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ABSTRACTS FOR ORAL PRESENTATIONS

Investigation of a Dengue Outbreak in Ibu Pejabat Kontigen (IPK) Kota Kinabalu, Sabah, 2017

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Background: Dengue is a viral infection caused by four types of viruses (DENV-1, DENV-2, DENV-3, DENV-4) and transmitted through the bite of infected Aedes aegypti and Aedes albopictus female mosquitoes that feed both indoors and outdoors during the daytime (from dawn to dusk). These mosquitoes thrive in areas with standing water, including puddles, water tanks, containers and old tyres. There were a total of 35 dengue outbreaks under PKK KK with four active outbreaks in the year 2017. One uncontrolled outbreak occurred at Ibu Pejabat Kontigen (IPK) Kota Kinabalu from 16 November 2017 to 21 December 2017. **Objective:** This article aims to investigate the outbreak occured in IPK involving the highest dengue cases in year 2017. **Methods:** Data of dengue cases with symptom onset from 16 November 2017 till 21 December 2017 were obtained from Vector Unit PKK KK. Data included age, sex, residential address, signs and symptoms. Contact tracing was done for all the cases. The living environment of the cases were investigated and awareness campaigns done at the residential areas concerned. **Results:** IPK had a total of 31 dengue cases, among the highest in year 2017 with an age range from newborn till 62 years old (median: 32). Out of the 31 cases, 28 cases were adult patients (aged more than 12 years old) and 3 were paediatric patients. IPK has total of 8 apartment blocks with ranging from 8 to 10 storeys. However, only residents in 4 blocks were infected with dengue. The four blocks involved are Anggerik, Kemboja,

Cempaka and Orkid. Block Anggerik and Kemboja had 9 cases (29%), followed by Block Cempaka 8 cases (26%) and Block Orkid 5 cases (16%). IPK has a total of 544 units (premises). We managed to investigate 391 premises, leaving 153 unchecked. All the houses at IPK apartment are made of concrete. Some houses are dim, poorly ventilated and close to each other. Overcrowding was observed in the some of the houses. Stagnant water collects easily in rain gutters and bottles/plastics bags on the roof, giving rise to potential breeding ground for mosquitoes. Three drains around the apartment were found to have larvae. Twelve flower pots and nine training tyres were also positive for larvae. Forty-four (4.6%) out of 952 containers outside premises were positive for larvae, while the 1,200 containers inside the premises only had 3 with larvae in them (0.25%). **Conclusion:** This dengue outbreak occurred in the area mainly due to lack of dengue awareness and the failure of cooperation of the residents in destroying breeding sites. Continuous health education and promotion of dengue prevention should be always given to the residents. Cross-audits can be done on the premises to eradicate breeding sites. Collaboration between the authorities and stakeholders should be done to increase the effectiveness of the health programme and ensure compliance of residents towards prevention and awareness programmes.