



3rd Vanuatu Health Research Symposium
26-28 October 2022
Luganville, Santo, Vanuatu

The impact of the 2022 influenza outbreak on asthma admissions at the Vila Central Hospital

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Abstract

Background: The influenza virus is a highly transmissible virus responsible for global pandemics. It is a well-recognized trigger of severe bronchial asthma exacerbations resulting in increased morbidity and mortality. Until 2022, Vanuatu has not had a recent flu outbreak of overwhelming proportions and Vila Central Hospital has been able to cope relatively well with the stable number of asthma admissions. The recent influenza A outbreak was confirmed in June 2022. During this period, there was an anecdotal dramatic rise in asthma admissions with subsequent strain on clinical services. The objective was to determine the impact of the 2022 influenza outbreak on the number and severity of asthma admissions at the VCH medical ward and to assess associated burden on clinical services.

Methods: We conducted a hospital based retrospective observational study using data from admission registers and patient records. Supporting data was obtained from the MOH surveillance Unit.

Results: The number of reported ILI cases rose by >200% in June 2022 compared to May. Overall monthly admissions rose by 40% to 70% from June to August compared to the same period in 2021. Asthma admissions rose by up to 400% from June to August of 2022 compared to the same period in 2021. 84% of patients received more than 3 asthma drugs. 1 patient was mechanically ventilated. 47% received oxygen. Atrovent was unavailable for 4 cases who needed it. Urgent orders had to be made for medications and equipment. There was zero in hospital deaths.

Discussion: The unprecedented rise in the number of asthma admissions in mid-2022 coincided with the influenza outbreak. It stretched our hospital capacity and exposed huge gaps in our clinical services. In depth knowledge of local flu epidemiology and its clinical implications are key to ensuring appropriate and timely public health awareness, and optimal hospital preparedness planning.