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## Attributable Mortality of *Acinetobacter baumannii* Infection among Critically Ill Patients

To the Editor—We congratulate Fournier and Richet [1] on their insightful article on the hot topic of the epidemiology and control of *Acinetobacter baumannii* infection in health care facilities. We believe that the authors' statement that "potentially severe *A. baumannii* infection, such as bacteremia or pneumonia in patients in the intensive care unit [ICU] who are undergoing intubation, do not seem to be associated with a higher attributable mortality or increased length of hospital stay" [1, p. 692] needs some clarification.

The authors referred to 2 matched cohort studies performed in critically ill patients by Blot et al. [2] and Garnacho et al. [3]. In both studies, the observed difference in mortality between patients with and without *A. baumannii* infection was not statistically significant. However, in the study by Blot et al. [2], an ICU stay in excess of 5 days was found in patients with *A. baumannii* bacteremia (the median length of ICU stay for patients with and without *A. baumannii* bacteremia was 25 days and 20 days, respectively). This finding was statistically significant ($P = .04$).

García-Garmendia et al. [4] also performed a matched case-control study that compared the outcomes of patients hospitalized in the ICU with and without *A. baumannii* acquisition (defined as infection or colonization). We extracted the data from this study regarding the outcomes of the subsets of patients with *A. baumannii* infection (we excluded patients with *A. baumannii* colonization). The crude ICU mortality among patients with and without *A. baumannii* infection was 58% and 15%, respectively—a statistically significant difference ($P < .001$)—resulting in an attributable mortality for *A. baumannii* infection of 43%. In addition, the median length of ICU stay was 13 days longer for patients with *A. baumannii* infection. This finding was also statistically significant ($P < .001$).

Furthermore, Weingarten et al. [5] performed a matched case-control study that compared patients, most of whom were hospitalized in ICUs, with and without *A. baumannii* acquisition. We also extracted the relevant data from this study regarding the subsets of patients with *A. baumannii* infection. Although data regarding the attributable mortality for *A. baumannii* infection were not available, a statistically significant longer ICU stay was found among patients with *A. baumannii* infection.

We recently performed a systematic review of relevant matched cohort and case-control studies to evaluate the attributable mortality of *A. baumannii* infection among critically ill patients [6]. In the 6 matched cohort and case-control studies included in our review, we found that the attributable in-hospital mortality among patients with *A. baumannii* infection was 7.8%–23% and that the ICU mortality was 10%–43% [2–4, 7–9]. Although definitive statements regarding the attributable mortality of *A. baumannii* infection cannot be made from the available studies because of their methodological heterogeneity, we believe that the data from the relevant studies suggest that infection with *A. baumannii* may be associated with considerable attributable mortality and increased length of ICU stay.

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## Reply to Falagas et al.

To the Editor—Falagas et al. [1] suggest in their letter to the editor that we underestimated the attributable mortality of *Acinetobacter baumannii* infections among critically ill patients in our review [2]. To assess the impact of infection in terms of morbidity, functional status, extra costs, or mortality is essential to a better knowledge of those infections. However, such assess-