

Foodborne Outbreaks During Trauma Healing Program for Earthquake Victims in Mapin Rea Village, West Sumbawa Regency, Indonesia 2018

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Background

On September 9th 2018, at 3:30 p.m The police wives association (Bhayangkari) held trauma healing program for children victims of earthquake in Mapin Rea village. 130 packages of rice box and snack were also distributed. At 8:00 p.m 117 refugees experienced vomiting and stomachache, treated to Alas Barat Health Center. The investigation was conducted to describe and determine risk factors for foodborne poisoning.

Methods

Investigation was conducted by interviewing all people who participated in trauma healing program using a structured questionnaire. A retrospective cohort study was done in order to estimate risk factors associated to the outbreak. The case was a person who participated in the trauma healing program on September 9th, 2018 consumed rice box or snacks then experienced vomiting and diarrhea or more symptoms. Biological and food specimens were collected to laboratory examination

Results

From 218 interviewed who consumed rice box or snack, as many as 150 cases (68%). Based on gender the cases in female (52%) and male (48%). The most cases were children with attack rate 79%. The predominant symptoms were vomiting (75%), stomachache (73%), nausea (73%) and diarrhea (4%). The epidemic curve shows a common source type with period of incubation 30 minutes - 9 hours (median 3 hours). As results, chicken's meat suspected of causing food poisoning with RR = 3.11 (95%CI=2.00-4.82). Laboratory results found *E.coli* in food and biological samples. Information about the cooking process and packaging of food was not obtained due to Bhayangkari refused to be interviewed.

Conclusion

Outbreaks of food poisoning in trauma healing program held by Bhayangkari for earthquake victims in the Mapin Rea village due to food contaminated by *E. coli*. The staff health center should conduct surveillance and socialize about food sanitation and personal hygiene in refugee shelter.

Keywords: *Outbreaks, Earthquake, Food poisoning.*