



Drug Monitor

ONLINE EDITION

Corticosteroids and Community-Acquired Pneumonia

Do corticosteroids help lower the extremely high mortality rates associated with community-acquired pneumonia (CAP)? Until now, studies have been few and small, say researchers who have conducted the largest study—111 patients with severe CAP, at Barra D'Or Hospital in Rio de Janeiro, Brazil, and Garcia de Orta Hospital in Almada, Portugal.

Patients were given corticosteroids for bronchospasm (53%) and septic shock (36%). Among the 61 (55%) patients who received corticosteroids, the researchers found no positive

impact on survival, resolution of organ failures, or the course of C-reactive protein (CRP; a measure of systemic inflammation).

In comparing the 2 groups, the researchers found “significant imbalances.” Patients treated with corticosteroids were older (73 years vs 59 years), had higher severity scores, were nearly 4 times more likely to have chronic obstructive pulmonary disease, and tended to have lower CRP levels at admission. However, after adjusting for those factors, mortality rates were similar (30% with corticosteroids and 32% without treatment). Corticosteroids also had no significant impact on weaning the 69 septic shock patients from vasopressors (33% vs 57%). Further, patients in both groups

had similar rates of intensive care unit (ICU)-acquired infections (38% vs 26%). CRP levels declined to similar levels in both groups.

Corticosteroid-treated patients had significantly longer lengths of stay in the ICU (15 vs 11 days) and hospital (20 vs 14 days). The differences could not be attributed to clinical severity at admission; both Acute Physiology and Chronic Health Evaluation (APACHE) II and Sequential Organ Failure Assessment (SOFA) scores were well matched. However, the researchers say, the higher rate of ICU-acquired infections in the corticosteroid group could, by itself, prolong the patient's length of stay in the hospital. ●

Source: *J Crit Care*. 2011;(26):193-200.
doi:10.1016/j.jcrc.2010.07.014.