

A two-year retrospective study of H1N1 Influenza Pandemic: Experience from a teaching hospital in northwest England

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Background

H1N1 virus, a subtype of influenza A, was responsible for the global pandemic outbreak as termed by the World Health Organization (WHO) in 2009. This strain also called as swine flu affected more than 70 % of young and middle aged with pre existing immunity. As per health protection agency (HPA) report more than 1000 patients succumbed to this illness in 2 years. Also the seasonal flu activity in 2010/11 was higher than 2009/10 and that H1N1 'swine' flu was the dominant strain.

Aim

To compare the pandemic over two years, study the demographics, clinical characteristics, complications and mortality rate in patients who were screened for H1N1 influenza.

Method

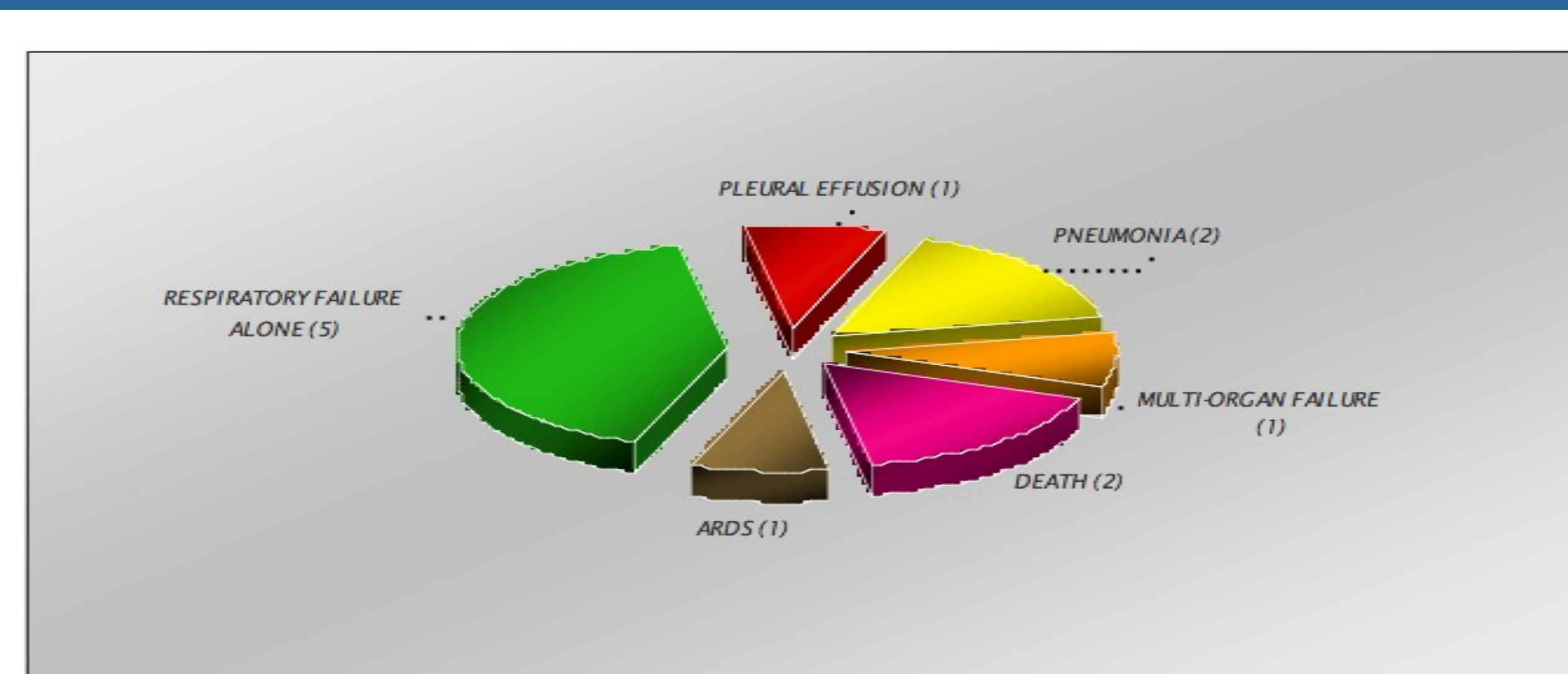
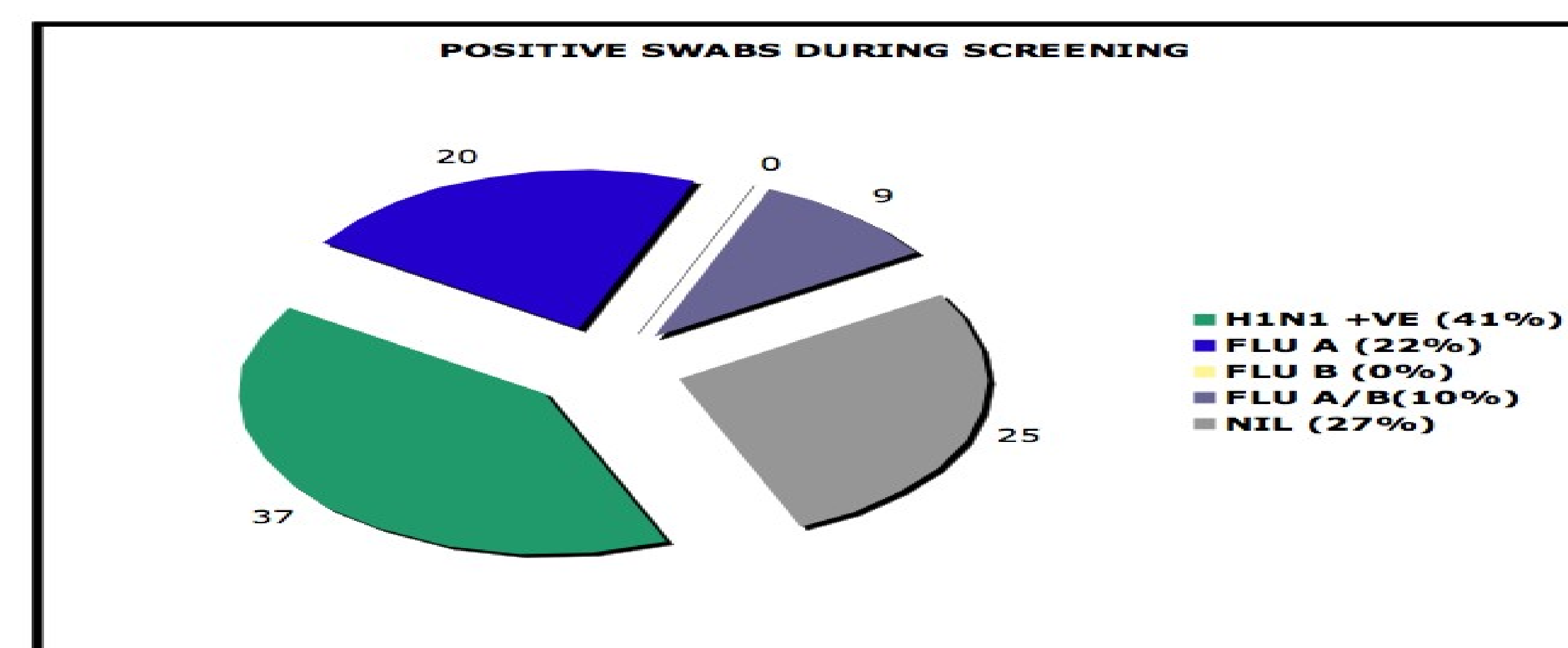
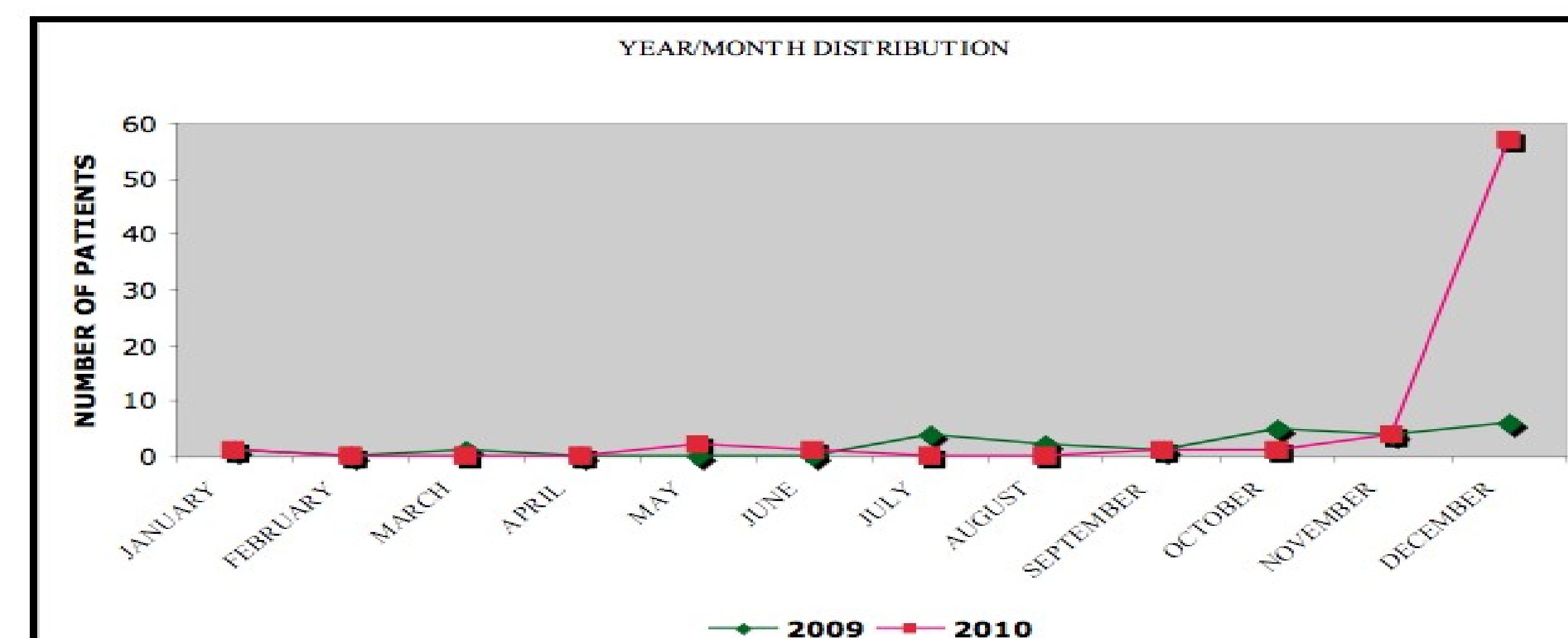
The medical records of all patients (n-91) who were prescribed Oseltamivir for suspected or confirmed infection between January 2009 – December 2010 were retrospectively reviewed. Patient demographics, symptoms, mode of screening, clinical outcome, complications and mortality rate were analyzed.

Results

91 patients (males-30) were included in the study group. 24 and 67 patients were screened in the year 2009 and 2010 respectively. The male to female ratio was 1:2 and 1:3 during 2009 and 2010. The median age at presentation in males was 43 (range 0-91) and in females 38 (range 0-94). The predominant symptoms were fever, cough, headache, rhinorrhea, myalgia, vomiting and diarrhea (Table-1). There was an increase in the number of patients who were screened during December 2010 (n-57). 89 patients were screened with a nasopharyngeal swab and 2 had a bronchoalveolar lavage. The reasons for screening included clinical suspicion of H1N1 influenza, clinical symptoms disproportionate to their diagnosis, severe disease process or recent exposure to H1N1 contacts. 37/91 patients (41%) were found positive for H1N1 with PCR technique and had the full course of Oseltamivir for 5 days. 6 patients were positive for H1N1 in 2009 and 31 patients in 2010. 25 patients had an uneventful recovery and 12(32%) patients had complications. There were 2 ITU admissions each in 2009 and 2010. The mortality rate from our hospital was 5.4% (n-2) in 2010 as compared with 21% in the region(n-96). No deaths were reported in 2009.

Conclusion

Over a period of two years, we encountered 37 cases of H1N1 Influenza. Majority of the patients were females with no previous cardio respiratory illness and with no significant co-morbidities as reflected by the HPA data. Influenza is a preventable illness and vaccination is the best way to protect against any infection. A concerted effort must be made by the healthcare professionals to encourage vaccination.



Total number of H1N1 Influenza cases	N=37
Clinical characteristics	% (x/n)
Fever >38.0C	68% (25/37)
Cough	81% (30/37)
Headache	76% (28/37)
Rhinorrhea	65% (24/37)
Myalgia	49% (18/37)
Vomitting	14% (5/37)
Diarrhea	11% (4/37)
Contact with confirmed cases	11% (4/37)
Chest x-ray abnormalaites	41% (15/37)
Hospital admission	92% (34/37)
ITU admission	5% (2/37)
Prior vaccination	5% (2/37)
Mortality	5% (2/37)