

Rubella outbreak among trainees of national service program in Pasir Mas, Kelantan, Malaysia

ABSTRACT

An outbreak occurred at the National Service Training Camp Cancun Park in Pasir Mas, Kelantan and subsequent outbreak investigation was carried out to verify the agent of the outbreak and to recommend a control measure. Descriptive (cases series) study was carried from 13th April 2008 to 16th May 2008 at the training camp. The case definition for the outbreak was a person presenting with a maculopapular rash with or without fever from 1st April 2008 and stayed in the training camp. Confirmed cases were clinical cases positive for rubella IgM. Case findings were carried out by the medical team in the camp and from the nearest health center where the affected person who fit in the clinical case definition were interviewed, clinically examined, and had blood investigations done. A total of 337 persons (280 trainees and 57 camp trainers) occupied the training center at the point of outbreak were purposively included in this study. Out of 337 occupants of the training camp, 22 (6.5% attack rate) fulfilled the case definition and all of them were among trainees. 95% of cases were male and 86% were Malays. 100% had maculopapular rash, 77% presented with fever, 41% presented with cough and 50% presented with conjunctivitis. Rubella-specific IgM antibody was positive in 59% (n = 13) of the cases. There was no history of vaccination for all the confirmed cases. Control measures taken were strict isolation of the affected trainees, daily surveillance of rash and fever, and health education to promote awareness on symptoms and signs, nature of transmission, prevention, and control of rubella infection to trainees. Rubella is confirmed as the cause of the outbreak based on the clinical and serological analysis. The probable source of the outbreak is the possibility of exposure during a family day at the training camp.