article, it is mentioned that there is a statistically significant difference, in terms of mortality, between patients having a documented infection and the rest of the patients (23.8% vs 1.2%, $P < .001$).¹ These data, however, should be interpreted with caution. When considering the main characteristics of the study cohort, patients with infection versus patients without infection already differ in terms of age and underlying conditions before the onset of infection. The authors themselves demonstrated clearly a statistically significant difference concerning left ventricular ejection fraction (better in the patient group with lower mortality). This cannot be neglected because it has widely been demonstrated that such organ dysfunctions are indispensably associated with increased mortality.² Here a logistic regression model with adjustment for possible confounding factors, such as length of hospitalization before infection, age, and severity of illness, could be used to assess the potential causative effect of infection on mortality. With regard to this, we wonder whether the authors can provide further details on the rate of patients receiving appropriate antimicrobial agents. This has been shown to significantly improve patient outcome.³⁻⁵ Furthermore, with respect to the severity of illness, a certain estimation by means of, for example, EuroSCORE could explain possible differences of outcome measures between both groups. We would appreciate if Falagas and colleagues could elaborate on their report, keeping those issues in mind.

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Reply to the Editor:

We appreciate the comments of Vandijck and colleagues regarding our study.¹ They raised the issue of the potential mortality attributable to infection in our study group (patients who underwent off-pump coronary artery bypass grafting). They consider that confounding factors, such as age, comorbidity, left ventricular ejection fraction, antimicrobial treatment, and EuroSCORE values, might have led to the observed statistically significant difference in mortality between patients with and without microbiologically documented nosocomial infection.

Our results regarding mortality of patients who underwent coronary artery bypass grafting are in accordance with the results of previous studies (a fact that is mentioned in the discussion section of our article).^{2,3} For example, using data from the US Society of Thoracic Surgeons National Cardiac Database, Fowler and associates² showed that patients with major infection had significantly higher mortality (17.3% vs 3.0%, $P < .0001$) and postoperative length of stay of longer than 14 days (47.0% vs 5.9%, $P < .0001$) than patients without infection.

However, we agree with Vandijck and colleagues that infections are sometimes the consequence of other postoperative complications or comorbidity that predispose to infections. It should be emphasized that the majority of patients (4/7 [57%]) with sternal wound infection in our cohort had a history of previous sternotomy or postoperative invasive interventions at the surgical site.

We did not collect data to estimate EuroSCORE values for the group of patients who did not have nosocomial infection based on the design of our study, and these data are not readily available now to be analyzed. However, we performed an additional analysis of factors associated with mortality in our cohort of patients. Variables that were statistically associated ($P < .05$) with mortality in the bivariable analysis were entered in a backward, stepwise, multivariable logistic regression model. This statistical analysis re-

vealed that independent risk factors for death were urgent operation, anemia (hematocrit, <34%), and low left ventricular ejection fraction on admission ($P < .001$ for all these variables).

We also agree with Vandijck and colleagues that appropriate antimicrobial treatment of postoperative infections is essential to improve patient outcome. It has been shown that inappropriate empirical therapy is associated with increased mortality, especially among patients with infections caused by multidrug-resistant bacteria.⁴ In fact, old antibiotics, such as polymyxins, have been used recently to combat some of these infections.⁵ Two of 21 patients with infection in our cohort (patients 2 and 17 in Table 3 of our article)¹ were infected with multidrug-resistant isolates; these patients did not receive appropriate empirical antimicrobial therapy until the results of the in vitro susceptibility testing of the isolated pathogens became available.

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doi:10.1016/j.jtcvs.2006.10.013