

**FACTORS INFLUENCING MORTALITY OF
SEVERE ACUTE RESPIRATORY INFECTION
(SARI) PATIENTS WITH CONFIRMED
INFLUENZA A (H1N1) PDM 2009 ADMITTED TO
TERTIARY HOSPITALS OF YANGON REGION
IN 2017**

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ABSTRACT

In 2017, cases of Influenza A (H1N1) Pdm 2009 have been reported increasingly from July to September with high number of hospitalization and mortality in all State and Regions of Myanmar. Among them, half of the reported cases were from in Yangon Region. This study was carried out to investigate the background risk factors and treatment factors for mortality among severe acute respiratory infection (SARI) patients positive for influenza A H1N1 Pdm 2009 admitted to tertiary hospitals of Yangon Region in 2017. A retrospective cohort study was carried out by reviewing medical records of patients admitted to tertiary hospitals of Yangon Region from 1st July to 5th September. Chi-square tests, Man Whitney tests and Kaplan-Meier survival analysis were done to assess risk factors for mortality such as socio-demographic factors, underlying comorbid conditions, initial investigation results and treatment factors,. A total of 130 confirmed H1N1 patients admitted to tertiary hospitals and 23.1% were admitted to ICU. Mortality was 23% (95% CI 16.1% to 31.2%) among all hospitalized and 65.2% (95% CI 42.7% to 83.6%) among ICU admitted cases. Median time from symptom onset to hospital admission was 3 days (IQR 1-4 days) among survivors and 4 days (IQR 2-6 days) among dead. Median duration from hospitalization to ICU admission was 1 day (IQR 0-3 days). Median duration of ICU stay was 13 days (IQR 7-15 days) among survivors and 2 days (IQR 2-12 days) among dead. Median duration of hospital stay was 6 days (IQR 5-10 days) among survivors and 4 days (IQR 1-11 days) among dead. Median survival time from onset of symptoms to outcome (dead or hospital discharge) was 22.17 days. Patients with age 12 year or younger (RR 2.41, p=0.014), children (≤ 12 year) with at least one chronic medical illness (RR=3.85, p=0.01), active tuberculosis with anti-TB taking (RR 2.7, p=0.049) and patients those received steroid treatment (RR=2.64, p=0.002) were significant risk factors for fatal outcome. Abnormal initial investigation results were also important predictors for dead outcomes. This study's findings may provide information for effective measures at both technical and policy levels to reduce severity and mortality of hospitalized H1N1 patients in the future.