garment employee was included in this study. The common symptoms of this outbreak were abdominal pain (84.4%), diarrhea (72.8%), nausea (61.6%), headache (52.8%), vomiting (12.8%), and fever (6.4%) with median incubation period 13 hours (range 1-34 hours). Highest attack rate and odds ratio was found in grilled chicken (Attack Rate 58,49%) with Odds Ratio 11,023 (Confidence Interval 95% 1.383 - 87.859; p value 0,005). Almost all samples showed mold, except drinking water. Based on its sign and symptoms, also incubation period, diarrheal *Bacillus cereus* and *Clostridium perfringens* were suspected to be the causative agent of the outbreak. Limitation of this study was improper sample handling and no sample of food handler and stools in the food caterer. Outbreak investigation training needed to be given to the hospital worker, and monitoring should be done to the food caterer to prevent another outbreak.

Keywords : disease outbreak, foodborne disease, food poisoning, outbreak

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