

Infection Prevention 2020: The clinico-epidemiologic profile and the correlation of nutrition and immunization status with outcome of Measles patients during an outbreak - Duque-David - Jose B. Lingad Memorial Regional Hospital

Duque-David

Jose B. Lingad Memorial Regional Hospital, Philippines

Measles is a highly contagious disease that often leads to substantial morbidity among Pediatric patients especially when not addressed properly. While vaccination has already been implemented in the country, there is still a resurgence of measles outbreak. The study aims to describe the demographic and clinical profile of Pediatric patients diagnosed with measles during the recent measles outbreak in a tertiary hospital in Central Luzon, Philippines; and to investigate the relationship of nutrition and measles immunization status with the outcomes of measles infection. A cross-sectional analytic study, conducted in Tertiary training government hospital situated in Pampanga. Patients included in the study were less than 19 years old, admitted between January to April 2019, and manifested the following criteria for suspected measles: A measles outbreak with two epidemic inspirations 4649 credible and laboratory final cases was noted in six out of ten districts of the Federation of Bosnia and Herzegovina among February 2014 and April 2015. The majority of the patients had never received measles vaccination (3115/4649, 67.00%), Virus detection was performed using 44 nasopharyngeal swabs. About 57% of the laboratory inspected sera remained immunoglobulin M positive, and 95% of the wipes were reverse transcriptase PCR positive. Phylogenetic analysis of sequences obtained from 30 swab samples showed circulation of two variants of genotype D8, but no genotype D4 strains as detected in 2007.

Similar involvement of all age groups indicates a problem with vaccine refusal resulting from ant vaccination activities in addition to gaps in immunization coverage during the war and post-war period and the vaccination status of another 23% was unknown (1066/4649). Difficulties from measles can happen in almost each organ system. Pneumonia, croup, and encephalitis are common a cause of death encephalitis is the most communal cause of long term sequelae. Measles remains a common cause of blindness in developing countries a total of 281 blood samples were tested serologically fever, generalized maculopapular rash, cough, coryza, conjunctivitis. A total of 373 patients were included in this study, 60% (224) were males and 40% (149) were females. Majority were under 0-6 months, 40% (149). Most cases came from Pampanga, 333 (89.2%). Three Hundred fifty five (95%) were classified as clinically compatible measles, seven (2%) were laboratory confirmed and

all seven had Measles IgM antibodies, while four (1%) were epidemiologically linked cases. Most of the cases manifested the classic symptoms of measles: fever 100%, rashes 99%, cough 96%, colds 84%, and conjunctivitis 55% while Koplik's spots were seen in only 13% of cases. As to exposure, those with exposure (49%) and without exposure (51%) are almost the same. Majority of the patients (285, 76%) had no measles vaccine and the top reason for non-immunization is the issue on the patients being too young for vaccination (9 months and below). Majority had normal nutritional status (72.4%). 312 reported the occurrence of clinical complications in patients with measles. Pneumonia was seen in 75% of cases and 9.3% had diarrhoea. Modifications in ethnicity, vaccine coverage, compliance with review policies of vaccination records and hypothetically also travel habits may partially explain why only six of ten cantons were affected by the outbreak.

The second epidemic wave may in part be due to large-scale migrations due to catastrophic floods in 2014. The occurrence of diarrhoea is not directly correlated (p value 0.823) with the outcome of measles while Pneumonia shows significant correlation (p-value<0.001) with outcomes of measles. Death among patients was seen on cases of with pneumonia. The occurrence of pneumonia is not significantly correlated with nutritional status (p value 0.083) while diarrhoea is significantly correlated with nutritional status (p value 0.027). Two hundred forty eight patients with normal nutritional status did not develop diarrhoea.

As a result of the epidemic, 6- to 12-month-old children may now be vaccinated against measles during outbreaks, and public health recommendations for interventions have been strengthened. Additional efforts are required to implement the measures throughout the cantons. Vaccination status shows significant correlation with occurrence of pneumonia (p-value 0.001). Out of the 285 non-vaccinated cases, 223 developed pneumonia. Vaccination status did not show significant correlation with occurrence of diarrhoea (p-value 0.946). Nutritional status and vaccination status was not significantly correlated with measles outcome with the following p value of 0.605 and 0.120. In terms of outcome, 90% of the patients were discharged and 10% of the patients died.