Author's response to reviews

Title: Historical Trends in Survival of Hospitalized Heart Failure Patients: 2000 versus 1995

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Author's response to reviews: see over
October 23, 2006

Dr Chrissie Kouremenou
Assistant Editor
BMC - series journals

RE: MS: 6768936761099363

Dear Dr. Kouremenou,

We are enclosing a revised version of the manuscript, which we believe to be responsive to the thoughtful comments of the reviewers. Our point-by-point response follows:

Reviewer: Cornelia HM Van Jaarsveld

We agree with the reviewer’s interpretation of the data for women and revised accordingly. Specifically, we now make the following statements: “The trend in women was very weak, compatible with little to no change”. “We found modest survival improvement of male patients who were hospitalized for CHF, and little to no improvement in female patients.” Disease severity (i.e., LVEF) did not seem to have changed materially between the two time points, and therefore cannot readily explain the time trends (or the differential trend by gender). Indeed, missing LVEF data precluded meaningful adjustment for LVEF.

Reviewer: Robbert R. Sanderman

1. We tested the addition of digitalis to the models and found modest inverse association with mortality risk in both genders. Nonetheless, there was no material change in the “year effect”. We added these results to the text. We agree that we cannot capture well morbidity and disease severity in observational data, but if anything, the 2000 cohort was certainly not better in terms of these variables. The proportion of patients with COPD was almost identical at the two time points. Diabetes status was associated with survival but including this variable in the models did not materially affect the results. We added these results to the text.

2. Covariates were selected on the basis of prior knowledge of their relation to mortality as well as their influence on the coefficient of the time variable. We clarified this point in the Methods section.
3. Most values are indeed means, but we do show medians and other percentiles for length of hospital stay.

4. We thank the reviewer for a thoughtful potential explanation of the differential trend by gender. We added that possibility to the discussion: “Possible explanations include secular trends in co-morbidity, pharmacological therapy, and severity of CHF, which were not captured in the models. For example, it is possible that secular trends in CHF with preserved LVEF were different in men and women.”

5. We fully agree that it is difficult to draw a final conclusion regarding secular trends in survival. We hope, however, that our results help to shed light on this important issue.

Sincerely,

Eyal Shahar, MD, MPH
Professor