Pattern of influenza viral infection in a private hospital in Sarawak

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ABSTRACT

Introduction: Influenza or flu is a contagious acute respiratory infection that spreads through viral-containing droplets in the air. Its symptoms vary from mild to severe, and can progress to serious complications leading to death. Globally, seasonal influenza causes significant morbidity and mortality. Yet, the disease burden remains under-appreciated in many developing countries due to misperceptions that it is a disease of temperate climates. In Malaysia, influenza surveillance reports are still lacking since the first pandemic case reported in 2009. **Objectives:** This research aimed to study the prevalence and seasonal pattern of influenza in Sarawak. **Materials and methods:** This was a 3-year retrospective study involving all influenza-like illness (ILI) cases presented at Borneo Medical Centre, Kuching from 2017-2019. **Results and conclusion:** From a total of 2758 ILI cases, 811 were laboratory confirmed as influenza by serological or RT-PCR assays, giving a prevalence of 30.1%. Influenza A (79.9%) was more prevalent than B (20.1%). Influenza in Sarawak demonstrated a year-round activity with multiple peaks. The highest peak occurred during Northeast monsoon (October-April) that coincided with winter (November-March) in Northern Hemisphere. Notably, influenza A consistently peaked ahead of B, and B was constantly low throughout the years. Incidence and hospitalisation rates were significantly higher in high-risk age groups (<5 and >50 years old), although hospitalisation rate was not associated with influenza types. This study had shed light on values of haematological parameters in differentiating influenza A and B. Patients with influenza A showed significantly lower counts of red cell, lymphocyte and monocyte, indicating a more severe illness. To the best of our knowledge, this is the first report on the pattern of influenza in Sarawak. The yearly incidence of influenza is considerably high with year-round activity. Vaccine formulation for Northern Hemisphere is highly recommended for high-risk populations, and should be given before October for optimal efficacy.