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**Title:** Prevalence of viral infection in a cohort with acute respiratory failure

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**Body:** **OBJECTIVE:** To determine the prevalence of respiratory viral infection in a cohort with acute respiratory failure (ARF) requiring hospitalization. **METHODS:** We conducted a prospective observational study including patients with ARF who required admission from December 2010 to January 2011. Nasopharyngeal swabs were obtained and RT-PCR was performed to detect H1N1 virus and seasonal Influenza. We also froze these samples at -80°C to analyse them afterwards with multiplex RT-PCR nested method described by Coiras et al<sup>1</sup>. This method allows to simultaneously detect the following virus: parainfluenza virus (1,2,3,4), coronavirus, rhinovirus, respiratory syncytial virus, adenovirus and influenza A, B and C. We excluded patients under 18, nosocomial infection and mild episodes that did not meet the criteria for admission. Demographic data, comorbidities and final diagnosis were analysed. **RESULTS:** 50 patients (46% female) were evaluated. Average age was 54,7 ± 18 years. In 49 patients Chest X-ray showed pulmonary infiltrates compatible with pneumonia. Using PSI score, 73% of pneumonias were class IV/V. 21 patients (42%) required ICU admission. Mortality was 12% (6 subjects). Main comorbidities were Diabetes Mellitus (26%), immunosuppression (24%) and other respiratory diseases (22%). In patients diagnosed with viral infection (40%), H1N1 was the most frequent 70% (14/20). Other viruses isolated were rhinovirus (4 cases) and parainfluenza 4 (2 cases). In 35% of H1N1 subjects, bacterial coinfection was found, whereas in subjects with other viral infection bacterial coinfection was 50%. **CONCLUSIONS:** Prevalence of viral infection was 40%, with H1N1 as the most frequent (70%) **Bibliography** 1. J Med Virol 72 : 484-95.