Oral Paper 11: Predictors of Dengue Mortality in Malaysia

In 2013

He BK1, Liew SM2, Khoo EM3, Lee YK4, Mimi O1, Vickneswari A1, Fadliina MY1, Zailiza S1, Rose NM1, Goh PP5

1Salangor Health Department, 2Primary Care Department, UMCC, 3Vector unit, MOH, 4COC Kuala Lumpur

Introduction: Dengue is the most common and serious arthropod borne viral disease. The disease has a wide spectrum of clinical presentations and its clinical course can be unpredictable. Therefore, identification of those at high risk of mortality will allow for appropriate monitoring, supportive treatment and referral to be delivered in the earlier stage of illness. The objective of this study was to determine the predictors of dengue-related mortality in a cohort of patients registered in the national dengue database in 2013.

Methods: This was a retrospective cohort of all patients registered in 2013 in the Malaysian national dengue database (e-Dengue). Dengue-related mortality was used as an outcome measure. Sociodemographic and clinical data were described using proportions. Associations between variables and outcomes were analysed by using multivariate analysis.

Results: In 2013, there were 43,347 cases of dengue that were notified and entered into the database with 92 dengue-related mortalities. Hence, the dengue case fatality rate in 2013 was 0.2%. Predictors of dengue-related mortality were older age (aOR=1.04; CI:1.03-1.06; p<0.001), female gender (aOR=1.54; CI:1.01-2.35; p=0.044), nausea and vomiting (aOR=1.85; CI:1.20-2.87; p=0.006), bleeding (aOR=3.21; CI:1.37-7.51; p=0.007), lethargy (aOR=6.56; CI:2.41-17.82; p<0.001), severe plasma leakage (aOR=16.61; CI:1.64-168.53; p=0.017) and shock (aOR=1307.48; CI:90.23-18946.60; p<0.001).

Conclusion: Patients with these symptoms should be given closer attention so that early referral for hospitalisation can be made when indicated.

Keywords: Dengue, predictors, mortality, Malaysia