Reviewer's report

Title: Medical therapy following hospitalization for heart failure with reduced ejection fraction and association with discharge to long-term care: a cross-sectional analysis of the REasons for Geographic And Racial Differences in Stroke (REGARDS) population

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Reviewer: Domenico Scrutinio

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Full Title: Medical therapy following hospitalization for heart failure with reduced ejection fraction and association with discharge to long-term care: a cross-sectional analysis of the REasons for Geographic And Racial Differences in Stroke (REGARDS) population.

In this study, the Authors sought to assess differences in treatment patterns, at discharge and 1 year, between HF patients discharged home and to long-term care. The analytical dataset comprised 147 hospitalizations among 80 unique individuals. Discharge to long-term care followed 22 hospitalizations (15%).

Participants discharged to long-term care were more likely to be prescribed betablockers and less likely to be prescribed aldosterone receptor antagonists and hydralazine/isosorbide dinitrate compared to participants discharged home. For ACEI/ARBs, no difference was observed. After 1 year, the percentages of participants discharged to long-term care and home who had claims for filled prescriptions were similar for beta-blockers and angiotensin converting enzyme inhibitors or angiotensin receptor blockers. However, no difference reached statistical significance.

- The major limitation is the small sample size, which does not allow drawing conclusions. There were only 22 discharges to long-term care.

- Six hundred and twelve HF hospitalizations were identified, from which records were retrieved and abstracted for 400 hospitalizations. Of these 400 hospitalizations, 152 with preserved ejection fraction and 45 without documentation of EF were excluded, leaving 203 hospitalizations potentially available for analysis. Why only 147 hospitalizations were analyzed?

- The rationale for selecting hospitalizations with reduced ejection fraction should be explained.
- No data about mortality in the year following discharge were provided. Among HF patients discharged to long-term care facilities, 1-year mortality can be very high (J Card Fail 2013;19:468-477. Circ Heart Fail 2015;8:655-687). How many participants were evaluated at 1 year?

- Factors potentially influencing discharge disposition were not addressed.

- The conclusions are not convincing.

Are the methods appropriate and well described?
If not, please specify what is required in your comments to the authors.

Yes

Does the work include the necessary controls?
If not, please specify which controls are required in your comments to the authors.

Yes

Are the conclusions drawn adequately supported by the data shown?
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No

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