



Enfermedades Infecciosas y Microbiología Clínica

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Letter to the Editor

Which corticosteroid should be used in severe pneumonia?



¿Qué corticosteroide debería emplearse en la neumonía grave?

Dear Editor,

We have read with interest the article on optimising the diagnostic and therapeutic approach to pneumonia, published in a recent issue of your journal.¹ Among the authors' final recommendations was to use corticosteroids in patients with community-acquired pneumonia and septic shock, as well as in those who require admission to the ICU, provided that influenza has been ruled out as the cause. More specifically, they suggest the use of methylprednisolone at a dose of 0.5 mg/kg/12 h. The authors add that this adjuvant treatment should be started early (first 24 h) and maintained for no more than 5–7 days. We are surprised by the recommendation to use methylprednisolone instead of hydrocortisone. While methylprednisolone has not shown a benefit in terms of survival,² hydrocortisone did show benefit in one of the clinical trials that the authors themselves include in their work.³

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How can we optimize the diagnostic and therapeutic approach of pneumonia? Expert opinion-based recommendations.

Authors' reply



¿Cómo podemos optimizar el abordaje diagnóstico y terapéutico de la neumonía? Recomendaciones basadas en una opinión de expertos. Respuesta de los autores

Dear Editor,

We acknowledge the Letter to the Editor regarding the recommendation for the use of corticosteroids in patients with severe community-acquired pneumonia (CAP) and the need for admission to the intensive care unit, included in the document generated from the inaugural meeting of the group OPENIN (*Optimización de procesos clínicos para el diagnóstico y tratamiento de infecciones*) [Optimisation of clinical processes for the diagnosis and treatment of infections].¹ Specifically questioned was the choice of methyl-

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prednisolone (at a dose of 0.5 mg/kg every 12 hours in the first 24 hours for no more than 5–7 days) instead of hydrocortisone. In fact, hydrocortisone was the corticosteroid used (at a dose of 200 mg daily for 4–7 days with progressive reduction until day 14) in the CAPE COD trial, which demonstrated a benefit for the experimental group in terms of mortality and the need for intubation and support with vasoactive drugs.² In contrast, Meduri et al. found no significant differences in the ESCAPE trial, which was based on the administration of 40 mg of methylprednisolone daily for 7 days.³ It should be noted that both regimens have comparable anti-inflammatory potency. Different explanations have been suggested, regardless of the type of corticosteroid, to justify these discordant results, such as the demographic characteristics of the patients, the exclusion criteria of the two studies and, in particular, the maximum window allowed from recruitment to the start of corticosteroid treatment (24 hours in the CAPE COD trial versus 96 hours in ESCAPE).¹ A recent meta-analysis revealed differences in 30-day mortality between patients with CAP who received high cumulative doses (≥ 400 mg of prednisone or equivalent) and those treated with lower doses.⁴ Based on this finding, we proposed a methylprednisolone regimen which, for a patient weighing 70 kg, would be equivalent to a total dose of 430 mg of

prednisone, although we also recognise the limited evidence available for establishing the optimal regimen.¹ Lastly, we would like to emphasise that this recommendation from the group OPENIN is in line with the ERS/ESICM/ESCMID guidelines for the management of severe CAP published in 2023,⁵ as well as the recent SCCM update on the use of corticosteroids in critically ill patients with severe bacterial CAP.⁶

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