

An Outbreak of Salmonella Enterica Serovar Weltevreden; Cases from Kedah, Perak and Selangor After Consumption of Laksa Kebok, Kupang Baling Kedah, Malaysia on 4th October 2018

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ABSTRACT

BACKGROUND: Salmonella species is one of the bacteria under laboratory-based surveillance system in Malaysia since 2002. On 7th October 2018, notifications received on two deaths from different family were related with history of consumption of Laksa Kebok, bought at Kupang, Baling Kedah on 4th October 2018. The symptoms were described as fever, diarrhoea, vomiting, abdominal pain after consumptions. The assessment team were mobilized aims to verify the outbreak, describe the epidemiological characteristics of the outbreak, to identify the source and infection and implement control measures. **METHODS:** Active case detection was performed looking for cases who had symptoms of diarrhoea, vomiting and abdominal pain or fever and who had consumed Laksa Kebok, Kupang Baling on 4th October 2018 onwards. We evaluated the status of hygiene and sanitation, food and water supply used. All clinical and environmental samples were sent for chemical and microbiological test. DNA fingerprinting was performed by Pulsed Field Gel Electrophoresis (PFGE) at National Public Health Laboratory. **RESULTS:** Total attack rate was 93.2% (83/89). Women were higher compared with men, mean age of cases 31 years old. Major clinical manifestation was diarrhoea (86.7%), fever (65.1%), vomiting (53.0%), abdominal pain (50.6%) and others. About 8.4% required admission. Case fatality rate 2.4%. Of 20 isolates from clinical samples, 16 isolates were identified as *Salmonella Weltevreden*. The PFGE results showed >99% genetic similarity and were grouped as one cluster. **CONCLUSION:** Cross contamination with *S. Weltevreden* due to improper storage of dough Laksa, in adequate cooking temperature and insufficient time boiling of Laksa noodles possibility causing the outbreak.

KEYWORDS: food poisoning, salmonella weltevreden, laksa kebok

Are-MER: A Rare Event of Mercury Exposure in Penang

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ABSTRACT

INTRODUCTION: All compounds of mercury are toxic especially methylmercury. Exposure to elemental mercury can cause serious adverse effects to the gastrointestinal, nervous and genitourinary system. The aim of this study is to determine the source, the aftermath and control measures of heavy metal exposure in the community. **METHODS:** This is a retrospective descriptive case series encompassing epidemiological, environmental and laboratory investigations performed in May 2016 using interviewer-guided questionnaires on 83 subjects. **RESULTS:** Elemental mercury was discovered by three neighbours (index case) in an abandoned water-meter room surrounded by palm oil plantation located in Seberang Perai Utara district. The mercury was brought to a few houses in the neighbourhood and school hence, exposing 19 villagers, 61 students and staff. The most prevalent symptoms were cough (40.9%), nausea (31.8%) and dyspnoea (31.8%). Majority (60.2%) of those exposed were treated as inpatients, 24.1% as outpatients and the remaining were asymptomatic. Out of 70 patients, 8.6% tested positive for mercury in urine whereas 1.4% tested positive for mercury in blood. Chelation therapy was not indicated as the mercury positivity levels were insignificant. Decontamination procedures were carried out by Hazardous Materials Squad (HAZMAT) at all locations where elemental mercury was found. **DISCUSSION:** All individuals exposed to elemental mercury were diagnosed and treated. Epidemiological, environmental and laboratory investigations were conducted, and control measures were carried out. Public awareness on health risk posed by mercury exposure is still low hence health education and promotion together with strict enforcement should be implemented.

KEYWORDS: Mercury, exposure, poisoning