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Reply to Petros et al.: Early steriod therapy for patients with H1N1 influenza A virus infection

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Dear Editor,

We thank Petros et al. for their thoughtful and constructive comments with regard to our study on the use of early corticosteroid therapy on ICU admission in patients affected by severe pandemic (H1N1)v influenza A infection [1].

The use of corticosteroid therapy is not currently recommended in recent guidelines [2, 3] for the management of human infection with pandemic (H1N1)v influenza A. In the ESICM Registry study, mortality did not differ between those patients who received early corticosteroids on intensive care unit (ICU) admission and those who did not but superinfections significantly increased, adding cost and morbidity. We have acknowledged that patients receiving early corticosteroid therapy had a different spectrum of comorbid conditions and also a greater severity of illness so a multivariate analysis was performed to correct for these potential confounders.

Petros and colleagues pointed out the importance of adjusting for all confounding factors when analyzing the presence of hospital-acquired pneumonia (HAP). Their assumption that these patients had an increased age and incidence of asthma, chronic obstructive pulmonary disease (COPD) or chronic steroid use, however, is not valid. In our study, the only variable that was different for HAP was the severity of illness (APACHE II). This was therefore included in the logistic regression analysis. In addition, one recently published study [4] reported that intubated non-exacerbated COPD patients were not exposed to higher risk of ventilator-associated pneumonia (VAP).

In conclusion, our study was a retrospective analysis of data prospectively collected from 23 countries across the world and supports current recommendations that the use of corticosteroid therapy for primary influenza pneumonia is not safe and should be avoided.

References

1. Martin-Loeches I, Lisboa T, Rhodes A, Moreno RP, Silva E, Sprung C, Chiche JD, Barahona D, Villabon M, Balasini C, Pearse RM, Matos R, Rello J, ESI CM H1N1 Registry Contributors (2011) Use of early corticosteroid therapy on ICU admission in patients affected by severe pandemic (H1N1)v influenza A infection. Intensive Care Med 37:272–283. doi:10.1007/s00134-010-2078-z
2. World Health Organization (2010) WHO guidelines for pharmacological management of pandemic influenza A(H1N1) 2009 and other influenza viruses. http://www.who.int/csr/resources/publications/swineflu/h1n1_guidelines_pharmaceutical_mngt.pdf
3. Bautista E, Chotpitayasunondh T, Gao Z, Harper SA, Shaw M, Uyeki TM, Zaki SR, Hayden FG, Hui DS, Kettner JD, Kumar A, Lim M, Shindo N, Penn C, Nicholson KG and Writing Committee of the WHO Consultation on Clinical Aspects of Pandemic (H1N1) 2009 Influenza (2010) Clinical aspects of pandemic 2009 influenza A (H1N1) virus infection. N Engl J Med 362:1708–1719
4. Rodríguez A, Lisboa T, Solé-Violán J, Gomez F, Roca O, Trefler S, Gea J, Masclans JR, Rello J (2011) Impact of non-exacerbated COPD on mortality in critically ill patients. Chest. doi:10.1378/chest.10-2439

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