

95%CI, 1.312 to 24.475;  $P=0.020$ ) and higher APACHE II score on presentation (relative risk for each point, 1.329; 95%CI, 1.156 to 1.527;  $P<0.001$ ). At 3-month follow-up of H1N1 pneumonia survivors, ground-glass opacities (GGO) still existed in most patients (82%) with lesser extent, and lung function tests revealed that decreased diffusing capacity for carbon monoxide of mild degree was the most common (60%) abnormality.

**Conclusions:** GGO and decreased diffusing capacity were the main abnormalities at 3-month follow-up of H1N1 pneumonia survivors.

**OL-012 The comparison of glucocorticosteroid treating critically ill patients with pandemic 2009 influenza A (H1N1) virus infection in Beijing**

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To explore the effect of glucocorticoid therapy in critically ill patients, we describe the clinical characteristics of 55 patients with 2009 H1N1 influenza hospitalized in Beijing Ditan Hospital from 3 Oct 2009 to 23 Dec 2009, comparing the disparity in baseline characteristics and outcomes. The primary outcome measure was mortality. Secondary outcomes included duration of mechanical ventilation and ICU stay as well as the secondary infection. **RESULTS** The condition of patients who were received glucocorticosteroid was more severe than those who were not, which was presented at the rate of bloody sputum occurred and ARDS developed. After given glucocorticosteroid, there were no differences in the duration of hospitalization and ICU stay and mortality rate. Four variables (underlying medical condition, hemoptysis sputum, ARDS, secondary bacterial infection and glucocorticosteroid therapy) included in the Cox regression model for analysis of risk factors. It showed that the treatment of glucocorticosteroid was identified as a possible protective factor for death that was about 0.242 times as those of unused steroids (OR, 0.242, 95% CI: 0.064–0.920,  $P$  value was 0.037). Besides this, using glucocorticosteroid can decrease the count of CD4+ and CD8+ T lymphocyte, increasing the chance of bacterial infection ( $P<0.05$ ).

**OL-013 Detection of antibodies against avian influenza in humans and confirmation of avian influenza virus in animals and the environment in the region of positive avian influenza in human and in poultry**

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**Background:** Since the outbreak of highly pathogenic avian influenza (HPAI) H5N1 in Indonesia in 2003, almost all of 33 provinces of Indonesia are now becoming an endemic area, and infection of AI in Indonesia is great concern due to the high human case fatality rate and the threat of new influenza pandemic. This study aimed to detect antibodies

against avian influenza in humans by hemagglutination inhibition test (HI) and confirmed of avian influenza virus (AIV) in Animals by Polymerase Chain Reaction (PCR) in the positive region of avian influenza in humans and in poultry.

**Method:** This study was conducted by collecting blood from 21 people who live around the house the victim died of bird flu and 18 blood of people who treat and handle victims during the hospital including doctors. Blood serum was then sent to the Research and Development for the examination of antibody titer against H5 influenza virus. As many as eight of the avian cloaca swab (a kampung chickens, Muscovy duck tail 3, 4 birds), Five nasal swab (3 dogs, 2 cats) and two samples (stool pigeon stuck in cages and fish pond water which has that fish fed chicken carcasses who suspect died because of avian influenza virus detection by PCR in the microbiology laboratory Faculty of Veterinary Medicine, UGM.

**Result:** Results from this study show that all human blood serum of whether they live in around the house of victims and those who care for at the hospital all negative. However, all birds, cats and the environment all the AI H5 virus was detected.

**Conclusion:** This research can be concluded that antibodies against AIV of H5 is not found in the blood serum of humans who had contact with the victim. Almost all animals and the environment detected the presence of H5 AIV.

**OL-014 Research on expulsion law of influenza A (H1N1) virus and antiviral therapy**

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**Background:** Current characteristics of A type influenza H1N1 influenza virus, antiviral drug resistance, interaction mechanism between virus and immune system are not clear. Here in the present research, we investigate the A (H1N1) influenza patients whose viral expulsion law and antiviral efficacy in Shenzhen city in 2009.

**Methods:** Begin the antiviral therapy with Oseltamivir (I) or the Chinese medicine (II) or Oseltamivir combined with the Chinese medicine (III) respectively for 5 days immediately after testing A (H1N1) flu virus nucleic acid (RT-PCR) positive in 75 patients. T lymphocyte subpopulation and IL-17 were identified by flow cytometry.

**Results:** 78.7% (59/75) of patients whose mean age was (22.25±10.38) years old virus nucleic acid turned negative in 7 days of duration. 21.3% (16/75) of patients whose mean age was (17.16±13.66) years old virus were still positive after 7 days of duration. Analysis of humoral and cellular immune function in 56 patients showed down IL-17 expression compared with seasonal flu and health control ( $P<0.01$ ). 10 cases whose virus persistence more than 7 days showed down IL-17 expression (1.91±0.80) compared with that of 46 cases whose virus turn negative in 7 days (3.05±1.59) ( $P<0.05$ ). Likewise, the former showed significant low IL-17 expression compared with seasonal flu ( $P<0.01$ ) and health control ( $P<0.001$ ). It took smaller hours of getting normothermia after treatment in group III than that of the other two groups ( $P<0.05$ ).

**Conclusion:** IL-17 and age are possibly interrelate with A (H1N1) flu virus infection and virus persistence. Oseltamivir combined traditional Chinese medicine treatment shows its unique advantage in antiviral efficacy and to alleviate the symptoms.